TESIS DEFENDIDAS EN 2022-23 Y PUBLICACIONES DERIVADAS DE LAS MISMAS

Doctorando	Titulo	Directores	Calificación
Elisabet Afonso Pérez	**Superficies Antiadherentes en Aplicaciones que Requieren Contacto Prolongado con Fluidos**	**Nuria García y Pilar Tiemblo**	Sobresaliente cum laude

1. Elisabet Afonso, Aránzazu Martínez-Gómez, **Pilar Tiemblo**, **Nuria García**, "Industrially Viable Method for Producing All-Polymer Hydrophobic Surfaces Apt for Slippery Liquid-Infused Substrates", Applied Surface Science 2021, 535, 147728.
2. Elisabet Afonso, Aránzazu Martínez-Gómez, Andrea Huerta, **Pilar Tiemblo**, **Nuria García**, "Facile Preparation of Hydrophobic PET Surfaces by Solvent Induced Crystallization", Coatings 2022, 12(2), 137. Artículo de Portada.
3. Elisabet Afonso, Aránzazu Martínez-Gómez, **Pilar Tiemblo**, **Nuria García**, "Exploring chemical and structural features to tailor wetting properties of PVDF and PVDF/PMMA surfaces", Polymer 2022, 262, 125441.
4. Elisabet Afonso, Fereshteh Bayat, Liane Ladouceur, Shadman Khan, Aránzazu Martínez-Gómez, Jeffrey I. Weitz, Zeinab Hosseinidoust, **Pilar Tiemblo**, **Nuria García**, Tohid F. Didar, "Highly stable hierarchically structured all-polymeric lubricant-infused films prevent blood stains and repel multi drug-resistant pathogens", ACS Applied Materials & Interfases 2022, 4(4), 2860-2870.
5. Aránzazu Martínez-Gómez, Natalia Hernansanz, Elisabet Afonso, **Pilar Tiemblo**, **Nuria García**, Fátima Vargas y Concha Bosch. "Preparación y caracterización de compuestos de PLA con microfibras de celulosa." Revista de Plásticos Modernos 2022, 124, 780, 5-11.
6. María Hernández-Rivas, Aránzazu Martínez-Gómez, Elisabet Afonso, **Pilar Tiemblo**, **Nuria García**. "Superficies Antiadherentes y Sostenibles." Revista de Plásticos Modernos 2023, 125, 786, 30-37.
7. Elisabet Afonso, Aránzazu Martínez-Gómez, **Pilar Tiemblo**, **Nuria García**. "La perfilometría óptica como técnica de caracterización topográfica no destructiva y sin contacto." Revista de Plásticos Modernos 2020, 120, 758, 5-12. **Artículo de divulgación.**
8. Elisabet Afonso, Aránzazu Martínez-Gómez, **Pilar Tiemblo**, **Nuria García**. "Towards the scaling of all-organic hydrophobic and slippery liquid-infused substrates." Advances in Engineering. https://advanceseng.com/towards-scaling-organic-hydrophobic-slippery-liquid-infused-substrates/"

Doctorando	Titulo	Directores	Calificación
ANDREA CANAL MARTÍN	**DYNAMIC COMBINATIONAL CHEMISTRY: REVERSIBLE CHEMISTRY OPTIMIZATION AND APPLICATION IN DRUG DISCOVERY. QUÍMICA DINÁMICA COMBINATORIA: OPTIMIZACIÓN DE LA QUÍMICA REVERSIBLE Y APLICACIÓN EN EL DESCUBRIMIENTO DE FÁRMACOS.**	**RUTH PEREZ FERNANDEZ**	**Sobresaliente Cum Laude**

1.- Canal-Martín, A.; Pérez-Fernández, R. Biomimetic selenocystine based dynamic combinatorial chemistry for thiol-disulfide exchange. Nat.

