Daniel Martín-Yerga

Curriculum Vitae

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Birth date: 10/Feb/1984

Education

2012-2016 **Ph.D. in Physical and Analytical Chemistry**, *University of Oviedo*, Oviedo, *Spain*.
International PhD mention. Ph.D. Thesis with honors ("suma cum laude"): "Electroanalytical applications of quantum dots and titanium phosphate nanoparticles".

2010-2011 **M. Sc. in Chemical, Biochemical and Structural Analysis**, *University of Oviedo*, Oviedo, *Spain*.
M.Sc. Thesis with honors: "Determination of mercury in water with nanostructured electrochemical transducers".

2002-2010 **B. Sc. in Chemistry**, *University of Oviedo*, Oviedo, *Spain*.
Specialized in Analytical Chemistry (5-year course).

Professional Experience

Vocational

Jan 2018-Present **Postdoctoral Research Associate**, KTH Royal institute of technology, Stockholm, Sweden.
Cost-effective electrolytic hydrogen generation by electrocatalytic oxidation of organic compounds.

Jan 2017-Dec 2017 **Application Specialist**, Metrohm Dropsens, Llanera, Spain.
Development of practical applications for electrochemical instrumentation. Thick and thin-film electrodes. Spectroelectrochemistry (Raman, SERS, Luminescence, UV/VIS). Scientific training to sales and marketing teams. Visits to customers for instrumentation demo.

May 2016-Dec 2016 **Postdoctoral Research Fellow**, University of Oviedo, Oviedo, Spain.
Development of novel methodologies for the electrochemical detection of quantum dots in the NanoBioAnalysis research group.

Jan 2012-May 2016 **Predoctoral Research Fellow**, University of Oviedo, Oviedo, Spain.
Development of novel metal-based electroactive labels for electrochemical biosensing in the NanoBioAnalysis research group.

Sep 2011-Dec 2011 **Research Assistant**, University of Oviedo, Oviedo, Spain.
Development of heavy metal electrochemical sensors with screen-printed electrodes in the Immunoelectroanalysis research group.

Miscellaneous

Mar 2006-Dec 2010 **Open Source Software Development**, MAEMO.ORG COMMUNITY.
Developed open source software in python language for the Maemo platform (a mobile-based OS by Nokia).

Jun 2004-Sep 2004 **Industrial cleaning**, EULEN SA, Avilés, Spain.
Cleaning of industrial machinery. Waste management and recycling in a steel mill. Administration of metal to produce different types of steel.

Teaching experience

Official Teaching

2015-2016 "Experimental Introduction to Advanced Analytical Techniques in Routine and Research Laboratories". International Master in Analytical and Bioanalytical Sciences. Department of Physical and Analytical Chemistry. University of Oviedo. 16 h.

2014-2015 "Experimental Introduction to Advanced Analytical Techniques in Routine and Research Laboratories". International Master in Analytical and Bioanalytical Sciences. Department of Physical and Analytical Chemistry. University of Oviedo. 32 h.

Courses

Oct 2017 "Basic course in Electrochemistry". Metrohm Headquarters, Herisau (Switzerland). 30 h.

Supervision

Feb 2015-Jul 2015 Co-supervisor of M.Sc. Thesis entitled "Determination of arsenic in environmental samples using different electrode platforms". M. Cuellas-Díaz. Department of Physical and Analytical Chemistry. University of Oviedo (Spain).

Feb 2014-Jul 2014 Co-supervisor of M.Sc. Thesis entitled "Comparative study of several graphene-based transducers on screen-printed electrodes". A. Sánchez-Calvo. Department of Physical and Analytical Chemistry. University of Oviedo (Spain).

Feb 2013-Jul 2013 Co-supervisor of M.Sc. Thesis entitled "Nanostructured sensors for the determination of sugars". B. Pérez-Fernández. Department of Physical and Analytical Chemistry. University of Oviedo (Spain).

