CURRÍCULUM VÍTAE NORMALIZADO

Daniel Navarro Urrios

Generated from: Editor CVN de FECYT

Date of document: 05/01/2021

v 1.4.3

4de8cece3b6e45de2f8dcc5b287d7286

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.

My recent research has been focused on cavity optomechanics, which concerns the understanding and exploitation of the interaction between light and mechanical structures, in micro- and nano-scales. From 2012 to 03/2014 I was a Beatriu de Pinos post-doctoral researcher at ICN2. From 03/2014 until 10/2015 I was researcher at CNR Nanoscience Insitute Pisa-NEST.

In 2014 we demonstrated the first optomechanical nanobeam with localized mechanical modes appearing in a full mechanical gap (Nature Communications, July 2014) and a self-stabilized mechanical laser operating at ambient conditions. The combined characteristics of our optomechanical devices became the basis of the European FET-OPEN project PHENOMEN (09/2016-08/2019), in was the scientific responsible while being at ICN2.

In 2017 I moved my Ramón y Cajal contract to UB, where I have continued my work in Cavity Optomechanics, integrating my own line of research in the research lines of the consolidated group MIND and working in close collaboration with ICN2.

FELLOWSHIPS AND AWARDS

2014 Ramón y Cajal fellowship, Ministerio de Economía y Competitividad (Spain)

2011 – 2013 Beatriu de Pinòs fellowship, Agència de Gestió d'Ajuts Universitaris i de Recerca (Spain)

2008 – 2011 Juan de la Cierva fellowship, Ministerio de Educación y Ciencia (Spain)

2007 Extraordinary PhD Award at the University of La Laguna (Spain) on the Experimental and Technical Sciences Division (2006-2007)

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2 Master students, 1 final degree student, 1 Internship Trainee student, 1 postdoctoral fellow (Dr. Jeremie Maire) and 2 PhD students.

ACCREDITATIONS

2020 "Acreditación de excelencia investigadora I3". Accreditation of the "Programa de Incentivación de la Incorporación e Intensificación de la Actividad Investigadora (Programa I3)" granted by ANECA at the Spanish national level

2013 "Profesor Agregado" accreditation by the Catalan University Quality Assurance Agency (AQU)

2011 "Profesor Titular" accreditation granted by the National Agency for Quality Assessment (ANECA) at the Spanish national level

2009 "Profesor Lector" accreditation granted by the Catalan University Quality Assurance Agency (AQU)

COMMISSIONS OF TRUST

2018 - Organizer of Symposium "Organized Nanostructures and Nano-objects: Fabrication, characterization and applications" in EMRS-2018 Fall in Warsaw (Poland)
2017 – Editorial Board Member for Scientific Reports
2016 – Reviewer of several project proposals for calls of different national agencies such as the DFG (Germany) and the Agencia Nacional de Evaluación y Prospectiva (ANEP, Spain)
2004 – Referee of 8 scientific journals such including Nature Physics, Applied Physics Letters, etc

PARTICIPATION IN RESEARCH PROJECTS

I have participated in 17 R&D&I projects funded in competitive calls, 7 of them European under different framework programmes. I am the main investigator of a "Proyecto de I+D de Generación de Conocimiento" and of a F2I-Ideas project of FBG-UB and was the entrepeneur investigator of a Llavor project from Generalitat de Catalunya and was the main investigator of two GICSERV projects.

PARTICIPATION IN TEACHING INNOVATION PROJECTS

I have participated in two teaching innovation projects – SceTGo (funded by EU-LLP) and “Maleta Pedagógica ECBI” (funded by La Fundación la Caixa) as a physics expert.

General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

I have published **74 peer-reviewed regular scientific articles**, indexed and with relative quality index. 54 of them are in the 1st Quartile of their respective area (n.a. the conference proceedings are not included here). In addition, I have published **7 indexed articles without relative quality index**, **2 book chapters** and **1 book**.
My works have received **1546 citations** according to ISI (2211 according to Google Scholar). My **h-factor is 24** according to ISI (h=28 according to Google Scholar). The average number of citations/year during the last 5 years is 138 cit/year.
I have **71 participations in congresses** and **1 invited seminar**. Within them there are **20 invited talks**, **40 oral communications** and **11 posters**. These have led to the publication of **32 papers in conference proceedings**.

5 most relevant publications:

M.F. Colombano, G. Arregui, N.E. Capuj, A. Pitanti, J. Maire, A. Griol, B. Garrido, A. Martinez, C.M. Sotomayor-Torres, and D. Navarro-Urrios, "Synchronization of Optomechanical Nanobeams by Mechanical Interaction", Phys. Rev. Lett. 123, 017402 – Published 1 July 2019
The article was also chosen for a highlight story in Physics Magazine (physics.aps.org): https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.123.017402, Synopsis entitled: Synchronizing Nanosized “Pendulums”

D. Navarro-Urrios, N. Capuj, M. Colombano, P. D. Garcia, M. Sledzinska, F. Alzina, A. Griol, A. Martinez, C. Sotomayor-Torres, “Nonlinear dynamics and chaos in an optomechanical beam”, Nature Communications, 8, 14965 doi:10.1038/ncomms14965 (2017).

Daniel Navarro-Urrios, Nestor E. Capuj, Jordi Gomis-Bresco, Francesc Alzina, Alessandro Pitanti, Amadeu Griol, Alejandro Martinez, Clivia M. Sotomayor Torres, "A self-stabilized coherent phonon source driven by optical forces", Scientific Reports 5, 15733 doi:10.1038/srep15733 (2015).

J. Gomis-Bresco, D. Navarro-Urrios, M. Oudich, S. El-Jallal, A. Griol, D. Puerto, E. Chavez, Y. Pennec, B. Djafari-Rouhani, F. Alzina, A. Martínez and C.M. Sotomayor Torres, "A one-dimensional optomechanical crystal with a complete phononic band gap", Nature Communications, 5, 4452 (2014).

D. Navarro-Urrios, A. Pitanti, N. Daldosso,F. Gourbilleau, R. Rizk, B. Garrido, and L. Pavesi, "Energy transfer between amorphous Si nanoclusters and Er3+ ions in a SiO2 matrix", Physical Review B, 79, 193312 (2009).

Daniel Navarro Urrios

Surname(s):	**Navarro Urrios**
Name:	**Daniel**
ORCID:	**0000-0001-9055-1583**
ScopusID:	**6507896957**
ResearcherID:	**F-6185-2011**
Date of birth:	**23/10/1978**
Gender:	**Male**
Nationality:	**Spain**
Country of birth:	**Spain**
Aut. region/reg. of birth:	**Canary Islands**
City of birth:	**Santa Cruz de Tenerife**
Contact address:	**MIND - Departament d'Enginyeria Electrònica i Biomèdica, Universitat de Barcelona**
Rest of contact address:	**C/ Martí i Franquès 1, Planta 2, Of.H24**
Postcode:	**08028**
Contact country:	**Spain**
Contact city:	**Barcelona**
Land line phone:	**(34) 934039176**
Email:	**dnavarro@ub.edu**
Mobile phone:	**(+34) 689008225**
Personal web page:	**www.navarrourrios.com**

Current professional situation

Employing entity: Universitat de Barcelona **Type of entity:** University
Department: Enginyeria Electrònica i Biomèdica, Facultad de Física
Professional category: Agregat Interí
City employing entity: Barcelona, Catalonia, Spain
Email: danielnavarrourrios@gmail.com;dnavarro@ub.edu
Start date: 18/12/2020
Type of contract: Temporary employment contract **Dedication regime:** Full time
Primary (UNESCO code): 220910 - Lasers; 220913 - Non-linear optics; 220914 - Optical properties of solids; 220921 - Spectroscopy; 221124 - Optical properties; 221125 - Semiconductors; 221126 - Solid state devices; 221190 - Solid state Physics. Foil; 221191 - Solid state Physics. Spectroscopy of solid; 330707 - Laser devices; 330791 - Microelectronics: silicon Technology

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universitat de Barcelona	Contratado Ramón y Cajal	17/12/2017
2	FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA	Contratado Ramón y Cajal	17/11/2015
3	Consiglio Nazionale delle Ricerche (CNR)	Ricercatore tipo III	17/03/2014

	Employing entity	Professional category	Start date
4	FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA	Contratado	01/10/2013
5	FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA	Contratado doctor Beatriu de Pinòs (AGAUR)	15/09/2011
6	Universidad de Trento	Investigador contratado post-doc	19/10/2006
7	INFM (Instituto Nazionale della Fisica della Materia)	Investigador contratado	01/12/2002
8	Universitat de Barcelona	Contratado del Programa Juan de la Cierva	01/06/2008
9	Universidad de Trento	Investigador contratado	15/06/2005
10	Universidad de Trento	Investigador contratado	15/12/2004
11	Universitat de Barcelona	Investigador Ramón y Cajal	

1 **Employing entity:** Universitat de Barcelona **Type of entity:** University
Professional category: Contratado Ramón y Cajal
Start-End date: 17/12/2017 - 16/11/2020

2 **Employing entity:** FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA **Type of entity:** Public Research Body
Professional category: Contratado Ramón y Cajal
Start-End date: 17/11/2015 - 16/12/2017

3 **Employing entity:** Consiglio Nazionale delle Ricerche (CNR) **Type of entity:** Public Research Body
Department: National Enterprise for nanoScience and nanoTechnology
City employing entity: Pisa, Italy
Professional category: Ricercatore tipo III
Start-End date: 17/03/2014 - 30/09/2015

4 **Employing entity:** FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA **Type of entity:** Public Research Body
Professional category: Contratado
Start-End date: 01/10/2013 - 28/02/2014

5 **Employing entity:** FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
City employing entity: Campus Bellaterra - Edifici CM3, BellaterraCódigo Postal: 08193 Provincia: Barcelona, Catalonia, Spain
Professional category: Contratado doctor Beatriu de Pinòs (AGAUR)
Start-End date: 15/09/2011 - 30/09/2013

6 **Employing entity:** Universidad de Trento **Type of entity:** University
Department: Postgrado oficial, Facultad de ciencias
City employing entity: Povo, Provincia Autonoma Trento, Italy
Professional category: Investigador contratado post-doc **Educational Management (Yes/No):** Yes
Start-End date: 19/10/2006 - 31/05/2008

7 **Employing entity:** INFM (Instituto Nazionale della Fisica della Materia)
Department: Postgrado oficial, Trento Unit
City employing entity: Trento, Italy

Professional category: Investigador contratado **Educational Management (Yes/No):** No
Start-End date: 01/12/2002 - 30/11/2004

8 **Employing entity:** Universitat de Barcelona **Type of entity:** University
Department: Departamento de Electrónica, Facultad de Física
City employing entity: Barcelona, Spain
Professional category: Contratado del Programa Juan de la Cierva **Educational Management (Yes/No):** Yes
Start date: 01/06/2008 **Duration:** 3 years

9 **Employing entity:** Universidad de Trento **Type of entity:** University
Department: Postgrado oficial, Facultad de ciencias
City employing entity: Povo, Provincia Autonoma Trento, Italy
Professional category: Investigador contratado **Educational Management (Yes/No):** Yes
Start date: 15/06/2005 **Duration:** 6 months

10 **Employing entity:** Universidad de Trento **Type of entity:** University
Department: Postgrado oficial, Facultad de ciencias
City employing entity: Povo, Provincia Autonoma Trento, Italy
Professional category: Investigador contratado **Educational Management (Yes/No):** Yes
Start date: 15/12/2004 **Duration:** 7 months

11 **Employing entity:** Universitat de Barcelona **Type of entity:** University
Professional category: Investigador Ramón y Cajal

Education

University education

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

University degree: Higher degree
Name of qualification: Physics
Degree awarding entity: Universidad de La Laguna
Date of qualification: 10/2002
Average mark: Good

Doctorates

Doctorate programme: Physics
Degree awarding entity: Universidad de La Laguna
Date of degree: 12/2006
European doctorate: Yes
Thesis title: Realisation, characterisation and applications of optical devices based on silicon nanostructures
Thesis director: Prof. Lorenzo Pavesi
Thesis co-director: Dr. Néstor E. Capuj Rodríguez
Obtained qualification: Sobresaliente Cum Laude
Recognition of quality: Yes
Special doctorate award: Yes

Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

1 **Training title:** Clean room training (Spinners, UV lithography, Scanning Electron Microscopy, Electron BEam Lithography, Profilometer, Wet Bench, Plasma Cleaner and Thermal Evaporators)
City awarding entity: Pisa, Italy
Awarding entity: National Enterprise for Nanoscience and Nanotechnology
Type of entity: R&D Centre
Training manager: Dr. Daniele Ercolani
End date: 12/12/2014
Duration in hours: 50 hours

2 **Type of training:** Course
Training title: Intensive course on fabrication and characterization of photonic devices within the network Photonfab
City awarding entity: Leuven, Belgium
Awarding entity: IMEC
End date: 08/10/2010
Duration in hours: 36 hours

3 **Training title:** Three seminars entitled "The use of Games and Augmented Reality in School and University Education; the need to innovate the current pedagogical practices"
Awarding entity: Universitat de Barcelona **Type of entity:** University
End date: 15/05/2010 **Duration in hours:** 4 hours

4 **Training title:** 4th Optoelectronic and Photonic Winter School on Biophotonics
Awarding entity: Università degli studi di Trento **Type of entity:** University
End date: 02/03/2007 **Duration in hours:** 48 hours

5 **Training title:** 3rd Optoelectronics & Photonic Winter School on Optical Interconnects
Awarding entity: Università degli studi di Trento **Type of entity:** University
End date: 04/03/2005 **Duration in hours:** 48 hours

6 **Training title:** Curso de Energía Solar Fotovoltaica S.L.
Awarding entity: Empresa Alisios Soluciones Energéticas
End date: 1998 **Duration in hours:** 12 hours

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Catalan	C1	C1	C1	C1	C1
Bulgarian		A1	A1	A1	A1
Spanish		C1	C1	C1	C1
English		C1	C1	C1	C1
Italian		C1	C1	C1	C1

Teaching experience

General teaching experience

1 **Type of teaching:** Official teaching
Name of the course: Nanophotonics
Type of programme: Master's degree **Type of teaching:** In person theory
University degree: Máster en Nanociencia y Nanotecnología (Universitat de Barcelona)
Start date: 2019 **End date:** 2020
Entity: Universitat de Barcelona

2 **Type of teaching:** Official teaching
Name of the course: Electrónica Aplicada
Type of programme: Bachelor's degree **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Licenciatura en Física
Frequency of the activity: 2
Start date: 2009 **End date:** 2011
Type of hours/ ECTS credits: Credits
Hours/ECTS credits: 15
Entity: Universitat de Barcelona

3 **Type of teaching:** Official teaching
Name of the course: Laboratori de Materials A+B
Type of programme: Bachelor's degree **Type of teaching:** Practical work (classroom-problems)
Type of subject: Optional
University degree: Licenciatura en Enginyeria de Materials
Frequency of the activity: 2
Start date: 2009 **End date:** 2011
Type of hours/ ECTS credits: Credits
Hours/ECTS credits: 15
Entity: Universitat de Barcelona

4 **Type of teaching:** Official teaching
Name of the course: Photonic Materials
Type of programme: Master's degree **Type of teaching:** In person theory
University degree: Master in Photonics (PhotonicsBCN)
Frequency of the activity: 3
Start date: 2008 **End date:** 2011
Type of hours/ ECTS credits: Credits
Hours/ECTS credits: 30
Entity: Universitat de Barcelona

