



Carlos Garcia Mateo

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Date of document: 29/06/2022

v 1.4.3

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Obtuve el título de Doctor en Ciencias por la Universidad de Navarra en el año 2000 tras realizar mi tesis en el CEIT (Centro de Estudios e Investigaciones Técnicas de Guipuzkoa) bajo la dirección del Prof. J.M. Rodríguez Ibabe. Durante este periodo, estudié los diferentes mecanismos desencadenados por los procesos de forja en tibio de aceros microaleados con V. Los estudios se centraron principalmente en la influencia que la precipitación del V tenía en los procesos de recristalización y su capacidad para reforzar la microestructura final. Las publicaciones derivadas de estos estudios fueron premiadas con el Meritorious Award for Best Products and Forging Paper (26 de octubre de 1999) en la 41th Mechanical Working and Steel Processing Conference y con el Vanadium Award-Council of the Institute of Materials, Minerals and Mining (IOM3)-UK, año 2000.

Posteriormente (2000-2003) me incorporé al Grupo de Transformación de Fase dirigido por Sir Prof. Bhadeshia en el Departamento de Ciencia de los Materiales y Metalurgia de la Universidad de Cambridge (Reino Unido). Como investigador asociado, me encargué del desarrollo de una nueva generación de aceros bainíticos nanoestructurados de baja temperatura. Utilizando la teoría de la transformación de fases, se diseñó un conjunto de aceros de alto C y alto Si, en los que la microestructura final es una mezcla de delgadas placas de ferrita bainítica, de apenas 20-40 nm de espesor, entreveradas en una matriz de austenita enriquecida con carbono, obtenida mediante transformación isotérmica a $T < 200-300^{\circ}\text{C}$. La respuesta mecánica de esta microestructura no tiene precedentes, alcanzando una alta ductilidad, alargamiento del 21%, para una resistencia a la tracción de más de 2.1 GPa. Además, de forma rutinaria, se alcanza tenacidad a la fractura KIC de 30 MPa m^{1/2} para una resistencia a la tracción de 1.5 GPa.

Continué mi investigación sobre microestructuras bainíticas al incorporarme al grupo de investigación MATERIALIA del CENIM en el año 2003. Desde entonces, es mi principal y más productiva línea de investigación. He abordado, entre otros, la caracterización detallada de la microestructura, desde el nivel atómico hasta la microescala, los mecanismos atómicos que rigen dicha transformación, las complejas relaciones entre las características microestructurales y su respuesta mecánica y por su puesto, su industrialización. Estos conocimientos se han obtenido en el marco de colaboraciones internacionales con otras instituciones de investigación (Oak ridge National Labs, Tohoku University, Ecole Technique Superior-Montreal, National Taiwan University, Univ. de Antioquia etc) o bajo el amparo de proyectos competitivos o contratos de investigación con las empresas siderúrgicas/usuarios finales más relevantes del mundo (Arcelor, Tata Steel, Bekaert, Bosch, Sidenor, Thyssen, Ascometal etc). Este nivel de internacionalización y la variedad de los sectores industriales implicados, evidencian el gran interés despertado entre la comunidad científica y el potencial aún por explotar que tiene la bainita nanoestructurada. La investigación en este tema ha sido reconocida con el Vanadium Award (2008) y el Cook/Ablett Award (2015), ambos del IOM3-UK.

He coordinado y participado como IP en más de 15 proyectos de investigación europeos y nacionales, y he participado como miembro del equipo de investigación en más de 25.



Con 143 artículos publicados en revistas incluidas en el JCR (56% en el Q1), y 17 capítulos de libros en editoriales de prestigio como Taylor and Francis, Wiley-VCH o Elsevier Science, mi trabajo ha sido citado más de 6000 veces (Scopus), resultando en un índice h de 42 (Scopus). Participo activamente en la supervisión de jóvenes investigadores y estudiantes, nacionales e internacionales, con 6 Tesis doctorales y 18 de grado y máster dirigidas, he supervisado más de 25 estancias (internships) de estudiantes de grado y de doctorado así como de profesores visitantes, con duraciones que van desde unas pocas semanas hasta 8 meses.

Soy miembro del Editorial Board de las revistas científicas Materials (MDPI), Metals (MDPI), Advances in Materials Science and Engineering (Hindawi) y me incorporaré en breve al de Frontiers in Materials (estructural materials section) . Participo activamente en el proceso peer-to-peer con casi 300 revisiones certificadas en Publons.

Participo en comités nacionales e internacionales para la evaluación de propuestas científicas, los más recientes, The Science Foundation Ireland (SFI), The Romanian Ministry of Education and The Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI) y The Polish National Science Centre (NCN).

Por último, estoy a cargo del Laboratorio de Transformación de Fase en el CENIM (Lab. 327, RED LAB 434, Código del Servicio Técnico Científico (SCT) 825150 del CSIC).

**Carlos Garcia Mateo**

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Current professional situation

Employing entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency

Department: Centro Nacional de Investigaciones metalurgicas

Professional category: Investigador Científico

Start date: 10/08/2018

Type of contract: Civil servant

Employing entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency

Department: Metalurgia Física, Centro Nacional de Investigaciones Metalúrgicas

Professional category: Responsable del Laboratorio de Transformaciones de Fase (SCT-825150)

Start date: 01/01/2005

Type of contract: Civil servant

Performed tasks: Responsable científico del Laboratorio de Transformaciones de Fase del CENIM (Lab. 327) (RED LAB 434). Código del Servicio Científico Técnico (SCT) del CSIC 825150. Responsable de: -la implementación y mantenimiento de la Certificación de Calidad ISO 9001-2015. - gestión y solicitud de nuevo equipamiento en distintas convocatorias. -solicitud y formación de personal técnico adscrito al laboratorio. -gestión del proceso de facturación, contratación de servicios del Lab. y emisión de informes técnicos para solicitudes de trabajos internos y externos

Previous positions and activities

	Employing entity	Professional category	Start date
1		Científico Titular	07/06/2007



	Employing entity	Professional category	Start date
	Consejo Superior de Investigaciones Científicas		
2	Centro Nacional de Investigaciones Metalúrgicas	Ramon y Cajal	16/11/2004
3	Centro Nacional de Investigaciones Metalúrgicas	Contrato de Investigacion Postdoctoral a cargo de proyecto	01/11/2003
4	University of Cambridge Dpt. of Materials Science and Metallurgy. Phase Transformation Research Group	Research Associate	01/07/2000
5	Centro Estudios e Investigaciones Técnicas de Guipúzcoa (CEIT). Dpto. de Materiales, Área de Transformaciones de Fase y Tratamientos Termomecánicos.	Becario/Contratado Predoctoral encargado de proyecto	01/03/1996

- 1** **Employing entity:** Consejo Superior de Investigaciones Científicas
Professional category: Científico Titular
Start-End date: 07/06/2007 - 09/08/2018
Type of entity: State agency
- 2** **Employing entity:** Centro Nacional de Investigaciones Metalúrgicas
Professional category: Ramon y Cajal
Start-End date: 16/11/2004 - 06/06/2007
Type of entity: State agency
- 3** **Employing entity:** Centro Nacional de Investigaciones Metalúrgicas
Professional category: Contrato de Investigacion Postdoctoral a cargo de proyecto
Start-End date: 01/11/2003 - 15/11/2004
Type of entity: State agency
- 4** **Employing entity:** University of Cambridge Dpt. of Materials Science and Metallurgy. Phase Transformation Research Group
Professional category: Research Associate
Start-End date: 01/07/2000 - 30/10/2003
- 5** **Employing entity:** Centro Estudios e Investigaciones Técnicas de Guipúzcoa (CEIT). Dpto. de Materiales, Área de Transformaciones de Fase y Tratamientos Termomecánicos.
Professional category: Becario/Contratado Predoctoral encargado de proyecto
Start-End date: 01/03/1996 - 30/06/2000
Type of entity: Technological Centre



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

University degree: Higher degree

Name of qualification: Licenciado en Ciencias Físicas Especialidad Física de Materiales

Degree awarding entity: Universidad Complutense de Madrid **Type of entity:** University

Date of qualification: 1995

Doctorates

Doctorate programme: Ciencias

Degree awarding entity: Universidad de Navarra **Type of entity:** University

Date of degree: 23/06/2000

Thesis title: Influencia de la microaleación con V en el conformado en tibio de aceros de contenido medio/alto en C

Thesis director: Jose Maria Rodriguez Ibabe

Obtained qualification: Sobresaliente Cum Laude

Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- 1 Title of course/seminar:** EXCEL 2016 avanzado on line
Organising entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Duration in hours: 40 hours
Start-End date: 27/09/2021 - 29/10/2021
- 2 Title of course/seminar:** Actividad científica en el CSIC: Base de datos CONCIENCIA, registro de la actividad y uso.
Organising entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Duration in hours: 8 hours
Start-End date: 28/04/2021 - 28/04/2021
- 3 Title of course/seminar:** TALENTO RELACIONAL
Organising entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Duration in hours: 20 hours
Start-End date: 13/10/2015 - 16/10/2015



- 4 Title of course/seminar:** Como desarrollar mis competencias para potenciar mis habilidades 2ª Edición.
Organising entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Duration in hours: 15 hours
Start-End date: 01/06/2015 - 03/06/2015
- 5 Title of course/seminar:** Seminario de Propiedades Termofísicas: Dilatometría Y Conductividad Térmica
Organising entity: TA Instruments **Type of entity:** Business
Start-End date: 16/10/2012 - 16/10/2012
- 6 Title of course/seminar:** Introducción al Sistema de Gestión de la Calidad del CSIC: aplicación práctica en el CENIM
Organising entity: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
Start-End date: 14/06/2011 - 14/11/2011

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	A1	A1	A1	A1	A1

Teaching experience

Experience supervising doctoral thesis and/or final year projects

- 1 Project title:** Efecto de la deformación plástica de la austenita en las transformaciones de fase displacivas que tienen lugar durante un tratamiento de ausforming en un acero con un contenido medio en carbono y alto en silicio
Type of project: Doctoral thesis
Co-director of thesis: Francisca García Caballero
Entity: Universidad Internacional Menéndez Pelayo **Type of entity:** University
Student: Adriana Eres Castellanos
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 22/12/2021
- 2 Project title:** Effect of ausforming on the microstructure and transformation kinetics of a medium carbon carbide-free bainitic steel.
Type of project: Doctoral thesis
Co-director of thesis: Moahammed Jahazi
Entity: ETS (L'École de technologie supérieure) Montreal **Type of entity:** University
City of entity: Montreal, Canada
Student: Muftah Zorgani
Obtained qualification: Very Good.
Date of reading: 12/10/2021
- 3 Project title:** Determinación del comportamiento en fatiga y desgaste de un acero con bainita nanoestructurada libre de carburos en la capa carbo-austemperada y microestructura multifásica en el núcleo.
Type of project: Doctoral thesis



Co-director of thesis: Claudia Patricia Serna Giraldo y Ricardo Emilio Aristizábal Sierra
Entity: Universidad de Antioquia **Type of entity:** University
Student: Oscar Eduardo Ríos Diez
Obtained qualification: Sobresaliente
Date of reading: 27/10/2020

4 **Project title:** Effect of Ausforming on the Bainitic Transformation in Medium Carbon Steels (SOCIEMAT Mejor Trabajo Fin de Master 2018.)
Type of project: Trabajo Fin de Master
Co-director of thesis: Francisca Garcia Caballero
Entity: Universidad Politécnica de Madrid **Type of entity:** University
Student: Adriana Eres-Castellanos
Obtained qualification: Sobresaliente
Date of reading: 24/01/2018

5 **Project title:** Carbon distribution in low temperature bainite
Type of project: Doctoral thesis
Co-director of thesis: Francisca García Caballero
Entity: Universidad Internacional Menéndez Pelayo
Student: Rosalia Rementeria
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 22/11/2017

6 **Project title:** Influencia del tamaño de grano austenítico en la transformación bainítica
Type of project: Trabajo Fin de Grado
Co-director of thesis: Francisca Garcia Caballero
Entity: Universidad Rey Juan Carlos **Type of entity:** University
Student: Borja Rodriguez Vega
Obtained qualification: Sobresaliente
Date of reading: 23/10/2017

7 **Project title:** Estudio de la Transformación Isotérmica de Austenita a Bainita Nanoestructurada mediante Dilatometría de Alta Resolución y Difracción de Rayos X
Type of project: Trabajo Fin de Master
Co-director of thesis: Jose Antonio Jimenez
Entity: Universidad Carlos III de Madrid **Type of entity:** University
Student: Víctor Ruiz Jiménez
Date of reading: 18/09/2017

8 **Project title:** Estudio de la estabilidad térmica de la bainita nanoestructurada mediante dilatometría de alta resolución
Type of project: Trabajo Fin de Grado
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Rey Juan Carlos **Type of entity:** University
Student: Carolina Gomez Sanz
Obtained qualification: Sobresaliente
Date of reading: 20/05/2017

9 **Project title:** Evolución de la bainita nanoestructurada tras procesos de revenido. Un estudio de Rayos-X
Type of project: Trabajo Fin de Grado
Co-director of thesis: Francisca G. Caballero



Entity: Universidad Rey Juan Carlos
Student: Alejandro Garcia Jimenez
Obtained qualification: Notable
Date of reading: 20/05/2017

Type of entity: University

- 10** **Project title:** Desarrollo de un modelo matemático para la determinación del tiempo de final de transformación de aceros bainíticos nano estructurados
Type of project: Trabajo Fin de Grado
Entity: Universidad Politécnica de Madrid
Student: Leire Bautista
Date of reading: 01/2017

Type of entity: University

- 11** **Project title:** Estabilidad frente al revenido de nuevas microestructuras bainíticas
Type of project: Trabajo Fin de Master
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Complutense de Madrid
Student: Miguel Angel Santajuana
Obtained qualification: Sobresaliente
Date of reading: 09/2016

Type of entity: University

- 12** **Project title:** Microstructure and Mechanical Response Of Nanostructured Bainitic Steels
Type of project: Doctoral thesis
Co-director of thesis: Francisca García Caballero
Entity: Universidad Carlos III de Madrid
Student: Lucia Morales Rivas. Becaria FPI ref. BES-2011-044186
Obtained qualification: Sobresaliente Cum Laude. Premio Extraordinario de Doctorado, Ciencia e Ingeniería de Materiales 2017.
Date of reading: 25/02/2016

- 13** **Project title:** Measurements of Bainitic Ferrite Plate Thickness by Different Experimental Techniques
Type of project: Trabajo Fin de Master
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Carlos III de Madrid
Student: María Belén López Ezquerro
Obtained qualification: Sobresaliente
Date of reading: 26/09/2014

Type of entity: University

- 14** **Project title:** Aceros Bainíticos Avanzados: Mecanismos de Transformación y Propiedades Mecánicas
Type of project: Doctoral thesis
Co-director of thesis: Francisca García Caballero
Entity: Universidad Complutense de Madrid
Student: Juan Cornide Arce
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 19/12/2012

- 15** **Project title:** Caracterización Avanzada Del Bandeado Complejo De Nuevos Aceros Bainíticos
Type of project: Trabajo Fin de Master
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Carlos III de Madrid
Student: Lucia Morales Rivas
Obtained qualification: Notable

Type of entity: University



Date of reading: 06/2012

- 16** **Project title:** Nuevos Aceros Bainíticos Libres de Carburos. Características, Microestructura y Propiedades
Type of project: Work leading to an ASD
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Borja González Prieto
Obtained qualification: Sobresaliente
Date of reading: 10/2010
- 17** **Project title:** Medida Local de Densidad de Dislocaciones Mediante Microscopía Electrónica de Transmisión en un Acero Bainítico Nanoestructurado
Type of project: Work leading to an ASD
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Juan Cornide Arce
Obtained qualification: Aprobado
Date of reading: 05/2010
- 18** **Project title:** Transformación Martensítica Inducida por Deformación Plástica en Nuevos Aceros Bainíticos. Estabilidad Mecánica de la Austenita en Nuevas Microestructuras Bainíticas
Type of project: End of course project
Co-director of thesis: Francisca G. Caballero
Entity: Universidad Rey Juan Carlos **Type of entity:** University
Student: Marta Arias Ruiz de Larramendi
Obtained qualification: Notable
Date of reading: 08/2008
- 19** **Project title:** Estudio de la Cinética de Ferrita Acicular en un Acero Microaleado con Vanadio
Type of project: End of course project
Co-director of thesis: Carlos Capdevila Montes
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Juan Cornide Arce
Obtained qualification: Sobresaliente
Date of reading: 07/2007



Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** Innovative MARTensite-BAINite microstructure to provide industrially viable solutions to the need for high performance steel grades (MartBain)

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Principal investigator

Name of the programme: RFCS Programme for 2019

Code according to the funding entity: 899251

Start-End date: 01/10/2020 - 31/03/2024

Duration: 42 months

Participating entity/entities: ASCO Industries (FR), TU-DELFT(NL), TATA (NL), SCHAEFFLER TECHNOLOGIES AG & CO. KG (DE)

Total amount: 1.993.641 €

Sub-project amount: 211.074 €

2 **Name of the project:** Advanced metallurgical and micromechanical modelling to deploy the microstructural tailoring potential of press hardening (MiPRE).

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2019

Code according to the funding entity: 899268

Start-End date: 01/07/2020 - 31/12/2023

Duration: 42 months

Participating entity/entities: Fundacio Eurecat (Spain), Centre National De La Recherche Scientifique CNRS (France), Lulea Tekniska Universitet (Sweden), Autotech Engineering SI (Spain), Arcelormittal Maizieres Research Sa (France)

Total amount: 1.996.061 €

Sub-project amount: 428.636 €

3 **Name of the project:** Austenite Stability under Dynamic loading (Dynaustab).

Geographical area: European Union

Degree of contribution: Researcher



Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

City funding entity: Bruselas

Type of entity: State agency

Type of entity: Public Research Body

Type of participation: Principal investigator

Name of the programme: RFCS Programme for 2019

Code according to the funding entity: 899482

Start-End date: 01/07/2020 - 31/12/2023

Duration: 42 months

Participating entity/entities: CRM (BE), ARCELORMITTAL MAIZIERES RESEARCH (FR), CNRS (FR), TATA STEEL (NL), UNIVERSIEIT GENT (BE).

Total amount: 2.355.030 €

Sub-project amount: 192.449 €

4 Name of the project: Aceros MARTensíticos FORMadores de Alúmina para sistemas de generación de energía (AFORMAR).

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Ministerio de Ciencia e Innovación

Type of entity: State agency

Type of entity: Ministerio

Type of participation: Team member

Name of the programme: Proyectos I+D+i 2019

Code according to the funding entity: PID2019-109334RB

Start-End date: 01/06/2020 - 31/05/2023

Duration: 3 years

Participating entity/entities: CIEMAT, UC3M

Total amount: 399.000 €

Sub-project amount: 145.000 €

5 Name of the project: Fabricación Inteligente de Materiales Avanzados para el Transporte, la Energía y la Salud (MAT4.0-CM)

Geographical area: Regional

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Comunidad de Madrid

Type of entity: State agency

Type of entity: Gobierno Regional

Type of participation: Team member

Name of the programme: Convocatoria de Programas de I+D en Tecnología/2018.Comunidad de Madrid (CAM)

Code according to the funding entity: P2018/NMT4381

Start-End date: 01/10/2019 - 31/12/2022

Duration: 3 years - 3 months

Participating entity/entities: Fundación IMDEA Materiales FIDAMC, IdiPAZ-PITI3D, UC3M-GPP, UPM-GRIAL, UPM-MIDAS, UPM-MMEAN

Total amount: 934.750 €

Sub-project amount: 160.000 €

6 Name of the project: Design of new economic secondary precipitating steels for fatigue resistance at elevated temperatures (SteelSeco)

Geographical area: European Union



Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA

Type of entity: State agency

Type of entity: Associations and Groups

EUROPEAN COMMISSION

City funding entity: Bruselas

Type of entity: Public Research Body

Type of participation: Principal investigator

Name of the programme: RFCS Programme for 2016

Code according to the funding entity: 754070

Start-End date: 01/10/2017 - 31/03/2021

Duration: 42 months

Participating entity/entities: Robert Bosch (DE), ASCO Industries (FR), OVAKO (SE), CNRS (FR)

Total amount: 930.103,32 €

Sub-project amount: 172.182 €

7 Name of the project: Aplicación de las aleaciones base-Fe nanoestructuradas como solución sostenible para los sistemas de generación de energía de alta eficiencia.