Short stays

Sep 2015-Dec 2015 **PhD secondment**, UNIVERSITY OF WARWICK, Coventry, UK.
Research secondment at the Department of Chemistry of the University of Warwick under supervision of Prof. Patrick R. Unwin. My work focused on the investigation of screen-printed electrode surfaces with correlative imaging techniques (scanning electrochemical cell microscopy, Raman microscopy and scanning electron microscopy).

Research projects

Jan 2018-Present "**Green hydrogen from forest products through energy efficient electrolysis**". Swedish Energy Agency (Sweden).

Jan 2015-Dec 2016 "**Grupo de Nanobioanálisis**". FC-15-GRUPIN-021. Consejería de Economía y Empleo del Principado de Asturias (Spain).

Dec 2012-Dec 2014 "**Design and fabrication of an electrochemical tri-immunosensor on nanostructured surfaces for the early diagnosis of Alzheimer's disease**". MICINN-12-CTQ2011-24560. Ministerio de Ciencia e Innovación (Spain).

Nov 2011-Dec 2012 "**Development of heavy-metal sensors**". Contrato Programa (Línea 3): Apoyo a los recursos humanos para I+D+i. Consejería de Educación y Ciencia del Principado de Asturias y Universidad de Oviedo (Spain).

Publications

** As corresponding author*

Published

32 **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado, "In situ activation of thick-film disposable copper electroes for sensitive detection of malachite green using electrochemical surface-enhanced Raman scattering (EC-SERS)". Electroanalysis (2018) in press.

31 **D. Martín-Yerga***, A. Pérez-Junquera, M. B. González-García, J. V. Perales, A. Heras, A. Colina, D. Hernández-Santos, P. Fanjul-Bolado, "Quantitative Raman Spectroelectrochemistry using silver screen-printed electrodes". Electrochim. Acta. 264 (2018) 183-190.

30 **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado, "Time-resolved luminescence spectroelectrochemistry at screen-printed electrodes. Following the redox-dependent fluorescence of $[Ru(bpy)_3]^{2+}$". Anal. Chem, 89 (2017) 10649-10654.

29 C. Navarro Hernández, **D. Martín-Yerga***, M. B. González-García, D. Hernández- Santos, P. Fanjul-Bolado, "Evaluation of electrochemical, UV/VIS and Raman spectroelectrochemical detection of Naratriptan with screen-printed electrodes". Talanta 178 (2018) 85-88.

28 J. Carrasco-Rodríguez, F.J. García-Alonso, A. Costa-García, **D. Martín-Yerga***, "Tuning the incorporation of electroactive metals into titanium phosphate nanoparticles and the reverse metal extraction process: Application as electrochemical labels in multiplex biosensing". *Electrochem. Commun.* 83 (2017) 1-5.

27 **D. Martín-Yerga***, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado, "Electroluminescence of $[Ru(bpy)_3]^{2+}$ at gold and silver screen-printed electrodes followed by time-resolved luminescence spectroelectrochemistry". *Phys. Chem. Chem. Phys.* 19 (2017) 22633-22637.

26 B. Pérez-Fernández, **D. Martín-Yerga**, A. Costa-García, "Galvanostatic electrodeposition of copper nanoparticles on screen-printed carbon electrodes and their application for reducing sugars determination". *Talanta* 175 (2017) 108-113.

25 **D. Martín-Yerga**, I. Álvarez-Martos, M C. Blanco-López, C. S. Henry, M. T. Fernández-Abedul, "Point-of-use simultaneous electrochemical detection of lead and cadmium using low-cost screen-printed transparency electrodes". *Procedia Tech.* 27 (2017) 135-136.

24 **D. Martín-Yerga**, A. Costa-García, "Recents advances in the electrochemical detection of mercury". *Cur. Opin. Electrochem.* 3 (2017), 91-96.

23 **D. Martín-Yerga***, J. Carrasco-Rodríguez, F. J. García Alonso, A. Costa-García, "Competitive electrochemical biosensing of biotin using cadmium-modified titanium phosphate nanoparticles and 8-channel screen-printed disposable electrtodes". *Anal. Methods* 9(26) (2017) 3983-3991.

