



Escuela de Doctorado
de la Universidad de Cádiz

Vicerrectorado de Docencia y Formación
escuela.doctorado@uca.es
<http://escueladocitoral.uca.es>

Comisión Académica

Comisión de Garantía
Internacional de Calidad

Programa de Doctorado en
Nanociencia y
Tecnologías de Materiales

doctorado.nanociencia@uca.es
<http://bit.ly/2nAo8xX>

PUBLICACIONES CIENTÍFICAS INTERNACIONALES INDEXADAS

DEL CUADRO DE PROFESORES UCA DEL PROGRAMA DE DOCTORADO ENTRE 2013 y 2018

2013	2014	2015	2016	2017	2018	2013-2018
67	65	69	55	63	55	374

PUBLICACIONES INDEXADAS en 2018 (hasta 23 de septiembre) 55

Martín, E. I., Sánchez-Coronilla, A., Navas, J., Gómez-Villarejo, R., Gallardo, J. J., Alcántara, R., & Fernández-Lorenzo, C. (2018). Unraveling the role of the base fluid arrangement in metal-nanofluids used to enhance heat transfer in concentrating solar power plants. *Journal of Molecular Liquids*, 252, 271–278. <https://doi.org/10.1016/j.molliq.2017.12.153>

Moragues, A., Puertolas, B., Mayoral, Á., Arenal, R., Hungría, A. B., Murcia-Mascarós, S., ... Amorós, P. (2018). Understanding the role of Ti-rich domains in the stabilization of gold nanoparticles on mesoporous silica-based catalysts. *Journal of Catalysis*, 360, 187–200. <https://doi.org/10.1016/j.jcat.2018.02.003>

Fernández-Ponce, C., Durán-Ruiz, M. C., Narbona-Sánchez, I., Muñoz-Miranda, J. P., Arbulo-Echevarria, M. M., Serna-Sanz, A., Baumann, C., Litrán, R., Aguado, E., Bloch, W., García-Cozar, F. (2018). Ultrastructural localization and molecular associations of HCV capsid protein in Jurkat T cells. *Frontiers in Microbiology*, 8(JAN). <https://doi.org/10.3389/fmicb.2017.02595>

Luna, M., Delgado, J., Gil, M., & Mosquera, M. (2018). TiO₂-SiO₂ Coatings with a Low Content of AuNPs for Producing Self-Cleaning Building Materials. *Nanomaterials*, 8(3), 177. <https://doi.org/10.3390/nano8030177>

Gontard, L. C., Batista, M., Salguero, J., & Calvino, J. J. (2018). Three-dimensional chemical mapping using non-destructive SEM and photogrammetry. *Scientific Reports*, 8(1), 11000. <https://doi.org/10.1038/s41598-018-29458-8>

Mon, M., Rivero-Crespo, M. A., Ferrando-Soria, J., Vidal-Moya, A., Boronat, M., Leyva-Pérez, A., ... Pardo, E. (2018). Synthesis of Densely Packaged, Ultrasmall Pt⁰₂ Clusters within a Thioether-Functionalized MOF: Catalytic Activity in Industrial Reactions at Low Temperature. *Angewandte Chemie International Edition*, 57(21), 6186–6191. <https://doi.org/10.1002/anie.201801957>

Volland, M., Hampel, M., Katsumiti, A., Yeste, M. P., Gatica, J. M., Cajaraville, M., & Blasco, J. (2018). Synthesis methods influence characteristics, behaviour and toxicity of bare CuO NPs compared to bulk CuO and ionic Cu after in vitro exposure of *Ruditapes philippinarum* hemocytes. *Aquatic Toxicology*, 199, 285–295. <https://doi.org/10.1016/j.aquatox.2018.04.007>

Fernández-Delgado, N., Herrera, M., Tavabi, A. H., Luysberg, M., Dunin-Borkowski, R. E., Rodriguez-Cantó, P. J., ... Molina, S. I. (2018). Structural and chemical characterization of CdSe-ZnS core-shell quantum dots. *Applied Surface Science*, 457, 93–97. <https://doi.org/10.1016/j.apsusc.2018.06.149>

García, V., Zorrilla, D., Sánchez-Márquez, J., & Fernández, M. (2018). Simplified box orbitals for molecules containing atoms beyond Ar. *Molecular Physics*, 116(18), 2310–2320. <https://doi.org/10.1080/00268976.2018.1481543>

Olmos, C., Chinchilla, L., Cappella, A., Villa, A., Delgado, J., Hungría, A., ... Chen, X. (2018). Selective Oxidation of Veratryl Alcohol over Au-Pd/Ce0.62Zr0.38O2 Catalysts Synthesized by Sol-Immobilization: Effect of Au:Pd Molar Ratio. *Nanomaterials*, 8(9), 669. <https://doi.org/10.3390/nano8090669>

Martín, E. I., Sánchez-Coronilla, A., Navas, J., Gómez-Villarejo, R., Martínez-Merino, P., Alcántara, R., & Fernández-Lorenzo, C. (2018). Revealing at the molecular level the role of the surfactant in the enhancement of the thermal properties of the gold nanofluid system used for concentrating solar power. *Physical Chemistry Chemical Physics*, 20(4), 2421–2430. <https://doi.org/10.1039/C7CP05384C>

- Piñero, M., Mesa-Díaz, M. del M., de los Santos, D., Reyes-Peces, M. V., Díaz-Fraile, J. A., de la Rosa-Fox, N., ... Morales-Florez, V. (2018). Reinforced silica-carbon nanotube monolithic aerogels synthesised by rapid controlled gelation. *Journal of Sol-Gel Science and Technology*, 86(2), 391–399.
<https://doi.org/10.1007/s10971-018-4645-7>
- Lasemi, N., Pacher, U., Zhigilei, L. V., Bomatí-Miguel, O., Lahoz, R., & Kautek, W. (2018). Pulsed laser ablation and incubation of nickel, iron and tungsten in liquids and air. *Applied Surface Science*, 433, 772–779. <https://doi.org/10.1016/j.apsusc.2017.10.082>
- Mosquera, M. J., Carrascosa, L. A. M., & Badreldin, N. (2018). Producing superhydrophobic/oleophobic coatings on Cultural Heritage building materials. *Pure and Applied Chemistry*, 90(3), 551–561. <https://doi.org/10.1515/pac-2017-0404>
- Pigani, L., Vasile Simone, G., Foca, G., Ulrici, A., Masino, F., Cubillana-Aguilera, L., ... Seeber, R. (2018). Prediction of parameters related to grape ripening by multivariate calibration of voltammetric signals acquired by an electronic tongue. *Talanta*, 178, 178–187.
<https://doi.org/10.1016/j.talanta.2017.09.027>
- Fuentes, R. O., Acuña, L. M., Leyva, A. G., Baker, R. T., Pan, H., Chen, X., & Delgado-Jaén, J. J. (2018). Physicochemical properties of nanostructured Pd/Ianthanide-doped ceria spheres with high catalytic activity for CH₄ combustion. *Journal of Materials Chemistry A*, 6(17), 7488–7499.
<https://doi.org/10.1039/C8TA00203G>
- Navas, J., Araujo, D., Piñero, J. C., Sánchez-Coronilla, A., Blanco, E., Villar, P., ... Pernot, J. (2018). Oxygen termination of homoepitaxial diamond surface by ozone and chemical methods: An experimental and theoretical perspective. *Applied Surface Science*, 433, 408–418.
<https://doi.org/10.1016/j.apsusc.2017.10.065>
- Boileau, A., Cheikh, A., Fouchet, A., David, A., Escobar-Galindo, R., Labbé, C., ... Lüders, U. (2018). Optical and electrical properties of the transparent conductor SrVO₃ without long-range crystalline order. *Applied Physics Letters*, 112(2), 021905. <https://doi.org/10.1063/1.5016245>
- Facio, D., Ordoñez, J., Gil, M., Carrascosa, L., & Mosquera, M. (2018). New Consolidant-Hydrophobic Treatment by Combining SiO₂ Composite and Fluorinated Alkoxy silane: Application on Decayed Biocalcareous Stone from an 18th Century Cathedral. *Coatings*, 8(5), 170.
<https://doi.org/10.3390/coatings8050170>
- Monai, M., Montini, T., Fonda, E., Crosara, M., Delgado, J. J., Adami, G., & Fornasiero, P. (2018). Nanostructured Pd Pt nanoparticles: evidences of structure/performance relations in catalytic H₂ production reactions. *Applied Catalysis B: Environmental*, 236, 88–98.
<https://doi.org/10.1016/j.apcath.2018.05.019>

González-Jiménez, I. N., Torres-Pardo, A., Rano, S., Laberty-Robert, C., Hernández-Garrido, J. C., López-Haro, M., ... Portehault, D. (2018). Multicationic $\text{Sr}_4\text{Mn}_3\text{O}_{10}$ mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. *Materials Horizons*, 5(3), 480–485. <https://doi.org/10.1039/C7MH00952F>

Navas, J., Martínez-Merino, P., Sánchez-Coronilla, A., Gallardo, J. J., Alcántara, R., Martín, E. I., ... Fernández-Lorenzo, C. (2018). MoS_2 nanosheets vs. nanowires: preparation and a theoretical study of highly stable and efficient nanofluids for concentrating solar power. *Journal of Materials Chemistry A*, 6(30), 14919–14929. <https://doi.org/10.1039/C8TA03817A>

de los Santos, D. M., Chahid, S., Alcántara, R., Navas, J., Aguilar, T., Gallardo, J. J., ... Fernández-Lorenzo, C. (2018). $\text{MoS}_2/\text{Cu/TiO}_2$ nanoparticles: synthesis, characterization and effect on photocatalytic decomposition of methylene blue in water under visible light. *Water Science and Technology*, 2017(1), 184–193. <https://doi.org/10.2166/wst.2018.101>

Yeste, M. P., Vidal, H., García-Cabeza, A. L., Hernández-Garrido, J. C., Guerra, F. M., Cifredo, G. A., ... Gatica, J. M. (2018). Low temperature prepared copper-iron mixed oxides for the selective CO oxidation in the presence of hydrogen. *Applied Catalysis A: General*, 552, 58–69. <https://doi.org/10.1016/j.apcata.2017.12.012>

Elhaddad, F., Carrascosa, L., & Mosquera, M. (2018). Long-Term Effectiveness, under a Mountain Environment, of a Novel Conservation Nanomaterial Applied on Limestone from a Roman Archaeological Site. *Materials*, 11(5), 694. <https://doi.org/10.3390/ma11050694>

Lasemi, N., Bomati Miguel, O., Lahoz, R., Lennikov, V. V., Pacher, U., Rentenberger, C., & Kautek, W. (2018). Laser-Assisted Synthesis of Colloidal FeW_xO_y and $\text{Fe}/\text{Fe}_x\text{O}_y$ Nanoparticles in Water and Ethanol. *ChemPhysChem*, 19(11), 1414–1419. <https://doi.org/10.1002/cphc.201701214>

Aguilar, T., Navas, J., Sánchez-Coronilla, A., Martín, E. I., Gallardo, J. J., Martínez-Merino, P., ... Fernández-Lorenzo, C. (2018). Investigation of enhanced thermal properties in NiO-based nanofluids for concentrating solar power applications: A molecular dynamics and experimental analysis. *Applied Energy*, 211, 677–688. <https://doi.org/10.1016/j.apenergy.2017.11.069>

Sánchez-Márquez, J., Zorrilla, D., García, V., & Fernández, M. (2018). Introducing a new methodology for the calculation of local philicity and multiphilic descriptor: an alternative to the finite difference approximation. *Molecular Physics*, 116(13), 1737–1748. <https://doi.org/10.1080/00268976.2018.1445875>

Sánchez-Márquez, J., Zorrilla, D., García, V., & Fernández, M. (2018). Introducing a new bond reactivity index: Philicities for natural bond orbitals. *Journal of Molecular Modeling*, 24(1), 25. <https://doi.org/10.1007/s00894-017-3553-z>

Blanco, E., Domínguez, M., González-Leal, J. M., Márquez, E., Outón, J., & Ramírez-del-Solar, M. (2018). Insights into the annealing process of sol-gel TiO₂ films leading to anatase development: The interrelationship between microstructure and optical properties. *Applied Surface Science*, 439, 736–748. <https://doi.org/10.1016/j.apsusc.2018.01.058>

Hernández-Saz, J., Herrera, M., Pizarro, J., Galindo, P. L., Gonzalez, M., Abell, J., ... Duguay, S. (2018). Influence of the growth temperature on the composition distribution at sub-nm scale of InAlAsSb for solar cells. *Journal of Alloys and Compounds*, 763, 1005–1011. <https://doi.org/10.1016/j.jallcom.2018.05.333>

Moslah, C., Aguilar, T., Ksibi, M., Alcántara, R., & Navas, J. (2018). Influence of Temperature and Doping Content on the Photocatalytic Activity in Visible Light of W-Doped TiO₂ (pp. 153–154). https://doi.org/10.1007/978-3-319-70548-4_51

Contreras-Bernal, L., Aranda, C., Valles-Pelarda, M., Ngo, T. T., Ramos-Terrón, S., Gallardo, J. J., ... Anta, J. A. (2018). Homeopathic Perovskite Solar Cells: Effect of Humidity during Fabrication on the Performance and Stability of the Device. *The Journal of Physical Chemistry C*, 122(10), 5341–5348. <https://doi.org/10.1021/acs.jpcc.8b01558>

Fernández-Delgado, N., Herrera, M., Pizarro, J., Galindo, P., & Molina, S. I. (2018). HAADF-STEM for the analysis of core–shell quantum dots. *Journal of Materials Science*, 53(21), 15226–15236. <https://doi.org/10.1007/s10853-018-2694-5>

Suffo, M., Delgado, F. J., & Molina, S. I. (2018). Geometric-Structural Study of the Accelerated Degradation of Mold Cavities for HDPE Injection. *Journal of Failure Analysis and Prevention*, 18(1), 55–65. <https://doi.org/10.1007/s11668-017-0378-0>

Guamán-Balcázar, M. C., Montes, A., Fernández-Ponce, M. T., Casas, L., Mantell, C., Pereyra, C., & Martínez de la Ossa, E. (2018). Generation of potent antioxidant nanoparticles from mango leaves by supercritical antisolvent extraction. *The Journal of Supercritical Fluids*, 138, 92–101. <https://doi.org/10.1016/j.supflu.2018.04.005>

Hernández-Saz, J., Pizarro, J., Herrera, M., Molina, S. I., & Galindo, P. L. (2018). Gaussian kernel density functions for compositional quantification in atom probe tomography. *Materials Characterization*, 139, 63–69. <https://doi.org/10.1016/j.matchar.2018.02.033>

Aseev, P., Gačević, Ž., Mánuel, J. M., Jiménez, J. J., García, R., Morales, F. M., & Calleja, E. (2018). Formation mechanisms of single-crystalline InN quantum dots fabricated via droplet epitaxy. *Journal of Crystal Growth*, 493, 65–75. <https://doi.org/10.1016/j.jcrysgr.2018.04.027>

Chairopoulou, M. A., Pereyra, C., & Teipel, U. (2018). Formation and Separation of Particles from *Emiliania huxleyi*. *Chemical Engineering & Technology*, 41(8), 1551–1558. <https://doi.org/10.1002/ceat.201700594>

