



M. Mirari Antxustegi Bengoetxea

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Summary of CV

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

Dr M.Mirari Antxustegi started her research career at the Fuel Chemistry Laboratory at the University of Strathclyde (Glasgow, Scotland), studying the influence of solvent treatments on the structure of different types of coal. From there, she transitioned to the study on the effect of those treatments on the porous structure of these coals. Together with other colleagues, developed a new technique called Contrast-Matching Small-Angle Neutron Scattering (CM-SANS), to study the changes on the carbonaceous matrix during combustion and gasification processes. To that end, she visited and collaborated with Research Centers such as IPNS (Argonne National Laboratory, EEUU) and ISIS (Rutherford Appleton Laboratory, R.U.) where her experiments took place. She was awarded a Postdoctoral Research Grant by the Basque Government and held a postdoctoral research position at the Fluid and Thermal Process Engineering Department, Division of Engineering at Brown University (EEUU). At the University of the Basque Country (UPV/EHU) she has collaborated with several research groups on the fields of catalytic combustion and, mainly, on the design, production and characterization of carbon materials for energy uses.

The main goals of her scientific trajectory are related to the development of strategies for the valorization of the lignocellulosic biomass in order to reduce the dependency on fossil fuels and generate a positive economic and environmental impact. The main industrial sectors involved are the agricultural, forestry and pulp and paper ones. The main goals in the midterm are to design new technologies in order to reach an actual industrial use of lignocellulosic biomass for chemicals, materials and energy obtaining. The other main goal would be the design of simple, easy to use technological solutions for energy generation in developing countries to improve living conditions of local population in general and ensuring welfare and development of the female population in particular.

Another aspect of her career is related to the diffusion of knowledge into the society and to increase the visibility of women in STEAM. She is member of ACADEME, a net of female academics in the UPV/EHU. She actively participates in events such as Zientziastea (a science fair organised by the UPV/EHU), The European Researcher's Night and University Orientation Fairs. For several years, she has been jury for the CLIMATHON Eibar. Recently, she has started collaborating with EKOSFERA (a radio program in Euskadi Irratia, produced by Elhuyar Fundazioa) with a monthly opinion spot to talk about different aspects of the energy transition.



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.

Scopus - Author details - Mirari Antxustegi, M.

Universidad del Pais Vasco, Department of Chemical Engineering and Environment, Leioa, Spain

Author ID: 7801528866

Documents: 14 Citations: 298 total citations by 277 documents h-index: 7

<http://orcid.org/0000-0003-3188-5887>

**M. Mirari Antxustegi Bengoetxea**

Surname(s): Antxustegi Bengoetxea
Name: M. Mirari
DNI: 30628455E
Date of birth: 11/09/1969
Gender: Female
Nationality: Spain
Country of birth: Spain
Aut. region/reg. of birth: Basque Country
Contact province: Gipuzkoa
City of birth: Lekeitio (Bizkaia)
Contact address: Escuela de Ingeniería de Gipuzkoa - EIBAR (UPV/EHU)
Rest of contact address: A. Otaola 29
Postcode: 20600
Contact country: Spain
Contact aut. region/reg.: Basque Country
Contact city: Eibar
Land line phone: (34) 943033042
Fax: (34) 943033110
Email: mirari.antxustegi@ehu.eus

Current professional situation

Employing entity: UPV/EHU **Type of entity:** University
Department: Escuela de Ingeniería de Gipuzkoa
Professional category: Profesora Agregada / Assistant Professor
Start date: 02/06/2011
Type of contract: Permanent employment **Dedication regime:** Full time contract
Primary (UNESCO code): 230000 - Chemistry
Secondary (UNESCO code): 331200 - Materials technology; 332100 - Petroleum and coal technology; 332200 - Power technology
Tertiary (UNESCO code): 330800 - Environmental technology and Engineering; 331208 - Material properties; 331299 - Other
Identify key words: Engineering

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad del Pais Vasco	Coordinadora de Programas de Intercambio Internacional de la EIG- Eibar	17/02/2017
2	Universidad del Pais Vasco	Subdirectora de Ordenación Académica de la Escuela de Ingeniería de Gipuzkoa-Eibar	17/02/2017
3	Universidad del Pais Vasco		01/07/2008

	Employing entity	Professional category	Start date
		Subdirectora de Ordenación Académica y Profesorado de EUITI-Eibar	
4	Universidad del País Vasco	Profesora Laboral Interina	22/09/2005
5	Gobierno Vasco	Técnico Superior de Administración General	09/06/2004
6	Universidad del País Vasco	Profesora Colaboradora	30/09/2003
7	Universidad del País Vasco	Profesora Asociada	22/09/1999
8	Brown University	Investigadora	01/10/1997

- 1** **Employing entity:** Universidad del País Vasco **Type of entity:** University Centres and Structures and Associated Bodies
Professional category: Coordinadora de Programas de Intercambio Internacional de la EIG- Eibar
Start-End date: 17/02/2017 - 17/03/2021 **Duration:** 4 years - 1 month
- 2** **Employing entity:** Universidad del País Vasco **Type of entity:** University Centres and Structures and Associated Bodies
Professional category: Subdirectora de Ordenación Académica de la Escuela de Ingeniería de Gipuzkoa-Eibar
Start-End date: 17/02/2017 - 17/03/2021 **Duration:** 4 years - 1 month
- 3** **Employing entity:** Universidad del País Vasco **Type of entity:** University Centres and Structures and Associated Bodies
Professional category: Subdirectora de Ordenación Académica y Profesorado de EUITI-Eibar
Start-End date: 01/07/2008 - 14/02/2013 **Duration:** 4 years - 8 months - 14 days
- 4** **Employing entity:** Universidad del País Vasco **Type of entity:** University
Professional category: Profesora Laboral Interina
Start-End date: 22/09/2005 - 31/05/2011 **Duration:** 5 years - 8 months - 9 days
- 5** **Employing entity:** Gobierno Vasco **Type of entity:** IVAP
Professional category: Técnico Superior de Administración General
Start-End date: 09/06/2004 - 08/12/2004 **Duration:** 6 months
- 6** **Employing entity:** Universidad del País Vasco **Type of entity:** University
Professional category: Profesora Colaboradora
Start-End date: 30/09/2003 - 08/06/2004 **Duration:** 8 months - 8 days
- 7** **Employing entity:** Universidad del País Vasco **Type of entity:** University
Professional category: Profesora Asociada
Start-End date: 22/09/1999 - 29/09/2003 **Duration:** 4 years - 7 days
- 8** **Employing entity:** Brown University **Type of entity:** University
Professional category: Investigadora
Start-End date: 01/10/1997 - 31/12/1998 **Duration:** 1 year - 3 months



Education

University education

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

- 1 **Name of qualification:** Licenciada en Ciencias Químicas
Degree awarding entity: Universidad del País Vasco **Type of entity:** University
Date of qualification: 01/06/1994

- 2 **University degree:** Higher degree
Name of qualification: Bachelor In Science (Honours) in Applied Chemistry
City degree awarding entity: Glasgow, United Kingdom
Degree awarding entity: The University of Strathclyde **Type of entity:** University
Date of qualification: 07/07/1992
Prize: ICI Chemicals and polymers Group-Andersonian Centenary Price (1991/1992)

Doctorates

Doctorate programme: PhD in Applied Chemistry
Degree awarding entity: The University of Strathclyde **Type of entity:** University
City degree awarding entity: Glasgow, United Kingdom
Date of degree: 07/07/1997
Thesis title: Small Angle Scattering Studies on the Porosity of Coal Chars and Carbons
Thesis director: Peter Joseph Hall
Standardised degree: Yes **Date of standardisation:** 01/12/1998

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
French	A1	A1	A1	A1	A1
Basque	C2	C2	C2	C2	C2
English	C2	C2	C2	C2	C2
Spanish	C2	C2	C2	C2	C2



Teaching experience

General teaching experience

- 1 Name of the course:** Tecnologías Ambientales.
University degree: Grado en Ingeniería Mecánica
Start date: 01/09/2013
Entity: E.U.I.T.I.-EIBAR (UPV/EHU)
End date: 30/09/2014
Type of entity: University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Universitaria
- 2 Name of the course:** Ciencia de Materiales
University degree: Grado en Ingeniería Mecánica
Start date: 01/09/2011
Entity: E.U.I.T.I.-EIBAR (UPV/EHU)
End date: 30/09/2012
Type of entity: University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Universitaria
- 3 Name of the course:** Fundamentos Químicos de la Ingeniería
University degree: Grado en Ingeniería Mecánica
Start date: 01/09/2010
Entity: E.U.I.T.I.-EIBAR (UPV/EHU)
End date: 30/09/2012
Type of entity: University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Universitaria
- 4 Name of the course:** Fundamentos de Ciencia de Materiale
University degree: Ingeniería Técnica Industrial, especialidad en Mecánica
Start date: 01/09/2007
Entity: E.U.I.T.I.-EIBAR (UPV/EHU)
End date: 30/09/2010
Type of entity: University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Universitaria
- 5 Name of the course:** Química Técnica
University degree: Ingeniería Técnica Industrial, especialidad en Mecánica
Start date: 01/09/2007
Entity: E.U.I.T.I.-EIBAR (UPV/EHU)
End date: 30/09/2010
Type of entity: University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Universitaria
- 6 Name of the course:** Experimentación en Química II
University degree: Ingeniería Técnica Industrial, especialidad en Química Industrial
Start date: 01/09/2006
Entity: Escuela Universitaria Politécnica de Donostia-San Sebastián
End date: 11/02/2007
Type of entity: University Centres and Structures and Associated Bodies
- 7 Name of the course:** Química Industrial
University degree: Ingeniería Técnica Industrial, especialidad en Química Industrial
Start date: 01/09/2006
End date: 10/02/2007



Entity: Escuela Universitaria Politécnica de Donostia-San Sebastián

Type of entity: University Centres and Structures and Associated Bodies

8 Name of the course: Renewable Energy in Buildings

University degree: Master Oficial Erasmus Mundus en Comunidades y Ciudades Inteligentes

Start date: 23/09/2019

Entity: UPV/EHU/Heriot Watt

Type of entity: University

University/UMONS/International Hellenic University

Faculty, institute or centre: Escuela de Ingeniería de Bilbao

9 Name of the course: Bioenergía

University degree: Grado en Ingeniería de Energías Renovables

Start date: 01/09/2012

Entity: E.U.I.T.I.-EIBAR (UPV/EHU)

Type of entity: University Centres and Structures and Associated Bodies

Faculty, institute or centre: Escuela Universitaria

10 Name of the course: Química

University degree: Grado en Ingeniería de Energías Renovables

Start date: 01/09/2011

Entity: E.U.I.T.I.-EIBAR (UPV/EHU)

Type of entity: University Centres and Structures and Associated Bodies

Faculty, institute or centre: Escuela Universitaria

Experience supervising doctoral thesis and/or final year projects

1 Project title: Aezkoako udalerietan Energia Berriztagarrien ezarpenaren azterketa kalkulaturako potentzialak kontutan hartuz

Co-director of thesis: Aitor Urresti González

Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)

Type of entity: University

Student: Andoni Zazpe Beaumont

Obtained qualification: 7 (Notable)

Date of reading: 13/01/2022

2 Project title: Kortxo hondakinetatik eratorritako karbono aktibatuak: prestakuntza, karakterizazioa eta erabilera potentzialen azterketa

Co-director of thesis: María González Alriols

Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)

Type of entity: University Centres and Structures and Associated Bodies

Student: Asier Gallardo Álvarez

Obtained qualification: 8,1 (Notable)

