



Manuel Aleixandre Herrero

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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.

According Web of Science to he has the following statistics:

70 Publications

1,793 Cites

23 H-Index

Manuel Aleixandre Herrero

Surname(s): **Aleixandre Herrero**
Name: **Manuel**
ORCID: **0000-0003-0620-2757**
ScopusID: **8220265900**
ResearcherID: **D-7391-2014**

Current professional situation

Employing entity: Tokyo Institute of Technology **Type of entity:** University

Department: Laboratory for Future Interdisciplinary Research of Science and Technology

Professional category: Contracted Researcher

Start date: 01/10/2018

Type of contract: Temporary

Primary (UNESCO code): 120325 - Sensor systems design

Performed tasks: Development, characterization, and calibration of odor generation systems.

Development of gravimetric gas sensors (QCM) based on ionic liquids to detect, identify, and quantify odors. Active odor sensing.

Identify key words: Sensors; Perception; Gas sensors

Previous positions and activities

	Employing entity	Professional category	Start date
1	Consejo Superior de Investigaciones Científicas	Researcher contract in project	20/09/2016
2	Consejo Superior de Investigaciones Científicas	Researcher contract in project	27/11/2014
3	Sgenia	Engineer	10/02/2014
4	Consejo Superior de Investigaciones Científicas	Researcher Excellence Grant	01/08/2011
5	Consejo Superior de Investigaciones Científicas	Postdoctoral grant contract (JAE DOC - CSIC)	15/12/2010
6	Consejo Superior de Investigaciones Científicas	Researcher contract in project	19/06/2009
7	Consejo Superior de Investigaciones Científicas	Researcher contract in project	01/02/2009
8	Consejo Superior de Investigaciones Científicas	Researcher contract in project	01/01/2008
9	Consejo Superior de Investigaciones Científicas	Researcher contract in project	08/07/2007
10	Consejo Superior de Investigaciones Científicas	Bachelor contract in a research project	08/07/2006
11	Consejo Superior de Investigaciones Científicas	PhD Grant	01/01/2002



	Employing entity	Professional category	Start date
12	Universidad de Extremadura	Bachelor contract in a research project	01/06/2000

- 1** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** Public Research Body
Department: Sensores y Sistemas Ultrasónicos, Instituto de Tecnologías Físicas y de la Información
Professional category: Researcher contract in project
Start-End date: 20/09/2016 - 18/08/2017 **Duration:** 11 months - 25 days
Performed tasks: Development of nanostructured sensors to detect and quantify pollutant gases. Deposition of nanostructured materials with electrospinning and Chemical Vapour Deposition (CVD). Pyhysical characterization of gas sensors. Automation of measurements and sensor characterization and evaluation of performance.
Applicability in teaching and/or research: During this period studies of nanostructured gas sensors were carried out showing the possibility of using them to increase sensitivity and sensor response time. The possibility of room temperature gas sensors was proven.
- 2** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Sensores y Sistemas Ultrasónicos, Instituto de Tecnologías Físicas y de la Información
City employing entity: Madrid, Community of Madrid, Spain
Professional category: Researcher contract in project **Educational Management (Yes/No):** No
Start-End date: 27/11/2014 - 31/08/2016 **Duration:** 1 year - 9 months - 4 days
Type of contract: Temporary employment contract
Primary (UNESCO code): 220109 - Ultrasonics
Secondary (UNESCO code): 330801 - Air pollution control
Performed tasks: Medidas de aerosoles y aglomeración acústica. Procesamiento y tratamiento de medidas de aerosoles. Desarrollo de modelos de aglomeracion acustica de aerosoles.
Field of management activity: Public Research Body
- 3** **Employing entity:** Sgenia **Type of entity:** Business
Professional category: Engineer
Start-End date: 10/02/2014 - 30/06/2015 **Duration:** 1 year - 2 months - 20 days
Type of contract: Permanent employment contract
Performed tasks: Project management. Development of gas sensor systems. Design of experimental system of measurements. Data analysis and development of measurement classification system. Statistical analysis of clinical data. Preparation and proposal of projects. The work in the company was related to a project for the research and development of an electronic nose applied to medical diagnosis.
Applicability in teaching and/or research: The work carried out was researching the development of artificially olfactory systems, a knowledge field that still remains academic. During this period the candidate made a transfer of knowledge of gas sensors and electronic noses for medical application in and exploitation by the private company. This allows for understanding the needs of the private industry.
- 4** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Professional category: Researcher Excellence Grant
Start-End date: 01/08/2011 - 31/05/2014 **Duration:** 2 years - 9 months - 30 days
Type of contract: Grant-assisted student (pre or post-doctoral, others)



Performed tasks: Evaluation of the use of microsensors of solid state of gases for their use as an indicative method of atmospheric contamination (NO_x, CO, O₃). Analysis of data through multivariate analysis and neural networks. Development of analysis system for sensor cluster. Preparation of calibration protocols and evaluation of gas sensors.

Identify key words: Pollution control; Dataprocessing; Recognition of patterns; Gas sensors

Applicability in teaching and/or research: Grant provided by the European Association of National Metrology Institutes organization.

- 5** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Professional category: Postdoctoral grant contract (JAE DOC - CSIC)
Start-End date: 15/12/2010 - 31/07/2011 **Duration:** 7 months - 15 days
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Performed tasks: Measurements of electromyograms and inertial signals applied to the evaluation of various motor problems related to spinal cord injuries.
Applicability in teaching and/or research: Determination of ed that the coherence of the Tibialis Anterior in the 15 Hz to 30 Hz band during the isokinetic activation at 120° / s provides diagnostic information related to the motor tracts after the incomplete spinal cord injury.
- 6** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Laboratorio de Sensores (Labsen), ITEFI
Professional category: Researcher contract in project
Start-End date: 19/06/2009 - 18/06/2010 **Duration:** 1 year
Performed tasks: Growth and characterization of sensitive materials for use as gas sensors. Development of automated sensor platforms for the characterization of sensors. Analysis of responses and pattern recognition for the application of gas sensors in applications in various fields.
Applicability in teaching and/or research: Research in the multidisciplinary field of artificial olfactory systems. Including machine learning, automation, gas sensors, or material science.
- 7** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Laboratorio de Sensores (Labsen), ITEFI
Professional category: Researcher contract in project
Start-End date: 01/02/2009 - 31/05/2009 **Duration:** 4 months
Performed tasks: Growth and characterization of sensitive materials for use as gas sensors. Development of automated sensor platforms for the characterization of sensors. Analysis of responses and pattern recognition for the application of gas sensors in applications in various fields.
Applicability in teaching and/or research: Research in the multidisciplinary field of artificial olfactory systems. Including machine learning, automation, gas sensors, or material science.
- 8** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Laboratorio de Sensores (Labsen), ITEFI
Professional category: Researcher contract in project
Start-End date: 01/01/2008 - 31/01/2009 **Duration:** 1 year
Performed tasks: Growth and characterization of sensitive materials for use as gas sensors. Development of automated sensor platforms for the characterization of sensors. Analysis of responses and pattern recognition for the application of gas sensors in applications in various fields.
Applicability in teaching and/or research: Research in the multidisciplinary field of artificial olfactory systems. Including machine learning, automation, gas sensors, or material science.

- 9** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Laboratorio de sensores (Labsen), ITEFI
Professional category: Researcher contract in project
Start-End date: 08/07/2007 - 31/12/2007 **Duration:** 6 months - 8 days
Performed tasks: Growth and characterization of sensitive materials for use as gas sensors. Development of automated sensor platforms for the characterization of sensors. Analysis of responses and pattern recognition for the application of gas sensors in applications in various fields.
Applicability in teaching and/or research: Research in the multidisciplinary field of artificial olfactory systems. Including machine learning, automation, gas sensors, or material science.
- 10** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Department: Laboratorio de Sensores (Labsen), ITEFI
Professional category: Bachelor contract in a research project
Start-End date: 08/07/2006 - 08/07/2007 **Duration:** 1 year
Performed tasks: The tasks performed were: - Preparation of surface acoustic wave sensors by growing films of piezoelectric materials by sputtering and deposition of sensitive polymer films. - Preparation of resistive sensors by growing sensitive films by sputtering. - Characterization of resistive sensors of various metal oxides and surface acoustic waves (SAW) of various substrates and thin films. - Growth and characterization of sensitive materials for use as gas sensors, both SAW and resistive. - Development of automated sensor platforms for the characterization of sensors. - Development of software for the analysis of responses and recognition of patterns for its application in various fields.
Applicability in teaching and/or research: Optimization of the deposition of piezoelectric substrates. Use of the electronic nose for various applications in the evaluation of wine and its elaboration. Use of gas sensors for the detection of polluting gases.
- 11** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Professional category: PhD Grant
Start-End date: 01/01/2002 - 31/10/2005 **Duration:** 48 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Performed tasks: Grant in the frame of a European project financed with EURATOM funds. The project consisted in the monitoring of nuclear waste repositories with fiber optic sensors. It was postulated that the fiber optic had great durability and that it could measure parameters such as displacements or stresses for long periods of time. Within the framework of this project, I was investigating the use of fiber optic sensors for the detection of hydrogen. The tasks performed were: - Manufacture of three types of sensors: semitransparent mirror of palladium deposited by sputtering, Bragg network inscribed in an optical fiber that was coated with palladium also by sputtering, and an optical fiber several kilometers long in which the hydrogen entered through diffusion. - Design and manufacture of gas line systems, their installation, control, and automation. - Characterization of the sensors manufactured in the gas lines with mixtures of hydrogen and air. - Modeling and validation of the sensors through experimental measurements.
Applicability in teaching and/or research: It was determined that the palladium mirror sensor was the simplest to build and operate but it did not offer many advantages in its use. The Bragg network offered the possibility of multiplexing several sensors along a single fiber by varying the reflection length of each of these networks. It was estimated that the fiber sensor alone, due to its inert nature, was optimal. Its great disadvantage was that its slowness is not a problem in the application for which it was being considered due to the slowness of the corrosion processes that generate hydrogen.
- 12** **Employing entity:** Universidad de Extremadura **Type of entity:** University
Professional category: Bachelor contract in a research project
Start-End date: 01/06/2000 - 31/12/2001 **Duration:** 1 year - 6 months



Performed tasks: Pre-doctoral contract with the University of Extremadura, in the frame of a national project with FEDER funds. The objective of this project was to develop electronic nose prototypes for monitoring the curing and aging of Iberian ham and the quality of the final product. The tasks performed during this contract included: - Measures (in laboratory and drying chambers of a veterinarian of the University of Extremadura) with electronic noses of hams from different pigs (acorn, feed) or different curing time. - Development and application of Matlab software (pattern recognition) for the classification of hams.

Applicability in teaching and/or research: The main contributions were the development of a series of data analysis techniques for pattern recognition of gas sensor data. Additionally, hams were classified according to their feeding through neural networks that correctly identified the samples, demonstrating their practical application.