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Ministerio de Economía y Competitividad

Type of entity: State agency

Type of entity: Ministerio

Type of participation: Team member

Name of the programme: Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016.

Code according to the funding entity: MAT2016-80875-C3-1-R

Start-End date: 30/12/2016 - 01/07/2020

Duration: 3 years - 6 months

Participating entity/entities: CIEMAT, UC3M

Sub-project amount: 121.000 €

8 Name of the project: Towards industrial applicability of (medium C) nanostructured bainitic steels (TIANOBAIN)

Geographical area: European Union

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA

Type of entity: State agency

Type of entity: Associations and Groups

EUROPEAN COMMISSION

City funding entity: Bruselas

Type of entity: Public Research Body

Type of participation: Co-ordinator

Name of the programme: RFCS Programme for 2015

Code according to the funding entity: 709607

Start-End date: 01/10/2016 - 31/03/2020

Duration: 42 months

Participating entity/entities: ThyssenKrupp Steel AG (DE), OCAS (BE), Oulu University (FI).

Total amount: 1.577.170 €

Sub-project amount: 301.235 €



Dedication regime: Part time

- 9 Name of the project:** Improved formability in 3rd generation AHS steels by nanosize precipitation and microstructure control during and after hot rolling (NANOFORM).

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2015

Code according to the funding entity: RFSR-CT-2015-709803

Start-End date: 01/07/2016 - 31/12/2019

Duration: 42 months

Participating entity/entities: Fundacio CTM Centre Tecnologic (Spain), ThyssenKrupp Steel AG (Germany), Salzgitter Mannesmann Forschung GmbH (Germany), Institut National Des Sciences Appliquees De Lyon (France), CRM (BE)

Total amount: 1.956.922 €

Sub-project amount: 242.679 €

- 10 Name of the project:** Diseño Multiescala De Materiales Avanzados (DIMMAT).

Geographical area: Regional

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Comunidad de Madrid

Type of entity: Gobierno Regional

Type of participation: Team member

Name of the programme: Convocatoria de Programas de I+D en Tecnología/2013.Comunidad de Madrid (CAM)

Code according to the funding entity: S2013/MIT2775 & Ref: S2013/MIT2862

Start-End date: 01/10/2014 - 01/11/2018

Participating entity/entities: IMDEA-DM, IFN-UPM, ICMM-CSIC, UC3M-TP, UCM, UPM-MMEAN

Total amount: 799.940 €

Sub-project amount: 32.600 €

- 11 Name of the project:** In-use properties of Super High strength steels generated by a range of metallurgical strategies (SuperHigh)

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2014

Code according to the funding entity: RFSR-CT-2014-00019



Start-End date: 01/07/2014 - 31/07/2018

Duration: 4 years

Participating entity/entities: Centre de Recherches Metallurgiques (Belgium), AM Gent/OCAS (Belgium), Tata Steel UK (United Kingdom), University of Oulu (Finland), Ruukki (Finland), Max Planck Institut (Germany)

Total amount: 2.159.089 €

Sub-project amount: 352.940 €

- 12 Name of the project:** Novel nano-structured bainitic steels for enhanced durability of wear resistant components: microstructural optimisation through simulative wear and field tests (BainWear).

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2014

Code according to the funding entity: RFSR-CT-2014-00016

Start-End date: 01/07/2014 - 31/07/2018

Duration: 4 years

Participating entity/entities: Fundacio CTM Centre Tecnologic (Spain), Ascometal-CREAS (France), Gerdau (Spain), Luleå University of Technology (Sweden), Pallmann Maschinenfabrik (Germany), NTN-SNR Roulements (France), Rovalma GmbH

Total amount: 1.945.160 €

Sub-project amount: 284.258 €

- 13 Name of the project:** Aceros Ferrítico-Martensíticos 9-12%Cr Avanzados Por Medio de la Optimización de su Procesado Termomecánico. Sub-proyecto del Proyecto Coordinado Aleaciones base-Fe resistentes a alta temperatura para sistemas de generación de energía bajo condiciones extremas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Ministerio de Economía y Competitividad

Type of entity: Ministerio

Type of participation: Team member

Name of the programme: Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016.

Code according to the funding entity: MAT2013-47460-C5-1-P

Start-End date: 01/01/2014 - 31/12/2016

Duration: 3 years

Sub-project amount: 118.530 €

- 14 Name of the project:** Prediction of Stainless Steel Performance After Forming and Finishing (PressPerfect)

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2011



Code according to the funding entity: RFSR-CT-2012-00021

Start-End date: 01/07/2012 - 01/08/2015

Duration: 3 years

Participating entity/entities: Philips Consumer Lifestyle B.V (Holanda), Luleå University of Technology (Suecia), Stichting Materials Innovation Institute (M2I) (Holanda), Danmarks Tekniske Universitet (Dinamarca), Sandvik Material

Total amount: 2.423.126 €

Sub-project amount: 256.286 €

Dedication regime: Part time

15 Name of the project: Understanding basic mechanism to optimize and predict in service properties of nanobainitic steels (MECBAIN)

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2011

Code according to the funding entity: RFSR-CT-2012-00017

Start-End date: 01/07/2012 - 01/08/2015

Duration: 3 years

Participating entity/entities: Ascometal (Francia), Bosch (Alemania), Sidenor I+D (España), Ruhr-Universitaet Bochum (Alemania), Technische Universitaet Kaiserslautern (Alemania), Universite Rouen-CNRS (Francia)

Total amount: 101.833.071 €

Sub-project amount: 1.833.071 €

16 Name of the project: Nanoparticle Addition Into Molten Steel (NAMOS)

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA

Type of entity: Associations and Groups

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Principal investigator

Name of the programme: RFCS Programme for 2012

Code according to the funding entity: 304583

Start-End date: 01/07/2012 - 31/03/2015

Duration: 42 months

Participating entity/entities: Fundación Tecnalia Research & Innovation (España), Knologian Tutkimuskeskus VTT (Finlandia), Sidenor Investigación y Desarrollo SA (España), Kungliga Tekniska Hogskolan (Suecia), Comdicast AB (Suecia)

Total amount: 1.929.439 €

Sub-project amount: 262.620 €

Dedication regime: Part time

17 Name of the project: Propiedades en Uso de los Aceros Avanzados de Alta Resistencia de Tercera Generación: Hacia la Industrialización del Concepto de Diseño de la Microestructura Bainítica Libre de Carburo (IN-USE-BAINITE)



Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Ministerio de Economía y Competitividad

Type of entity: Ministerio

Type of participation: Team member

Name of the programme: Programa Nacional de Cooperación Público-Privada-Subprograma INNPACTO

Code according to the funding entity: IPT-2012-0320-420000

Start-End date: 2012 - 2015

Duration: 3 years

Participating entity/entities: BATZ S. Coop, ArcelorMittal S.A., ITMA

Total amount: 1.590.527 €

Sub-project amount: 200.354 €

- 18 Name of the project:** Estudio de la estabilidad mecánica de la austenita retenida en aceros bainíticos nanoestructurados altos en carbono (0.6-0.8%). Diseño de nuevos aceros tipo NANOBAIN de ductilidad mejorada.

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

Ministerio de Ciencia e Innovación

Type of entity: Public Research Body

Type of participation: Co-ordinator

Name of the programme: Plan Nacional de I+D+I (2008-2012). Subprograma de Proyectos de Investigación Fundamental

Code according to the funding entity: MAT2010-15330. ID CSIC: 73341

Start-End date: 01/01/2011 - 31/12/2013

Total amount: 60.500 €

Applicant's contribution: Concedida Ayuda Predoctoral de formación de personal investigador (FPI, Ref: BES-2011-044186)

- 19 Name of the project:** New advanced ultra high strength bainitic steels: ductility and formability (DUCTAFORM).

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

EUROPEAN COMMISSION

Type of entity: Public Research Body

City funding entity: Bruselas

Type of participation: Team member

Name of the programme: RFCS Programme for 2007

Code according to the funding entity: RFSR-CT-2008-00021

Start-End date: 01/07/2008 - 31/12/2011

Duration: 42 months

Participating entity/entities: Arcelor Research SA (Francia), Luleå University of Technology (Suecia), Gestamp HardTech AB (Suecia), Linde+Wiemann GmbH (Alemania), Rautaruukki Oyj (Finlandia) y University of Oulu (Finlandia)

Total amount: 941.008 €

Sub-project amount: 151.976 €



- 20** **Name of the project:** Novel nanostructured bainitic steel grades to answer the need for high performance steel components (NANOBAIN)
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: EUROPEAN COMMISSION **Type of entity:** Public Research Body
City funding entity: Bruselas
Type of participation: Team member
Name of the programme: RFCS Programme for 2007
Code according to the funding entity: RFSR-CT-2008-00022
Start-End date: 01/07/2008 - 31/12/2011 **Duration:** 42 months
Participating entity/entities: Ascometal (Francia), ALD (Alemania), Bosch (Alemania), , Luleå University of Technology (Suecia), Metso Materials Technology Oy (Finlandia) y Sidenor I+D (España)
Total amount: 1.038.034 € **Sub-project amount:** 122.357 €
- 21** **Name of the project:** Nuevos Aceros Bainíticos de Alta Resistencia y Ductilidad. Una alternativa para Aceros de Chapa en el Sector de la Automoción.
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: Ministerio de Ciencia y Tecnología (MYCT)
Type of participation: Team member
Name of the programme: Plan Nacional de I+D+I (2004-2007)
Code according to the funding entity: MAT2007-63873
Start-End date: 01/10/2007 - 30/09/2010 **Duration:** 2 years
Total amount: 121.000 €
- 22** **Name of the project:** Estudio del comportamiento térmico de nuevas aleaciones sin plomo para lunetas térmicas de automóvil.
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: Ministerio de Ciencia e Innovación. Investigación **Type of entity:** Ministerio
Type of participation: Team member
Name of the programme: Programa PETRI
Code according to the funding entity: PET2007_0326_02
Start-End date: 2008 - 2010 **Duration:** 2 years
Participating entity/entities: UTILAR IBERIA S.A., CT LORTEK
Total amount: 76.062 € **Sub-project amount:** 55.778 €



- 23** **Name of the project:** Mejora de las propiedades mecánicas de aceros bainíticos altos en carbono. Entidad financiadora
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: MINISTERIO DE EDUCACION Y CIENCIA
Type of participation: Principal investigator
Name of the programme: Ramon y Cajal
Start-End date: 16/11/2004 - 15/11/2009
Dedication regime: Full time
- 24** **Name of the project:** Diseño de aceros bainíticos libres de carburos para grandes componentes con altas propiedades de resistencia y ductilidad.
Geographical area: National
Degree of contribution: Scientific coordinator
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: Consejo Superior de Investigaciones Científicas CSIC
Type of entity: State agency
Type of participation: Co-ordinator
Name of the programme: Plan Nacional de I+D (Programa I3)
Start-End date: 01/08/2007 - 31/12/2008
Total amount: 30.000 €
- 25** **Name of the project:** Estudio de la evolución de fases en aceros bainíticos nano-estructurados por rayos-X insitu.
Geographical area: European Union
Degree of contribution: Scientific coordinator
Entity where project took place: Universidad de Lulea
Type of entity: University
City of entity: Lulea, Sweden
Nº of researchers: 1
Type of participation: Co-ordinator
Name of the programme: Convocatoria especial para la promoción internacional del CSIC a través de la movilidad mediante estancias de corta duración y otras acciones de carácter internacional Modalidad A1.
Start-End date: 13/08/2008 - 01/09/2008
Participating entity/entities: Universidad de Lulea
Total amount: 1.900 €
- 26** **Name of the project:** Desarrollo de nuevos aceros bainíticos para la fabricación de ruedas de ferrocarril.
Geographical area: National
Degree of contribution: Scientific coordinator
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: MINISTERIO DE EDUCACION Y CIENCIA



Type of participation: Co-ordinator
Name of the programme: Programa PETRI
Code according to the funding entity: PTR95-0995.OP. ID : 70137
Start-End date: 03/06/2006 - 03/06/2008 **Duration:** 2 years
Participating entity/entities: C.A.F. S.A. (Construcciones y Auxiliar de Ferrocarriles S.A)
Total amount: 83.321 € **Sub-project amount:** 55.778 €
Dedication regime: Part time

- 27** **Name of the project:** Refinement and development of homogeneous microstructures through the thickness of heavy products (REHOMI).
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: EUROPEAN COMMISSION **Type of entity:** Public Research Body
City funding entity: Bruselas

Type of participation: Team member
Name of the programme: RFCS Programme for 2004
Code according to the funding entity: RFS-CR-04030
Start-End date: 01/07/2004 - 31/12/2007
Participating entity/entities: Swedish Institute for Metals Research (SIMR) (Suecia), ProfilarBED (Luxemburgo), Salzgitter Mannesmann Forschungsinstitut GmbH (SZMF) (Alemania), y Centre for the Research Metal
Total amount: 704.919 € **Sub-project amount:** 95.398 €

- 28** **Name of the project:** Desarrollo de microestructuras de ferrita acicular y homogéneas en sección para vigas de gran tamaño
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: MINISTERIO DE EDUCACION Y CIENCIA

Type of participation: Team member
Name of the programme: Acción Complementaria. Plan Nacional de I+D+I (2004-2007)
Start-End date: 01/05/2006 - 01/06/2007 **Duration:** 1 year
Total amount: 7.600 €

- 29** **Name of the project:** Novel High Strength, High Toughness Carbide-free Bainitic Steels.
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency
City of entity: Madrid, Community of Madrid, Spain
Funding entity or bodies: EUROPEAN COMMISSION **Type of entity:** Public Research Body
City funding entity: Bruselas

Type of participation: Team member



Name of the programme: RFCS Programme for 2002

Code according to the funding entity: ECSC 7210-PR-351

Start-End date: 01/07/2002 - 31/12/2005

Participating entity/entities: KIMAB (Suecia), ARCELOR RESEARCH (Francia), VOEST ALPINE (Austria).

Total amount: 603.195 €

Sub-project amount: 160.163 €

30 Name of the project: Optimización de los tratamientos térmicos mediante la modelización del proceso de austenización y de las condiciones del Isotermo.

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

City of entity: Madrid, Community of Madrid, Spain

Funding entity or bodies:

MINISTERIO DE EDUCACION Y CIENCIA

Type of participation: Team member

Name of the programme: Programa PETRI

Code according to the funding entity: PTR1995-0667-OP

Start-End date: 01/03/2003 - 01/03/2005

Participating entity/entities: Tratamientos Térmicos Carreras, SA

Total amount: 134.373 €

Sub-project amount: 80.983 €

31 Name of the project: Very Strong, Low Temperature-Bainite

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: University of Cambridge **Type of entity:** University

City of entity: Cambridge, United Kingdom

Funding entity or bodies:

QinetiQ

EPSRC-The Engineering and Physical Sciences Research Council) **Type of entity:** Public Research Body

Type of participation: Principal investigator

Start-End date: 07/2000 - 11/2003

Duration: 3 years - 4 months

Participating entity/entities: Universidad de Cambridge y QinetiQ

Total amount: 372.630 €

32 Name of the project: Optimización de aceros microaleados para forja de precisión en tibio (componentes de automoción)

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Centro de Estudios e Investigaciones Técnicas de Gipuzkoa **Type of entity:** Innovation and Technology Centres

City of entity: San Sebastian, Spain

Funding entity or bodies:

Grupo Siderúrgico Vasco

Type of entity: Business

Gobierno Vasco

Type of entity: Gubernamental

Type of participation: Team member



Start-End date: 01/1996 - 12/1998
Total amount: 270.455 €

Duration: 3 years

R&D non-competitive contracts, agreements or projects with public or private entities

- 1 Name of the project:** CARACTERIZACIÓN MICROESTRUCTURAL EN RUEDAS DE FERROCARRIL
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
Funding entity or bodies: CONSTRUCC. Y AUXILIAR DE FERROCARRILES, S.A. CAF
Type of entity: Business
City funding entity: Spain
Code according to the funding entity: Ref. 20201192. ID CSIC: 207949.
Start date: 05/02/2020
Duration: 1 year
Total amount: 7.623 €
- 2 Name of the project:** Ensayos de Caracterización Mecánica y Microestructural de Materiales Metálicos Fabricados Mediante Fabricación Aditiva.
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
Funding entity or bodies: ArcelorMittal Innovación, Investigación e Inversión, SL
Type of entity: Business
City funding entity: Spain
Code according to the funding entity: Ref. 20195123. ID CSIC: 201327
Start date: 24/09/2019
Duration: 1 year - 3 months
Total amount: 48.400 €
- 3 Name of the project:** Fundamental of Phase Transformation and it's application to high-end special steels.
Degree of contribution: Researcher
Participating entity/entities: State Key Laboratory of Rolling and Automation of Northeastern University (Shenyang-China).
Funding entity or bodies: Chinese Ministry of Science and Technology
Type of entity: Public Research Body
City funding entity: China
Start date: 06/2019
Duration: 5 years
Relevant results: Convenio de colaboración, por el que los investigadores del grupo participamos en la formación de estudiantes de ultimo año y de Doctorado además de proponer y supervisar pequeños proyectos de investigación que finalmente se plasman en publicaciones conjuntas.
- 4 Name of the project:** Ciclo Termico Basico Con Temperatura Criogenica.
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Scientific coordinator
Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Type of entity: State agency
Funding entity or bodies:



Universidad de Oviedo

Type of entity: University

Code according to the funding entity: Ref. 20110973. ID CSIC: 87311

Start date: 05/11/2018

Duration: 1 month

Total amount: 1.784 €

5 Name of the project: Ensayos Tratamientos Térmicos Complejos.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

Universidad Tecnológica Nacional (AR)

Type of entity: University

City funding entity: Argentina

Code according to the funding entity: Ref. 20181515. ID CSIC: 182912

Start date: 05/11/2018

Duration: 1 month

Total amount: 600 €

6 Name of the project: Banding Analysis of 42CrMoS4XTP Steel

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

Steeltec AG (CH)

Type of entity: Business

Code according to the funding entity: Ref. 20174459. ID CSIC: 175679

Start date: 08/08/2017

Duration: 2 months

Total amount: 2.250 €

7 Name of the project: Desarrollo De Un Procedimiento De Soldeo Avanzado De Nuevos Aceros Bainiticos Libres De Carburos Para Carril-Solban.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

ArcelorMittal España, SA

Type of entity: Business

Code according to the funding entity: Ref. 20173908. ID CSIC: 173991.

Start date: 15/05/2017

Duration: 7 months

Total amount: 33.880 €

8 Name of the project: Analysis of 7MnB8 and 42CrMoS4 XTP Steels

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

Steeltec AG (CH)

Type of entity: Business

City funding entity: Switzerland

Code according to the funding entity: VATC: 20171739 , ref. centro 1735



Start date: 07/04/2017
Total amount: 17.500 €

Duration: 1 year

9 Name of the project: Assessment of Properties after Heat Treatments on Stainless Steel for Cutting Applications. IDO 1

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

LEICA BIOSYSTEMS EISFELD GMBH (DE)

Type of entity: Business

City funding entity: Germany

Code according to the funding entity: Ref. 20171899. ID CSIC: 171791

Start date: 13/02/2017

Duration: 2 years

Total amount: 10.600 €

10 Name of the project: Microstructure characterisation of bainitic/martensitic steels

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

ArcelorMittal Global R&D Long Products – Bars & Wires Research Centre (France).