- Gómez-Villarejo, R., Martín, E. I., Sánchez-Coronilla, A., Aguilar, T., Teruel, M., Alcántara, R., ... Navas, J. (2018). Experimental Characterization and Theoretical Modelling of Ag and Au-Nanofluids: A Comparative Study of Their Thermal Properties. *Journal of Nanofluids*, 7(6), 1059–1068. <https://doi.org/10.1166/jon.2018.1544>
- Sánchez-Coronilla, A., Martín, E. I., Navas, J., Aguilar, T., Gómez-Villarejo, R., Alcántara, R., ... Fernández-Lorenzo, C. (2018). Experimental and theoretical analysis of NiO nanofluids in presence of surfactants. *Journal of Molecular Liquids*, 252, 211–217. <https://doi.org/10.1016/j.molliq.2017.12.140>
- Máñuel, J. M., Jiménez, J. J., Morales, F. M., Lacroix, B., Santos, A. J., García, R., ... Müller, J. (2018). Engineering of III-Nitride Semiconductors on Low Temperature Co-fired Ceramics. *Scientific Reports*, 8(1), 6879. <https://doi.org/10.1038/s41598-018-25416-6>
- Yasinskiy, A., Navas, J., Aguilar, T., Alcántara, R., Gallardo, J. J., Sánchez-Coronilla, A., ... Fernández-Lorenzo, C. (2018). Dramatically enhanced thermal properties for TiO₂-based nanofluids for being used as heat transfer fluids in concentrating solar power plants. *Renewable Energy*, 119, 809–819. <https://doi.org/10.1016/j.renene.2017.10.057>
- Lopes de Macedo, I. Y., Alecrim, M. F., Garcia, L. F., Ribeiro de Souza, A., Pio dos Santos, W. T., de Souza Gil, E., ... Palacios-Santander, J. M. (2018). Differential Pulse Voltammetric Determination of Piroxicam on Lanthanide Ferric Oxide Nanoparticles-Carbon Paste Modified Electrode. *Current Pharmaceutical Analysis*, 14(3), 271–276. <https://doi.org/10.2174/1573412913666170410131223>
- García Guzmán, J. J., Aguilera, L. C., Milla, D. B., Rodríguez, I. N., Lete, C., Palacios Santander, J. M., & Lupu, S. (2018). Development of Sonogel-Carbon based biosensors using sinusoidal voltages and currents methods. *Sensors and Actuators B: Chemical*, 255, 1525–1535. <https://doi.org/10.1016/j.snb.2017.08.161>
- Escobar-Galindo, R., Guillén, E., Heras, I., Rincón-Llorente, G., Alcón-Camas, M., Lungwitz, F., ... Krause, M. (2018). Design of high-temperature solar-selective coatings based on aluminium titanium oxynitrides AlyTi_{1-y}(OxN_{1-x}). Part 2: Experimental validation and durability tests at high temperature. *Solar Energy Materials and Solar Cells*, 185, 183–191. <https://doi.org/10.1016/j.solmat.2018.04.027>
- Heras, I., Guillén, E., Lungwitz, F., Rincón-Llorente, G., Munnik, F., Schumann, E., ... Escobar-Galindo, R. (2018). Design of high-temperature solar-selective coatings based on aluminium titanium oxynitrides Al y Ti 1-y (O x N 1-x). Part 1: Advanced microstructural characterization and optical simulation. *Solar Energy Materials and Solar Cells*, 176, 81–92. <https://doi.org/10.1016/j.solmat.2017.10.015>
- Sendra, M., Volland, M., Balbi, T., Fabbri, R., Yeste, M. P., Gatica, J. M., ... Blasco, J. (2018). Cytotoxicity of CeO₂ nanoparticles using in vitro assay with *Mytilus galloprovincialis* hemocytes: Relevance of zeta potential, shape and biocorona formation. *Aquatic Toxicology*, 200, 13–20. <https://doi.org/10.1016/j.aquatox.2018.04.011>

- Wenisch, R., Lungwitz, F., Hanf, D., Heller, R., Zscharschuch, J., Hübner, R., ... Krause, M. (2018). Cluster Tool for In Situ Processing and Comprehensive Characterization of Thin Films at High Temperatures. *Analytical Chemistry*, 90(13), 7837–7842. <https://doi.org/10.1021/acs.analchem.8b00923>
- Zarzuela, R., Luna, M. J., Gil, M. L. A., Ortega, M. J., Palacios-Santander, J. M., Naranjo-Rodríguez, I., ... Cubillana-Aguilera, L. M. (2018). Analytical determination of the reducing and stabilization agents present in different *Zostera noltii* extracts used for the biosynthesis of gold nanoparticles. *Journal of Photochemistry and Photobiology B: Biology*, 179, 32–38. <https://doi.org/10.1016/j.jphotobiol.2017.12.025>
- Baladés, N., Sales, D. L., Herrera, M., Tan, C. H., Liu, Y., Richards, R. D., & Molina, S. I. (2018). Analysis of Bi Distribution in Epitaxial GaAsBi by Aberration-Corrected HAADF-STEM. *Nanoscale Research Letters*, 13(1), 125. <https://doi.org/10.1186/s11671-018-2530-5>
- Bakkali, H., Blanco, E., Amrani, M., Brigui, J., & Domínguez, M. (2018). An ellipsometric analysis to model the order-disorder transition in Au-SiO₂ nano-granular thin films induced by thermal annealing. *Thin Solid Films*, 660, 455–462. <https://doi.org/10.1016/j.tsf.2018.06.045>
- Botana-Galvín, M., Blanco, G., González-Rovira, L., Rodríguez, M. A., & Botana, F. J. (2018). Adhesive behaviour of carbon fibre reinforced plastic panels manufactured using woven and unidirectional tape after ultraviolet laser surface treatment. *Journal of Composite Materials*, 52(7), 853–865. <https://doi.org/10.1177/0021998317718614>
- Mejías, F. J. R., López-Haro, M., Gontard, L. C., Cala, A., Fernández-Aparicio, M., Molinillo, J. M. G., ... Macías, F. A. (2018). A Novel Electron Microscopic Characterization of Core/Shell Nanobiostimulator Against Parasitic Plants. *ACS Applied Materials & Interfaces*, 10(3), 2354–2359. <https://doi.org/10.1021/acsami.7b16873>
- López-Haro, M., Tinoco, M., Fernández-García, S., Chen, X., Hungria, A. B., Cauqui, M. Á., & Calvino, J. J. (2018). A Macroscopically Relevant 3D-Metrology Approach for Nanocatalysis Research. *Particle & Particle Systems Characterization*, 35(3), 1700343. <https://doi.org/10.1002/ppsc.201700343>

PUBLICACIONES INDEXADAS en 2017: 63

- Gatica, J. M., Castiglioni, J., de los Santos, C., Yeste, M. P., Cifredo, G., Torres, M., & Vidal, H. (2017). Use of pillared clays in the preparation of washcoated clay honeycomb monoliths as support of manganese catalysts for the total oxidation of VOCs. *Catalysis Today*, 296, 84–94. <https://doi.org/10.1016/j.cattod.2017.04.025>
- Sendra, M., Moreno-Garrido, I., Yeste, M. P., Gatica, J. M., & Blasco, J. (2017). Toxicity of TiO₂, in nanoparticle or bulk form to freshwater and marine microalgae under visible light and UV-A radiation. *Environmental Pollution*, 227, 39–48. <https://doi.org/10.1016/j.envpol.2017.04.053>
- López, R., Rico, J. F., Ramírez, G., Ema, I., Zorrilla, D., Kumar, A., ... Gadre, S. R. (2017). Topology of molecular electron density and electrostatic potential with DAMQT. *Computer Physics Communications*, 214, 207–215. <https://doi.org/10.1016/j.cpc.2017.01.012>
- Sánchez-Coronilla, A., Navas, J., Aguilar, T., Martín, E. I., Gallardo, J. J., Gómez-Villarejo, M. R., ... Martín-Calleja, J. (2017). The Role of Surfactants in the Stability of NiO Nanofluids: An Experimental and DFT Study. *ChemPhysChem*, 18(4), 346–356. <https://doi.org/10.1002/cphc.201601161>
- Navas, J., Sánchez-Coronilla, A., Gallardo, J. J., Piñero, J. C., De los Santos, D., Martín, E. I., ... Martín-Calleja, J. (2017). The impact of Pd on the light harvesting in hybrid organic-inorganic perovskite for solar cells. *Nano Energy*, 34, 141–154. <https://doi.org/10.1016/j.nanoen.2017.02.035>
- Pele, L. C., Haas, C. T., Hewitt, R. E., Robertson, J., Skepper, J., Brown, A., ... Powell, J. J. (2017). Synthetic mimetics of the endogenous gastrointestinal nanomineral: Silent constructs that trap macromolecules for intracellular delivery. *Nanomedicine: Nanotechnology, Biology and Medicine*, 13(2), 619–630. <https://doi.org/10.1016/j.nano.2016.07.008>
- Tejeda-Serrano, M., Cabrero-Antonino, J. R., Mainar-Ruiz, V., López-Haro, M., Hernández-Garrido, J. C., Calvino, J. J., ... Corma, A. (2017). Synthesis of Supported Planar Iron Oxide Nanoparticles and Their Chemo- and Stereoselectivity for Hydrogenation of Alkynes. *ACS Catalysis*, 7(5), 3721–3729. <https://doi.org/10.1021/acscatal.7b00037>
- Collins, S. M., Fernandez-Garcia, S., Calvino, J. J., & Midgley, P. A. (2017). Sub-nanometer surface chemistry and orbital hybridization in lanthanum-doped ceria nano-catalysts revealed by 3D electron microscopy. *Scientific Reports*, 7(1), 5406. <https://doi.org/10.1038/s41598-017-05671-9>
- Baladés, N., Herrera, M., Sales, D. L., Delgado, F. J., Hernández-Maldonado, D., Ramasse, Q. M., ... Molina, S. I. (2017). Structural characterization of InAlAsSb/InGaAs/InP heterostructures for solar cells. *Applied Surface Science*, 395, 98–104. <https://doi.org/10.1016/j.apsusc.2016.07.094>

Sanz, O., Banús, E. D., Goya, A., Larumbe, H., Delgado, J. J., Monzón, A., & Montes, M. (2017). Stacked wire-mesh monoliths for VOCs combustion: Effect of the mesh-opening in the catalytic performance. *Catalysis Today*, 296, 76–83. <https://doi.org/10.1016/j.cattod.2017.05.054>

González-Álvarez, R. J., Pinto, J. J., Bellido-Milla, D., & Moreno, C. (2017). Solid sampling graphite furnace atomic absorption spectrometry for the direct analysis of microextraction solvent bars used for metal ultra-trace pre-concentration. *Spectrochimica Acta Part B: Atomic Spectroscopy*, 135, 1–5. <https://doi.org/10.1016/j.sab.2017.06.013>

García, V., Zorrilla, D., Sánchez-Márquez, J., & Fernández-Núñez, M. (2017). Software to obtain accurate Gaussian expansions for a wide range of radial functions. *Journal of Molecular Modeling*, 23(5), 165. <https://doi.org/10.1007/s00894-017-3340-x>

Liang, B., Duan, H., Su, X., Chen, X. X., Huang, Y., Chen, X. X., ... Zhang, T. (2017). Promoting role of potassium in the reverse water gas shift reaction on Pt/mullite catalyst. *Catalysis Today*, 281, 319–326. <https://doi.org/10.1016/j.cattod.2016.02.051>

Facio, D. S., Carrascosa, L. A. M., & Mosquera, M. J. (2017). Producing lasting amphiphobic building surfaces with self-cleaning properties. *Nanotechnology*, 28(26), 265601. <https://doi.org/10.1088/1361-6528/aa73a3>

Gómez-Villarejo, R., Navas, J., Martín, E. I., Sánchez-Coronilla, A., Aguilar, T., Gallardo, J. J., ... Martín-Calleja, J. (2017). Preparation of Au nanoparticles in a non-polar medium: obtaining high-efficiency nanofluids for concentrating solar power. An experimental and theoretical perspective. *Journal of Materials Chemistry A*, 5(24), 12483–12497. <https://doi.org/10.1039/C7TA00986K>

Guamán-Balcázar, M. C., Montes, A., Pereyra, C., & de la Ossa, E. M. (2017). Precipitation of mango leaves antioxidants by supercritical antisolvent process. *The Journal of Supercritical Fluids*, 128, 218–226. <https://doi.org/10.1016/j.supflu.2017.05.031>

Bakkali, H., Blanco, E., Dominguez, M., de la Mora, M. B., Sánchez-Aké, C., & Villagrán-Muniz, M. (2017). Optical properties of Au–TiO₂ and Au–SiO₂ granular metal thin films studied by Spectroscopic Ellipsometry. *Applied Surface Science*, 405, 240–246. <https://doi.org/10.1016/j.apsusc.2017.01.293>

Márquez, E., Díaz, J. M., García-Vázquez, C., Blanco, E., Ruiz-Pérez, J. J., Minkov, D. A., ... Gavrilov, G. M. (2017). Optical characterization of amine-solution-processed amorphous AsS₂ chalcogenide thin films by the use of transmission spectroscopy. *Journal of Alloys and Compounds*, 721, 363–373. <https://doi.org/10.1016/j.jallcom.2017.05.303>

Stere, C. E., Anderson, J. A., Chansai, S., Delgado, J. J., Goguet, A., Graham, W. G., ... Yang, H. (2017). Non-Thermal Plasma Activation of Gold-Based Catalysts for Low-Temperature Water-Gas Shift Catalysis. *Angewandte Chemie International Edition*, 56(20), 5579–5583. <https://doi.org/10.1002/anie.201612370>

Romero-Hermida, I., Santos, A., Pérez-López, R., García-Tenorio, R., Esquivias, L., & Morales-Flórez, V. (2017). New method for carbon dioxide mineralization based on phosphogypsum and aluminium-rich industrial wastes resulting in valuable carbonated by-products. *Journal of CO₂ Utilization*, 18, 15–22. <https://doi.org/10.1016/j.jcou.2017.01.002>

Montes, A., Merino, R., De los Santos, D. M., Pereyra, C., & Martínez de la Ossa, E. J. (2017). Micronization of vanillin by rapid expansion of supercritical solutions process. *Journal of CO₂ Utilization*, 21, 169–176. <https://doi.org/10.1016/j.jcou.2017.07.009>

Navas, J., Reyes-Pérez, F., Alcántara, R., Fernández-Lorenzo, C., Bernal, J. J. G., & Martín-Calleja, J. (2017). M(Al,Ni)-TiO₂-Based Photoanode for Photoelectrochemical Solar Cells. *Zeitschrift Für Physikalische Chemie*, 0(0). <https://doi.org/10.1515/zpch-2017-1002>

Alexandrov, D., Tot, J., Dubreuil, R., Morales, F. M., Manuel, J. M., Jimenez, J. J., ... Mueller, J. (2017). Low temperature epitaxial deposition of GaN on LTCC substrates. In *2017 IEEE 5th Workshop on Wide Bandgap Power Devices and Applications (WiPDA)* (pp. 48–54). IEEE. <https://doi.org/10.1109/WiPDA.2017.8170501>

Lasemi, N., Pacher, U., Rentenberger, C., Bomatí-Miguel, O., & Kautek, W. (2017). Laser-Assisted Synthesis of Colloidal Ni/NiO_x Core/Shell Nanoparticles in Water and Alcoholic Solvents. *ChemPhysChem*, 18(9), 1118–1124. <https://doi.org/10.1002/cphc.201601181>

Castellanos-Rubio, I., Insausti, M., de Muro, I. G., Arias-Duque, D. C., Hernández-Garrido, J. C., & Lezama, L. (2017). Intra-particle chemical homogeneity determining the exchange coupling in palladium-iron nanoparticles. *Journal of Applied Physics*, 121(8), 084302. <https://doi.org/10.1063/1.4976966>

Atout, H., Bouguettoucha, A., Chebli, D., Gatica, J. M., Vidal, H., Yeste, M. P., & Amrane, A. (2017). Integration of Adsorption and Photocatalytic Degradation of Methylene Blue Using TiO₂ Supported on Granular Activated Carbon. *Arabian Journal for Science and Engineering*, 42(4), 1475–1486. <https://doi.org/10.1007/s13369-016-2369-y>

Morales, M. R., Yeste, M. P., Vidal, H., Gatica, J. M., & Cadus, L. E. (2017). Insights on the combustion mechanism of ethanol and n -hexane in honeycomb monolithic type catalysts: Influence of the amount and nature of Mn-Cu mixed oxide. *Fuel*, 208, 637–646. <https://doi.org/10.1016/j.fuel.2017.07.069>

Vecchietti, J., Baltanás, M. A., Gervais, C., Collins, S. E., Blanco, G., Matz, O., ... Bonivardi, A. (2017). Insights on hydride formation over cerium-gallium mixed oxides: A mechanistic study for efficient H₂ dissociation. *Journal of Catalysis*, 345, 258–269. <https://doi.org/10.1016/j.jcat.2016.11.029>

Cognard, G., Ozouf, G., Beauger, C., Dubau, L., López-Haro, M., Chatenet, M., & Maillard, F. (2017). Insights into the stability of Pt nanoparticles supported on antimony-doped tin oxide in different potential ranges. *Electrochimica Acta*, 245, 993–1004. <https://doi.org/10.1016/j.electacta.2017.05.178>

Ribeiro, L. S., Delgado, J. J., de Melo Órfão, J. J., & Ribeiro Pereira, M. F. (2017). Influence of the Surface Chemistry of Multiwalled Carbon Nanotubes on the Selective Conversion of Cellulose into Sorbitol. *ChemCatChem*, 9(5), 888–896. <https://doi.org/10.1002/cctc.201601224>