Education

University education

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

University degree: Higher degree

Name of qualification: Licenciado en Ciencias Físicas

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

Date of qualification: 28/06/2000

Doctorates

Doctorate programme: Automática e informática industrial

Degree awarding entity: Universidad Nacional de Educación a Distancia **Type of entity:** University

Date of degree: 08/03/2007

Thesis title: Desarrollo y caracterización de sensores de hidrógeno para su aplicación en depósitos de residuos nucleares

Obtained qualification: Sobresaliente Cum Laude

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

- 1 Training title:** Curso Universitario de Especialización en NanoPrevención
Awarding entity: Universidad de Cantabria **Type of entity:** University
End date: 30/07/2017 **Duration in hours:** 150 hours
- 2 Training title:** Cómo planificar, estructurar, diseñar y exponer presentaciones y conferencias científicas
Awarding entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
End date: 31/03/2017 **Duration in hours:** 25 hours
- 3 Training title:** Curso de Iniciación a Técnicas de SPM
Awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
End date: 27/09/2002 **Duration in hours:** 4 hours
- 4 Training title:** Métodos de Cálculo en Física e Ingeniería: Matlab. Nivel Intermedio
Awarding entity: CSIC **Type of entity:** State agency
End date: 31/10/2001 **Duration in hours:** 12 hours
- 5 Type of training:** Residencies
Training title: 3er European School of the "NOSE" Network and The International School on Gas Sensors
City awarding entity: S. Cesarea Terme, Lecce, Italy



Awarding entity: Istituto Superiore Universitario Di
Formazione Interdisciplinare

End date: 02/06/2001

Type of entity: University

Duration in hours: 40 hours

- 6 Type of training:** Residencies
Training title: Artificial Olfactory Sensing Summer School
City awarding entity: Lloret del Mar, Catalonia, Spain
Awarding entity: Institute of Physical And Theoretical
Chemistry, Univesity of Tübingen
End date: 07/10/2000

Type of entity: University

Duration in hours: 40 hours

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	C1	C1	C1	C1	C1
Spanish	C2	C2	C2	C2	C2

Scientific and technological experience

Scientific or technological activities

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

- 1 Name of the project:** Teminair TEC2013-48147-C6-4-R
Entity where project took place: CSIC
Name principal investigator (PI, Co-PI...): José Pedro Santos Blanco
Nº of researchers: 14
Funding entity or bodies:
CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA
Type of entity: Associations and Groups
Start-End date: 01/01/2014 - 31/08/2017
Total amount: 124.000 €
- 2 Name of the project:** Passive And Active Systems On Severe Accident Source Term Mitigation (PASSAM)
Entity where project took place: Europe
Type of entity: Associations and Groups
Nº of researchers: 18
Funding entity or bodies:
CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA
Type of entity: Associations and Groups
Name of the programme: European Comission, 7th framework Programme
Code according to the funding entity: 323217
Start-End date: 01/01/2013 - 31/12/2016
Total amount: 5.111.546 €



- 3** **Name of the project:** Desarrollo de un sistema robótico híbrido exoesqueleto neuroprótesis de miembro superior
Entity where project took place: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Name principal investigator (PI, Co-PI....): Ramón Ceres Ruiz
Nº of researchers: 7
Name of the programme: Consolider-Ingenio
Start-End date: 01/01/2012 - 31/12/2014 **Duration:** 4 years
- 4** **Name of the project:** Análisis de la percepción olfativa para el diseño de sensores de utilidad clínica e industrial (OLFACTOSENSE)
Name principal investigator (PI, Co-PI....): Alberto Ferrús Gomero
Name of the programme: Plan Regional de Investigación Científica e Innovación Tecnológica (PRICIT)
Code according to the funding entity: S-SEM-0255-2006
Start-End date: 01/01/2007 - 31/12/2010 **Duration:** 4 years
Total amount: 50.000 €
- 5** **Name of the project:** Desarrollo de sensores resistivos y másicos para seguridad
Entity where project took place: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Name principal investigator (PI, Co-PI....): M. Carmen Horrillo Güemes
Nº of researchers: 30
Start-End date: 01/12/2007 - 30/11/2010
- 6** **Name of the project:** Síntesis de nanomateriales y estudio de su interacción con diferentes gases para su aplicación en dispositivos sensores (MAGASENS)
Name principal investigator (PI, Co-PI....): Isabel Sayago Olmo
Funding entity or bodies:
MEDU - Ministerio de Educación y Ciencia
Name of the programme: AENN - Acción Estratégica de Nanociencia y Nanotecnología
Code according to the funding entity: NAN2004-09380-C04-01
Start-End date: 2005 - 2008 **Duration:** 3 years
Total amount: 80.500 €
- 7** **Name of the project:** Safety and Operational Monitoring of Nuclear Waste Repositories with Fibre Optic Sensing Systems (SOMOS) (FIKW-CT-2001-00190)
Name principal investigator (PI, Co-PI....): Paul Govaerts
Funding entity or bodies:
Comisión Europea **Type of entity:** 5 Programa Marco
City funding entity: Madrid, Community of Madrid, Spain
Start-End date: 01/12/2001 - 30/11/2004
Total amount: 1.110.202 €
- 8** **Name of the project:** Metrology for Chemical Pollutants in Air (MACPoll)
Name principal investigator (PI, Co-PI....): Annarita Baldan
Funding entity or bodies:
European Metrology Research Program
Name of the programme: Joint Research Project
Code according to the funding entity: MACPoll
Start date: 2011 **Duration:** 3 years



- 9** **Name of the project:** Desarrollo de detectores integrados de monóxido de carbono y gas metano con filtro magnético
Name principal investigator (PI, Co-PI....): F. Javier Gutiérrez Monreal
Funding entity or bodies:
Ministerio de Industria. Proyecto PROFIT y PROFIT-TRACTOR
Name of the programme: Profit 3/2006
Code according to the funding entity: 330101
Start date: 2005 **Duration:** 3 years
Total amount: 20.000 €
- 10** **Name of the project:** Sistemas electrónico para el control del procesado y calidad del jamón ibérico (Jamotón)
Name principal investigator (PI, Co-PI....): D. Francisco Javier López Aligué
Funding entity or bodies:
CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA **Type of entity:** Associations and Groups
Name of the programme: CICYT - FEDER
Code according to the funding entity: 1FD1997-0723
Start date: 1999 **Duration:** 2 years
Total amount: 130.000 €

Results

Industrial and intellectual property

- 1** **Title registered industrial property:** Sistema portátil de análisis para la elaboración de mapas de contaminantes y olores
Inventors/authors/obtainers: Santos Blanco José Pedro; Lozano Rogado Jesús Salvador; Gutiérrez Monreal Javier; Aleixandre Herrero Manuel; Horrillo Güemes Maria del Carmen
Entity holder of rights: Consejo Superior de Investigaciones Científicas (CSIC)
Nº of application: P200402292
Country of inscription: Spain
Date of register: 01/10/2007
- 2** **Title registered industrial property:** Automatic system for the continuous analysis of the evolution of wine
Inventors/authors/obtainers: Jesus Lozano Rogado; Jose Pedro Santos Blanco; Javier Gutierrez Monreal; Manuel Aleixandre Herrero; Maria del Carmen Horrillo Güemes; Mariano Cabellos Caballero; Teresa Arroyo Casado; Maria del Mar Gil Diaz
Entity holder of rights: Consejo Superior de Investigaciones Científicas (CSIC)
Nº of application: PCT/ES2006/070068
Country of inscription: Spain, Community of Madrid
Date of register: 30/11/2006



Scientific and technological activities

Scientific production

- 1** **H index:** 23
Date of application: 20/03/2023
Fuente de Índice H: WOS
- 2** **H index:** 31
Date of application: 20/03/2023
Fuente de Índice H: GOOGLE SCHOLAR
- 3** **H index:** 25
Date of application: 20/03/2023
Fuente de Índice H: SCOPUS

Publications, scientific and technical documents

- 1** Manuel Aleixandre; Takamichi NAKamoto. Online Learning for Active Odor Sensing Based on a QCM Gas Sensor Array and an Odor Blender. IEEE Sensors Journal. 22 - 23, pp. 22310 - 22318. IEEE, 25/10/2022.
DOI: 10.1109/JSEN.2022.3215127.
Type of production: Scientific paper **Format:** Journal
Position of signature: 1
Total no. authors: 2 **Corresponding author:** Yes
- 2** Carlos Cruz; Manuel Aleixandre; Daniel Matatagui; Mari Carmen Horrillo. An Artificial Olfactory System for Toxic Compounds Classification Using Machine Learning Techniques. Chemical Engineering Transactions. 95, pp. 73 - 78. The Italian Association of Chemical Engineering, 15/10/2022.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 3** Daisuke Hasebe; Manuel Aleixandre; Takamichi Nakamoto. Exploration of sensing data to realize intended odor impression using mass spectrum of odor mixture. PLOS ONE. 17 - 8, pp. 1 - 17. Public Library of Science, 2022.
DOI: 10.1371/journal.pone.0273011
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - MULTIDISCIPLINARY SCIENCES - 2021
Impact index in year of publication: 3.752 **Journal in the top 25%:** Yes
Position of publication: 28 **No. of journals in the cat.:** 134
Relevant results: Impact taken from 2021, not from 2022
- 4** Carlos Cruz; Esther Palomar; Ignacio Bravo; Manuel Aleixandre. Behavioural patterns in aggregated demand response developments for communities targeting renewables. Sustainable Cities and Society. 72, pp. 1 - 18. Elsevier, 12/05/2021.
DOI: 10.1016/j.scs.2021.103001
Type of production: Scientific paper **Format:** Journal
Impact source: ISI



Impact index in year of publication: 10.696

Position of publication: 2

Source of citations: WOS

Category: Science Edition - CONSTRUCTION & BUILDING TECHNOLOGY

Journal in the top 25%: Yes

No. of journals in the cat.: 68

Citations: 7

- 5** Manuel Aleixandre; Takamichi Nakamoto. Study of Room Temperature Ionic Liquids as Gas Sensing Materials in Quartz Crystal Microbalances. *Sensors*. 20 - 14, 2020. ISSN 1424-8220

DOI: 10.3390/s20144026

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 2

Impact source: ISI

Impact index in year of publication: 3.576

Position of publication: 14

Source of citations: WOS

Format: Journal

Corresponding author: No

Category: INSTRUMENTS & INSTRUMENTATION

Journal in the top 25%: Yes

No. of journals in the cat.: 64

Citations: 8

- 6** Manuel Aleixandre; Kaoru Nakazawa; Takamichi Nakamoto. Optimization of Modulation Methods for Solenoid Valves to Realize an Odor Generation System. *Sensors*. 19 - 18, pp. 1 - 15. MDPI, 17/09/2019.

DOI: 10.3390/s19184009

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 3.275

Position of publication: 15

Source of citations: WOS

Format: Journal

Category: INSTRUMENTS & INSTRUMENTATION

Journal in the top 25%: Yes

No. of journals in the cat.: 64

Citations: 2

- 7** Isabel Sayago; Manuel Aleixandre; José Pedro Santos. Development of Tin Oxide-Based Nanosensors for Electronic Nose Environmental Applications. *Biosensors*. 9 - 1, 2019. ISSN 2079-6374

DOI: 10.3390/s19184009

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 3.240

Position of publication: 24

Source of citations: WOS

Format: Journal

Category: CHEMISTRY, ANALYTICAL

Journal in the top 25%: No

No. of journals in the cat.: 86

Citations: 9

- 8** Aleixandre M; Cabellos JM; Arroyo T; Horrillo MC. Quantification of Wine Mixtures with an Electronic Nose and a Human Panel. *Frontiers in Bioengineering and Biotechnology*. 6, pp. 6 - 14. Frontiers, 12/02/2018.