Commun. 2021, 12, 163.
2.- Canal-Martín, A.; Navo, C.D.; Saez, E.; Molero, D.; Jiménez-Osés, G.; Pérez-Fernández, R. Nucleophilic catalysis of p-substituted aniline derivatives in acylhydrazone formation and exchange. Org. Biomol. Chem., 2021, 19, 7202.
3.- Canal-Martín, A.; Pérez-Fernández, R. Protein-directed dynamic combinatorial chemistry: an efficient strategy in drug design. ACS Omega 2020, 5, 41, 26307–26315.
4- Canal-Martín, A.; Sastre, J.; Sanchez-Barrena, M.J.; Canales, A.; Baldominos, S.; Pascual, N.; Martínez-González, L.; Molero, D.; Fernández-Valle, M. E.; Sáez, E.; Blanco, P.; Gomez, E.; Martín-Santamaría, S.; Sáiz, A.; Mansilla, A.; Cañada, F. J.; Jiménez-Barbero, J.; Martínez, A.; Pérez-Fernández, R. Insights into real-time chemical processes in a calcium sensor protein-directed dynamic library. Nat. Commun. 2019, 10 (1), 2798.

Doctorando	Titulo	Directores	Calificación
Esther Gómez Mejía	**DESARROLLO DE METODOLOGÍAS ANALÍTICAS PARA LA DETERMINACIÓN DE POLIFENOLES EN MATRICES ALIMENTARIAS. EVALUACIÓN DE LA ESTABILIDAD Y DE LAS PROPIEDADES BIOACTIVAS**	**Mª Eugenia de León Noelia Rosales**	**Sobresaliente cum laude**

[1] León-González, M. E., Gómez-Mejía, E., Rosales-Conrado, N., Madrid-Albarrán, Y. (2018). Residual brewing yeast as a source of polyphenols: Extraction, identification and quantification by chromatographic and chemometric tools. Food Chemistry, 267, 246-254.
[2] Gómez-Mejía, E., Rosales-Conrado, N., León-González, M. E., Madrid, Y. (2019). Determination of phenolic compounds in residual brewing yeast using matrix solid-phase dispersion extraction assisted by titanium dioxide nanoparticles. Journal of Chromatography A, 1601, 255-265.
[3] Ramón-Gonçalves, M., Gómez-Mejía, E., Rosales-Conrado, N., León-González, M. E., Madrid, Y. (2019). Extraction, identification and quantification of polyphenols from spent coffee grounds by chromatographic methods and chemometric analyses. Waste Management, 96, 15-24.
[4] Gómez-Mejía, E., Rosales-Conrado, N., León-González, M. E., Madrid, Y. (2019). Citrus peels waste as a source of value-added compounds: Extraction and quantification of bioactive polyphenols. Food Chemistry, 295, 289-299.
[5] Gómez-Mejía, E.; Roiz, C. L.; Heleno, S. A.; Calhelha, R.; Días, M. I.; Pinela, J.; Rosales-Conrado, N.; León-González, M.E.; Ferreira C. F. R. I.; Barros, L. Valorisation of black mulberry and grape seeds: Chemical characterization and bioactive potential. Food Chemistry. 2021, 337, 127998.
[6] Gómez-Mejía, E.; Mikkelsen, L. H.; Rosales-Conrado, N.; León-González, M.E.; Madrid, Y. A combined approach based on matrix solid-phase dispersion extraction assisted by titanium dioxide nanoparticles and liquid chromatography to determine polyphenols from grape residues. Journal of Chromatography A. 2021, 1644, 462128.
[7] Gómez-Mejía, E.; Rosales-Conrado, N.; León-González, M.E.; Valverde, A.; Madrid, Y. A combined analytical-chemometric approach for the

in vitro determination of polyphenol bioaccessibility by simulated gastrointestinal digestion. Analytical and Bioanalytical Chemistry. 2021, 414(8), 2739-2755.
[8] Gómez-Mejía, E.; Vicente-Zurdo, D.; Rosales-Conrado, N.; León-González, M.E.; Madrid, Y. Optimising the extraction process of phenolic compounds from pressed grape seed residue: towards an integrated and sustainable management of viticultural waste. LWT. 2022, 169, 113988.
[9] Gómez-Mejía, E.; Rosales-Conrado, N.; León-González, M.E. Estrategias sostenibles para la valorización de los residuos agroalimentarios: de residuos a recursos. Actualidad analítica, 2022, 77, 48-52.