Arias-Duque, C., Bladt, E., Muñoz, M. A., Hernández-Garrido, J. C., Cauqui, M. A., Rodríguez-Izquierdo, J. M., ... Yeste, M. P. (2017). Improving the Redox Response Stability of Ceria-Zirconia Nanocatalysts under Harsh Temperature Conditions. *Chemistry of Materials*, 29(21), 9340–9350. <https://doi.org/10.1021/acs.chemmater.7b03336>

Jiang, L., Fernandez-Garcia, S., Tinoco, M., Yan, Z., Xue, Q., Blanco, G., ... Chen, X. (2017). Improved Oxidase Mimetic Activity by Praseodymium Incorporation into Ceria Nanocubes. *ACS Applied Materials & Interfaces*, 9(22), 18595–18608. <https://doi.org/10.1021/acsami.7b05036>

Fernández-Ponce, C., Dominguez-Villar, M., Muñoz-Miranda, J. P., Arbulo-Echevarria, M. M., Litrán, R., Aguado, E., & García-Cozar, F. (2017). Immune modulation by the hepatitis C virus core protein. *Journal of Viral Hepatitis*, 24(5), 350–356. <https://doi.org/10.1111/jvh.12675>

Sánchez-Coronilla, A., Navas, J., Gallardo, J. J., Martín, E. I., De los Santos, D., Hernández, N. C., ... Fernández-Lorenzo, C. (2017). Hybrid Perovskite, $\text{CH}_3\text{NH}_3\text{PbI}_3$, for Solar Applications: An Experimental and Theoretical Analysis of Substitution in A and B Sites. *Journal of Nanomaterials*, 2017, 1–10. <https://doi.org/10.1155/2017/9768918>

Naldoni, A., Montini, T., Malara, F., Mróz, M. M., Beltram, A., Virgili, T., ... Fornasiero, P. (2017). Hot Electron Collection on Brookite Nanorods Lateral Facets for Plasmon-Enhanced Water Oxidation. *ACS Catalysis*, 7(2), 1270–1278. <https://doi.org/10.1021/acscatal.6b03092>

Sendra, M., Yeste, M. P., Gatica, J. M., Moreno-Garrido, I., & Blasco, J. (2017). Homoagglomeration and heteroagglomeration of TiO_2 , in nanoparticle and bulk form, onto freshwater and marine microalgae. *Science of The Total Environment*, 592, 403–411. <https://doi.org/10.1016/j.scitotenv.2017.03.127>

Muñoz, M. A., Calvino, J. J., Rodríguez-Izquierdo, J. M., Blanco, G., Arias, D. C., Pérez-Omil, J. A., ... Yeste, M. P. (2017). Highly stable ceria-zirconia-yttria supported Ni catalysts for syngas production by CO₂ reforming of methane. *Applied Surface Science*, 426, 864–873. <https://doi.org/10.1016/j.apsusc.2017.07.210>

García-Casas, I., Montes, A., Pereyra, C., & Martínez de la Ossa, E. J. (2017). Generation of quercetin/cellulose acetate phthalate systems for delivery by supercritical antisolvent process. *European Journal of Pharmaceutical Sciences*, 100, 79–86. <https://doi.org/10.1016/j.ejps.2017.01.010>

Flores-Giubi, M. E., Durán-Peña, M. J., Botubol-Ares, J. M., Escobar-Montaño, F., Zorrilla, D., Macías-Sánchez, A. J., & Hernández-Galán, R. (2017). Gaditanone, a Diterpenoid Based on an Unprecedented Carbon Skeleton Isolated from *Euphorbia gaditana*. *Journal of Natural Products*, 80(7), 2161–2165. <https://doi.org/10.1021/acs.jnatprod.7b00332>

- Benito, N., Recio-Sánchez, G., Escobar-Galindo, R., & Palacio, C. (2017). Formation of antireflection Zn/ZnO core–shell nano-pyramidal arrays by O₂⁺ ion bombardment of Zn surfaces. *Nanoscale*, 9(37), 14201–14207. <https://doi.org/10.1039/C7NR03691D>
- Facio, D. S., Luna, M., & Mosquera, M. J. (2017). Facile preparation of mesoporous silica monoliths by an inverse micelle mechanism. *Microporous and Mesoporous Materials*, 247, 166–176. <https://doi.org/10.1016/j.micromeso.2017.03.041>
- Bakkali, H., Blanco, E., Domínguez, M., & Garitaonandia, J. S. (2017). Fabrication and optical properties of nanostructured plasmonic Al₂O₃/Au–Al₂O₃/Al₂O₃ metamaterials. *Nanotechnology*, 28(33), 335704. <https://doi.org/10.1088/1361-6528/aa7b6c>
- Navas, J., Sánchez-Coronilla, A., Martín, E. I., Gómez-Villarejo, R., Teruel, M., Gallardo, J. J., ... Martín-Calleja, J. (2017). Experimental and theoretical analysis of nanofluids based on high temperature-heat transfer fluid with enhanced thermal properties. *The European Physical Journal Applied Physics*, 78(1), 10901. <https://doi.org/10.1051/epjap/2017160369>
- Sierra Nieto, J. E., & Blanco García, N. (2017). El Aprendizaje de la Escucha en la Investigación Educativa. *Qualitative Research in Education*, 6(3), 303. <https://doi.org/10.17583/qre.2017.2783>
- Baladés, N., Sales, D. L., Herrera, M., Delgado, F. J., González, M., Clark, K., ... Molina, S. I. (2017). Effect of annealing on the compositional modulation of InAlAsSb. *Applied Surface Science*, 395, 105–109. <https://doi.org/10.1016/j.apsusc.2016.06.091>
- Fernández-Delgado, N., Herrera, M., Chisholm, M. F., Kamarudin, M. A., Zhuang, Q. D., Hayne, M., & Molina, S. I. (2017). Effect of an in - situ thermal annealing on the structural properties of self-assembled GaSb/GaAs quantum dots. *Applied Surface Science*, 395, 136–139. <https://doi.org/10.1016/j.apsusc.2016.04.131>
- Ribeiro, L. S., Delgado, J. J., de Melo Órfão, J. J., & Pereira, M. F. R. (2017). Direct conversion of cellulose to sorbitol over ruthenium catalysts: Influence of the support. *Catalysis Today*, 279, 244–251. <https://doi.org/10.1016/j.cattod.2016.05.028>
- Sendra, M., Yeste, M. P., Gatica, J. M., Moreno-Garrido, I., & Blasco, J. (2017). Direct and indirect effects of silver nanoparticles on freshwater and marine microalgae (*Chlamydomonas reinhardtii* and *Phaeodactylum tricornutum*). *Chemosphere*, 179, 279–289. <https://doi.org/10.1016/j.chemosphere.2017.03.123>
- Gómez, J., Palacios-Santander, J. M., Lasanta, C., Cubillana-Aguilera, L. M., Arnedo, R., Casas, J. A., ... LLoret, I. (2017). Development of a chemical model to predict the doses of calcium sulfate and tartaric acid to acidify musts in Sherry area. *BIO Web of Conferences*, 9, 02011. <https://doi.org/10.1051/bioconf/20170902011>

- Zarzuela, R., Carbú, M., Gil, M. L. A., Cantoral, J. M., & Mosquera, M. J. (2017). CuO/SiO₂ nanocomposites: A multifunctional coating for application on building stone. *Materials & Design*, 114, 364–372. <https://doi.org/10.1016/j.matdes.2016.11.009>
- Hadri, A. el, Gómez-Recio, I., Río, E. del, Hernández-Garrido, J. C., Cortés-Gil, R., Hernando, M., ... González-Calbet, J. M. (2017). Critical Influence of Redox Pretreatments on the CO Oxidation Activity of BaFeO_{3-δ} Perovskites: An in-Depth Atomic-Scale Analysis by Aberration-Corrected and in Situ Diffraction Techniques. *ACS Catalysis*, 7(12), 8653–8663. <https://doi.org/10.1021/acscatal.7b02595>
- García-Casas, I., Montes, A., Pereyra, C., & Martínez de la Ossa, E. J. (2017). Co-precipitation of mangiferin with cellulose acetate phthalate by Supercritical antisolvent process. *Journal of CO₂ Utilization*, 22, 197–207. <https://doi.org/10.1016/j.jcou.2017.10.003>
- Yeste, M. P., Gatica, J. M., Ahrouch, M., & Vidal, H. (2017). Clay honeycomb monoliths as low cost CO₂ adsorbents. *Journal of the Taiwan Institute of Chemical Engineers*, 80, 415–423. <https://doi.org/10.1016/j.jtice.2017.07.031>
- Cubillos, G. I., Mendoza, M. E., Alfonso, J. E., Blanco, G., & Bethencourt, M. (2017). Chemical composition and microstructure of zirconium oxynitride thin layers from the surface to the substrate-coating interface. *Materials Characterization*, 131, 450–458. <https://doi.org/10.1016/j.matchar.2017.07.035>
- Sendra, M., Yeste, P. M., Moreno-Garrido, I., Gatica, J. M., & Blasco, J. (2017). CeO₂ NPs, toxic or protective to phytoplankton? Charge of nanoparticles and cell wall as factors which cause changes in cell complexity. *Science of The Total Environment*, 590–591, 304–315. <https://doi.org/10.1016/j.scitotenv.2017.03.007>
- Beato-López, J. J., Espinazo, M. L., Fernández-Ponce, C., Blanco, E., Ramírez-del-Solar, M., Domínguez, M., ... Litrán, R. (2017). CdTe quantum dots linked to Glutathione as a bridge for protein crosslinking. *Journal of Luminescence*, 187, 193–200. <https://doi.org/10.1016/j.jlumin.2017.03.012>
- Ribeiro, L. S., Delgado, J. J., Órfão, J. J. M., & Pereira, M. F. R. (2017). Carbon supported Ru-Ni bimetallic catalysts for the enhanced one-pot conversion of cellulose to sorbitol. *Applied Catalysis B: Environmental*, 217, 265–274. <https://doi.org/10.1016/j.apcatb.2017.04.078>
- Gontard, L. C., López-Castro, J. D., González-Rovira, L., Vázquez-Martínez, J. M., Varela-Feria, F. M., Marcos, M., & Calvino, J. J. (2017). Assessment of engineered surfaces roughness by high-resolution 3D SEM photogrammetry. *Ultramicroscopy*, 177, 106–114. <https://doi.org/10.1016/j.ultramic.2017.03.007>
- Jiménez-Solano, A., Anaya, M., Calvo, M. E., Alcon-Camas, M., Alcañiz, C., Guillén, E., ... Míguez, H. (2017). Aperiodic Metal-Dielectric Multilayers as Highly Efficient Sunlight Reflectors. *Advanced Optical Materials*, 5(9), 1600833. <https://doi.org/10.1002/adom.201600833>

Gómez-Villarejo, R., Martín, E. I., Navas, J., Sánchez-Coronilla, A., Aguilar, T., Gallardo, J. J., ... Fernández-Lorenzo, C. (2017). Ag-based nanofluidic system to enhance heat transfer fluids for concentrating solar power: Nano-level insights. *Applied Energy*, 194, 19–29.
<https://doi.org/10.1016/j.apenergy.2017.03.003>

Ruiz, D., del Rosal, B., Acebrón, M., Palencia, C., Sun, C., Cabanillas-González, J., ... Juarez, B. H. (2017). Ag/ Ag_2S Nanocrystals for High Sensitivity Near-Infrared Luminescence Nanothermometry. *Advanced Functional Materials*, 27(6), 1604629. <https://doi.org/10.1002/adfm.201604629>

Morales-Florez, V., Piñero, M., Braza, V., del Mar Mesa, M., Esquivias, L., & de la Rosa-Fox, N. (2017). Absorption capacity, kinetics and mechanical behaviour in dry and wet states of hydrophobic DEDMS/TEOS-based silica aerogels. *Journal of Sol-Gel Science and Technology*, 81(2), 600–610.
<https://doi.org/10.1007/s10971-016-4203-0>

Sánchez-Nieva, J., Perales, J. A., González-Leal, J. M., & Rojo-Nieto, E. (2017). A new analytical technique for the extraction and quantification of microplastics in marine sediments focused on easy implementation and repeatability. *Analytical Methods*, 9(45), 6371–6378.
<https://doi.org/10.1039/C7AY01800B>

PUBLICACIONES INDEXADAS en 2016: 55

Lumb, M. P., Yakes, M. K., González, M., Bennett, M. F., Schmieder, K. J., Affouda, C. A., ... Walters, R. J. (2016). Wide bandgap, strain-balanced quantum well tunnel junctions on InP substrates. *Journal of Applied Physics*, 119(19), 194503. <https://doi.org/10.1063/1.4948958>

Bakkali, H., Dominguez, M., Batlle, X., & Labarta, A. (2016). Universality of the electrical transport in granular metals. *Scientific Reports*, 6(1), 29676.
<https://doi.org/10.1038/srep29676>

Christoforidis, K. C., Montini, T., Bontempi, E., Zafeiratos, S., Jaén, J. J. D., & Fornasiero, P. (2016). Synthesis and photocatalytic application of visible-light active $\beta\text{-Fe}_2\text{O}_3/\text{g-C}_3\text{N}_4$ hybrid nanocomposites. *Applied Catalysis B: Environmental*, 187, 171–180. <https://doi.org/10.1016/j.apcatb.2016.01.013>

Olmos, C. M., Chinchilla, L. E., Rodrigues, E. G., Delgado, J. J., Hungría, A. B., Blanco, G., ... Chen, X. (2016). Synergistic effect of bimetallic Au-Pd supported on ceria-zirconia mixed oxide catalysts for selective oxidation of glycerol. *Applied Catalysis B: Environmental*, 197, 222–235.
<https://doi.org/10.1016/j.apcatb.2016.03.050>

López-Haro, M., Yoshida, K., del Río, E., Pérez-Omil, J. A., Boyes, E. D., Trasobares, S., ... Calvino, J. J. (2016). Strain Field in Ultrasmall Gold Nanoparticles Supported on Cerium-Based Mixed Oxides. Key Influence of the Support Redox State. *Langmuir*, 32(17), 4313–4322.
<https://doi.org/10.1021/acs.langmuir.6b00758>

Garcia-Valenzuela, A., Alvarez, R., Lopez-Santos, C., Ferrer, F. J., Rico, V., Guillen, E., ... Palmero, A. (2016). Stoichiometric Control of SiO_x Thin Films Grown by Reactive Magnetron Sputtering at Oblique Angles. *Plasma Processes and Polymers*, 13(12), 1242–1248. <https://doi.org/10.1002/ppap.201600077>

Carrasco, J. A., Romero, J., Abellán, G., Hernández-Saz, J., Molina, S. I., Martí-Gastaldo, C., & Coronado, E. (2016). Small-pore driven high capacitance in a hierarchical carbon via carbonization of Ni-MOF-74 at low temperatures. *Chemical Communications*, 52(58), 9141–9144.
<https://doi.org/10.1039/C6CC02252A>

García, V., Zorrilla, D., Sánchez-Márquez, J., & Fernández-Núñez, M. (2016). Simplified Box Orbitals (SBO) for H To Ar atoms: Exact expressions, SBO-3G approximations, and relations with the ZDO approximation. *International Journal of Quantum Chemistry*, 116(17), 1303–1312.
<https://doi.org/10.1002/qua.25178>

Rueda-Fonseca, P., Robin, E., Bellet-Amalric, E., Lopez-Haro, M., Den Hertog, M., Genuist, Y., ... Cibert, J. (2016). Quantitative Reconstructions of 3D Chemical Nanostructures in Nanowires. *Nano Letters*, 16(3), 1637–1642. <https://doi.org/10.1021/acs.nanolett.5b04489>

Carrascosa, L. A. M., Facio, D. S., & Mosquera, M. J. (2016). Producing superhydrophobic roof tiles. *Nanotechnology*, 27(9), 095604.
<https://doi.org/10.1088/0957-4484/27/9/095604>

Chinnarasu, C., Montes, A., Pereyra, C., Casas, L., Fernández-Ponce, M. T., Mantell, C., ... Martínez de la Ossa, E. (2016). Preparation of polyphenol fine particles potent antioxidants by a supercritical antisolvent process using different extracts of Olea europaea leaves. *Korean Journal of Chemical Engineering*, 33(2), 594–602. <https://doi.org/10.1007/s11814-015-0166-z>