Type of entity: Business

City funding entity: France

Code according to the funding entity: 040201160054

Start date: 07/2016

Duration: 6 months

Total amount: 9.000 €

11 Name of the project: Advanced and Novel Microstructures for Wire Technology (AMWT)

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI...): 1

Participating entity/entities: Cambridge Univ. (UK), Bekaert (Be)

Funding entity or bodies:

Flemish Government Agency for Innovation by Science and Technology (IWT)

Type of entity: Public Research Body

City funding entity: Belgium

Start date: 15/11/2015

Duration: 3 years

Sub-project amount: 330.976 €

12 Name of the project: Complex steel microstructures for wire applications

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

NV BEKAERT SA (BE)

City funding entity: Belgium

Code according to the funding entity: Ref. 20151886. ID CSIC: 149894

Start date: 15/11/2015

Duration: 3 years - 5 months



Total amount: 330.976 €

13 Name of the project: Development of Materials and Material Conditions for High Loaded Components. 2nd Frame Development Program. IDO 1- IDO 6 (2013-2022)

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

Robert Bosch GmbH (DE)

Type of entity: Business

City funding entity: Germany

Code according to the funding entity: Ref. 20133953. ID CSIC: 127429

Start date: 01/01/2013

Duration: 10 years

Total amount: 58.986 €

14 Name of the project: Strengthening mechanisms of V-alloyed bainitic steels.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

ASCOMETAL S.A. (FR)

Type of entity: Business

City funding entity: France

Code according to the funding entity: CT1133. Ref. 20113316. ID CSIC: 92081

Start date: 19/05/2011

Duration: 2 years - 5 months

Total amount: 23.000 €

15 Name of the project: Development of Materials and Material Conditions for High Loaded Components. 1st Frame Development Program. IDO 1 & IDO 2

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

Robert Bosch GmbH (DE)

Type of entity: Business

City funding entity: Germany

Code according to the funding entity: Ref. 20112092. ID CSIC: 89870

Start date: 09/05/2011

Duration: 1 year - 8 months

Total amount: 27.650 €

16 Name of the project: Desarrollo de Nueva Metodología de Evaluación de la Viabilidad de Introducción de Nuevos Materiales en Procesos de Fundición

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Scientific coordinator

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Participating entity/entities: EDERTEK, S. COOP.

Funding entity or bodies:

AYUDA CDTI

Type of entity: Public Research Body

Code according to the funding entity: Ref. 20110973. ID CSIC: 87311



Start date: 24/02/2011
Total amount: 73.608 €

Duration: 1 year

- 17 Name of the project:** Ultrafast Heating Of Medium Carbon Steels.Two Are The Main Topics To Be Considered Inside This Project. The Ultrafast Heating Process Of Medium Carbon Steel (heating rates up to 100°C/S), And The Effect Of Latent Heat

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

TOYOTA CENTRAL R&D LABS, (TCRL)

Type of entity: Business

City funding entity: Nagoya, Japan

Code according to the funding entity: Ref. 20102102. ID CSIC: 30776

Start date: 01/10/2010

Duration: 5 months

Total amount: 10.365 €

- 18 Name of the project:** Microstructure and Properties Characterisation of Advanced Bainitic Steels.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

Swiss Steel AG (CH)

Type of entity: Business

City funding entity: Switzerland

Code according to the funding entity: Ref. 20102305. ID CSIC: 30571

Start date: 15/09/2010

Duration: 5 years

Total amount: 35.850 €

- 19 Name of the project:** Study and Modelling of Solid-Solid Phase Transformations In Steels.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

USIMINAS- USINAS SIDERURGICAS DE MINAS GERAIS,S.A. (BR)

Type of entity: Business

City funding entity: Brazil

Code according to the funding entity: Ref. 20100539. ID CSIC: 24966

Start date: 01/03/2010

Duration: 20 months

Total amount: 111.693 €

- 20 Name of the project:** Strengthening mechanisms of continuously cooled bainitic steels

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Funding entity or bodies:

ASCOMETAL S.A. (FR)

Type of entity: Business

City funding entity: France



Code according to the funding entity: CT-0934. Ref. 20091373. ID CSIC: 24738
Start date: 05/11/2009 **Duration:** 12 months
Total amount: 15.480 €

21 Name of the project: Microstructural characterisation of low temperature bainitic steel: a crystallographic orientation analysis.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional **Type of entity:** State agency de Investigaciones Metalúrgicas
Funding entity or bodies:
Swiss Steel AG (CH) **Type of entity:** Business
City funding entity: Switzerland

Code according to the funding entity: CT-0820. Ref. 20090905. ID CSIC: 23967
Start date: 15/07/2009 **Duration:** 12 months
Total amount: 19.894 €

22 Name of the project: Microstructure and Toughness of Bainitic Steels

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional **Type of entity:** State agency de Investigaciones Metalúrgicas
Funding entity or bodies:
Swiss Steel AG (CH) **Type of entity:** Business
City funding entity: Switzerland

Code according to the funding entity: CT-0908. Ref. 20090268. ID CSIC: 24291
Start date: 02/02/2009 **Duration:** 6 months
Total amount: 5.225 €

23 Name of the project: The Determination Of Chemical Composition At Ferrite/Austenite Interface By Stem Microanalysis After Isothermal The Transformation Temperatures And Characterization Of Microstructures Obtained In Three Steels After Different non-isothermal treatments.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional **Type of entity:** State agency de Investigaciones Metalúrgicas
Funding entity or bodies:
TOYOTA CENTRAL R&D LABS, (TCRL) **Type of entity:** Business
City funding entity: Nagoya, Japan

Code according to the funding entity: Ref. 20081445. ID CSIC: 23552
Start date: 07/11/2008 **Duration:** 6 months
Total amount: 8.700 €

24 Name of the project: Aleaciones Sin Plomo Para Soldar Conectores Electricos Flexibles Para Las Lunetas Del Vidrio Del Automóvil.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas
Degree of contribution: Researcher
Entity where project took place: Centro Nacional **Type of entity:** State agency de Investigaciones Metalúrgicas
Funding entity or bodies:



UTILAR Iberica SA

Type of entity: Business**Code according to the funding entity:** Ref. 20081314. ID CSIC: 23509**Start date:** 17/10/2008**Duration:** 1 year**Total amount:** 12.679 €**25 Name of the project:** Microstructural characterisation of bainitic steels.**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Degree of contribution:** Researcher**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Type of entity:** State agency**Funding entity or bodies:**

Swiss Steel AG (CH)

Type of entity: Business**City funding entity:** Switzerland**Code according to the funding entity:** CT-0810. Ref. 20081053. ID CSIC: 23952**Start date:** 28/07/2008**Duration:** 5 months**Total amount:** 4.800 €**26 Name of the project:** Desarrollo de nuevas calidades de acero MHSS para cilindros de laminación bimetalicos procesados por colada centrífuga**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Degree of contribution:** Researcher**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Type of entity:** State agency**Funding entity or bodies:**

Fundición Nodular, SA.

Type of entity: Business**Code according to the funding entity:** Ref. CT 0818**Start date:** 2008**Duration:** 2 years**Total amount:** 37.120 €**27 Name of the project:** Ensayos de materiales para la fabricación de utillajes y elementos mecánicos en las lunetas de vidrio del automóvil.**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Degree of contribution:** Researcher**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Type of entity:** State agency**Funding entity or bodies:**

UTILAR Iberica SA

Type of entity: Business**Code according to the funding entity:** CT-0645. Ref. 20061101. ID CSIC: 22568**Start date:** 01/12/2006**Duration:** 2 years**Total amount:** 11.600 €**28 Name of the project:** Determinación y caracterización de las transformaciones de fase en dos aleaciones base-Fe tratadas isotérmicamente.**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Degree of contribution:** Scientific coordinator**Entity where project took place:** Centro Nacional de Investigaciones Metalúrgicas**Type of entity:** State agency**Funding entity or bodies:**

ROVALMA S.A

Type of entity: Business



Code according to the funding entity: CT-0610. Ref. 20060188. ID CSIC: 20990
Start date: 24/01/2006 **Duration:** 2 months
Total amount: 17.778 €

29 Name of the project: Determination of transformation temperatures and characterization of microstructures obtained after different no-isothermal heat treatments.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

TOYOTA CENTRAL R&D LABS, (TCRL)

Type of entity: Business

City funding entity: Nagoya, Japan

Code according to the funding entity: CT-Ref. 0624. Ref. 20060667. ID CSIC: 21965

Start date: 01/2006

Duration: 1 year

Total amount: 5.720 €

30 Name of the project: Estudio de la Relación Microestructura-Propiedades de Superaleaciones Base Fe Y Ni para la Industria Petroquímica

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

SCHMIDT-CLEMENS SPAIN S.A.

Type of entity: Business

Code according to the funding entity: Ref. 20050735. ID CSIC: 20880

Start date: 07/2005

Duration: 1 year

Total amount: 5.800 €

31 Name of the project: Determination of transformation temperatures and microstructural characterization in three steels after different no-isothermal heat treatments

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

TOYOTA CENTRAL R&D LABS, (TCRL)

Type of entity: Business

City funding entity: Nagoya, Japan

Code according to the funding entity: CT-Ref. 0519. Ref. 2005641. ID CSIC: 20773

Start date: 2005

Total amount: 9.880 €

32 Name of the project: The application of isothermal grain boundary allotropic ferrite, idiomorphic ferrite and pearlite models to step-cooling kinetics calculations.

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas

Degree of contribution: Researcher

Entity where project took place: Centro Nacional de Investigaciones Metalúrgicas **Type of entity:** State agency

Funding entity or bodies:

TOYOTA CENTRAL R&D LABS, (TCRL)

Type of entity: Business



City funding entity: Nagoya, Japan

Code according to the funding entity: CT-Ref. 0425. Ref. 20041005. ID CSIC: 20119

Start date: 2004

Total amount: 12.250 €

Results

Industrial and intellectual property

Title registered industrial property: Bainite Steels and Methods of Manufacture Thereof

Description of qualities: [https://worldwide.espacenet.com/publicationDetails/biblio?](https://worldwide.espacenet.com/publicationDetails/biblio?CC=WO&NR=2010013054A2&KC=A2&FT=D&ND=&date=20100204&DB=EPODOC&locale=en_EP)

[CC=WO&NR=2010013054A2&KC=A2&FT=D&ND=&date=20100204&DB=EPODOC&locale=en_EP](https://worldwide.espacenet.com/publicationDetails/biblio?CC=WO&NR=2010013054A2&KC=A2&FT=D&ND=&date=20100204&DB=EPODOC&locale=en_EP)

Inventors/authors/obtainers: H.K.D.H Bhadeshia; Carlos Garcia-Mateo; Peter Brown

N° of application: WO 2010013054 (A2)

Conferral date: 04/02/2010

Scientific and technological activities

Scientific production

- 1** **H index:** 42
Date of application: 29/06/2022
Fuente de Índice H: WOS
- 2** **H index:** 47
Date of application: 10/01/2022
Fuente de Índice H: GOOGLE SCHOLAR
- 3** **H index:** 43
Date of application: 23/01/2022
Fuente de Índice H: SCOPUS

Publications, scientific and technical documents

- 1** H.D. Machado; I. Toda-Caraballo; C. Garcia-Mateo; R. Aristizábal-Sierra. Modelling the formation of austenite in the intercritical interval in ductile iron. Journal of Materials Research and Technology. 16, pp. 1445 - 1457. 2022. Available on-line at: <<http://dx.doi.org/10.1016/j.jmrt.2021.12.072>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 0.964
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 0

- 2** D. San-Martin; M. Kuntz; F.G. Caballero; C. Garcia-Mateo. A new systematic approach based on dilatometric analysis to track bainite transformation kinetics and the influence of the prior austenite grain size. *Metals*. 11 - 2, pp. 1 - 13. 2021. Available on-line at: <<http://dx.doi.org/10.3390/met11020324>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.569
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 2
- 3** A. Eres-Castellanos; D. De-Castro; C. Capdevila; C. Garcia-Mateo; F.G. Caballero. Assessing the implementation of machine learning models for thermal treatments design. *Materials Science and Technology (United Kingdom)*. 37 - 16, pp. 1302 - 1310. 2021. Available on-line at: <<http://dx.doi.org/10.1080/02670836.2021.2001731>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.523
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 1
- 4** A. Eres-Castellanos; J. Hidalgo; M. Zorgani; M. Jahazi; I. Toda-Caraballo; F.G. Caballero; C. Garcia-Mateo. Assessing the scale contributing factors of three carbide-free bainitic steels: A complementary theoretical and experimental approach. *Materials and Design*. 197, 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.matdes.2020.109217>>.
Type of production: Scientific paper
Position of signature: 7
Impact source: SCOPUS
Impact index in year of publication: 1.802
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 5
- 5** V. Ruiz-jimenez; J.A. Jimenez; F.G. Caballero; C. Garcia-mateo. Bainitic ferrite plate thickness evolution in two nanostructured steels. *Materials*. 14 - 15, 2021. Available on-line at: <<http://dx.doi.org/10.3390/ma14154347>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.604
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 0
- 6** A. Eres-Castellanos; L. Morales-Rivas; J.A. Jimenez; F.G. Caballero; C. Garcia-Mateo. Effect of Ausforming on the Macro- and Micro-texture of Bainitic Microstructures. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 52 - 9, pp. 4033 - 4052. 2021. Available on-line at: <<http://dx.doi.org/10.1007/s11661-021-06363-w>>.
Type of production: Scientific paper
Position of signature: 5
Impact source: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 2

- 7 M. Zorgani; C. Garcia-Mateo; M. Jahazi. Effects of ausforming temperature on carbide-free bainite transformation and its correlation to the transformation plasticity strain in a medium C- Si-rich steel. *Materials Characterization*. 176, 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.matchar.2021.111124>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.122

Source of citations: SCOPUS

Citations: 1

- 8 A. Eres-Castellanos; L. Morales-Rivas; F.G. Caballero; C. Garcia-Mateo. Explaining the dilatometric behavior during bainite transformation under the effect of variant selection. *Journal of Alloys and Compounds*. 864, 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.jallcom.2020.158130>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.027

Source of citations: SCOPUS

Citations: 0

- 9 A. Eres-Castellanos; C. Garcia-Mateo; F.G. Caballero. Future trends on displacive stress and strain induced transformations in steels. *Metals*. 11 - 2, pp. 1 - 19. 2021. Available on-line at: <<http://dx.doi.org/10.3390/met11020299>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.569

Source of citations: SCOPUS

Citations: 2

- 10 H. Torkamani; S. Raygan; C. Garcia Mateo; Y. Palizdar; J. Rassizadehghani; J. Vivas; D. San-Martin. Low-carbon cast microalloyed steel intercritically heat-treated at different temperatures: microstructure and mechanical properties. *Archives of Civil and Mechanical Engineering*. 21 - 2, 2021. Available on-line at: <<http://dx.doi.org/10.1007/s43452-021-00222-6>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.837

Source of citations: SCOPUS

Citations: 1

- 11** O. Ríos-Diez; R. Aristizábal-Sierra; C. Serna-Giraldo; A. Eres-Castellanos; C. García-Mateo. Microstructural and Rotating-Bending Fatigue Behavior Relationship in Nanostructured Carbo-Austempered Cast Steels. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 52 - 7, pp. 2773 - 2786. 2021. Available on-line at: <<http://dx.doi.org/10.1007/s11661-021-06266-w>>.
- Type of production:** Scientific paper
Position of signature: 5
- Impact source:** SCOPUS
Impact index in year of publication: 0.858
- Source of citations:** SCOPUS
Citations: 0
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 12** M. Zorgani; C. Garcia-Mateo; M. Jahazi. Microstructural evolution during tempering of an ausformed carbide-free low temperature bainitic steel. *Materials and Design*. 210, 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.matdes.2021.110082>>.
- Type of production:** Scientific paper
Position of signature: 2
- Impact source:** SCOPUS
Impact index in year of publication: 1.802
- Source of citations:** SCOPUS
Citations: 0
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 13** A. Eres-Castellanos; J. Hidalgo; L. Morales-Rivas; F.G. Caballero; C. Garcia-Mateo. The role of plastic strains on variant selection in ausformed bainitic microstructures studied by finite elements and crystal plasticity simulations. *Journal of Materials Research and Technology*. 13, pp. 1416 - 1430. 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.jmrt.2021.05.070>>.
- Type of production:** Scientific paper
Position of signature: 5
- Impact source:** SCOPUS
Impact index in year of publication: 0.964
- Source of citations:** SCOPUS
Citations: 0
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 14** O. Ríos-Diez; R. Aristizábal-Sierra; C. Serna-Giraldo; A. Eres-Castellanos; C. García-Mateo. Wear behavior of nanostructured carbo-austempered cast steels under rolling-sliding conditions. *Journal of Materials Research and Technology*. 11, pp. 1343 - 1355. 2021. Available on-line at: <<http://dx.doi.org/10.1016/j.jmrt.2021.01.094>>.
- Type of production:** Scientific paper
Position of signature: 5
- Impact source:** SCOPUS
Impact index in year of publication: 0.964
- Source of citations:** SCOPUS
Citations: 3
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 15** A. Eres-Castellanos; I. Toda-Caraballo; A. Latz; F.G. Caballero; C. Garcia-Mateo. An integrated-model for austenite yield strength considering the influence of temperature and strain rate in lean steels. *Materials and Design*. 188, 2020. Available on-line at: <<http://dx.doi.org/10.1016/j.matdes.2019.108435>>.
- Type of production:** Scientific paper
Position of signature: 5
- Impact source:** SCOPUS
Impact index in year of publication: 0.964
- Source of citations:** SCOPUS
Citations: 3
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee



Impact source: SCOPUS

Impact index in year of publication: 1.802

Source of citations: SCOPUS

Citations: 11

- 16** O. Ríos-Diez; R. Aristizábal-Sierra; C. Serna-Giraldo; J.A. Jimenez; C. Garcia-Mateo. Development of nanobainitic microstructures in carbo-austempered cast steels: Heat treatment, microstructure and properties. *Metals*. 10 - 5, 2020. Available on-line at: <<http://dx.doi.org/10.3390/met10050635>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 5

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.569

Source of citations: SCOPUS

Citations: 7

- 17** A. Grajcar; M. Morawiec; J.A. Jimenez; C. Garcia-Mateo. Dilatometric and microstructural study of martensite tempering in 4% Mn steel. *Materials*. 13 - 19, pp. 1 - 10. 2020. Available on-line at: <<http://dx.doi.org/10.3390/ma13194442>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.604

Source of citations: SCOPUS

Citations: 3

- 18** M. Morawiec; A. Grajcar; W. Zalecki; C. Garcia-Mateo; M. Opiela. Dilatometric study of phase transformations in 5 Mn steel subjected to different heat treatments. *Materials*. 13 - 4, 2020. Available on-line at: <<http://dx.doi.org/10.3390/ma13040958>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.604

Source of citations: SCOPUS

Citations: 6

- 19** H.D. Machado; R. Aristizabal-Sierra; C. Garcia-Mateo; I. Toda-Caraballo. Effect of the Starting Microstructure in the Formation of Austenite at the Intercritical Range in Ductile Iron Alloyed with Nickel and Copper. *International Journal of Metalcasting*. 14 - 3, pp. 836 - 845. 2020. Available on-line at: <<http://dx.doi.org/10.1007/s40962-020-00450-1>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.479

Source of citations: SCOPUS

Citations: 6

- 20** A.F. Santacruz-londoño; O. Rios-diez; J.A. Jiménez; C. Garcia-mateo; R. Aristizábal-sierra. Microstructural and mechanical characterization of a nanostructured bainitic cast steel. *Metals*. 10 - 5, 2020. Available on-line at: <<http://dx.doi.org/10.3390/met10050612>>.
- Type of production:** Scientific paper
Position of signature: 4
- Impact source:** SCOPUS
Impact index in year of publication: 0.569
- Source of citations:** SCOPUS
Citations: 4
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 21** A. Skowronek; M. Morawiec; V. Ruiz-Jimenez; C. Garcia-Mateo; A. Grajcar. Physical simulation and dilatometric study of double-step heat treatment of medium-Mn steel. *Archives of Civil and Mechanical Engineering*. 20 - 4, 2020. Available on-line at: <<http://dx.doi.org/10.1007/s43452-020-00144-9>>.
- Type of production:** Scientific paper
Position of signature: 4
- Impact source:** SCOPUS
Impact index in year of publication: 0.837
- Source of citations:** SCOPUS
Citations: 2
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 22** R. Rementeria; R. Domínguez-Reyes; C. Capdevila; C. Garcia-Mateo; F.G. Caballero. Positron Annihilation Spectroscopy Study of Carbon-Vacancy Interaction in Low-Temperature Bainite. *Scientific Reports*. 10 - 1, 2020. Available on-line at: <<http://dx.doi.org/10.1038/s41598-020-57469-x>>.
- Type of production:** Scientific paper
Position of signature: 4
- Impact source:** SCOPUS
Impact index in year of publication: 1.005
- Source of citations:** SCOPUS
Citations: 12
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 23** V. Ruiz-Jimenez; M. Kuntz; T. Sourmail; F.G. Caballero; J.A. Jimenez; C. Garcia-Mateo. Retained austenite destabilization during tempering of low-temperature bainite. *Applied Sciences (Switzerland)*. 10 - 24, pp. 1 - 20. 2020. Available on-line at: <<http://dx.doi.org/10.3390/app10248901>>.
- Type of production:** Scientific paper
Position of signature: 6
- Impact source:** SCOPUS
Impact index in year of publication: 0.507
- Source of citations:** SCOPUS
Citations: 3
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 24** A. Eres-Castellanos; F.G. Caballero; C. Garcia-Mateo. Stress or strain induced martensitic and bainitic transformations during ausforming processes. *Acta Materialia*. 189, pp. 60 - 72. 2020. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2020.03.002>>.
- Type of production:** Scientific paper
Position of signature: 3
- Impact source:** SCOPUS
Impact index in year of publication: 2.828
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 19