22 **D. Martín-Yerga**, J. Carrasco-Rodríguez, J. L. García Fierro, F. J. García Alonso, A. Costa-García, "Copper-modified titanium phosphate nanoparticles as electrocatalyst for glucose detection". *Electrochim. Acta* 229 (2017) 102-111.

21 **D. Martín-Yerga**, I. Álvarez-Martos, M C. Blanco-López, C. S. Henry, M. T. Fernández-Abedul, "Point-of-need simultaneous electrochemical detection of lead and cadmium using low-cost stencil-printed transparency electrodes". *Anal. Chim. Acta* 981 (2017) 24-33.

20 J. Carrasco-Rodríguez, **D. Martín-Yerga**, L. Garrido, A. Costa-García, F. J. García Alonso, "Sequential incorporation of metallic cations (Cd^{2+} and Hg^{2+}) and N-octylamine into titanium phosphate nanoparticles and their subsequent release in acid media". *Dalton Trans.* 46 (2017) 7061-7073.

19 **D. Martín-Yerga***, P. Fanjul-Bolado, D. Hernández-Santos, A. Costa-García, "Enhanced detection of quantum dots by the magnetohydrodynamic effect for electrochemical biosensing". *Analyst* 142(9) (2017) 1591-1600.

18 **D. Martín-Yerga**, A. Costa-García, "Stabilization of electrogenerated copper species on electrodes modified with quantum dots". *Phys. Chem. Chem. Phys.* 19(7) (2017) 5018-5027. **PCCP 2017 Hot Article.**

17 **D. Martín-Yerga**, A. Costa-García, "Electrochemical detection of quantum dots by stabilization of electrogenerated copper species". *Electrochem. Commun.* 74 (2017) 53-56.

16 B. Pérez-Fernández, **D. Martín-Yerga***, A. Costa-García, "Electrodeposition of nickel nanoflowers on screen-printed electrodes and its application to non-enzymatic sugars determination". *RSC Adv.* 6 (2016) 83748-83757.

15 **D. Martín-Yerga***, E. Costa Rama, A. Costa-García, "Electrochemical study and determination of electroactive species with screen-printed electrodes", *J. Chem. Educ.* 93(7) (2016) 1270-1276.

14 **D. Martín-Yerga***, E. Costa Rama, A. Costa-García, "Electrochemical study and applications of the selective electrodeposition of silver on quantum dots", *Anal. Chem.* 88(7) (2016) 3739-3746.

13 **D. Martín-Yerga***, E. Costa Rama, A. Costa-García, "Electrochemical characterization of ordered mesoporous carbon screen-printed electrodes", *J. Electrochem. Soc.* 163 (5) (2016) B176-B179.

12 A. Sánchez-Calvo, C. Botas, **D. Martín-Yerga**, P. Álvarez, R. Menéndez, A. Costa-García, "Comparative study of screen-printed electrodes modified with graphene oxides reduced by a constant current". *J. Electrochem. Soc.* 162 (10) (2015) B282-B290.

11 **D. Martín-Yerga**, D. Bouzas-Ramos, A. Montoro-Bustos, J. Ruiz-Encinar, J.M. Costa, A. Sanz-Medel, A. Costa-García, "Voltammetric determination of size and particle concentration of Cd-based quantum dots". *Electrochim. Acta* 166 (2015) 100-106.

10 **D. Martín-Yerga**, A. Costa-García, "Towards a blocking-free electrochemical immunosensing strategy for anti-transglutaminase antibodies using screen-printed electrodes", *Bioelectrochem.* 105 (2015) 88-94.

9 E. Fernández, L. Vidal, **D. Martín-Yerga**, M.C. Blanco-López, A. Canals, A. Costa-García. "Screen-printed electrode based electrochemical detector coupled with ionic liquid dispersive liquid-liquid microextraction and microvolume back-extraction for determination of mercury in water samples", *Talanta* 135 (2015) 34-40.