Dhahri, M., Muñoz, M. A., Yeste, M. P., Cauqui, M. A., & Frini-Srasra, N. (2016). Preparation of manganese-impregnated alumina-pillared bentonite, characterization and catalytic oxidation of CO. *Reaction Kinetics, Mechanisms and Catalysis*, 118(2), 655–668. <https://doi.org/10.1007/s11144-016-1017-6>

Montes, A., Wehner, L., Pereyra, C., & Martínez de la Ossa, E. J. (2016). Precipitation of submicron particles of rutin using supercritical antisolvent process. *The Journal of Supercritical Fluids*, 118, 1–10. <https://doi.org/10.1016/j.supflu.2016.07.020>

Beltram, A., Romero-Ocaña, I., Josè Delgado Jaen, J., Montini, T., & Fornasiero, P. (2016). Photocatalytic valorization of ethanol and glycerol over TiO₂ polymorphs for sustainable hydrogen production. *Applied Catalysis A: General*, 518, 167–175. <https://doi.org/10.1016/j.apcata.2015.09.022>

Ribeiro, L. S., Rodrigues, E. G., Delgado, J. J., Chen, X., Pereira, M. F. R., & Órfão, J. J. M. (2016). Pd, Pt, and Pt–Cu Catalysts Supported on Carbon Nanotube (CNT) for the Selective Oxidation of Glycerol in Alkaline and Base-Free Conditions. *Industrial & Engineering Chemistry Research*, 55(31), 8548–8556. <https://doi.org/10.1021/acs.iecr.6b01732>

Rey, A., Hungria, A. B., Duran-Valle, C. J., Faraldos, M., Bahamonde, A., Casas, J. A., & Rodriguez, J. J. (2016). On the optimization of activated carbon-supported iron catalysts in catalytic wet peroxide oxidation process. *Applied Catalysis B: Environmental*, 181, 249–259. <https://doi.org/10.1016/j.apcatb.2015.07.051>

Navas, J., Sánchez-Coronilla, A., Martín, E. I., Teruel, M., Gallardo, J. J., Aguilar, T., ... Martín-Calleja, J. (2016). On the enhancement of heat transfer fluid for concentrating solar power using Cu and Ni nanofluids: An experimental and molecular dynamics study. *Nano Energy*, 27, 213–224. <https://doi.org/10.1016/j.nanoen.2016.07.004>

Pedna, A., Pinho, L., Frediani, P., & Mosquera, M. J. (2016). Obtaining SiO₂–fluorinated PLA bionanocomposites with application as reversible and highly-hydrophobic coatings of buildings. *Progress in Organic Coatings*, 90, 91–100. <https://doi.org/10.1016/j.porgcoat.2015.09.024>

Gallardo, J. J., Navas, J., Zorrilla, D., Alcántara, R., Valor, D., Fernández-Lorenzo, C., & Martín-Calleja, J. (2016). Micro-Raman Spectroscopy for the Determination of Local Temperature Increases in TiO₂ Thin Films due to the Effect of Radiation. *Applied Spectroscopy*, 70(7), 1128–1136. <https://doi.org/10.1177/0003702816652323>

Montes, A., Wehner, L., Pereyra, C., & Ossa, E. J. M. de la. (2016). Mangiferin nanoparticles precipitation by supercritical antisolvent process. *The Journal of Supercritical Fluids*, 112, 44–50. <https://doi.org/10.1016/j.supflu.2016.02.008>

MÁNUEL, J. M., KOCH, C. T., ÖZDÖL, V. B., SIGLE, W., VAN AKEN, P. A., GARCÍA, R., & MORALES, F. M. (2016). Inline electron holography and VEELS for the measurement of strain in ternary and quaternary (In,Al,Ga)N alloyed thin films and its effect on bandgap energy. *Journal of Microscopy*, 261(1), 27–35. <https://doi.org/10.1111/jmi.12312>

Olmos, C. M., Chinchilla, L. E., Villa, A., Delgado, J. J., Pan, H., Hungría, A. B., ... Chen, X. (2016). Influence of pretreatment atmospheres on the performance of bimetallic Au-Pd supported on ceria-zirconia mixed oxide catalysts for benzyl alcohol oxidation. *Applied Catalysis A: General*, 525, 145–157. <https://doi.org/10.1016/j.apcata.2016.07.013>

Lloret, F., Araujo, D., Eon, D., del Pilar Villar, M., Gonzalez-Leal, J.-M., & Bustarret, E. (2016). Influence of methane concentration on MPCVD overgrowth of 100-oriented etched diamond substrates. *Physica Status Solidi (A)*, 213(10), 2570–2574. <https://doi.org/10.1002/pssa.201600182>

Pérez-Mezcua, D., Calzada, M. L., Bretos, I., Ricote, J., Jiménez, R., Fuentes-Cobas, L., ... Sirera, R. (2016). Influence of excesses of volatile elements on structure and composition of solution derived lead-free ($\text{Bi } 0.50 \text{ Na } 0.50$) $1x \text{ Ba} \times \text{TiO}_3$ thin films. *Journal of the European Ceramic Society*, 36(1), 89–100. <https://doi.org/10.1016/j.jeurceramsoc.2015.09.023>

Alvarez, R., Garcia-Valenzuela, A., Lopez-Santos, C., Ferrer, F. J., Rico, V., Guillen, E., ... Palmero, A. (2016). High-Rate Deposition of Stoichiometric Compounds by Reactive Magnetron Sputtering at Oblique Angles. *Plasma Processes and Polymers*, 13(10), 960–964. <https://doi.org/10.1002/ppap.201600019>

Montes, A., Wehner, L., Pereyra, C., & Martínez de la Ossa, E. J. (2016). Generation of microparticles of ellagic acid by supercritical antisolvent process. *The Journal of Supercritical Fluids*, 116, 101–110. <https://doi.org/10.1016/j.supflu.2016.05.019>

Gutierrez, M. I., Lopez-Haro, S. A., Vera, A., & Leija, L. (2016). Experimental Verification of Modeled Thermal Distribution Produced by a Piston Source in Physiotherapy Ultrasound. *BioMed Research International*, 2016, 1–16. <https://doi.org/10.1155/2016/5484735>

Cortés-Gil, R., Ruiz-González, M. L., González-Merchante, D., Alonso, J. M., Hernando, A., Trasobares, S., ... González-Calbet, J. M. (2016). Experimental Evidence of the Origin of Nanophase Separation in Low Hole-Doped Colossal Magnetoresistant Manganites. *Nano Letters*, 16(1), 760–765. <https://doi.org/10.1021/acs.nanolett.5b04704>

González-Álvarez, R. J., Naranjo-Rodríguez, I., Hernández-Artiga, M. P., Palacios-Santander, J. M., Cubillana-Aguilera, L., & Bellido-Milla, D. (2016). Experimental design applied to optimisation of silica nanoparticles size obtained by sonosynthesis. *Journal of Sol-Gel Science and Technology*, 80(2), 378–388. <https://doi.org/10.1007/s10971-016-4129-6>

Gallardo, J. J., Navas, J., Rodríguez Jara, E. A., José Sánchez de la Flor, F., & Martín-Calleja, J. (2016). Estimating the temperature of the active layer of dye sensitised solar cells by using a “second-order lumped parameter mathematical model.” *Solar Energy*, 137, 80–89. <https://doi.org/10.1016/j.solener.2016.08.005>

Fernandez-Garcia, S., Jiang, L., Tinoco, M., Hungria, A. B., Han, J., Blanco, G., ... Chen, X. (2016). Enhanced Hydroxyl Radical Scavenging Activity by Doping Lanthanum in Ceria Nanocubes. *The Journal of Physical Chemistry C*, 120(3), 1891–1901. <https://doi.org/10.1021/acs.jpcc.5b09495>

- Cargnello, M., Montini, T., Smolin, S. Y., Priebe, J. B., Delgado Jaén, J. J., Doan-Nguyen, V. V. T., ... Murray, C. B. (2016). Engineering titania nanostructure to tune and improve its photocatalytic activity. *Proceedings of the National Academy of Sciences*, 113(15), 3966–3971.
<https://doi.org/10.1073/pnas.1524806113>
- Palacios-Santander, J. M., Terzi, F., Zanardi, C., Pigani, L., Cubillana-Aguilera, L. M., Naranjo-Rodriguez, I., & Seeber, R. (2016). Electrocatalytic and antifouling properties of CeO₂-glassy carbon electrodes. *Journal of Solid State Electrochemistry*, 20(11), 3125–3131. <https://doi.org/10.1007/s10008-016-3413-2>
- Vidal, K., Larrañaga, A., Morán-Ruiz, A., Aguayo, A. T., Laguna-Bercero, M. A., Yeste, M. P., ... Arriortua, M. I. (2016). Effect of synthesis conditions on electrical and catalytical properties of perovskites with high value of A-site cation size mismatch. *International Journal of Hydrogen Energy*, 41(43), 19810–19818. <https://doi.org/10.1016/j.ijhydene.2016.02.088>
- Lefrançois, A., Pouget, S., Vaure, L., Lopez-Haro, M., & Reiss, P. (2016). Direct Synthesis of Highly Conductive *tert*-Butylthiol-Capped CuInS₂ Nanocrystals. *ChemPhysChem*, 17(5), 654–659. <https://doi.org/10.1002/cphc.201500800>
- Carvalho, D., Müller-Caspary, K., Schowalter, M., Grieb, T., Mehrtens, T., Rosenauer, A., ... Morales, F. M. (2016). Direct Measurement of Polarization-Induced Fields in GaN/AlN by Nano-Beam Electron Diffraction. *Scientific Reports*, 6(1), 28459. <https://doi.org/10.1038/srep28459>
- García, R., Blanco, E., & Domínguez, M. (2016). Development of a magneto-optical sensor prototype to measure current by means of the induced magnetic field. *Sensors and Actuators A: Physical*, 249, 231–241. <https://doi.org/10.1016/j.sna.2016.08.010>
- Carrasco, J. A., Prima-Garcia, H., Romero, J., Hernández-Saz, J., Molina, S. I., Abellán, G., & Coronado, E. (2016). CVD synthesis of carbon spheres using NiFe-LDHs as catalytic precursors: structural, electrochemical and magnetoresistive properties. *Journal of Materials Chemistry C*, 4(3), 440–448. <https://doi.org/10.1039/C5TC02861B>
- Gómez, J., Lasanta, C., Cubillana-Aguilera, L. M., Palacios-Santander, J. M., Arnedo, R., Casas, J. A., ... LLoret, I. (2016). Comprehensive chemical study of the acidification of musts in Sherry area with calcium sulphate and tartaric acid. *BIO Web of Conferences*, 7, 02023. <https://doi.org/10.1051/bioconf/20160702023>
- Bonef, B., Lopez-Haro, M., Amichi, L., Beeler, M., Grenier, A., Robin, E., ... Bougerol, C. (2016). Composition Analysis of III-Nitrides at the Nanometer Scale: Comparison of Energy Dispersive X-ray Spectroscopy and Atom Probe Tomography. *Nanoscale Research Letters*, 11(1), 461. <https://doi.org/10.1186/s11671-016-1668-2>

Chinchilla, L. E., Olmos, C., Kurttepeli, M., Bals, S., Van Tendeloo, G., Villa, A., ... Hungría, A. B. (2016). Combined Macroscopic, Nanoscopic, and Atomic-Scale Characterization of Gold-Ruthenium Bimetallic Catalysts for Octanol Oxidation. *Particle & Particle Systems Characterization*, 33(7), 419–437.
<https://doi.org/10.1002/ppsc.201600057>

Olmos, C. M., Chinchilla, L. E., Delgado, J. J., Hungría, A. B., Blanco, G., Calvino, J. J., & Chen, X. (2016). CO Oxidation over Bimetallic Au–Pd Supported on Ceria–Zirconia Catalysts: Effects of Oxidation Temperature and Au:Pd Molar Ratio. *Catalysis Letters*, 146(1), 144–156. <https://doi.org/10.1007/s10562-015-1641-1>

Giménez-Mañogil, J., Guillén-Hurtado, N., Fernández-García, S., Chen, X., Calvino-Gámez, J. J., & García-García, A. (2016). Ceria-Praseodymia Mixed Oxides: Relationships Between Redox Properties and Catalytic Activities Towards NO Oxidation to NO₂ and CO-PROX Reactions. *Topics in Catalysis*, 59(10–12), 1065–1070. <https://doi.org/10.1007/s11244-016-0591-1>

del Río, E., Hungría, A. B., Tinoco, M., Manzorro, R., Cauqui, M. A., Calvino, J. J., & Pérez-Omil, J. A. (2016). CeO₂-modified Au/TiO₂ catalysts with outstanding stability under harsh CO oxidation conditions. *Applied Catalysis B: Environmental*, 197, 86–94.
<https://doi.org/10.1016/j.apcatb.2016.04.037>

Gatica, J. M., García-Cabeza, A. L., Yeste, M. P., Marín-Barrios, R., González-Leal, J. M., Blanco, G., ... Vidal, H. (2016). Carbon integral honeycomb monoliths as support of copper catalysts in the Kharasch–Sosnovsky oxidation of cyclohexene. *Chemical Engineering Journal*, 290, 174–184.
<https://doi.org/10.1016/j.cej.2016.01.037>

Benítez, J. J., Heredia-Guerrero, J. A., de Vargas-Parody, M. I., Cruz-Carrillo, M. A., Morales-Flórez, V., de la Rosa-Fox, N., & Heredia, A. (2016). Biodegradable polyester films from renewable aleuritic acid: surface modifications induced by melt-polycondensation in air. *Journal of Physics D: Applied Physics*, 49(17), 175601. <https://doi.org/10.1088/0022-3727/49/17/175601>

Hernández-Saz, J., Herrera, M., Delgado, F. J., Duguay, S., Philippe, T., Gonzalez, M., ... Molina, S. I. (2016). Atom-scale compositional distribution in InAlAsSb-based triple junction solar cells by atom probe tomography. *Nanotechnology*, 27(30), 305402. <https://doi.org/10.1088/0957-4484/27/30/305402>

Dubau, L., Lopez-Haro, M., Durst, J., & Maillard, F. (2016). Atomic-scale restructuring of hollow PtNi/C electrocatalysts during accelerated stress tests. *Catalysis Today*, 262, 146–154. <https://doi.org/10.1016/j.cattod.2015.08.011>

Fernández-Delgado, N., Herrera, M., Chisholm, M. F., Kamarudin, M. A., Zhuang, Q. D., Hayne, M., & Molina, S. I. (2016). Atomic-column scanning transmission electron microscopy analysis of misfit dislocations in GaSb/GaAs quantum dots. *Journal of Materials Science*, 51(16), 7691–7698.
<https://doi.org/10.1007/s10853-016-0051-0>

- Hernández-Saz, J., Herrera, M., Molina, S. I., Stanley, C. R., & Duguay, S. (2016). Atom probe tomography analysis of InAlGaAs capped InAs/GaAs stacked quantum dots with variable barrier layer thickness. *Acta Materialia*, 103, 651–657. <https://doi.org/10.1016/j.actamat.2015.10.048>
- Ortega, J. J., Ortiz-Hernández, A. A., Berumen-Torres, J., Escobar-Galindo, R., Méndez-García, V. H., & Araiza, J. J. (2016). Ag-N dual acceptor doped p-type ZnO thin films by DC reactive magnetron co-sputtering. *Materials Letters*, 181, 12–15. <https://doi.org/10.1016/j.matlet.2016.06.005>
- Heras, I., Krause, M., Abrasonis, G., Pardo, A., Endrino, J. L., Guillén, E., & Escobar-Galindo, R. (2016). Advanced characterization and optical simulation for the design of solar selective coatings based on carbon: transition metal carbide nanocomposites. *Solar Energy Materials and Solar Cells*, 157, 580–590. <https://doi.org/10.1016/j.solmat.2016.07.011>
- Concepción, P., García, S., Hernández-Garrido, J. C., Calvino, J. J., & Corma, A. (2016). A promoting effect of dilution of Pd sites due to gold surface segregation under reaction conditions on supported Pd–Au catalysts for the selective hydrogenation of 1,5-cyclooctadiene. *Catalysis Today*, 259, 213–221. <https://doi.org/10.1016/j.cattod.2015.07.022>
- Ribeiro, L. S., Delgado, J. J., de Melo Órfão, J. J., & Ribeiro Pereira, M. F. (2016). A one-pot method for the enhanced production of xylitol directly from hemicellulose (corncob xylan). *RSC Advances*, 6(97), 95320–95327. <https://doi.org/10.1039/C6RA19666G>
- Attar, A., Amine, A., Achi, F., Bacha, S. B., Bourouina, M., Cubillana-Aguilera, L., ... Errachid, A. (2016). A novel amperometric inhibition biosensor based on HRP and gold sononanoparticles immobilised onto Sonogel-Carbon electrode for the determination of sulphides. *International Journal of Environmental Analytical Chemistry*, 96(6), 515–529. <https://doi.org/10.1080/03067319.2016.1172216>