Date of reading: 20/09/2021

3 Project title: Pago Lizarraren erabilera energetiko potentziala Euskal Herrian: menditik galdarara

Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)

Type of entity: University Centres and Structures and Associated Bodies

Student: Hodei Ezpeleta Lopetegui

Obtained qualification: 9 (Sobresaliente)

Date of reading: 13/09/2021



- 4** **Project title:** Biomasa lignozelulosikoen hondakinetatik eratorritako biocharen prestakuntza eta aplikazioen azterketa
Co-director of thesis: María González Alriols
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: Zugaitz Adan Brizuela
Obtained qualification: 8 (Notable)
Date of reading: 07/09/2021
- 5** **Project title:** "Maderas de Lekeitio" kokatutako gunean energia berriztagarrien ezarpena
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: Antxon Aranbarri Gutiérrez
Obtained qualification: 9,5 (Bikain)
Date of reading: 28/07/2021
- 6** **Project title:** Aiaraldeko udalerietan Energia Berriztagarrien ezarpenaren azterketa kalkulaturako potentzialak kontutan hartuz
Co-director of thesis: Aitor Urresti González
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)
Student: Ander Etxebarria Izaga
Obtained qualification: 7 (Notable)
Date of reading: 28/07/2021
- 7** **Project title:** Eugiko basoen kudeaketa eta erabilera gizarte etxearen eskari energetikoa asetzeko
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: Saioa Ventura Iturralde
Obtained qualification: 9 (Bikain)
Date of reading: 01/07/2021
- 8** **Project title:** Pirólisis de biomasa lignocelulósica para la generación de energía y materiales: estudio del bio-oil
Co-director of thesis: María González Alriols
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)
Student: Izaro Gómez Zorrozuza
Obtained qualification: 8 (Oso Ondo)
Date of reading: 30/06/2021
- 9** **Project title:** Proyecto de legalización de instalación de caldera de biomasa y planes de mejora en el Hotel Be Live en Lanzarote
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: Mónica Martín Marrero
Obtained qualification: 9 (Bikain)
Date of reading: 31/03/2021
- 10** **Project title:** Cortadería Selloana espezie exotiko inbaditzaileen energia erabilerak eta balio erantsi handia duten materialak ekoizteko aukerak
Co-director of thesis: María González Alriols
Entity: Gipuzkoako Ingeniaritza Eskola - Eibarko atala (UPV/EHU)
Student: Aitor Arrien Gallastegi
Obtained qualification: 9,5 (Bikain)



Date of reading: 22/02/2021

- 11** **Project title:** Urdaingo herri-mendien potentzial energetikoa erabilera pribaturako
Entity: Gipuzkoako Ingeniaritza Eskola-Eibarko atala (UPV/EHU)
Student: Gaizka Ocaña Goikoetxea
Obtained qualification: 7 (Oso Ongi)
Date of reading: 02/03/2020
- 12** **Project title:** AIARALDEA ETA AEZKOAKO BAIARAKO BIOMASA POTENTZIALAREN AZTERKETA
Entity: GIE-Eibar (UPV/EHU) **Type of entity:** University
Student: ANDER ARRIEN ASPIAZU
Obtained qualification: Notable (8.5)
Date of reading: 24/09/2019
- 13** **Project title:** Polietileno eta poli(etilen tereftalato)aren balorazio energetiko
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA- EIBAR, UPV/EHU
Student: AITZIBER GOYENECHÉ BATIZ
Date of reading: 29/07/2019
- 14** **Project title:** Baserri batean biogas instalakuntza egiteko estudioa
Entity: GIE-Eibar (UPV/EHU)
Student: Julen Pérez Landa
Obtained qualification: Notable (8.5)
Date of reading: 27/09/2018
- 15** **Project title:** Biomasa erabiliz sorgailu termikoen sistemen ezarpena Arraia-Maetzun
Entity: GIE-Eibar (UPV/EHU)
Student: Igor Eguinoa García
Obtained qualification: Sobresaliente (9.5)
Date of reading: 27/09/2018
- 16** **Project title:** Auritzeko Mendien Kudeaketa, Biomasa sistemen inplementaziorako
Entity: GIE-Eibar (UPV/EHU)
Student: Asier Díaz de Heredia Ochoa de Egileor
Obtained qualification: Sobresaliente (9)
Date of reading: 25/09/2018
- 17** **Project title:** Mazquiarian baserriaren Biomasa bidezko berritzea
Entity: GIE-Eibar (UPV/EHU)
Student: Ander Jauregi Zabaleta
Obtained qualification: Notable (7.5)
Date of reading: 25/09/2018
- 18** **Project title:** Magalarte Txakolindegiko hondakin biomasikoetan oinarritutako biogas instalakuntza baten estudioa
Entity: GIE-Eibar (UPV/EHU)
Student: Naia Macarro Martínez
Obtained qualification: Sobresaliente (9)
Date of reading: 17/07/2018



- 19** **Project title:** Biomasa potencialaren azterketa eta logistika zentro baten diseinua Valle de Zamanzas-en en. 2. atala
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: ANDER PEREIRA LARRAZABAL
Obtained qualification: 7 (NOTABLE)
Date of reading: 26/09/2017
- 20** **Project title:** JATETXEA ETA ETXEBIZITZA DITUEN ERAIKIN BATERAKO INSTALAZIOEN AZTERKETA ETA ENERGIA BERRIZTAGARRIEN EZARPENA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: AMAIA LOIOLA TXURRUKA
Obtained qualification: 9 (SOBRESALIENTE)
Date of reading: 26/09/2017
- 21** **Project title:** "Aramaioko district heatingean erabiliko den biomasazko galdaran erreko den erregaiaren azterketa Q-GIS bidez"
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: JULEN AXPE ALONSO
Obtained qualification: 8.5 (NOTABLE)
Date of reading: 13/09/2017
- 22** **Project title:** ESTUDIO PARA EL APROVECHAMIENTO DE CALOR RESIDUAL EN UNA PLANTA DE GENERACIÓN ELÉCTRICA DE BIOMASA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: ALBA RODRÍGUEZ GARCÍA
Obtained qualification: 9 (SOBRESALIENTE)
Date of reading: 27/07/2017
- 23** **Project title:** DISTRICT HEATING MUNITIBAR HERRIKO LAU ERAIKINEN BEROKUNTZA ETA UBS BEHARRAK ASETZEKO
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: EIDER MENDIBURU VALOR
Obtained qualification: 9.5 (SOBRESALIENTE)
Date of reading: 24/03/2017
- 24** **Project title:** HERNANIKO KIROLDEGIKO BIOMASA PROIEKTUA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: ENEKO PEÑAGARIKANO LUCAS
Obtained qualification: 7 (NOTABLE)
Date of reading: 09/11/2016



- 25** **Project title:** DISTRICT HEATING ARAMAION INGURUKO BALIABIDE BIOMASIKOAK ERABILIZ
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: AMAIA LASAGA BUJANDA
Obtained qualification: 7.6 (NOTABLE)
Date of reading: 26/09/2016
- 26** **Project title:** ERREGAI-PILEN KATALIZATZAILEEN EUSKARRIEN SINTESIA ETA KONPARAKETA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: GORKA ARTAMENDI LORIZATE
Obtained qualification: 9.5 (SOBRESALIENTE)
Date of reading: 23/09/2016
- 27** **Project title:** DEBABARRENAKO HONDAKINEN POTENTZIAL ENERGETIKOAREN KALKULUA ETA KO-DIGESTIO BIDEZ ENERGIA SORRERA OPTIMIZATZEKO AUKEREN AZTERKETA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU)
Student: KERMÁN LÓPEZ DE CALLE ETXABE
Obtained qualification: 10 (MATRÍCULA DE HONOR)
Date of reading: 22/09/2016
- 28** **Project title:** IMPLEMENTATION OF THERMAL GENERATION SYSTEMS USING BIOMASS FOR THE DEBABARRENA REGION. USE OF THE QGIS PROGRAM TO QUANTIFY THE RESOURCE
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: ASIER ETXEZARRAGA MEJUTO
Obtained qualification: 10 (MATRÍCULA DE HONOR)
Date of reading: 13/07/2016
- 29** **Project title:** BIOMASA SOLIDOARENTZAKO KARAKTERIZAZIO METODOA
Type of project: TRABAJO FIN DE GRADO
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: KOLDO BERDONCES RUPÉREZ
Obtained qualification: 8 (NOTABLE)
Date of reading: 08/07/2016
- 30** **Project title:** Bertako biomasan oinarrituta energia sare baten diseinua
Type of project: TRABAJO FIN DE GRADO
Co-director of thesis: MARÍA GONZÁLEZ ALRIOLS
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: ASIER TELLA BROTONS
Obtained qualification: 7.0 (NOTABLE)
Date of reading: 08/07/2016



- 31** **Project title:** BIOMASA DISTRICT HEATING SISTEMA BATEN DISEÑUA
Type of project: TRABAJO FIN DE GRADO
Co-director of thesis: MARÍA GONZÁLEZ ALRIOLS
Entity: ESCUELA DE INGENIERÍA DE GIPUZKOA - EIBAR (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
Student: IGONE MADARIAGA ERKOREKA
Obtained qualification: 7.7 (NOTABLE)
Date of reading: 04/07/2016
- 32** **Project title:** Estudio sobre la viabilidad para la implantación de una planta de generación energética por biomasa
Type of project: Trabajo Fin de Grado
Entity: Escuela Universitaria de Ingeniería Técnica Industrial de Eibar (UPV/EHU) **Type of entity:** University
Student: Elene Arrien Dublang
Obtained qualification: 9.5 (Sobresaliente)
Date of reading: 30/09/2015
- 33** **Project title:** PROCESO DE EJECUCIÓN DE LA PTAR MEDELLÍN
Type of project: End of course project
Entity: Escuela Universitaria de Ingeniería Técnica Industrial de Eibar (UPV/EHU) **Type of entity:** University
Student: Ianire de la Calva Ibarondo
Obtained qualification: 9 (Sobresaliente)
Date of reading: 30/09/2014
- 34** **Project title:** SOPORTE DE TUBOS DE ENSAYOS GIRATORIO PARA MICROONDAS
Type of project: End of course project
Entity: Escuela Universitaria de Ingeniería Técnica Industrial de Eibar (UPV/EHU) **Type of entity:** University
Student: Gorka Otero Feijoó
Obtained qualification: 8.5 (Notable)
Date of reading: 24/07/2013
- 35** **Project title:** TRATAMIENTOS SUPERFICIALES PARA PINTURA DE SUPERFICIES METÁLICA
Type of project: End of course project
Entity: Escuela Universitaria de Ingeniería Técnica Industrial de Eibar (UPV/EHU) **Type of entity:** University
Student: Alejandro Iglesias Moriñigo
Obtained qualification: 9 (Sobresaliente)
Date of reading: 26/07/2012
- 36** **Project title:** DISEÑO Y DESARROLLO DE UN MONTAJE EXPERIMENTAL PARA LA OBTENCIÓN DE MATERIALES CARBONOSOS ESTRUCTURADOS PARA SOPORTES CATALÍTICOS EN PILAS DE COMBUSTIBLE DMFC
Type of project: End of course project
Entity: Escuela Universitaria de Ingeniería Técnica Industrial de Eibar (UPV/EHU) **Type of entity:** University
Student: Inés Lascurain Elizburu
Obtained qualification: 10 (Matricula de Honor)
Date of reading: 08/09/2010



Student tutorials

Name of the programme: Coordinadora del Plan de Tutoría entre Iguales

Entity: E.U.I.T.I.-Eibar, UPV/EHU

Type of entity: University Centres and Structures and Associated Bodies

Educational or pedagogical publications, books, articles, etc.