DOI: 10.3389/fbioe.2018.00014

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 5.122

Position of publication: 23

Source of citations: WOS

Format: Journal

Category: Science Edition - MULTIDISCIPLINARY SCIENCES

Journal in the top 25%: Yes

No. of journals in the cat.: 121

Citations: 11



- 9** Jose Santos; Manuel Aleixandre; Patricia Arroyo Munoz; Ignacio Suarez Marcelo Jose; Jesus Lozano Rogado. An Advanced Hand Held Electronic Nose for Ambient Air Applications. Chemical Engineering Transactions. 68, pp. 235 - 240. 2018.
DOI: 10.3303/CET1868040
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 1.1
Position of publication: 177
Source of citations: SCOPUS
Format: Journal
Category: General Chemical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 273
Citations: 3
- 10** Elisabeth Bravo-Esteban; Julian Taylor; Manuel Aleixandre; Cristina Simón-Martínez; Diego Torricelli; Jose Luis Pons; Gerardo Avila-Martín; Iriana Galán-Arriero; Julio Gómez-Soriano. Longitudinal estimation of intramuscular Tibialis Anterior coherence during subacute spinal cord injury: relationship with neurophysiological, functional and clinical outcome measures. Journal of NeuroEngineering and Rehabilitation. 14 - 1, pp. 1 - 12. BIO Med Central, 15/06/2017.
DOI: 10.1186/s12984-017-0271-9
Type of production: Scientific paper
Position of signature: 3
Total no. authors: 9
Impact source: ISI
Impact index in year of publication: 3.865
Position of publication: 13
Source of citations: WOS
Format: Journal
Corresponding author: No
Category: Science Edition - ENGINEERING, BIOMEDICAL
Journal in the top 25%: Yes
No. of journals in the cat.: 78
Citations: 17
- 11** Laurent Spinelle; Michel Gerboles; Maria Gabriella Villani; Manuel Aleixandre; Fausto BonavitaCola. Field calibration of a cluster of low-cost commercially available sensors for air quality monitoring. Part. B: NO, CO and CO₂. Sensors and Actuators B: Chemical. 2017. ISSN 0925-4005
DOI: 10.1016/j.snb.2016.07.036
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 5
Impact source: ISI
Impact index in year of publication: 5.667
Position of publication: 7
Source of citations: WOS
Format: Journal
Category: Science Edition - CHEMISTRY, ANALYTICAL
Journal in the top 25%: Yes
No. of journals in the cat.: 81
Citations: 197
- 12** M. Aleixandre; Carmen Horrillo Del; M. Gerboles; L. Spinelle; F. BonavitaCola. Comparison of tin dioxide ozone sensor operated in on/off switching temperature cycles and at constant temperature. Chemical Engineering Transactions. 54, pp. 49 - 54. 2016. ISSN 2283-9216
DOI: 10.3303/CET1654009
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 1.4
Position of publication: 137
Source of citations: WOS
Format: Journal
Category: General Chemical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 277
Citations: 1



- 13** J. Lozano; J.P. Santos; J.I. Suarez; J.L. Herrero; M. Aleixandre. Detection of pollutants in water using a wireless network of electronic noses. *Chemical Engineering Transactions*. 54, pp. 157 - 162. 2016. ISSN 2283-9216
DOI: 10.3303/CET1654027
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 1.1
Position of publication: 137
Source of citations: WOS
Format: Journal
Category: General Chemical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 277
Citations: 1
- 14** L. Spinelle; M. Gerboles; M. Aleixandre; F. Bonavitacola. Evaluation of metal oxides sensors for the monitoring of O3 in ambient air at Ppb level. *Chemical Engineering Transactions*. 54, pp. 319 - 324. 2016. ISSN 2283-9216
DOI: 10.3303/CET1654054
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 1.4
Position of publication: 137
Source of citations: WOS
Format: Journal
Category: General Chemical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 277
Citations: 19
- 15** Laurent Spinelle; Michel Gerboles; Maria Gabriella Villani; Manuel Aleixandre; Fausto Bonavitacola. Field calibration of a cluster of low-cost available sensors for air quality monitoring. Part. A: ozone and nitrogen dioxide. *Sensors and Actuators B: Chemical*. pp. 249 - 257. Elsevier, 28/03/2015.
DOI: 10.1016/j.snb.2015.03.031
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 5
Impact source: SCOPUS
Impact index in year of publication: 1.305
Position of publication: 77
Source of citations: WOS
Format: Journal
Category: Electrical and Electronic Engineering
Journal in the top 25%: Yes
No. of journals in the cat.: 557
Citations: 249
- 16** Manuel Aleixandre; Jose Pedro Santos; Isabel Sayago; Juan Mariano Cabellos; Teresa Arroyo; Maria Carmen Horrillo. A Wireless and Portable Electronic Nose to Differentiate Musts of Different Ripeness Degree and Grape Varieties. *Sensors*. 15 - 4, pp. 8429 - 8429. 2015. ISSN 1424-8220
DOI: 10.3390/S150408429
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 0.546
Position of publication: 84
Source of citations: WOS
Format: Journal
Category: Analytical Chemistry
Journal in the top 25%: No
No. of journals in the cat.: 97
Citations: 25
- 17** Laurent Spinelle; Michel Gerboles; Manuel Aleixandre. Performance Evaluation of Amperometric Sensors for the Monitoring of O3 and NO2 in Ambient Air at ppb Level. *Procedia Engineering*. 120, pp. 480 - 483. 2015. ISSN 1877-7058
DOI: 10.1016/j.proeng.2015.08.676
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 0.238
Format: Journal
Category: Engineering (miscellaneous)
Journal in the top 25%: No

**Position of publication:** 185**No. of journals in the cat.:** 544**Source of citations:** WOS**Citations:** 39

- 18** Elisabeth Bravo-Esteban; Julian Taylor; Manuel Aleixandre; Cristina Simon-Martínez; Diego Torricelli; José Luis Pons; Julio Gómez-Soriano. Tibialis Anterior muscle coherence during controlled voluntary activation in patients with spinal cord injury: diagnostic potential for muscle strength, gait and spasticity. J Neuroeng Rehabil. 11 - 23, pp. 1 - 12. BioMed Central Ltd, 04/03/2014.

DOI: 10.1186/1743-0003-11-23**Type of production:** Scientific paper**Format:** Journal**Impact source:** ISI**Category:** Rehabilitation**Impact index in year of publication:** 2.567**Journal in the top 25%:** Yes**Position of publication:** 7**No. of journals in the cat.:** 64**Source of citations:** WOS**Citations:** 15

- 19** M. Aleixandre; M. Gerboles. Review of Small Commercial Sensors for Indicative Monitoring of Ambient Gas. CHEMICAL ENGINEERING TRANSACTIONS. 30, pp. 169 - 174. 23/09/2012.

DOI: 10.3303/CET1230029**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 1**Total no. authors:** 2**Impact source:** SCOPUS**Category:** Chemical Engineering (miscellaneous)**Impact index in year of publication:** 0.412**Journal in the top 25%:** No**Position of publication:** 134**No. of journals in the cat.:** 333**Source of citations:** WOS**Citations:** 92

- 20** J. P. Santos; M. Aleixandre; C. Cruz. Hand Held Electronic Nose for Voc Detection. CHEMICAL ENGINEERING TRANSACTIONS. 30, pp. 181 - 186. AIDIC, 2012.

DOI: 10.3303/CET1230031**Type of production:** Scientific paper**Format:** Journal**Impact source:** SCOPUS**Category:** Chemical Engineering (miscellaneous)**Impact index in year of publication:** 0.412**Journal in the top 25%:** No**Position of publication:** 134**No. of journals in the cat.:** 333**Source of citations:** WOS**Citations:** 8

- 21** D. Matatagui; J. Fontecha; M.J. Fernández; M. Aleixandre; I. Gràcia; C. Cané; M.C. Horrillo. Array of Love-wave sensors based on quartz/Novolac to detect CWA simulants. Talanta. 85 - 3, pp. 1442 - 1447. 2011. ISSN 0039-9140

DOI: 10.1016/j.talanta.2011.06.033**Type of production:** Scientific paper**Format:** Journal**Impact source:** ISI**Category:** CHEMISTRY, ANALYTICAL**Impact index in year of publication:** 3.794**Journal in the top 25%:** Yes**Position of publication:** 12**No. of journals in the cat.:** 73**Source of citations:** WOS**Citations:** 21

- 22** José Pedro Santos; Jesús Lozano; Manuel Aleixandre; Teresa Arroyo; Juan Mariano Cabellos; Mar Gil And Maria Del Carmen Horrillo. Threshold detection of aromatic compounds in wine with an electronic nose and a human sensory panel. Talanta. 80 - 5, pp. 1899 - 1906. (Holland): Elsevier, 2010.



DOI: 10.1016/j.talanta.2009.10.041

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 3.722

Position of publication: 11

Source of citations: WOS

Format: Journal

Category: Science Edition - CHEMISTRY, ANALYTICAL

Journal in the top 25%: Yes

No. of journals in the cat.: 73

Citations: 40

- 23** J.P. Santos; M. Aleixandre; M.C. Horrillo. Winose: wireless electronic nose for outdoors applications. Chemical Engineering Transactions. 23, pp. 159 - 164. AIDIC, 2010.

DOI: 10.3303/CET1023027

Type of production: Scientific paper

Impact source: SCOPUS

Impact index in year of publication: 0.221

Position of publication: 157

Source of citations: WOS

Format: Journal

Category: Chemical Engineering (miscellaneous)

Journal in the top 25%: No

No. of journals in the cat.: 381

Citations: 6

- 24** I. Sayago; H. Santos; M.C. Horrillo; M. Aleixandre; M.J. Fernández; E. Terrado; I. Tacchini; R. Aroz; W.K. Maser; A.M. Benito; M.T. Martínez; J. Gutiérrez; E. Muñoz.. Carbon nanotube networks as gas sensors for NO2 detection. Talanta. 77 - 2, pp. 758 - 764. NetherlandsElsevier, 2008.

DOI: 10.1016/j.talanta.2008.07.025

Type of production: Scientific paper

Position of signature: 4

Total no. authors: 13

Impact source: ISI

Impact index in year of publication: 3.206

Position of publication: 10

Source of citations: WOS

Format: Journal

Corresponding author: No

Category: CHEMISTRY, ANALYTICAL

Journal in the top 25%: Yes

No. of journals in the cat.: 70

Citations: 101

- 25** M. Aleixandre; J. Lozano; J. Gutierrez; I. Sayago; M.J. Fernandez; M.C. Horrillo. Portable E-Nose To Classify Different Kinds Of Wine. Sensor And Actuators B. 131 - 1, pp. 71 - 76. NetherlandsElsevier, 2008.