PUBLICACIONES INDEXADAS en 2015: 69

- Gatica, J. M., Cifredo, G. A., Blanco, G., Trasobares, S., & Vidal, H. (2015). Unveiling the source of activity of carbon integral honeycomb monoliths in the catalytic methane decomposition reaction. *Catalysis Today*, 249, 86–93. <https://doi.org/10.1016/j.cattod.2014.12.015>
- De los Santos, D. M., Navas, J., Aguilar, T., Sánchez-Coronilla, A., Fernández-Lorenzo, C., Alcántara, R., ... Martín-Calleja, J. (2015). Tm-doped TiO₂ and Tm₂Ti₂O₇ pyrochlore nanoparticles: enhancing the photocatalytic activity of rutile with a pyrochlore phase. *Beilstein Journal of Nanotechnology*, 6, 605–616. <https://doi.org/10.3762/bjnano.6.62>

- Aguilar, T., Navas, J., De los Santos, D. M., Sánchez-Coronilla, A., Fernández-Lorenzo, C., Alcántara, R., ... Martín-Calleja, J. (2015). TiO₂ and pyrochlore Tm₂Ti₂O₇ based semiconductor as a photoelectrode for dye-sensitized solar cells. *Journal of Physics D: Applied Physics*, 48(14), 145102. <https://doi.org/10.1088/0022-3727/48/14/145102>
- Félix, R., Peres, M., Magalhães, S., Correia, M. R., Lourenço, A., Monteiro, T., ... Morales, F. M. (2015). The Role of Edge Dislocations on the Red Luminescence of ZnO Films Deposited by RF-Sputtering. *Journal of Nanomaterials*, 2015, 1–11. <https://doi.org/10.1155/2015/970545>
- Castellanos-Rubio, I., Insausti, M., de Muro, I. G., Arias-Duque, D. C., Hernández-Garrido, J. C., Rojo, T., & Lezama, L. (2015). The impact of the chemical synthesis on the magnetic properties of intermetallic PdFe nanoparticles. *Journal of Nanoparticle Research*, 17(5), 229. <https://doi.org/10.1007/s11051-015-3042-1>
- Lloret, F., Araujo, D., Alegre, M. P., Gonzalez-Leal, J. M., Villar, M. P., Eon, D., & Bustarret, E. (2015). TEM study of defects versus growth orientations in heavily boron-doped diamond. *Physica Status Solidi (A)*, 212(11), 2468–2473. <https://doi.org/10.1002/pssa.201532175>
- de Kergommeaux, A., Lopez-Haro, M., Pouget, S., Zuo, J.-M., Lebrun, C., Chandezon, F., ... Reiss, P. (2015). Synthesis, Internal Structure, and Formation Mechanism of Monodisperse Tin Sulfide Nanoplatelets. *Journal of the American Chemical Society*, 137(31), 9943–9952. <https://doi.org/10.1021/jacs.5b05576>
- Aguilar, T., Navas, J., Alcántara, R., Fernández-Lorenzo, C., Blanco, G., Sánchez-Coronilla, A., & Martín-Calleja, J. (2015). Surface thulium-doped TiO₂ nanoparticles used as photoelectrodes in dye-sensitized solar cells: improving the open-circuit voltage. *Applied Physics A*, 121(3), 1261–1269. <https://doi.org/10.1007/s00339-015-9503-7>
- de los Santos, D. M., Navas, J., Aguilar, T., Sánchez-Coronilla, A., Alcántara, R., Fernández-Lorenzo, C., ... Calleja, J. M. (2015). Study of thulium doping effect and enhancement of photocatalytic activity of rutile TiO₂ nanoparticles. *Materials Chemistry and Physics*, 161, 175–184. <https://doi.org/10.1016/j.matchemphys.2015.05.034>
- Herrera, J. M., Titos-Padilla, S., Pope, S. J. A., Berlanga, I., Zamora, F., Delgado, J. J., ... Colacio, E. (2015). Studies on bifunctional Fe(ii)-triazole spin crossover nanoparticles: time-dependent luminescence, surface grafting and the effect of a silica shell and hydrostatic pressure on the magnetic properties. *Journal of Materials Chemistry C*, 3(30), 7819–7829. <https://doi.org/10.1039/C5TC00685F>
- Franco-Mariscal, A. J., Oliva-Martínez, J. M., & Almoraima Gil, M. L. (2015). Students' Perceptions about the Use of Educational Games as a Tool for Teaching the Periodic Table of Elements at the High School Level. *Journal of Chemical Education*, 92(2), 278–285. <https://doi.org/10.1021/ed4003578>

- Soto Rodriguez, P. E. D., Aseev, P., Gómez, V. J., Kumar, P., Ul Hassan Alvi, N., Calleja, E., ... Nötzel, R. (2015). Stranski-Krastanov InN/InGaN quantum dots grown directly on Si(111). *Applied Physics Letters*, 106(2), 023105. <https://doi.org/10.1063/1.4905662>
- Heras, I., Guillén, E., Krause, M., Pardo, A., Endrino, J. L., & Escobar Galindo, R. (2015). Solar selective coatings based on carbon: transition metal nanocomposites. In A. P. Plesniak & A. J. Prescod (Eds.) (p. 955908). <https://doi.org/10.1117/12.2189515>
- Manninen, N. K., Galindo, R. E., Carvalho, S., & Cavaleiro, A. (2015). Silver surface segregation in Ag-DLC nanocomposite coatings. *Surface and Coatings Technology*, 267, 90–97. <https://doi.org/10.1016/j.surfcoat.2014.12.029>
- Ferreri, I., Calderon V., S., Escobar Galindo, R., Palacio, C., Henriques, M., Piedade, A. P., & Carvalho, S. (2015). Silver activation on thin films of Ag-ZrCN coatings for antimicrobial activity. *Materials Science and Engineering: C*, 55, 547–555. <https://doi.org/10.1016/j.msec.2015.05.071>
- García-Guzmán, J. J., Hernández-Artiga, M. P., Palacios-Ponce de León, L., & Bellido-Milla, D. (2015). Selective methods for polyphenols and sulphur dioxide determination in wines. *Food Chemistry*, 182, 47–54. <https://doi.org/10.1016/j.foodchem.2015.02.101>
- Montes, A., Pereyra, C., & de la Ossa, E. J. M. (2015). Screening design of experiment applied to the supercritical antisolvent precipitation of quercetin. *The Journal of Supercritical Fluids*, 104, 10–18. <https://doi.org/10.1016/j.supflu.2015.05.019>
- Chinchilla, L. E., Olmos, C. M., Villa, A., Carlsson, A., Prati, L., Chen, X., ... Hungría, A. B. (2015). Ru-modified Au catalysts supported on ceria–zirconia for the selective oxidation of glycerol. *Catalysis Today*, 253, 178–189. <https://doi.org/10.1016/j.cattod.2015.02.030>
- Guillén, E., Heras, I., Rincón Llorente, G., Lungwitz, F., Alcon-Camas, M., & Escobar-Galindo, R. (2015). Room temperature deposition of highly dense TiO₂ thin films by filtered cathodic vacuum arc. In A. Lakhtakia, T. G. Mackay, & M. Suzuki (Eds.) (p. 95580S). <https://doi.org/10.1117/12.2189503>
- Domínguez-Meister, S., El Mrabet, S., Escobar-Galindo, R., Mariscal, A., Jiménez de Haro, M. C., Justo, A., ... Sánchez-López, J. C. (2015). Role of Y in the oxidation resistance of CrAlYN coatings. *Applied Surface Science*, 353, 504–511. <https://doi.org/10.1016/j.apsusc.2015.06.099>
- Navas, J., Sánchez-Coronilla, A., Gallardo, J. J., Martín, E. I., Hernández, N. C., Alcántara, R., ... Martín-Calleja, J. (2015). Revealing the role of Pb²⁺ in the stability of organic–inorganic hybrid perovskite CH₃NH₃Pb_{1-x}Cd_xI₃: an experimental and theoretical study. *Physical Chemistry Chemical Physics*, 17(37), 23886–23896. <https://doi.org/10.1039/C5CP04009D>
- Morgan, K., Burch, R., Daous, M., Delgado, J.-J., Goguet, A., Hardacre, C., ... Rooney, D. W. (2015). Re-dispersion of gold supported on a ‘mixed **b**’ oxide support. *Catalysis, Structure & Reactivity*, 1(3), 120–124. <https://doi.org/10.1179/2055075815Y.0000000005>

Carvalho, D., Morales, F. M., Ben, T., García, R., Redondo-Cubero, A., Alves, E., ... Wetzel, C. (2015). Quantitative Chemical Mapping of InGaN Quantum Wells from Calibrated High-Angle Annular Dark Field Micrographs. *Microscopy and Microanalysis*, 21(04), 994–1005.
<https://doi.org/10.1017/S143192761501301X>

Chinnarasu, C., Montes, A., Ponce, M. T. F.-, Casas, L., Mantell, C., Pereyra, C., & de la Ossa, E. J. M. (2015). Precipitation of antioxidant fine particles from Olea europaea leaves using supercritical antisolvent process. *The Journal of Supercritical Fluids*, 97, 125–132.
<https://doi.org/10.1016/j.supflu.2014.11.008>

Cui, L., Wang, P., Chen, X., Fang, Y., Zhang, Z., & Sun, M. (2015). Plasmon-driven dimerization via S-S chemical bond in an aqueous environment. *Scientific Reports*, 4(1), 7221. <https://doi.org/10.1038/srep07221>

Blanco, E., González-Leal, J. M., & Ramírez-del Solar, M. (2015). Photocatalytic TiO₂ sol–gel thin films: Optical and morphological characterization. *Solar Energy*, 122, 11–23. <https://doi.org/10.1016/j.solener.2015.07.048>

Romero Ocaña, I., Beltram, A., Delgado Jaén, J. J., Adami, G., Montini, T., & Fornasiero, P. (2015). Photocatalytic H₂ production by ethanol photodehydrogenation: Effect of anatase/brookite nanocomposites composition. *Inorganica Chimica Acta*, 431, 197–205.
<https://doi.org/10.1016/j.ica.2015.01.033>

Navas, J., Sánchez-Coronilla, A., Gallardo, J. J., Cruz Hernández, N., Piñero, J. C., Alcántara, R., ... Martín-Calleja, J. (2015). New insights into organic–inorganic hybrid perovskite CH₃NH₃PbI₃ nanoparticles. An experimental and theoretical study of doping in Pb²⁺ sites with Sn²⁺, Sr²⁺, Cd²⁺ and. *Nanoscale*, 7(14), 6216–6229. <https://doi.org/10.1039/C5NR00041F>

Aseev, P., Rodriguez, P. E. D. S., Gómez, V. J., Alvi, N. ul H., Mánuel, J. M., Morales, F. M., ... Nötzel, R. (2015). Near-infrared emitting In-rich InGaN layers grown directly on Si: Towards the whole composition range. *Applied Physics Letters*, 106(7), 072102. <https://doi.org/10.1063/1.4909515>

Chinnarasu, C., Montes, A., Fernandez-Ponce, M. T., Casas, L., Mantell, C., Pereyra, C., ... Pattabhi, S. (2015). Natural antioxidant fine particles recovery from Eucalyptus globulus leaves using supercritical carbon dioxide assisted processes. *The Journal of Supercritical Fluids*, 101, 161–169.
<https://doi.org/10.1016/j.supflu.2015.03.013>

Díaz-Fernández, D., Méndez, J., del Campo, A., Mossanek, R. J. O., Abbate, M., Rodríguez, M. A., ... Soriano, L. (2015). Nanopatterning on highly oriented pyrolytic graphite surfaces promoted by cobalt oxides. *Carbon*, 85, 89–98. <https://doi.org/10.1016/j.carbon.2014.12.049>

Soares, O. S. G. P., Gonçalves, A. G., Delgado, J. J., Órfão, J. J. M., & Pereira, M. F. R. (2015). Modification of carbon nanotubes by ball-milling to be used as ozonation catalysts. *Catalysis Today*, 249, 199–203. <https://doi.org/10.1016/j.cattod.2014.11.016>

López-Haro, S. A., Gutiérrez, M. I., Vera, A., & Leija, L. (2015). Modeling the thermo-acoustic effects of thermal-dependent speed of sound and acoustic absorption of biological tissues during focused ultrasound hyperthermia. *Journal of Medical Ultrasonics*, 42(4), 489–498. <https://doi.org/10.1007/s10396-015-0643-3>

Santos, V. P., Wezendonk, T. A., Jaén, J. J. D., Dugulan, A. I., Nasalevich, M. A., Islam, H.-U., ... Gascon, J. (2015). Metal organic framework-mediated synthesis of highly active and stable Fischer-Tropsch catalysts. *Nature Communications*, 6(1), 6451. <https://doi.org/10.1038/ncomms7451>

Díaz-Egea, C., Ben, T., Herrera, M., Hernández, J., Pedrueza, E., Valdés, J. L., ... Molina, S. I. (2015). Mapping the plasmonic response of gold nanoparticles embedded in TiO₂ thin films. *Nanotechnology*, 26(40), 405702. <https://doi.org/10.1088/0957-4484/26/40/405702>

Tinoco, M., Sanchez, J. J., Yeste, M. P., Lopez-Haro, M., Trasobares, S., Hungria, A. B., ... Calvino, J. J. (2015). Low-Lanthanide-Content CeO₂/MgO Catalysts with Outstandingly Stable Oxygen Storage Capacities: An In-Depth Structural Characterization by Advanced STEM Techniques. *ChemCatChem*, 7(22), 3763–3778. <https://doi.org/10.1002/cctc.201500855>

Cullen, D. A., Lopez-Haro, M., Bayle-Guillemaud, P., Guetaz, L., Debe, M. K., & Steinbach, A. J. (2015). Linking morphology with activity through the lifetime of pretreated PtNi nanostructured thin film catalysts. *Journal of Materials Chemistry A*, 3(21), 11660–11667. <https://doi.org/10.1039/C5TA01854D>

Pinto, T. V., Fernandes, D. M., Pereira, C., Guedes, A., Blanco, G., Pintado, J. M., ... Freire, C. (2015). Lanthano phosphomolybdate-decorated silica nanoparticles: novel hybrid materials with photochromic properties. *Dalton Transactions*, 44(10), 4582–4593. <https://doi.org/10.1039/C5DT00090D>

Aguilar, T., Navas, J., Fernández-Lorenzo, C., Alcántara, R., Gallardo, J. J., De los Santos, D. M., & Martín-Calleja, J. (2015). Incorporation of Al-(hydr)oxide species onto the surface of TiO₂ nanoparticles: Improving the open-circuit voltage in dye-sensitized solar cells. *Thin Solid Films*, 578, 167–173. <https://doi.org/10.1016/j.tsf.2015.02.045>

García, R., Ramírez-del-Solar, M., González-Leal, J. M., Blanco, E., & Domínguez, M. (2015). Improving Magneto-optical Faraday Effect of maghemite/silica nanocomposites. *Materials Chemistry and Physics*, 154, 1–9. <https://doi.org/10.1016/j.matchemphys.2014.12.049>

Echániz, T., Setién-Fernández, I., Pérez-Sáez, R. B., Prieto, C., Galindo, R. E., & Tello, M. J. (2015). Importance of the spectral emissivity measurements at working temperature to determine the efficiency of a solar selective coating. *Solar Energy Materials and Solar Cells*, 140, 249–252. <https://doi.org/10.1016/j.solmat.2015.04.009>