- 1** M. González Alriols; A. Ibarrondo; A. García; A.P. Aravena; H. Otxandategi; E. Onaindia; J.D. Núñez; I. Barrio; M.M. Antxustegi. BIOGAS OBTAINING FROM WASTES GENERATED IN UNIVERSITY CAMPUSES: PRACTICAL CASE STUDY BASED ON TRANSDISCIPLINARY LEARNING, ICERI2022 - International Conference of Education, research and Innovation Proceedings. pp. 2336 - 2339. IATED. 09/11/2022. Available on-line at: <doi: 10.21125/iceri.2022>. ISSN 2340-1095, ISBN 978-84-09-45476-1

Name of the materials: ICERI2022 Proceedings
Date of drafting: 08/11/2022
Format: Article(s)
- 2** M. González; M.A. Andrés; F. Hernández; I. Dávila; P.L. de Hoyos; M.M. Antxustegi. TEACHING GREEN CHEMISTRY IN ENGINEERING DEGREES: THE SUSTAINABLE APPROACH, ICERI2021 - International Conference of Education, research and Innovation Proceedings. pp. 2649 - 2652. IATED. 09/11/2021. Available on-line at: <10.21125/iceri.2021.0675>. ISSN 2340-1095, ISBN 978-84-09-34549-6

Name of the materials: ICERI2021 Proceedings
Date of drafting: 08/11/2021
Format: Article(s)
- 3** María González Alriols; Itziar Egues; María A. Andrés; Mirari Antxustegi. Collaborative Learning Strategies in Engineering Tuition Focused on Students' Engagement, International Journal of Educational and Pedagogical Sciences. 13 - 6,

Name of the materials: ICHE 2019: International Conference on Higher Education
Date of drafting: 25/07/2019
Format: Article(s)
- 4** Mirari Antxustegi; Alain Ulacia Manterola; Roberto Palos; María González Alriols; Aitor Urresti González; Álvaro Campos Celador; Gabriel Ibarra Berastegui. International Conference on Education and New Learning Technologies EDULEARN19, PROCEEDINGS OF EDULEARN19 CONFERENCE. pp. 8758 - 8765. IATED. 2017. ISBN 978-84-09-12031-4

Name of the materials: Using a Project Based learning Experience to Improve Sustainability withinin The University Community
Date of drafting: 2019
Format: Article(s)
- 5** Mirari Antxustegi; María González Alriols; Álvaro Campos Celador; Alain Ulacia Manterola; Aitor Urresti González; Gabriel Ibarra Berastegui. CONFERENCIA INTERNACIONAL RED-U 2017, RED-U 2017 Proceedings. 2017.

Name of the materials: Hacia la sostenibilidad Energética en los Municipios de Euskadi. Una experiencia docente mediante el uso de software libre.
Date of drafting: 13/11/2017
Format: Article(s)



- 6** Aitor Urresti González; Alain Ulacia Manterola; Mirari Antxustegi; María González Alriols; Álvaro Campos Celador; Gabriel Ibarra Berastegui. JORNADAS “La Educación, base para los Objetivos de Desarrollo Sostenible (ODS), JORNADAS “La Educación, base para los Objetivos de Desarrollo Sostenible (ODS) Proceedings. 2017.
Name of the materials: Uso de Software Libre en estudios de Ingeniería: una herramienta sostenible
Date of drafting: 05/09/2017
Format: Article(s)
- 7** María González Alriols; Álvaro Campos Celador; Alain Ulacia Manterola; Aitor Urresti González; Gabriel Ibarra Berastegui; Mirari Antxustegi. 12th International Technology, Education and development Conference (INTED18), INTED´18 PROCEEDINGS. pp. 2577 - 2583. IATED Academy. 2018. ISSN 2340-1079, ISBN 978-84-697-9480-7
Name of the materials: Use of QGIS open software to define the local renewable energy resource. A project based learning experience
Date of drafting: 21/06/2017
Format: Article(s)
Corresponding author: Yes
- 8** Alain Ulacia Manterola; Aitor Urresti González; Mirari Antxustegi; María González Alriols; Álvaro Campos Celador; Gabriel Ibarra Berastegui. 3rd International Conference on Higher Education Advances, HEAD´17 PROCEEDINGS. Global research and Development Services. 2017. Available on-line at: <DOI: <http://dx.doi.org/10.4995/HEAd17.2017.5296>>.
Name of the materials: Using open software to teach resource assessment of renewable energies
Date of drafting: 21/06/2017
Format: Article(s)
- 9** Alain Ulacia Manterola; Aitor Urresti González; Mirari Antxustegi; María González Alriols; Álvaro Campos Celador; Gabriel Ibarra Berastegui. 3rd International Conference on Higher Education Advances, HEAD´17 PROCEEDINGS. Global research and Development Services. 2017. Available on-line at: <DOI: <http://dx.doi.org/10.4995/HEAd17.2017.5613>>. ISBN 978-84-9048-590-3
Name of the materials: Using open software to teach resource assessment of solar thermal and geothermal energy
Date of drafting: 21/06/2017
Format: Article(s)
- 10** María González Alriols; Álvaro Campos Celador; Alain Ulacia Manterola; Aitor Urresti González; Gabriel Ibarra Berastegui; Mirari Antxustegi. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE, ICTEL PROCEEDINGS. pp. 49 - 50. Global research and Development Services. 2017. ISSN 2454-5899
Name of the materials: How could engineering students improve local sustainability: a practical project
Date of drafting: 2017
Format: Article(s)
- 11** Aitor Urresti González; Alain Ulacia Manterola; Mirari Antxustegi; María González Alriols; Álvaro Campos Celador; Gabriel Ibarra Berastegui. 9th International Conference on Education and New Learning Technologies, EDULEARN17 PROCEEDINGS. pp. 9198 - 9204. IATED. 2017. Available on-line at: <DOI: [10.21125/edulearn.2017.0725](https://doi.org/10.21125/edulearn.2017.0725)>. ISSN 2340-1117, ISBN 978-84-697-3777-4
Name of the materials: Using Open Software to teach Resource Assessment of Renewable Energies
Date of drafting: 2017
Format: Article(s)



- 12** María González Alriols; Mirari Antxustegi Bengoetxea; Jalel Labidi. CUIEET24 Congreso Universitario de Innovación Educativa en las Enseñanzas Técnicas, 2016.
Name of the materials: Aprendizaje basado en Proyectos en la docencia en ingeniería: de la docencia magistral a la metodología activa
Date of drafting: 2016
Format: Article(s)
- 13** CRISTINA PEÑA RODRÍGUEZ; FLORENCIO FERNÁNDEZ MARZO; M.MIRARI ANTUXUSTEGI BENGOETXEA; AITOR ARBELAITZ GARMENDIA. Kimika organikoaren oinarriak ingeniaritzarako, EHUko IKASMATERIALAREN SARE-ARITALPENAK. UPV/EHU. 2016.
Name of the materials: Kimika organikoaren oinarriak ingeniaritzarako
Date of drafting: 2016
Format: Book
Degree of contribution: Author or co-author of entire book
Corresponding author: Yes
- 14** Mirari Antxustegi; María González Alriols; Aitor Urresti González; Álvaro Campos Celador; Alain Ulacia Manterola; Gabriel Ibarra Berastegui. 8th International Conference on Education and New Learning Technologies, EDULEARN16 Proceedings. pp. 8696 - 8702. IATED. 2016. Available on-line at: <10.21125/edulearn.2016.0891>. ISSN 2340-1117, ISBN 978-84-608-8860-4
Name of the materials: Teaching Renewable Energies Using Free Software: A case study with R Applied to Ocean Energy
Date of drafting: 2016
Format: Article(s)
- 15** María González Alriols; Mirari Antxustegi Bengoetxea; Jalel Labidi. 2015 International Business & Education Conferences Proceedings, pp. 484 - 484. 2015. ISSN 1539-8757
Name of the materials: "Active Methodologies in Engineering Studies: the use of Project Based learning Methodology"
Date of drafting: 2015
Format: Article(s)
- 16** Bioenergía, IKD BALIABIDEAK. 29/02/2016. Available on-line at: <<http://cvb.ehu.es/ikd-baliabideak/antxustegi-10-2015.htm>>.
Name of the materials: Bioenergía
Date of drafting: 2015
Format: Manual
Degree of contribution: Author or co-author of entire book
Corresponding author: Yes
- 17** María González Alriols; Mirari Antxustegi Bengoetxea; Jalel Labidi. 7th International Conference on Education and New Learning Technologies, EDULEARN15 Proceedings. pp. 977 - 984. 2015. ISSN 2340-1117, ISBN 978-84-606-8243-1
Name of the materials: Use of the Project Based Learning Approach in Engineering Studies: from Classical Tuition to Active Learning"
Date of drafting: 2015
Format: Article(s)
- 18** M.MIRARI ANTUXUSTEGI BENGOETXEA; FLORENCIO FERNÁNDEZ MARZO; AITOR AROZENA UGALDE. Erreaktore ez-jarraituak, EHUko IKASMATERIALAREN SARE-ARITALPENAK. UPV/EHU. 2012. ISBN 978-84-9860-674-4
Name of the materials: Erreaktore ez-jarraituak



Date of drafting: 2012

Format: Book

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

Corresponding author: Yes

- 19** M.MIRARI ANTUXUSTEGI BENGOETXEA; FLORENCIO FERNÁNDEZ MARZO; AITOR AROZENA UGALDE. Erreakzio Kimikoaren Ingeniaritzarako Sarrera, EHUko IKASMATERIALAREN SARE-ARITALPENAK. UPV/EHU. 2012. ISBN 978-84-9860-675-1

Name of the materials: Erreakzio Kimikoaren Ingeniaritzarako Sarrera

Date of drafting: 2012

Format: Book

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

Corresponding author: Yes

- 20** M. González; M.A. Andrés; F. Hernández; I. Dávila; P.L. de Hoyos; M.M. Antxustegi. USING A PROJECT BASED LEARNIN EXPERIENCE TO IMPROVE SUSTAINABILITY WITHIN THE UNIVERSITY COMMUNITY, INTED19 Proceedings. pp. 8758 - 8765. IATED. 2019. Available on-line at: <10.21125/edulearn.2019.2173>. ISSN 2340-1117, ISBN 978-84-09-12031-4

Name of the materials: EDULEARN19 Proceedings

Format: Article(s)

- 21** Mirari Antxustegi; Itziar Egües; Rubén Seoane; María González Alriols. 16th International Technology, Education and Development Conference (INTED2022), INTED2022 PROCEEDINGS. pp. 8305 - 8309. IATED Academy. 2022. ISSN 2340-1079, ISBN 978-84-09-37758-9

Name of the materials: SUSTAINABILITY AND LIFE CYCLE ENGINEERING IN THE FIRLD OF RENEWABLE ENERGIES

Format: Article(s)

Corresponding author: Yes

- 22** María González Alriols; M. Ángeles Andrés Sánchez; Fabio Hernández Ramos; Amaia Morales; Mirari Antxustegi. 16th International Technology, Education and Development Conference (INTED2022), INTED2022 PROCEEDINGS. pp. 7572 - 7576. IATED Academy. 2022. ISSN 2340-1079, ISBN 978-84-09-37758-9