5 **Type of teaching:** Official teaching
Name of the course: Photonics for Sensing
Type of programme: Master's degree **Type of teaching:** Laboratory work
University degree: Master in Nano-and micro-electromechanical systems (NEMS/MEMS
Frequency of the activity: 2
Start date: 2006 **End date:** 2008
Type of hours/ ECTS credits: Credits
Hours/ECTS credits: 24
Entity: Università degli Studi di Trento
City of entity: Italy

6 **Type of teaching:** Official teaching
Name of the course: Fonaments de Laboratori
Type of programme: Bachelor's degree **Type of teaching:** Laboratory work
Type of subject: Obligatory
University degree: Licenciatura en Ingeniería Electrónica
Start date: 2019
Entity: Universitat de Barcelona

7 **Type of teaching:** Official teaching
Name of the course: Disseny Digital Bàsic
Type of programme: Bachelor's degree **Type of teaching:** Laboratory work
Type of subject: Obligatory
University degree: Licenciatura en Enginyeria Informàtica
Start date: 2018
Entity: Universitat de Barcelona

8 **Type of teaching:** Official teaching
Name of the course: Fonaments de Laboratori
Type of programme: Bachelor's degree **Type of teaching:** Laboratory work
Type of subject: Obligatory
University degree: Licenciatura en Ingeniería Electrónica
Start date: 2018
Type of hours/ ECTS credits: Credits
Hours/ECTS credits: 40
Entity: Universitat de Barcelona

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** High precision measurements of magnetic fields and synchronization in optomechanical cavities
Type of project: Doctoral thesis
Entity: Universitat Autònoma de Barcelona **Type of entity:** University
Student: Martín Facundo Colombano Sosa
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 18/09/2020

2 **Project title:** Synchronization of Optomechanical Cavities in a Chaotic Regime
Type of project: Tesis de Fin de Grado
Entity: Universitat de Barcelona **Type of entity:** University
Student: Rafael González López
Obtained qualification: 9.4
Date of reading: 2019

3 **Project title:** High efficient coupling from a tapered optical fiber to a corrugated silicon optomechanical cavity
Type of project: Tesis de Máster
Entity: Máster en Nanociencia y Nanotecnología (Universitat de Barcelona) **Type of entity:** University
Student: Òscar Ferrer Naval
Obtained qualification: 9
Date of reading: 2019

4 **Project title:** FUENTES INTEGRADAS DE LUZ BASADAS EN NANOESTRUCTURAS DE SILICIO
Type of project: Doctoral thesis
Entity: Universitat de Barcelona **Type of entity:** University
Student: Federico Ferrarese Lupi
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 23/05/2012

5 **Project title:** Optical characterisation of the whispering gallery modes in Nd•+ doped glass active microspheres
Type of project: Tesis de Máster
Entity: Master in Photonics (Photonics BCN): Universidad Politécnica de Catalunya, Universitat Autónoma de Barcelona, Universitat de Barcelona, Instituto de Ciencies Fotoniques **Type of entity:** University
Student: Marta Baselga Bacardit
Obtained qualification: 9
Date of reading: 2011

Educational or pedagogical publications, books, articles, etc.

Lecture Notes Photonic Materials (Máster in Photonics - Photonics BCN),
Name of the materials: Lecture notes
Date of drafting: 2011
Justification of material: The material can be downloaded from the virtual campus ATENEA of the Universitat Politècnica de Catalunya: http://atenea.upc.edu/moodle.

Participation in innovative teaching projects

1 **Project title:** Maleta Pedagógica ECBI
Type of participation: Others
Dedication regime: Part time
Time of working relationship: For a limited time
Name of the main researcher: Dr. Mario Barajas (Universitat de Barcelona)
Funding entity: Obra Social Fundación la Caixa **Type of entity:** Foundation
Geographical area: National
End date: 30/06/2014 **Duration:** 6 months

2 **Project title:** SCeTGo: SCIENCE CENTER TO GO (505318-LLP-1-2009-1-FI-KA3-kA3MP)
Type of participation: Others
Dedication regime: Part time
Time of working relationship: For a limited time
Name of the main researcher: Prof. Hannu Salmi (University of Helsinki)
Funding entity: Unión Europea ICT Lifelong Learning Programme) **Type of entity:** State agency
Geographical area: European Union
End date: 31/12/2011 **Duration:** 2 years

Scientific and technological experience

Research and development groups/teams

1 **Name of the group:** Phononic and Photonic Nanostructures group (P2N)
Affiliation entity: FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
Start date: 15/09/2011 **Duration:** 2 years - 4 months

2 **Name of the group:** MIND: Micro-nanotecnologías y nanoscopias para dispositivos electrónicos y fotónicos
Affiliation entity: Universitat de Barcelona **Type of entity:** University
Start date: 31/12/2008 **Duration:** 2 years - 6 months

Scientific or technological activities

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

1 **Name of the project:** Long-range optical secure communications with optomechanical crystal in a chaotic regime (2018 LLAV 00028)
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Entrepeneur Researcher
Entity where project took place: Fundació Bosch i Gimpera - FBG (oficina de transferencia de tecnología de la Universidad de Barcelona)
Name principal investigator (PI, Co-PI....): Blas Garrido Fernández
Nº of researchers: 2
Funding entity or bodies:
AGAUR

Type of participation: Principal investigator
Name of the programme: Convocatòria d'Indústria del Coneixement per a l'any 2018 Modalitat A. Llavor
Code according to the funding entity: Numero d'expedient: 2018 LLAV 00028 Codi operació SIFECAT: IU68-009917
Start-End date: 01/07/2019 - 21/01/2020 **Duration:** 6 months
Total amount: 25.000 €
Dedication regime: Part time

2 **Name of the project:** All-Phononic circuits Enabled by Opto-mechanics (PHENOMEN) H2020 Project ID: 713450
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Clivia Sotomayor Torres (Catalan Insitute of Nanoscience and Nanotechnology)
Funding entity or bodies:
Unión Europea (Programa H2020)

Start-End date: 01/09/2016 - 30/08/2019 **Duration:** 3 years

Dedication regime: Part time

3 **Name of the project:** Sound – Light Manipulation in the Terahertz (SOULMAN)
Type of project: Basic research (including archaeological digs, etc) **Geographical area:** European Union
Degree of contribution: Researcher
Entity where project took place: CNR-NANO Sede Pisa-NEST **Type of entity:** Public Research Body
City of entity: Pisa, Italy
Funding entity or bodies:
European Comission **Type of entity:** Public Research Body

Name of the programme: UE-FP7-IDEAS-ERC-Advanced Grant
Start-End date: 2013 - 2018
Dedication regime: Full time

4 **Name of the project:** Tailoring acoustic phonon dispersion relations (TAPHOR) Contract no. MAT2012-31392 (Plan Nacional de I + D + I (2008-2011)
Entity where project took place: FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
Name principal investigator (PI, Co-PI....): C. M. Sotomayor-Torres
Funding entity or bodies:
Ministerio de Economía y Competitividad

Start-End date: 01/02/2013 - 31/01/2016
Dedication regime: Full time

5 **Name of the project:** Tailoring photon-phonon interaction in silicon phoxonic crystals (TAILPHOX) FP7-ICT-233883
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Alejandro Martínez (Universidad Politécnica de Valencia)
Funding entity or bodies:
Unión Europea (Programa Marco 7)

Start-End date: 01/05/2009 - 30/04/2012 **Duration:** 3 years
Participating entity/entities: CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE DÉLÉGATION CENTRE-EST; Institut Català de Tecnologia; NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"; OTTO-VON-GUERICKE-UNIVERSITAET MAGDEBURG; UNIVERSIDAD POLITECNICA DE VALENCIA
Dedication regime: Full time

6 **Name of the project:** AVANZANDO EN CAVIDADES OPTOMECANICAS DE SILICIO A TEMPERATURA AMBIENTE (PGC2018-094490-B-C22) - Concedido provisional - Propuesto para financiación
Type of project: Basic research (including archaeological digs, etc) **Geographical area:** National
Degree of contribution: Coordinator of total project, network or consortium
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): Dr. Daniel Navarro-Urrios
Nº of researchers: 2
Funding entity or bodies:
MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

Type of participation: Principal investigator
Name of the programme: PROGRAMA ESTATAL DE GENERACIÓN DE CONOCIMIENTO Y FORTALECIMIENTO CIENTÍFICO Y TECNOLÓGICO DEL SISTEMA DE I+D+i (PROYECTOS DE I+D DE GENERACIÓN DE CONOCIMIENTO)
Code according to the funding entity: PGC2018-094490-B-C22
Start date: 2019 **Duration:** 3 years
Total amount: 71.000 €
Dedication regime: Full time

7 **Name of the project:** Interconexión óptica modulable a GHz y Láser a microdisco basados en tecnología CMOS (LASSI) TEC2009-08359
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Blas Garrido Fernández (Universitat de Barcelona)
Funding entity or bodies:
Ministerio de Ciencia e Innovación. Investigación **Type of entity:** Ministerio
City funding entity: Madrid, Community of Madrid, Spain
Start date: 01/01/2010 **Duration:** 2 years - 11 months - 30 days
Participating entity/entities: Universitat de Barcelona
Dedication regime: Full time

8 **Name of the project:** Microcavidades ópticas circulares con mono y multi-capas activas acopladas verticalmente a guías de onda a través de campo evanescente GICSERV NGG-172
Degree of contribution: Scientific coordinator
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Daniel Navarro Urrios (Universitat de Barcelona)
Nª people/year: 3
Funding entity or bodies:
Ministerio de Ciencia e Innovación (IMB-CNM)
Start date: 01/01/2010 **Duration:** 11 months - 30 days
Dedication regime: Part time

9 **Name of the project:** Er doped SiO2 sensitized with Si nanoclusters for optical amplification. Acción Integrada España-Italia HI2008-0054
Degree of contribution: Researcher
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Blas Garrido Fernández (Universitat de Barcelona)
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Ministerio
City funding entity: Madrid, Community of Madrid, Spain
Start date: 01/01/2009 **Duration:** 2 years - 3 months
Dedication regime: Part time

10 **Name of the project:** Realización de un Láser de silicio con una cavidad de microdisco acoplada a una guía de onda pasiva GICSERV NGG-126
Degree of contribution: Scientific coordinator
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Daniel Navarro Urrios (Universitat de Barcelona)
Funding entity or bodies:
Ministerio de Ciencia e Innovación (IMB-CNM)

Start date: 01/01/2009 **Duration:** 11 months - 30 days
Dedication regime: Part time

11 **Name of the project:** Tecnologías de Sensado Nanofotónico (SENA) TSI-020301-2008-11
Degree of contribution: Researcher
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Ejecutante: DAS Photonics
Funding entity or bodies:
Desarrollo e Innovación Tecnológica 2008-2011 y el Fondo Europeo de Desarrollo

Ministerio de Industria

Turismo y Comercio dentro del Plan Nacional de Investigación Científica

Start date: 01/09/2008 **Duration:** 3 years
Dedication regime: Part time

12 **Name of the project:** Photonics Electronics functional Integration on CMOS (HELIOS) FP7-224312
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Universitat de Barcelona **Type of entity:** University
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Dr. Liliane SECOURGEON (COMMISSARIAT A L'ENERGIE ATOMIQUE)
Funding entity or bodies:
Unión Europea (Programa Marco 7)

Start date: 01/05/2008 **Duration:** 4 years
Participating entity/entities: 3S photonics SA; Alcatel thales III-V lab; Austriamicrosystems AG; COMMISSARIAT A L'ENERGIE ATOMIQUE; Centre national de la recherche scientifique; Das photonics SL; Innovations for high performance microelectronics / Institut fuer innovative mikroelektronik; Institute for Microelectronics and Microsystems; Interuniversitair micro-electronica centrum VZW; PhoeniX BV; Photline Technologies SA; Technische universitaet Berlin; Technische universitaet Wien; Thales systemes aeroportes SA; UNIVERSIDAD POLITECNICA DE VALENCIA; UNIVERSITAT DE BARCELONA; UNIVERSITÀ DEGLI STUDI DI TRENTO; Universite Paris-Sud; University of Surrey
Total amount: 12.048.041 €
Dedication regime: Part time

13 **Name of the project:** Estudio de la fotoluminiscencia de nanocúmulos de silicio embebidos en películas delgadas de nitruro de silicio para aplicaciones fotónicas. Programa Ejecutivo de Cooperación Científica y Tecnológica México-Italia 2007-2009 en Ciencias Básicas: Matemáticas, Física y Química SBAS 2.
Geographical area: Non EU International
Degree of contribution: Researcher
Entity where project took place: Università degli Studi di Trento

Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Juan Carlos Alonso Huitrón (Instituto de Investigaciones en Materiales de la Univ

Funding entity or bodies:

Consejo Nacional de Ciencia y Tecnología (CONACYT) de la República de México

Start date: 01/01/2007 **Duration:** 2 years - 11 months - 30 days

Participating entity/entities: Universidad Autónoma de México

Dedication regime: Part time

14 **Name of the project:** Light amplifiers with NanoClusters and Erbium (LANCER) FP6-033574

Degree of contribution: Researcher

Entity where project took place: Universitat de Barcelona **Type of entity:** University

Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Richard Rizk (EC. NAT. SUP. D'ING. DE CAEN)

Funding entity or bodies:

Unión Europea (Programa Marco 6)

Start date: 01/09/2006 **Duration:** 3 years

Participating entity/entities: CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS); EC. NAT. SUP. D'ING. DE CAEN; INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE; SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO SANT'ANNA; TEEM PHOTONICS SA; UNIVERSITA DEGLI STUDI DI TRENTO; UNIVERSITAT DE BARCELONA; UNIVERSITE JOSEPH FOURIER GRENOBLE 1; UNIVERSITY COLLEGE LONDON; UNIVERSITY OF SOUTHAMPTON

Dedication regime: Full time

15 **Name of the project:** Nanophotonic Logic Gates (PHOLOGIC) FP6-17158

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Università degli Studi di Trento **Type of entity:** University

Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Javier Martí (UNIVERSIDAD POLITECNICA DE VALENCIA)

Funding entity or bodies:

Unión Europea (Programa Marco 6)

Start date: 01/06/2005 **Duration:** 3 years

Participating entity/entities: CENTRE FOR INTEGRATED PHOTONICS LIMITED; COMMISSARIAT A L'ENERGIE ATOMIQUE; CONSORZIO CREO - CENTRO RICERCHE ELETTRO OTTICHE; Consejo Superior de Investigaciones Científicas; MCMASTER UNIVERSITY; UNIVERSIDAD POLITECNICA DE VALENCIA; UNIVERSITAT DE BARCELONA; UNIVERSITÀ DEGLI STUDI DI TRENTO

Dedication regime: Full time

16 **Name of the project:** Emissione di luce da silicio nanostrutturato (Light emission from nanostructured silicon) Azione integrata Italia-Spagna IT1872

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Università degli Studi di Trento **Type of entity:** University

Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Lorenzo Pavesi (Università degli Studi di Trento)

Funding entity or bodies:

CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA **Type of entity:** Associations and Groups

Ministero dell'Istruzione dell'Università e della Ricerca

Start date: 01/01/2004 **Duration:** 3 years - 3 months
Participating entity/entities: Universidad de La Laguna; Università degli Studi di Trento
Dedication regime: Part time