- 25** M. Zorgani; C. Garcia-Mateo; M. Jahazi. The role of ausforming in the stability of retained austenite in a medium-C carbide-free bainitic steel. *Journal of Materials Research and Technology*. 9 - 4, pp. 7762 - 7776. 2020. Available on-line at: <<http://dx.doi.org/10.1016/j.jmrt.2020.05.062>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 2**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.964**Source of citations:** SCOPUS**Citations:** 7

- 26** M. Morawiec; V. Ruiz-Jimenez; C. Garcia-Mateo; A. Grajcar. Thermodynamic analysis and isothermal bainitic transformation kinetics in lean medium-Mn steels. *Journal of Thermal Analysis and Calorimetry*. 142 - 5, pp. 1709 - 1719. 2020. Available on-line at: <<http://dx.doi.org/10.1007/s10973-020-10259-z>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.639**Source of citations:** SCOPUS**Citations:** 2

- 27** A. Argüelles; F. Barbés; J.I. Espeso; C. Garcia-Mateo. Cryogenic study of the magnetic and thermal stability of retained austenite in nanostructured bainite. *Science and Technology of Advanced Materials*. 20 - 1, pp. 673 - 687. 2019. Available on-line at: <<http://dx.doi.org/10.1080/14686996.2019.1625722>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 4**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 1.485**Source of citations:** SCOPUS**Citations:** 5

- 28** M.A. Santajuana; A. Eres-Castellanos; V. Ruiz-Jimenez; S. Allain; G. Geandier; F.G. Caballero; C. Garcia-Mateo. Quantitative assessment of the time to end bainitic transformation. *Metals*. 9 - 9, 2019. Available on-line at: <<http://dx.doi.org/10.3390/met9090925>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 7**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.569**Source of citations:** SCOPUS**Citations:** 9

- 29** H. Torkamani; S. Raygan; C. Garcia Mateo; J. Rassizadehghani; Y. Palizdar; D. San-Martin. Tensile behavior of normalized low carbon Nb-microalloyed steel in the presence of rare earth elements. *Materials Science and Engineering A*. 749, pp. 56 - 64. 2019. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2019.02.005>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee



Impact source: SCOPUS

Impact index in year of publication: 1.563

Source of citations: SCOPUS

Citations: 7

- 30** F.G. Caballero; R. Rementeria; L. Morales-Rivas; M. Benito-Alfonso; J.-R. Yang; D. de Castro; J.D. Poplawsky; T. Sourmail; C. Garcia-Mateo. Understanding mechanical properties of nano-grained bainitic steels from multiscale structural analysis. *Metals*. 9 - 4, 2019. Available on-line at: <<http://dx.doi.org/10.3390/met9040426>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 9

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.569

Source of citations: SCOPUS

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- 31** C. Garcia-Mateo. Bainite and martensite: Developments and challenges. *Metals*. 8 - 11, 2018. Available on-line at: <<http://dx.doi.org/10.3390/met8110966>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.569

Source of citations: SCOPUS

Citations: 0

- 32** R. Rementeria; C. Capdevila; R. Domínguez-Reyes; J.D. Poplawsky; W. Guo; E. Urones-Garrote; C. Garcia-Mateo; F.G. Caballero. Carbon Clustering in Low-Temperature Bainite. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 49 - 11, pp. 5277 - 5287. 2018. Available on-line at: <<http://dx.doi.org/10.1007/s11661-018-4899-2>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 7

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 15

- 33** H. Torkamani; S. Raygan; C.G. Mateo; J. Rassizadehghani; Y. Palizdar; D. San-Martin. Contributions of rare earth element (La,Ce) addition to the impact toughness of low carbon cast niobium microalloyed steels. *Metals and Materials International*. 24 - 4, pp. 773 - 788. 2018. Available on-line at: <<http://dx.doi.org/10.1007/s12540-018-0084-9>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.791

Source of citations: SCOPUS

Citations: 35

- 34** L. Morales-Rivas; F. Archie; S. Zaefferer; M. Benito-Alfonso; S.-P. Tsai; J.-R. Yang; D. Raabe; C. Garcia-Mateo; F.G. Caballero. Crystallographic examination of the interaction between texture evolution, mechanically induced martensitic transformation and twinning in nanostructured bainite. *Journal of Alloys and Compounds*. 752, pp. 505 - 519. 2018. Available on-line at: <<http://dx.doi.org/10.1016/j.jallcom.2018.04.189>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 8

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.027

Source of citations: SCOPUS

Citations: 15

- 35** A. Eres-Castellanos; L. Morales-Rivas; A. Latz; F.G. Caballero; C. Garcia-Mateo. Effect of ausforming on the anisotropy of low temperature bainitic transformation. *Materials Characterization*. 145, pp. 371 - 380. 2018. Available on-line at: <<http://dx.doi.org/10.1016/j.matchar.2018.08.062>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 5

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.122

Source of citations: SCOPUS

Citations: 24

- 36** H. Torkamani; S. Raygan; C. Garcia-Mateo; J. Rassizadehghani; Y. Palizdar; D. San-Martin. Evolution of Pearlite Microstructure in Low-Carbon Cast Microalloyed Steel Due to the Addition of La and Ce. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 49 - 10, pp. 4495 - 4508. 2018. Available on-line at: <<http://dx.doi.org/10.1007/s11661-018-4796-8>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 13

- 37** M.A. Santajuana; R. Rementeria; M. Kuntz; J.A. Jimenez; F.G. Caballero; C. Garcia-Mateo. Low-Temperature Bainite: A Thermal Stability Study. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 49 - 6, pp. 2026 - 2036. 2018. Available on-line at: <<http://dx.doi.org/10.1007/s11661-018-4595-2>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 18

- 38** R. Rementeria; J.D. Poplawsky; M.M. Aranda; W. Guo; J.A. Jimenez; C. Garcia-Mateo; F.G. Caballero. Carbon concentration measurements by atom probe tomography in the ferritic phase of high-silicon steels. *Acta Materialia*. 125, pp. 359 - 368. 2017. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2016.12.013>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee



Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 30

- 39** H. Torkamani; H. Rashvand; S. Raygan; J. Rassizadchghani; Y. Palizdar; C.G. Mateo; D.S. Martin. Effects of mo addition on the microstructure and mechanical properties of cast microalloyed steel. Iranian Journal of Materials Science and Engineering. 14 - 3, pp. 76 - 85. 2017. Available on-line at: <<http://dx.doi.org/10.22068/ijmse.14.3.76>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.2

Source of citations: SCOPUS

Citations: 0

- 40** R. Rementeria; J.A. Jimenez; S.Y.P. Allain; G. Geandier; J.D. Poplawsky; W. Guo; E. Urones-Garrote; C. Garcia-Mateo; F.G. Caballero. Quantitative assessment of carbon allocation anomalies in low temperature bainite. Acta Materialia. 133, pp. 333 - 345. 2017. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2017.05.048>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 8

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 40

- 41** T. Sourmail; C. Garcia-Mateo; F.G. Caballero; L. Morales-Rivas; R. Rementeria; M. Kuntz. Tensile ductility of nanostructured bainitic steels: Influence of retained austenite stability. Metals. 7 - 1, 2017. Available on-line at: <<http://dx.doi.org/10.3390/met7010031>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.569

Source of citations: SCOPUS

Citations: 19

- 42** T. Sourmail; C. Garcia-Mateo; F.G. Caballero; S. Cazottes; T. Epicier; F. Danoix; D. Milbourn. The Influence of Vanadium on Ferrite and Bainite Formation in a Medium Carbon Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science. 48 - 9, pp. 3985 - 3996. 2017. Available on-line at: <<http://dx.doi.org/10.1007/s11661-017-4188-5>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 14



- 43** H. Torkamani; S. Raygan; C.G. Mateo; J. Rassizadehghani; J. Vivas; Y. Palizdar; D. San-Martin. The influence of La and Ce addition on inclusion modification in cast niobium microalloyed steels. *Metals*. 7 - 9, 2017. Available on-line at: <<http://dx.doi.org/10.3390/met7090377>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 0.569
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 28
- 44** C. Garcia-Mateo; G. Paul; M.C. Somani; D.A. Porter; L. Bracke; A. Latz; C.G. de Andres; F.G. Caballero. Transferring nanoscale bainite concept to lower C contents: A perspective. *Metals*. 7 - 5, 2017. Available on-line at: <<http://dx.doi.org/10.3390/met7050159>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.569
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 32
- 45** C. Garcia-Mateo; J.A. Jimenez; B. Lopez-Ezquerria; R. Rementeria; L. Morales-Rivas; M. Kuntz; F.G. Caballero. Analyzing the scale of the bainitic ferrite plates by XRD, SEM and TEM. *Materials Characterization*. 122, pp. 83 - 89. 2016. Available on-line at: <<http://dx.doi.org/10.1016/j.matchar.2016.10.023>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 1.122
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 36
- 46** L. Morales-Rivas; C. Garcia-Mateo; T. Sourmail; M. Kuntz; R. Rementeria; F.G. Caballero. Ductility of nanostructured bainite. *Metals*. 6 - 12, 2016. Available on-line at: <<http://dx.doi.org/10.3390/met6120302>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.569
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 29
- 47** R. Rementeria; M.M. Aranda; C. Garcia-Mateo; F.G. Caballero. Improving wear resistance of steels through nanocrystalline structures obtained by bainitic transformation. *Materials Science and Technology (United Kingdom)*. 32 - 4, pp. 308 - 312. 2016. Available on-line at: <<http://dx.doi.org/10.1080/02670836.2015.1132048>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 0.523
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 13

- 48** L. Morales-Rivas; C. Garcia-Mateo; M. Kuntz; T. Sourmail; F.G. Caballero. Induced martensitic transformation during tensile test in nanostructured bainitic steels. *Materials Science and Engineering A*. 662, pp. 169 - 177. 2016. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2016.03.070>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 2**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 1.563**Source of citations:** SCOPUS**Citations:** 25

- 49** S. Sampath; R. Rementeria; X. Huang; J.D. Poplawsky; C. Garcia-Mateo; F.G. Caballero; R. Janisch. The role of silicon, vacancies, and strain in carbon distribution in low temperature bainite. *Journal of Alloys and Compounds*. 673, pp. 289 - 294. 2016. Available on-line at: <<http://dx.doi.org/10.1016/j.jallcom.2016.02.151>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 5**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 1.027**Source of citations:** SCOPUS**Citations:** 10

- 50** C. Garcia-Mateo; L. Morales-Rivas; F.G. Caballero; D. Milbourn; T. Sourmail. Vanadium effect on a medium carbon forging steel. *Metals*. 6 - 6, 2016. Available on-line at: <<http://dx.doi.org/10.3390/met6060130>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.569**Source of citations:** SCOPUS**Citations:** 14

- 51** L. Morales-Rivas; V.A. Yardley; C. Capdevila; C. Garcia-Mateo; H. Roelofs; F.G. Caballero. A procedure for indirect and automatic measurement of prior austenite grain size in bainite/martensite microstructures. *Journal of Materials Science*. 50 - 1, pp. 258 - 267. 2015. Available on-line at: <<http://dx.doi.org/10.1007/s10853-014-8584-6>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 4**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.781**Source of citations:** SCOPUS**Citations:** 4

- 52** B. Avishan; S. Yazdani; F.G. Caballero; T.S. Wang; C. Garcia-Mateo. Characterisation of microstructure and mechanical properties in two different nanostructured bainitic steels. *Materials Science and Technology (United Kingdom)*. 31 - 12, pp. 1508 - 1520. 2015. Available on-line at: <<http://dx.doi.org/10.1179/1743284714Y.0000000745>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 5



Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 42

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Type of production: Scientific paper

Position of signature: 4

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.288

Source of citations: SCOPUS

Citations: 5

- 54** C. Garcia-Mateo; J.A. Jimenez; H.-W. Yen; M.K. Miller; L. Morales-Rivas; M. Kuntz; S.P. Ringer; J.-R. Yang; F.G. Caballero. Low temperature bainitic ferrite: Evidence of carbon super-saturation and tetragonality. *Acta Materialia*. 91, pp. 162 - 173. 2015. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2015.03.018>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 79

- 55** F.G. Caballero; C. Garcia-Mateo; M.K. Miller. Modern steels at atomic and nanometre scales. *Materials Science and Technology (United Kingdom)*. 31 - 7, pp. 764 - 772. 2015. Available on-line at: <<http://dx.doi.org/10.1179/1743284714Y.0000000685>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Citations: 12

- 56** L. Morales-Rivas; A. González-Orive; C. Garcia-Mateo; A. Hernández-Creus; F.G. Caballero; L. Vázquez. Nanomechanical characterization of nanostructured bainitic steel: Peak Force Microscopy and Nanoindentation with AFM. *Scientific Reports*. 5, 2015. Available on-line at: <<http://dx.doi.org/10.1038/srep17164>>.

Type of production: Scientific paper

Position of signature: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.005

Source of citations: SCOPUS

Citations: 46

- 57** R. Rementeria; L. Morales-Rivas; M. Kuntz; C. Garcia-Mateo; E. Kerscher; T. Sourmail; F.G. Caballero. On the role of microstructure in governing the fatigue behaviour of nanostructured bainitic steels. *Materials Science and Engineering A*. 630, pp. 71 - 77. 2015. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2015.02.016>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 1.563
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 57
- 58** L. Morales-Rivas; H.-W. Yen; B.-M. Huang; M. Kuntz; F.G. Caballero; J.-R. Yang; C. Garcia-Mateo. Tensile Response of Two Nanoscale Bainite Composite-Like Structures. *JOM*. 67 - 10, pp. 2223 - 2235. 2015. Available on-line at: <<http://dx.doi.org/10.1007/s11837-015-1562-x>>.
Type of production: Scientific paper
Position of signature: 7
Impact source: SCOPUS
Impact index in year of publication: 0.602
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 43
- 59** C. Garcia-Mateo; F.G. Caballero; T. Sourmail; J. Cornide; V. Smanio; R. Elvira. Composition design of nanocrystalline bainitic steels by diffusionless solid reaction. *Metals and Materials International*. 20 - 3, pp. 405 - 415. 2014. Available on-line at: <<http://dx.doi.org/10.1007/s12540-014-3002-9>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.791
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 21
- 60** F.G. Caballero; C. Garcia-Mateo; M.K. Miller. Design of novel bainitic steels: Moving from ultrafine to nanoscale structures. *JOM*. 66 - 5, pp. 747 - 755. 2014. Available on-line at: <<http://dx.doi.org/10.1007/s11837-014-0908-0>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.602
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 51
- 61** C. Garcia-Mateo; F.G. Caballero; T. Sourmail; V. Smanio; C.G. De Andres. Industrialised nanocrystalline bainitic steels. Design approach. *International Journal of Materials Research*. 105 - 8, pp. 725 - 734. 2014. Available on-line at: <<http://dx.doi.org/10.3139/146.111090>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.212
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 15

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Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 0.749
Source of citations: SCOPUS
Citations: 28
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 63** C. Garcia-Mateo; T. Sourmail; F.G. Caballero; V. Smanio; M. Kuntz; C. Ziegler; A. Leiro; E. Vuorinen; R. Elvira; T. Teeri. Nanostructured steel industrialisation: Plausible reality. *Materials Science and Technology (United Kingdom)*. 30 - 9, pp. 1071 - 1078. 2014. Available on-line at: <<http://dx.doi.org/10.1179/1743284713Y.0000000428>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.523
Source of citations: SCOPUS
Citations: 49
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 64** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. Opening previously impossible avenues for phase transformation in innovative steels by atom probe tomography. *Materials Science and Technology (United Kingdom)*. 30 - 9, pp. 1034 - 1039. 2014. Available on-line at: <<http://dx.doi.org/10.1179/1743284714Y.0000000512>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 0.523
Source of citations: SCOPUS
Citations: 18
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 65** F.G. Caballero; H.-W. Yen; M.K. Miller; J. Cornide; H.-T. Chang; C. Garcia-Mateo; J.-R. Yang. Three phase crystallography and solute distribution analysis during residual austenite decomposition in tempered nanocrystalline bainitic steels. *Materials Characterization*. 88, pp. 15 - 20. 2014. Available on-line at: <<http://dx.doi.org/10.1016/j.matchar.2013.11.013>>.
Type of production: Scientific paper
Position of signature: 6
Impact source: SCOPUS
Impact index in year of publication: 1.122
Source of citations: SCOPUS
Citations: 18
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 66** J. Cornide; C. Garcia-Mateo; C. Capdevila; F.G. Caballero. An assessment of the contributing factors to the nanoscale structural refinement of advanced bainitic steels. *Journal of Alloys and Compounds*. 577 - SUPPL. 1, 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.jallcom.2011.11.066>>.
Type of production: Scientific paper
Format: Journal



Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.027

Source of citations: SCOPUS

Citations: 59

- 67** F.G. Caballero; S. Allain; J. Cornide; J.D. Puerta Velásquez; C. Garcia-Mateo; M.K. Miller. Design of cold rolled and continuous annealed carbide-free bainitic steels for automotive application. *Materials and Design*. 49, pp. 667 - 680. 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.matdes.2013.02.046>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 5

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.802

Source of citations: SCOPUS

Citations: 82

- 68** T. Sourmail; F.G. Caballero; C. Garcia-Mateo; V. Smanio; C. Ziegler; M. Kuntz; R. Elvira; A. Leiro; E. Vuorinen; T. Teeri. Evaluation of potential of high Si high C steel nanostructured bainite for wear and fatigue applications. *Materials Science and Technology (United Kingdom)*. 29 - 10, pp. 1166 - 1173. 2013. Available on-line at: <<http://dx.doi.org/10.1179/1743284713Y.0000000242>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Citations: 91

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Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.685

Source of citations: SCOPUS

Citations: 8

- 70** S.S. Babu; S. Vogel; C. Garcia-Mateo; B. Clausen; L. Morales-Rivas; F.G. Caballero. Microstructure evolution during tensile deformation of a nanostructured bainitic steel. *Scripta Materialia*. 69 - 11-12, pp. 777 - 780. 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.scriptamat.2013.08.026>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.703

Source of citations: SCOPUS

Citations: 41

- 71** F.G. Caballero; M.K. Miller; C. Garcia-Mateo; J. Cornide. New experimental evidence of the diffusionless transformation nature of bainite. *Journal of Alloys and Compounds*. 577 - SUPPL. 1, 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.jallcom.2012.02.130>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 1.027
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 62
- 72** B. Avishan; C. Garcia-Mateo; S. Yazdani; F.G. Caballero. Retained austenite thermal stability in a nanostructured bainitic steel. *Materials Characterization*. 81, pp. 105 - 110. 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.matchar.2013.04.015>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 1.122
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 45
- 73** B. Avishan; C. Garcia-Mateo; L. Morales-Rivas; S. Yazdani; F.G. Caballero. Strengthening and mechanical stability mechanisms in nanostructured bainite. *Journal of Materials Science*. 48 - 18, pp. 6121 - 6132. 2013. Available on-line at: <<http://dx.doi.org/10.1007/s10853-013-7408-4>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.781
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 55
- 74** A. Leiro; E. Vuorinen; K.G. Sundin; B. Prakash; T. Sourmail; V. Smanio; F.G. Caballero; C. Garcia-Mateo; R. Elvira. Wear of nano-structured carbide-free bainitic steels under dry rolling-sliding conditions. *Wear*. 298-299 - 1, pp. 42 - 47. 2013. Available on-line at: <<http://dx.doi.org/10.1016/j.wear.2012.11.064>>.
Type of production: Scientific paper
Position of signature: 8
Impact source: SCOPUS
Impact index in year of publication: 1.145
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 110
- 75** C. Capdevila; I. Toda; F.G. Caballero; C. Garcia-Mateo; C.G. De Andres. Determination of hot and cold rolling textures of steels: Combined Bayesian neural network model. *Materials Science and Technology*. 28 - 3, pp. 321 - 333. 2012. Available on-line at: <<http://dx.doi.org/10.1179/1743284711Y.0000000035>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.523
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 4

- 76** F.G. Caballero; H. Roelofs; St. Hasler; C. Capdevila; J. Chao; J. Cornide; C. Garcia-Mateo. Influence of bainite morphology on impact toughness of continuously cooled cementite free bainitic steels. *Materials Science and Technology*. 28 - 1, pp. 95 - 102. 2012. Available on-line at: <<http://dx.doi.org/10.1179/1743284710Y.0000000047>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 7**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.523**Source of citations:** SCOPUS**Citations:** 96

- 77** C. Garcia-Mateo; F.G. Caballero; M.K. Miller; J.A. Jimenez. On measurement of carbon content in retained austenite in a nanostructured bainitic steel. *Journal of Materials Science*. 47 - 2, pp. 1004 - 1010. 2012. Available on-line at: <<http://dx.doi.org/10.1007/s10853-011-5880-2>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.781**Source of citations:** SCOPUS**Citations:** 72

- 78** F.G. Caballero; M.K. Miller; C. Garcia-Mateo; J. Cornide; M.J. Santofimia. Temperature dependence of carbon supersaturation of ferrite in bainitic steels. *Scripta Materialia*. 67 - 10, pp. 846 - 849. 2012. Available on-line at: <<http://dx.doi.org/10.1016/j.scriptamat.2012.08.007>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 1.703**Source of citations:** SCOPUS**Citations:** 74

- 79** C. Garcia-Mateo; F.G. Caballero; T. Sourmail; M. Kuntz; J. Cornide; V. Smanio; R. Elvira. Tensile behaviour of a nanocrystalline bainitic steel containing 3wt% silicon. *Materials Science and Engineering A*. 549, pp. 185 - 192. 2012. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2012.04.031>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 1.563**Source of citations:** SCOPUS**Citations:** 151

- 80** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. Atom probe tomography analysis of precipitation during tempering of a nanostructured bainitic steel. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 42 - 12, pp. 3660 - 3668. 2011. Available on-line at: <<http://dx.doi.org/10.1007/s11661-011-0699-7>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3



Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 47

- 81** F.G. Caballero; H.-W. Yen; M.K. Miller; J.-R. Yang; J. Cornide; C. Garcia-Mateo. Complementary use of transmission electron microscopy and atom probe tomography for the examination of plastic accommodation in nanocrystalline bainitic steels. *Acta Materialia*. 59 - 15, pp. 6117 - 6123. 2011. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2011.06.024>>.