Name of the materials: SUSTAINABILITY IN ENGINEERING STUDIES:TRYING TO MAKE ROOM IN A BUSY CURRICULUM

Format: Article(s)

Corresponding author: Yes

Participation in innovative teaching projects

- 1** **Project title:** ikd3: Energia Berriztagarrien Ingeniariaren ekarpena garapen iraunkorreko helburuak lortzeko
Type of participation: Team member
Funding entity: Universidad del País Vasco **Type of entity:** University
Start-End date: 29/03/2021 - 31/12/2022
- 2** **Project title:** Experiencia Piloto para la implementación de los Objetivos de Desarrollo Sostenible en la materia Energía Solar
Type of participation: Team member
Funding entity: Universidad de Zaragoza **Type of entity:** University
Start-End date: 01/09/2019 - 31/08/2021 **Duration:** 2 years



- 3** **Project title:** Herramientas informáticas basadas en software libre de aplicación en el ámbito de las energías renovables
Type of participation: Co-ordinator
Funding entity: Universidad del País Vasco **Type of entity:** University
Start-End date: 15/02/2015 - 30/12/2017

Participation in conferences with talks focused on teacher training

- 1** **Name of the event:** INTERNATIONAL CONGRES ON EDUCATIONAL INNOVATION IN HIGHER EDUCATION
Type of event: Conference
City of event: Leioa, Basque Country, Spain
Date of presentation: 06/04/2022
Organising entity: University of the Basque Country **Type of entity:** University
UPV/EHU
10 years of evolution on teaching Bioenergy: from magistral calsses to the interoduction of Sustainability through Active Teaching Methods.
- 2** **Name of the event:** INTERNATIONAL CONGRES ON EDUCATIONAL INNOVATION IN HIGHER EDUCATION
Type of event: Conference
City of event: Leioa, Basque Country, Spain
Date of presentation: 06/04/2022
Organising entity: University of the Basque Country **Type of entity:** University
UPV/EHU
Transdisciplinary work in the development of final degree projects: standarization tools in the evaluation.
- 3** **Name of the event:** SECOND INTERNACIONAL CONFERENCE ON ENGINEERING EDUCATION FOR THE XXI CENTURY – ICEE21C 2019
Type of event: Conference
City of event: Bilbao, Basque Country, Spain
Date of presentation: 04/07/2019
Organising entity: Universidad del País Vasco **Type of entity:** University
FINAL YEAR PROJECTS IN THE RENEWABLE ENERGIES ENGINEERING FIELD. PRACTICAL CASES SPECIFICALLY DESIGNED FOR THE UNIVERSITY BUILDINGS.
- 4** **Name of the event:** Virtual Higher Education Summit #HES2020
Type of event: Conference
City of event: Virtual, Switzerland
Organising entity: COPERNICUS Alliance, saguf, **Type of entity:** Associations and Groups
td-net, The University of Bern and the University of Lausanne
City organizing entity: Bern, Switzerland
Sustainable development in engineering studies: towards an open multidisciplinary approach..

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:** Desarrollo de una biorrefinería multiproducto
Entity where project took place: Gipuzkoako Ingeniaritza Eskola (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Donostia, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Jalel Labidi Bouchrika
Nº of researchers: 7
Start-End date: 14/10/2020 - 13/10/2024
Total amount: 153.295,01 €
- 2** **Name of the project:** Diseño de baterías térmicas optimizadas con materiales renovables como herramienta de descarbonización de procesos industriales de Gipuzkoa (GIPUZKOAHEAT)
Entity where project took place: GIE (UPV/EHU)
City of entity: Donostia, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Angel Gabriel Fernández Díaz-Carralero
Nº of researchers: 6
Funding entity or bodies: Diputación Foral de Gipuzkoa **Type of entity:** Gipuzkoako enpresa ehunean eta ekosistema sozioekonomikoan trantsizio ekologiko jasangarria eta bidezkoa sustatzeko programa
Start-End date: 01/12/2022 - 31/12/2023
Total amount: 34.320 €
- 3** **Name of the project:** Lignocellulosic Biochar (II)
Entity where project took place: GIE-Eibar (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Eibar, Basque Country, Spain
Name principal investigator (PI, Co-PI....): MMirari Antxustegi Bengoetxea
Nº of researchers: 6
Funding entity or bodies: Diputación Foral de Gipuzkoa **Type of entity:** Etorbizuna Eraikiz
Start-End date: 01/06/2022 - 31/12/2023
Total amount: 60.000 €
- 4** **Name of the project:** Biobased Materials for Construction
Entity where project took place: Gipuzkoako Ingeniaritza Eskola (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Donostia, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Jalel Labidi Bouchrika
Nº of researchers: 12
Start-End date: 01/01/2021 - 31/12/2022



Total amount: 27.360 €

- 5** **Name of the project:** EHUgaz: Biogasa sortzeko UPV/EHUan sortzen diren hondakin organikoen potentzialaren azterketa
Entity where project took place: Universidad del País Vasco **Type of entity:** University
Name principal investigator (PI, Co-PI....): Mirari Antxustegi Bengoetxea
N° of researchers: 8
Start-End date: 01/12/2021 - 31/05/2022
Total amount: 880 €
- 6** **Name of the project:** Lignocellulosic Biochar
Entity where project took place: GIE-Eibar (UPV/EHU) **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Eibar, Basque Country, Spain
Name principal investigator (PI, Co-PI....): MMirari Antxustegi Bengoetxea
N° of researchers: 6
Funding entity or bodies: Diputación Foral de Gipuzkoa **Type of entity:** Etorbizuna Eraikiz
Start-End date: 01/05/2020 - 31/12/2021
Total amount: 41.200 €
- 7** **Name of the project:** PROCESOS DE BIOREFINERIA
Entity where project took place: UPV/EHU **Type of entity:** University
City of entity: Donostia, Basque Country, Spain
N° of researchers: 15
Start-End date: 01/01/2016 - 31/12/2021
Total amount: 536.000 €
- 8** **Name of the project:** EHUKhi: una plataforma para el desarrollo del potencial fotovoltaico de la UPV/EHU (II)
Entity where project took place: Universidad del País Vasco **Type of entity:** University
Start-End date: 23/10/2020 - 31/05/2021
Total amount: 2.200 €
- 9** **Name of the project:** Obtención de nuevos ingredientes y principios activos a partir de algas, con aplicación en salud
Entity where project took place: UPV/EHU **Type of entity:** University
City of entity: Donostia, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Labidi Bouchrika
N° of researchers: 10
Name of the programme: Elkartek
Code according to the funding entity: KK-2019/00031
Start-End date: 01/01/2019 - 31/12/2020
Total amount: 43.461,24 €
- 10** **Name of the project:** EHUKhi: una plataforma para el desarrollo del potencial fotovoltaico de la UPV/EHU
Entity where project took place: Universidad del País Vasco **Type of entity:** University
Start-End date: 23/10/2019 - 31/05/2020



Total amount: 2.200 €

- 11** **Name of the project:** Uso de energías renovables en diferentes edificios de la Universidad
Entity where project took place: Escuela de Ingeniería de Gipuzkoa-Eibar, UPV/EHU **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Eibar, Basque Country, Spain
Name principal investigator (PI, Co-PI...): Alain Ulazia Manterola; M.Mirari Antxustegi Bengoetxea; González Alriols, María; Aitor Urresti González; Álvaro Campos Celador
Nº of researchers: 7
Start-End date: 13/10/2018 - 31/05/2019
Total amount: 1.800 €
- 12** **Name of the project:** APLICABILIDAD DE LOS PROCESOS DE EXTRACCIÓN Y FRAGMENTACIÓN DE LOS MATERIALES LIGNOCELULÓSICOS A PARTIR DE LA GESTIÓN FORESTAL SOSTENIBLE DEL BOSQUE MIXTO ATLÁNTICO DEL PAÍS VASCO
Entity where project took place: UPV/EHU **Type of entity:** University
City of entity: Donostia, Basque Country, Spain
Nº of researchers: 6
Start-End date: 01/01/2017 - 31/12/2018
Total amount: 29.798 €
- 13** **Name of the project:** Uso de energías renovables en diferentes edificios de la Universidad
Entity where project took place: Escuela de Ingeniería de Gipuzkoa-Eibar, UPV/EHU **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Eibar, Basque Country, Spain
Name principal investigator (PI, Co-PI...): González Alriols, María
Nº of researchers: 3
Start-End date: 13/10/2017 - 31/05/2018
Total amount: 1.000 €
- 14** **Name of the project:** BASKEGUR
Entity where project took place: UPV/EHU **Type of entity:** University
City of entity: Donostia, Basque Country, Spain
Nº of researchers: 6
Start-End date: 14/08/2017 - 13/12/2017
Total amount: 27.257 €
- 15** **Name of the project:** Aleaciones amorfas con bajo contenido en platino para aplicación en pilas tipo PEMFC y DAFC con etanol y bioetanol
Entity where project took place: Escuela de Ingeniería de Gipuzkoa UPV/EHU **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Donostia-San Sebastián, Basque Country, Spain
Funding entity or bodies: UPV/EHU **Type of entity:** University
Start-End date: 10/11/2015 - 09/11/2017
Total amount: 9.600 €
- 16** **Name of the project:** Análisis energético de la Escuela Universitaria Técnica Industrial de Eibar (EUITI): situación actual u propuesta de implantación de energías renovables
Entity where project took place: Escuela de Ingeniería de Gipuzkoa UPV/EHU **Type of entity:** University Centres and Structures and Associated Bodies



City of entity: Donostia-San Sebastián, Basque Country, Spain

Funding entity or bodies:

UPV/EHU

Type of entity: University

Start-End date: 10/11/2015 - 09/11/2017

Total amount: 1.850 €

17 Name of the project: Análisis Energético de la Escuela Ingeniería de Gipuzkoa (Eibar)- Parte II: Ampliación del estudio a todo el sistema. propuesta de Medidas de mejora en la eficiencia energética.