17 **Name of the project:** Si nanocrystals and Erbium co-doped glasses for Optical amplifiers (SINERGIA) IST-2000-29650
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: INFM, Istituto Nazionale per la Fisica della Materia, sede Università di Trento
Name principal investigator (PI, Co-PI....): A PRINCIPAL: Prof. Elisabetta Borsella (ISTITUTO NAZIONALE PER LA FISICA DELLA MATERIA)
Funding entity or bodies:
Unión Europea (Programa Marco 5)

Start date: 01/09/2001 **Duration:** 3 years - 5 months - 27 days
Participating entity/entities: ASOCIACION DE LA INDUSTRIA NAVARRA; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE; COMMISSARIAT A L'ENERGIE ATOMIQUE; CONSIGLIO NAZIONALE DELLE RICERCHE; CORNING SA; ECOLE NATIONALE SUPERIEURE D'INGENIEURS DE CAEN; ENTE PER LE NUOVE TECNOLOGIE, L'ENERGIA E L'AMBIENTE; MAX-PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.; NOVARA TECHNOLOGY S.R.L.; TEEM PHOTONICS
Dedication regime: Full time

Results

Technological results derived from specialized and transfer activities, not included in previous sections

Description: Patent pending : Self-sufficient photonic plattform for optical sensing. Nº DE SOLICITUD: 2012-43 (número interno Área de Valorización y Licencias de la Fundaciò Bosch i Gimpera, Universitat de Barcelona), in process
Name of the principal Investigator (PI): Daniel Navarro Urrios
Name of the Co-principal investigator (Co-PI): Blas Garrido Fernández
Degree of contribution: Researcher
Geographical area: National
Collaborating entity or bodies:
Fundaciò Bosch i Gimpera, Universitat de Barcelona **Type of entity:** Foundation

Target entity or bodies:
CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA **Type of entity:** Associations and Groups

Start date: 10/09/2012

Scientific and technological activities

Scientific production

H index: 26
Date of application: 04/07/2019

Publications, scientific and technical documents

1 Guillermo Arregui; Martín F. Colombano; Jeremie Maire; Alessandro Pitanti; Néstor E. Capuj; Amadeu Griol; Alejandro Martínez; Clivia M. Sotomayor-Torres; Daniel Navarro-Urrios. Injection locking in an optomechanical coherent phonon source. Nanophotonics (to be published). pp. 4819 - 4829. 2021.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 7.491
Journal in the top 25%: Yes
Relevant publication: Yes

2 M.F. Colombano; G. Arregui; F. Bonell; N.E. Capuj; E. Chavez-Angel; A. Pitanti; S.O. Valenzuela; C.M. Sotomayor-Torres; D. Navarro-Urrios; M. V. Costache. Ferromagnetic resonance assisted optomechanical magnetometer. Physical Review Letters. 125, pp. 147201. 2020.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - PHYSICS, MULTIDISCIPLINARY
Impact index in year of publication: 9.227
Journal in the top 25%: Yes
Relevant publication: Yes

3 L Mercadé; LL Martín; A Griol; Daniel Navarro-Urrios; Alejandro Martínez. Microwave generation and frequency comb in a silicon optomechanical cavity with a full phononic bandgap. Nanophotonics. 9 - 11, pp. 3535 - 3544. 2020.

Type of production: Scientific paper
Format: Journal
Corresponding author: No
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 7.491
Journal in the top 25%: Yes
Relevant publication: Yes

4 Daniel Navarro-Urrios; Martín F. Colombano; Jeremie Maire; Emigdio Chávez-Ángel; Guillermo Arregui; Néstor E. Capuj; Arnaud Devos; Amadeu Griol; Laurent Bellieres; Alejandro Martínez; Kestutis Grigoras; Teija Häkkinen; Jaakko Saarilahti; Tapani Makkonen; Clivia M. Sotomayor-Torres; Jouni Ahopelto. Properties of Nanocrystalline Silicon Probed by Optomechanics. Nanophotonics. 9 - 16, pp. 4819 - 4829. 2020.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 7.491
Journal in the top 25%: Yes

Relevant publication: Yes

5 M.F. Colombano; G. Arregui; N.?E. Capuj; A. Pitanti; J. Maire; A. Griol; B. Garrido; A. Martinez; C.?M. Sotomayor-Torres; D. Navarro-Urrios. Synchronization of Optomechanical Nanobeams by Mechanical Interaction. Physical Review Letters. 123, pp. 017402. 2019.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - PHYSICS, MULTIDISCIPLINARY
Impact index in year of publication: 9.227
Journal in the top 25%: Yes

Relevant results: the article was also chosen for a highlight story in Physics Magazine (physics.aps.org): https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.123.017402
Relevant publication: Yes

6 D. Navarro-Urrios; N. E. Capuj; J. Maire; M. F. Colombano; J. Jaramillo-Fernández; E. Chávez-Ángel; L.L. Martín; L. Mercadé; A. Griol; A. Martinez; C. M. Sotomayor-Torres; J. Ahopelto. Nanocrystalline silicon optomechanical cavities. Optics Express. 26 - 8, pp. 9829 - 9839. 2018.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Optics
Impact index in year of publication: 3.356
Journal in the top 25%: Yes

Relevant publication: Yes

7 J. Maire; G. Arregui; N. E. Capuj; M. F. Colombano; A. Griol; A. Martinez; C. M. Sotomayor-Torres; D. Navarro-Urrios. Optical modulation of coherent phonon emission in optomechanical cavities. APL Photonics. 3 - 10, 2018.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Optics
Impact index in year of publication: 4.383
Journal in the top 25%: Yes

Relevant publication: Yes

8 A. Toncelli; N. E. Capuj; B. Garrido; M. Sledzinska; C. M. Sotomayor-Torres; A. Tredicucci; D. Navarro-Urrios. Mechanical oscillations in lasing microspheres. Journal of Applied Physics. 122, pp. 053101. 2017.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Multidisciplinary
Impact index in year of publication: 2.103
Journal in the top 25%: Yes

Relevant publication: Yes

9 D. Navarro-Urrios; N. E. Capuj; M. F. Colombano; P. D. Garcia; M. Sledzinska; F. Alzina; A. Griol; A. Martinez; C. M. Sotomayor-Torres. Nonlinear dynamics and chaos in an optomechanical beam. Nature Communications. 8, pp. 14965. 2017.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Multidisciplinary
Impact index in year of publication: 13.092
Journal in the top 25%: Yes

Relevant publication: Yes

10 M. Sledzinska; R. Quey; B. Mortazavi; B. Graczykowsky; M. Placidi; D. Saleta Reig; D. Navarro-Urrios; F. Alzina; L. Colombo; S. Roche; C. M. Sotomayor-Torres. Record Low Thermal Conductivity of Polycrystalline MoS2 films: Tuning the Thermal Conductivity by Grain Orientation. ACS Applied Materials & Interfaces. 9 - 43, pp. 37905 - 37911. 2017.

Type of production: Scientific paper
Format: Journal
Corresponding author: No
Impact source: ISI
Category: Chemistry
Impact index in year of publication: 7.504
Journal in the top 25%: Yes
Relevant publication: Yes

11 D. Navarro-Urrios; N. E. Capuj; J. Gomis-Bresco; A. Griol; A. Pitanti; F. Alzina; A. Martinez; C. M. Sotomayor-Torres. A self-stabilized coherent phonon source driven by optical forces. Scientific Reports. 5, pp. 15733. Nature, 2015.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 5.578
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 2
Relevant publication: Yes

12 J. M. Ramirez; D. Navarro-Urrios; N. E. Capuj; Y. Berencen; A. Pitanti; B. Garrido; A. Tredicucci. Far-field characterization of the thermal dynamics in lasing microspheres. Scientific Reports. 5, pp. 14452. Nature, 2015.

Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 5.578
Journal in the top 25%: Yes
Relevant publication: Yes

13 J. Gomis-Bresco; D. Navarro-Urrios; M. Oudich; S. El-Jallal; A. Griol; D. Puerto; E. Chavez; Y. Pennec; B. Djafari-Rouhani; F. Alzina; A. Martinez; C. M. Sotomayor-Torres. A one-dimensional optomechanical crystal with a complete phononic band gap. Nature Communications. 5, pp. 4452. 2014.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 10.742
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 10
Relevant publication: Yes

14 Daniel Navarro-Urrios; Marta Baselga; Federico Ferrarese Lupi; Leopoldo Martín; Carla Perez-Rodriguez; Victor Lavin; Inocencio Martín; Blas Garrido; Nestor Capuj. Local characterization of rare-earth doped single microspheres by combined microtransmission and microphotoluminescence techniques. Journal of the Optical Society of America B: Optical Physics. 29 - 12, pp. 3293 - 3298. 2012.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 2.185
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 2
Relevant publication: Yes

15 Federico Ferrarese Lupi; Daniel Navarro-Urrios; Javier Rubio-García; Josep Monserrat; Carlos Dominguez; Paolo Pellegrino; Blas Garrido. Visible light emitting Si rich Si3N4 m-disk resonators for sensoristic applications.Journal of Lightwave Technology. 30 - 1, pp. 169 - 174. 2012.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - TELECOMMUNICATIONS
Impact index in year of publication: 2.784
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 4
Relevant publication: Yes

16 Daniel Navarro-Urrios; Federico Ferrarese Lupi; Nikola Prtljaga; Alessandro Pitanti; Olivier Jambois; Joan Manel Ramírez; Yonder Berencén; Nicola Daldosso; Blas Garrido; Lorenzo Pavesi. Copropagating pump and probe experiments on Si-nc in SiO2 rib waveguides doped with Er: the optical role of non-emitting ions. Applied Physics Letters. 99, pp. Y - 23114-23117. 2011.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.844
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 7
Relevant publication: Yes

17 A. Pitanti; M. Ghulinyan; D. Navarro-Urrios; G. Pucker; and L. Pavesi. Probing the Spontaneous Emission Dynamics in Si-Nanocrystals-Based Microdisk Resonators. Physical Review Letters. 104, pp. Y - 103901 (1-4). 2010.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, MULTIDISCIPLINARY
Impact index in year of publication: 7.180
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 18
Relevant publication: Yes

18 D. Navarro-Urrios; A. Pitanti; N. Daldosso; F. Gourbilleau; R. Rizk; B. Garrido; and L. Pavesi. Energy transfer between amorphous Si nanoclusters and Er3+ ions in a SiO2 matrix. Physical Review B. 79, pp. Y - 193312 (1-4). 2009.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, CONDENSED MATTER
Impact index in year of publication: 3.172
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 37
Relevant publication: Yes

19 Zhizhong Yuan; Aleksei Anopchenko; Nicola Daldosso; Romain Guider; Daniel Navarro-Urrios; Alessandro Pitanti; Rita Spano; and Lorenzo Pavesi. Silicon Nanocrystals as an Enabling Material for Silicon Photonics. Proceedings of the IEEE. 97 - 7, pp. Y - 1250-1268. 2009.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 4.613
Journal in the top 25%: Yes

Source of citations: Google Scholar **Citations:** 58

Relevant publication: Yes

20 D. Navarro-Urrios; A. Pitanti; N. Daldosso; F. Gourbilleau; R. Rizk; G. Pucker; L. Pavesi. Quantification of the carrier absorption losses in Si-nanocrystal rich rib waveguides at 1.54 um. Applied Physics Letters. 92, pp. Y - 051101 (1-3). 2008.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.596 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 45

Relevant publication: Yes

21 Mher Ghulinyan; Daniel Navarro-Urrios; Alessandro Pitanti; Alberto Lui; Georg Pucker and Lorenzo Pavesi. Whispering-gallery modes and light emission from a Si-nanocrystal-based single microdisk resonator. Optics Express. Vol. 16, No. 17, pp. Y - 13218-13224. 2008.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 3.709 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 49

Relevant publication: Yes

22 B. Garrido; C. García; S.-Y. Seo; P. Pellegrino; D. Navarro-Urrios; N. Daldosso; L. Pavesi; F. Gourbilleau and R. Rizk. Excitable Er fraction and quenching phenomena in Er-doped SiO2 layers containing Si nanoclusters. Physical Review B. 76, pp. Y - 245308 (1-15). 2007.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, CONDENSED MATTER
Impact index in year of publication: 3.107 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 89

Relevant publication: Yes

23 B. Garrido; C. García; P. Pellegrino; D. Navarro-Urrios; N. Daldosso; L. Pavesi; F. Gourbilleau; R. Rizk. Distance dependent interaction as the limiting factor for Si nanocluster to Er energy transfer in silica. Applied Physics Letters. 89, pp. Y - 163103 (1-3). 2006.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 4.127 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 57

Relevant publication: Yes

24 N. Daldosso; D. Navarro-Urrios; M. Melchiorri; C. García; P. Pellegrino; B. Garrido; C. Sada; G. Battaglin; F. Gourbilleau; R. Rizk; L. Pavesi. Er Coupled Si Nanocluster Waveguide. IEEE- Journal of Selected Topics in Quantum Electronics. 12, 6, November - December (2006), pp. Y - 1607-1617. 2006.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 2.404 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 58

Relevant publication: Yes

25 N. Daldosso; D. Navarro-Urrios; M. Melchiorri; L. Pavesi; C. Sada; F. Gourbilleau and R. Rizk. Refractive index dependence of the absorption and emission cross sections at 1.54 um of Er 3+ coupled to Si nanoclusters. Applied Physics Letters. 88, pp. Y - 161901 (1-3). 2006.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 4.127
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 38
Relevant publication: Yes

26 N. Daldosso; D. Navarro-Urrios; M. Melchiorri; L. Pavesi; F. Gourbilleau; M. Carrada; R. Rizk; C. García; P. Pellegrino; B. Garrido; and L. Cognolato. Absorption cross section and signal enhancement in Er-doped Si-nanocluster rib-loaded waveguides. Applied Physics Letters. 86, pp. Y - 261103 (1-3). 2005.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 4.308
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 90
Relevant publication: Yes

27 E. Lorenzo; C. J. Oton; N. E. Capuj; M. Ghulinyan; D. Navarro-Urrios; Z. Gaburro; L. Pavesi. Porous silicon-based rugate filters. Applied Optics. 44, 26, pp. Y - 5415-5421. 2005.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 1.799
Journal in the top 25%: No
Source of citations: Google Scholar
Citations: 100
Relevant publication: Yes

28 M. Cazzanelli; D. Navarro-Urrios; F. Riboli; N. Daldosso; L. Pavesi; J. Heitmann; L.X. Yi; R. Scholz; M. Zacharias; and U. Gösele. Optical gain in mono-dispersed silicon nanocrystals. Journal of Applied Physics. 96, pp. Y - 3164-3171. 2004.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.171
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 76
Relevant publication: Yes

29 Alessandro Pitanti; Tapani Makkonen; Martin F Colombano; Simone Zanotto; Leonardo Vicarelli; Marco Cecchini; Amadeu Griol; Daniel Navarro-Urrios; Clivia M. Sotomayor-Torres; Alejandro Martinez; Jouni Ahopelto. High-Frequency Mechanical Excitation of a Silicon Nanostring with Piezoelectric Aluminum Nitride Layers. Physical Review Applied. 14 - 1, pp. 014054. 2020.