DOI: 10.1016/j.snb.2007.12.027

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 6

Impact source: ISI

Impact index in year of publication: 3.122

Position of publication: 5

Source of citations: WOS

Format: Journal

Corresponding author: No

Category: INSTRUMENTS & INSTRUMENTATION

Journal in the top 25%: Yes

No. of journals in the cat.: 56

Citations: 84

- 26** M.J. Fernández; J.L. Fontecha; I. Sayago; M. Aleixandre; J. Lozano; J. Gutiérrez; I. Gràcia; C. Cané; M.C. Horrillo. Discrimination of volatile compounds through an electronic nose based on zno saw sensors. Sensor And Actuators B. 127 - 1, pp. 277 - 283. NetherlandsElsevier, 2007.

DOI: 10.1016/j.snb.2007.07.054

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 2.934

Position of publication: 3

Format: Journal

Category: INSTRUMENTS & INSTRUMENTATION

Journal in the top 25%: Yes

No. of journals in the cat.: 55

**Source of citations:** WOS**Citations:** 36

- 27** I. Sayago; E. Terrado; M. Aleixandre; M.C. Horrillo; M.J. Fernández; J. Lozano; E. La Fuente; W.K.Maser; A.M. Benito; M.T. Martínez; J. Gutiérrez; E. Muñoz. Novel selective sensors based on carbon nanotube films for hydrogen detection. *Sensor And Actuators B.* 122 - 1, pp. 75 - 80. NetherlandsElsevier, 2007.

DOI: 10.1016/j.snb.2006.05.005**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 3**Total no. authors:** 5**Impact source:** ISI**Category:** INSTRUMENTS & INSTRUMENTATION**Impact index in year of publication:** 3.535**Journal in the top 25%:** Yes**Position of publication:** 2**No. of journals in the cat.:** 57**Source of citations:** WOS**Citations:** 76

- 28** M.García; M.J. Fernández; J. L. Fontecha; J. Lozano; J.P.Santos; M.Aleixandre; I. Sayago; J. Gutiérrez; M.C. Horrillo.. Differentiation of red wines using and electronic nose based on surface wave devices. *Talanta.* 68 - 1, pp. 1162 - 1165. NetherlandsElsevier, 2006.

DOI: 10.1016/j.talanta.2005.07.031**Type of production:** Scientific paper**Format:** Journal**Impact source:** ISI**Category:** CHEMISTRY, ANALYTICAL**Impact index in year of publication:** 2.810**Journal in the top 25%:** Yes**Position of publication:** 11**No. of journals in the cat.:** 68**Source of citations:** WOS**Citations:** 33

- 29** M.García; M.Aleixandre; J. Gutiérrez; M.C. Horrillo. Electronic nose for ham discrimination. *Sensor And Actuators B.* 114 - 1, pp. 418 - 422. NetherlandsElsevier, 2006.

DOI: 10.1016/j.snb.2005.04.045**Type of production:** Scientific paper**Format:** Journal**Impact source:** ISI**Category:** INSTRUMENTS & INSTRUMENTATION**Impact index in year of publication:** 2.331**Journal in the top 25%:** Yes**Position of publication:** 5**No. of journals in the cat.:** 55**Source of citations:** WOS**Citations:** 19

- 30** M.García; M.Aleixandre; J. Gutiérrez; M.C. Horrillo. Electronic nose for wine discrimination. *Sensor And Actuators B.* 113, pp. 911 - 916. NetherlandsElsevier, 2006.

DOI: 10.1016/j.snb.2005.03.078**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 2**Total no. authors:** 4**Impact source:** ISI**Category:** INSTRUMENTS & INSTRUMENTATION**Impact index in year of publication:** 2.331**Journal in the top 25%:** Yes**Position of publication:** 5**No. of journals in the cat.:** 53**Source of citations:** WOS**Citations:** 107



- 31** Jesús Lozano; José Pedro Santos; Manuel Aleixandre; Isabel Sayago; Javier Gutierrez; Maria Carmen Horrillo. Identification of typical wine aromas by means of an electronic nose. IEEE Sensors Journal. 6 - 1, pp. 173 - 178. EuropeIEEE, 2006.
DOI: 10.1109/JSEN.2005.854598
Type of production: Scientific paper
Position of signature: 3
Total no. authors: 5
Impact source: ISI
Impact index in year of publication: 1.117
Position of publication: 65
Source of citations: WOS
Format: Journal
Category: ENGINEERING, ELECTRICAL & ELECTRONIC
Journal in the top 25%: No
No. of journals in the cat.: 206
Citations: 57
- 32** M.C. Horrillo; M.J. Fernandez; J.L. Fontecha; I. Sayago; M. Garcia; M. Aleixandre; J. Gutierrez; I. Gracia And C. Cane. Optimization of saw sensors with a structure zno-sio2-si to detect volatile organic compounds. Sensor And Actuators B. 120 - 1-2, pp. 356 - 361. NetherlandsJose Ramon AlonsoElsevier, 2006.
DOI: 10.1016/j.snb.2006.04.050
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.331
Position of publication: 5
Source of citations: WOS
Format: Journal
Category: INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 53
Citations: 31
- 33** J. Lozano; M. J. Fernández; J. L. Fontecha; M. Aleixandre; J. P. Santos; I. Sayago; T. Arroyo; J. M. Cabellos; F. J. Gutierrez; M. C. Horrillo. Wine classification with zinc oxide saw sensor array. Sensor And Actuators B. 120 - 1, pp. 166 - 171. NetherlandsElsevier, 2006.
DOI: 10.1016/j.snb.2006.02.014
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.331
Position of publication: 5
Source of citations: WOS
Format: Journal
Category: INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 53
Citations: 38
- 34** M. Aleixandre; P. Corredera; M. L. Herranz; J. Gutiérrez.. Development of fiber optic hydrogen sensors for testing nuclear repositories. Sensors & Actuators B. 107 - 1, pp. 113 - 120. NetherlandsElsevier, 2005.
DOI: 10.1016/j.snb.2004.11.100
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 4
Impact source: ISI
Impact index in year of publication: 2.646
Position of publication: 14
Source of citations: WOS
Format: Journal
Corresponding author: No
Category: CHEMISTRY, ANALYTICAL
Journal in the top 25%: Yes
No. of journals in the cat.: 70
Citations: 45
- 35** J. P. Santos; M. J. Fernández; J. L. Fontecha; M. Aleixandre; M. García; J. Gutiérrez; M. C. Horrillo. Saw sensors array for wine discrimination. Sensors & Actuators B. 107 - 1, pp. 291 - 295. NetherlandsElsevier, 2005.
DOI: 10.1016/j.snb.2004.10.013



Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.646
Position of publication: 14
Source of citations: WOS

Format: Journal
Category: CHEMISTRY, ANALYTICAL
Journal in the top 25%: Yes
No. of journals in the cat.: 14
Citations: 46

- 36** I. Sayago; M. Aleixandre; A. Martinez; M. J. Fernández; J. P. Santos; J. Gutiérrez; I. Gracia; M. C. Horrillo.. Structural studies of zinc oxide films grown by rf magnetron sputtering. Synthetic metals. 148 - 1, pp. 37 - 41. NetherlandsElsevier, 2005.

DOI: 10.1016/j.synthmet.2004.09.006

Type of production: Scientific paper
Impact source: ISI

Impact index in year of publication: 1.685
Position of publication: 42

Source of citations: WOS

Format: Journal
Category: MATERIALS SCIENCE, MULTIDISCIPLINARY
Journal in the top 25%: Yes
No. of journals in the cat.: 176
Citations: 21

- 37** I. Sayago; M. Aleixandre; L. Arés; M. J. Fernández; J. P. Santos; J. Gutiérrez; C. Horrillo. The effect of the oxygen concentration and the rf power on the zinc oxide films properties deposited by magnetron sputtering. Applied Surface Science. 245 - 1-4, pp. 273 - 280. NetherlandsElsevier, 2005.

DOI: 10.1016/j.apsusc.2004.10.035

Type of production: Scientific paper
Impact source: ISI

Impact index in year of publication: 1.263
Position of publication: 35

Source of citations: WOS

Format: Journal
Category: PHYSICS, APPLIED
Journal in the top 25%: No
No. of journals in the cat.: 83
Citations: 40

- 38** J. P. Santos; T. Arroyo; M. Aleixandre; J. Lozano; I. Sayago; M. Garcia; M. J. Fernandez; L. Ares; J. Gutierrez; J. M. Cabellos; M. Gil and M. C. Horrillo. A comparative study of sensor array and GC-MS: application to Madrid wines characterization. Sensors & Actuators B. 102(2), pp. 299 - 307. NetherlandsElsevier, 2004. Available on-line at: <10.1016/j.snb.2004.04.082>.

Type of production: Scientific paper
Impact source: ISI

Impact index in year of publication: 2.083
Position of publication: 2

Source of citations: WOS

Format: Journal
Category: Science Edition - INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 48
Citations: 53

- 39** M. Aleixandre; I. Sayago; M.C. Horrillo; M.J. Fernandez; L. Ares; M. Garcia; J.P. Santos; J.Gutierrez. Analysis of neural network and analysis of feature selection with genetic algothim to discriminare among pollutant gas. Sensors & Actuators B. 103, pp. 122 - 128. NetherlandsElsevier, 2004. Available on-line at: <10.1016/j.snb.2004.04.044>.

Type of production: Scientific paper
Position of signature: 1
Total no. authors: 5

Impact source: ISI
Impact index in year of publication: 2.083
Position of publication: 2

Format: Journal
Category: INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 48

**Source of citations:** WOS**Citations:** 38

- 40** M. C. Horrillo; M. J. Fernández; J. L. Fontecha; I. Sayago; M. García; M. Aleixandre; J. P. Santos; L. Arés; J. Gutiérrez; I. Gracia; C. Cané.. Detection of volatile organic compounds using surface acoustic wave sensors with different polymer coatings. *Thin solid films*. 467, pp. 324 - 238. NetherlandsElsevier, 2004. Available on-line at: <10.1016/j.tsf.2004.04.012>.
- Type of production:** Scientific paper
Impact source: ISI
Impact index in year of publication: 1.647
Position of publication: 38
Source of citations: WOS
- Format:** Journal
Category: MATERIALS SCIENCE, MULTIDISCIPLINARY
Journal in the top 25%: Yes
No. of journals in the cat.: 177
Citations: 50
- 41** J. P. Santos; J. Lozano; M. Aleixandre; I. Sayago; M. J. Fernández; L. Arés; J. Gutiérrez; M. C. Horrillo. Discrimination of different aromatic compounds in water, ethanol and wine with a thin film sensor array. *Sensors & Actuators B*. 103, pp. 98 - 103. NetherlandsElsevier, 2004.
- DOI:** 10.1016/j.snb.2004.04.042
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.083
Position of publication: 2
Source of citations: WOS
- Format:** Journal
Category: INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 48
Citations: 23
- 42** J.P.Santos; M.García; M.Aleixandre; M.C. Horrillo; J. Gutiérrez; I. Sayago; M.J. Fernández; L. Arés. Electronic nose for the identification of pig feeding and ripening time in Iberian hams. *Meat Science*. 66, pp. 727 - 732. NetherlandsElsevier, 2004. Available on-line at: <10.1016/j.meatsci.2003.07.005>.
- Type of production:** Scientific paper
Impact source: ISI
Impact index in year of publication: 1.656
Position of publication: 14
Source of citations: WOS
- Format:** Journal
Category: FOOD SCIENCE & TECHNOLOGY
Journal in the top 25%: Yes
No. of journals in the cat.: 94
Citations: 25
- 43** M.García; M.C. Horrillo; J.P.Santos; M.Aleixandre; I. Sayago; M.J. Fernández; L. Arés; J. Gutiérrez. Artificial olfactory system for the classification of Iberian hams. *Sensors & Actuators B*. 96, pp. 621 - 629. NetherlandsElsevier, 2003.
- DOI:** 10.1016/j.snb.2003.07.005
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.391
Position of publication: 1
Source of citations: WOS
- Format:** Journal
Category: INSTRUMENTS & INSTRUMENTATION
Journal in the top 25%: Yes
No. of journals in the cat.: 49
Citations: 16
- 44** Laura Otero; M. C. Horrillo; M. García; I. Sayago; M. Aleixandre; M. J. Fernández; L. Arés; J. Gutiérrez. Detection of Iberian ham aroma by a semiconductor multisensorial system. *Meat science*. 65 - 3, pp. 1775 - 1185. NetherlandsElsevier, 2003.
- DOI:** 10.1016/S0309-1740(02)00347-9
Type of production: Scientific paper
Format: Journal