- Puértolas, B., Mayoral, Á., Arenal, R., Solsona, B., Moragues, A., Murcia-Mascaros, S., ... García, T. (2015). High-Temperature Stable Gold Nanoparticle Catalysts for Application under Severe Conditions: The Role of TiO₂ Nanodomains in Structure and Activity. *ACS Catalysis*, 5(2), 1078–1086. <https://doi.org/10.1021/cs501741u>
- de los Santos, D. M., Navas, J., Sánchez-Coronilla, A., Alcántara, R., Fernández-Lorenzo, C., & Martín-Calleja, J. (2015). Highly Al-doped TiO₂ nanoparticles produced by Ball Mill Method: structural and electronic characterization. *Materials Research Bulletin*, 70, 704–711. <https://doi.org/10.1016/j.materresbull.2015.06.008>
- Díaz-Egea, C., Abargues, R., Martínez-Pastor, J. P., Sigle, W., van Aken, P. A., & Molina, S. I. (2015). High spatial resolution mapping of individual and collective localized surface plasmon resonance modes of silver nanoparticle aggregates: correlation to optical measurements. *Nanoscale Research Letters*, 10(1), 310. <https://doi.org/10.1186/s11671-015-1024-y>
- Muñoz-Batista, M. J., Kubacka, A., Hungría, A. B., & Fernández-García, M. (2015). Heterogeneous photocatalysis: Light-matter interaction and chemical effects in quantum efficiency calculations. *Journal of Catalysis*, 330, 154–166. <https://doi.org/10.1016/j.jcat.2015.06.021>
- Blanco, E., Blanco, G., Gonzalez-Leal, J. M., Barrera, M. C., Domínguez, M., & Ramirez-del-Solar, M. (2015). Green and fast synthesis of amino-functionalized graphene quantum dots with deep blue photoluminescence. *Journal of Nanoparticle Research*, 17(5), 214. <https://doi.org/10.1007/s11051-015-3024-3>
- Gómez, J., Gil, M. L. A., de la Rosa-Fox, N., & Alguacil, M. (2015). Formation of siliceous sediments in brandy after diatomite filtration. *Food Chemistry*, 170, 84–89. <https://doi.org/10.1016/j.foodchem.2014.08.028>
- Primus, P.-A., Menski, A., Yeste, M. P., Cauqui, M. A., & Kumke, M. U. (2015). Fluorescence Line-Narrowing Spectroscopy as a Tool to Monitor Phase Transitions and Phase Separation in Efficient Nanocrystalline Ce_xZr_{1-x}O₂:Eu³⁺ Catalyst Materials. *The Journal of Physical Chemistry C*, 119(19), 10682–10692. <https://doi.org/10.1021/acs.jpcc.5b01271>
- Bakkali, H., Dominguez, M., Batlle, X., & Labarta, A. (2015). Equivalent circuit modeling of the ac response of Pd-ZrO₂ granular metal thin films using impedance spectroscopy. *Journal of Physics D: Applied Physics*, 48(33), 335306. <https://doi.org/10.1088/0022-3727/48/33/335306>
- Calderon V, S., Ferreri, I., Escobar Galindo, R., Henriques, M., Cavaleiro, A., & Carvalho, S. (2015). Electrochemical vs antibacterial characterization of ZrCN–Ag coatings. *Surface and Coatings Technology*, 275, 357–362. <https://doi.org/10.1016/j.surfcoat.2015.04.042>
- De Rosario, I., Elhaddad, F., Pan, A., Benavides, R., Rivas, T., & Mosquera, M. J. (2015). Effectiveness of a novel consolidant on granite: Laboratory and in situ results. *Construction and Building Materials*, 76, 140–149. <https://doi.org/10.1016/j.conbuildmat.2014.11.055>

McManus, I., Daly, H., Thompson, J. M., Connor, E., Hardacre, C., Wilkinson, S. K., ... Delgado, J. J. (2015). Effect of solvent on the hydrogenation of 4-phenyl-2-butanone over Pt based catalysts. *Journal of Catalysis*, 330, 344–353. <https://doi.org/10.1016/j.jcat.2015.06.008>

Fernández-Delgado, N., Herrera, M., Molina, S. I., Castro, C., Duguay, S., James, J. S., & Krier, A. (2015). Effect of doping on the morphology of GaSb/GaAs nanostructures for solar cells. *Applied Surface Science*, 359, 676–678. <https://doi.org/10.1016/j.apsusc.2015.10.161>

Matos, J., Borodzinski, A., Zychora, A. M., Kedzierzawski, P., Mierzwa, B., Juchniewicz, K., ... Hernández-Garrido, J. C. (2015). Direct formic acid fuel cells on Pd catalysts supported on hybrid TiO₂-C materials. *Applied Catalysis B: Environmental*, 163, 167–178. <https://doi.org/10.1016/j.apcatb.2014.07.063>

Kumar, A., Yeole, S. D., Gadre, S. R., López, R., Rico, J. F., Ramírez, G., ... Zorrilla, D. (2015). DAMQT 2.1.0: A new version of the DAMQT package enabled with the topographical analysis of electron density and electrostatic potential in molecules. *Journal of Computational Chemistry*, 36(31), 2350–2359. <https://doi.org/10.1002/jcc.24212>

López, R., Rico, J. F., Ramírez, G., Ema, I., & Zorrilla, D. (2015). DAMQT 2.0: A new version of the DAMQT package for the analysis of electron density in molecules. *Computer Physics Communications*, 192(9), 289–294. Retrieved from <http://linkinghub.elsevier.com/retrieve/pii/S0010465515000855>

Tinoco, M., Fernandez-Garcia, S., Lopez-Haro, M., Hungria, A. B., Chen, X., Blanco, G., ... Calvino, J. J. (2015). Critical Influence of Nanofaceting on the Preparation and Performance of Supported Gold Catalysts. *ACS Catalysis*, 5(6), 3504–3513. <https://doi.org/10.1021/acscatal.5b00086>

Hernández-Garrido, J. C., Gaona, D., Gómez, D. M., Gatica, J. M., Vidal, H., Sanz, O., ... Calvino, J. J. (2015). Comparative study of the catalytic performance and final surface structure of Co₃O₄/La-CeO₂ washcoated ceramic and metallic honeycomb monoliths. *Catalysis Today*, 253, 190–198. <https://doi.org/10.1016/j.cattod.2015.01.035>

Gómez, J., Lasanta, C., Palacios-Santander, J. M., & Cubillana-Aguilera, L. M. (2015). Chemical modeling for pH prediction of acidified musts with gypsum and tartaric acid in warm regions. *Food Chemistry*, 168, 218–224. <https://doi.org/10.1016/j.foodchem.2014.07.058>

Gamboa-Rosales, N. K., Ayastuy, J. L., Boukha, Z., Bion, N., Duprez, D., Pérez-Omil, J. A., ... Gutiérrez-Ortiz, M. A. (2015). Ceria-supported Au–CuO and Au–Co₃O₄ catalysts for CO oxidation: An ¹⁸O / ¹⁶O isotopic exchange study. *Applied Catalysis B: Environmental*, 168–169, 87–97. <https://doi.org/10.1016/j.apcatb.2014.12.020>

Redondo-Cubero, A., Lorenz, K., Wendler, E., Magalhães, S., Alves, E., Carvalho, D., ... Wetzel, C. (2015). Analysis of the stability of InGaN/GaN multiquantum wells against ion beam intermixing. *Nanotechnology*, 26(42), 425703. <https://doi.org/10.1088/0957-4484/26/42/425703>

- Attar, A., Cubillana-Aguilera, L., Naranjo-Rodríguez, I., de Cisneros, J. L. H.-H., Palacios-Santander, J. M., & Amine, A. (2015). Amperometric inhibition biosensors based on horseradish peroxidase and gold sononanoparticles immobilized onto different electrodes for cyanide measurements. *Bioelectrochemistry*, 101, 84–91. <https://doi.org/10.1016/j.bioelechem.2014.08.003>
- Pinho, L., Rojas, M., & Mosquera, M. J. (2015). Ag–SiO₂–TiO₂ nanocomposite coatings with enhanced photoactivity for self-cleaning application on building materials. *Applied Catalysis B: Environmental*, 178, 144–154. <https://doi.org/10.1016/j.apcatb.2014.10.002>
- García-Cabeza, A. L., Marín-Barrios, R., Moreno-Dorado, F. J., Ortega, M. J., Vidal, H., Gatica, J. M., ... Guerra, F. M. (2015). Acyloxylation of 1,4-Dioxanes and 1,4-Dithianes Catalyzed by a Copper–Iron Mixed Oxide. *The Journal of Organic Chemistry*, 80(13), 6814–6821. <https://doi.org/10.1021/acs.joc.5b01043>
- Gómez, J., Lasanta, C., Cubillana-Aguilera, L. M., Palacios-Santander, J. M., Arnedo, R., Casas, J. A., & Arroyo, L. (2015). Acidification of musts in warm regions with tartaric acid and calcium sulfate at industrial scale. *BIO Web of Conferences*, 5, 02007. <https://doi.org/10.1051/bioconf/20150502007>
- Kral, S., Zeiner, C., Stöger-Pollach, M., Bertagnolli, E., den Hertog, M. I., Lopez-Haro, M., ... Lugstein, A. (2015). Abrupt Schottky Junctions in Al/Ge Nanowire Heterostructures. *Nano Letters*, 15(7), 4783–4787. <https://doi.org/10.1021/acs.nanolett.5b01748>
- Gallardo, J. J., Navas, J., Zorrilla, D., Alcántara, R., Valor, D., Sánchez-Coronilla, A., ... Martín-Calleja, J. (2015). A Study of Overheating of Thermostatically Controlled TiO₂ Thin Films by Using Raman Spectroscopy. *ChemPhysChem*, 16(18), 3949–3958. <https://doi.org/10.1002/cphc.201500933>
- López-Tenllado, F. J., Murcia-López, S., Gómez, D. M., Marinas, A., Marinas, J. M., Urbano, F. J., ... Gatica, J. M. (2015). A comparative study of Bi₂WO₆, CeO₂, and TiO₂ as catalysts for selective photo-oxidation of alcohols to carbonyl compounds. *Applied Catalysis A: General*, 505, 375–381. <https://doi.org/10.1016/j.apcata.2015.08.013>
- Hernández-Saz, J., Herrera, M., Molina, S. I., Stanley, C. R., & Duguay, S. (2015). 3D compositional analysis at atomic scale of InAlGaAs capped InAs/GaAs QDs. *Scripta Materialia*, 103, 73–76. <https://doi.org/10.1016/j.scriptamat.2015.03.013>

PUBLICACIONES INDEXADAS en 2014: 65

- Hidalgo-Carrillo, J., Marinas, A., Marinas, J. M., Delgado, J. J., Raya-Miranda, R., & Urbano, F. J. (2014). Water as solvent in the liquid-phase selective hydrogenation of crotonaldehyde to crotyl alcohol over Pt/ZnO: A factorial design approach. *Applied Catalysis B: Environmental*, 154–155, 369–378. <https://doi.org/10.1016/j.apcatb.2014.02.023>
- Reina, T. R., Ivanova, S., Delgado, J. J., Ivanov, I., Idakiev, V., Tabakova, T., ... Odriozola, J. A. (2014). Viability of Au/CeO₂-ZnO/Al₂O₃ Catalysts for Pure Hydrogen Production by the Water-Gas Shift Reaction. *ChemCatChem*, n/a-n/a. <https://doi.org/10.1002/cctc.201300992>
- Daly, H., Manyar, H. G., Morgan, R., Thompson, J. M., Delgado, J.-J., Burch, R., & Hardacre, C. (2014). Use of Short Time-on-Stream Attenuated Total Internal Reflection Infrared Spectroscopy To Probe Changes in Adsorption Geometry for Determination of Selectivity in the Hydrogenation of Citral. *ACS Catalysis*, 4(8), 2470–2478. <https://doi.org/10.1021/cs500185n>
- Vecchietti, J., Bonivardi, A., Xu, W., Stacchiola, D., Delgado, J. J., Calatayud, M., & Collins, S. E. (2014). Understanding the Role of Oxygen Vacancies in the Water Gas Shift Reaction on Ceria-Supported Platinum Catalysts. *ACS Catalysis*, 4(6), 2088–2096. <https://doi.org/10.1021/cs500323u>
- Lopez-Haro, M., Guétaz, L., Printemps, T., Morin, A., Escribano, S., Jouneau, P.-H., ... Gebel, G. (2014). Three-dimensional analysis of Nafion layers in fuel cell electrodes. *Nature Communications*, 5(1), 5229. <https://doi.org/10.1038/ncomms6229>
- Navas, J., Sánchez-Coronilla, A., Aguilar, T., De los Santos, D. M., Hernández, N. C., Alcántara, R., ... Martín-Calleja, J. (2014). Thermo-selective Tm_xTi_{1-x}O_{2-x/2} nanoparticles: from Tm-doped anatase TiO₂ to a rutile/pyrochlore Tm₂Ti₂O₇ mixture. An experimental and theoretical study with a photocatalytic application. *Nanoscale*, 6(21), 12740–12757. <https://doi.org/10.1039/C4NR03715D>
- Hakeem, A. A., S. Vásquez, R., Rajendran, J., Li, M., Berger, R. J., Delgado, J. J., ... Makkee, M. (2014). The role of rhodium in the mechanism of the water–gas shift over zirconia supported iron oxide. *Journal of Catalysis*, 313, 34–45. <https://doi.org/10.1016/j.jcat.2014.02.010>
- Díaz-Fernández, D., Méndez, J., Bomati-Miguel, O., Yubero, F., Mossanek, R. J. O., Abbate, M., ... Soriano, L. (2014). The growth of cobalt oxides on HOPG and SiO₂ surfaces: A comparative study. *Surface Science*, 624, 145–153. <https://doi.org/10.1016/j.susc.2014.02.007>
- Romero-Hermida, I., Morales-Flórez, V., Santos, A., Villena, A., & Esquivias, L. (2014). Technological Proposals for Recycling Industrial Wastes for Environmental Applications. *Minerals*, 4(3), 746–757. <https://doi.org/10.3390/min4030746>

- Gómez, D. M., Galvita, V. V., Gatica, J. M., Vidal, H., & Marin, G. B. (2014). TAP study of toluene total oxidation over a $\text{Co}_3\text{O}_4/\text{La-CeO}_2$ catalyst with an application as a washcoat of cordierite honeycomb monoliths. *Phys. Chem. Chem. Phys.*, 16(23), 11447–11455. <https://doi.org/10.1039/C4CP00886C>
- Navas, J., Iglesias-Arnaiz, J. M., Fernández-Lorenzo, C., Alcántara, R., Blanco, G., De Los Santos, D. M., ... Martín-Calleja, J. (2014). Synthesis and Characterization of Gel-Derived, Highly Al-Doped $\text{TiO}_{2-\delta}$ ($\text{Al}^{1-x}\text{Ti}^{1+\delta}\text{O}_2$) Nanoparticles. *Science of Advanced Materials*, 6(10), 2134–2145. <https://doi.org/10.1166/sam.2014.1978>
- González-Leal, J. M. (2014). Surface and conformational characteristics of $\text{As}_{40}\text{S}_{60}$ glass films prepared by continuous-wave laser deposition. *Materials Research Express*, 1(1), 015201. <https://doi.org/10.1088/2053-1591/1/1/015201>
- Yuste, M., Escobar Galindo, R., Martínez Sacristán, O., Mínguez-Bacho, I., Rodriguez, S., Hernández-Vélez, M., & Sánchez, O. (2014). Structural and optical characterization of nanostructured ZnO grown on alumina templates. *Materials Research Express*, 1(4), 045028. <https://doi.org/10.1088/2053-1591/1/4/045028>
- Santos, V. P., Carabineiro, S. A. C., Bakker, J. J. W., Soares, O. S. G. P., Chen, X., Pereira, M. F. R., ... Kapteijn, F. (2014). Stabilized gold on cerium-modified cryptomelane: Highly active in low-temperature CO oxidation. *Journal of Catalysis*, 309, 58–65. <https://doi.org/10.1016/j.jcat.2013.08.030>
- del Río, E., Gaona, D., Hernández-Garrido, J. C., Calvino, J. J., Basallote, M. G., Fernández-Trujillo, M. J., ... Gatica, J. M. (2014). Speciation-controlled incipient wetness impregnation: A rational synthetic approach to prepare sub-nanosized and highly active ceria–zirconia supported gold catalysts. *Journal of Catalysis*, 318, 119–127. <https://doi.org/10.1016/j.jcat.2014.07.001>
- Franco-Romano, M., Gil, M. L. A., Palacios-Santander, J. M., Delgado-Jaén, J. J., Naranjo-Rodríguez, I., Hidalgo-Hidalgo de Cisneros, J. L., & Cubillana-Aguilera, L. M. (2014). Sonosynthesis of gold nanoparticles from a geranium leaf extract. *Ultrasonics Sonochemistry*, 21(4), 1570–1577. <https://doi.org/10.1016/j.ultsonch.2014.01.017>
- de los Santos, D. M., Montes, A., Sánchez-Coronilla, A., & Navas, J. (2014). Sol–Gel Application for Consolidating Stone: An Example of Project-Based Learning in a Physical Chemistry Lab. *Journal of Chemical Education*, 91(9), 1481–1485. <https://doi.org/10.1021/ed4008414>
- García, V., Zorrilla, D., & Fernández, M. (2014). Simplified box orbitals: A spatially restricted alternative to the slater-type orbitals. *International Journal of Quantum Chemistry*, 114(23), 1581–1593. <https://doi.org/10.1002/qua.24727>