Type of production: Scientific paper
Format: Journal
Corresponding author: No
Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 4.194
Journal in the top 25%: Yes

30 Simone Zanotto; Alessandro Tredicucci; Daniel Navarro-Urrios; Marco Cecchini; Giorgio Biasiol; Davide Mencarelli; Luca Pierantoni; Alessandro Pitanti. Optomechanics of chiral dielectric metasurfaces. Advanced Optical Materials. 8 - 4, pp. 1901507. 2020. Available on-line at: <https://arxiv.org/abs/1810.01773>.

Type of production: Scientific paper **Format:** Journal
Corresponding author: No
Impact source: ISI **Category:** Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 8.286 **Journal in the top 25%:** Yes

31 Simone Zanotto; Martin Colombano; Daniel Navarro-Urrios; Giorgio Biasiol; Clivia M Sotomayor-Torres; Alessandro Tredicucci; Alessandro Pitanti. Broadband dynamic polarization conversion in optomechanical metasurfaces. Frontiers in Physics. 7 - 4, pp. 231. 2019. Available on-line at: <https://arxiv.org/abs/1810.01773>.

Type of production: Scientific paper **Format:** Journal
Corresponding author: No
Impact source: ISI **Category:** Science Edition - PHYSICS, MULTIDISCIPLINARY
Impact index in year of publication: 2.638 **Journal in the top 25%:** No

32 P.D. Garcia; R. Bericat-Vadell; G. Arregui; D. Navarro-Urrios; M. Colombano; F. Alzina; C. M. Sotomayor-Torres. Optomechanical coupling in the Anderson-localization regime. Physical Review B. 95 - 115129, 2017.

Type of production: Scientific paper **Format:** Journal

33 L. Baldacci; A. Pitanti; L. Masini; A. Arcangeli; F. Colangelo; D. Navarro-Urrios; A. Tredicucci. Thermal noise and optomechanical features in the emission of a membrane-coupled compound cavity laser diode. Scientific Reports. 6, pp. 31489. Nature, 2016.

Type of production: Scientific paper **Format:** Journal

34 D. Navarro-Urrios; J. M. Ramírez; N.E. Capuj; Y. Berencén; B. Garrido; A. Tredicucci. Vertical coupling of laser glass microspheres to buried silicon nitride ellipses and waveguides. Journal of Applied Physics. 118, pp. 093103. 2015.

Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.183 **Journal in the top 25%:** No
Source of citations: Google Scholar **Citations:** 0

35 D. Navarro-Urrios; J. Gomis-Bresco; N.E. Capuj; F. Alzina; A. Griol; D. Puerto; A. Martinez; Sotomayor Torres. Optical and mechanical mode tuning in an optomechanical crystal with light-induced thermal effects. Journal of Applied Physics. 116, pp. 093506. 2014.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.185 **Journal in the top 25%:** No
Source of citations: Google Scholar **Citations:** 1

36 Mourad Oudich; Said El-Jallal; Yan Pennec; Bahram Djafari-Rouhani; Jordi Gomis-Bresco; Daniel Navarro-Urrios; Clivia M. Sotomayor; Alejandro Martinez; Abdelkader Makhoute. Optomechanic interaction in a corrugated phoxonic nanobeam cavity. Physical Review B. 89, pp. 245122. 2014.

Type of production: Scientific paper
Impact source: ISI

Category: Science Edition - PHYSICS, CONDENSED MATTER
Impact index in year of publication: 3.664 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 7

37 Joan Manel Ramírez; Federico Ferrarese Lupi; Yonder Berencén; Alieksiy Anopchenko; Jean-Phillippe Colonna; Olivier Jambois; Jean Marc Fedeli; Lorenzo Pavesi; Nikola Prtljaga; P. Rivallin; Andrea Tengattini; Daniel Navarro-Urrios; Blas Garrido. Er-doped light emitting slot waveguides monolithically integrated in a silicon photonic chip. Nanotechnology. 24, pp. 115202. 2013.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.979 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 13

38 L. L. Martín; D. Navarro-Urrios; F. Ferrarese Lupi; C. Pérez-Rodríguez; I. R. Martín; J. Montserrat; C. Dominguez; B. Garrido; and N. E. Capuj. Laser emission in Nd3+ doped barium–titanium–silicate microspheres under continuous and chopped wave pumping in a non-coupled pumping scheme. Laser Physics. 23, pp. 75801. 2013.
Type of production: Scientific paper
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 2.545 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 1

39 A. Tengattini; D. Gandolfi; N. Prtljaga; A. Anopchenko; J. M. Ramírez; F. Ferrarese Lupi; Y. Berencén; D. Navarro-Urrios; P. Rivallin; K. Surana; B. Garrido; J.-M. Fedeli; L. Pavesi. Toward a 1.54 μm Electrically Driven Erbium-Doped Silicon Slot Waveguide and Optical Amplifier. Journal of Lightwave Technology. 31 - 3, pp. 391 - 397. 2013.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - TELECOMMUNICATIONS
Impact index in year of publication: 2.784 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 7

40 J. M. Ramírez; Y. Berencén; F. Ferrarese Lupi; D. Navarro-Urrios; A. Anopchenko; A. Tengattini; N. Prtljaga; L. Pavesi; P. Rivallin; J. M. Fedeli; Blas Garrido. Electrical pump & probe and injected carrier losses quantification in Er doped Si slot waveguides. Optics Express. 20 - 25, pp. 28808. 2012.
Type of production: Scientific paper
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 3.587 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 3

41 Alieksiy Anopchenko; Andrea Tengattini; Alessandro Marconi; Nikola Prtljaga; Joan Manel Ramírez; Olivier Jambois; Yonder Berencén; Daniel Navarro-Urrios; Blas Garrido; J P Colonna; Jean-Phillippe Colonna; Jean Marc Fedeli; Lorenzo Pavesi. Bipolar pulsed excitation of erbium-doped nanosilicon light emitting diodes. Journal of Applied Physics. 111, pp. 063102. 2012.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.160 **Journal in the top 25%:** No

Source of citations: Google Scholar **Citations:** 12

42 Olivier Jambois; Joan Manel Ramírez; Yonder Berencén; Daniel Navarro-Urrios; Alieksiy Anopchenko; Alessandro Marconi; Nikola Prtljaga; Andrea Tengattini; Paolo Pellegrino; Nicola Daldosso; Lorenzo Pavesi; Jean-Phillippe Colonna; Jean Marc Fedeli; Blas Garrido. Effect of the annealing treatments on the electroluminescence efficiency of SiO2 layers doped with Si and Er. Journal of Physics D: Applied Physics. 45, pp. 045103. 2012.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 1.875 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 9

43 Joan Manel Ramírez; Federico Ferrarese Lupi; Olivier Jambois; Yonder Berencén; Daniel Navarro-Urrios; Alieksiy Anopchenko; Alessandro Marconi; Nikola Prtljaga; Andrea Tengattini; Lorenzo Pavesi; Jean-Phillippe Colonna; Jean Marc Fedeli; Blas Garrido. Erbium emission in MOS light emitting devices: from energy transfer to direct impact excitation. Nanotechnology. 23, pp. 125203. 2012.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.979 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 23

44 Nikola Prtljaga; Daniel Navarro-Urrios; Andrea Tengattini; Aleksei Anopchenko; Joan Manel Ramírez; Jose Manuel Rebled; Sonia Estradé; Jean Philippe Colonna; Jean-Marc Fedeli; Blas Garrido; Lorenzo Pavesi. Limit to the erbium ions emission in silicon-rich oxide films by erbium ion clustering. Optical Materials Express. 2 - 9, pp. 1278 - 1285. 2012.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 2.844 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 10

45 J. M. Ramirez; O. Jambois; Y. Berencen; D. Navarro-Urrios; A. Anopchenko; A. Marconi; N. Prtljaga; N. Daldosso; L. Pavesi; J. -P. Colonna; J. -M. Fedeli; B. Garrido. Polarization strategies to improve the emission of Si-based light sources emitting at 1.55 mu M. Materials Science and Engineering: B Advanced Functional Solid-State Materials. 177 - 10, SI, pp. 734 - 738. ELSEVIER SCIENCE BV, 2012. ISSN 0921-5107

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 1.518 **Journal in the top 25%:** No
Source of citations: Google Scholar **Citations:** 4

46 Nikola Prtljaga; Daniel Navarro-Urrios; Alessandro Pitanti; Federico Ferrarese Lupi; Blas Garrido; Lorenzo Pavesi. Silicon nanocluster sensitization of erbium ions under low-energy optical excitation. Journal of Applied Physics. 111, pp. 094314. 2012.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.160 **Journal in the top 25%:** Yes
Source of citations: WOS **Citations:** 2

47 V. Venkatramu; S.F. León-Luis; U.R. Rodríguez-Mendoza; V. Monteseguro; F.J. Manjón; A.D. Lozano-Gorrí-n; R. Valiente; D. Navarro-Urrios; C.K. Jayasankar; A. Muñoz; V. Lavín. Synthesis, structure and luminescence of Er 3+-doped Y 3Ga 5O 12 nano-garnets. Journal of Materials Chemistry. 22 - 27, pp. 13788 - 13799. 2012.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 5.968
Journal in the top 25%: Yes
Source of citations: Google Scholar
Citations: 7

48 Nikola Prtljaga; Daniel Navarro-Urrios; Alessandro Marconi; Aleksei Anopchenko; Jean-Philippe Colonna; Frédéric Milesi; Nicola Daldosso; Olivier Jambois; Blas Garrido; Jean-Marc Fedeli; Lorenzo Pavesi. Erbium implanted silicon rich oxide thin films suitable for slot waveguides applications. Optical Materials. 33, pp. Y - 1083-1085. 2011.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 1.728
Journal in the top 25%: No
Source of citations: Google Scholar
Citations: 10

49 Federico Ferrarese Lupi; Daniel Navarro-Urrios; Josep Monserrat; Carlos Dominguez; Paolo Pellegrino; and Blas Garrido. High Q light-emitting Si-rich Si3N4 microdisks. Optics Letters. 36, pp. Y - 1344-1346. 2011.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 3.318
Journal in the top 25%: Yes
Citations: 4

50 F. Ferrarese-Lupi; D. Navarro-Urrios; J. Montserrat; C. Dominguez; P. Pellegrino and B. Garrido. Optically active substoichiometric Si3N4 ?-cavities vertically coupled to strip waveguides. Phys. Status Solidi C. 8, pp. Y - 1060-1065. 2011. Available on-line at: <of Science Citation Index, but in the ISI Web of Science Cited References Search. It has counted more than 1.500 citations of articles published in 2006/07. This corresponds to a citation ratio of approximately 0.77. (JCR)>.

Type of production: Scientific paper
Source of citations: WOS
Citations: 2

51 D. Navarro-Urrios; O. Jambois; F. Ferrarese Lupi; P. Pellegrino; B. Garrido; A. Pitanti; N. Prtljaga; N. Daldosso; L. Pavesi. Si nanoclusters coupled to Er3+ ions in a SiO2 matrix for optical ampli?ers. Optical Materials. 33, pp. Y - 1086-1090. 2011.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 1.728
Journal in the top 25%: No
Source of citations: Google Scholar
Citations: 1

52 L. L. Martín; P. Haro-González; I. R. Martín; D. Navarro-Urrios; D. Alonso; C. Pérez-Rodríguez; D. Jaque; and N. E. Capuj. Whispering-gallery modes in glass microspheres: optimization of pumping in a modified confocal microscope. Optics Letters. 36, pp. Y - 615-617. 2011.

Type of production: Scientific paper
Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 3.318
Journal in the top 25%: Yes

Source of citations: WOS **Citations:** 8

53 A. Pitanti; D. Navarro-Urrios; N. Prtljaga; N. Daldosso; F. Gourbilleau; R. Rizk; B. Garrido; and L. Pavesi. Energy transfer mechanism and Auger effect in Er3+ coupled silicon nanoparticle samples. Journal of Applied Physics. 108, pp. Y - 053518 (1-8). 2010.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED

Impact index in year of publication: 2.072 **Journal in the top 25%:** Yes

Citations: 20

54 D. Navarro-Urrios; A. Pitanti; N. Daldosso; F. Gourbilleau; L. Khomenkova; R. Rizk and L. Pavesi. Assessment of the main material issues for achieving an Er coupled to silicon nanoclusters infrared amplifier. Physica E: Low-dimensional Systems and Nanostructures. 41, 6, pp. Y - 1029-1033. 2009.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - NANOSCIENCE & NANOTECHNOLOGY

Impact index in year of publication: 0.834 **Journal in the top 25%:** No

Source of citations: Google Scholar **Citations:** 17

55 Mallar Ray; Kakali Jana; N.R. Bandyopadhyay; S.M. Hossain; Daniel Navarro-Urrios; P.P. Chattyopadhyay; Martin A. Green. Blue-violet photoluminescence from colloidal suspension of nanocrystalline silicon in silicon oxide matrix. Solid State Communications. 149, pp. Y - 352-356. 2009.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, CONDENSED MATTER

Impact index in year of publication: 1.535 **Journal in the top 25%:** No

Source of citations: Google Scholar **Citations:** 22

56 Y. Lebour; D. Navarro-Urrios; P. Pellegrino; G. Sarrabayrouse; L. Pavesi and B. Garrido. Optical amplification studies in Si nanocrystals based waveguides prepared by ion beam synthesis. Physica E: Low-dimensional Systems and Nanostructures. 41, 6, pp. Y - 1044-1047. 2009.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - NANOSCIENCE & NANOTECHNOLOGY

Impact index in year of publication: 0.834 **Journal in the top 25%:** No

Source of citations: WOS **Citations:** 1

57 D. Navarro-Urrios; Y. Lebour; O. Jambois; B. Garrido; A. Pitanti; N. Daldosso; L. Pavesi; J. Cardin; K. Hijazi; L. Khomenkova; F. Gourbilleau; and R. Rizk. Optically active Er3+ ions in SiO2 co-doped with Si nanoclusters. Journal of Applied Physics. 106, pp. Y - 093107 (1-5). 2009.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED

Impact index in year of publication: 2.201 **Journal in the top 25%:** Yes

Source of citations: Google scholar **Citations:** 17

58 D. Navarro-Urrios; M. Ghulinyan; P. Bettotti; E. Rigo; C. J. Oton; N. E. Capuj; F. Lahoz; I. R. Martin; and L. Pavesi. Polymeric waveguides using oxidized porous silicon cladding for optical amplification. Optical Materials. 31, 10, pp. Y - 1488-1491. 2009.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 1.519
Journal in the top 25%: No

Source of citations: Google Scholar
Citations: 4

59 Fernando Lahoz; Claudio J. Oton; Nestor Capuj; Miriam Ferrer-González; Stephanie Cheylan; and Daniel Navarro-Urrios. Reduction of the amplified spontaneous emission threshold in semiconducting polymer waveguides on porous silica. Optics Express. Vol. 17, No. 19, pp. Y - 16766-16775. 2009.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 3.88
Journal in the top 25%: Yes

Source of citations: Google Scholar
Citations: 11

60 M. Perálvarez; J. Barreto; Josep Carreras; A. Morales; D. Navarro-Urrios; Y. Lebour; C. Domínguez and B. Garrido. Si-nanocrystal-based LEDs fabricated by ion implantation and plasma-enhanced chemical vapour deposition. Nanotechnology. 20, pp. Y - 405201 (1-10). 2009.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.446
Journal in the top 25%: Yes

Source of citations: Google Scholar
Citations: 24

61 R. Adamo; A. Anopchenko; P. Bettotti; M. Cazzanelli; E. D'Amato; N. Daldosso; L. Ferraioli; E. Froner; Z. Gaburro; R. Guider; S.M. Hossain; D. Navarro-Urrios; A. Pitanti; S. Prezioso; M. Scarpa; R. Spano; M. Wang; L. Pavesi. Low dimensional silicon structures for photonic and sensor applications. Applied Surface Science. 255, pp. Y - 624-627. 2008.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, CONDENSED MATTER
Impact index in year of publication: 1.406
Journal in the top 25%: No

Source of citations: Google Scholar
Citations: 7

62 O. Anopchenko; P. Bettotti; M. Cazzanelli; N. Daldosso; L. Ferraioli; Z. Gaburro; R. Guider; D. Navarro-Urrios; A. Pitanti; S. Prezioso; R. Spano; L. Pavesi. Low dimensional silicon to enable silicon photonics. Highlights on Spectroscopies of Semiconductors and Nanostructures. 94, pp. Y - 231-242. 2007.