8 **D. Martín-Yerga**, J. Carrasco-Rodríguez, M.B. González-García, F.J. García-Alonso, A. Costa-García. "Determination of silver-modified titanium phosphate nanoparticles by voltammetric and electrocatalytic methods", *Electroanal.* 26(12) (2014) 2574-2579.

7 **D. Martín-Yerga**, A. Costa-García. "Nanomaterials as disposable transducers for lead and mercury sensors". Chapter of the book *Recent Advances within the field of materials science* in Spain. Servicio de publicaciones de la Universidad de Alicante (Spain) (2015), ISBN: 9788497173469.

6 **D. Martín-Yerga**, A. Costa-García. "Electrochemical immunosensors for celiac disease detection". *Int. J. Celiac Dis.* 2(4) (2014) 142-143.

5 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Electrochemical immunosensor for anti-tissue transglutaminase antibodies based on the in situ detection of quantum dots". *Talanta* 130 (2014), 598-602.

4 **D. Martín-Yerga**, M. Carmen Blanco, M. T. Fernández-Abedul, A. Costa-García. "Dispositivos Point-of-Use para análisis". *Boletín GRASEQA* 8 (2014), 29-43.

3 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Electrochemical determination of mercury – a review". *Talanta* 116 (2013). 1091-1104.

2 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Biosensor array based on the in situ detection of quantum dots as electrochemical label". *Sens. Actuators B Chem.* 182 (2013). 184-189.

1 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Use of nanohybrid materials as electrochemical transducers for mercury sensors". *Sens. Actuators B Chem.* 165 (2012). 143-150

In peer-review

2 **D. Martín-Yerga**, A. Pérez-Junquera, M. B. González-García, D. Hernández-Santos, P. Fanjul-Bolado, "In situ spectroelectrochemical monitoring of dye bleaching after electrogeneration of chlorine-based species. Application to chloride detection".

1 **D. Martín-Yerga**, A. Pérez-Junquera, M. B. González-García D. Hernández-Santos, P. Fanjul-Bolado, "Towards single-molecule in situ electrochemical SERS detection with disposable substrates".

In preparation

1 **D. Martín-Yerga**, A. Costa-García, P. R. Unwin. "Correlative Voltammetric Microscopy: Structure-Activity Relationships in the Microscopic Electrochemical Behaviour of Screen Printed Carbon Electrodes".

Conference communications

Underscore: presenting author

Invited oral communications

3 **D. Martín-Yerga**, "In situ real-time spectroelectrochemistry with screen-printed electrodes". Metrohm Switzerland User Meeting Electrochemistry. Zofingen (Switzerland). October 2017.

2 **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado, "In situ electrochemical surface-enhanced Raman spectroscopy (EC-SERS) at screen-printed electrodes with a compact spectroelectrochemical instrument". 2nd International Conference on Electrochemical Science and Technology. Bangalore (India). August 2017.

1 **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado, "In situ SERS effect studies with screen-printed electrodes and a compact Raman spectroelectrochemical instrument", 3rd International Conference on Electrochemistry, Berlin (Germany). July 2017.

Oral communications

10 P. Fanjul-Bolado, **D. Martín-Yerga**, A. Junquera-Pérez, M. B. González-García, David Hernández-Santos, "Surface-enhanced Raman Spectroelectrochemistry with screen-printed electrodes for quantitative analysis". 233rd ECS Meeting 2018. Seattle (USA). May 2018.

9 L. Fernández Llano, **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos, P. Fanjul-Bolado. "Screen-printed electrodes as versatile substrates for in situ electrochemical surface-enhanced Raman spectroscopy (EC-SERS)". XIX Euroanalysis 2017. Stockholm (Sweden). August 2017.