Entity where project took place: Escuela de Ingeniería de Gipuzkoa-Eibar, UPV/EHU

City of entity: Eibar, Basque Country, Spain

Name principal investigator (PI, Co-PI....): González Alriols, María

Nº of researchers: 3

Start-End date: 10/10/2016 - 31/05/2017

Total amount: 800 €

18 Name of the project: Análisis Energético de la Escuela Universitaria de Ingeniería Industrial de Eibar (EUITI): situación actual y propuesta de implantación de Energía Renovable

Entity where project took place: EUITI-Eibar, UPV/EHU

Type of entity: University Centres and Structures and Associated Bodies

City of entity: Eibar,

Name principal investigator (PI, Co-PI....): González Alriols, María

Nº of researchers: 2

Start-End date: 01/10/2015 - 30/05/2016

Total amount: 1.850 €

19 Name of the project: DESARROLLO DE PILAS DE COMBUSTIBLE DE ALCOHOLES DIRECTO (DAFCs)

Entity where project took place: Escuela Universitaria Politécnica de Donostia-San Sebastián

Type of entity: University Centres and Structures and Associated Bodies

City of entity: Donostia-San Sebastián, Basque Country, Spain

Funding entity or bodies:

UPV/EHU

Type of entity: University

Start-End date: 01/11/2011 - 30/11/2015

Total amount: 22.385,04 €

20 Name of the project: BIONERGÍA PRODUCIDA POR PILAS PEMFCy DAFC CON NUEVOS MATERIALES

Entity where project took place: Escuela Universitaria Politécnica de Donostia-San Sebastián

Type of entity: University Centres and Structures and Associated Bodies

City of entity: Donostia-San Sebastián, Basque Country, Spain

Funding entity or bodies:

UPV/EHU

Type of entity: University

Start-End date: 09/11/2013 - 08/11/2014

Total amount: 5.800 €

21 Name of the project: SISTEMAS DE GENERACIÓN DE BIOENERGÍA CON CATALIZADORES DE BAJO CONTENIDO EN PLATINO PARA PILAS PEMFC Y DAFC

Entity where project took place: Escuela Universitaria Politécnica de Donostia-San Sebastián

Type of entity: University Centres and Structures and Associated Bodies

City of entity: Donostia-San Sebastián, Basque Country, Spain

Funding entity or bodies:



Gobierno Vasco

Type of entity: GOBIERNO VASCO**City funding entity:** Spain**Start-End date:** 01/01/2011 - 31/12/2012**Total amount:** 25.542,5 €**22 Name of the project:** ALTERNATIVE FUNCTIONAL MATERIALS FOR HYDROGEN PEMFC: NEW FABRICATION METHODS FOR MEMBRANES AND ELECTROCATALYSTS**Entity where project took place:** Escuela Universitaria Politécnica de Donostia-San Sebastián **Type of entity:** University Centres and Structures and Associated Bodies**City of entity:** Donostia-San Sebastián, Basque Country, Spain**Funding entity or bodies:**

MINISTERIO DE EDUCACIÓN

Type of entity: MINISTERIO**City funding entity:** Canada**Start-End date:** 01/10/2007 - 30/10/2010**Total amount:** 121.000 €**23 Name of the project:** Espectroscopia de masas electroquímicas diferencial (Dems)**Entity where project took place:** Escuela Universitaria Politécnica de Donostia-San Sebastián **Type of entity:** University Centres and Structures and Associated Bodies**City of entity:** Donostia-San Sebastián, Basque Country, Spain**Funding entity or bodies:**

Universidad del País Vasco

Type of entity: University**City funding entity:** Bilbao, Basque Country, Spain**Start-End date:** 01/01/2009 - 31/12/2009**Total amount:** 39.576,34 €**24 Name of the project:** Electrodo de aleaciones amorfas de base Ni-Nb para celdas de combustible**Entity where project took place:** Escuela Universitaria Politécnica de Donostia-San Sebastián **Type of entity:** University Centres and Structures and Associated Bodies**City of entity:** Donostia-San Sebastián, Basque Country, Spain**Funding entity or bodies:**

MINISTERIO DE EDUCACION Y CIENCIA

City funding entity: Spain**Start-End date:** 01/10/2006 - 30/11/2009**Total amount:** 52.000 €**25 Name of the project:** ESPECTROFOTOMETRO DE MASAS ACOPLADO A CROMATOGRFO DE GASES GCMS-QP2010S**Entity where project took place:** Escuela Universitaria Politécnica de Donostia-San Sebastián **Type of entity:** University Centres and Structures and Associated Bodies**City of entity:** Donostia-San Sebastián, Basque Country, Spain**Funding entity or bodies:**

Universidad del País Vasco

Type of entity: University**City funding entity:** Bilbao, Basque Country, Spain**Start-End date:** 12/07/2007 - 31/12/2007**Total amount:** 48.000 €



- 26 Name of the project:** CATALISIS AMBIENTAL
Entity where project took place: FACULTAD DE QUÍMICA UPV/EHU
City of entity: Donostia-San Sebastián, Basque Country, Spain
Funding entity or bodies: Universidad del País Vasco
City funding entity: Bilbao, Basque Country, Spain
Gobierno Vasco
City funding entity: Spain
Start-End date: 16/10/2002 - 31/12/2006
Total amount: 181.732 €
Type of entity: University Centres and Structures and Associated Bodies
Type of entity: University
Type of entity: GOBIERNO VASCO
- 27 Name of the project:** Estudio de la deposición de catalizadores y adsorbentes sobre superficies metálicas para la eliminación de COVs
Entity where project took place: FACULTAD DE QUÍMICA UPV/EHU
City of entity: Donostia-San Sebastián, Basque Country, Spain
Funding entity or bodies: MINISTERIO DE CIENCIA Y TECNOLOGÍA
City funding entity: MADRID, Spain
Start-End date: 01/12/2003 - 30/11/2006
Total amount: 152.500 €
Type of entity: University Centres and Structures and Associated Bodies
Type of entity: MINISTERIO
- 28 Name of the project:** POLIMEROS DE ALTO VALOR AÑADIDO: NANOTECNOLOGIAS, MATERIALES INTELIGENTES, ENERGIA Y BIOMATERIALES.
Entity where project took place: FACULTAD DE QUÍMICA UPV/EHU
City of entity: Donostia-San Sebastián, Basque Country, Spain
Funding entity or bodies: Gobierno Vasco
City funding entity: Spain
Start-End date: 01/01/2001 - 31/12/2004
Total amount: 83.114 €
Type of entity: University Centres and Structures and Associated Bodies
Type of entity: GOBIERNO VASCO
- 29 Name of the project:** INCORPORACION DE COMPUESTOS HIDROFOBOS A POLIMEROS DISPERSOS EN AGUA
Entity where project took place: FACULTAD DE QUÍMICA UPV/EHU
City of entity: Donostia-San Sebastián, Basque Country, Spain
Funding entity or bodies: Gobierno Vasco
City funding entity: Spain
Start-End date: 01/01/2001 - 31/12/2001
Total amount: 42.443 €
Type of entity: University Centres and Structures and Associated Bodies
Type of entity: GOBIERNO VASCO



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

Name of the project: Desarrollo y Mejora del proceso de etiquetado e identificación del atún rojo y bonito del norte - Fase II

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): MMirari Antxustegi Bengoetxea

Nº of researchers: 2

Funding entity or bodies:

HAZI

Type of entity: Foundation

City funding entity: Abadiño, Basque Country, Spain

Start date: 08/10/2018

Duration: 3 months - 23 days

Total amount: 4.879,12 €

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** M.Mirari Antxustegi; Eriz Corro; Marya Baloch; Rosaria Volpe. Production of Activated Biochars for Wastewater Treatment: Characterization, Activation and Evaluation of the Adsorbance Capacity. Chemical Engineering Transactions. 92, pp. 547 - 552. AIDIC, 30/06/2022. Available on-line at: <<https://doi.org/10.3303/CET2292092>>. ISSN 2283-9216

Type of production: Scientific paper **Format:** Journal
- 2** Nezly Martelo; M.Mirari Antxustegi; Eriz Corro; Marya Baloch; Rosaria Volpe; Antonio Gagliano; Alberto Fichera; María González Alriols. Use of residual lignocellulosic biomass for energetic uses and environmental remediation through pyrolysis. Energy Storage and Saving. 1 - 3, pp. 129 - 135. Elsevier, 19/06/2022. Available on-line at: <<https://doi.org/10.1016/j.enss.2022.04.004>>. ISSN 2283-9216

Type of production: Scientific paper **Format:** Journal
- 3** María González Alriols; M.Mirari Antxustegi; Álvaro Campos Celador; Jalel Labidi. Mejora de la eficiencia energética en la Escuela de Ingeniería de Gipuzkoa, sede Eibar. Un proyecto basado en biomasa. Compromiso social y otras competencias transversales. pp. 223 - 232. Servicio editorial de la Universidad del País vasco, 26/04/2018.

Type of production: Scientific paper **Format:** Book
- 4** María González Alriols; Álvaro Campos Celador; Alain Ulazia Manterola; Aitor Urresti González; Gabriel Ibarra Berastegi; M.Mirari Antxustegi Bengoetxea. Using open software in engineering studies: a sustainable tool. Revista de la Cátedra UNESCO sobre Desarrollo Sostenible de la UPV/EHU. 8, pp. 207 - 216. UPV/EHU, 2017. Available on-line at: <<http://www.ehu.eus/cdsea/web/index.php/publicaciones/revista-forum-de-sostenibilidad/>>. ISSN 1887-9810

Type of production: Scientific paper **Format:** Journal
- 5** M.M. Antxustegi; A. R. Pierna; N. Ruiz. Chemical activation of Vulcan XC72R to be used as support for NiNbPtRu catalysts in PEM fuel cells. International Journal of Hydrogen Energy. 39 - 8, pp. 3978 - 3983. ELSEVIER, 2014. Available on-line at: <<http://dx.doi.org/10.1016/j.ijhydene.2013.04.061>>. ISSN 0360-3199



Type of production: Scientific paper

Format: Journal

- 6 N. Burgos; M. Paulis; M. M. Antxustegi; M. Montes. "Deep oxidation of VOC mixtures with Platinum supported on Al₂O₃/Al monoliths". Applied Catalysis B: Environmental. 38 - 4, pp. 251 - 258. ELSEVIER, 2002. ISSN 0926-3373

Type of production: Scientific paper

Format: Journal

- 7 J. M. Calo; P. J. Hall; M. Antxustegi. "Carbon porosity characterization via small angle neutron scattering". Colloids and Surfaces A: Physicochemical and Engineering Aspects. 187 - 188, pp. 219 - 232. ELSEVIER, 2001. Available on-line at: <[http://dx.doi.org/10.1016/S0927-7757\(01\)00635-5](http://dx.doi.org/10.1016/S0927-7757(01)00635-5)>. ISSN 0927-7757

Type of production: Scientific paper

Format: Journal

- 8 Peter J. Hall; M. Mirari Antxustegi; W. Ruiz. "Contrast Matching Small Angle Neutron Scattering evidence of the absence of a connected pore system in Pittsburgh#8 Coal". Fuel. 77 - 14, pp. 1663 - 1665. Elsevier, 1998. Available on-line at: <[https://doi.org/10.1016/S0016-2361\(98\)00101-X](https://doi.org/10.1016/S0016-2361(98)00101-X)>. ISSN 0016-2361

Type of production: Scientific paper

Format: Journal

- 9 M. Mirari Antxustegi; Peter J. Hall; Joseph M. Calo. "The Development Of Porosity In Pittsburgh #8 Char As Studied Using Contrast Matching Small Angle Neutron Scattering And Gas Adsorption Techniques". Energy & Fuels. 12 - 3, pp. 542 - 546. ACS, 1998. Available on-line at: <DOI: 10.1021/ef970153g>. ISSN 0887-0624

Type of production: Scientific paper

Format: Journal

- 10 M. Mirari Antxustegi; Peter J. Hall; Joseph M. Calo. "The Use Of Contrast Matching Small Angle Neutron Scattering Techniques To Monitor Closed Porosity In Carbons". Journal Of Colloid And Interface Science. 202 - 2, pp. 490 - 498. ELSEVIER, 1998. Available on-line at: <<http://dx.doi.org/10.1006/jcis.1998.5474>>. ISSN 0021-9797

Type of production: Scientific paper

Format: Journal

- 11 Alexander J. Mackinnon; M. Mirari Antxustegi; Peter J. Hall. "Glass Transitions And Enthalpy Relaxation In Coals". Fuel. 73 - 1, pp. 113 - 115. ELSEVIER, 1994. Available on-line at: <[http://dx.doi.org/10.1016/0016-2361\(94\)90196-1](http://dx.doi.org/10.1016/0016-2361(94)90196-1)>. ISSN 0016-2361

Type of production: Scientific paper

Format: Journal

- 12 Peter J. Hall; M. Mirari Antxustegi; Alexander J. Mackinnon; Paul Burchill; Randall E. Winans; P. Thiyagarajan. "Small Angle Neutron Scattering Evidence For The Formation Of Microporosity In Pittsburgh #8 Coal Following Liquefaction Pretreatment By Solvents". Energy & Fuels. 8 - 6, pp. 1526 - 1527. ACS, 1994. Available on-line at: <<http://dx.doi.org/10.1021/ef00048a045>>. ISSN 0887-0624

Type of production: Scientific paper

Format: Journal

- 13 M. Mirari Antxustegi; Alexander J. Mackinnon; P.J. Hall. "Effects Of Glass Formation By Solvents In Differential Scanning Calorimetry Investigations Of Solvent Swollen Coals". Energy & Fuels. 7 - 6, pp. 1026 - 1029. ACS, 1993. Available on-line at: <<http://dx.doi.org/10.1021/ef00042a047>>. ISSN 0887-0624

Type of production: Scientific paper

Format: Journal

- 14 I. Dávila; L. Sillero; I. Egüés; M.M. Antxustegi; J. Labidi. The biorefinery concept for the industrial valorization of palm tree and fruit wastes. Palm Trees and Fruits Residues Recent Advances for Integrated and Sustainable Management. pp. 437 - 478. Elsevier, 2023. Available on-line at: <<https://doi.org/10.1016/B978-0-12-823934-6.00014-9>>.