Doctorando	Titulo	Directores	Calificación
Vanesa Manzaneda González	**SINTESIS Y CARACTERIZACIÓN DE NANOPARTICULAS MULTIMETÁLICAS**	**Andrés Guerrero y Elena Junquera**	**Sobresaliente cum laude**

1. **Manzaneda-González, V**.; Jenkinson, K.; Peña-Rodríguez, O.; Borrell-Grueiro, O.; Triviño-Sánchez, S.; Bañares, L.; Junquera, E.; Espinosa, A.; González-Rubio, G.; Bals, S.; Guerrero-Martínez, A. From Multi- to Single-Hollow Trimetallic Nanocrystals by Ultrafast Heating. *Chemistry of Materials* **2023** (accepted).

2. González-Rubio, G.; Díaz-Núñez, P.; Albrecht, W.; **Manzaneda-González, V.**; Bañares, L.; Rivera, A.; Liz-Marzán, L. M.; Peña-Rodríguez, O.; Bals, S.; Guerrero-Martínez, A. Controlled Alloying of Au@Ag Core–Shell Nanorods Induced by Femtosecond Laser Irradiation. *Advanced Optical Materials* **2021**, *9*, 2002134.

3. Peña-Rodríguez, O.; Díaz-Núñez, P.; González-Rubio, G.; **Manzaneda-González, V.**; Rivera, A.; Perlado, J. M.; Junquera, E.; Guerrero-Martínez, A. Au@Ag Core–Shell Nanorods Support Plasmonic Fano Resonances. *Scientific Reports* **2020**, *10*, 5921
Adicionalmente, parte de los estudios presentados en esta Tesis Doctoral se reflejan en los siguientes artículos:

4. Domingo-Diez, J.; Souiade, L.; **Manzaneda-González, V**.; Sánchez-Díez, M.; Megias, D.; Guerrero-Martínez, A.; Ramírez-Castillejo, C.; Serrano-Olmedo, J.; Ramos-Gómez, M. Effectiveness of Gold Nanorods of Different Sizes in Photothermal Therapy to Eliminate Melanoma and Glioblastoma Cells. *International Journal of Molecular Sciences* **2023**, 24, 13306.

5. González-Rubio, S., Salgado, C., **Manzaneda-González, V.**, Muñoz-Úbeda, M., Ahijado-Guzmán, R., Natale, P., Almendro-Vedia, V. G., Junquera, E., Barcina, J. O., Ferrer, I. R., Guerrero-Martínez, A., Paz-Ares, L., & López-Montero, I. Tunable gold nanorod/NAO conjugates for selective drug delivery in mitochondria-targeted cancer therapy. *Nanoscale* **2022**, *4*, 8028-8040.

6. Plaza-Ga, I., **Manzaneda-González, V.**, Kisovec, M., Almendro-Vedia, V. G., Muñoz-Úbeda, M., Anderluh, G., Guerrero-Martínez, A., Natale,

P., & López-Montero, I. (2019). pH-triggered endosomal escape of pore-forming Listeriolysin O toxin-coated gold nanoparticles. *Journal of Nanobiotechnology* **2022**, 17, 1-10

Doctorando	Titulo	Directores	Calificación
Rafael Marín Gamero	**Óxidos metálicos con superestructura derivada de la perovskita y estudio de sus propiedades electrocatalíticas en la reducción de oxígeno.**	**Susana García Martin**	**Sobresaliente cum laude**