Impact source: ISI

Impact index in year of publication: 1.669

Position of publication: 11

Source of citations: WOS

Category: FOOD SCIENCE & TECHNOLOGY

Journal in the top 25%: Yes

No. of journals in the cat.: 94

Citations: 10

- 45** I. Sayago; M.C. Horrillo; S. Baluk; M. Aleixandre; M.J. Fernández; L. Arés; M. García; J.P. Santos. Detection of toxic gases by a tin oxide multisensor. IEEE Sensor Journal. 2 - 5, pp. 387 - 393. IEEE, 2002.

DOI: 10.1109/JSEN.2002.806215

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 1.100

Position of publication: 17

Source of citations: WOS

Format: Journal

Category: INSTRUMENTS & INSTRUMENTATION

Journal in the top 25%: No

No. of journals in the cat.: 52

Citations: 21

- 46** Jose Pedro Santos; Isabel Sayago; Manuel Aleixandre. Air quality monitoring using nanosensors. Nanomaterials for Air Remediation. pp. 9 - 31. Elsevier, 2020. ISBN 978-0-12-818821-7

DOI: 10.1016/B978-0-12-818821-7.00002-6

Type of production: Book chapter

Source of citations: WOS

Format: Book

Citations: 4

- 47** Isabel Sayago; Esther Hontañón; Manuel Aleixandre. Preparation of tin oxide nanostructures by chemical vapor deposition. Tin Oxide Materials. pp. 247 - 280. Elsevier, 2020. ISBN 978-0-12-815924-8

DOI: 10.1016/B978-0-12-815924-8.00009-8

Type of production: Book chapter

Source of citations: SCOPUS

Format: Book

Citations: 0

- 48** José Pedro Santos; Jesús Lozano; Manuel Aleixandre. Electronic Noses Applications in Beer Technology. Brewing Technology. 9, pp. 177 - 200. Intech, 19/07/2017.

DOI: 10.5772/intechopen.68822

Type of production: Book chapter

Corresponding author: No

- 49** M. C. Horrillo; J. Lozano; J. P. Santos; M. Aleixandre; I. Sayago; M. J. Fernández. Olfative sensor systems for the wine-producing industry. Food. 1 - 1, pp. 23 - 29. (France): Global Science Books, 2007. Available on-line at: <[http://www.globalsciencebooks.info/Online/GSBOnline/images/0706/FOOD_1\(1\)/FOOD_1\(1\)23-29o.pdf](http://www.globalsciencebooks.info/Online/GSBOnline/images/0706/FOOD_1(1)/FOOD_1(1)23-29o.pdf)>. ISSN 1749-7140

Type of production: Book chapter

Format: Book

- 50** Jesus Lozano; Jose Pedro Santos; Manuel Aleixandre; Javier Gutierrez; M^a Carmen Horrillo. Nariz Electrónica para el Control de Calidad de Vinos. La Olfacción En España. pp. 361 - 370. 2006. ISBN 84-933858-5-9

Type of production: Book chapter

Format: Book

- 51** Laurent Spinelle; Manuel Aleixandre; Michel Gerboles. Laboratory and in-situ validation of ozone microsensors, Alpha-Sense, model B4 O3 sensors. Publications Office of the European Union. Joint Research Centre (EU), 2014. ISSN 1831-9424, ISBN 978-92-79-38538-4

DOI: 10.2788/84725

Type of production: Scientific-technical report

Format: Scientific and technical document or report



- 52** Spinelle Laurent; Aleixandre Manuel; Gerboles Michel. Protocol of evaluation and calibration of low-cost gas sensors for the monitoring of air pollution. Publications Office of the European Union. Joint Research Center (European Union), 2013. ISSN 1831-9424, ISBN 978-92-79-32691-2
DOI: 10.2788/9916
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
- 53** Laurent Spinelle; Manuel Aleixandre; Michel Gerboles. Report of laboratory and in-situ validation of micro-sensor for monitoring ambient. Publications Office of the European Union. Eu Bookshop, 2013. ISSN 1831-9424, ISBN 978-92-79-34832-7
DOI: 10.2788/4975
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
- 54** Laurent Spinelle; Manuel Aleixandre; Michel Gerboles. Report of the laboratory and in-situ validation of micro-sensors and evaluation of suitability of model equations. Publications Office of the European Union. EU Bookshop, 2013. ISSN 1831-9424, ISBN 978-92-79-34920-1
DOI: 10.2788/4975
Type of production: Scientific-technical report **Format:** Scientific and technical document or report

Works submitted to national or international conferences

- 1** **Title of the work:** Factorization Machine Deep Neural Network for transfer binary keyword odor descriptor to continuous value descriptor
Name of the conference: IEEJ Annual Meeting
Corresponding author: Yes
City of event: Nagoya, Japan
Date of event: 17/03/2023
End date: 17/03/2023
Organising entity: IEEJ
Manuel Aleixandre 1; Takamichi Nakamoto.
- 2** **Title of the work:** Odor Recorder Based on an Array of QCM Sensors Using Frequency Shifts and Resistance Changes of Multiple Harmonics
Name of the conference: 2022 IEEE Sensors
Corresponding author: No
City of event: Dallas, United States of America
Date of event: 30/11/2022
End date: 02/11/2022
Organising entity: IEEE
Nanxin Gong; Manuel Aleixandre; Takamichi Nakamoto.
- 3** **Title of the work:** Odor Recorder Based on an Array of QCM Sensors Using Both Frequency Shifts and Resistance Changes
Name of the conference: IEEJ International Workshop on Sensing 2022
Corresponding author: No
City of event: Tokyo, Japan
Date of event: 04/06/2022
End date: 03/06/2022
Organising entity: IEEJ
Naxin Gong; Aleixandre Manuel; Nakamoto Takamichi. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-20220607E00701-009-PDF/>>.



- 4** **Title of the work:** Online learning for active odor sensing system based on a sensor array
Name of the conference: IEEJ workshop 2022
City of event: Tokyo, Japan
Date of event: 28/02/2022
End date: 28/02/2022
Organising entity: IEEJ
Manuel Aleixandre; Takamichi Nakamoto. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-20220303X12301-005-PDF/>>.
- 5** **Title of the work:** Evaluation of the fusion of two sensing mechanisms within a gas sensor array for odor mixture quantification
Name of the conference: IEE Japan 2021
City of event: Tokyo, Japan
Date of event: 21/02/2021
End date: 21/02/2021
Organising entity: IEE Japan **Type of entity:** Associations and Groups
City organizing entity: Tokyo, Japan
Manuel Aleixandre; Takamichi Nakamoto. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-20210301X14501-007-PDF/>>.
- 6** **Title of the work:** Optimization of the measurement time of a Room Temperature Ionic Liquids based electronic nose
Name of the conference: IEEJ Workshop 2020
City of event: Tokyo, Japan
Date of event: 19/03/2020
End date: 19/03/2020
Organising entity: IEEJ
Manuel Aleixandre; Takamichi Nakamoto. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-CHS20002BMS20002-PDF/>>.
- 7** **Title of the work:** Characterization of Room Temperature Ionic Liquids as sensing materials on Quartz Crystal Microbalance gravimetric gas sensors
Name of the conference: IEEJ 36th "Sensor Micromachines and Applied Systems" Symposium
City of event: Tokyo, Japan
Date of event: 12/11/2019
End date: 12/11/2019
Organising entity: IEEJ
Manuel Aleixandre; Takamichi Nakamoto. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-BTE2019-20am2-LN2-99-PDF/>>.
- 8** **Title of the work:** Room Temperature Ionic Liquids as Sensing Coatings of QCM Gas Sensors to Detect Different Organic Gases
Name of the conference: 2019 IEEE International Symposium on Olfaction and Electronic Nose (ISOEN)
City of event: Fukuoka, Japan
Date of event: 26/05/2019
End date: 29/05/2019
Organising entity: IEEE **Type of entity:** Associations and Groups
Kaoru Nakazawa; Manuel Aleixandre; Takamichi Nakamoto.
DOI: 10.1109/ISOEN.2019.8823429



- 9** **Title of the work:** Improvement of stability of ionic liquid film and its application to odor sensing system
Name of the conference: IEEJ Workshop
City of event: Tokyo, Japan
Date of event: 01/03/2019
End date: 01/03/2019
Organising entity: IEEJ
Manuel Aleixandre; Kaoru Kaoru Nakazawa; Takamichi Nakamoto. Available on-line at:
<<https://www.bookpark.ne.jp/cm/ieej/detail/IEEJ-ZT193202-PDF/>>.
- 10** **Title of the work:** Inkjet Printed Graphene-Based Nanosensors for the Detection of Nitrogen Dioxide
Name of the conference: AISEM Annual Conference on Sensors and Microsystems 2019
City of event: Naples, Italy
Date of event: 11/02/2019
End date: 13/02/2019
Organising entity: AISEM **Type of entity:** Associations and Groups
F. Villani; F. Loffredo; J. P. Santos; I. Sayago; M. Aleixandre; M. L. Miglietta; B. Alfano; T. Polichetti.
DOI: https://doi.org/10.1007/978-3-030-37558-4_64
- 11** **Title of the work:** Graphene Sensors Operating at Room Temperature for Detection of Low Concentrations of NO₂
Name of the conference: 2018 Spanish Conference on Electron Devices (CDE)
Type of event: Conference
City of event: Salamanca, Spain
Date of event: 14/11/2018
End date: 16/11/2018
Organising entity: Universidad de Salamanca
Type of contribution: Scientific book or monograph
M. Aleixandre; M. C. Horrillo; A. Benito; W. K. Maser. "2018 Spanish Conference on Electron Devices (CDE)". pp. 1 - 4. 11/2018. ISSN 2163-4971
DOI: 10.1109/CDE.2018.8596809
- 12** **Title of the work:** Nanostructured Tin Oxide Sensors Based on Nanofibers and Nanowires for Detection of Low NO₂ concentration
Name of the conference: 2018 Spanish Conference on Electron Devices (CDE)
City of event: Salamanca, Spain
Date of event: 14/11/2018
End date: 16/11/2018
Organising entity: Universidad de Salamanca
I. Sayago; E. Hontañón; J.P. Santos; M. Aleixandre; J. Lozano.
DOI: 10.1109/CDE.2018.8597162
- 13** **Title of the work:** Study of Graphene Based Nanosensors for the Detection of Nitrogen Dioxide
Name of the conference: 2018 Spanish Conference on Electron Devices (CDE)
City of event: Salamanca, Spain
Date of event: 14/11/2018
End date: 16/11/2018
Organising entity: Universidad de Salamanca
J.P. Santos; T. Polichetti; E. Hontañón; I. Sayago; M. Aleixandre; B. Alfano; M. Miglietta; G. DiFrancia; J. Lozano.
DOI: <https://doi.org/10.1109/CDE.2018.8597167>