Type of production: Scientific paper

Source of citations: Google Scholar
Citations: 2

63 F. Lahoz; S. E. Hernández; N. E. Capuj and D. Navarro-Urrios. Optical amplification in Ho3+ doped transparent oxyfluoride glass ceramics at 750 nm. Applied Physics Letters. 90, pp. Y - 201117 (1-3). 2007.

Type of production: Scientific paper

Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 3.977
Journal in the top 25%: Yes

Source of citations: Google Scholar
Citations: 24

64 C. J. Oton; D. Navarro Urrios; M. Ghulinyan; N. E. Capuj; S. González Pérez; F. Lahoz; I. R. Martín and L. Pavesi. Optical gain in oxidized porous silicon waveguides impregnated with a laser dye. Phys. Status Solidi C. 4 - 6, pp. Y - 2145– 2149. 2007. Available on-line at: <of Science Citation Index, but in the ISI Web of Science Cited References Search. It has counted more than 1.500 citations of articles published in 2006/07. This corresponds to a citation ratio of approximately 0.77.>.

Type of production: Scientific paper

Source of citations: WOS **Citations:** 1

65 L. Ferraioli; M. Wang; G. Pucker; D. Navarro-Urrios; N. Daldosso; C. Kompocholis; L. Pavesi. Photoluminescence of Silicon Nanocrystals in Silicon Oxide. Journal of Nanomaterials. Article ID 43491, pp. Y - 1-5. 2007.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - NANOSCIENCE & NANOTECHNOLOGY

Impact index in year of publication: 0.688 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 18

66 Daniel Navarro-Urrios; Nicola Daldosso; Cristina García; Paolo Pellegrino; Blas Garrido; Fabrice Gourbilleau; Richard Rizk and Lorenzo Pavesi. Signal Enhancement and Limiting Factors in Waveguides Containing Si Nanoclusters and Er3+ Ions. Japanese Journal of Applied Physics. 46, No. 10A, pp. Y - 6626 – 6633. 2007.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED

Impact index in year of publication: 1.222 **Journal in the top 25%:** No

Source of citations: Google Scholar **Citations:** 11

67 Leonid Khriachtchev; Daniel Navarro-Urrios; Lorenzo Pavesi; Claudio J. Oton; Néstor E. Capuj and Sergei Novikov. Spectroscopy of silica layers containing Si nanocrystals: Experimental evidence of optical bi. Journal of Applied Physics. 101, pp. Y - 044310 (1-6). 2007.

Type of production: Scientific paper **Format:** Journal

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED

Impact index in year of publication: 2.316 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 14

68 D. Navarro-Urrios; M. Ghulinyan; N. E. Capuj; C. J. Oton; F. Riboli; I. R. Martín and L. Pavesi. Waveguiding, absorption and emission properties of dye-impregnated oxidized porous silicon. Phys. Status Solidi A. 204 - 5, pp. Y - 1502–1506. 2007.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY

Impact index in year of publication: 1.221 **Journal in the top 25%:** No

Source of citations: WOS **Citations:** 1

69 C. J. Oton; D. Navarro-Urrios; N. E. Capuj; M. Ghulinyan; L. Pavesi; S. González-Pérez; F. Lahoz; and I. R. Martín. Optical gain in dye-impregnated oxidized porous silicon waveguides. Applied Physics Letters. 89, pp. Y - 011107 (1-3). 2006.

Type of production: Scientific paper

Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED

Impact index in year of publication: 4.127 **Journal in the top 25%:** Yes

Source of citations: Google Scholar **Citations:** 18

70 D. Navarro-Urrios; M. Melchiorri; N. Daldosso; L. Pavesi; C. García; P. Pellegrino; B. Garrido; G. Pucker; F. Gourbilleau and R.Rizk. Optical losses and gain in silicon-rich Silica waveguides containing Er ions. Journal of Luminescence. 121, pp. Y - 249–255. 2006.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 1.518 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 29

71 D. Navarro-Urrios; F. Riboli; M. Cazzanelli; A. Chiasera; N. Daldosso; L. Pavesi; C. J. Oton; J. Heitmann; L. X. Yi; R. Scholz and M. Zacharias. Birefingence characterization of mono-dispersed silicon nanocrystals planar waveguides. Optical Materials. 27 - 5, pp. Y - 763-768. 2005.

Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 1.339 **Journal in the top 25%:** No
Source of citations: Google Scholar **Citations:** 10

72 E. Lorenzo-Cabrera; C. J. Oton; N. E. Capuj; M. Ghulinyan; D. Navarro-Urrios; Z. Gaburro; L. Pavesi. Fabrication and optimization of rugate filters based on porous silicon. Phys. Status Solidi C. 2, No. 9, pp. Y - 3227–3231. 2005. Available on-line at: <of Science Citation Index, but in the ISI Web of Science Cited References Search. It has counted more than 1.500 citations of articles published in 2006/07. This corresponds to a citation ratio of approximately 0.77.>.

Type of production: Scientific paper
Source of citations: Google Scholar **Citations:** 31

73 V. Venkatramu; D. Navarro-Urrios; P. Babu; C.K. Jayasankar; V. Lavín. Fluorescence line narrowing spectral studies of Eu 3+-doped lead borate glass. Journal of Non-Crystalline Solids. 351, pp. Y - 929–935. 2005.

Type of production: Scientific paper
Impact source: ISI **Category:** Science Edition - MATERIALS SCIENCE, CERAMICS
Impact index in year of publication: 1.433 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 27

74 K. Luterová; M. Cazzanelli; J.-P. Likforman; D. Navarro; J. Valenta; T. Ostatnický; K. Dohnalová; S. Cheylan; P. Gilliot; B. Hönerlage; L. Pavesi; I. Pelant. Optical gain in nanocrystalline silicon: comparison of planar waveguide geometry with a non-waveguiding ensemble of nanocrystals. Optical Materials. 27, pp. Y - 750–755. 2005.

Type of production: Scientific paper
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 1.339 **Journal in the top 25%:** No
Source of citations: Google Scholar **Citations:** 21

75 K. Luterová; D. Navarro; M. Cazzanelli; T. Ostatnický; J. Valenta; S. Cheylan; I. Pelant; and L. Pavesi. Stimulated emission in the active planar optical waveguide made of silicon nanocrystals. Phys. Status Solidi C. 2 - 9, pp. Y - 3429-3434. 2005. Available on-line at: <of Science Citation Index, but in the ISI Web of Science Cited References Search. It has counted more than 1.500 citations of articles published in 2006/07. This corresponds to a citation ratio of approximately 0.77.>.

Type of production: Scientific paper
Source of citations: Google Scholar **Citations:** 5

76 D. Navarro-Urrios; C. Pérez-Padrón; E. Lorenzo; N. E. Capuj; Z. Gaburro; C. J. Oton and L. Pavesi. Structural and light-emission modification in chemically post-etched porous silicon. Phys. Status Solidi A. 202 - 8, pp. Y - 1518–1523. 2005.
Type of production: Scientific paper
Impact source: ISI **Category:** Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 0.86 **Journal in the top 25%:** No
Source of citations: SCOPUS **Citations:** 1

77 F. Riboli; D. Navarro-Urrios; A. Chiasera; N. Daldosso; L. Pavesi; C. J. Oton; J. Heitmann; L.X. Yi; R. Scholz and M. Zacharias. Birefringence in optical waveguides made by silicon nanocrystal superlattices. Applied Physics Letters. 85 - 7, pp. Y - 1268-1270. 2004.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 4.049 **Journal in the top 25%:** Yes
Source of citations: Google Scholar **Citations:** 13

78 D. Navarro-Urrios; J. Gomis-Bresco; S. El-Jallal; M. Oudich; A. Pitanti; N. Capuj; A. Tredicucci; F. Alzina; A. Griol; Y. Pennec; B. Djafari-Rouhani; A. Martinez; C. M. Sotomayor-Torres. Dynamical back-action at 5.5 GHz in a corrugated optomechanical beam. AIP Advances. 4, pp. 124601. 2014.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 1.59
Source of citations: Google Scholar **Citations:** 1
Relevant publication: No

79 Daniel Navarro Urrios; Clivia M. Sotomayor-Torres. Comunicaciones seguras gracias al caos.Investigación y ciencia. 495, pp. 10. 2017.
Type of production: Popular science article **Format:** Journal

80 Daniel Navarro-Urrios; Alessandro Tredicucci; Clivia M. Sotomayor-Torres. Coherent phonon generation in optomechanical crystals. SPIE Newsroom; Micro/Nano Lithography. SPIE, 2015.
DOI: 10.1117/2.1201507.006036
Type of production: Popular science article **Format:** Journal

81 A. Anopchenko; N. Daldosso; R. Guider; D. Navarro-Urrios; A. Pitanti; R. Spano; L. Pavesi. Photonics application of Silicon nanocrystals. Silicon Nanocrystals; Fundamentals, Synthesis and Applications, Capítulo 16, 445-486. pp. 445 - 477. ag GmbH, 2009. ISBN 978-3-527-3
Type of production: Book chapter **Format:** Book
Degree of contribution: Author or co-author of chapter in book
Relevant publication: Yes

82 Daniel Navarro-Urrios. Nano-optomechanical Oscillators: Novel Effects and Applications. Nanodevices for Photonics and Electronics: Advances and Applications; Edited by Paolo Betttotti. pp. 209 - 238. CRC Press - Pan Stanford Publishing, 2016. ISBN 9789814613743
Type of production: Book chapter **Format:** Book

83 Z. Gaburro; P. Bettotti; N. Daldosso; M. Ghulinyan; D. Navarro-Urrios; M. Melchiorri; F. Riboli; M. Saiani; F. Sbrana and L. Pavesi. Nanostructured Silicon for Photonics - from Materials to Devices. Materials Science Foundations, Volume 27 until 28 (2006),. pp. 1 - 260. Trans Tech Publications Inc., 2006. ISBN 978-0-87849-488-0

Type of production: Scientific book or monograph **Format:** Book

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

Source of citations: Google Scholar **Citations:** 4

Relevant publication: Yes

84 D. Navarro-Urrios; J. Gomis-Bresco; F. Alzina; N. E. Capuj; P. D. Garcia; M. F. Colombano; E. Chavez-Angel; C. M. Sotomayor-Torres. Self-sustained coherent phonon generation in optomechanical cavities. Journal of Optics. 18, pp. 094006. 2016.

Type of production: Review **Format:** Journal

Impact source: ISI **Category:** Optics

Impact index in year of publication: 2.323 **Journal in the top 25%:** No

Works submitted to national or international conferences

1 **Title of the work:** Optomechanical microwave oscillator and frequency comb generation in a full phononic bandgap 1D optomechanical crystal cavity

Name of the conference: EOS Annual Meeting (EOSAM 2020)

Type of event: Conference

Corresponding author: No

City of event: virtual,

Date of event: 07/09/2020

End date: 11/09/2020

Organising entity: EPJ Web Conf.

Laura Mércade; Leopoldo L. Martin; Amadeu Griol; Daniel Navarro-Urrios; Alejandro Martínez. "Optomechanical microwave oscillator and frequency comb generation in a full phononic bandgap 1D optomechanical crystal cavity". En: EPJ Web of Conferences 238. 238, pp. 11011. 20/08/2020.

DOI: https://doi.org/10.1051/epjconf/202023811011

2 **Title of the work:** Mechanical Synchronization of Optomechanical Oscillators

Name of the conference: The 10th International Conference on Metamaterials, Photonic Crystals and Plasmonics

Type of event: Conference

Type of participation: Participatory - invited/keynote talk

Corresponding author: Yes

City of event: Lisboa, Portugal

Date of event: 23/07/2019

End date: 26/07/2019

Organising entity: Hospital Universitario Vall d`Hebron

D. Navarro-Urrios.

3 **Title of the work:** Synchronization of the Mechanical Dynamics of Optomechanical Oscillators

Name of the conference: Phononics 2019: 5th International Conference on Phononic Crystals/Metamaterials, Phonon Transport, Topological Phononics

Type of event: Conference

Type of participation: Participatory - oral communication

Corresponding author: No

City of event: Tucson, United States of America
Date of event: 03/06/2019
End date: 07/06/2019
Organising entity: University of Arizona, United States Office of Naval Research, National Science Foundation
D. Navarro-Urrios; M. F. Colombano; G. Arregui; N. E. Capuj; A. Pitanti; A. Griol; A. Martinez; C. M. SotomayorTorres.

4 **Title of the work:** Chiral metasurface optomechanics
Name of the conference: Conference on Lasers and Electro-Optics CLEO: QELS_Fundamental Science 2019
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Corresponding author: No
City of event: San Jose, United States of America
Date of event: 05/05/2019
End date: 10/05/2019
Organising entity: Optical Society of America (OSA)
Simone Zanotto; Alessandro Tredicucci; D. Navarro-Urrios; Marco Cecchini; Giorgio Biasiol; Alessandro Pitanti. "Chiral metasurface optomechanics". En: OSA Technical Digest (Optical Society of America, 2019). paper FW4D.1, Available on-line at: <https://doi-org.sire.ub.edu/10.1364/CLEO_QELS.2019.FW4D.1>. ISBN 978-1-943580-57-6

5 **Title of the work:** Non-Linear Dynamics, Chaos and Synchronization of Optomechanical Crystal Cavities
Name of the conference: OptoMechanics and Brillouin Scattering: Fundamentals, Applications and Technologies (WOMBAT 2019)
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: Tel-Aviv, Israel
Date of event: 26/03/2019
End date: 28/03/2019
Organising entity: ISRAEL SCIENCE FOUNDATION
D. Navarro-Urrios.

6 **Title of the work:** Recent advances in cavity optomechanics: from chaos and mechanical lasing to mechanically-induced synchronization
Name of the conference: SPIE-OPTO Photonics West
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: San Francisco, United States of America
Date of event: 04/02/2019
End date: 07/02/2019
Organising entity: SPIE
Publication in conference proceedings: Yes **With external admission assessment committee:** Yes
A. Martínez; C. M. Sotomayor-Torres; D. Navarro-Urrios. "Recent advances in cavity optomechanics: from chaos and phonon lasing to mechanically-induced synchronization (Conference Presentation), Proc. SPIE 10927, Photonic and Phononic Properties of Engineered Nanostructures IX, 109271O". 10927, pp. 109271O. 2019. Available on-line at: <https://doi.org/10.1117/12.2516245>.