1. Sánchez-Ahijón, E., Marín-Gamero, R., Molero-Sánchez, B., Ávila-Brande, D., Manjón-Sanz, A., Fernández-Díaz, M. T., García-Martín, S., Prado-Gonjal, J. (2020). From theory to experiment: BaFe 0.125 Co 0.125 Zr 0.75 O 3− δ, a highly promising cathode for intermediate temperature SOFCs. Journal of Materials Chemistry A, 8(6), 3413-3420.
2. López-Paz, S. A., Marín-Gamero, R., de Irujo-Labalde, X. M., Sánchez-Marcos, J., Perez-Coll, D., y Franco, M. Á. A., García-Martín, S. (2021). YBaCuO-type perovskites as potential air electrodes for SOFCs. The case of YSr 2 Cu 2 FeO 7+ δ. Journal of Materials Chemistry A, 9(13), 8554-8560.
3. Amador, U., Marín-Gamero, R., Ritter, C., Fabelo, O., Azcondo, M. T., García-Martín, S. (2022). Stability and Evolution of the Crystal Structure of TbBaCo2O6− δ During Thermal Oxygen Release/Uptake. Inorganic Chemistry, 62(1), 247-255.
4. Marín-Gamero, R., Martinez de Irujo-Labalde, X., Urones-Garrote, E., García-Martín, S. (2020). Structural Ordering Supremacy on the Oxygen Reduction Reaction of Layered Iron-Perovskites. Inorganic Chemistry, 59(8), 5529-5537.
5. Sánchez-Ahijón, E., Marín-Gamero, R., Molero-Sánchez, B., Ávila-Brande, D., Manjón-Sanz, A., Fernández-Díaz, M. T., Prado-Gonjal, J. (2020). From theory to experiment: $BaFe_{0.125}Co_{0.125}Zr_{0.75}O_{3-}$ δ, a highly promising cathode for intermediate temperature SOFCs. Journal of Materials Chemistry A, 8(6).

Doctorando	Titulo	Directores	Calificación
BEATRIZ MAYOL HORNERO	**Nomáquinas mesoporosas para liberación controlada./ Mesoporous nanomachines for controlled delivery**	**Reynaldo Villalonga Santana** **Paloma Martínez Ruiz** **Paula Diez Sánchez**	**Sobresaliente cum laude**

1. Mayol, B.; Rodríguez, A.; Villalonga, A.; Anillo, C.; Vilela, D.; Sánchez, A.; Martínez-Ruiz, P.; Villalonga, R. An intercommunicated nanosystem for dual delivery. J. Mater. Chem. B 2023, 11, 7190-7196.
2. Mayol, B.; Dato, V.; Rodriguez, M.; Lucena, E.; Villalonga, A.; Díez, P.; Jimenez-Falcao, S.; Sancenón, F.; Sánchez, A.; Vilela, D.; Martínez-Ruiz, P.; Martínez-Máñez, R.; Villalonga, R. An enzyme-controlled mesoporous nanomachine for triple-responsive delivery. J. Mater. Chem. B 2022, 10, 6983-6990.

3. Mayol, B.; Diez, P.; Sánchez, A.; Cristina, D. L. T. P.; Villalonga, A.; Lucena-Sánchez, E.; Sancenón, F.; Martínez-Ruiz, P.; Vilela, D.; Martinez-Manez, R.; Villalonga, R. Glutathione disulfide-sensitive Janus nanomachine controlled by an enzymatic AND logic gate for smart delivery. Nanoscale 2021, 13, 18616-18625.

Doctorando	Titulo	Directores	Calificación
Lara Moreno Turiégano	**Funcionalización de superficie de aleaciones de magnesio para implantes biodegradables** **Surface functionalisation of magnesium alloys for biodegradable implants**	**Endzhe Matykina** **Juan Rodríguez Hernández**	**Sobresaliente cum laude**

[1] L. Moreno; M. Mohedano; R. Arrabal; J. Rodriguez-Hernandez; E. Matykina. Development of hybrid hierarchical coatings on Mg3Zn0.4Ca alloy for orthopaedic implants. Journal of Materials Research and Technology. 24, pp. 5823 - 5838, 2023. DOI: 10.1016/j.jmrt.2023.04.185

[2] L. Moreno; E. Matykina; K. Yasakau; C. Blawert; R. Arrabal; M. Mohedano. As-cast and extruded Mg–Zn–Ca systems for biodegradable implants: Characterization and corrosion behavior. Journal of Magnesium and Alloys. 11, pp. 1102 - 1120, 2023. DOI: 10.1016/j.jma.2023.02.001

[3] L. Moreno, C. Wang, S. Lamaka, M. Zhleludkevich, Juan Rodriguez-Hernandez, R. Arrabal, E. Matykina. Ciprofloxacin Release and Corrosion Behaviour of a Hybrid PEO/PCL Coating on Mg3Zn0.4Ca Alloy.Journal of Functional Biomaterials. 14 art. number 65, 2023. https://doi.org/10.3390/jfb14020065.