Perret, N., Wang, X., Delgado, J. J., Blanco, G., Chen, X., Olmos, C. M., ... Keane, M. A. (2014). Selective hydrogenation of benzoic acid over Au supported on CeO₂ and Ce 0.62 Zr 0.38 O₂: Formation of benzyl alcohol. *Journal of Catalysis*, 317, 114–125. <https://doi.org/10.1016/j.jcat.2014.06.010>

del Río, E., Collins, S. E., Aguirre, A., Chen, X., Delgado, J. J., Calvino, J. J., & Bernal, S. (2014). Reversible deactivation of a Au/Ce0.62Zr0.38O2 catalyst in CO oxidation: A systematic study of CO₂-triggered carbonate inhibition. *Journal of Catalysis*, 316, 210–218. <https://doi.org/10.1016/j.jcat.2014.05.016>

Durst, J., Lopez-Haro, M., Dubau, L., Chatenet, M., Soldo-Olivier, Y., Guétaz, L., ... Maillard, F. (2014). Reversibility of Pt-Skin and Pt-Skeleton Nanostructures in Acidic Media. *The Journal of Physical Chemistry Letters*, 5(3), 434–439. <https://doi.org/10.1021/jz4025707>

Kapridaki, C., Pinho, L., Mosquera, M. J., & Maravelaki-Kalaitzaki, P. (2014). Producing photoactive, transparent and hydrophobic SiO₂-crystalline TiO₂ nanocomposites at ambient conditions with application as self-cleaning coatings. *Applied Catalysis B: Environmental*, 156–157, 416–427. <https://doi.org/10.1016/j.apcatb.2014.03.042>

Nuñez-Moraleda, B., Pizarro, J., Guerrero, E., Guerrero-Lebrero, M. P., Yáñez, A., Molina, S. I., & Galindo, P. L. (2014). Preferential sites for InAsP/InP quantum wire nucleation using molecular dynamics. *The European Physical Journal B*, 87(11), 263. <https://doi.org/10.1140/epjb/e2014-50052-2>

Montes, A., Kin, N., Gordillo, M. D., Pereyra, C., & de la Ossa, E. J. M. (2014). Polymer–naproxen precipitation by supercritical antisolvent (SAS) process. *The Journal of Supercritical Fluids*, 89, 58–67. <https://doi.org/10.1016/j.supflu.2014.02.004>

Montes, A., Baldauf, E., Gordillo, M. D., Pereyra, C. M., & Martínez de la Ossa, E. J. (2014). Polymer encapsulation of amoxicillin microparticles by SAS process. *Journal of Microencapsulation*, 31(1), 16–22. <https://doi.org/10.3109/02652048.2013.799242>

Figueiredo, N. M., Kubart, T., Sanchez-García, J. A., Escobar Galindo, R., Climent-Font, A., & Cavaleiro, A. (2014). Optical properties and refractive index sensitivity of reactive sputtered oxide coatings with embedded Au clusters. *Journal of Applied Physics*, 115(6), 063512. <https://doi.org/10.1063/1.4861136>

Rubio-Marqués, P., Hernández-Garrido, J. C., Leyva-Pérez, A., & Corma, A. (2014). One pot synthesis of cyclohexanone oxime from nitrobenzene using a bifunctional catalyst. *Chem. Commun.*, 50(14), 1645–1647. <https://doi.org/10.1039/C3CC47693F>

Céspedes, E., Wirz, M., Sánchez-García, J. A., Alvarez-Fraga, L., Escobar-Galindo, R., & Prieto, C. (2014). Novel Mo–Si₃N₄ based selective coating for high temperature concentrating solar power applications. *Solar Energy Materials and Solar Cells*, 122, 217–225. <https://doi.org/10.1016/j.solmat.2013.12.005>

Montes, A., Gordillo, M. D., Pereyra, C., & Martínez de la Ossa, E. J. (2014). New Insights into Acrylic Polymer Precipitation by Supercritical Fluids. *Chemical Engineering & Technology*, 37(1), 141–148. <https://doi.org/10.1002/ceat.201300509>

Pérez-Mezcua, D., Sirera, R., Bretos, I., Ricote, J., Jimenez, R., Fuentes-Cobas, L., ... Lourdes Calzada, M. (2014). Morphotropic Phase Boundary in Solution-Derived $(\text{Bi}_{0.5}\text{Na}_{0.5})_{1-x}\text{Ba}_x\text{TiO}_3$ Thin Films: Part I Crystalline Structure and Compositional Depth Profile. *Journal of the American Ceramic Society*, 97(4), 1269–1275. <https://doi.org/10.1111/jace.12753>

González, M., Lumb, M. P., Yakes, M. K., Abell, J., Tischler, J. G., Bailey, C. G., ... Walters, R. J. (2014). Modeling, design and experimental results for high efficiency multi-junction solar cells lattice matched to InP. In A. Freundlich & J.-F. Guillemoles (Eds.) (p. 898117). <https://doi.org/10.1111/12.2041289>

Boileau, A., Capon, F., Laffez, P., Barrat, S., Endrino, J. L., Galindo, R. E., ... Pierson, J. F. (2014). Mechanisms of Oxidation of $\text{NdNiO}_{3-\delta}$ Thermochromic Thin Films Synthesized by a Two-Step Method in Soft Conditions. *The Journal of Physical Chemistry C*, 118(11), 5908–5917. <https://doi.org/10.1021/jp4111597>

Mato, S., Alcalá, G., Brizuela, M., Escobar Galindo, R., Pérez, F. J., & Sánchez-López, J. C. (2014). Long-term high temperature oxidation of CrAl(Y)N coatings in steam atmosphere. *Corrosion Science*, 80, 453–460. <https://doi.org/10.1016/j.corsci.2013.11.066>

Sánchez-Márquez, J., Zorrilla, D., Sánchez-Coronilla, A., de los Santos, D. M., Navas, J., Fernández-Lorenzo, C., ... Martín-Calleja, J. (2014). Introducing “UCA-FUKUI” software: reactivity-index calculations. *Journal of Molecular Modeling*, 20(11), 2492. <https://doi.org/10.1007/s00894-014-2492-1>

Álvarez-Fraga, L., Monclús, M. A., Molina-Aldareguía, J. M., Sánchez-García, J. A., Céspedes, E., Escobar-Galindo, R., & Prieto, C. (2014). Influence of the IR-mirror layer composition in the mechanical properties of solar selective coatings made from Mo:Si₃N₄ cermet. *Thin Solid Films*, 571, 316–320. <https://doi.org/10.1016/j.tsf.2014.05.069>

Carvalho, I., Escobar Galindo, R., Henriques, M., Palacio, C., & Carvalho, S. (2014). Influence of culture media on the physical and chemical properties of Ag-TiCN coatings. *Journal of Physics D: Applied Physics*, 47(33), 335401. <https://doi.org/10.1088/0022-3727/47/33/335401>

Cabeza, I., Souto, L. G., Pintado, J. M., Pereira, C., Freire, C., & Blanco, G. (2014). Influence of ceria distribution on the redox behaviour of nanoparticulated CeO₂-SiO₂ systems with application in catalysis. *Surface and Interface Analysis*, 46(10–11), 712–715. <https://doi.org/10.1002/sia.5499>

Montes, A., Gordillo, M. D., Pereyra, C., De los Santos, D. M., & Martínez de la Ossa, E. J. (2014). Ibuprofen–polymer precipitation using supercritical CO₂ at low temperature. *The Journal of Supercritical Fluids*, 94, 91–101. <https://doi.org/10.1016/j.supflu.2014.07.001>

Primus, P.-A., Ritschel, T., Sigüenza, P. Y., Cauqui, M. A., Hernández-Garrido, J. C., & Kumke, M. U. (2014). High-Resolution Spectroscopy of Europium-Doped Ceria as a Tool To Correlate Structure and Catalytic Activity. *The Journal of Physical Chemistry C*, 118(40), 23349–23360.
<https://doi.org/10.1021/jp505467r>

Martin, D. J., Qiu, K., Shevlin, S. A., Handoko, A. D., Chen, X., Guo, Z., & Tang, J. (2014). Highly Efficient Photocatalytic H₂ Evolution from Water using Visible Light and Structure-Controlled Graphitic Carbon Nitride. *Angewandte Chemie International Edition*, 53(35), 9240–9245.
<https://doi.org/10.1002/anie.201403375>

Hernández-Garrido, J. C., Moreno, M. S., Ducati, C., Pérez, L. A., Midgley, P. A., & Coronado, E. A. (2014). Exploring the benefits of electron tomography to characterize the precise morphology of core–shell Au@Ag nanoparticles and its implications on their plasmonic properties. *Nanoscale*, 6(21), 12696–12702. <https://doi.org/10.1039/C4NR03017F>

Montes, A., Litwinowicz, A. A., Grisl, U., Gordillo, M. D., Pereyra, C., & Martínez de la Ossa, E. J. (2014). Exploring High Operating Conditions in the Ibuprofen Precipitation by Rapid Expansion of Supercritical Solutions Process. *Industrial & Engineering Chemistry Research*, 53(1), 474–480.
<https://doi.org/10.1021/ie402408j>

Gatica, J. M., Gómez, D. M., Hernández-Garrido, J. C., Calvino, J. J., Cifredo, G. A., & Vidal, H. (2014). Experimental evidences of the relationship between reducibility and micro- and nanostructure in commercial high surface area ceria. *Applied Catalysis A: General*, 479, 35–44.
<https://doi.org/10.1016/j.apcata.2014.04.030>

Navas, J., Sánchez-Coronilla, A., Aguilar, T., Hernández, N. C., de los Santos, D. M., Sánchez-Márquez, J., ... Martín-Calleja, J. (2014). Experimental and theoretical study of the electronic properties of Cu-doped anatase TiO₂. *Physical Chemistry Chemical Physics*, 16(8), 3835.
<https://doi.org/10.1039/c3cp54273d>

Bomati-Miguel, O., Miguel-Sancho, N., Abasolo, I., Candiota, A. P., Roca, A. G., Acosta, M., ... Santamaria, J. (2014). Ex vivo assessment of polyol coated-iron oxide nanoparticles for MRI diagnosis applications: toxicological and MRI contrast enhancement effects. *Journal of Nanoparticle Research*, 16(3), 2292.
<https://doi.org/10.1007/s11051-014-2292-7>

Pérez-Mezcua, D., Calzada, M. L., Bretos, I., Ricote, J., Chateigner, D., Escobar-Galindo, R., ... Sirera, R. (2014). Evolution of the crystalline structure in (Bi_{0.5}Na_{0.5})_{1-x}Ba_xTiO₃ thin films around the Morphotropic Phase Boundary. *Boletín de La Sociedad Española de Cerámica y Vidrio*, 53(1), 21–26.
<https://doi.org/10.3989/cvv.32014>

Zubizarreta, C., Berasategui, E. G., Bayón, R., Escobar Galindo, R., Barros, R., Gaspar, D., ... Barriga, J. (2014). Evaluation of the optoelectronic properties and corrosion behavior of Al₂O₃-doped ZnO films prepared by dc pulsed magnetron sputtering. *Journal of Physics D: Applied Physics*, 47(48), 485501. <https://doi.org/10.1088/0022-3727/47/48/485501>

Zanouni, M., Ben Azzouz, C., Derivaz, M., Dentel, D., Denys, E., Diani, M., ... Bischoff, J.-L. (2014). Epitaxial growth of Fe islands on LaAlO₃ (001) substrates. *Journal of Crystal Growth*, 391, 121–129. <https://doi.org/10.1016/j.jcrysgro.2014.01.001>

de los Santos, D. M., Aguilar, T., Sánchez-Coronilla, A., Navas, J., Cruz Hernández, N., Alcántara, R., ... Martín-Calleja, J. (2014). Electronic and Structural Properties of Highly Aluminum Ion Doped TiO₂ Nanoparticles: A Combined Experimental and Theoretical Study. *ChemPhysChem*, 15(11), 2267–2280. <https://doi.org/10.1002/cphc.201402071>

Escobar Galindo, R., & Vázquez, L. (2014). Dynamics of GDOES-induced surface roughening in metal interfaces. *Analytical and Bioanalytical Chemistry*, 406(29), 7483–7495. <https://doi.org/10.1007/s00216-014-7827-3>

Gómez, J., Gil, M. L. A., de la Rosa-Fox, N., & Alguacil, M. (2014). Diatomite releases silica during spirit filtration. *Food Chemistry*, 159, 381–387. <https://doi.org/10.1016/j.foodchem.2014.02.157>

Junesand, C., Gau, M.-H., Sun, Y.-T., Lourdudoss, S., Lo, I., Jimenez, J., ... Pirouz, P. (2014). Defect reduction in heteroepitaxial InP on Si by epitaxial lateral overgrowth. *Materials Express*, 4(1), 41–53. <https://doi.org/10.1166/mex.2014.1140>

Navas, J., Aguilar, T., Fernández-Lorenzo, C., Alcántara, R., De Santos, D. L. M., Sánchez-Coronilla, A., ... Martín-Calleja, J. (2014). Cu(II)-Doped TiO₂/SUB; Nanoparticles as Photoelectrode in Dye-Sensitized Solar Cells: Improvement of Open-Circuit Voltage and a Light Scattering Effect. *Science of Advanced Materials*, 6(3), 473–482. <https://doi.org/10.1166/sam.2014.1740>

Caporali, R., Chansai, S., Burch, R., Delgado, J. J., Goguet, A., Hardacre, C., ... Thompsett, D. (2014). Critical role of water in the direct oxidation of CO and hydrocarbons in diesel exhaust after treatment catalysis. *Applied Catalysis B: Environmental*, 147, 764–769. <https://doi.org/10.1016/j.apcatb.2013.10.004>

Sánchez-Coronilla, A., Sánchez-Márquez, J., Zorrilla, D., Martín, E. I., de los Santos, D. M., Navas, J., ... Martín-Calleja, J. (2014). Convergent study of Ru-ligand interactions through QTAIM, ELF, NBO molecular descriptors and TDDFT analysis of organometallic dyes. *Molecular Physics*, 112(15), 2063–2077. <https://doi.org/10.1080/00268976.2014.884729>

Heras, I., Guillén, E., Krause, M., Wenisch, R., Escobar-Galindo, R., & Endrino, J. L. (2014). Comprehensive Environmental Testing of Optical Properties in Thin Films. *Procedia CIRP*, 22, 271–276. <https://doi.org/10.1016/j.procir.2014.06.153>

Galindo, R., Menendez, N., Crespo, P., Velasco, V., Bomati-Miguel, O., Díaz-Fernández, D., & Herrasti, P. (2014). Comparison of different methodologies for obtaining nickel nanoferrites. *Journal of Magnetism and Magnetic Materials*, 361, 118–125. <https://doi.org/10.1016/j.jmmm.2014.02.091>

Pérez, F. J., Castañeda, S. I., Hierro, M. P., Escobar Galindo, R., Sánchez-López, J. C., & Mato, S. (2014). Comparative Study of Micro- and Nano-structured Coatings for High-Temperature Oxidation in Steam Atmospheres. *Oxidation of Metals*, 81(1–2), 227–236. <https://doi.org/10.1007/s11085-013-9447-2>

Dubau, L., Lopez-Haro, M., Durst, J., Guétaz, L., Bayle-Guillemaud, P., Chatenet, M., & Maillard, F. (2014). Beyond conventional electrocatalysts: hollow nanoparticles for improved and sustainable oxygen reduction reaction activity. *J. Mater. Chem. A*, 2(43), 18497–18507. <https://doi.org/10.1039/C4TA03975K>

Lopez-Haro, M., Dubau, L., Guétaz, L., Bayle-Guillemaud, P., Chatenet, M., André, J., ... Maillard, F. (2014). Atomic-scale structure and composition of Pt₃Co/C nanocrystallites during real PEMFC operation: A STEM–EELS study. *Applied Catalysis B: Environmental*, 152–153, 300–308. <https://doi.org/10.1016/j.apcatb.2014.01.034>