7 **Title of the work:** Mechanical Synchronization of Optomechanical Crystals
Name of the conference: International Workshop on Sound-enabled Nanotechnologies IWSENT2018
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Valencia, Spain
Date of event: 26/11/2018
End date: 29/11/2018
Organising entity: SAWtrain network and PHENOMEN project
D. Navarro-Urrios.

8 **Title of the work:** Si-based optomechanics at room temperature
Name of the conference: ICPS 2018 - - 34th International conference on the physics of semiconductors
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Montpellier, France
Date of event: 29/07/2018
End date: 03/08/2018
Organising entity: CNRS France
D. Navarro-Urrios.

9 **Title of the work:** Nonlinear dynamics and chaos in optomechanical crystals
Name of the conference: PHONONS 2018 / PTES 2018
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Nanjing, China
Date of event: 30/05/2018
End date: 03/06/2018
Organising entity: National Nature Science Foundation of China
D. Navarro-Urrios.

10 **Title of the work:** Nonlinear dynamics and chaos in Optomechanical nanobeams
Name of the conference: Imaginenano 2018
Type of event: Conference
Type of participation: Participatory - invited/keynote talk **Reasons for participation:** Upon invitation
Corresponding author: Yes
City of event: Bilbao, Spain
Date of event: 13/03/2018
End date: 15/03/2018
Organising entity: FUNDACION PHANTOMS

11 **Title of the work:** Nanostructured materials for phononic sources
Name of the conference: 2016 E-MRS Fall Meeting
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Warsaw, Poland
Date of event: 19/09/2016
End date: 22/09/2016
Organising entity: Material Research Society

12 **Title of the work:** Phonon lasing in optomechanical cristals
Name of the conference: 18th International Conference on Transparent Optical Networks (ICTON), 2016
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: Trento, Italy
Date of event: 10/07/2016
End date: 14/07/2016
Organising entity: IEEE
Type of contribution: Scientific paper
D. Navarro-Urrios. "Self-pulsing and phonon lasing in optomechanical crystals". En: Transparent Optical Networks (ICTON), 2016 18th International Conference on. pp. 1 - 4. IEEE, 2016.
DOI: 10.1109/ICTON.2016.7550436

13 **Title of the work:** Self-sustained coherent phonon generation in optomechanical crystals
Name of the conference: Conferencia Española de Nanofotonica CEN 2016
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Valencia, Spain
Date of event: 20/06/2016
End date: 22/06/2016
Organising entity: FUNDACION PHANTOMS

14 **Title of the work:** Silicon-based room temperature cavity optomechanics
Name of the conference: SPIE Photonics Europe 2016
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Brussels, Belgium
Date of event: 03/04/2016
End date: 07/04/2016
Organising entity: SPIE

15 **Title of the work:** Displacement linear detection down to thermal fluctuations of a silicon nitride membrane with self-mixing technique
Name of the conference: APS March Meeting 2016
Type of participation: Participatory - oral communication
City of event: Baltimore, United States of America
Date of event: 14/03/2016
End date: 18/03/2016
Organising entity: American Physical Society
L. Baldacci; A. Pitanti; L. MAsini; A. Arcangeli; D. Navarro-Urrios; A. Tredicucci. "Displacement linear detection down to thermal fluctuations of a silicon nitride membrane with self-mixing technique". En: Bulletin of the American Physical Society.

16 **Title of the work:** A self-stabilized coherent phonon source driven by optical forces
Name of the conference: Gordon Research Conference: Mechanical Systems in the Quantum Regime
Type of event: Conference
Type of participation: 'Participatory - poster
City of event: Ventura, United States of America
Date of event: 06/03/2016
End date: 11/03/2016

Organising entity: Gordon Research Conferences

17 **Title of the work:** A self-stabilized coherent phonon source driven by optical forces
Name of the conference: Gordon Research Seminar: Mechanical Systems in the Quantum Regime
Type of event: Seminar
Type of participation: Participatory - invited/keynote talk
City of event: Ventura, United States of America
Date of event: 05/03/2016
End date: 06/03/2016
Organising entity: Gordon Research Conferences

18 **Title of the work:** A self-stabilized coherent phonon source driven by optical forces
Name of the conference: 15th International Conference on Phonon Scattering in Condensed Matter, Phonons 2015
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Nottingham, United Kingdom
Date of event: 12/07/2015
End date: 17/07/2015
Organising entity: University of Nottingham **Type of entity:** University

19 **Title of the work:** Rare-earth-doped silicon-based light emitting devices for Photonic Integrated Circuits
Name of the conference: E-MRS 2015 Spring Meeting
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Lille, France
Date of event: 11/05/2015
End date: 15/05/2015
Organising entity: Material Research Society
J. M. Ramirez; D. Navarro-Urrios; Y. Berencén; J. Wojcik; P. Mascher; A. Tredicucci; B. Garrido.

20 **Title of the work:** Thermal dynamics of Nd-doped Barium-Titanium-Silicate lasing microspheres
Name of the conference: E-MRS 2015 Spring Meeting
Type of event: Conference
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Lille, France
Date of event: 11/05/2015
End date: 15/05/2015
Organising entity: Material Research Society
D. Navarro-Urrios; J. M. Ramirez; N. E. Capuj; Y. Berencén; A. Pitanti; A. Toncelli; V. Lavín; A. Tredicucci; B. Garrido.

21 **Title of the work:** Multiple synchronization between thermal/free-carrier self-pulsing and coherent motion using optical comb forces
Name of the conference: 100 Congresso Nazionale della Società Italiana di Fisica
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Pisa, Italy
Date of event: 22/09/2014
End date: 26/09/2014

Organising entity: Società Italiana di Fisica (SIF)
D. Navarro-Urrios; N. E. Capuj; J. Gomis-Bresco; F. Alzina; A. Griol; A. Tredicucci; A. Martínez; C. M. Sotomayor Torres.

22 **Title of the work:** Cavity modes and optomechanic interactions in strip waveguide
Name of the conference: 4th Journées de la Matière Condensée (JMC14) and the 25th Conference of the Condensed Matter Division of the EPS (CMD25)
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Paris, France
Date of event: 24/08/2014
End date: 29/08/2014
Organising entity: French Physical Society SFP and European Physical Society EPS
Said El-Jallal; Mourad Oudich; Yan Pennec; Bahram Djafari-Rouhani; Abdelkader Makhoute; J. Gomis-Bresco; D. Navarro-Urrios; A. Martínez; C. M. Sotomayor Torres.

23 **Title of the work:** Multiple spontaneous synchronization between thermal/free-carrier self-pulsing and coherent motion in an optomechanical crystal
Name of the conference: 4th Journées de la Matière Condensée (JMC14) and the 25th Conference of the Condensed Matter Division of the EPS (CMD25)
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Paris, France
Date of event: 24/08/2014
End date: 29/08/2014
Organising entity: French Physical Society SFP and European Physical Society EPS
D. Navarro-Urrios; N. E. Capuj; J. Gomis-Bresco; F. Alzina; A. Griol; A. Martínez; C. M. Sotomayor Torres.

24 **Title of the work:** A PhoXonic crystal: Photonic and phononic bandgaps in a 1D optomechanical crystal
Name of the conference: 16th International Conference on Transparent Optical Networks (ICTON), 2014
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Graz, Austria
Date of event: 06/07/2014
End date: 10/07/2014
Organising entity: IEEE
J. Gomis-Bresco; D. Navarro-Urrios; M. Oudich; F. Alzina; A. Martínez; A. Griol; D. Puerto; Y. Pennec; S. El-Jallal; B. Djafari Rouhani; C. M. Sotomayor Torres. 06/07/2014.

25 **Title of the work:** A 1D phoxonic crystal
Name of the conference: E-MRS Spring 2014, Symposium D-Phonons and fluctuations in low dimensional structures
Type of event: Conference
Type of participation: 'Participatory - poster
City of event: Lille, France
Date of event: 26/05/2014
End date: 30/05/2014
Organising entity: Material Research Society
J. Gomis-Bresco; D. Navarro-Urrios; M. Oudich; F. Alzina; A. Martínez; A. Griol; D. Puerto; Y. Pennec; S. El-Jallal; B. Djafari Rouhani; C. M. Sotomayor Torres.

26 **Title of the work:** Theory and simulation of optomechanical effects in phoXonic crystals
Name of the conference: E-MRS Spring 2014, Symposium D-Phonons and fluctuations in low dimensional structures
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Lille, France
Date of event: 26/05/2014
End date: 30/05/2014
Organising entity: Material Research Society
S. El-Jallal; M. Oudich; Y. Pennec; Abdelkader Makhoute; J. Gomis-Bresco; D. Navarro-Urrios; C. M. Sotomayor Torres; A. Martínez; B. Djafari Rouhani.

27 **Title of the work:** A1D Phoxonic crystal
Name of the conference: Frontiers of Opto- and Electro-mechanics workshop
Type of participation: 'Participatory - poster
City of event: Fai della Paganella, Italy
Date of event: 27/01/2014
End date: 30/01/2014
Organising entity: CNR & SNS, Pisa
Publication in conference proceedings: Yes
J. Gomis-Bresco; D. Navarro-Urrios; M. Oudich; S. El-Jallal; A. Griol; D. Puerto; E. Chavez; Y. Pennec; B. Djafari-Rouhani; A. Martinez; C. M. Sotomayor-Torres.

28 **Title of the work:** Towards PhoXonic Crystals: Optomechanics in Corrugated Beams
Name of the conference: Progress In Electromagnetics Research Symposium (PIERS, 2013)
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Stockholm, Sweden
Date of event: 12/08/2013
End date: 15/08/2013
Organising entity: Electromagnetics Academy
D. Navarro-Urrios; J. Gomis-Bresco; M. Oudich; F. Alzina; A. Martínez; A. Griol; D. Puerto; Y. Pennec; S. El-Jallal; B. Djafari Rouhani; C. M. Sotomayor Torres.

29 **Title of the work:** 1D Phononic Corrugated Cavities in Si Nanobeams: Design of the Confined Modes in a Full Band gap
Name of the conference: PHONONICS 2013: 2nd International Conference on Phononic Crystals/Metamaterials, Phonon Transport and Optomechanics
Type of event: Conference
Type of participation: 'Participatory - poster
City of event: Sharm El-Sheikh, Egypt
Date of event: 02/07/2013
End date: 07/07/2013
Organising entity: Sandia National Laboratories, United States; U.S. Office of Naval Research Global (ONR Global)
J. Gomis-Bresco; D. Navarro-Urrios; A. Griol; D. Puerto; A. Martínez; F. Alzina; C. M. Sotomayor Torres.

30 **Title of the work:** Optomechanics in Corrugated Beams with Parabolic Defects
Name of the conference: PHONONICS 2013: 2nd International Conference on Phononic Crystals/Metamaterials, Phonon Transport and Optomechanics
Type of event: Conference
Geographical area: Non EU International
Reasons for participation: Upon invitation

Type of participation: Participatory - invited/keynote talk
Date of event: 02/07/2013
End date: 07/07/2013
Organising entity: Sandia National Laboratories, United States; U.S. Office of Naval Research Global (ONR Global)
City organizing entity: Sharm El-Sheikh, Egypt
D. Navarro-Urrios.

31 **Title of the work:** Electrically pumped Er-doped light emitting slot waveguides for on-chip optical routing at 1.54 ?m
Name of the conference: SPIE Microtechnologies Conference 2013, Integrated Photonics: Materials, Devices, and Applications II, 87670I
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Grenoble, France
Date of event: 24/04/2013
End date: 26/04/2013
Organising entity: SPIE
Type of contribution: Scientific paper
J. M. Ramirez; Y. Berencén; D.Navarro-Urrios; F. Ferrarese Lupi; O. Anopchenko; N. Prtljaga; P. Rivallin; A. Tengattini; J. Colonna; F. Milesi; J. Fedeli; L. Pavesi; B. Garrido. "Opto-electrical characterization of erbium-doped slot waveguides". En: Proc. SPIE 8767, Integrated Photonics: Materials, Devices, and Applications II. 24/04/2013.

32 **Title of the work:** Optomechanical coupling in 1D corrugated structures with complete dual photonic and phononic band gap
Name of the conference: IMAGINANO 2013
Type of event: Conference
Geographical area: Non EU International
Type of participation: Participatory - invited/keynote talk
Reasons for participation: Upon invitation
Date of event: 23/04/2013
End date: 26/04/2013
Organising entity: FUNDACION PHANTOMS
City organizing entity: Bilbao, Spain
J. Gomis-Bresco; D. Navarro-Urrios; C. M. Sotomayor-Torres.

33 **Title of the work:** Optical and mechanical mode tuning on a 1D optomechanical resonator by means of thermo-optic effects and modified loadings
Name of the conference: 7th Optoelectronics and Photonics Winter school
Type of event: Conference
Type of participation: 'Participatory - poster
City of event: Levico Terme, Italy
Date of event: 16/03/2013
End date: 22/03/2013
Organising entity: Centre of Materials and Microsystems, Fondazione Bruno Kessler; University of Trento
D. Navarro-Urrios; J. Gomis-Bresco; F. Alzina; D. Puerto; A. Griol; A. Martínez; C. M. Sotomayor Torres.

34 **Title of the work:** Optical characterization of 1D and 2D Silicon PhoXonic crystals with an evanescent light coupling technique
Name of the conference: 3rd Conferencia Española de Nanofotonica CEN2012
Type of participation: 'Participatory - poster

City of event: Carmona, Andalusia, Spain
Date of event: 01/10/2012
End date: 04/10/2012
Organising entity: FUNDACION PHANTOMS
Publication in conference proceedings: Yes
D. Navarro-Urrios; J. Gomís-Bresco; F. Alzina; C. Sotomayor-Torres; D. Puerto; A. Griol; A. Martinez. "Optical characterization of 1D and 2D Silicon PhoXonic crystals with an evanescent light coupling technique". En: Libro de abstracts CEN2012. pp. 47 - 47.

35 **Title of the work:** Combination of optical microtransmission and microphotoluminescence techniques for local characterization of rare earth doped glass microspheres
Name of the conference: 12th edition of Trends in Nanotechnology International Conference (TNT2011)
Type of participation: Participatory - oral communication
City of event: Tenerife, Canary Islands, Spain
Date of event: 21/11/2011
End date: 25/11/2011
Organising entity: FUNDACION PHANTOMS
D. Navarro-Urrios; M. Baselga; F. Ferrarese Lupi; L. L. Martín; C. Pérez-Rodríguez; I. R. Martín; C. Vasconcelos and N. E. Capuj. "Combination of optical microtransmission and microphotoluminescence techniques for local characterization of rare earth doped glass microspheres". En: TNT2011 Conference Abstracts Book. pp. 13 - 14.

36 **Title of the work:** Combination of optical microtransmission and microphotoluminescence techniques for local characterization of rare earth doped glass microspheres
Name of the conference: GFP 2011 - 8th International Conference on Group IV Photonics
Type of participation: 'Participatory - poster
City of event: London,
Date of event: 14/09/2011
End date: 16/09/2011
Organising entity: IEEE
A. Tengattini; A. Marconi; A. Anopchenko; N. Prtljaga; L. Pavesi; J.M. Ramírez; O. Jambois; Y. Berencén; D. Navarro-Urrios; B. Garrido. "Combination of optical microtransmission and microphotoluminescence techniques for local characterization of rare earth doped glass microspheres". En: GFP 2011 - 8th International Conference on Group IV Photonics Proceedings. pp. 77 - 79. Citations: 2 (Source:SCOPUS),

37 **Title of the work:** Optical characterisation of high Q silicon rich silicon nitride ?-disks in the visible range
Name of the conference: European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO®/Europe-EQEC)
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Munich, Germany
Date of event: 22/05/2011
End date: 26/05/2011
Organising entity: CLEO EUROPE
Daniel Navarro-Urrios; Federico Ferrarese Lupi; Josep Monserrat; Carlos Dominguez; Paolo Pellegrino; Blas Garrido.