[4] L. Moreno; M. Mohedano; R. Arrabal; E. Matykina. Development and screening of (Ca-P-Si-F)-PEO coatings for biodegradability control of Mg-Zn-Ca alloys. Journal of Magnesium and Alloys. 10 - https://doi.org/10.1, pp. 2220 - 2237, 2022. DOI: 10.1016/j.jma.2021.12.011

[5] L. Moreno; M. Mohedano; B. Mingo; R. Arrabal; E. Matykina. Degradation behaviour of Mg0.6Ca and Mg0.6Ca2Ag alloys with bioactive plasma electrolytic oxidation coatings. Coatings. 9 - 354, pp. 1 - 14. MDPI, 2019. DOI: 10.3390/coatings9060383

[6] A. Santos-Coquillat; E. Martinez-Campos; H. Mora-Sanchez; L. Moreno; M. Mohedano; A. Gallardo; J. Rodriguez-Hernandez; E. Matykina. Hybrid functionalized coatings on Metallic Biomaterials for Tissue Engineering. Surface and Coatings Technology. 422 - art. 127508, 2021. DOI: 10.1016/j.surfcoat.2021.127508

[7] Moreno, L., M. Mohedano, R. Arrabal, and E. Matykina, Screening of fluoride-free PEO coatings on cast Mg3Zn0.4Ca alloy for orthopaedic implants. Surface and Coatings Technology, 2024. 476: art. 130184. DOI: 10.1016/j.surfcoat.2023.130184.

Doctorando	Titulo	Directores	Calificación
Mónica Peñas Caballero	**MATERIALES COMPUESTOS CON CAPACIDAD DE AUTORREPARACION. SELF HEALING COMPOSITE MATERIALS.**	**MARIANELLA HERNANDEZ SANTANA** **RAQUEL VERDEJO MÁRQUEZ** **MIGUEL ANGEL LOPEZ MANCHADO**	**Sobresaliente cum laude**

1. M Peñas-Caballero, MH Santana, R Verdejo, MA Lopez-Manchado, Measuring self-healing in epoxy matrices: The need for standard conditions, Reactive and Functional Polymers 161, 104847 12 2021
2. M Peñas-Caballero, J Martín-Cordón, V Barranco, JC Galván, Corrosion control by autonomous self-healing epoxy coatings based on superabsorbent healing agents, Progress in Organic Coatings 182, 107600 2 2023
3. M Peñas-Caballero, E Chemello, AM Grande, MH Santana, R Verdejo, Poly (ethylene-co-methacrylic acid) coated carbon fiber for self-healing composites, Composites Part A: Applied Science and Manufacturing 169, 107537 1 2023
4. M Peñas-Caballero, E Chemello, AM Grande, M Hernández Santana, Poly (methyl methacrylate) as Healing Agent for Carbon Fibre Reinforced Epoxy Composites, Polymers 15 (5), 1114 1 2023

Doctorando	Titulo	Directores	Calificación
Borja Pillado Ríos	**Active protection of magnesium alloys**	**Raúl Arrabal y Marta Mohedano**	**Sobresaliente cum laude**

1. B. Pillado, B. Mingo, R. del Olmo, E. Matykina, A. M. Kooijman, Y. Gonzalez–Garcia, R. Arrabal, M. Mohedano, LDH conversion films for active protection of AZ31 Mg alloy. Journal of Magnesium and Alloys (accepted), DOI:10.1016/j.jma.2022.09.014.
2. E. Wierzbicka, B. Pillado, M. Mohedano, R. Arrabal, E. Matykina, Calcium Doped Flash–PEO Coatings for Corrosion Protection of Mg Alloy. Open Access. Metals, Volume 10, 2020, 916, DOI: 10.3390/met10070916.
3. M. Mohedano, P. Pérez, E. Matykina, B. Pillado, G. Garcés, R. Arrabal, PEO coating with Ce–sealing for corrosion protection of LPSO Mg–Y–Zn alloy. Surface and Coatings Technology, Volume 383, 2020, 125253, DOI: 10.1016/j.surfcoat.2019.125253.
4. X. Lu. J. Ma, M. Mohedano, B. Pillado, R. Arrabal, K. Qian, Y. Li, T. Zhang, F. Wang, Ca–based sealing of plasma electrolytic oxidation coatings on AZ91 Mg alloy. Open Access. Surface and Coatings Technology, Volume 417, 2021, 127220, DOI: 10.1016/j.surfcoat.2021.127220.