- 14** **Title of the work:** Electronic Noses for Environmental Air Quality Monitoring
Name of the conference: Global Conference on Applied Computing in Science and Engineering
Type of participation: Participatory - Plenary session
Corresponding author: Yes
City of event: Las palmas de Gran Canarias, Canary Islands, Spain
Date of event: 26/07/2017
End date: 28/07/2017
Organising entity: ScienceKnow **Type of entity:** Business
Manuel Aleixandre.
- 15** **Title of the work:** ZnO and ZnO/SnO₂ nanofibers as resistive gas sensors for NO₂ detection
Name of the conference: 2017 Spanish Conference on Electron Devices, CDE 2017
City of event: Barcelona, Catalonia, Spain
Date of event: 08/02/2017
End date: 10/02/2017
Organising entity: Universitat de Barcelona **Type of entity:** University
I. Gracia; J.P. Santos; M.J. Fernandez; M. Aleixandre; E. Hontanon; I. Sayago.
- 16** **Title of the work:** Winose project: Evolution of portable electronic noses
Name of the conference: 3rd World Congress of Digital Olfaction Society
Type of event: Conference **Geographical area:** Non EU International
Type of participation: 'Participatory - poster **Reasons for participation:** Review before acceptance
City of event: Tokyo, Japan
Date of event: 07/12/2016
End date: 08/12/2016
Type of contribution: Scientific paper
Jose Pedro Santos; Manuel Aleixandre; Jesús Lozano. "Journal of Digital Olfaction Society (JDOS)". En: Journal of Digital Olfaction Society (JDOS). 4, pp. 39 - 39. 07/12/2016.
DOI: 10.18143/JDOS_v4i1
- 17** **Title of the work:** Characterization of aerosol particle size distribution measurements by fitting lognormal functions during an aerosol acoustic agglomeration process
Name of the conference: Euroregio
Type of participation: Participatory - invited/keynote talk
Corresponding author: Yes
City of event: Oporto, Portugal
Date of event: 13/06/2016
End date: 15/06/2016
Organising entity: Sociedade Portuguesa de Acústica **Type of entity:** Associations and Groups
City organizing entity: Oporto, Portugal
Manuel Aleixandre Herrero; Enrique Riera Franco de Sarabia; Juan Antonio Gallego-Juárez; Rosario Delgado Tardáguila; Luis Enrique Herranz. "Characterization of aerosol particle size distribution measurements by fitting lognormal functions during an aerosol acoustic agglomeration process".
- 18** **Title of the work:** Characterization Of The Changes Of The Particle Size Distribution Of Different Aerosols During An Acoustic Agglomeration Process
Name of the conference: 46º Congreso Español de Acústica -TECNIACÚSTICA 2015
Type of participation: Participatory - oral communication
City of event: Valencia, Valencian Community, Spain



Date of event: 21/10/2015

End date: 23/10/2015

Organising entity: Universitat Politècnica de Valencia

Type of entity: University

Type of contribution: Scientific book or monograph

Manuel Aleixandre; Enrique Rierra; Rosario Delgado-Tardáguila; Luis Herranz; Victor Acosta; Alberto Pinto; Ignacio Martínez; Juan A. Gallego-Juárez. "Characterization Of The Changes Of The Particle Size Distribution Of Different Aerosols During An Acoustic Agglomeration Process". 10/2015.

19 Title of the work: Airborne Power Ultrasonic Technologies for Intensification of Food and Environmental Processes

Name of the conference: 44th Annual Symposium of the Ultrasonic Industry Association, UIA 44th Symposium

City of event: Washington, United States of America

Date of event: 20/04/2015

End date: 22/04/2015

Organising entity: Ultrasonic Industry Association **Type of entity:** Associations and Groups

City organizing entity: Washington, United States of America

Enrique Riera; Víctor M. Acosta; José Bon; Manuel Aleixandre; Alfonso Blanco; Roque R. Andrés; Andrea Cardoni; Ignacio Martínez; Luís E. Herranz; Rosario Delgado; Juan A. Gallego-Juárez.

20 Title of the work: Use of an electronic nose as a tool to differentiate winemaking techniques

Name of the conference: 2015 10th Spanish Conference on Electron Devices (CDE)

Type of participation: 'Participatory - poster

City of event: Aranjuez, Community of Madrid, Spain

Date of event: 11/02/2015

End date: 13/02/2015

Organising entity: Universidad Rey Juan Carlos **Type of entity:** University

Type of contribution: Scientific book or monograph

M. Aleixandre; J. P. Santos; I. Sayago; M. C. Horrillo; J. M. Cabellos; T. Arroyo. "Use of an electronic nose as a tool to differentiate winemaking techniques". pp. 1 - 4. 02/2015. ISSN 2163-4971

21 Title of the work: Cascade of Artificial Neural Network committees for the calibration of small gas commercial sensors for NO₂, NH₃ and CO

Name of the conference: IEEE SENSORS 2014

Type of event: Conference

Type of participation: 'Participatory - poster

Corresponding author: Yes

City of event: Valencia, Valencian Community, Spain

Date of event: 02/11/2014

End date: 05/11/2014

Organising entity: IEEE **Type of entity:** Associations and Groups

With external admission assessment committee: Yes

Type of contribution: Scientific book or monograph

M. Aleixandre; D. Matatagui; J. P. Santos; M. Carmen Horrillo. "IEEE SENSORS 2014 Proceedings". pp. 1803 - 1806. 11/2014. ISSN 1930-0395

DOI: 10.1109/ICSENS.2014.6985376

22 Title of the work: Calibration of a cluster of low-cost sensors for the measurement of air pollution in ambient air

Name of the conference: IEEE Sensors 2014

City of event: Valencia, Valencian Community, Spain



Date of event: 02/11/2014

End date: 05/11/2014

Organising entity: IEEE

Type of contribution: Scientific book or monograph

Laurent Spinelle; Michel Gerboles; Maria Gabriella Villani; Manuel Aleixandre;

Fausto Bonavitacola. pp. 21 - 24. IEEE, 11/2014. Available on-line at:

<<http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arnumber=6984922>>. ISBN 978-1-4799-0162-3

- 23** **Title of the work:** Calibration of small resistive commercial sensors to measure ozone with the interference of temperature and humidity
Name of the conference: IEEE Sensors 2013
Type of participation: 'Participatory - poster
City of event: Baltimore, United States of America
Date of event: 03/11/2013
End date: 06/11/2013
Organising entity: IEEE
M. Aleixandre; M. C. Horrillo; M. Gerboles; L. Spinelle.
- 24** **Title of the work:** Wireless and portable sensor system to differentiate musts of different grape varieties and degree of grape ripeness
Name of the conference: IEEE Sensors 2013
Type of participation: 'Participatory - poster
City of event: Baltimore, United States of America
Date of event: 03/11/2013
End date: 06/11/2013
Organising entity: IEEE
M. Aleixandre; E. Montero; J. P. Santos; I. Sayago; M. C. Horrillo; J. M. Cabellos; T. Arroyo.
- 25** **Title of the work:** Carbon nanotube/TiO₂ nanotube hybrid films as resistive gas sensor
Name of the conference: TRANSDUCERS & EUROSensors XXVII
Type of participation: 'Participatory - poster
City of event: Barcelona, Spain
Date of event: 16/06/2013
End date: 20/06/2003
Organising entity: IEEE
I. Sayago; M. Aleixandre; M. C. Horrillo; R. Garriga; A. Kukovecz; E. Muñoz.
- 26** **Title of the work:** Review of Small Commercial Sensors for Indicative Monitoring of Ambient Gas
Name of the conference: NOSE 2012
Type of participation: Participatory - oral communication
City of event: Palermo, Italy
Date of event: 23/09/2012
End date: 26/09/2012
Organising entity: AIDIC
Manuel Aleixandre; Michel Gerboles.
- 27** **Title of the work:** Modular control of mediolateral postural sway.
Name of the conference: 34th Annual International Conference of the Engineering in Medicine and Biology Society (EMBC 2012)
Type of participation: 'Participatory - poster
City of event: San Diego, United States of America



Date of event: 28/08/2012

End date: 01/09/2012

Organising entity: IEEE

D. Torricelli; M. Aleixandre; I.M. Alguacil Diego; R. Cano De La Cuerda; F. Molina Rueda; M. Carratalá Tejada; S. Piazza; J.L. Pons. "Proceedings". 2012.

28 Title of the work: Coherencia intramuscular del tibial anterior tras la lesión medular incompleta. Una nueva medida de neuroplasticidad.

Name of the conference: XIV Congreso Nacional De Fisioterapia

Type of participation: Participatory - oral communication

City of event: Madrid, Community of Madrid, Spain

Date of event: 26/04/2012

End date: 27/04/2012

Organising entity: ASOCIACION ESPAÑOLA DE FISIOTERAPEUTAS

E. Bravo Esteban; M. Aleixandre; C, Simón Martínez; D. Torricelli; J. Taylor; J. Gómez-Soriano. "Proceedings". 2012.

29 Title of the work: Espasticidad en las Interfaces Hombre-Máquina

Name of the conference: XXXII Jornadas de Automática

Type of participation: 'Participatory - poster

City of event: Sevilla, Spain

Date of event: 07/09/2011

End date: 08/09/2011

Organising entity: Escuela Técnica Superior de Ingeniería de Sevilla

Manuel Aleixandre; José L. Pons; Juan C. Moreno; Julio Gómez-Soriano; Julian Taylor; Elisabeth Bravo; Juan Avendaño. "Proceedings". 2011.

30 Title of the work: Análisis of grape variety and donomination of origin of several wines with a electronic nose

Name of the conference: 7º Spanish Conference on Electronic Devices (CDE)

Type of participation: Participatory - oral communication

City of event: Santiago de Compostola, Spain

Date of event: 2009

End date: 2009

Organising entity: CDE

M. Aleixandre; J.A.Gonzalez; I. Sayago; M.J. Fernandez; J. Gutierrez; M. C. Horrillo. "Book of abstracts".

31 Title of the work: Saw Sensor Array For Chemical Warfare Agent Simulants Detection

Name of the conference: 7º Spanish Conference on Electronic Devices (CDE)

Type of participation: 'Participatory - poster

City of event: Santiago de Compostola, Spain

Date of event: 2009

End date: 2009

J. Marti; M.J. Fernandez; J. L. Fontecha; D. Matatagui; I. Sayago; M. Aleixandre; J. Gutierrez; I. Gracia; C. Cané; M. C. Horrillo. "Book of abstracts".