38 **Title of the work:** Electrical Excitation of Erbium and Energy Transfer in efficient Silicon Nanocomposite LEDs
Name of the conference: 13th Italian National Conference of Photonic Technologies
Type of event: Conference

Type of participation: Participatory - invited/keynote talk
City of event: Genova, Italy
Date of event: 09/05/2011
End date: 11/05/2011
Organising entity: AEIT – Federazione Italiana di Elettrotecnica, Elettronica, Automazione, Informatica e Telecomunicazioni
A. Tengattini; A. Anopchenko; A. Marconi; N. Prtljaga; N. Daldosso; L. Pavesi; J.M. Ramirez; O. Jambois; Y. Berencén; D. Navarro-Urrios; B. Garrido; F. Milesi; J.-P.Colonna; J.-M. Fedeli.

39 **Title of the work:** Opto-electrical characterization of erbium-doped slot waveguides
Name of the conference: SPIE Microtechnologies 2011, Conference 8069: Integrated Photonics
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Prague, Czech Republic
Date of event: 18/04/2011
End date: 20/04/2011
Organising entity: SPIE
Type of contribution: Scientific paper
O. Anopchenko; A. Marconi; N. Prtljaga; N. Daldosso; O. Jambois; J. M. Ramirez; D.Navarro-Urrios; B. Garrido; J. Colonna; F. Milesi; J. Fedeli; L. Pavesi. "Opto-electrical characterization of erbium-doped slot waveguides". En: Proc. SPIE 8431, Silicon Photonics and Photonic Integrated Circuits III. 01/06/2012.

40 **Title of the work:** Alternating current excitation of silicon-nanocluster-sensitized erbium
Name of the conference: SPIE Microtechnologies 2011, Conference 8069: Integrated Photonics
Type of participation: Participatory - oral communication
City of event: Prague, Czech Republic
Date of event: 18/04/2011
End date: 20/04/2011
Organising entity: SPIE
O. Anopchenko; A. Marconi; N. Prtljaga; N. Daldosso; O. Jambois; J. M. Ramirez; D.Navarro-Urrios; B. Garrido; J. Colonna; F. Milesi; J. Fedeli; L. Pavesi.

41 **Title of the work:** The excitation of Er-doped Si nanocomposites under field-enhanced Fowler-Nordheim tunneling
Name of the conference: E-MRS Fall meeting, 2010
Type of participation: Participatory - oral communication
City of event: Strasbourg, France
Date of event: 13/09/2010
End date: 16/09/2010
Organising entity: Material Research Society
A. Anopchenko; A. Marconi; N. Prtljaga; N. Daldosso; L. Pavesi; O. Jambois; J. M. Ramirez; D. Navarro-Urrios; B. Garrido; J.-M. Fedeli.

42 **Title of the work:** Spontaneous Emission Dynamics and Purcell Enhancement in Si-nc-Based Microdisk Resonators
Name of the conference: Integrated Photonics Research, Silicon and Nanophotonics (IPRSN), 2010
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Monterey, United States of America
Date of event: 25/07/2010
Organising entity: Optical Society of America

Mher Ghulinyan; Alessandro Pitanti; Daniel Navarro-Urrios; Georg Pucker; Lorenzo Pavesi. "Spontaneous Emission Dynamics and Purcell Enhancement in Si-nc-Based Microdisk Resonators". En: Integrated Photonics Research, Silicon and Nanophotonics (IPRSN) 2010 paper: IMA5. pp. 1 - 3.

43 **Title of the work:** Silicon Quantum Dots in Microkylix and Microdisk Resonators: From Stress-induced Q-factor Tuning to Purcell Enhancement of Emission Rates
Name of the conference: Progress In Electromagnetics Research Symposium, PIERS-2010
Type of participation: Participatory - oral communication
City of event: Cambridge, United States of America
Date of event: 05/07/2010
End date: 08/07/2010
Organising entity: Electromagnetics Academy
Mher Ghulinyan; Alessandro Pitanti; Daniel Navarro-Urrios; Georg Pucker; Lorenzo Pavesi. "Silicon Quantum Dots in Microkylix and Microdisk Resonators: From Stress-induced Q-factor Tuning to Purcell Enhancement of Emission Rates". En: Proceedings of the PIERS-2010. pp. 498 - 498.

44 **Title of the work:** Si nanoclusters coupled to Er3+ ions in a SiO2 matrix for optical amplification
Name of the conference: 2nd Conferencia Española de Nanofotonica CEN2010
Type of participation: 'Participatory - poster
City of event: Segovia, Castile and León, Spain
Date of event: 15/06/2010
End date: 18/06/2010
Organising entity: FUNDACION PHANTOMS
D. Navarro-Urrios; A. Pitanti; F. Ferrarese-Lupi; O. Jambois; N. Daldosso; L. Pavesi; B. Garrido. "Si nanoclusters coupled to Er3+ ions in a SiO2 matrix for optical amplification". En: Libro de abstracts CEN2010. pp. 195 - 196.

45 **Title of the work:** Whispering gallery mode optical characterization on Si rich Si3N4 active microdisk resonators
Name of the conference: 2nd Conferencia Española de Nanofotonica CEN2010
Type of participation: Participatory - oral communication
City of event: Segovia, Castile and León, Spain
Date of event: 15/06/2010
End date: 18/06/2010
Organising entity: FUNDACION PHANTOMS
D. Navarro-Urrios; F. Ferrarese-Lupi; J.Montserrat; C. Dominguez; B. Garrido. "Whispering gallery mode optical characterization on Si rich Si3N4 active microdisk resonators". En: Libro de abstracts CEN2010. pp. 97 - 98.

46 **Title of the work:** Silicon photonics with Er-based amplifier
Name of the conference: E-MRS 2010 Spring Meeting Symposium K
Type of event: Conference
Type of participation: Participatory - invited/keynote **Reasons for participation:** Upon invitation talk
City of event: Strasbourg, France
Date of event: 07/06/2010
End date: 11/06/2010
Organising entity: Material Research Society
D. Navarro-Urrios.

47 **Title of the work:** Erbium implanted silicon rich oxide thin films suitable for slot waveguides applications
Name of the conference: E-MRS 2010 Spring Meeting Symposium K
Type of participation: Participatory - oral communication
City of event: Strasbourg, France
Date of event: 07/06/2010
End date: 11/06/2012
Organising entity: Material Research Society
Nikola Prtljaga; Alessandro Marconi; Oleksiy Anopchenko; Nicola Daldosso; Daniel Navarro-Urrios; Olivier Jambois; Blas Garrido; Jean-Marc Fedeli; Lorenzo Pavesi.

48 **Title of the work:** Optically active substoichiometric Si3N4 ?-cavities vertically coupled to strip waveguides
Name of the conference: E-MRS 2010 Spring Meeting Symposium K
Type of participation: 'Participatory - poster
City of event: Strasbourg, France
Date of event: 07/06/2010
End date: 11/06/2010
Organising entity: Material Research Society
F. Ferrarese-Lupi; D. Navarro-Urrios; J. Montserrat; C. Dominguez; P. Pellegrino and B. Garrido.

49 **Title of the work:** Nanoestructuras de Silicio para aplicaciones en Fotónica: materiales y dispositivos
Name of the conference: LA CIENCIA EN EL SIGLO XXI: Nanomateriales
Type of event: Seminar
Reasons for participation: Upon invitation
City of event: La Laguna, Canary Islands, Spain
Date of event: 04/12/2009
Organising entity: Universidad de La Laguna **Type of entity:** University
Daniel Navarro Urrios.

50 **Title of the work:** Active Si-based u-disks for sensoristic applications
Name of the conference: II Jornada IN2UB 2009
Type of participation: 'Participatory - poster
City of event: Barcelona, Spain
Date of event: 08/09/2009
Organising entity: IN2UB
F. Ferrarese-Lupi; D. Navarro-Urrios; M. Perálvarez; P. Pellegrino; B. Garrido. "Active Si-based u-disks for sensoristic applications". En: Libro de abstracts de II Jornada IN2UB. pp. 49 - 49.

51 **Title of the work:** Silicon quantum dots in microdisk resonators: whispering-gallery modes,stress-induced Q-factor tuning and enhancement
Name of the conference: Photonic Materials, Devices, and Applications III 2009
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Dresden, Germany
Date of event: 04/05/2009
End date: 06/05/2009
Organising entity: SPIE
G. Pucker; M. Ghulinyan; A. Pitanti; M. Xie; D. Navarro-Urrios; A. Lui; L. Pavesi; A. Simoni. "Silicon quantum dots in microdisk resonators: whispering-gallery modes,stress-induced Q-factor tuning and enhancement". En: Proc. SPIE 7366, Photonic Materials, Devices, and Applications III, 73660M (2009).

52 **Title of the work:** Whispering-gallery modes and Purcell effect in a Si-nanocrystal-based single microdisk resonator
Name of the conference: 5th IEEE International Conference on Group IV Photonics 2008
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Sorrento, Italy
Date of event: 17/09/2008
End date: 19/09/2008
Organising entity: IEEE
M. Ghulinyan; D. Navarro-Urrios; A. Pitanti; A. Lui; G. Pucker; L. Pavesi. "Whispering-gallery modes and Purcell effect in a Si-nanocrystal-based single microdisk resonator". En: 5th IEEE International Conference Proceedings,. pp. 225 - 227.

53 **Title of the work:** Er3+ coupled to Si nanoclusters rib waveguides
Name of the conference: 5th IEEE International Conference on Group IV Photonics 2008
Type of participation: Participatory - oral communication
City of event: Sorrento, Italy
Date of event: 17/09/2008
End date: 19/09/2008
Organising entity: IEEE
A. Pitanti; D. Navarro-Urrios; R. Guider; N. Daldosso; L. Khomenkova; F. Gourbilleau; C.J. Oton; W. Loh; R. Rizk; O. Jambois; B. Garrido; L. Pavesi. "Er3+ coupled to Si nanoclusters rib waveguides". En: 5th IEEE International Conference Proceedings. pp. 212 - 214.

54 **Title of the work:** Silicon Nanophotonics: the search for an all silicon amplifier
Name of the conference: E-MRS 2008 Spring Meeting Symposium C
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Strasbourg, France
Date of event: 26/05/2008
End date: 30/05/2008
Organising entity: Material Research Society
D. Navarro Urrios; O. Anopchenko; M. Cazzanelli; R. Guider; A. Marconi; A. Pitanti; N. Prtljaga; S. Prezioso; M. Wang; N. Daldosso; L. Pavesi.

55 **Title of the work:** Optimization of the coupling between Er ions and Si-nc sputtered waveguides
Name of the conference: SEDWAL Workshop 2008
Type of participation: Participatory - oral communication
City of event: Levico Terme, Italy
Date of event: 13/04/2008
End date: 15/04/2008
Organising entity: Università degli Studi di Trento - University of Amsterdam
D. Navarro Urrios. "Optimization of the coupling between Er ions and Si-nc sputtered waveguides". En: SEDWAL Workshop Proceedings. pp. 18.

56 **Title of the work:** Further improvements in Er3+ coupled to Si nanoclusters rib waveguides
Name of the conference: SPIE Silicon Photonics and Photonic Integrated Circuits 2008
Type of participation: Participatory - oral communication
City of event: Strasbourg, France
Date of event: 07/04/2008
End date: 10/04/2008

Organising entity: SPIE
A. Pitanti; D. Navarro-Urrios; R. Guider; N. Daldosso; F. Gourbilleau; L. Khomenkova; R. Rizk; L. Pavesi. "Further improvements in Er3+ coupled to Si nanoclusters rib waveguides". En: Proc. SPIE, 6996, Silicon Photonics and Photonic Integrated Circuits 699619. Citations:7 (Source:SCOPUS), 2008.

57 **Title of the work:** Erbium and silicon nanocrystals for light amplification
Name of the conference: 20th Annual Meeting of the IEEE Lasers and Electro-Optics Society 2007
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Lake Buena Vista, United States of America
Date of event: 21/10/2007
End date: 24/10/2007
Organising entity: IEEE
N. Daldosso; D. Navarro-Urrios; A. Pitanti; F. Gourbilleau; R. Rizk; L. Pavesi. "Erbium and silicon nanocrystals for light amplification". En: 20th Annual Meeting of the IEEE Lasers and Electro-Optics Society 2007 Proceedings. pp. 933 - 934. 2007.

58 **Title of the work:** Assessment of the Excited Carrier absorption losses in Si-nc rib-waveguides
Name of the conference: Group IV Photonics, 4th IEEE International Conference, 2007
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Tokyo, Japan
Date of event: 19/09/2007
End date: 21/09/2007
Organising entity: IEEE
D. Navarro-Urrios; A. Pitanti; L. Ferraioli; N. Daldosso; F. Gourbilleau; R. Rizk; L. Pavesi. "Assessment of the Excited Carrier absorption losses in Si-nc rib-waveguides". En: Group IV Photonics, 4th IEEE International Conference Proceedings. pp. 67 - 69. 2007.

59 **Title of the work:** Study on the optical properties dependence of annealing time in Er3+ coupled to Si nanoclusters rib-waveguides
Name of the conference: Photoluminescence in Rare Earths: Photonic Materials and Devices (PRE'07)
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Trento, Italy
Date of event: 31/05/2007
End date: 01/05/2007
Organising entity: Italian Society of Optics and Photonics
D. Navarro Urrios; N. Daldosso; A. Pitanti; F. Gourbilleau; R. Rizk; P. Pellegrino; B. Garrido and L. Pavesi.

60 **Title of the work:** Optical gain in dye-doped polymer waveguides using oxidized porous silicon cladding
Name of the conference: SPIE Microtechnologies for the New Millenium, 2007
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Maspalomas, Canary Islands, Spain
Date of event: 02/05/2007
End date: 04/05/2007
Organising entity: SPIE
D. Navarro-Urrios; M. Ghulinyan; P. Bettotti; N. Capuj; C. J. Oton; F. Lahoz; I. R. Martin; L. Pavesi. "Optical gain in dye-doped polymer waveguides using oxidized porous silicon cladding". En: Proc. SPIE 6593, Photonic Materials, Devices, and Applications II, 659321 (2007). Citations: 1 (Source:SCOPUS), 2007.

61 **Title of the work:** Signal enhancement in Er3+ coupled to Si nanoclusters rib-waveguides
Name of the conference: SPIE Microtechnologies for the New Millenium, 2007
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Maspalomas, Canary Islands, Spain
Date of event: 02/05/2007
End date: 04/05/2007
Organising entity: SPIE
D. Navarro-Urrios; N. Daldosso; L. Ferraioli; F. Gourbilleau; R. Rizk; P. Pellegrino; B. Garrido; L. Pavesi. "Signal enhancement in Er3+ coupled to Si nanoclusters rib-waveguides". En: Proc. SPIE 6593, Photonic Materials, Devices, and Applications II, 65930N (2007). 2007.