Doctorando	Titulo	Directores	Calificación
Laura Serrador Toledano	**Incorporación de halógenos (Cl, F) en la subred aniónica de óxidos complejos de metales de transición (Mn, Fe, Ni).**	**Marina Marta Parras Vázquez y Aurea Varela Losada**	**Sobresaliente cum laude**

1. Varela, A., Gómez-Recio, I., Serrador, L., Hernando, M., Matesanz, E., Torres-Pardo, A., Parras, M. (2020). Hydroxyapatites as Versatile Inorganic Hosts of Unusual Pentavalent Manganese Cations. Chemistry of Materials, 32(24), 10584-10593.
2. Serrador, L., Hernando, M., Martinez, J. L., González-Calbet, J. M., Varela, A., García-García, F. J., Parras, M. (2016). Chlorine Insertion Promoting Iron Reduction in Ba–Fe Hexagonal Perovskites: Effect on the Structural and Magnetic Properties. Inorganic Chemistry, 55(12), 6261-6270.

Doctorando	Titulo	Directores	Calificación
Alejandro Valverde de la Fuente	Herramientas de diagnóstico rápido basadas en el empleo de plataformas bioelectroanaliticas aplicables a entornos de bajos recursos / Rapid diagnostic tools based on the use of bioelectroanalytical platforms applicable to low resource settings.	Susana Campuzado Paloma Yañez José Manuel Pingarrón	Sobresaliente cum laude

Publicaciones derivadas:

1) A. Valverde, E. Povedano, V. Ruíz-Valdepeñas Montiel, P. Yáñez-Sedeño, M. Garranzo-Asensio, R. Barderas*, S. Campuzano*, J. M. Pingarrón*. Electrochemical immunosensor for IL-13 Receptor α2 determination and discrimination of metastatic colon cancer cells. *Biosensors and Bioelectronics*, 117 (2018) 766-772.
Factor de impacto (2018): 9,518
Posición en JCR (2018): 4/73 en "Biophysics"-Q1-T1-D1

2) A. Valverde, E. Povedano, V. Ruíz-Valdepeñas Montiel, P. Yáñez-Sedeño, M. Garranzo-Asensio, N. Rodríguez, G. Domínguez, R. Barderas*, S. Campuzano*, J. M. Pingarrón*. Determination of cadherin-17 in tumor tissues of different metastatic grade using a single incubation-step amperometric immunosensor. Analytical Chemistry, 90 (2018) 11161-11167.
Factor de impacto (2018): 6,350
Posición en JCR (2018): 7/84 en "Chemistry, Analytical"-Q1-T1-D1

3) V. Serafín, A. Valverde, G. Martínez-García, E. Martínez-Periñán, F. Comba, M. Garranzo-Asensio, R. Barderas, P. Yáñez-Sedeño, S. Campuzano*, J. M. Pingarrón*. Graphene quantum dots-functionalized multi-walled carbon nanotubes as nanocarriers in electrochemical

immunosensing. Determination of IL-13 receptor α2 in colorectal cells and tumor tissues with different metastatic potential. Sensors and Actuators, B: Chemical, 284 (2019) 711-722.
Factor de impacto (2019): 7,100
Posición en JCR (2019): 4/86 en "Chemistry, Analytical"-Q1-T1-D1

4) V. Serafína, A. Valverdea, M. Garranzo-Asensio, R. Barderas, S. Campuzano*, P. Yáñez-Sedeño*, J. M. Pingarrón. ([a]Igual contribución). Simultaneous amperometric immunosensing of the metastasis-related biomarkers IL-13Rα2 and CDH-17 by using grafted screen-printed electrodes and a composite prepared from quantum dots and carbon nanotubes for signal amplification. Microchimica Acta, 186 (2019) 411.
Factor de impacto (2019): 6,232
Posición en JCR (2019): 9/86 en "Chemistry, Analytical"-Q1-T1-D2