32 Title of the work: Discrimination of volatile compounds through an Electronic nose base don Quartz SAW sensors

Name of the conference: ASEVA Workshop: Gas and Radiation Sensors: Properties, Characterisation. Thin films based Sensors

Type of participation: Participatory - oral communication

City of event: Salamanca, Spain



Date of event: 2008

End date: 2008

City organizing entity: ASEVA,

M. Aleixandre; M.J. Fernández; J.L. Fontecha; I. Sayago; J. Gutiérrez; M.C. Horrillo. "Abstract book".

33 Title of the work: Multi-Walled Carbon Nanotube Networks Gas Sensor For NO₂ Detection

Name of the conference: TRANSDUCERS'07 and EUROSENSORS XXI

Type of participation: 'Participatory - poster

City of event: Lyon, France

Date of event: 10/06/2007

End date: 14/06/2007

I. Sayago; H. Santos; M.C. Horrillo; M. Aleixandre; M.J. Fernández; E. Terrado; W.K. Maser; A.M. Benito; M.T. Martinez; J. Gutiérrez and E. Muñoz. "Proceedings".

34 Title of the work: NO₂ detection with single walled carbon nanotube networks

Name of the conference: 6th Spanish conference on Electronic Devices

Type of participation: 'Participatory - poster

City of event: El Escorial, Spain

Date of event: 2007

End date: 2007

I. Sayago; E. Terrado; M.C. Horrillo; M. Aleixandre; H. Santos; W.K. Maser; A.M. Benito; M.T. Martinez. J. Gutiérrez and E. Muñoz. "Proceeding".

35 Title of the work: Novel gas sensor based on carbon nanotube film

Name of the conference: 4th World Congress on biometrics, artificial muscles and Nano-Bio

Type of participation: 'Participatory - poster

City of event: Cartagena, Spain

Date of event: 2007

End date: 2007

I. Sayago; M. Aleixandre; M.C. Horrillo; M.J. Fernández; E. Terrado; E. Lafuente; E. Muñoz; W.K. Maser; M.A. Benito; M.T. Martinez and J. Gutierrez. "Proceedings".

36 Title of the work: Optic fibre used as sensor to measure low hydrogen concentrations

Name of the conference: SPIE Europe Microtechnologies for the New Millennium

Type of participation: 'Participatory - poster

City of event: Maspalomas, Gran Canaria, Canary Islands, Spain

Date of event: 2007

End date: 2007

M. Aleixandre; P. Corredera; M.L. Hernanz and J. Gutierrez-Monreal. "Proceedings".

37 Title of the work: Portable e-nose to classify different kinds of wine

Name of the conference: International Symposium on Olfaction and Electronic Nose, ISOEN 2007

Type of participation: 'Participatory - poster

City of event: St. Petersburg, Russia, Russia

Date of event: 2007

End date: 2007

J. Lozano; M. Aleixandre; J. Gutierrez; I. Sayago; M.J. Fernández; M.C. Horrillo. "Proceedings".

38 Title of the work: Study of a palladium coated Bragg grating sensor to detect and measure low hydrogen concentrations

Name of the conference: 6th Spanish conference on Electronic Devices (CDE 2007)



Type of participation: 'Participatory - poster

City of event: El Escorial, Spain

Date of event: 2007

End date: 2007

M. Aleixandre; P. Corredera; M.L. Hernanz; I. Sayago; M.C. Horrillo; J. Gutierrez-Monreal. "Proceedings".

39 Title of the work: Discrimination of volatile compounds through an electronic nose based on zno saw sensors

Name of the conference: Eurosensors XX

Type of participation: 'Participatory - poster

City of event: Goteborg, Sweden

Date of event: 17/09/2006

End date: 20/09/2006

M.J. Fernández; J.L. Fontecha; I. Sayago; M. Aleixandre; J. Lozano; J. Gutiérrez; I. Gràcia; C. Cané; M.C. Horrillo. "Proceedings".

40 Title of the work: Single-walled carbon nanotube networks as gas sensors for NO₂ detection

Name of the conference: EUROSENSORS XX

Type of participation: 'Participatory - poster

City of event: Goteborg, Sweden

Date of event: 17/09/2006

End date: 20/09/2006

I. Sayago; E. Terrado; M.C. Horrillo; M. Aleixandre; H. Santos; E. Lafuente; W.K. Maser; A.M.Benito; M.T.Martinez. J. Gutiérrez and E. Muñoz. "Proceedings".

41 Title of the work: Selective hydrogen sensing of Pd-functionalized carbon nanotube networks.

Name of the conference: European Materials Research Society (E-MRS-IUMRS-ICEM 06)

Type of participation: 'Participatory - poster

City of event: Niza, France

Date of event: 29/05/2006

End date: 02/06/2006

E. Muñoz; I. Sayago; E. Terrado; M. Aleixandre; M. C. Horrillo; M. J. Fernández; E. Lafuente. W. K. Maser; A. Benito; J. Gutiérrez and M. T. Martínez. "Proceedings".

42 Title of the work: Carbon nanotube networks as selective hydrogen sensors.

Name of the conference: International Winterschool on Electronic Properties of Novel Materials (IWEPNM-2006)

Type of participation: 'Participatory - poster

City of event: Tirol, Austria

Date of event: 04/03/2006

End date: 11/04/2006

E. Muñoz; I. Sayago; E. Terrado; M. Aleixandre; M. C. Horrillo; M. J. Fernández; E. Lafuente. W. K. Maser; A. Benito; J. Gutiérrez and M. T. Martínez. "Proceedings".

43 Title of the work: Novel selective sensors based on carbon nanotube films for hydrogen detection

Name of the conference: EUROSENSORS XIX

Type of participation: 'Participatory - poster

City of event: Barcelona, Spain

Date of event: 11/09/2005

End date: 14/09/2005

I. Sayago; M. Aleixandre; M.C. Horrillo; J. Lozano; J.P. Santos and J. Gutiérrez; E.Terrado; E. Lafuente; E. Muñoz; W.K. Maser; A.M.Benito; M.T.Martinez. "Proceedings".



- 44** **Title of the work:** Influence of the thickness in palladium thin film used as optic hydrogen sensor
Name of the conference: Eurosensor XIX
Type of participation: 'Participatory - poster
City of event: Barcelona, Spain
Date of event: 11/07/2005
End date: 14/09/2005
M. Aleixandre; M.L. Hernanz; P. Corredera; J. Gutierrez-Monreal. "Proceedings".
- 45** **Title of the work:** Sprayed carbon nanotube thin films as hydrogen sensors
Name of the conference: Materials Research Society (MRS 2005)
Type of participation: 'Participatory - poster
City of event: Boston, United States of America
Date of event: 28/03/2005
End date: 01/04/2005
I. Sayago; E. Terrado; E. Muñoz; M. Aleixandre; M. C. Horrillo; J. Lozano; M. J. Fernández; E. Lafuente. W. K. Maser; A. Benito; J. Gutiérrez and M. T. Martínez. "Proceedings".
- 46** **Title of the work:** Caracterización and optimization of ZnO films for Saw devices
Name of the conference: 5ª Conferencia sobre dispositivos electrónicos
Type of participation: 'Participatory - poster
City of event: Tarragona, Spain
Date of event: 2005
End date: 2005
I. Sayago; M. Aleixandre; M. J. Fernández; J. L. Fontecha; L. Arés; J. Gutiérrez; I. Gracia; C. Horrillo. "Proceedings".
- 47** **Title of the work:** Comparación entre un panel sensorial humano y una nariz electrónica para la detección de compuestos aromáticos del vino
Name of the conference: Congreso: XXVII Jornadas de Viticultura y Enología de "Tierra de Barros"
Type of participation: 'Participatory - poster
City of event: Almendralejo, Spain
Date of event: 2005
End date: 2005
T. Arroyo; J.M. Cabellos; M. Gil; J. Lozano; J.P. Santos; M. Aleixandre; M.C. Horrillo.
- 48** **Title of the work:** Electronic nose for the identification of spoiled iberian hams
Name of the conference: 5ª Conferencia sobre dispositivos electrónicos
Type of participation: 'Participatory - poster
City of event: Tarragona, Spain
Date of event: 2005
End date: 2005
M. Garcia; M. Aleixandre; J. gutierrez; M. C. Horrillo. "Proceedings".
- 49** **Title of the work:** Comparison between an electronic nose and a human sensory panel for wine compounds detection
Name of the conference: IEEE Sensors 2004
Type of participation: 'Participatory - poster
City of event: Vienna, Austria
Date of event: 24/10/2004
End date: 27/10/2004



J. P. Santos; J. Lozano; M. Aleixandre; T. Arroyo; J. M. Cabellos; M. Gil; M. C. Horrillo. "Proceedings".

- 50** **Title of the work:** Estudio de la morfología superficial del ZnO como material piezoeléctrico por AFM para su aplicación en sensores SAW
Name of the conference: IV Congreso Español de Microscopías de Fuerzas y de Efecto Túnel
Type of participation: 'Participatory - poster
City of event: Vic, Spain
Date of event: 21/09/2004
End date: 24/09/2004
I. Sayago; M. Aleixandre; A. Martínez; M.J. Fernández; J.P. Santos; J. Gutiérrez; M.C. Horrillo. "Proceedings".
- 51** **Title of the work:** Identificación De Compuestos Aromáticos del Vino Mediante Nariz Electrónica
Name of the conference: XXV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: Ciudad Real, Spain
Date of event: 08/09/2004
End date: 10/09/2004
Organising entity: Universidad de Castilla la Mancha
J. Lozano; J.P. Santos; M. Aleixandre; M.J. Fernández; J. Gutiérrez; T. Arroyo; J. M. Girón; M.C. Horrillo. "Proceedings".
- 52** **Title of the work:** Identificación de aromas en vinos blancos y tintos mediante sensores de estado sólido.
Name of the conference: XXV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: Ciudad Real, Spain
Date of event: 08/09/2004
End date: 10/09/2004
Organising entity: Universidad de Castilla la Mancha
J. Lozano; J.P. Santos; M. Aleixandre; M.C. Horrillo. "Proceedings".
- 53** **Title of the work:** Modelo de la atenuación de luz en una fibra óptica como consecuencia de la absorción de hidrógeno
Name of the conference: XXV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: Ciudad Real, Spain
Date of event: 08/09/2004
End date: 10/09/2004
Organising entity: Universidad de Castilla la Mancha
M. Aleixandre; P. Corredera; M.L. Hernanz; J.P. Blanco; J. Lozano; J. Gutierrez-Monreal. "Proceedings".
- 54** **Title of the work:** Técnicas De Reconocimiento De Patrones Para Un Sistema Olfativo Artificial
Name of the conference: XXV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: Ciudad Real,
Date of event: 08/09/2004
End date: 10/09/2004
Organising entity: Universidad de Castilla la Mancha
J. Lozano; M. Aleixandre; J. P. Santos; M.C. Horrillo. "Proceedings".