8 P. Fanjul-Bolado, **D. Martín-Yerga**, A. Pérez-Junquera, D. Hernández-Santos. "In situ electrochemical surface-enhanced Raman spectroscopy (EC-SERS) at screen-printed electrodes as sensitive analytical platform". 68th Annual Meeting of the International Society of Electrochemistry, Rhode Island (USA). August 2017.

7 **D. Martín-Yerga**. "El uso de nanopartículas como marcas no enzimáticas". I Workshop ElectroBioNet. Madrid (Spain). November 2016.

6 **D. Martín-Yerga**, A. Costa-García. "Selective catalytic electrodeposition of silver on quantum dots as electrochemical label for biosensors". VII Workshop en Nanociencia y Nanotecnología Analíticas (NyNA). Salamanca (Spain). July 2015.

5 J. Carrasco-Rodríguez, **D. Martín-Yerga**, F.J García Alonso, A. Costa-García. "Modulated ion exchange in Titanium Phosphate Nanoparticles and functionalization thereof". VII Workshop en Nanociencia y Nanotecnología Analíticas (NyNA). Salamanca (Spain). July 2015.

4 E. Fernández, L. Vidal, **D. Martín-Yerga**, C. Blanco, A. Canals, A. Costa-García. "Screen-printed electrode-based electrochemical detector coupled with dispersive liquid-liquid microextraction for determination of mercury in water samples". ExTech, 16th International symposium on advances in extraction technologies. Chania-Crete (Greece). May 2014.

3 **D. Martín-Yerga**, D. Bouzas-Ramos, A. Costa-García, "Caracterización electroquímica de quantum dots". II Jornada de Nanobioanálisis. Oviedo (Spain). July 2013.

2 **D. Martín-Yerga**, M.B. González-García, F.J. García Alonso, A. Costa-García, "Nanopartículas de fosfato de titanio en biosensores". II Jornada de Nanobioanálisis. Oviedo (Spain). July 2013.

1 **D. Martín-Yerga**, M.B. González-García, F.J. García-Alonso, A. Costa-García. "Titanium Phosphate nanoparticles as electrochemical label for biosensors". VI Workshop en Nanociencia y Nanotecnología Analíticas. Alcalá de Henares (Spain). July 2013.

Poster communications

13 P. Fanjul-Bolado, **D. Martín-Yerga**, D. Hernández-Santos, "Morphology control of silver nanoscale features electrogenerated on screen-printed electrodes for enhanced SERS detection". Pittcon 2018. Orlando (USA). February 2018.

12 **D. Martín-Yerga**, I. Álvarez-Martos, M C. Blanco-López, C. S. Henry, M. T. Fernández-Abedul, "Point-of-need simultaneous electrochemical detection of lead and cadmium using low-cost stencil-printed transparency electrodes". Biosensors 2016. Gothenburg (Sweden). May 2016.

11 A. Sánchez-Calvo, **D. Martín-Yerga**, A. Costa-García. "Novel nanostructured cellulose-based electrochemical transducers". VII Workshop en Nanociencia y Nanotecnología Analíticas (NyNA). Salamanca (Spain). July 2015.

10 M. Cuellas-Díaz, **D. Martín-Yerga**, A. Costa-García. "Arsenic determination using different nanostructured electrode platforms". VII Workshop en Nanociencia y Nanotecnología Analíticas (NyNA). Salamanca (Spain). July 2015.

9 **D. Martín-Yerga**, J. Carrasco-Rodríguez, F.J García Alonso, A. Costa-García. "Determination of glucose using the electrocatalytic activity of silver-modified titanium phosphate nanoparticles towards hydrogen peroxide reduction". XXXV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química. Burgos (Spain). July 2014.

8 A. Sánchez-Calvo, C. Botas, R. Menéndez, **D. Martín-Yerga**, A. Costa-García. "Electrochemical characterization of electrochemically reduced graphene oxides on screen-printed electrodes". XXXV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química. Burgos (Spain). July 2014.

7 B. Pérez-Fernández, **D. Martín-Yerga**, A. Costa-García. "Electrodeposition of nickel nanoparticles on screen-printed electrodes for the determination of reducing sugars in food". XXXV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química. Burgos (Spain). July 2014.