Type of production: Book chapter

- 15 Nezlyia Martelo; Antonio Gagliano; Alberto Fichera; Rosaria Volpe; M.Mirari Antxustegi; Rodrigo Llano-Ponte; María González Alriols. Modelling and simulation of a residual lignocellulosic biomass pyrolysis pilot plant. Computer Aided Chemical Engineering. 51, pp. 547 - 555. Elsevier B.V., 2022. Available on-line at: <10.1016/B978-0-323-95879-0.50092-8>. ISSN 15707946

Type of production: Book chapter

Format: Book



Corresponding author: Yes

- 16** Mahsa Mousavi Langari; M Mirari Antxustegi; Jalel Labidi. Nanocellulose-based sensing platforms for heavy metal ions detection: A comprehensive review. *Chemosphere*. 302, pp. 134823. Elsevier, 01/09/2022. Available on-line at: <<https://doi.org/10.1016/j.chemosphere.2022.134823>>.

Type of production: Review

Format: Journal

Works submitted to national or international conferences

- 1** **Title of the work:** Modelling and simulation of a residual lignocellulosic biomass pyrolysis plant
Name of the conference: 32nd European Symposium on Computer Aided Process Engineering (ESCAPE32)
Type of event: Conference
Corresponding author: No
City of event: Toulouse, France
Date of event: 12/06/2022
End date: 15/06/2022
With external admission assessment committee: Yes
Type of contribution: Scientific paper
Nezly Martelo; Antonio Gagliano; Alberto Fichera; Rosaria Volpe; Mirari Antxustegi; Rodriogo Llano-Ponte; María González Alriols. "PROCEEDINGS OF THE 32nd European Symposium on Computer Aided Process Engineering (ESCAPE32)". En: *COMPUTER-AIDED CHEMICAL ENGINEERING*. 51, pp. 547 - 552. (France): ELSEVIER B.V., 12/06/2022. Available on-line at: <<http://dx.doi.org/10.1016/B978-0-323-95879-0.50092-8>>. ISSN 1570-7946, ISBN 978-0-443-18631-8
- 2** **Title of the work:** Production of activated bio-chars for wastewater treatment: characterization, activation and evaluation of the adsorption capacity
Name of the conference: ICONBM2022
Corresponding author: No
City of event: Napoli, Italy
Date of event: 05/06/2022
End date: 08/06/2022
Organising entity: AIDIC
Mirari Antxustegi; Eriz Corro; Marya Baloch; Rosaria Volpe; María González Alriols. pp. 547 - 552.
- 3** **Title of the work:** Cortaderia selloana espezie inbaditzailearen errautsen erabilpena ur kutsatuen purifikaziorako
Name of the conference: Materialen Zientzia eta Teknologia V. Kongresua
Corresponding author: Yes
City of event: Bilbao, Basque Country, Spain
Date of event: 29/11/2021
End date: 30/11/2021
Organising entity: FUNDACION TECNALIA
CORPORACION TECNOLOGICA / Euskampus
Type of entity: Innovation and Technology Centres
City organizing entity: Bilbao, Basque Country, Spain
María González Alriols; A. Morales; A. Arrien; E. Corro; M.M. Antxustegi. "Materialen Zientzia eta Teknologia V. Kongresua".
- 4** **Title of the work:** Kortxo hondakinetatik eratorritako karbono aktibatuen prestakuntza eta aplikazioa kutsatzaileen filtraketa sistematzen
Name of the conference: Materialen Zientzia eta Teknologia V. Kongresua



Corresponding author: Yes

City of event: Bilbao, Basque Country, Spain

Date of event: 29/11/2021

End date: 30/11/2021

Organising entity: FUNDACION TECNALIA
CORPORACION TECNOLOGICA / Euskampus

Type of entity: Innovation and Technology Centres

City organizing entity: Bilbao, Basque Country, Spain

M.M. Antxustegi; E. Corro; A. Morales; F. F. Hernández Ramos; María González Alriols. "Materialen Zientzia eta Teknologia V. Kongresua".

- 5** **Title of the work:** Activated Carbons from Lignocellulosic Agroforestry Wastes for the Biosorption of Hazardous Pollutants from Waste-Waters
Name of the conference: 16th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES
City of event: Dubrovnik, Croatia
Date of event: 10/10/2021
End date: 15/10/2021
Organising entity: University of Zagreb / Instituto Superior Técnico (Lisboa) **Type of entity:** University Centres and Structures and Associated Bodies
City organizing entity: Dubrovnik, Croatia
María González Alriols; M.M. Antxustegi; Marya Baloch; Eriz Corro; Alberto Fichera; Rosaria Volpe.
- 6** **Title of the work:** Kafe-azalen eta eukaliptus ezpalen arteko nahasteen konposizio ratioaren efektua bere jokoera termikoan
Name of the conference: Materialen Zientzia eta Teknologia IV. Kongresua
Corresponding author: Yes
City of event: Donostia, Basque Country, Spain
Date of event: 02/07/2018
End date: 03/07/2018
Organising entity: CEIT-IK4 / Tecnun **Type of entity:** Innovation and Technology Centres
City organizing entity: Donostia, Basque Country, Spain
María González Alriols; M.M. Antxustegi. "Materialen Zientzia eta Teknologia IV. Kongresua".
- 7** **Title of the work:** Effect of the blending ratio on the thermal behavior of biomass blends of coffee skins and eucalyptus chips
Name of the conference: International Conference on Materials & Energy - ICOME 2018
Corresponding author: Yes
City of event: Donostia, Basque Country, Spain
Date of event: 30/04/2018
End date: 04/05/2018
Organising entity: UPV/EHU
City organizing entity: Donostia, Basque Country, Spain
María González Alriols; Itziar Egües Artola; M.M. Antxustegi. "ICOME 2018".
- 8** **Title of the work:** Erregai-pilatan erabiltzeko elektrokatalitzaileen euskarri mesoporotsuen aukeraketa: OMC eta Vulcan arteko konparaketa
Name of the conference: Materialen Zientzia eta Teknologia III. Kongresua
City of event: Markina, Basque Country, Spain
Date of event: 05/07/2016
End date: 06/07/2016
Organising entity: Leartiker **Type of entity:** R&D Centre
M.M. Antxustegi; M. Sánchez; A.R. Pierna.



- 9** **Title of the work:** Platino Eduki Txikia Duten Aleazio Metaliko Amorfoak Erregai-Piletan Aplikatzeko
Name of the conference: Materialen Zientzia eta Teknologia III. Kongresua
City of event: Markina, Basque Country, Spain
Date of event: 05/07/2016
End date: 06/07/2016
Organising entity: Leartiker **Type of entity:** R&D Centre
M. Sánchez; A.R. Pierna; M.M. Antxustegi.
- 10** **Title of the work:** Mejora de la Eficiencia Energética en la Escuela de Ingeniería de Gipuzkoa, sede Eibar. Un proyecto Sostenible basado en la Biomasa
Name of the conference: 2015 International Business & Education Conferences Proceedings
City of event: Bilbao, Basque Country, Spain
Date of event: 24/05/2016
End date: 25/05/2016
Organising entity: UPV/EHU
María González Alriols; Mirari Antxustegi Bengoetxea and Jalel Labidi.
- 11** **Title of the work:** Incremento de la eficiencia catalítica de aleaciones metálicas amorfas con la presencia de hierro como cocatalizador para aplicación en PEMFCs
Name of the conference: Congreso Iberoamericano de Hidrógeno y Pilas de Combustible, Iberconappice 2016
City of event: Torremolinos, Málaga, Spain
Date of event: 20/04/2016
End date: 22/04/2016
M. Sánchez; A. R. Pierna; A. Lorenzo; M. M. Antxustegi; B. Alemán; J. J. Del Val. "libro de resúmenes". En: LIBRO DE COMUNICACIONES IBERCONAPPICE 2016. APPICE, ISBN 978-84-608-6614-5
- 12** **Title of the work:** Incremento de la actividad catalítica en PEMFC de aleaciones amorfas con bajo contenido en platino, modificando parámetros de fabricación.
Name of the conference: XXII Congreso de la Sociedad Iberoamericana de Electroquímica (SIBAE)
City of event: San José, Costa Rica
Date of event: 14/03/2016
End date: 18/03/2016
Organising entity: Sociedad Iberoamericana de Electroquímica- SIBAE
M. Sánchez; A. R. Pierna; A. Lorenzo.; M.M. Antxustegi. "Libro de resúmenes".
- 13** **Title of the work:** Incremento de la actividad catalítica en PEMFC de aleaciones amorfas con bajo contenido en platino, modificando parámetros de fabricación.
Name of the conference: XXII Congreso de la Sociedad Iberoamericana de Electroquímica (SIBAE)
City of event: San José, Costa Rica
Date of event: 14/03/2016
End date: 18/03/2016
M. Sánchez; A. R. Pierna; A. Lorenzo.; M. M. Antxustegi. "Libro de resúmenes".
- 14** **Title of the work:** "Effect of cocatalyst and composition on performance of amorphous alloys for ethanol electrooxidation."
Name of the conference: HYCELTEC 2015, V Jornadas Iberoamericanas de de pilas de Combustible e Hidrógeno"
City of event: Tenerife, Spain
Date of event: 2015



M. Sanchez; A.R. Pierna; A. Lorenzo; E. Artutxa; N. Ruiz; M.M. Antxustegi. En: LIBRO DE RESUMENES HYCELTEC 2015. ISBN 978-84-606-8621-7