62 **Title of the work:** Stimulated emission and light amplification in Ho3+ doped oxyfluoride glasses and glass-ceramics
Name of the conference: SPIE Microtechnologies for the New Millenium, 2007
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Maspalomas, Canary Islands, Spain
Date of event: 02/05/2007
End date: 04/05/2007
Organising entity: SPIE
F. Lahoz; N. E. Capuj; D. Navarro-Urrios; S. E. Hernández. "Stimulated emission and light amplification in Ho3+ doped oxyfluoride glasses and glass-ceramics". En: Proc. SPIE 6593, Photonic Materials, Devices, and Applications II, 65930M (2007). 2007.

63 **Title of the work:** Signal enhancement improvement at 1535 nm of Si-nc: Er3+ waveguides
Name of the conference: Group IV Photonics, 3th IEEE International Conference, 2006
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Ottawa, Canada
Date of event: 13/09/2006
End date: 15/09/2006
Organising entity: IEEE
D. Navarro-Urrios; N. Daldosso; F. Gourbilleau; R. Rizk; B. Garrido; L. Pavesi. "Signal enhancement improvement at 1535 nm of Si-nc: Er3+ waveguides". En: Group IV Photonics, 3th IEEE International Conference Proceedings, (2006). pp. 222 - 224. 2006.

64 **Title of the work:** Silicon nanostructures for photonics applications
Name of the conference: SEMINANO 2005 Workshop
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Budapest, Hungary
Date of event: 21/06/2006
End date: 23/06/2006
Organising entity: Middle East Technical University **Type of entity:** University
City organizing entity: Turkey
P. Bettotti; M. Cazzanelli; N. Daldosso; L. Ferraioli; Z. Gaburro; M. Ghulinyan; D. Navarro-Urrios; M. Melchiorri; F. Riboli; S. Prezioso; L. Pavesi. "Silicon nanostructures for photonics applications". En: Proceedings of the First International Workshop of Semiconductor Nanocrystals, SEMINANO 2005. 2, pp. 267 - 270. 2005.

65 **Title of the work:** Optical losses and gain in silicon-rich Silica waveguides containing Er ions
Name of the conference: E-MRS 2006 Spring Meeting Symposium D
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Nice, France
Date of event: 29/05/2006
End date: 02/06/2006
Organising entity: Material Research Society
D. Navarro-Urrios; M. Melchiorri; N. Daldosso; L. Pavesi; C. García; P. Pellegrino; B. Garrido; G. Pucker; F. Gourbilleau; R.Rizk.

66 **Title of the work:** Optical gain in dye-impregnated oxidized porous silicon waveguides
Name of the conference: Porous Semiconductors Science and Technology International Congress
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Sitges, Catalonia, Spain
Date of event: 12/03/2006
End date: 17/03/2006
Organising entity: pSiMedica Ltd., UK; University of Tokyo, JAPAN; University of California at San Diego, USA; University of Valencia
C.J. Oton; D. Navarro-Urrios; M. Ghulinyan; N.E. Capuj; S. Gonzalez-Perez; F. Lahoz; I.R. Martin; L. Pavesi.

67 **Title of the work:** Waveguiding, absorption and emission properties of dye-impregnated oxidized porous silicon waveguides
Name of the conference: Porous Semiconductors Science and Technology International Congress
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Sitges, Catalonia, Spain
Date of event: 12/03/2006
End date: 17/03/2006
Organising entity: pSiMedica Ltd., UK; University of Tokyo, JAPAN; University of California at San Diego, USA; University of Valencia
D. Navarro-Urrios; M. Ghulinyan; N.E. Capuj; C.J. Oton; F. Riboli; I.R. Martin; L. Pavesi.

68 **Title of the work:** Pump-probe experiments on low loss silica waveguides containing Si nanocrystals
Name of the conference: Material Research Society Symposium F, Fall meeting, 2005
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Boston, United States of America
Date of event: 27/11/2005
End date: 02/12/2005
Organising entity: Material Research Society
N. Daldosso; D. Navarro-Urrios; M. Melchiorri; L. Pavesi; F. Gourbilleau; M. Carrada; R. Rizk; C. García; P. Pellegrino; B. Garrido; and L. Cognolato. En: Mater. Res. Soc. Symp. Proc. Vol. 832, F11.3.1. 2005.

69 **Title of the work:** Pump-probe experiments on low loss silica waveguides containing Si nanocrystals
Name of the conference: Material Research Society Symposium F, Fall meeting, 2005
Type of event: Conference
Type of participation: 'Participatory - poster
City of event: Boston, United States of America

Date of event: 27/11/2005
End date: 02/12/2005
Organising entity: Material Research Society
D. Navarro-Urrios; N. Daldosso; M. Melchiorri; F. Sbrana; L. Pavesi; C. García; B. Garrido; P. Pellegrino; J.R. Morante; E.Scheid and G. Sarrabayrouse. "Pump-probe experiments on low loss silica waveguides containing Si nanocrystals". En: Mater. Res. Soc. Symp. Proc. Vol. 832, F10.11.1. 2005.

70 **Title of the work:** Birefringence characterization of mono-dispersed Si-nc planar waveguides
Name of the conference: European Material Research Society Spring meeting 2004, Symposium A1
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Estrasburgo, France
Date of event: 24/05/2005
End date: 28/05/2005
Organising entity: Material Research Society
N. Daldosso; D. Navarro-Urrios; F. Riboli; M. Cazzanelli; L. Pavesi; C. J. Oton; L. X. Yi; R. Scholz; and M. Zacharias.

71 **Title of the work:** Porous silicon-based Notch filters and waveguides
Name of the conference: SPIE Microtechnologies for the New Millenium, 2005
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Sevilla, Andalusia, Spain
Date of event: 09/05/2005
End date: 11/05/2005
Organising entity: SPIE
C. J. Oton; E. Lorenzo; N. Capuj; F. Lahoz; I. R. Martín; D. Navarro-Urrios; M. Ghulinyan; F. Sbrana; Z. Gaburro; L. Pavesi. "Porous silicon-based Notch filters and waveguides". En: Proceedings of SPIE, 5840, Photonic Materials, Devices, and Applications. pp. 434 - 443. 2005.

72 **Title of the work:** Silicon Photonics Research in Trento: an Integrated Approach
Name of the conference: The 8th World Multi-Conference on Systemics, Cybernetics and Informatics, 2004
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
City of event: Orlando, Florida, United States of America
Date of event: 18/07/2004
End date: 21/07/2004
Organising entity: International Institute of Informatics and Systemics
L. Pavesi; Z. Gaburro; N. Daldosso; F. Sbrana; M. Cazzanelli; M. Ghulinyan; P. Bettotti; D. Navarro-Urrios; M. Melchiorri; F. Riboli; M. Saiani. "Silicon Photonics Research in Trento: an Integrated Approach". En: Proceedings of SCI2004, The 8th World Multi-Conference on Systemics, Cybernetics and Informatics, Vol. XV. pp. 21 - 26. 2004.

73 **Title of the work:** Porous silicon-based rugate filters
Name of the conference: Porous Semiconductors Science and Technology International Congress
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Cullera,
Date of event: 14/03/2004
End date: 19/03/2004

Organising entity: pSiMedica Ltd., UK; University of Tokyo, JAPAN; University of California at San Diego, USA; University of Valencia
E. Lorenzo; C. J. Oton; N. E. Capuj; M. Ghulinyan; D. Navarro-Urrios; Z. Gaburro; L. Pavesi.

74 **Title of the work:** Role of microstructure and layer thickness in porous silicon gas sensors
Name of the conference: Porous Semiconductors Science and Technology International Congress
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Cullera, Valencian Community, Spain
Date of event: 14/03/2004
End date: 19/03/2004
Organising entity: pSiMedica Ltd., UK; University of Tokyo, JAPAN; University of California at San Diego, USA; University of Valencia
Z. Gaburro; C. J. Oton; M. Ghulinyan; L. Pancheri; D. Navarro-Urrios; M. Saiani; N. E. Capuj; and L. Pavesi.

75 **Title of the work:** On the Route Towards a Monolithically Integrated Silicon Photonics
Name of the conference: International Conference on Communication, Devices and Intelligent Systems (CODIS 2004)
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Kolkata, India
Date of event: 08/01/2004
End date: 10/01/2004
Organising entity: IEEE
N. Daldosso; P. Bettotti; M. Cazzanelli; Z. Gaburro; M. Ghulinyan; M. Melchiorri; D. Navarro-Urrios; F. Riboli; F. Sbrana; L. Pavesi. "On the Route Towards a Monolithically Integrated Silicon Photonics". En: Proceedings of International Conference on Communication, Devices and Intelligent Systems (CODIS 2004). pp. 287 - 298. 2004.

76 **Title of the work:** Chemical etching effects in porous silicon layers
Name of the conference: SPIE Microtechnologies for the New Millenium
Type of event: Conference
Type of participation: Participatory - oral communication
City of event: Maspalomas, Canary Islands, Spain
Date of event: 19/05/2003
End date: 20/05/2003
Organising entity: SPIE
D. Navarro-Urrios; C. Pérez-Padrón; E. Lorenzo; N. E. Capuj; Z. Gaburro; C. J. Oton and L. Pavesi. "Chemical etching effects in porous silicon layers". En: Proceedings of SPIE, Nanotechnology, 5118. pp. 109 - 115. Citations: 2 (Source:WOS), 2003.

R&D management and participation in scientific committees

Evaluation and revision of R&D projects and articles

Performed tasks: Reviewer in several journals such as Applied Physics Letters, Journal of Applied Physics, Optics Express, Journal of Physics D, Journal of Lightwave and Technology, Optical Materials, etc.
Type of activity: Review of articles in scientific or technological journals
Geographical area: Non EU International

Other achievements

Stays in public or private R&D centres

1 **Entity:** Consiglio Nazionale delle Ricerche (CNR) **Type of entity:** Public Research Body
Faculty, institute or centre: Instituto Nanoscienze- Sede Pisa-NEST
City of entity: Pisa, Italy
Start-End date: 17/03/2014 - 30/09/2015 **Duration:** 6 months
Name of programme: Ricercatore Livello III
Goals of the stay: Contracted

2 **Entity:** Universitat de Barcelona **Type of entity:** University
Faculty, institute or centre: Departament d'Electrònica
Start-End date: 01/06/2008 - 30/05/2011 **Duration:** 3 years
Funding entity: Ministerio de Ciencia e Innovación. Investigación
Name of programme: Juan de la Cierva
Goals of the stay: Contracted

3 **Entity:** FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
Start date: 15/09/2011 **Duration:** 2 years
Funding entity: Generalitat de Catalunya **Type of entity:** -
Name of programme: Beatriu de Pinós Modalidad B
Goals of the stay: Contracted

4 **Entity:** Departamento de Materia Condensada y Criogenia del Instituto de Investigaciones en Materiales (Universidad Nacional Autónoma de México) **Type of entity:** University
City of entity: México D.F., Mexico
Start date: 2007 **Duration:** 10 days
Name of programme: Photoluminiscence studies in Silicon nanoclusters embedded in Silicon nitride thin films for photonic applications
Goals of the stay: Guest

5 **Entity:** Facoltà di Scienze, Università di Trento **Type of entity:** University
City of entity: Trento,
Start date: 2006 **Duration:** 1 year - 8 months

Name of programme: Optical characterization of photonic circuits fabricated in a slot waveguide configuration
Goals of the stay: Contracted

6 **Entity:** Facoltà di Scienze, Università di Trento **Type of entity:** University
City of entity: Trento,
Start date: 2004 **Duration:** 7 months
Name of programme: Measurements of Optical Amplification In Silicon Nanocrystals
Goals of the stay: Contracted

7 **Entity:** INFM (Istituto Nazionale della Fisica della Materia)
Faculty, institute or centre: Trento Unit
City of entity: Trento,
Start date: 2002 **Duration:** 2 years
Name of programme: Measurements of Optical Amplification In Silicon Nanocrystals
Goals of the stay: Contracted

Obtained grants and scholarships

1 **Name of the grant:** Ayudas para contratos Ramón y Cajal (RYC) 2014
Aims: Post-doctoral
Awarding entity: Ministerio de Ciencia e Innovación **Type of entity:** Public
Conferral date: 25/09/2015

2 **Name of the grant:** Beatriu de Pinòs, Modalidad B
Aims: Post-doctoral
Awarding entity: AGENCIA DE GESTIO D'AJUTS UNIVERSITARIS I DE RECERCA
Conferral date: 15/09/2011 **Duration:** 2 years

3 **Name of the grant:** Juan de la Cierva
Aims: Post-doctoral
Awarding entity: Ministerio de Ciencia e Innovación. Investigación **Type of entity:** -
Conferral date: 01/06/2008 **Duration:** 3 years

Scientific societies and professional associations

Name of the society: Member of the Optical Society of America
Affiliation entity: Optical Society of America **Type of entity:** Foundation
City affiliation entity: Washington DC, United States of America
Start-End date: 01/03/2011 - 29/02/2012

Prizes, mentions and distinctions

Description: Premio Extraordinario de Doctorado por la división de Ciencias Experimentales y Técnicas
Awarding entity: Universidad de La Laguna **Type of entity:** University
Conferral date: 2007

Obtained accreditations/recognitions

1 **Description:** Acreditación de Profesor Agregado
Accrediting entity: AGENCIA PER A LA QUALITAT DEL SISTEMA UNIVERSITARI DE CATALUNYA
City accrediting entity: Catalonia, Spain
Date of recognition: 24/05/2013

2 **Description:** Acreditación de Profesor Titular
Accrediting entity: Agencia Nacional de Evaluación **Type of entity:** Agencia de la Calidad y Acreditación
Date of recognition: 14/04/2011

3 **Description:** Acreditación de Profesor Lector
Accrediting entity: AGENCIA PER A LA QUALITAT DEL SISTEMA UNIVERSITARI DE CATALUNYA
City accrediting entity: Catalonia, Spain
Date of recognition: 28/04/2009

Summary of other achievements

1 **Description of the achievement:** Organizer of Symposium "Organized Nanostructures and Nano-objects: Fabrication, characterization and applications" in EMRS-2018 Falll
Accrediting entity: Material Research Society
Conferral date: 2018

2 **Description of the achievement:** Editorial Board Member for Scientific Reports Journal
Accrediting entity: NPG Nature Research Journals
Conferral date: 2017

3 **Description of the achievement:** Acted as chairmain in Symposimum E of EMRS-2016 Fall Meeting in Warsaw, Polan.
Accrediting entity: Material Research Society
Conferral date: 09/2016

4 **Description of the achievement:** Referee of PhD thesis Sara Martín Pérez, University of La Laguna, Spain
Accrediting entity: Universidad de La Laguna
Conferral date: 2011

5 **Description of the achievement:** Acted as chairmain in Symposimum K of EMRS-2010 Spring Meeting in Strasbourg, France.
Accrediting entity: Material Research Society
Conferral date: 06/2010

6 **Description of the achievement:** Referee of 8 scientific journals such including Applied Physics Letters, Journal of Applied Physics, Optics Express and Journal of Lightwave and Technology

7 **Description of the achievement:** Reviewer of several project proposals for calls of different national agencies such as the Deutsche Forschungsgemeinschaft (DFG, Germany) and the Agencia Nacional de Evaluación y Prospectiva (ANEP, Spain)