Type of production: Scientific paper

Position of signature: 6

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 65

- 82** C. García-Mateo; B. López; J.M. Rodríguez-Ibabe. Effect of deformation temperature on microstructure and mechanical behaviour of warm working vanadium microalloyed steels. *Journal of Materials Science*. 46 - 11, pp. 3725 - 3737. 2011. Available on-line at: <<http://dx.doi.org/10.1007/s10853-011-5285-2>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.781

Source of citations: SCOPUS

Citations: 4

- 83** C. Capdevila; C. García-Mateo; J. Cornide; J. Chao; F.G. Caballero. Effect of v precipitation on continuously cooled sulfur-lean vanadium-alloyed steels for long products applications. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 42 - 12, pp. 3743 - 3751. 2011. Available on-line at: <<http://dx.doi.org/10.1007/s11661-011-0721-0>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 21

- 84** D.S. Martín; Y. Palizdar; C. García-Mateo; R.C. Cochrane; R. Brydson; A.J. Scott. Influence of aluminum alloying and heating rate on austenite formation in low carbon-manganese steels. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 42 - 9, pp. 2591 - 2608. 2011. Available on-line at: <<http://dx.doi.org/10.1007/s11661-011-0692-1>>.

Type of production: Scientific paper

Position of signature: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 12

- 85** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. Carbon supersaturation of ferrite in a nanocrystalline bainitic steel. *Acta Materialia*. 58 - 7, pp. 2338 - 2343. 2010. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2009.12.020>>.
- Type of production:** Scientific paper
Position of signature: 3
- Impact source:** SCOPUS
Impact index in year of publication: 2.828
- Source of citations:** SCOPUS
Citations: 161
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 86** F.G. Caballero; M.K. Miller; A.J. Clarke; C. Garcia-Mateo. Examination of carbon partitioning into austenite during tempering of bainite. *Scripta Materialia*. 63 - 4, pp. 442 - 445. 2010. Available on-line at: <<http://dx.doi.org/10.1016/j.scriptamat.2010.04.049>>.
- Type of production:** Scientific paper
Position of signature: 4
- Impact source:** SCOPUS
Impact index in year of publication: 1.703
- Source of citations:** SCOPUS
Citations: 98
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 87** I. Toda-Caraballo; C. Garcia-Mateo; C. Capdevila. Neural network design with combined backpropagation and creeping random-search learning algorithms applied to the determination of retained austenite in TRIP steels, Diseño de redes neuronales con aprendizaje combinado de retropropagación y búsqueda aleatoria progresiva aplicado a la determinación de austenita retenida en aceros TRIP. *Revista de Metalurgia (Madrid)*. 46 - 6, pp. 499 - 510. 2010. Available on-line at: <<http://dx.doi.org/10.3989/revmetalmadrid.0924>>.
- Type of production:** Scientific paper
Position of signature: 2
- Impact source:** SCOPUS
Impact index in year of publication: 0.209
- Source of citations:** SCOPUS
Citations: 0
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 88** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. Tracking solute atoms during bainite reaction in a nanocrystalline steel. *Materials Science and Technology (United Kingdom)*. 26 - 8, pp. 889 - 898. 2010. Available on-line at: <<http://dx.doi.org/10.1179/026708310X12635619987943>>.
- Type of production:** Scientific paper
Position of signature: 3
- Impact source:** SCOPUS
Impact index in year of publication: 0.523
- Source of citations:** SCOPUS
Citations: 26
- Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 89** C. Capdevila; C. García-Mateo; J. Chao; F.G. Caballero. Advanced vanadium alloyed steel for heavy product applications. *Materials Science and Technology*. 25 - 11, pp. 1383 - 1386. 2009. Available on-line at: <<http://dx.doi.org/10.1179/174328408X388158>>.
- Type of production:** Scientific paper
Position of signature: 2
- Format:** Journal



Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Citations: 11

- 90** C. Capdevila; C. García-Mateo; J. Chao; F.G. Caballero. Effect of V and N precipitation on acicular ferrite formation in sulfur-lean vanadium steels. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*. 40 - 3, pp. 522 - 538. 2009. Available on-line at: <<http://dx.doi.org/10.1007/s11661-008-9730-z>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.858

Source of citations: SCOPUS

Citations: 31

- 91** C. Garcia-Mateo; F.G. Caballero; C. Capdevila; C.G.d. Andres. Estimation of dislocation density in bainitic microstructures using high-resolution dilatometry. *Scripta Materialia*. 61 - 9, pp. 855 - 858. 2009. Available on-line at: <<http://dx.doi.org/10.1016/j.scriptamat.2009.07.013>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.703

Source of citations: SCOPUS

Citations: 73

- 92** C. Garcia-Mateo; F.G. Caballero; J. Chao; C. Capdevila; C. Garcia De Andres. Mechanical stability of retained austenite during plastic deformation of super high strength carbide free bainitic steels. *Journal of Materials Science*. 44 - 17, pp. 4617 - 4624. 2009. Available on-line at: <<http://dx.doi.org/10.1007/s10853-009-3704-4>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.781

Source of citations: SCOPUS

Citations: 74

- 93** F.G. Caballero; C. Garcia-Mateo; M.J. Santofimia; M.K. Miller; C. García de Andrés. New experimental evidence on the incomplete transformation phenomenon in steel. *Acta Materialia*. 57 - 1, pp. 8 - 17. 2009. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2008.08.041>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 131



- 94** F.G. Caballero; M.J. Santofimia; C. García-Mateo; J. Chao; C.G. de Andrés. Theoretical design and advanced microstructure in super high strength steels. *Materials and Design*. 30 - 6, pp. 2077 - 2083. 2009. Available on-line at: <<http://dx.doi.org/10.1016/j.matdes.2008.08.042>>.
Type of production: Scientific paper
Position of signature: 3
Impact source: SCOPUS
Impact index in year of publication: 1.802
Source of citations: SCOPUS
Citations: 169
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 95** F.G. Caballero; J. Chao; J. Cornide; C. García-Mateo; M.J. Santofimia; C. Capdevila. Toughness deterioration in advanced high strength bainitic steels. *Materials Science and Engineering A*. 525 - 1-2, pp. 87 - 95. 2009. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2009.06.034>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 1.563
Source of citations: SCOPUS
Citations: 94
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 96** I. San Sebastian; J. Aldazabal; C. Capdevila; C. Garcia-Mateo. Diffusion simulation of Cr-Fe bcc systems at atomic level using a random walk algorithm. *Physica Status Solidi (A) Applications and Materials Science*. 205 - 6, pp. 1337 - 1342. 2008. Available on-line at: <<http://dx.doi.org/10.1002/pssa.200778124>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.492
Source of citations: SCOPUS
Citations: 6
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 97** F.G. Caballero; C. García-Mateo; J. Chao; M.J. Santofimia; C. Capdevila; C.G. De Andrés. Effects of morphology and stability of retained austenite on the ductility of TRIP-aided bainitic steels. *ISIJ International*. 48 - 9, pp. 1256 - 1262. 2008. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.48.1256>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.685
Source of citations: SCOPUS
Citations: 82
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 98** C. Garcia-Mateo; C. Capdevila; F.G. Caballero; C.G. De Andrés. Influence of V precipitates on acicular ferrite transformation part 1: The role of nitrogen. *ISIJ International*. 48 - 9, pp. 1270 - 1275. 2008. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.48.1270>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.685
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 39

- 99** C. Garcia-Mateo; J. Cornide; C. Capdevila; F.G. Caballero; C.G. De Andrés. Influence of V precipitates on acicular ferrite transformation part 2: Transformation kinetics. ISIJ International. 48 - 9, pp. 1276 - 1279. 2008. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.48.1276>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.685**Source of citations:** SCOPUS**Citations:** 12

- 100** F.G. Caballero; M.K. Miller; C. Garcia-Mateo; C. Capdevila; C. Garcia de Andrés. Phase transformation theory: A powerful tool for the design of advanced steels. JOM. 60 - 12, pp. 16 - 21. 2008. Available on-line at: <<http://dx.doi.org/10.1007/s11837-008-0159-z>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.602**Source of citations:** SCOPUS**Citations:** 15

- 101** F.G. Caballero; M.K. Miller; C. Garcia-Mateo; C. Capdevila; S.S. Babu. Redistribution of alloying elements during tempering of a nanocrystalline steel. Acta Materialia. 56 - 2, pp. 188 - 199. 2008. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2007.09.018>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 2.828**Source of citations:** SCOPUS**Citations:** 116

- 102** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. The approach to equilibrium during tempering of a bulk nanocrystalline steel: An atom probe investigation. Journal of Materials Science. 43 - 11, pp. 3769 - 3774. 2008. Available on-line at: <<http://dx.doi.org/10.1007/s10853-007-2157-x>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 3**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.781**Source of citations:** SCOPUS**Citations:** 11

- 103** F.G. Caballero; C. García-Mateo; C. Capdevila; C.G. De Andrés. Advanced ultrahigh strength bainitic steels. Materials and Manufacturing Processes. 22 - 4, pp. 502 - 506. 2007. Available on-line at: <<http://dx.doi.org/10.1080/10426910701236023>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 2**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee



Impact source: SCOPUS

Impact index in year of publication: 1.075

Source of citations: SCOPUS

Citations: 25

- 104** C. Garcia-Mateo; C. Capdevila; F.G. Caballero; C.G. De Andrés. Artificial neural network modeling for the prediction of critical transformation temperatures in steels. *Journal of Materials Science*. 42 - 14, pp. 5391 - 5397. 2007. Available on-line at: <<http://dx.doi.org/10.1007/s10853-006-0881-2>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.781

Source of citations: SCOPUS

Citations: 24

- 105** F.G. Caballero; M.K. Miller; S.S. Babu; C. Garcia-Mateo. Atomic scale observations of bainite transformation in a high carbon high silicon steel. *Acta Materialia*. 55 - 1, pp. 381 - 390. 2007. Available on-line at: <<http://dx.doi.org/10.1016/j.actamat.2006.08.033>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 2.828

Source of citations: SCOPUS

Citations: 297

- 106** C. Garcia-Mateo; F.G. Caballero. Design of carbide-free low-Temperature ultra high strength bainitic steels. *Zeitschrift fuer Metallkunde/Materials Research and Advanced Techniques*. 98 - 2, pp. 137 - 143. 2007.

Type of production: Scientific paper

Format: Journal

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Source of citations: SCOPUS

Citations: 1

- 107** C. Garcia-Mateo; F.G. Caballero. Design of carbide-free low-temperature ultra high strength bainitic steels. *International Journal of Materials Research*. 98 - 2, pp. 137 - 143. 2007. Available on-line at: <<http://dx.doi.org/10.3139/146.101440>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.212

Source of citations: SCOPUS

Citations: 32

- 108** K. Hase; C. Garcia-Mateo; H.K.D.H. Bhadeshia. Bimodal size-distribution of bainite plates. *Materials Science and Engineering A*. 438-440 - SPEC. ISS., pp. 145 - 148. 2006. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2005.12.070>>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2



Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.563

Source of citations: SCOPUS

Citations: 80

- 109** F.G. Caballero; M.J. Santofimia; C. Capdevila; C. García-Mateo; C. De García Andrés. Design of advanced bainitic steels by optimisation of TTT diagrams and $T_{0.1}$ curves. ISIJ International. 46 - 10, pp. 1479 - 1488. 2006. Available on-line at: <http://dx.doi.org/10.2355/isijinternational.46.1479>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.685

Source of citations: SCOPUS

Citations: 90

- 110** M.J. Santofimia; F.G. Caballero; C. Capdevila; C. García-Mateo; C. Garcia De Andrés. Evaluation of displacive models for bainite transformation kinetics in steels. Materials Transactions. 47 - 6, pp. 1492 - 1500. 2006. Available on-line at: <http://dx.doi.org/10.2320/matertrans.47.1492>.

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.457

Source of citations: SCOPUS

Citations: 38

- 111** C. Capdevila; J.P. Ferrer; C. García-Mateo; F.G. Caballero; V. López; C.G. De Andres. Influence of deformation and molybdenum content on acicular ferrite formation in medium carbon steels. ISIJ International. 46 - 7, pp. 1093 - 1100. 2006. Available on-line at: <http://dx.doi.org/10.2355/isijinternational.46.1093>.

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.685

Source of citations: SCOPUS

Citations: 12

- 112** C. Capdevila; C. Garcia-Mateo; F.G. Caballero; C. García de Andrés. Neural network analysis of the influence of processing on strength and ductility of automotive low carbon sheet steels. Computational Materials Science. 38 - 1, pp. 192 - 201. 2006. Available on-line at: <http://dx.doi.org/10.1016/j.commatsci.2006.02.005>.

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.777

Source of citations: SCOPUS

Citations: 36



- 113** C. Capdevila; C. Garcia-Mateo; F.G. Caballero; C. García De Andrés. Neural network model for improvement of strength-ductility compromise in low carbon sheet steels. *Materials Science and Technology*. 22 - 10, pp. 1163 - 1170. 2006. Available on-line at: <<http://dx.doi.org/10.1179/174328406X118311>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.523
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 4
- 114** M.J. Santofimia; F.G. Caballero; C. Capdevila; C. García-Mateo; C.G. De Andrés. New model for the overall transformation kinetics of bainite. Part 1: The model. *Materials Transactions*. 47 - 10, pp. 2465 - 2472. 2006. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.47.2465>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.457
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 27
- 115** M.J. Santofimia; F.G. Caballero; C. Capdevila; C. García-Mateo; C. García De Andrés. New model for the overall transformation kinetics of bainite. Part 2: Validation. *Materials Transactions*. 47 - 10, pp. 2473 - 2479. 2006. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.47.2473>>.
Type of production: Scientific paper
Position of signature: 4
Impact source: SCOPUS
Impact index in year of publication: 0.457
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 12
- 116** J. Aldazabal; C. Garcia-Mateo; C. Capdevila. Simulation of V(CN) precipitation in steels allowing for local concentration fluctuations. *Materials Transactions*. 47 - 11, pp. 2732 - 2736. 2006. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.47.2732>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.457
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 2
- 117** T. Sourmail; C. Garcia-Mateo. A model for predicting the M_{s} temperatures of steels. *Computational Materials Science*. 34 - 2, pp. 213 - 218. 2005. Available on-line at: <<http://dx.doi.org/10.1016/j.commatsci.2005.01.001>>.
Type of production: Scientific paper
Position of signature: 2
Impact source: SCOPUS
Impact index in year of publication: 0.777
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

**Source of citations:** SCOPUS**Citations:** 39

- 118** T. Sourmail; C. Garcia-Mateo. Critical assessment of models for predicting the M_s temperature of steels. Computational Materials Science. 34 - 4, pp. 323 - 334. 2005. Available on-line at: <<http://dx.doi.org/10.1016/j.commatsci.2005.01.002>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 2**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.777**Source of citations:** SCOPUS**Citations:** 61

- 119** F.G. Caballero; C. García-Mateo; C. García De Andrés. Dilatometric study of reaustenitisation of high silicon bainitic steels: Decomposition of retained austenite. Materials Transactions. 46 - 3, pp. 581 - 586. 2005. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.46.581>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 2**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.457**Source of citations:** SCOPUS**Citations:** 30

- 120** C. Garcia-Mateo; T. Sourmail; F.G. Caballero; C. Capdevila; C. De García Andrés. New approach for the bainite start temperature calculation in steels. Materials Science and Technology. 21 - 8, pp. 934 - 940. 2005. Available on-line at: <<http://dx.doi.org/10.1179/174328405X51622>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.523**Source of citations:** SCOPUS**Citations:** 23

- 121** C. García-Mateo; F.G. Caballero; H.K.D.H. Bhadeshia. Superbainite. A novel very strong bainitic microstructure, Superbainita. Una nueva microestructura bainítica de alta resistencia. Revista de Metalurgia (Madrid). 41 - 3, pp. 186 - 193. 2005. Available on-line at: <<http://dx.doi.org/10.3989/revmetalm.2005.v41.i3.204>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Impact source:** SCOPUS**Impact index in year of publication:** 0.209**Source of citations:** SCOPUS**Citations:** 19

- 122** C. García-Mateo; F.G. Caballero. The role of retained austenite on tensile properties of steels with bainitic microstructures. Materials Transactions. 46 - 8, pp. 1839 - 1846. 2005. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.46.1839>>.

Type of production: Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee



Impact source: SCOPUS

Impact index in year of publication: 0.457

Source of citations: SCOPUS

Citations: 188

- 123** C. Garcia-Mateo; F.G. Caballero. Ultra-high-strength bainitic steels. ISIJ International. 45 - 11, pp. 1736 - 1740. 2005. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.45.1736>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.685

Source of citations: SCOPUS

Citations: 246

- 124** K. Hase; C. Garcia-Mateo; H.K.D.H. Bhadeshia. Bainite formation influenced by large stress. Materials Science and Technology. 20 - 12, pp. 1499 - 1505. 2004. Available on-line at: <<http://dx.doi.org/10.1179/026708304X6130>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Citations: 78

- 125** T. Yokota; C.G. Mateo; H.K.D.H. Bhadeshia. Formation of nanostructured steels by phase transformation. Scripta Materialia. 51 - 8 SPEC. ISS., pp. 767 - 770. 2004. Available on-line at: <<http://dx.doi.org/10.1016/j.scriptamat.2004.06.006>>.

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.703

Source of citations: SCOPUS

Citations: 65

- 126** C. Garcia-Mateo; H.K.D.H. Bhadeshia. Nucleation theory for high-carbon bainite. Materials Science and Engineering A. 378 - 1-2 SPEC. ISS., pp. 289 - 292. 2004. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2003.10.355>>.