- 15** **Title of the work:** Catalizadores con muy bajo contenido en platino, para celdas de combustible de oxidación directa de bio-alcoholes.
Name of the conference: XXI Congreso de la Sociedad Iberoamericana de Electroquímica- SIBAE 2014
City of event: La Serena, Chile
Date of event: 2014
Organising entity: Sociedad Iberoamericana de Electroquímica- SIBAE
M. Sanchez; A.R. Pierna; A. Lorenzo; N. Ruiz; Eider Artutxa; M.M. Antxustegi.
- 16** **Title of the work:** Diamanketak azterketa-harrian sortutako kalteak azpigainazalean
Name of the conference: Materialen Zientzia eta Teknologia II. Kongresua
City of event: Donostia, Spain
Date of event: 2014
Organising entity: POLYMAT (UPV/EHU)
J.L. Osa; J.A. Sanchez; N. Ortega; I. Pombo; M.M. Antxustegi; C. Peña. Euskal Herriko Unibertsitateko Argitalpen Serbitzua (UPV/EHU), ISBN 978-84-9082-005-6
- 17** **Title of the work:** Erregai-pilatan erabiltzeko elektrokatalizazileen euskarri mesosporotsu nanoegitura sintesia.
Name of the conference: Materialen Zientzia eta Teknologia II. Kongresua
City of event: Donostia, Spain
Date of event: 2014
Organising entity: POLYMAT (UPV/EHU)
I. Lascurain; N. Ruiz; M.M. Antxustegi; A.R. Pierna. Euskal Herriko Unibertsitateko Argitalpen Serbitzua (UPV/EHU), ISBN 978-84-9082-005-6
- 18** **Title of the work:** Influence of chemical activation in carbon support for amorphous electro-catalysts in PEMFC.
Name of the conference: XXXV REUNION GRUPO DE ELECTROQUÍMICA DE LA R.S.E.Q.
City of event: Burgos, Spain
Date of event: 2014
N. Ruiz; A.R. Pierna; A. Lorenzo; T. C. Blanco; M. Sanchez; E. Artutxa and M.M. Antxustegi. ISBN 978-84-92681-93-8
- 19** **Title of the work:** Ni₅₉Nb₄₀Pt_{0.6}Ru_{0.4} como catalizadores anódicos soportados sobre VULCAN XC72R en membranas de NAFION XL para PEMFC. (ORAL)
Name of the conference: XXI Congreso de la Sociedad Iberoamericana de Electroquímica- SIBAE 2014
City of event: La Serena, Chile
Date of event: 2014
Organising entity: Sociedad Iberoamericana de Electroquímica- SIBAE
N. Ruiz; A.R. Pierna; A. Lorenzo; J. Barroso; M. Sanchez; M.M. Antxustegi; E. Artutxa.
- 20** **Title of the work:** AMORFAS DE BASE Ni₅₉Nb₄₀Pt_{0.6}X_{0.4} (X= Ru, Sn, Pd, Co, Rh) COMO ANODOS Y CATODOS EN PILAS PEMFC
Name of the conference: XXXIV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química
City of event: Valencia,
Date of event: 15/07/2013
Noelia Ruiz; A. R. Pierna; A. Lorenzo; T. C. Blanco; M. Sánchez; M. M. Antxustegi; E. Artutxa.



- 21** **Title of the work:** " ACTIVACIÓN DE CARBÓN VULCAN® XC72R CON KOH PARA SU USO COMO SOPORTE DE CATALIZADORES NiNbPtRu PARA PILAS PEM"
Name of the conference: CONAPPICE 2012
City of event: Madrid,
Date of event: 21/11/2012
M.M. Antxustegi; A.R.Pierna; N. Ruiz; A. .Lorenzo; J. Barroso; B. Alemán; T. Carballo; M. Sánchez; E. Artutxa. ISBN 978-84-695-6505-6
- 22** **Title of the work:** "Electro-oxidación de etanol y bioetanol mediante aleaciones amorfas de base NiNbPt (Pt < 0.1%)"
Name of the conference: XXXII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química
City of event: Murcia, Region of Murcia, Spain
Date of event: 07/09/2011
Angel .R.Pierna; Javier Barroso; Agustín .Lorenzo; Tamara C. Blanco; Noelia Ruiz; Maialen Sánchez; Mirari Antxustegi. "Libro de resúmenes, XXXII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química". ISBN 978-84-15107-22-4
- 23** **Title of the work:** "Estudio comparativo de la oxidación de etanol y bioetanol sobre electrodos amorfs bicatalíticos de base NiNbPt
Name of the conference: XXXII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química
City of event: Murcia,
Date of event: 07/09/2011
Tamara C. Blanco; Angel .R.Pierna; Javier Barroso; Agustín .Lorenzo; Noelia Ruiz; Eider Artutxa; Maialen Sánchez; Mirari Antxustegi. "Libro de resúmenes, XXXII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química". ISBN 978-84-15107-22-4
- 24** **Title of the work:** "Bioethanol and etanol electro-oxidation by amorphous alloys with low-loaded platinum"
Name of the conference: HYCELTEC 2011, III Simposium Ibérico de Hidrógeno, Pilas de Combustible y Baterías Avanzadas
City of event: Zaragoza,
Date of event: 27/06/2011
J. Barroso; A.R.Pierna; T.C. Blanco; A.Lorenzo; N. Ruiz; E. Artutxa; M. Sánchez; M. Antxustegi; B. Alemán. "HYCELTEC 2011 PROCEEDINGS". ISBN 978-84-938668-8-4
- 25** **Title of the work:** "Ethanol oxidation on NiNbPt-based bi´catalytic amorphous alloys"
Name of the conference: HYCELTEC 2011, III Simposium Ibérico de Hidrógeno, Pilas de Combustible y Baterías Avanzadas
City of event: Zaragoza, Aragon, Spain
Date of event: 27/06/2011
T.C. Blanco; A.R.Pierna; J. Barroso; A.Lorenzo; N. Ruiz; E. Artutxa; M. Sánchez; M. Antxustegi; B. Alemán. "HYCELTEC 2011 PROCEEDINGS". ISBN 978-84-938668-8-4
- 26** **Title of the work:** Estudio comparativo de electrodos amorfos de base Ni₅₉Ni₄₀(PtX)₁(X=Rh/Pd) para la oxidación de etanol y CO
Name of the conference: SIBA 2010 (GE-RSEQ)
City of event: Madrid,
Date of event: 27/06/2010
Rodríguez Pierna, Angel Agustin; Fernandez Marzo, Florencio; Lorenzo Martin, Agustin; Carballo Blanco, Tamara; Barroso Lazaro, Javier; María Fernandez Juarez; Ruiz Jimenez, Noelia; Antxustegi Bengoetxea, Miren Mirari; Aleman Astiz, Beatriz.



- 27** **Title of the work:** Productos de reacción de la electrooxidación de etanol/bioetanol mediante catalizadores amorfos nanoparticulados de base NiNbPt
Name of the conference: SIBA 2010 (GE-RSEQ)
City of event: Madrid,
Date of event: 27/06/2010
Barroso Lazaro, Javier; Rodriguez Pierna, Angel Agustin; Fernandez Marzo, Florencio; Lorenzo Martin, Agustin; Ruiz Jimenez, Noelia; Carballo Blanco, Tamara; María Fernandez Juarez; Antxustegi Bengoetxea, Miren Mirari; Aleman Astiz, Beatriz.
- 28** **Title of the work:** Electro-oxidación de etanol en medio ácido sobre catalizadores de naturaleza amorfa
Name of the conference: CONAPPICE-2010
Type of event: Conference
City of event: Sevilla, Andalusia, Spain
Date of event: 16/06/2010
City organizing entity: Spain
T. Carballo; A.R.Pierna; J.Barroso; N. Ruiz; M.F. Juárez; A. Lorenzo; M.M. Antxustegi; M. Sánchez. "Libro de Comunicaciones de CONAPPICE-2010". pp. 205 - 208. ISBN 978-84-693-2330-4
- 29** **Title of the work:** Ruptura homolítica de enlace C-C en el proceso de electro-oxidación del etanol y bioetanol
Name of the conference: CONAPPICE 2010
Type of event: Conference
City of event: Sevilla, Andalusia, Spain
Date of event: 16/06/2010
Barroso Lazaro, Javier; Rodriguez Pierna, Angel Agustin; Fernandez Marzo, Florencio; Lorenzo Martin, Agustin; Ruiz Jimenez, Noelia; Carballo Blanco, Tamara; María Fernandez Juarez; Antxustegi Bengoetxea, Miren Mirari; Aleman Astiz, Beatriz. "Libro de Comunicaciones de CONAPPICE-2010". pp. 223 - 226. ISBN 978-84-693-2330-4
- 30** **Title of the work:** Aleaciones amorfas de (NiNb)₉₉ (PtCu)₁ para la electrooxidación de etanol en medio ácido
Name of the conference: XXX reunion del Grupo de Electroquímica de la R.S.E.Q.
City of event: Tenerife, Spain
Date of event: 19/07/2009
End date: 22/07/2009
A. R. Pierna*; J. Barroso; F. F. Marzo; N. Ruiz; M.F. Juárez; T. Carballo; A. Lorenzo; M. M. Antxustegi; A. Pérez.
- 31** **Title of the work:** Estudio electrocatalítico de aleaciones amorfas de composición Ni 59 Nb 40 Pt 1 como ánodos de celdas de combustible de etanol directo (DEFC).
Name of the conference: XXX reunion del Grupo de Electroquímica de la R.S.E.Q.
City of event: -Tenerife, Spain
Date of event: 19/07/2009
End date: 22/07/2009
A. Bermúdez de Castro; A. R. Pierna*; J. Barroso; F. F. Marzo; A. Lorenzo; M. M. Antxustegi; F. López.
- 32** **Title of the work:** Estudio electrocatalítico comparativo por adición de Cu y Ru como cocatalizadores en aleaciones amorfas de base (NiNb)₉₉ (Pt)₁ para su uso en DEFCs.
Name of the conference: II Iberian Symposium on Hydrogen, Fuel cells and Advanced Batteries
City of event: -Vila real, Portugal
Date of event: 2009



A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; N. Ruiz; T. Carballo; M.J. Juárez; M. M. Antxustegi; B. Alemán; M. Sánchez.

- 33 Title of the work:** Aplicación de los catalizadores manorfos a las celdas de combustible de membrana polimérica
Name of the conference: 1st Iberian Symposium on Hydrogen, Fuel cells and Advanced Batteries
City of event: - Bilbao, Spain
Date of event: 01/07/2008
End date: 04/07/2008
A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; B. Cartón; M. M. Antxustegi; F. Lopez.
- 34 Title of the work:** Catalizadores metálicos a morfos particulados como ánodos par pilas de combustible de methanol directo (DMFC)
Name of the conference: 1st Iberian Symposium on Hydrogen, Fuel cells and Advanced Batteries
City of event: Bilbao, Spain
Date of event: 01/07/2008
End date: 04/07/2008
A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; B. Cartón; M. M. Antxustegi; F. Lopez.
- 35 Title of the work:** Optimización del diseño de una celda de combustible de intercambio protónico (PMFC)
Name of the conference: 1st Iberian Symposium on Hydrogen, Fuel cells and Advanced Batteries
City of event: Bilbao, Spain
Date of event: 01/07/2008
End date: 04/07/2008
F. F. Marzo; A. R. Pierna*; J. Barranco; A. Lorenzo; B. Cartón; M. M. Antxustegi; F. Lopez.
- 36 Title of the work:** Efecto de la adición de Sn-Ru a la aleación (NiNb)99Pt1 frente a la oxidación de methanol y CO
Name of the conference: II Congreso Nacional de Pilas de Combustible. CONAPPICE - 2008
City of event: - Zaragoza, Spain
Date of event: 2008
Organising entity: APPICE
A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; B. Cartón; M. M. Antxustegi; and F.Lopez.
- 37 Title of the work:** ON THE ENHANCEMENT OF METHANOL AND CO ELECTRO-OXIDATION BY AMORPHOUS (NiNb)PtSnRu ALLOYS VERSUS BIFUNCTIONAL PtRu AND PtSn ALLOYS.
Name of the conference: Workshop – Topic: IV Technology Applications
Date of event: 2008
A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; B. Cartón; M. M. Antxustegi; and F.Lopez.
- 38 Title of the work:** ELECTRODOS MODIFICADOS DE PASTA DE CARBONO DE ALEACIONES METALICAS AMORFAS DE BASE NiNbPtX (X= Sn y Ru) PARA PILAS DE COMBUSTIBLE DE OXIDACIÓN DIRECTA DE METANOL (DMFC).
Name of the conference: XXIX REUNION GRUPO DE ELECTROQUÍMICA DE LA R.S.E.Q.
City of event: LERIDA, Spain
Date of event: 2007
Organising entity: GRUPO DE ELECTROQUÍMICA DE LA R.S.E.Q.
A.R.Pierna*; G.Vara; F.F. Marzo; J.Barranco; A.Lorenzo; F.Lopez; B.Cartón; M. Antxustegi; A.Perez.
- 39 Title of the work:** Electro-oxidation of carbon monoxide and methanol on carbon-supported Ni₅Nb₄₀Pt(1-x)Y_x (Y =Sn, Ru; x =0, 0.4% at.) nanoparticles as anodic in a DMFC.
City of event: Donostia-San Sebastián,