5) A. Valverdea, A. ben Hassinea, V. Serafín, C. Muñoz-San Martín, M. Pedrero, M. Garranzo-Asensio, M. Gamella, N. Raouafi, R. Barderas, P. Yáñez-Sedeño, S. Campuzano*, J. M. Pingarrón*. ([a]Igual contribución). Dual amperometric immunosensor for improving cancer metastasis detection by the simultaneous determination of extracellular and soluble circulating fraction of emerging metastatic biomarkers. Electroanalysis, 32 (2020) 706-714.
Factor de impacto (2020): 3,223
Posición en JCR (2020): 35/87 en "Chemistry, Analytical"-Q2-T2-D5

6) A. Valverdea, V. Serafína, A. Montero-Calle, A. González-Cortés, R. Barderas, P. Yáñez-Sedeño*, S. Campuzano*, J. M. Pingarrón. ([a]Igual contribución). Carbon/Inorganic hybrid nanoarchitectures as carriers for signaling elements in electrochemical immunosensors: First biosersor for the determination of the inflammatory and metastatic processes biomarker RANK-ligand. ChemElectroChem, 7 (2020) 810-820.
Factor de impacto (2020): 4,590
Posición en JCR (2020): 12/29 en "Electrochemistry"-Q2-T2-D5

7) A. Valverde, V. Serafín, J. Garoz, A. Montero-Calle, A. González-Cortés, M. Arenas, J. Camps, R. Barderas, P. Yáñez-Sedeño*, S. Campuzano*, J. M. Pingarrón. Electrochemical immunoplatform to improve the reliability of breast cancer diagnosis through the simultaneous determination of RANKL and TNF in serum. Sensors and Actuators, B: Chemical, 314 (2020) 128096.
Factor de impacto (2020): 7,460
Posición en JCR (2020): 7/87 en "Chemistry, Analytical"-Q1-T1-D1

8) A. Valverde, A. Montero-Calle, R. Barderas, M. Calero, P. Yáñez-Sedeño*, S. Campuzano*, J. M. Pingarrón. Electrochemical immunoplatform to unravel neurodegeneration and Alzheimer's disease through the determination of neurofilament light protein.

Electrochimica Acta, 371 (2021) 137815.
Factor de impacto (2021): 7,336
Posición en JCR (2021): 7/30 en "Electrochemistry"-Q1-T1-D3

9) A. Valverde, A. Montero-Calle, B. Arévalo, P. San Segundo-Acosta, V. Serafín, M. Alonso-Navarro, G. Solís-Fernández, J. M. Pingarrón*, S. Campuzano*, R. Barderas*. ([a]Igual contribución). Phage-derived and aberrant HaloTag peptides immobilized on magnetic microbeads for amperometric biosensing of serum autoantibodies and Alzheimer's disease diagnosis. Analysis & Sensing, 1 (2021) 161-165. Destacado en Portada.
Revista de creación reciente pendiente de indexar.

10) A. Valverde, J. M. Gordón-Pidala, A. Montero-Calle, B. Arévalo, V. Serafín, M. Calero, M. Moreno-Guzmán, M. A. López, A. Escarpa*, P. Yáñez-Sedeño*, R. Barderas*, S. Campuzano*, J. M. Pingarrón*. ([a]Igual contribución). Paving the way for reliable Alzheimer's disease blood diagnosis by quadruple electrochemical immunosensing. ChemElectroChem, 9 (2022) e202200055. Destacado en portada.
Factor de impacto (2021): 4,782
Posición en JCR (2021): 13/30 en "Electrochemistry"-Q2-T2-D5

Doctorando	Titulo	Directores	Calificación
DAVID VICENTE ZURDO	**EFECTO NEUROPROTECTOR DE MOLÉCULAS ORGÁNICAS Y NANOPARTÍCULAS DE SELENIO EN LA ENFERMEDAD DE ALZHEIMER. NEUROPROTECTIVE EFFECT OF ORGANIC MOLECULES AND SELENIUM NANOPARTICLES ON ALZHEIMER'S DISEASE.**	**Yolanda Madrid Mª Eugenia de León**	**Sobresaliente cum laude**

Publicaciones derivadas:

1. **Autores:** David Vicente-Zurdo, Leonardo Brunetti, Luca Piemontese, Beatriz Guedes, Sandra M. Cardoso, Daniel Chavarria, Fernanda Borges, Yolanda Madrid, Sílvia Chaves, M. Amélia Santos. **Título:** Rivastigmine-benzimidazole Hybrids as Promising Multitarget Metal-modulating Compounds for Potential Treatment of Neurodegenerative Diseases. **Revista:** International Journal of Molecular Sciences 24(9) 2023 8312. https://doi.org/10.3390/ijms24098312.