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.563

Source of citations: SCOPUS

Citations: 69

- 127** C. Capdevila; C. García-Mateo; F.G. Caballero; C. García de Andrés. Proposal of an empirical formula for the austenitising temperature. Materials Science and Engineering A. 386 - 1-2, pp. 354 - 361. 2004. Available on-line at: <<http://dx.doi.org/10.1016/j.msea.2004.07.027>>.

Type of production: Scientific paper

Format: Journal



Position of signature: 2

Impact source: SCOPUS

Impact index in year of publication: 1.563

Source of citations: SCOPUS

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 10

128 M.Y. Sherif; C.G. Mateo; T. Sourmail; H.K.D.H. Bhadeshia. Stability of retained austenite in TRIP-assisted steels. *Materials Science and Technology*. 20 - 3, pp. 319 - 322. 2004. Available on-line at: <<http://dx.doi.org/10.1179/026708304225011180>>.

Type of production: Scientific paper

Position of signature: 2

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 119

129 C. Garcia-Mateo; M. Peet; F.G. Caballero; H.K.D.H. Bhadeshia. Tempering of hard mixture of bainitic ferrite and austenite. *Materials Science and Technology*. 20 - 7, pp. 814 - 818. 2004. Available on-line at: <<http://dx.doi.org/10.1179/026708304225017355>>.

Type of production: Scientific paper

Position of signature: 1

Impact source: SCOPUS

Impact index in year of publication: 0.523

Source of citations: SCOPUS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 153

130 C. Capdevila; F.G. Caballero; C. García-Mateo; C.G. De Andrés. The role of inclusions and austenite grain size on intragranular nucleation of ferrite in medium carbon microalloyed steels. *Materials Transactions*. 45 - 8, pp. 2678 - 2685. 2004. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.45.2678>>.

Type of production: Scientific paper

Position of signature: 3

Impact source: SCOPUS

Impact index in year of publication: 0.457

Source of citations: SCOPUS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 33

131 F.G. Caballero; M.J. Santofimia; C. García-Mateo; C.G. De Andrés. Time-temperature-transformation diagram within the bainitic temperature range in a medium carbon steel. *Materials Transactions*. 45 - 12, pp. 3272 - 3281. 2004. Available on-line at: <<http://dx.doi.org/10.2320/matertrans.45.3272>>.

Type of production: Scientific paper

Position of signature: 3

Impact source: SCOPUS

Impact index in year of publication: 0.457

Source of citations: SCOPUS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Citations: 24



- 132** C. García-Mateo; F.G. Caballero; H.K.D.H. Bhadeshia. Acceleration of low-temperature bainite. *ISIJ International*. 43 - 11, pp. 1821 - 1825. 2003. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.43.1821>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.685
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 433
- 133** C. García-Mateo; F.G. Caballero; H.K.D.H. Bhadeshia. Development of Hard Bainite. *ISIJ International*. 43 - 8, pp. 1238 - 1243. 2003. Available on-line at: <<http://dx.doi.org/10.2355/isijinternational.43.1238>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.685
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 357
- 134** C. García-Mateo; B. López; J.M. Rodríguez-Ibabe. Static recrystallization kinetics in warm worked vanadium microalloyed steels. *Materials Science and Engineering A*. 303 - 1-2, pp. 216 - 225. 2001. Available on-line at: <[http://dx.doi.org/10.1016/S0921-5093\(00\)01940-7](http://dx.doi.org/10.1016/S0921-5093(00)01940-7)>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 1.563
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 49
- 135** C. García-Mateo; J.L. Romero; J.M. Rodríguez-Ibabe. Microstructure and mechanical behavior of warm forged V microalloyed steels. *Iron and Steelmaker (I and SM)*. 27 - 10, pp. 79 - 85. 2000.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.281
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 4
- 136** C. García-Mateo; B. López; J.M. Rodríguez-Ibabe. Influence of vanadium on static recrystallization in warm worked microalloyed steels. *Scripta Materialia*. 42 - 2, pp. 137 - 143. 1999. Available on-line at: <[http://dx.doi.org/10.1016/S1359-6462\(99\)00333-4](http://dx.doi.org/10.1016/S1359-6462(99)00333-4)>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 1.703
Source of citations: SCOPUS
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Citations: 12



- 137** C. García-Mateo; J.L. Romero; J.M. Rodríguez-Ibabe. Effect of vanadium in the warm forging of a medium carbon steel, Efecto del vanadio en la forja en tibio de un acero con contenido medio de carbono. *Revista de Metalurgia*. 34 - EXTRA, pp. 253 - 257. 1998. Available on-line at: <<http://dx.doi.org/10.3989/revmetalm.1998.v34.iextra.748>>.
Type of production: Scientific paper
Position of signature: 1
Impact source: SCOPUS
Impact index in year of publication: 0.209
Source of citations: SCOPUS
Citations: 0
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 138** F.G. Caballero; C. Garcia-Mateo. Super-Bainite. *Encyclopedia of Materials: Metals and Alloys*. pp. 73 - 83. 2021. Available on-line at: <<http://dx.doi.org/10.1016/B978-0-12-819726-4.00034-X>>.
Type of production: Scientific book or monograph
Position of signature: 2
Impact source: SCOPUS
Source of citations: SCOPUS
Citations: 1
Format: Book
Degree of contribution: Author or co-author of entire book
- 139** C. Garcia-Mateo; F.G. Caballero. Understanding the Mechanical Properties of Nanostructured Bainite. *Handbook of Mechanical Nanostructuring*. 1, pp. 35 - 65. 2015. Available on-line at: <<http://dx.doi.org/10.1002/9783527674947.ch3>>.
Type of production: Scientific book or monograph
Position of signature: 1
Impact source: SCOPUS
Source of citations: SCOPUS
Citations: 15
Format: Book
Degree of contribution: Author or co-author of entire book
- 140** C. Garcia-Mateo; F.G. Caballero. Advanced High Strength Bainitic Steels. *Comprehensive Materials Processing*. 1, pp. 165 - 190. 2014. Available on-line at: <<http://dx.doi.org/10.1016/B978-0-08-096532-1.00114-X>>.
Type of production: Scientific book or monograph
Position of signature: 1
Impact source: SCOPUS
Source of citations: SCOPUS
Citations: 14
Format: Book
Degree of contribution: Author or co-author of entire book
- 141** F.G. Caballero; C. Garcia-Mateo. Phase transformations in advanced bainitic steels. *Phase Transformations in Steels*. 2, pp. 271 - 294. 2012. Available on-line at: <<http://dx.doi.org/10.1016/B978-1-84569-971-0.50009-0>>.
Type of production: Scientific book or monograph
Position of signature: 2
Impact source: SCOPUS
Source of citations: SCOPUS
Citations: 8
Format: Book
Degree of contribution: Author or co-author of entire book
- 142** F.G. Caballero; C. García-Mateo. The processing of nanocrystalline steels by solid reaction. *Nanostructured Metals and Alloys: Processing, Microstructure, Mechanical Properties and Applications*. pp. 85 - 117. 2011. Available on-line at: <<http://dx.doi.org/10.1533/9780857091123.1.85>>.
Type of production: Scientific book or monograph
Format: Book



Position of signature: 2

Degree of contribution: Author or co-author of entire book

Impact source: SCOPUS

Source of citations: SCOPUS

Citations: 2

- 143** R. Rementeria; C. Garcia-Mateo; F.G. Caballero. New insights into carbon distribution in bainitic ferrite, Neue Erkenntnisse zur Kohlenstoffverteilung in bainitischem Ferrit. HTM - Journal of Heat Treatment and Materials. 73 - 2, pp. 68 - 79. 2018. Available on-line at: <<http://dx.doi.org/10.3139/105.110351>>.

Format: Journal

Position of signature: 2

Impact source: SCOPUS

Impact index in year of publication: 0.33

Source of citations: SCOPUS

Citations: 2

- 144** F.G. Caballero; J.D. Poplawsky; H.-W. Yen; R. Rementeria; L. Morales-Rivas; J.-R. Yang; C. Garcia-Mateo. Complex Nano-scale structures for unprecedented properties in steels. Materials Science Forum. 879, pp. 2401 - 2406. 2017. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/MSF.879.2401>>.

Format: Journal

Position of signature: 7

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 4

- 145** R. Rementeria; F.G. Caballero; L. Morales-Rivas; C. Garcia-Mateo. Developing nanostructured metal at the atomic and nano scales. Advanced Materials and Processes. 175 - 1, pp. 21 - 24. 2017.

Format: Journal

Position of signature: 4

Impact source: SCOPUS

Impact index in year of publication: 0.134

Source of citations: SCOPUS

Citations: 2

- 146** L. Morales-Rivas; H. Roelofs; S. Hasler; C. Garcia-Mateo; F.G. Caballero. Complex microstructural banding of continuously cooled carbide-free bainitic steels. Materials Science Forum. 783-786, pp. 980 - 985. 2014. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/msf.783-786.980>>.

Format: Journal

Position of signature: 4

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 4

- 147** T. Sourmail; V. Smanio; F.G. Caballero; J. Cornide; C. Capdevilla; C. Garcia-Mateo. Evolution of microstructure and mechanical properties during tempering of continuously cooled bainitic steels. Materials Science Forum. 706-709, pp. 2308 - 2313. 2012. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/MSF.706-709.2308>>.

Format: Journal

Position of signature: 6



Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 5

- 148** J. Cornide; G. Miyamoto; F.G. Caballero; T. Furuhashi; M.K. Miller; C. Garcia-Mateo. Distribution of dislocations in nanostructured bainite. *Solid State Phenomena*. 172-174, pp. 117 - 122. 2011. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/SSP.172-174.117>>.

Format: Journal

Position of signature: 6

Impact source: SCOPUS

Impact index in year of publication: 0.23

Source of citations: SCOPUS

Citations: 37

- 149** D. San Martin; C. Garcia-Mateo. Promoting isothermal martensite formation by high temperature heat treatments in a precipitation hardening austenitic stainless steel. *Solid State Phenomena*. 172-174, pp. 166 - 171. 2011. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/SSP.172-174.166>>.

Format: Journal

Position of signature: 2

Impact source: SCOPUS

Impact index in year of publication: 0.23

Source of citations: SCOPUS

Citations: 1

- 150** F.G. Caballero; M.K. Miller; C. Garcia-Mateo. Slow bainite: An opportunity to determine the carbon content of the bainitic ferrite during growth. *Solid State Phenomena*. 172-174, pp. 111 - 116. 2011. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/SSP.172-174.111>>.

Format: Journal

Position of signature: 3

Impact source: SCOPUS

Impact index in year of publication: 0.23

Source of citations: SCOPUS

Citations: 6

- 151** F.G. Caballero; J. Chao; J. Cornide; C. García-Mateo; M.J. Santofimia; C. Capdevila. Toughness of advanced high strength bainitic steels. *Materials Science Forum*. 638-642, pp. 118 - 123. 2010. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/MSF.638-642.118>>.

Format: Journal

Position of signature: 4

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 12

- 152** J. Aldazabal; C. Garcia-Mateo. Computer simulation of C-N-V precipitates evolution based on local concentration fluctuations. *Materials Science Forum*. 500-501, pp. 719 - 726. 2005. Available on-line at: <<http://dx.doi.org/10.4028/0-87849-981-4.719>>.

Format: Journal

Position of signature: 2

Impact source: SCOPUS



Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 2

- 153** C. Capdevila; T. De Cock; C. García-Mateo; F.G. Caballero; C.G. De Andrés. Influence of second phase particles on recrystallisation of cold-rolled low carbon microalloyed steels during isothermal annealing. Materials Science Forum. 500-501, pp. 803 - 810. 2005. Available on-line at: <<http://dx.doi.org/10.4028/0-87849-981-4.803>>.

Format: Journal

Position of signature: 3

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 9

- 154** C. Garcia-Mateo; F.G. Caballero; H.K.D.H. Bhadeshia. Mechanical properties of low-temperature bainite. Materials Science Forum. 500-501, pp. 495 - 502. 2005. Available on-line at: <<http://dx.doi.org/10.4028/0-87849-981-4.495>>.

Format: Journal

Position of signature: 1

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 139

- 155** C. Capdevila; T. De Cock; F.G. Caballero; C. García-Mateo; C.G. De Andrés. Evaluation of the austenitic grain growth by thermoelectric power measurements. Materials Science Forum. 467-470 - II, pp. 863 - 868. 2004. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/msf.467-470.863>>.

Format: Journal

Position of signature: 4

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 4

- 156** C. García; J.L. Romero; J.M. Rodríguez-Ibabe. Warm forging of a vanadium microalloyed steel. Materials Science Forum. 284-286, pp. 435 - 442. 1998. Available on-line at: <<http://dx.doi.org/10.4028/www.scientific.net/msf.284-286.435>>.

Format: Journal

Position of signature: 1

Impact source: SCOPUS

Impact index in year of publication: 0.211

Source of citations: SCOPUS

Citations: 4



Works submitted to national or international conferences

- 1** **Title of the work:** Retained Austenite destabilization during Tempering of Low temperature bainite
Name of the conference: Modern Steels and Iron Alloys MS&IA
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Varsovia, Poland
Date of event: 21/09/2021
End date: 24/09/2021
- 2** **Title of the work:** Tempering behaviour of Low Temperature Bainite.
Name of the conference: EUROMAT 2021
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
City of event: Austria
Date of event: 13/09/2021
End date: 17/09/2021
City organizing entity: FEMS,
- 3** **Title of the work:** Tailored steel microstructures for fatigue applications
Name of the conference: International Conference on Advances in Metallurgy of Long and Forged Products
Type of event: Conference
Reasons for participation: Review before acceptance
Corresponding author: No
City of event: United States of America
Date of event: 12/07/2021
End date: 14/07/2021
Organising entity: Association for Iron & Steel Technology
Type of contribution: Scientific paper
M. Kuntz; S. Lille; G. Wicks; T. Sourmail; V.R. Jimenez; C. Garcia-Mateo.
Available on-line at: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85113836440&origin=SingleRecordEmailAlert&dgcid=raven_sc_search_en_us_email&txGid=6d5c08355d62c6f75>
ISBN 978-193511796-4
DOI: 10.33313/301/00
- 4** **Title of the work:** TIANOBAIN. On the quest of ultrafine bainite by means of low temperature ausforming in medium carbon steels.
Name of the conference: EUROMAT 2019
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Review before acceptance talk
City of event: Estocolmo, Sweden
Date of event: 01/09/2019
City organizing entity: FEMS,



- 5** **Title of the work:** Dilatometric Analysis During Tempering of Martensite and Nanostructured Bainite
Name of the conference: TRATERMAT XVI
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Castellon, Spain
Date of event: 19/06/2019
Geographical area: National
Reasons for participation: Review before acceptance
- 6** **Title of the work:** Effect of plastic strain on the Bainitic Transformation During Ausforming Treatments
Name of the conference: TRATERMAT XVI
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Castellon, Spain
Date of event: 19/06/2019
Geographical area: National
Reasons for participation: Review before acceptance
- 7** **Title of the work:** Effect of the Deformation Temperature in the Bainitic Transformation During Ausforming Treatments
Name of the conference: 7th International Conference on Hot Sheet Metal Forming of High-Performance Steel CHS2
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Lulea, Sweden
Date of event: 02/06/2019
Type of contribution: Scientific paper
Adriana Eres-Castellano; F. G. Caballero; C. Garcia-Mateo. "Effect of the Deformation Temperature in the Bainitic Transformation During Ausforming Treatments". pp. 475 - 481. ISBN 978-3-95735-104-3
Geographical area: European Union
Reasons for participation: Review before acceptance
- 8** **Title of the work:** Nanobainitic steels
Name of the conference: Innovation in metallurgy conference.100th Anniversary AGH UST University.
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Cracovia, Poland
Date of event: 09/05/2019
Organising entity: AGH UST University
Type of entity: University
Geographical area: European Union
Reasons for participation: Upon invitation
- 9** **Title of the work:** Developing Nanostructured Bainite by means of Ausforming
Name of the conference: THERMEC 2018
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Paris, France
Date of event: 09/07/2018
Geographical area: European Union
Reasons for participation: Upon invitation
- 10** **Title of the work:** Effect of Isothermal Heat Treatment Parameters on Nanostructured Bainite
Name of the conference: XV Congreso Nacional de Materiales
City of event: Spain
Date of event: 04/07/2018



- 11 Title of the work:** A method to determine a practical onset and end of isothermal transformation of austenite into bainite
Name of the conference: Modern Steels & Iron Alloys MS&IA 2018
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Varsovia, Poland
Date of event: 26/06/2018
- 12 Title of the work:** Modern bainitic steels. Nanostructured bainite, a plausible reality
Name of the conference: Workshop Design of Advanced Micro-structured for a New Generation of Steels
Type of event: WORKSHOP **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Iran
Date of event: 15/11/2017
Organising entity: University of Tehran **Type of entity:** University
- 13 Title of the work:** Carbon supersaturation and clustering in bainitic ferrite at low temperature
Name of the conference: ISSS2017: 5th International Symposium on Steel Science ISSS 2017
Type of event: Conference **Geographical area:** Non EU International
City of event: Japan
Date of event: 14/11/2017
Type of contribution: Scientific paper
R. Renteria; J. D. Poplawsky; E. Urones-Garrote; R. Dominguez-Reyes; C. Garcia-Mateo; F. G. Caballero.
- 14 Title of the work:** Implementing Nanostructure Concept into Bainitic Steels
Name of the conference: 6th International Biennial Conference on Ultrafine Grained and Nanostructured Materials UFGNSM 2017
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Kish Island, Iran
Date of event: 12/11/2017
- 15 Title of the work:** Aceros Nanoestructurados
Name of the conference: Segundo Seminario Internacional de Materiales
Type of event: Seminar **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Bogota, Colombia
Date of event: 23/10/2017
Organising entity: Universidad Libre **Type of entity:** University
City organizing entity: Bogota, Colombia
- 16 Title of the work:** Transformaciones Bainíticas
Name of the conference: Segundo Seminario Internacional de Materiales
Type of event: Seminar **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Bogota, Colombia
Date of event: 23/10/2017



Organising entity: Universidad Libre
City organizing entity: Bogota, Colombia

Type of entity: University

- 17** **Title of the work:** Ausforming: Challenges and Developments for Nanostructured Bainite
Name of the conference: European Congress and Exhibition on Advanced Materials and Processes EUROMAT 2017
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Tesalonica, Greece
Date of event: 17/09/2017
Organising entity: FEMS
- 18** **Title of the work:** Nanostructured bainite thermal stability
Name of the conference: European Congress and Exhibition on Advanced Materials and Processes EUROMAT 2017
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
City of event: Tesalonica, Greece
Date of event: 17/09/2017
- 19** **Title of the work:** Thermal stability of nanostructured bainite during tempering
Name of the conference: Frontiers in Materials Processing Applications, Research and Technology FIMPART 17
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Burdeos, France
Date of event: 09/07/2017
- 20** **Title of the work:** Bainita nanoestructurada. Del concepto a la implementación industrial
Name of the conference: VIII Congreso Internacional de Ingenierías Mecánica y Mecatrónica y VI de Materiales, Energía y Medio Ambiente CIMM 2017.
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - Plenary session **Reasons for participation:** Upon invitation
City of event: Medellin, Colombia
Date of event: 26/04/2017
- 21** **Title of the work:** Evolution of Isothermal Pearlitic Transformation in Micro-alloyed Steel by Rare Earth Addition
Name of the conference: 5th International Conference on Materials Engineering Materials and Metallurgy
City of event: Shiraz, Iran
Date of event: 08/11/2016
M. M. Aranda; C. G. Mateo; F. Jelokhani; Y. Palizdar; J. Rassizadehghani; Sh. Raygan; D. San Martin; H. Torkamani. En: Proceedings Book. 5th International Conference on Materials Engineering Materials and Metallurgy. 2016.
- 22** **Title of the work:** UNDERSTANDING THE TEMPERING PROCESS OF NANOCRYSTALLINE BAINITE
Name of the conference: Modern Steels and Iron Alloys MS&IA
Type of event: Conference **Geographical area:** European Union



Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk

City of event: Varsovia, Poland

Date of event: 05/07/2016

- 23** **Title of the work:** Insights of the tempering process of nanocrystalline bainite
Name of the conference: XIV Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Oviedo, Spain
Date of event: 08/06/2016
- 24** **Title of the work:** Complex nano-scale structures for unprecedented properties in steels
Name of the conference: 9th International Conference on Processing & Manufacturing of Advanced Materials THERMEC 2016
Type of event: Conference **Geographical area:** European Union
City of event: Austria
Date of event: 02/06/2016
Type of contribution: Scientific paper
F. G. Caballero; . D. Poplawsky; H.-W. Yen; R. Rementeria; L. Morales-Rivas; J.-R. Yang; C. Garcia-Mateo. En: Materials Science Forum. 879, pp. 2401 - 2406. 2016. Available on-line at: <<https://www.scientific.net/MSF.879.2401>>.
DOI: <https://doi.org/10.4028/www.scientific.net/MSF.879.2401>
- 25** **Title of the work:** Nanostructured Bainite. Strategies that give it wings
Name of the conference: Workshop on High-performance Steels
Type of event: Workshop **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Hong Kong
Date of event: 18/03/2016
Organising entity: The University of Hong Kong **Type of entity:** University
- 26** **Title of the work:** Tailoring the scale of the microstructure in bainitic steels
Name of the conference: ADVANCES IN MATERIALS AND PROCESSING TECHNOLOGIES CONFERENCE AMPT 2015
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote talk
City of event: Leganes, Spain
Date of event: 14/12/2015
- 27** **Title of the work:** On the quest of Acicular Ferritemicrostructure. Experimental results
Name of the conference: NANOTECHNOLOGY APPLIED TO STEEL. INTERNATIONAL WORKSHOP
Type of event: Workshop **Geographical area:** European Union
Type of participation: Participatory - invited/keynote talk
City of event: Bilbao, Spain
Date of event: 01/12/2015
Organising entity: Tecnalia, CENIM-CSIC, VTT, KTH, CdCast Aalto University



- 28** **Title of the work:** Unveiling V effect on bainitic steels through multiscale characterisation
Name of the conference: 7th International Conference on High Strength Low Alloy Steels (HSLA Steels 2015)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote talk **Reasons for participation:** Upon invitation talk
City of event: Hangzhou, China
Date of event: 11/11/2015
- 29** **Title of the work:** Strategies to accelerate nanostructured bainite transformation
Name of the conference: European Congress and Exhibition on Advanced Materials and Processes (EUROMAT 2015)
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote talk
City of event: Varsovia, Poland
Date of event: 20/10/2015
City organizing entity: FEMS,
- 30** **Title of the work:** Nanostructured Bainitic Steels. Concept and Reality
Name of the conference: International Conference on Frontiers in Materials Processing, Applications Research & Technology (FIMPART15)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote talk **Reasons for participation:** Upon invitation talk
City of event: Hyderebad, India
Date of event: 12/06/2015
- 31** **Title of the work:** On the relationship of microstructure and in-use properties of nanostructured bainitic steels
Name of the conference: 4th International Symposium on Steel Science - ISSS 2014
Type of event: Conference
City of event: Kyoto, Japan
Date of event: 03/11/2014
Type of contribution: Scientific paper
R. Rementeria; I. Garcia; L. Morales-Rivas; M. Kuntz; C. Garcia-Mateo; E. Kersche; T. Sourmail. pp. 111 - 114. The Iron and Steel Institute of Japan, ISBN 978-4-930980-86-1
- 32** **Title of the work:** Experimental evidence on tetragonality of low temperature bainitic ferrite
Name of the conference: International Conference on Martensitic Transformations ICOMAT
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Bilbao, Spain
Date of event: 06/07/2014
- 33** **Title of the work:** NANOBAIN. Industrialization of a nanostructured Steel
Name of the conference: Modern Steels: Design, Technologies, Properties, Applications. MS 2014
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote talk
City of event: Varsovia, Poland
Date of event: 02/07/2014



- 34** **Title of the work:** Comportamiento a fatiga de aceros bainíticos nanoestructurados
Name of the conference: XIII Congreso Nacional de Materiales
City of event: Spain
Date of event: 18/06/2014
- 35** **Title of the work:** Efecto de la transformación parcial a martensita en la cinetica de formación de bainitas nanoestructuradas
Name of the conference: XIII Congreso Nacional de Materiales
City of event: Spain
Date of event: 18/06/2014
- 36** **Title of the work:** Mecanismos de Deformación y Ductilidad en Aceros Bainíticos Nanoestructurados
Name of the conference: XIII Congreso Nacional de Materiales
City of event: Spain
Date of event: 18/06/2014
- 37** **Title of the work:** Mecanismos de Deformación y Ductilidad en Aceros Bainíticos Nanoestructurados
Name of the conference: XIII Congreso Nacional de Materiales
City of event: Spain
Date of event: 18/06/2014
- 38** **Title of the work:** Carbon Super-saturation and Tetragonal Bainitic Ferrite in Nanocrystalline Bainitic Steels
Name of the conference: TMS Annual Meeting & Exhibition 2014
Type of event: Conference **Geographical area:** Non EU International
City of event: United States of America
Date of event: 16/02/2014
Type of contribution: Scientific paper
F. G. Caballero; M. K. Miller; Hung-Wei Yen; J.A. Jimenez; C. Garcia-Mateo; L. Morales-Rivas; Jer-Ren Yang. pp. 138.
- 39** **Title of the work:** Complex microstructural banding of continuously cooled carbide-free bainitic steels
Name of the conference: International Conference on Processing & Manufacturing of Advanced Materials. THERMEC.
Type of event: Conference **Geographical area:** Non EU International
City of event: United States of America
Date of event: 02/12/2013
Type of contribution: Scientific paper
L. Morales-Rivas; H. Roelofs; S. Hasler; C. Garcia-Mateo; F.G. Caballero. "Complex microstructural banding of continuously cooled carbide-free bainitic steels". En: Materials Science Forum. 738-786, pp. 980 - 985. 2014. Available on-line at: <<https://www.scientific.net/MSF.783-786.980>>.
DOI: <https://doi.org/10.4028/www.scientific.net/MSF.783-786.980>
- 40** **Title of the work:** Nanostructured bainite as an alternative to fine pearlite ?
Name of the conference: Bekaert seminar on Super High Tensile Steels for Wire Technology
Type of event: Workshop
Type of participation: Participatory - invited/keynote talk
City of event: Brujas, Belgium
Date of event: 14/10/2013
Organising entity: Bekaert **Type of entity:** Business



- 41** **Title of the work:** Understanding tensile properties of high Si Nano bainitic steel.
Name of the conference: European Congress and Exhibition on Advanced Materials and Processes EUROMAT.
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Sevilla, Spain
Date of event: 08/09/2013
Organising entity: FEMS
- 42** **Title of the work:** Nanostructured Steel Industrialization: a plausible reality
Name of the conference: Adventures in the Physical Metallurgy of Steels
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: Cambridge, United Kingdom
Date of event: 23/07/2013
Organising entity: University of Cambridge **Type of entity:** University
- 43** **Title of the work:** Tools for the Design of Nanocrystalline Bainitic Steels
Name of the conference: International workshop on materials design process: thermodynamics, kinetics and microstructure control. TKM
Type of event: Workshop
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Spain
Date of event: 03/06/2013
Organising entity: FUNDACION IMDEA MATERIALES
- 44** **Title of the work:** Aceros bainíticos laminados en frío y recocidos en continuo para chapa de automóvil
Name of the conference: XIII Congreso Nacional de Tratamientos Térmicos y de Superficie TRATERMAT.
Type of event: Conference **Geographical area:** National
City of event: Barcelona, Spain
Date of event: 22/04/2013
Type of contribution: Scientific paper
F.G. Caballero; S. Allain; C. Garcia-Mateo; C. García de Andrés. pp. 13 - 20. ISBN 978-88-656-5041-7
- 45** **Title of the work:** Determinación de la Sobresaturación en Carbono de la Ferrita mediante Tomografía Atómica en 3D de Aceros Bainíticos Nanoestructurados. El Final de la Controversia sobre la Transformación Bainítica
Name of the conference: XII Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
City of event: Alicante, Spain
Date of event: 30/05/2012
Type of contribution: Scientific paper
F.G. Caballero; M. K. Miller; C. Garcia-Mateo. ISBN 978-84-695-3316-1
- 46** **Title of the work:** Determinando El Contenido en C de la Austenita Retenida en Aceros Bainíticos Nano-Estructurados
Name of the conference: XII Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication



Corresponding author: Yes
City of event: Alicante, Spain
Date of event: 30/05/2012
Type of contribution: Scientific paper
C. Garcia-Mateo; L. Morales-Rivas; J. A. Jimenez. ISBN 978-84-695-3316-1

47 **Title of the work:** Efecto TRIP y Ductilidad en Aceros Bainíticos Nano-Estructurados
Name of the conference: XII Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
City of event: Alicante, Spain
Date of event: 30/05/2012
Type of contribution: Scientific paper
L. Morales-Rivas; J. Cornide; C. Garcia-Mateo; F. G. Caballero. ISBN 978-84-695-3316-1

48 **Title of the work:** An assessment of the contributing factors to the nanoscale structural refinement of advanced bainitic steels.
Name of the conference: Modern Bainitic Steels Workshop.
Type of event: WORKSHOP **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Paris, France
Date of event: 05/2012

49 **Title of the work:** The application of atom probe tomography to the identification of transformation mechanisms of the bainite reaction in steels
Name of the conference: TMS 2012 141st Annual Meeting & Exhibition
Type of event: Conference **Geographical area:** Non EU International
City of event: United States of America
Date of event: 14/03/2012
Type of contribution: Scientific paper
F. G. Caballero; M. K. Miller; C. Garcia-Mateo; J. Cornide. pp. 167. ISBN 1118296079

50 **Title of the work:** Evolution of microstructure and mechanical properties during tempering of continuously cooled bainitic steels.
Name of the conference: THERMEC International Conference on Processing & Manufacturing of Advanced Materials.
Type of event: Conference
City of event: Canada
Date of event: 01/08/2011
Type of contribution: Scientific paper
T. Sourmail; V. Smanio; F.G. Caballero; J. Cornide; C. Capdevila; C. Garcia-Mateo. 706-709, pp. 2401 - 2406. Available on-line at: <<https://www.scientific.net/MSF.706-709.2308>>.
DOI: <https://doi.org/10.4028/www.scientific.net/MSF.706-709.2308>

51 **Title of the work:** Influence of V(C,N) precipitates on microstructure and mechanical properties of continuous cooled C-Mn-V
Name of the conference: HSLA 2011. 6th International Conference on High Strength Low Alloy Steels
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: China
Date of event: 31/05/2011



- 52** **Title of the work:** Warm Forged Medium Carbon V Steel
Name of the conference: HSLA 2011. 6th International Conference on High Strength Low Alloy Steels
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: China
Date of event: 31/05/2011
- 53** **Title of the work:** A Model to Estimate Microstructural Parameters from High Resolution Dilatometry Data
Name of the conference: International Conference on Advanced Steels (ICAS)
Type of event: Conference **Geographical area:** Non EU International
City of event: Guilin, China
Date of event: 09/11/2010
Type of contribution: Scientific paper
D. San Martín; C. García-Mateo; F. G. Caballero; C. Capdevila; . García de Andrés. pp. FR008. Available on-line at: <https://www.researchgate.net/publication/257875728_A_Model_to_Estimate_Microstructural_Parameters_from_High_Resolution_Dilatometry_Data>.
- 54** **Title of the work:** Generación de Microestructuras Aciculares Para Obtener Elevadas Propiedades Mecánicas en Aceros
Name of the conference: XII Congreso Nacional de Tratamientos Térmicos y Superficie (TRATERMAT 2010)
Type of event: Conference **Geographical area:** National
Date of event: 20/10/2010
End date: 21/10/2010
City organizing entity: Pamplona, Spain
Type of contribution: Scientific paper
C. Capdevila; C. Garcia-Mateo; F. G. Caballero; J. Cornide; D. San Martín; C. García de Andrés. pp. 13 - 20. Available on-line at: <https://www.researchgate.net/publication/257875744_Generacion_de_microestructuras_aciculares_para_obtener_elevadas_propiedades_mecanicas>
ISBN 978-84-693-6946-3
- 55** **Title of the work:** Microstructure-properties relationship of advanced high/ultrahigh strength bainitic steels
Name of the conference: 2nd International Conference Super-High Strength Steels (SHSS-2010)
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: Italy
Date of event: 17/10/2010
End date: 20/10/2010
Type of contribution: Scientific paper
C. Garcia-Mateo; F.G. Caballero; C. Capdevila; C. Garcia de Andres. pp. 1 - 7. ISBN 978-88-85298-79-8
- 56** **Title of the work:** The microstructure of continuously cooled tough bainitic steels
Name of the conference: 2nd International Conference Super-High Strength Steels (SHSS-2010)
Type of event: Conference
City of event: Italy
Date of event: 17/10/2010
End date: 20/10/2010
Type of contribution: Scientific paper



F.G. Caballero; C. Capdevila; J. Chao; J. Cornide; C. Garcia-Mateo; H. Roelofs; St. Hasler; G. Mastrogiacomo. pp. 10 - 18. Available on-line at: <<https://digital.csic.es/handle/10261/85371?locale=en>>. ISBN 978-88-85298-79-8
Handle: 10261/85371

- 57** **Title of the work:** Acomodación plástica de la austenita durante la transformación bainítica en un acero bainítico nanoestructurado
Name of the conference: XI Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
City of event: Zaragoza, Spain
Date of event: 23/06/2010
End date: 25/06/2010
Type of contribution: Scientific paper
J. Cornide; G. Miyamoto; F.G. Caballero; T. Furuvara; C. Garcia-Mateo. pp. 34 - 37. ISBN 978-84-92522-24-8
- 58** **Title of the work:** Estimación de la densidad de dislocaciones en microestructuras bainíticas mediante dilatometría de alta resolución
Name of the conference: XI Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Zaragoza, Spain
Date of event: 23/06/2010
End date: 25/06/2010
Type of contribution: Scientific paper
C. Garcia-Mateo; F. G. Caballero; C. Capdevila; C. Garcia de Andres. "Estimación de la densidad de dislocaciones en microestructuras bainíticas mediante dilatometría de alta resolución". pp. 26 - 29. ISBN 978-84-92522-24-8
- 59** **Title of the work:** Estudio Dilatómico de la formación isotérmica de la martensita en un acero inoxidable metastable austenítico
Name of the conference: XI Congreso Nacional de Materiales
Type of event: Conference
City of event: Zaragoza, Spain
Date of event: 23/06/2010
End date: 25/06/2010
Type of contribution: Scientific paper
D. San Martin; C. Garcia-Mateo. "Estudio Dilatómico de la Formación Isotérmica de la Martensita en un Acero Inoxidable Metastable Austenítico". pp. 22 - 25. ISBN 978-84-92522-24-8
- 60** **Title of the work:** Simulación de la Descomposición Espinooidal a Nivel Atómico
Name of the conference: XI Congreso Nacional de Materiales
Type of event: Conference
City of event: Zaragoza, Spain
Date of event: 23/06/2010
End date: 25/06/2010
Type of contribution: Scientific paper
I. San Sebastian; G. Erkizia; I. Toda Caraballo; C. Capdevila; C. Garcia-Mateo; J. Aldazabal. "Simulación de la Descomposición Espinooidal a Nivel Atómico". pp. 30 - 33. ISBN 978-84-92522-24-8



- 61 Title of the work:** Distribution of dislocations in nanostructured bainite
Name of the conference: SOLID-SOLID PHASE TRANSFORMATIONS (PTM2010)
Type of event: Conference **Geographical area:** Non EU International
City of event: Avignon, France
Date of event: 06/06/2010
End date: 11/06/2010
Type of contribution: Scientific paper
J. Cornide; G. Miyamoto; F. Caballero; T. Furuhashi; M.K. Miller; C. Garcia-Mateo. "Distribution of dislocations in nanostructured bainite". En: Solid State Phenomena. 172-174, pp. 117 - 122. Scientific Net, 2011.
DOI: <https://doi.org/10.4028/www.scientific.net/SSP.172-174.117>
- 62 Title of the work:** Promoting isothermal martensite formation by high temperature heat treatments in a precipitation hardening austenitic stainless steel
Name of the conference: SOLID-SOLID PHASE TRANSFORMATIONS (PTM2010)
Type of event: Conference **Geographical area:** Non EU International
City of event: Avignon, France
Date of event: 06/06/2010
End date: 11/06/2010
Type of contribution: Scientific paper
D. San Martin; C. Garcia-Mateo. "Promoting isothermal martensite formation by high temperature heat treatments in a precipitation hardening austenitic stainless steel". En: Solid State Phenomena. 172-174, pp. 172 - 174. Scientific Net, 2011.
DOI: <https://doi.org/10.4028/www.scientific.net/SSP.172-174.166>
- 63 Title of the work:** low bainite: an opportunity to determine the carbon content of the bainitic ferrite during growth
Name of the conference: SOLID-SOLID PHASE TRANSFORMATIONS (PTM2010)
Type of event: Conference **Geographical area:** Non EU International
City of event: Avignon, France
Date of event: 06/06/2010
End date: 11/06/2010
Type of contribution: Scientific paper
F. Caballero; M.K. Miller; C. Garcia-Mateo. "low bainite: an opportunity to determine the carbon content of the bainitic ferrite during growth". En: Solid State Phenomena. 172-174, pp. 111 - 116. Scientific Net, 2011.
DOI: <https://doi.org/10.4028/www.scientific.net/SSP.172-174.111>
- 64 Title of the work:** Atomic Structure of SuperBainite
Name of the conference: Super-Bainite Workshop
Type of event: Workshop
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Cambridge, United Kingdom
Date of event: 05/2010
Organising entity: University of Cambridge **Type of entity:** University
- 65 Title of the work:** Effect of V,N precipitation on Sulfur Lean Vanadium Alloyed Steels
Name of the conference: The 2nd International Symposium on Steel Science
Type of event: Conference **Geographical area:** Non EU International
City of event: Tokyo, Japan
Date of event: 21/10/2009
Type of contribution: Scientific paper



C. Capdevila; C. Garcia-Mateo; J. Chao; F. G. Caballero. The Iron and Steel Institute of Japan (ISIJ), 2010. ISBN 978-4-930980-74-8

- 66** **Title of the work:** Microstructure and Properties of Advanced Bainitic Steels: from Micro to Nano
Name of the conference: The 2nd International Symposium on Steel Science
Type of event: Conference **Geographical area:** Non EU International
City of event: Tokyo, Japan
Date of event: 21/10/2009
Type of contribution: Scientific paper
F.G. Caballero; C. Garcia-Mateo. The Iron and Steel Institute of Japan (ISIJ), 2010. ISBN 978-4-930980-74-8
- 67** **Title of the work:** ESTIMATION OF DISLOCATION DENSITY DURING BAINITIC TRANSFORMATION OF A NANO STRUCTURED STEEL BY HIGH RESOLUTION DILATOMETRY
Name of the conference: EUROMAT. European Congress and Exhibition on Advanced Materials and Processes
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
Corresponding author: Yes
City of event: Glasgow, United Kingdom
Date of event: 07/09/2009
End date: 10/09/2009
- 68** **Title of the work:** Toughness of Advanced High Strength Bainitic Steels
Name of the conference: THERMEC. International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS. Processing, Fabrication, Properties, Applications
Type of event: Conference **Geographical area:** Non EU International
City of event: Berlin, Germany
Date of event: 25/08/2009
Type of contribution: Scientific paper
F.G. Caballero; J. Chao; J. Cornide; C. Garcia-Mateo; C. Capevila. En: Toughness of Advanced High Strength Bainitic Steels. 638-642, pp. 118 - 123. Materials Science Forum, Available on-line at: <<http://hdl.handle.net/10261/79237>>.
Handle: 10261/79237
- 69** **Title of the work:** Nanobain. Aceros Bainíticos Avanzados. Un estudio a nivel atómico
Name of the conference: X Congreso Nacional de Materiales
Type of event: Conference **Geographical area:** National
City of event: San Sebastian, Spain
Date of event: 18/06/2008
End date: 20/06/2008
Type of contribution: Scientific paper
F.G. Caballero; M.K. Miller; C. Garcia-Mateo. pp. 53 - 56. Available on-line at: <<https://digital.csic.es/handle/10261/79245>>. ISBN 978-84-608-0768-1
- 70** **Title of the work:** Nuevas Alternativas microestructurales. Diseño de Aceros Bainíticos Libres de Carburos
Name of the conference: X Congreso Nacional de Materiales
Type of event: Conference
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: San Sebastian, Spain