6 E. Fernández, L. Vidal, **D. Martín-Yerga**, M. C. Blanco-López, A. Canals, A. Costa-García. "Electrochemical determination of mercury in environmental and drinking waters by using ionic liquid microextraction". XXXV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química. Burgos (Spain). July 2014.

5 **D. Martín-Yerga**, J. Carrasco-Rodríguez, F.J. García-Alonso, A. Costa-García. "Determination of silver-modified titanium phosphate nanoparticles by electrochemical methods". 4th International Workshop on Analytical Miniaturization. Copenhagen (Denmark). June 2014.

4 C. Botas, P. Alvárez, R. Santamaría, R. Menéndez, **D. Martín-Yerga**, A. Costa-García. "Electrochemical characterization of graphene oxides using screen-printed electrodes". Graphene Conference. Toulouse (France). May 2014.

3 **D. Martín-Yerga**, M.B. González-García, F.J. García-Alonso, A. Costa-García. "Titanium Phosphate nanoparticles as electrochemical label for biosensors". VI Workshop en Nanociencia y Nanotecnología Analíticas. Alcalá de Henares (Spain). July 2013.

2 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Disposable electrochemical biosensor arrays for the detection of celiac disease". 3rd International Conference on Biosensing Technology. Sitges (Spain). May 2013.

1 **D. Martín-Yerga**, M.B. González-García, A. Costa-García. "Utilización de materiales nanohíbridos como transductores de sensores de mercurio". V Workshop en Nanociencia y Nanotecnología Analíticas. Toledo (Spain). September 2011.

Patents

1 E. Núñez Bajo, A. Sánchez Calvo, **D. Martín Yerga**, E. Costa Rama, M. T. Fernández Abedul, A. Costa García. "Dispositivo electroquímico para el análisis de muestras y método para fabricar una lámina de papel electródica". National patent. Application date: July 2015. Patent number: ES 2 589 049 (September 2017).

Awards and Fellowships

2018 Extraordinary Award to the best PhD thesis in Science. University of Oviedo (Spain).

2017 XXXVIII San Alberto Magno Award to the best PhD thesis. Official Association of Chemists of Asturias (Spain).

2015 PhD mobility fellowship to do a short stay in the University of Warwick (UK). Ministry of Economy and Competitiveness (Spain).

2015 Award to the poster entitled "Novel nanostructured cellulose-based electrochemical transducers" at the VII Workshop in Analytical Nanoscience and Nanotechnology, Salamanca (Spain).

2014 Special award to the poster entitled "Titanium phosphate nanoparticles as electrochemical label for biosensors" at the Science Week of the University of Oviedo (Spain).

2012-2016 PhD fellowship. Formación de Personal Investigador (FPI). Ministry of Economy and Competitiveness (Spain).

2012 Special award to the poster entitled "Utilización de materiales nanohíbridos como transductores de sensores de mercurio" at the Science Week of the University of Oviedo (Spain).

2010 First prize on the 4th Interuniversitary Free Software Contest at the University of Cádiz (Spain).

Technical courses

2015 Workshop and user accreditation to use the UV/VIS, IR and circular dichroism instrumentation of the Spectroscopy Unit of the Scientific-Technical Services of the University of Oviedo (Spain). 5 h.

2012 "Writing in the Sciences". On-line workshop by Kristin Sainani (Standford University). 40 h.

2012 "Publishing scientific research". Workshop by the Springer Editorial. Oviedo (Spain). 5 h.

2008 "Energy management in the chemical industry". Universidad de Oviedo (Spain). 45 h.

2006 "Risks and precautions in chemical laboratories". Universidad de Oviedo (Spain). 45 h.

2006 "Current tools for chemical analysis in the advanced materials industry". Universidad de Oviedo (Spain). 45 h.

2005 "Safety in the laboratory. Working with biological agents and radiations". Universidad de Oviedo (Spain). 45 h.