- 55** **Title of the work:** SOMOS: safety and operational monitoring of nuclear waste repositories with fibre optic sensing systems
Name of the conference: Radioactive Waste Management - Community Policy and Research Initiatives. The sixth international conference on the management and disposal of radioactive waste - Euradwaste '04
Type of event: Conference **Geographical area:** European Union
Type of participation: 'Participatory - poster
Corresponding author: No
City of event: Luxemburgo, Belgium
Date of event: 29/03/2004
End date: 31/03/2004
Organising entity: Comisión Europea **Type of entity:** Comunidad Europea
Type of contribution: Scientific paper
P. Borgermans; B. Brichard; G. Volckaert; P. Corredera; J. Gutierrez; M. Aleixandre; M.L. Hernanz.
- 56** **Title of the work:** Development of fiber optic hydrogen sensors for testing nuclear repositories
Name of the conference: Eurotrode VII
Type of participation: 'Participatory - poster
City of event: Madrid, Spain
Date of event: 2004
End date: 2004
M. Aleixandre; P. corredera; M. L. Hernanz J. Gutiérrez. "Spie Proceddings".
- 57** **Title of the work:** Structural studies of zinc oxide films grown by rf magnetron sputtering
Name of the conference: European Conference on Organised Films (ECOF 2004)
Type of participation: 'Participatory - poster
City of event: Valladolid, Spain
Date of event: 2004
End date: 2004
I. Sayago; M. Aleixandre; A. Martínez; M.J. Fernández; J.P. Santos; J. Gutiérrez; I. Gracià and M.C. Horrillo. "Proceddings".
- 58** **Title of the work:** Application of artificial neural networks to discriminate pollutant gases in air.
Name of the conference: IEEE SENSOR 2003
Type of participation: 'Participatory - poster
City of event: Nuremberg, Germany
Date of event: 22/10/2003
End date: 24/10/2003
Organising entity: IEEE
F.J. Gutiérrez; M. Aleixandre; I. Sayago; M.C. Horrillo; M.J. Fernández; L. Arés; M.García. "Proceddings".
- 59** **Title of the work:** Discrimination of contaminant gases with artificial Neural Networks
Name of the conference: Eurosensors XVII
Type of participation: 'Participatory - poster
City of event: Guimaraes, Portugal
Date of event: 21/09/2003
End date: 23/09/2003
M. Aleixandre; I. Sayago; M.C. Horrillo; M.J. Fernández; L. Arés; M. García; J.P. Santos and J. Gutiérrez. "Proceddings".



- 60** **Title of the work:** Discrimination of different aromatic compounds in water, ethanol and wine with a thin film sensor array
Name of the conference: Eurosensory XVII
Type of participation: 'Participatory - poster
City of event: Guimaraes, Portugal
Date of event: 21/09/2003
End date: 23/09/2003
J. P. Santos; J. Lozano; M. Aleixandre; I. Sayago; M. J. Fernández; L. Arés; J. Gutiérrez; M.C. Horrillo. "Proceedings".
- 61** **Title of the work:** Control de temperatura mediante un dispositivo Peltier para sensor de gases basado en dispositivo SAW
Name of the conference: XXIV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: León, Spain
Date of event: 10/09/2003
End date: 12/09/2003
Organising entity: Universidad de León **Type of entity:** University
M. Aleixandre; J. P. Santos; M. C. Horrillo; M. J. Fernández. "Proceedings".
- 62** **Title of the work:** Sistema de nariz electrónica para el análisis de la evolución del vino controlada por PC
Name of the conference: XXIV Jornadas de automática
Type of participation: 'Participatory - poster
City of event: León, Spain
Date of event: 10/09/2003
End date: 12/09/2003
Organising entity: Universidad de León **Type of entity:** University
J. Lozano; J. P. Santos; M. Aleixandre; I. Sayago; M. García; A. Martínez; M. Cabellos; J. Girón; M. C. Horrillo. "Proceedings".
- 63** **Title of the work:** An electronic nose system to control the quality of dry cured Iberian hams
Name of the conference: II Congreso Mundial del Jamón
Type of participation: 'Participatory - poster
City of event: Cáceres, Spain
Date of event: 25/03/2003
End date: 29/03/2003
Organising entity: Facultad Veterinaria de Cáceres
M.C. Horrillo; M. García; I. Sayago; M. Aleixandre; J.P. Santos; M.J. Fernández; L. Arés; J. Gutiérrez. "Proceedings".
- 64** **Title of the work:** A comparative analysis of sensor arrays for the implementation of an electronic nose: application to Madrid wines characterization
Name of the conference: Ninth International Symposium on Olfaction and Electronic Nose (ISOEN 02)
Type of participation: 'Participatory - poster
City of event: Roma, Italy
Date of event: 29/09/2002
End date: 02/10/2002
J.P. Santos. M. Aleixandre; M.C. Horrillo; I Sayago; M. García; M.J. Fernández; L. Arés; J. Gutiérrez. "Proceedings".



- 65** **Title of the work:** Detection of hydrocarbons using saw and resistive sensors
Name of the conference: Eurosensors XVI
Type of participation: 'Participatory - poster
City of event: Praga, Czech Republic
Date of event: 15/09/2002
End date: 18/09/2002
Organising entity: Czech Technical University
M. C. Horrillo; J. L. Fontecha; I. Sayago; M. J. Fernández; M. García; M. Alexandre; J. P. Santos; L. Arés; J. Gutiérrez; I. Gracia; C. Cané."Proceedings".
- 66** **Title of the work:** Sensor array for the monitoring of contaminant gases
Name of the conference: Ninth International Workshop on New Development of Sensors for Environmental Control (ENVSENS)
Type of participation: 'Participatory - poster
City of event: S. Cesarea Terme, Italy
Date of event: 27/05/2002
End date: 29/05/2002
M. Alexandre; I Sayago; M.C. Horrillo; M.J. Fernández; L. Arés; M. García; J.P. Santos and J. Gutiérrez.
"Procedding". ISBN 981-238-338-7
DOI: 10.1142/9789812704306_0045
- 67** **Title of the work:** Análisis mediante AFM de películas delgadas de AlN depositadas por pulverización catódica reactiva.
Name of the conference: Congreso Español de Microscopías de Fuerzas y de Efecto túnel
Type of participation: 'Participatory - poster
City of event: Zamora, Spain
Date of event: 2002
End date: 2002
M. Alexandre; J.P. Santos; M.C. Horrillo; I. Sayago; M.J. Fernández; M. García; J. Gutiérrez; L. Arés.
"Procedding".
- 68** **Title of the work:** Detection of toxic gases by a a tin oxide multisensor
Name of the conference: International Workshop Materials and Technologies for Chemical Sensors (Matchems)
Type of participation: 'Participatory - poster
City of event: Brescia, Italy
Date of event: 13/09/2001
End date: 14/09/2001
I. Sayago; M.C. Horrillo; S. Baluk; M. Alexandre; M.J. Fernández; L. Arés; M. García; J.P Santos and J. Gutiérrez. "Proceedings".
- 69** **Title of the work:** Multisensor for detection of atmospheric pollution
Name of the conference: Sensor 2001: 10th International Conference
Type of participation: 'Participatory - poster
City of event: Nurenberg, Germany
Date of event: 08/05/2001
End date: 10/05/2001
J. Gutiérrez; I. Sayago; M.C. Horrillo; S. Baluk; M.J. Fernández; L. Arés; R. Gómez-Espinosa; L. Otero; M. García and M. Alexandre. "Proceedings".



R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

Committee title: Program Committee Member in International Conference on Informatics in Control, Automation and Robotics

Primary (UNESCO code): 331101 - Automation technology

Affiliation entity: Institute For Systems Technologies **Type of entity:** Associations and Groups Of Information Control & Communication (INSTICC)

City affiliation entity: Lisboa, Portugal

Start-End date: 07/07/2020 - 13/07/2022

Organization of R&D activities

- 1 Title of the activity:** Chairperson in Global Conference on Applied Computing in Science and Engineering
Type of activity: Moderador **Geographical area:** Non EU International
Convening entity: ScienceKnow **Type of entity:** Business
City convening entity: Portugal
Start-End date: 26/07/2017 - 28/07/2017 **Duration:** 1 day
- 2 Title of the activity:** Invited chairman in GMEPE / PAHCE 2016
Type of activity: Invited chairman **Geographical area:** Non EU International
Convening entity: Global Medical Engineering Physics Exchanges / Pan American Health Care Exchanges
City convening entity: Spain
Start-End date: 04/04/2016 - 09/04/2016 **Duration:** 1 day

Evaluation and revision of R&D projects and articles

- 1 Name of the activity:** 2021/41/B/ST7/00276
Performed tasks: Evaluation of Polish national project
Entity where activity was carried out: National Science Centre of Poland
City of entity: Poland
Start-End date: 23/09/2021 - 16/10/2021
- 2 Name of the activity:** Scientific board member
Performed tasks: Scientific Board Member (28 decisions done)
Entity where activity was carried out: Chemsensors, Sensors, Micromachines
City of entity: Basel, Switzerland
Start-End date: 30/05/2020 - 10/04/2021
- 3 Name of the activity:** Academic editor
Performed tasks: Scientific Board Member (4 decisions made)
Entity where activity was carried out: Sensors
City of entity: London, United Kingdom
Start-End date: 10/10/2019 - 23/11/2020



- 4** **Name of the activity:** ANR - generic call for proposals 2019
Performed tasks: Evaluation of French national project
Entity where activity was carried out: French National Research Agency
City of entity: France
Start-End date: 24/04/2019 - 15/05/2019
- 5** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos
Performed tasks: Revisions: 1
Entity where activity was carried out: Asian Journal of Environment & Ecology
- 6** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos.
Performed tasks: Revisions: 1
Entity where activity was carried out: Journal of Food Quality
- 7** **Name of the activity:** Revisor de artículos científicos "peer to peer"
Performed tasks: Revisions: 1
Entity where activity was carried out: International Journal of Pattern Recognition and Artificial Intelligence
- 8** **Name of the activity:** Revisor de artículos científicos "peer to peer"
Performed tasks: Revisions: 1
Entity where activity was carried out: Journal of Environment & Ecology
- 9** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos.
Performed tasks: Revisions: 1
Entity where activity was carried out: Journal of Sensors
- 10** **Name of the activity:** Peer to Peer revisions
Performed tasks: Revisions: 10
Entity where activity was carried out: IEEE Sensors journal
- 11** **Name of the activity:** Peer review of journal papers
Performed tasks: Revisions: 22
Entity where activity was carried out: Several journal in WoS Databases
- 12** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos
Performed tasks: Revisions: 23
Entity where activity was carried out: Sensors
- 13** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos.
Performed tasks: Revisions: 4
Entity where activity was carried out: Sensor and Actuators A and B
- 14** **Name of the activity:** Revisión "Peer to Peer" de artículos científicos
Performed tasks: Revisions: 6
Entity where activity was carried out: Chemosensors



Other achievements

Summary of other achievements

- 1** **Description of the achievement:** Certificación CLAD (100-316-10027)
Accrediting entity: NATIONAL INSTRUMENTS SPAIN, S.L.
Conferral date: 01/07/2016
- 2** **Description of the achievement:** Acreditación de la ANECA como Profesor Doctor Ayudante 2010
Accrediting entity: Aneca **Type of entity:** State agency
Conferral date: 2010