Date of event: 18/06/2008

End date: 20/06/2008

Type of contribution: Scientific paper

C. Garcia-Mateo; F.G. Caballero; C. Capdevila; C. Garcia de Andrés. pp. 93 - 96. ISBN 978-84-608-0768-1

71 Title of the work: ACICULAR FERRITE TRANSFORMATION UNDER THE INFLUENCE OF V PRECIPITATES

Name of the conference: New Developments on Metallurgy and Applications of High Strength Steels

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

Corresponding author: Yes

City of event: Buenos Aires, Argentina

Date of event: 26/05/2008

End date: 28/05/2008

Organising entity: TMS, Ternium, Tenaris and Asociación Argentina de Materiales

Type of contribution: Scientific paper

C. Garcia-Mateo; J. Cornide; C. Capdevila; F.G. Caballero; C. García de André. Available on-line at: <<https://digital.csic.es/handle/10261/78653>>. ISBN 978-0-87339-729-2

72 Title of the work: DUCTILITY OF ADVANCED BAINITIC STEELS

Name of the conference: New Developments on Metallurgy and Applications of High Strength Steels

Type of event: Conference

Geographical area: Non EU International

Reasons for participation: Review before acceptance

City of event: Argentina

Date of event: 26/05/2008

End date: 28/05/2008

Organising entity: TMS, Ternium, Tenaris and Asociación Argentina de Materiales

Type of contribution: Scientific paper

F.G. Caballero; C. Garcia-Mateo; J. Chao; M.J. Santofimia; C. Capdevila; C. García de Andrés. pp. 769 - 776. Available on-line at:

<https://www.researchgate.net/publication/266967349_DUCTILITY_OF_ADVANCED_BAINITIC_STEELS>. ISBN 978-0-87339-729-2

73 Title of the work: Mechanical properties of continuous cooled steels for long products applications: bainite vs. acicular ferrite nucleated on V(C,N) precipitates

Name of the conference: New developments on metallurgy and applications of high strength steels

Type of event: Conference

Geographical area: Non EU International

Reasons for participation: Review before acceptance

City of event: Argentina

Date of event: 26/05/2008

Organising entity: TMS, Ternium, Tenaris and Asociación Argentina de Materiales

Type of contribution: Scientific paper

F.G. Caballero; C. Garcia-Mateo; J. Chao; M.J. Santofimia; C. Capdevila; C. García de Andrés. pp. 741 - 748. Available on-line at: <<https://digital.csic.es/handle/10261/79262>>. ISBN 978-0-87339-729-2

74 Title of the work: Advanced Ultra High Strength Bainitic Steels

Name of the conference: International Conference on Advances in Materials and Materials Processing (ICAMMP-2006)

Type of event: Conference

Geographical area: Non EU International

Reasons for participation: Review before acceptance

City of event: Kharagpur, India



Date of event: 02/2006

Type of contribution: Scientific paper

F.G Caballero; C. Garcia-Mateo; C. Capdevila; C. Garcia de Andrés. En: Proceedings of the International Conference on Advances in Materials and Materials Processing. pp. 49 - 58. 2006. ISBN 81-902768-0-8

- 75 Title of the work:** Mechanical Properties and TRIP effect on Ultra-High-Strength Bainitic Steels
Name of the conference: International Conference on Advances in Materials and Materials Processing (ICAMMP-2006)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - invited/keynote talk

Reasons for participation: Review before acceptance

City of event: Kharagpur, India

Date of event: 02/2006

Type of contribution: Scientific paper

C. Garcia-Mateo; F. G. Caballero. En: Proceedings of the International Conference on Advances in Materials and Materials Processing. pp. 191 - 201. 2006. ISBN 81-902768-0-8

- 76 Title of the work:** Mechanical Properties of Low-Temperature Bainite
Name of the conference: Microalloying for New Steel Processes and Applications (μ -as 2005)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: San Sebastian, Spain

Date of event: 07/09/2005

End date: 09/09/2005

En: Mechanical Properties of Low-Temperature Bainite..

- 77 Title of the work:** Low temperature bainite.
Name of the conference: Internacional Conference on Martensitic Transformations ICOMAT

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

Corresponding author: Yes

City of event: Helsinki, Finland

Date of event: 06/2002

En: Low temperature bainite..

- 78 Title of the work:** Microstructure and Mechanical Behavior of Warm Forged V Microalloyed Steels
Name of the conference: 41st Mechanical Working and Steel Processing Conference

Type of event: Conference

Geographical area: Non EU International

Date of event: 1999

City organizing entity: United States of America

Type of contribution: Scientific paper

C. Garcia-Mateo; J.L Romero; J.M. Rodríguez-Ibabe. En: Microstructure and Mechanical Behavior of Warm Forged V Microalloyed Steels. XXXVII, pp. 653 - 663. Iron and Steel Society, 1999. ISSN 1075-878X



Works submitted to national or international seminars, workshops and/or courses

Title of the work: Construcción de diagramas de transformación para el post-procesado de materiales obtenidos por FA.

Name of the event: 1ª edición del Programa Modular / Máster en Fabricación Aditiva

Type of event: Course

Corresponding author: Yes

Reasons for participation: Upon invitation

City of event: Spain

Date of event: 01/09/2020

End date: 31/08/2021

Organising entity: Universidad de Enseñanza a Distancia UNED

Type of entity: University

City organizing entity: Spain

Other dissemination activities

- Title of the work:** Bainita nanoestructurada. El viaje del Carbono y sus increíbles propiedades a tracción

Type of event: Conferences given

Reasons for participation: Upon invitation

City of event: Gijon, Spain

Date of event: 04/10/2019

Organising entity: Universidad de Oviedo

Geographical area: Regional

Type of entity: University
- Title of the work:** Understanding Microstructure-Properties Relationships In Nanostructured Bainitic Steels.

Type of event: Conferences given

Reasons for participation: Upon invitation

City of event: Montreal, Canada

Date of event: 20/05/2016

Organising entity: McGill University

Geographical area: Non EU International

Type of entity: University
- Title of the work:** Boosting Nanostructured Bainite Transformation

Type of event: Conferences given

Reasons for participation: Upon invitation

City of event: Montreal, Canada

Date of event: 18/05/2016

Organising entity: École de Technologie supérieure (ETS)

Geographical area: Non EU International

Type of entity: University
- Title of the work:** Tools for the Design of (Fast) Nanocrystalline Bainitic Steels

Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University

Type of event: Conferences given

Reasons for participation: Upon invitation

City of event: Varsovia, Poland

Date of event: 06/03/2015

Organising entity: Centre of Advanced Studies Warsaw University

City organizing entity: Varsovia, Poland

Geographical area: European Union



- 5** **Title of the work:** Revealing tensile properties of nano bainitic steels. Case studies
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 05/03/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 6** **Title of the work:** Microstructure-Properties Relationships in Bainitic Steels
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 03/03/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 7** **Title of the work:** Bainitic Steels: Tempering
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 02/03/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 8** **Title of the work:** Contributing Factors to the Scale of Bainitic Ferrite. Measurement
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 26/02/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 9** **Title of the work:** Characterisation of Nanostructured Bainite. II-Complementary Use of Different Techniques
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 25/02/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland



- 10 Title of the work:** Characterisation of Nanostructured Bainite. I- Relevant Techniques
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 24/02/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 11 Title of the work:** Bainitic transformation: going through some of the basics
Name of the event: Advanced Bainitic Steels: Transformation, Microstructure and properties. A serie of 8 Invited lectures by the Centre of Advanced Studies Warsaw University
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Varsovia, Poland
Date of event: 23/02/2015
Organising entity: Centre of Advanced Studies Warsaw University
City organizing entity: Varsovia, Poland
- 12 Title of the work:** NANOBAIN Steel: A Material Going to Extremes
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Lulea, Sweden
Date of event: 06/2009
Organising entity: Lulea Technical University **Type of entity:** University
- 13 Title of the work:** Design of Bainitic Steels for High Performance Industrial Application
Type of event: Conferences given **Geographical area:** European Union
Reasons for participation: Upon invitation
City of event: Lulea, Sweden
Date of event: 08/2008
Organising entity: Lulea Technical University **Type of entity:** University

R&D management and participation in scientific committees

Organization of R&D activities

- 1 Title of the activity:** Symposium B1-Advanced Steels. EUROMAT 2021 / Area B: Structural Materials.
Type of activity: Symposium in International Conference **Geographical area:** Non EU International
City of event: Graz, Austria
Convening entity: CENIM, Bosch, University of Wollongong, Tohoku University
Type of participation: Organiser
Start-End date: 12/09/2021 - 16/09/2021
- 2 Title of the activity:** Symposium B1-Advanced Steels. EUROMAT 2019 / Area B: Structural Materials.
Type of activity: Symposium in International Conference **Geographical area:** European Union
City of event: Stockholm, Sweden



Convening entity: CENIM, Montanuniversität Leoben, Bosch, Graz University of Technology, University of Science and Technology Beijing, Linköping University, Sandvik AB

Type of participation: Organiser

Start-End date: 01/09/2019 - 05/09/2019

- 3** **Title of the activity:** Advanced Steels: Challenges in Steel Science & Technology
Type of activity: Workshop dirigido al ámbito de investigación e industrias. **Geographical area:** European Union
City of event: Madrid, Spain
Convening entity: Centro Nacional de Investigaciones Metalúrgicas & ASCOMETAL (Fr) & Centro Tecnológico de Manresa (CTM)
Type of participation: Organiser
Start-End date: 18/09/2014 - 19/09/2014

- 4** **Title of the activity:** Modern Bainitic Steels Workshop: From fundamentals to applications
Type of activity: Workshop dirigido al ámbito de investigación e industrias. **Geographical area:** European Union
City of event: Paris, France
Convening entity: Centro Nacional de Investigaciones Metalúrgicas & ASCOMETAL (Fr)
Type of participation: Organiser
Start-End date: 16/05/2012 - 18/05/2012

- 5** **Title of the activity:** Nanotechnology Applied To Steel
Type of activity: Workshop dirigido al ámbito de investigación e industrias. **Geographical area:** European Union
City of event: Derio, Spain
Convening entity: Centro Nacional de Investigaciones Metalúrgicas & TECNALIA & VTT & Gerdaus & KTH & Comdicast & AALTO Univ.
Type of participation: Organiser
Start date: 01/12/2015

R&D management

Name of the activity: Responsable científico del Laboratorio de Transformaciones de Fase del CENIM (Lab. 327) (RED LAB 434). Código del Servicio Científico Técnico (SCT) del CSIC 825150

Performed tasks: Responsable de la implementación y mantenimiento de la Certificación de Calidad ISO 9001-2015, gestión y solicitud de nuevo equipamiento en distintas convocatorias, solicitud y formación de personal técnico adscrito al laboratorio, gestión del proceso de facturación, contratación de servicios del Lab. y emisión de informes técnicos para solicitudes de trabajos internos y externos.

City of entity: Madrid, Community of Madrid, Spain

Entity: Centro Nacional de Investigaciones Metalúrgicas

Type of entity: State agency

Start date: 2005

Nº of people: 2

Geographical area: Non EU International

Identify key words: Phase transformations



Evaluation and revision of R&D projects and articles

- 1** **Name of the activity:** Development of New Materials, Technologies and Equipment for Organization of Production of Functional Materials Demanded by the Industry of the Republic of Kazakhstan
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: The National Center of Science and Technology Evaluation of Kazakhstan
Type of entity: State agency
City of entity: Kazakhstan
Frequency of the activity: 3
Geographical area: Non EU International
Start-End date: 2015 - 2021
- 2** **Performed tasks:** Evaluación de proyectos de investigación
Entity where activity was carried out: Universidad de Antioquia
Type of entity: University
City of entity: Colombia
Frequency of the activity: 3
Geographical area: Non EU International
Start-End date: 2017 - 2020
- 3** **Name of the activity:** Future Awards Programme.
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: The Science Foundation Ireland (SFI)
City of entity: Ireland
Frequency of the activity: 1
Geographical area: European Union
Start-End date: 09/2019 - 12/2019
- 4** **Name of the activity:** Partnership Programme - Joint Applied Research Projects - PCCA
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: The Romanian National Council for Research and Development
Type of entity: State agency
City of entity: Romania
Frequency of the activity: 10
Geographical area: European Union
Start-End date: 24/11/2011 - 24/11/2018
- 5** **Performed tasks:** Evaluación de proyectos de investigación
Entity where activity was carried out: Czech Science Foundation
Type of entity: State agency
City of entity: Czech Republic
Frequency of the activity: 3
Geographical area: European Union
Start-End date: 24/11/2011 - 24/11/2018



- 6** **Name of the activity:** Evaluation of Doctoral PhD grants Strategic Basic (SB) research, panel WT08.
Performed tasks: Evaluación de doctoral (PhD) grants Strategic Basic (SB) research, panel WT08.
Entity where activity was carried out: Research Foundation Flanders (FWO) **Type of entity:** State agency
City of entity: Belgium
Frequency of the activity: 1
Geographical area: European Union
Start-End date: 01/2016 - 12/2016
- 7** **Name of the activity:** Framework of the Innovational Research Incentives Scheme Veni 2008.
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: Technology Foundation STW (Netherlands)
City of entity: Holland
Frequency of the activity: 1
Geographical area: European Union
Start-End date: 01/2008 - 12/2008
- 8** **Name of the activity:** Exploratory Research Projects y para Postdoctoral Research and Young research teams Projects
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: The Romanian Ministry of Education and The Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)
City of entity: Romania
Frequency of the activity: 6
Geographical area: European Union
Start date: 12/2019
- 9** **Name of the activity:** PRELUDIUM (pre-doctoral grants) and OPUS (research projects carried out in international bilateral or multilateral cooperation as well as projects carried out with the use of large international research equipment) panel ST8-Production and processes engineering
Performed tasks: Evaluación de proyectos de investigación
Entity where activity was carried out: The National Science Centre (NCN)
City of entity: Poland
Frequency of the activity: 10
Geographical area: European Union
Start date: 12/2019
- 10** **Name of the activity:** Revisión de trabajos en procesos Peer-Review
Performed tasks: Revisión de trabajos para revistas internacionales (Publons: publons.com/a/499524/)
Type of activity: Review of articles in scientific or technological journals **Frequency of the activity:** 295
Geographical area: Internacional
Start date: 2004

Other achievements

Stays in public or private R&D centres

- 1** **Entity:** Centre of Advanced Studies **Type of entity:** Public Research Body
Faculty, institute or centre: Warsaw Technical University
City of entity: Varsovia, Poland
Start-End date: 02/2015 - 03/2015 **Duration:** 2 months
Goals of the stay: Guest
Provable tasks: Ciclo de charlas Advanced Bainitic Steels: Transformation, Microstructure and properties.
- 2** **Entity:** Lulea Technical University **Type of entity:** University
City of entity: Cambridge, Sweden
Start-End date: 01/08/2008 - 30/09/2008 **Duration:** 2 months
Funding entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Name of programme: Convocatoria especial para la promoción internacional del CSIC a través de la movilidad mediante estancias de corta duración y otras acciones de carácter internacional Modalidad A1
Goals of the stay: Guest
Provable tasks: Establecimiento de líneas de investigación de interés para ambas instituciones que, finalmente, resultaron en publicaciones conjuntas.
- 3** **Entity:** University of Cambridge
Faculty, institute or centre: Department of Materials Science and Metallurgy
City of entity: Cambridge, United Kingdom
Start-End date: 07/2000 - 11/2003 **Duration:** 3 years - 4 months
Funding entity: Gobierno Británico (EPSRC-The Engineering and Physical Sciences Research Council) y QinetiQ
Name of programme: Very Strong, Low Temperature-Bainite
Goals of the stay: Post-doctoral
Provable tasks: Desarrollo de aceros bainíticos nanoestructurados de baja temperatura. Caracterización microestructural y estudio de propiedades. Ver publicaciones con Prof. Bhadeshia.
Relevant results: Desarrollo de aceros bainíticos nanoestructurados de baja temperatura.

Editorial councils

- 1** **Name of the editorial council:** Editor Board member of Metals
Affiliation entity: MDPI Academic Open Access Publishing
Tasks carried out: Editoriales
Geographical area: Internacional
Start date: 06/2019 **Duration:** 2 years - 6 months
- 2** **Name of the editorial council:** Editor Board member of Materials
Affiliation entity: MDPI Academic Open Access Publishing
Tasks carried out: Editoriales
Geographical area: Internacional
Start date: 03/2019 **Duration:** 3 years



- 3** **Name of the editorial council:** Editorial Board of Advances in Materials Science and Engineering
Affiliation entity: Hindawi Publishing Corporation **Type of entity:** Revista Científica
Tasks carried out: Editoriales
Geographical area: Internacional
Start date: 03/2017 **Duration:** 6 years
- 4** **Name of the editorial council:** Editorial Board of International Journal of Metals
Affiliation entity: Hindawi Publishing Corporation **Type of entity:** Revista Científica
Tasks carried out: Editoriales
Geographical area: Internacional
Start date: 02/2013 **Duration:** 4 years
- 5** **Name of the editorial council:** Editorial Board of The Scientific World Journal
Affiliation entity: Hindawi Publishing Corporation **Type of entity:** Revista Científica
Tasks carried out: Editoriales
Geographical area: Internacional
Start date: 05/2012 **Duration:** 2 years

Prizes, mentions and distinctions

- 1** **Description:** Master Thesis Award
Awarding entity: FEMS ((The Federation European Materials Societies) **Type of entity:** Associations and Groups
City awarding entity: Estocolmo, Sweden
Conferral date: 2019
Recognition linked: Al Por el Trabajo Fin de Master de Dña. Adriana Eres-Castellanos
- 2** **Description:** Mejor trabajo Fin de Master
Awarding entity: SOCIEMAT **Type of entity:** Associations and Groups
Conferral date: 2018
Recognition linked: Al trabajo Fin de Master de Dña. Adriana Eres-Castellanos
- 3** **Description:** Premio Extraordinario de Doctorado, Ciencia e Ingeniería de Materiales 2017
Awarding entity: Universidad Carlos III de Madrid **Type of entity:** University
Conferral date: 2017
Recognition linked: Por la Tesis de la Dra. Lucia Morales-Rivas
- 4** **Description:** Cook/Ablett Award
Awarding entity: Council of the Institute of Materials, Minerals and Mining-UK **Type of entity:** Associations and Groups
City awarding entity: Londres, United Kingdom
Conferral date: 2015
Recognition linked: Por los trabajos Influence of V precipitates on acicular ferrite transformation. Part 1: the role of nitrogen” & “Part 2 : transformation kinetics
- 5** **Description:** Vanadium Award for the most outstanding paper in the metallurgy and technology of vanadium and its alloys
Awarding entity: Council of the Institute of Materials, Minerals and Mining-UK & Vanadium International Technical Committee (Vanitec)
City awarding entity: Londres, United Kingdom



Conferral date: 2008

Recognition linked: Por los trabajos "Influence of V precipitates on acicular ferrite transformation. Part 1: the role of nitrogen" & "Part 2 : transformation kinetics"

6 Description: Vanadium Award for the most outstanding paper in the metallurgy and technology of vanadium and its alloys

Awarding entity: Council of the Institute of Materials, Minerals and Mining-UK & Vanadium International Technical Committee (Vanitec)

City awarding entity: Londres, United Kingdom

Conferral date: 2000

Recognition linked: Por el trabajo Static recrystallization kinetics in warm worked vanadium microalloyed steels

7 Description: Meritorious Award for Best Products and Forging Paper

Awarding entity: 41st Mechanical Working and Steel Processing Conference in Baltimore, Maryland.

City awarding entity: Mariland, United States of America

Conferral date: 26/10/1999

Periods of research activity

1 N° of recognized periods: 4

Certifying entity: Comisión Evaluadora del Desempeño de la Actividad Científico-Tecnológica

Date of recognition: 31/12/2016

2 N° of recognized periods: 3

Certifying entity: La Comisión Nacional Evaluadora de la Actividad Investigadora (CNEAI)

Date of recognition: 31/12/2015