Outreach

May 2013 Conference entitled "24 h of Chemistry" during the Cultural Week of Luanco High School (Asturias, Spain).

Nov 2012 Conference entitled "24 h of Chemistry" during the XII Science and Technological Week of the University of Oviedo in Salinas High School (Asturias, Spain).

Jun 2012 Supervisor of high school students during the VIII Research Immersion Days at the University of Oviedo (Spain).

Jan 2012-Jan 2014 Scientific blog entitled "Curiosidades de un químico soñador" written in spanish (https://quimicosonador.wordpress.com/).

Jun 2011	Supervisor of high school students during the VII Research Immersion Days at the University of Oviedo (Spain).

Other merits

Dec 2013-Nov 2016	Representative member of the "PhD fellows" in the Council of the Department of Physical and Analytical Chemistry of the University of Oviedo (Spain).
Dec 2013	Poster presentation at the III Doctoral Days of the University of Oviedo (Spain).
Dec 2011	Poster presentation at the I Doctoral Days of the University of Oviedo (Spain).
May 2010	Invited conference entitled "CasualServices" during the 4th Interuniversitary Free Software Contest at the University of Cádiz (Spain).
2010	Invited article in Novatica (Journal of the Spanish Association of Computer Technicians): D. Martín-Yerga, "CasualServices: Busca y comparte tus servicios favoritos", Novática, 208 (2010) 51-53.
Dec 2009	Oral conference "What maemo.org offers" invited by Nokia company at the I Maemo-Barcelona Long Weekend in Barcelona (Spain).

Languages

Spanish	Mothertongue	
English	Intermediate	*Good reading and writing skills. Conversationally fluent.*
Portuguese	Basic	*Good reading and listening skills. Basic speaking.*

Other skills

Electrochemistry skills

- Conventional electrodes (carbon paste, glassy carbon, HOPG), rotating disk electrodes, screen-printed and microelectrodes.
- Fabrication of low-cost and paper screen-printed electrodes.
- Electrochemical techniques: cronotechniques, voltammetry, potentiometry, ion-selective electrodes.
- Basic knowledge in Electrochemical Impedance Spectroscopy (EIS).
- Electrode nanostructuration and characterization.
- Desing and optimization of electrochemical (bio)sensors.
- Electrodeposition.
- Scanning electrochemical microscopy (SECM) and related techniques.
- Spectroelectrochemistry: UV/VIS, Luminescence and Raman.
- Electrocatalysis: alcohol oxidation, water splitting.

Other analytical and characterization techniques

- Spectroscopic techniques: fluorescence, IR, UV/VIS, Raman, Surface-enhanced Raman scattering (SERS).
- Basic knowledge in chromatographic techniques: GC, HPLC, ionic column, thin-layer.
- Flow-injection analysis (FIA) and Batch-injection analysis (BIA).
- Basic knowledge in Dynamic Light Scattering (DLS).

- Basic knowledge in Scanning Electron Microscopy (SEM) and Transmission Electron Microscopy (TEM).

Computer skills

- Basic knowledge in C/C++, ImageJ, Orca.
- Basic-Intermediate knowledge in JAVA, HTML/CSS, Adobe Illustrator, LaTeX, Inkscape.
- Intermediate-Advanced knowledge in PYTHON, Microsoft Office, Matlab, GNU/Linux, Microsoft Windows, Mac OS X.

Other skills

- Experience in proposal writing for local, national and european R&D calls.
- Basic knowledge in analog electronics.
- Basic-intermediate knowledge in statistics.

Professional associations

Spanish Society of Analytical Chemistry (SEQA)

Spanish Royal Society of Chemistry (RSEQ)

Electrochemistry group of the Spanish Royal Society of Chemistry (GERSEQ)

Official Association of Chemists of Asturias (ALQUIMICOS)

Other interests

- Science
- Electronics
- Triathlon (swimming, cycling, running)
- Outreach
- Nutrition