2. **Autores:** David Vicente-Zurdo*, Beatriz Gómez-Gómez, Iván Romero-Sánchez, Noelia Rosales-Conrado, María Eugenia León-González, Yolanda Madrid. **Título:** Cytotoxicity, uptake and accumulation of selenium nanoparticles and other selenium species in neuroblastoma cell lines related to Alzheimer's disease by using cytotoxicity assays, TEM and single cell-ICP-MS. **Revista:** Analytica Chimica Acta 1249 (2023) 340949. https://doi.org/10.1016/j.aca.2023.340949.

3. **Autores:** David Vicente-Zurdo*, Sandra Rodríguez-Blázquez, Esther Gómez-Mejía, Noelia Rosales-Conrado, María Eugenia León-González, Yolanda Madrid. **Título:** Neuroprotective activity of selenium nanoparticles against the effect of amino acids enantiomers in Alzheimer's disease. **Revista:** Analytical and Bioanalytical Chemistry 414 (2022) 7573-7584. 10.1007/s00216-022-04285-z.

4. **Autores:** Esther Gomez-Mejía, David Vicente-Zurdo, Noelia Rosales-Conrado, María Eugenia León-González, Yolanda Madrid. **Título:** Screening the extraction process of phenolic compounds from pressed grape seed residue: Towards an integrated and sustainable management of viticultural waste. **Revista:** LWT - Food Science and Technology 169 (2022) 113988. https://doi.org/10.1016/j.lwt.2022.113988.

5. **Autores:** Paula Moyano[1], David Vicente-Zurdo[1], Cristina Blázquez-Barbadillo, José Carlos Menéndez, Juan Francisco González, Noelia Rosales-Conrado, Javier del Pino. **Título:** Neuroprotective mechanisms of multitarget 7-aminophenanthridin-6(5H)-one derivatives against metal-induced amyloid proteins generation and aggregation. **Revista:** Food and Chemical Toxicology 167 (2022) 113264. https://doi.org/10.1016/j.fct.2022.113264.

6. **Autores:** David Vicente-Zurdo, Noelia Rosales-Conrado, M. Eugenia León-González, Leonardo Brunetti, Luca Piemontese, A. Raquel Pereira-Santos, Sandra M. Cardoso, Yolanda Madrid, Sílvia Chaves, M. Amélia Santos. **Título:** Novel Rivastigmine Derivatives as Promising Multi-Target Compounds for Potential Treatment of Alzheimer's Disease. **Revista:** Biomedicines 10 (2022) 1510. https://doi.org/10.3390/biomedicines10071510.

7. **Autores:** Paula Moyano[1], David Vicente-Zurdo[1], Cristina Blázquez-Barbadillo, José Carlos Menéndez, Juan Francisco González, Noelia Rosales-Conrado, Javier Del Pino. **Título:** Neuroprotective action of multitarget 7-aminophenanthridin-6(5H)-one derivatives against metal-induced cell death and oxidative stress in SN56 cells. **Revista:** ACS Chemical Neuroscience 12 (2021) 3358-3372. https://doi.org/10.1021/acschemneuro.1c00333.

8. **Autores:** Damiano Rocchi, Cristina Blázquez-Barbadillo, Mariangela Agamennone, Antonio Laghezza, Paolo Tortorella, David Vicente-Zurdo, Noelia Rosales-Conrado, Paula Moyano, Javier del Pino, Juan F. González, J. Carlos Menéndez. **Título:** Discovery of 7-aminophenanthridin-6-one as a new scaffold for matrix metalloproteinase inhibitors with multitarget neuroprotective activity. **Revista:** European Journal of Medicinal Chemistry 210 (2021) 113061. https://doi.org/10.1016/j.ejmech.2020.113061.

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