Date of event: 2007

A. R. Pierna*; J. Barranco; F. F. Marzo; A. Lorenzo; B. Cartón; M. M. Antxustegi; and F.Lopez.

- 40** **Title of the work:** RESISTENCIA A LA CORROSIÓN DE ALEACIONES NANOESTRUTURADAS TIPO FINEMET MODIFICADAS CON BERILIO.
Name of the conference: XXIX REUNION GRUPO DE ELECTROQUÍMICA DE LA R.S.E.Q.
City of event: LERIDA, Spain
Date of event: 2007
Organising entity: GRUPO DE ELECTROQUÍMICA DE LA R.S.E.Q.
A.R.Pierna*; G.Vara; F.F. Marzo; J.Barranco; A.Lorenzo; F.Lopez; B.Cartón; M. Antxustegi; A.Perez.
- 41** **Title of the work:** " Porosity characterisation of Wyodak coal char via small angle neutron scattering (SANS)"
Name of the conference: 220th American Chemical Society Meeting
City of event: Chicago, United States of America
Date of event: 2001
Organising entity: American Chemical Society
City organizing entity: United States of America
Joseph M. Calo; Peter J. Hall a; M. M. Antxustegi. "Abstracts of papers - American Chemical Society". 222, pp. U727 - U727. American Chemical Society, ISSN 0065-7727
- 42** **Title of the work:** "Catalytic elimination of alcohols on Pt supported Al₂O₃ catalysts"
Name of the conference: 5th European Congress on Catalysis (EUROPACAT V)
City of event: Limerick, Ireland
Date of event: 2001
N. Burgos; M. Paulis; M.M. Antxustegi; M. Montes.
- 43** **Title of the work:** "VOCs mixtures deep oxidation with metallic monoliths"
Name of the conference: ENVICAT 2001
City of event: Maiori, Italy
Date of event: 2001
N. Burgos; M. Paulis; M.M. Antxustegi; M.Montes.
- 44** **Title of the work:** "The influence of CO on the NO-Carbon reaction"
Name of the conference: EUROCARBON'00
City of event: Berlin, Germany
Date of event: 10/07/2000
End date: 13/07/2000
Joseph M. Calo; A. Burnett; M. Antxustegi; I. Aarna; E.M. Suuberg.
- 45** **Title of the work:** Calo, JM, Hall, PJ, Brown, S, Fernandez, J, Antxustegi, M. Carbon Porosity Characterization Via Small Angle Neutron Scattering, p. 35.
Name of the conference: Second International TRI/Princeton Workshop on Characterization of Porous Materials: From Angstroms to Millimeters
City of event: Princeton, NJ., United States of America
Date of event: 21/06/2000
Calo, JM; Hall, PJ; Brown, S.; Fernandez, J.; Antxustegi, M."Second International TRI/Princeton Workshop on Characterization of Porous Materials: From Angstroms to Millimeters. Program and Abstracts,". pp. 35.



- 46** **Title of the work:** "Carbon porosity development via Small Angle Scattering"
Name of the conference: CARBON'99
City of event: CHARLESTON, United States of America
Date of event: 11/07/1999
End date: 16/07/1999
City organizing entity: AMERICAN CARBON SOCIETY,
Joseph M. Calo; P.J. Hall; S. Brown; J. Fernandez and M. M. Antxustegi.
- 47** **Title of the work:** "The effect of reaction on the structural evolution of carbonaceous materials: the 'loss of memory' "
Name of the conference: EUROCARBON'98
City of event: Strasbourg, France
Date of event: 04/07/1998
End date: 09/07/1998
M. Mirari Antxustegi; Robert H. Hurt; Joseph M. Calo; H-S Shim.
- 48** **Title of the work:** "The effects of mineral matter on carbon structure"
Name of the conference: EUROCARBON'98
City of event: Strasbourg, France
Date of event: 04/07/1998
End date: 09/07/1998
M. Mirari Antxustegi; Robert H. Hurt.
- 49** **Title of the work:** "The reactivity behavior of ¹³C-labelled phenol-formaldehyde resin char"
Name of the conference: CARBON'97
City of event: Penn State, United States of America
Date of event: 1997
M. Mirari Antxustegi.
- 50** **Title of the work:** "Porosity evolution via contrast matching small angle neutron scattering "
Name of the conference: CARBON'95
City of event: San Diego, United States of America
Date of event: 01/07/1995
Peter J. Hall; M. Mirari Antxustegi; Joseph M. Calo; P. Thiyagarajan.
- 51** **Title of the work:** "The development of Porosity in Pittsburgh #8 and Wyodak char as studied using contrast matching small angle neutron scattering "
Name of the conference: 210th American Chemical Society Meeting
City of event: Chicago, United States of America
Date of event: 1995
Organising entity: American Chemical Society
Peter J. Hall; M. Mirari Antxustegi; Joseph M. Calo. "Abstracts of papers - American Chemical Society".
ISSN 0065-7727
- 52** **Title of the work:** "The use if contrast matching techniques to investigate interparticle scattering effects in small angle neutron scattering investigations of porous carbons"
Name of the conference: CARBON'94
City of event: Granada, Spain
Date of event: 01/07/1994
Peter J. Hall; M. Mirari Antxustegi.



- 53** **Title of the work:** Determinación de trazas de Boro por voltametría de stripping
Name of the conference: XXIX reunion del Grupo de Electroquímica de la R.S.E.Q.
City of event: -Tenerife, Spain
A. R. Pierna*; F. F. Marzo; N. Ruiz; M.F. Juárez; T. Carballo; J. Barroso; A. Lorenzo; M. M. Antxustegi; A. Pérez.
- 54** **Title of the work:** Efecto del cocatalizador en electrodos amorfos de base NiNb)₉₉ (Pt)_{0.6} Pd_{0.4} para la su utilización como ánodos en DEFCs.
Name of the conference: IV Jornadas Iberoamericanas de Pilas de Combustible e Hidrógeno
City of event: -Santiago de Chile, Chile
A. R. Pierna*; J. Barroso; F. F. Marzo; N. Ruiz; M.F. Juárez; T. Carballo; A. Lorenzo; M. M. Antxustegi; B. Alemán.
- 55** **Title of the work:** Ánodos de naturaleza amorfa de base (NiNb)₉₉ (Pt)₁ para la electrooxidación de etanol en medio ácido
Name of the conference: IV Jornadas Iberoamericanas de Pilas de Combustible e Hidrógeno
City of event: -Santiago de Chile, Chile
A. R. Pierna*; J. Barroso; F. F. Marzo; N. Ruiz; M.F. Juárez; T. Carballo A. Lorenzo; M. M. Antxustegi; B. Alemán; M Sánchez.

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

- 1** **Committee title:** Comité Científico
Primary (UNESCO code): 330600 - Electrical technology and engineering; 331000 - Industrial technology; 331700 - Motor vehicle technology; 332200 - Power technology
Affiliation entity: IV Congreso de Estudiantes de la UPV/EHU
City affiliation entity: Leioa, Basque Country, Spain
Start-End date: 22/06/2022 - 22/10/2022
- 2** **Committee title:** Comité Científico
Primary (UNESCO code): 330600 - Electrical technology and engineering; 331000 - Industrial technology; 331700 - Motor vehicle technology; 332200 - Power technology
Affiliation entity: IV Congreso de Estudiantes de la UPV/EHU
City affiliation entity: Leioa, Basque Country, Spain
Start-End date: 22/06/2021 - 22/10/2021
- 3** **Committee title:** Comité Científico
Primary (UNESCO code): 330600 - Electrical technology and engineering; 331000 - Industrial technology; 331700 - Motor vehicle technology; 332200 - Power technology
Affiliation entity: III Congreso de Estudiantes de la UPV/EHU
City affiliation entity: Leioa, Basque Country, Spain
Start-End date: 22/06/2020 - 22/10/2020
- 4** **Committee title:** Comité Científico
Primary (UNESCO code): 330600 - Electrical technology and engineering; 331000 - Industrial technology; 331700 - Motor vehicle technology; 332200 - Power technology
Affiliation entity: II Congreso de Estudiantes de la UPV/EHU
Type of entity: University



City affiliation entity: Leioa, Basque Country, Spain
Start-End date: 01/06/2019 - 22/10/2019

Other achievements

Stays in public or private R&D centres

- 1** **Entity:** Brown University **Type of entity:** University
Faculty, institute or centre: Fluid, Thermal and Chemical Processes, Division of Engineering
City of entity: Providence, United States of America
Start-End date: 01/04/2001 - 30/04/2001
Name of programme: Investigación y discusión de datos previos y escritura de artículos.
Goals of the stay: Guest
- 2** **Entity:** Brown University **Type of entity:** University
Faculty, institute or centre: Department of Fluid, Thermal and Chemical Processes, Division of Engineering
City of entity: Providence, United States of America
Start-End date: 01/10/1995 - 30/09/1997 **Duration:** 2 years
Funding entity: Gobierno Vasco **Type of entity:** Gobierno Vasco
Goals of the stay: Post-doctoral
- 3** **Entity:** Brown University **Type of entity:** University
Faculty, institute or centre: Department of Fluid, Thermal and Chemical Processes, Division of Engineering
City of entity: Providence, United States of America
Start-End date: 28/02/1994 - 30/03/1994 **Duration:** 1 month - 3 days
Goals of the stay: Estudios de adsorción y cinéticas de reacción de varios materiales carbonosos

Scientific societies and professional associations

Name of the society: Grupo Español de Carbón
Affiliation entity: Instituto de Carboquímica (tesorería)
Start date: 2011

Obtained accreditations/recognitions

- 1** **Description:** Evaluación de Actividad Investigadora (Sexenio)
Accrediting entity: UNIBASQ **Type of entity:** Agencia de Calidad
City accrediting entity: Vitoria-Gasteiz, Basque Country, Spain
Date of recognition: 20/06/2018
- 2** **Description:** Acreditación Lingüística en Inglés para la impartición de Docencia
Accrediting entity: Vicerrectorado de relaciones Internacionales (UPV/EHU)
Date of recognition: 25/09/2006



3 **Description:** Profesora Contrada Doctora

Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Agencia de la Calidad y Acreditación

City accrediting entity: Madrid, Spain

Date of recognition: 14/05/2004

4 **Description:** Profesora Colaboradora

Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Agencia de la Calidad y Acreditación

City accrediting entity: Madrid, Spain

Date of recognition: 02/12/2003

5 **Description:** Acreditación para Impartir Docencia en Euskara en la campo de conocimiento de Química

Accrediting entity: Euskararako Kabinete Teknikoa **Type of entity:** University (UPV/EHU)

Date of recognition: 03/07/2000