Morgan, K., Burch, R., Daous, M., Delgado, J. J., Goguet, A., Hardacre, C., ... Rooney, D. W. (2014). Application of halohydrocarbons for the re-dispersion of gold particles. *Catalysis Science & Technology*, 4(3), 729. <https://doi.org/10.1039/c3cy00915g>

Garcia, A., Raya, A. M., Mariscal, M. M., Esparza, R., Herrera, M., Molina, S. I., ... Ponce, A. (2014). Analysis of electron beam damage of exfoliated MoS₂ sheets and quantitative HAADF-STEM imaging. *Ultramicroscopy*, 146, 33–38. <https://doi.org/10.1016/j.ultramic.2014.05.004>

Gómez, D. M., Gatica, J. M., Hernández-Garrido, J. C., Cifredo, G. A., Montes, M., Sanz, O., ... Vidal, H. (2014). A novel CoOx/La-modified-CeO₂ formulation for powdered and washcoated onto cordierite honeycomb catalysts with application in VOCs oxidation. *Applied Catalysis B: Environmental*, 144, 425–434. <https://doi.org/10.1016/j.apcatb.2013.07.045>

Candiota, A., Acosta, M., Simões, R., Delgado-Goñi, T., Lope-Piedrafita, S., Irure, A., ... Arús, C. (2014). A new ex vivo method to evaluate the performance of candidate MRI contrast agents: a proof-of-concept study. *Journal of Nanobiotechnology*, 12(1), 12. <https://doi.org/10.1186/1477-3155-12-12>

Galindo, P. L., Pizarro, J., Guerrero, E., Guerrero-Lebrero, M. P., Scavello, G., Yáñez, A., ... Molina, S. I. (2014). A methodology for the extraction of quantitative information from electron microscopy images at the atomic level. *Journal of Physics: Conference Series*, 522, 012013. <https://doi.org/10.1088/1742-6596/522/1/012013>

PUBLICACIONES INDEXADAS en 2013: 67

- Aseev, P., Rodriguez, P. E. D. S., Kumar, P., Gómez, V. J., Alvi, N. ul H., Mánuel, J. M., ... Nötzel, R. (2013). Uniform Low-to-High In Composition InGaN Layers Grown on Si. *Applied Physics Express*, 6(11), 115503. <https://doi.org/10.7567/APEX.6.115503>
- Gonzalez, M., Lumb, M. P., Yakes, M. K., Bailey, C. G., Tischler, J. G., Hoheisel, R., ... Walters, R. J. (2013). Towards high efficiency multi-junction solar cells grown on InP Substrates. In *2013 IEEE 39th Photovoltaic Specialists Conference (PVSC)* (pp. 0145–0148). IEEE. <https://doi.org/10.1109/PVSC.2013.6744116>
- González-Leal, J. M. (2013). The Wemple-DiDomenico model as a tool to probe the building blocks conforming a glass. *Physica Status Solidi (B)*, 250(5), 1044–1051. <https://doi.org/10.1002/pssb.201248487>
- Concepción, P., Pérez, Y., Hernández-Garrido, J. C., Fajardo, M., Calvino, J. J., & Corma, A. (2013). The promotional effect of Sn-beta zeolites on platinum for the selective hydrogenation of α,β -unsaturated aldehydes. *Physical Chemistry Chemical Physics*, 15(29), 12048. <https://doi.org/10.1039/c3cp50519g>
- He, L., Huang, Y., Wang, A., Liu, Y., Liu, X., Chen, X., ... Zhang, T. (2013). Surface modification of Ni/Al₂O₃ with Pt: Highly efficient catalysts for H₂ generation via selective decomposition of hydrous hydrazine. *Journal of Catalysis*, 298, 1–9. <https://doi.org/10.1016/j.jcat.2012.10.012>
- Ortega, D., Hernández-Garrido, J. C., Blanco-Andujar, C., & Garitaonandia, J. S. (2013). Suppression and enhancement of the ferromagnetic response in Fe-doped ZnO nanoparticles by calcination of organic nitrogen, phosphorus, and sulfur compounds. *Journal of Nanoparticle Research*, 15(12), 2120. <https://doi.org/10.1007/s11051-013-2120-5>
- Montes, A., Gordillo, M. D., Pereyra, C., & Martínez de la Ossa, E. J. (2013). Supercritical CO₂ precipitation of poly(l-lactic acid) in a wide range of miscibility. *The Journal of Supercritical Fluids*, 81, 236–244. <https://doi.org/10.1016/j.supflu.2013.06.008>
- Abdelrahim, M., Benjamin, S., Cubillana-Aguilera, L., Naranjo-Rodríguez, I., de Cisneros, J., Delgado, J., & Palacios-Santander, J. (2013). Study of the Electrocatalytic Activity of Cerium Oxide and Gold-Studded Cerium Oxide Nanoparticles Using a Sonogel-Carbon Material as Supporting Electrode: Electroanalytical Study in Apple Juice for Babies. *Sensors*, 13(4), 4979–5007. <https://doi.org/10.3390/s130404979>

- Morales-Florez, V., & de la Rosa-Fox, N. (2013). Structure of supercritically dried calcium silicate hydrates (C–S–H) and structural changes induced by weathering. *Journal of Materials Science*, 48(14), 5022–5028. <https://doi.org/10.1007/s10853-013-7289-6>
- Jiménez-González, C., Boukha, Z., de Rivas, B., Delgado, J. J., Cauqui, M. Á., González-Velasco, J. R., ... López-Fonseca, R. (2013). Structural characterisation of Ni/alumina reforming catalysts activated at high temperatures. *Applied Catalysis A: General*, 466, 9–20. <https://doi.org/10.1016/j.apcata.2013.06.017>
- Falcão, B. P., Leitão, J. P., Correia, M. R., Soares, M. R., Morales, F. M., Mánuel, J. M., ... González, J. C. (2013). Structural and optical characterization of Mg-doped GaAs nanowires grown on GaAs and Si substrates. *Journal of Applied Physics*, 114(18), 183508. <https://doi.org/10.1063/1.4829455>
- Hernández-Saz, J., Herrera, M., Duguay, S., & Molina, S. I. (2013). Strain analysis for the prediction of the preferential nucleation sites of stacked quantum dots by combination of FEM and APT. *Nanoscale Research Letters*, 8(1), 513. <https://doi.org/10.1186/1556-276X-8-513>
- Soto Rodriguez, P. E. D., Kumar, P., Gómez, V. J., Alvi, N. H., Mánuel, J. M., Morales, F. M., ... Nötzel, R. (2013). Spontaneous formation of InGaN nanowall network directly on Si. *Applied Physics Letters*, 102(17), 173105. <https://doi.org/10.1063/1.4803017>
- Facio, D. S., & Mosquera, M. J. (2013). Simple Strategy for Producing Superhydrophobic Nanocomposite Coatings In Situ on a Building Substrate. *ACS Applied Materials & Interfaces*, 5(15), 7517–7526. <https://doi.org/10.1021/am401826g>
- Montes, A., Gordillo, M. D., Pereyra, C., de la Rosa-Fox, N., & Martínez de la Ossa, E. J. (2013). Silica microparticles precipitation by two processes using supercritical fluids. *The Journal of Supercritical Fluids*, 75, 88–93. <https://doi.org/10.1016/j.supflu.2012.12.017>
- Hernández-Garrido, J. C., Desinan, S., Di Monte, R., Fonda, E., Midgley, P. A., Calvino, J. J., & Kašpar, J. (2013). Self-assembly of one-pot synthesized $\text{Ce}_{x}\text{Zr}_{1-x}\text{O}_2\text{--BaO}\cdot n\text{Al}_2\text{O}_3$ nanocomposites promoted by site-selective doping of alumina with barium. *Journal of Materials Chemistry A*, 1(11), 3645. <https://doi.org/10.1039/c3ta01214j>
- Rodrigues, E. G., Pereira, M. F. R., Chen, X., Delgado, J. J., & Órfão, J. J. M. (2013). Selective Oxidation of Glycerol over Platinum-Based Catalysts Supported on Carbon Nanotubes. *Industrial & Engineering Chemistry Research*, 52(49), 17390–17398. <https://doi.org/10.1021/ie402331u>
- Redondo-Cubero, A., Lorenz, K., Wendler, E., Carvalho, D., Ben, T., Morales, F. M., ... Daudin, B. (2013). Selective ion-induced intermixing and damage in low-dimensional GaN/AlN quantum structures. *Nanotechnology*, 24(50), 505717. <https://doi.org/10.1088/0957-4484/24/50/505717>
- Cubillos, G. I., Olaya, J. J., Bethencourt, M., Cifredo, G., & Blanco, G. (2013). Resistance to Corrosion of Zirconia Coatings Deposited by Spray Pyrolysis in Nitrided Steel. *Journal of Thermal Spray Technology*, 22(7), 1242–1252. <https://doi.org/10.1007/s11666-013-9956-1>

Wang, X., Perret, N., Delgado, J. J., Blanco, G., Chen, X., Olmos, C. M., ... Keane, M. A. (2013). Reducible Support Effects in the Gas Phase Hydrogenation of *p*-Chloronitrobenzene over Gold. *The Journal of Physical Chemistry C*, 117(2), 994–1005. <https://doi.org/10.1021/jp3093836>

Bellido-Milla, D., Cubillana-Aguilera, L. M., El Kaoutit, M., Hernández-Artiga, M. P., Hidalgo-Hidalgo de Cisneros, J. L., Naranjo-Rodríguez, I., & Palacios-Santander, J. M. (2013). Recent advances in graphite powder-based electrodes. *Analytical and Bioanalytical Chemistry*, 405(11), 3525–3539. <https://doi.org/10.1007/s00216-013-6816-2>

Yeste, M. P., Hernández-Garrido, J. C., Arias, D. C., Blanco, G., Rodríguez-Izquierdo, J. M., Pintado, J. M., ... Calvino, J. J. (2013). Rational design of nanostructured, noble metal free, ceria–zirconia catalysts with outstanding low temperature oxygen storage capacity. *Journal of Materials Chemistry A*, 1(15), 4836. <https://doi.org/10.1039/c3ta00016h>

Lopez-Haro, M., Dubau, L., Castanheira, L., Durst, J., Chatenet, M., Bayle-Guillemaud, P., ... Maillard, F. (2013). Pt3Co Nanoparticles and Carbon to the Test of PEMFC Operation. *ECS Transactions*, 58(1), 937–943. <https://doi.org/10.1149/05801.0937ecst>

Montes, A., Bendel, A., Kürti, R., Gordillo, M. D., Pereyra, C., & Martínez de la Ossa, E. J. (2013). Processing naproxen with supercritical CO₂. *The Journal of Supercritical Fluids*, 75, 21–29. <https://doi.org/10.1016/j.supflu.2012.12.016>

Dubau, L., Lopez-Haro, M., Castanheira, L., Durst, J., Chatenet, M., Bayle-Guillemaud, P., ... Maillard, F. (2013). Probing the structure, the composition and the ORR activity of Pt3Co/C nanocrystallites during a 3422h PEMFC ageing test. *Applied Catalysis B: Environmental*, 142–143, 801–808. <https://doi.org/10.1016/j.apcatb.2013.06.011>

Chen, X., Delgado, J. J., Gatica, J. M., Zerrad, S., Cies, J. M., & Bernal, S. (2013). Preferential oxidation of CO in the presence of excess of hydrogen on Ru/Al₂O₃ catalyst: Promoting effect of ceria–terbia mixed oxide. *Journal of Catalysis*, 299, 272–283. <https://doi.org/10.1016/j.jcat.2012.12.025>

Gamarra, D., Cámera, A. L., Monte, M., Rasmussen, S. B., Chinchilla, L. E., Hungría, A. B., ... Martínez-Arias, A. (2013). Preferential oxidation of CO in excess H₂ over CuO/CeO₂ catalysts: Characterization and performance as a function of the exposed face present in the CeO₂ support. *Applied Catalysis B: Environmental*, 130–131, 224–238. <https://doi.org/10.1016/j.apcatb.2012.11.008>

Titos-Padilla, S., Colacio, E., Pope, S. J. A., Delgado, J. J., Melgosa, M., & Herrera, J. M. (2013). Photophysical properties of [Ir(tpy)₂]Cl₃-doped silica nanoparticles and synthesis of a colour-tunable material based on an Ir(core)–Eu(shell) derivative. *Journal of Materials Chemistry C*, 1(24), 3808. <https://doi.org/10.1039/c3tc30466c>

- Pinho, L., & Mosquera, M. J. (2013). Photocatalytic activity of TiO₂–SiO₂ nanocomposites applied to buildings: Influence of particle size and loading. *Applied Catalysis B: Environmental*, 134–135, 205–221. <https://doi.org/10.1016/j.apcatb.2013.01.021>
- Rojas, E., Delgado, J. J., Guerrero-Pérez, M. O., & Bañares, M. A. (2013). Performance of NiO and Ni–Nb–O active phases during the ethane ammoxidation into acetonitrile. *Catalysis Science & Technology*, 3(12), 3173. <https://doi.org/10.1039/c3cy00415e>
- Himmerlich, M., Knübel, A., Aidam, R., Kirste, L., Eisenhardt, A., Krischok, S., ... Koblmüller, G. (2013). N-type conductivity and properties of carbon-doped InN(0001) films grown by molecular beam epitaxy. *Journal of Applied Physics*, 113(3), 033501. <https://doi.org/10.1063/1.4775736>
- Matos, J., Atienzar, P., García, H., & Hernández-Garrido, J. C. (2013). Nanocrystalline carbon–TiO₂ hybrid hollow spheres as possible electrodes for solar cells. *Carbon*, 53, 169–181. <https://doi.org/10.1016/j.carbon.2012.10.044>
- Lopez-Haro, M., Jiu, T., Bayle-Guillemaud, P., Jouneau, P.-H., & Chandezon, F. (2013). Multiscale tomographic analysis of polymer–nanoparticle hybrid materials for solar cells. *Nanoscale*, 5(22), 10945. <https://doi.org/10.1039/c3nr03202g>
- Gatica, J. M., Gómez, D. M., Harti, S., & Vidal, H. (2013). Monolithic honeycomb design applied to carbon materials for catalytic methane decomposition. *Applied Catalysis A: General*, 458, 21–27. <https://doi.org/10.1016/j.apcata.2013.03.016>
- Vieira, E. M. F., Martín-Sánchez, J., Roldan, M. A., Varela, M., Buljan, M., Bernstorff, S., ... Gomes, M. J. M. (2013). Influence of RF-sputtering power on formation of vertically stacked Si_{1-x}Ge_x nanocrystals between ultra-thin amorphous Al₂O₃ layers: structural and photoluminescence properties. *Journal of Physics D: Applied Physics*, 46(38), 385301. <https://doi.org/10.1088/0022-3727/46/38/385301>
- Boukha, Z., Sánchez-Amaya, J. M., González-Rovira, L., Rio, E. Del, Blanco, G., & Botana, J. (2013). Influence of CO₂-Ar Mixtures as Shielding Gas on Laser Welding of Al-Mg Alloys. *Metallurgical and Materials Transactions A*, 44(13), 5711–5723. <https://doi.org/10.1007/s11661-013-1953-y>
- Reina, T. R., Ivanova, S., Idakiev, V., Delgado, J. J., Ivanov, I., Tabakova, T., ... Odriozola, J. A. (2013). Impact of Ce–Fe synergism on the catalytic behaviour of Au/CeO₂–FeO_x/Al₂O₃ for pure H₂ production. *Catal. Sci. Technol.*, 3(3), 779–787. <https://doi.org/10.1039/C2CY20537H>
- Benito, N., Galindo, R. E., Rubio-Zuazo, J., Castro, G. R., & Palacio, C. (2013). High- and low-energy x-ray photoelectron techniques for compositional depth profiles: destructive versus non-destructive methods. *Journal of Physics D: Applied Physics*, 46(6), 065310. <https://doi.org/10.1088/0022-3727/46/6/065310>

- Ampelli, C., Passalacqua, R., Genovese, C., Perathoner, S., Centi, G., Montini, T., ... Fornasiero, P. (2013). H₂ production by selective photo-dehydrogenation of ethanol in gas and liquid phase on CuOx/TiO₂ nanocomposites. *RSC Advances*, 3(44), 21776. <https://doi.org/10.1039/c3ra22804e>
- Feijoo, J., Nóvoa, X. R., Rivas, T., Mosquera, M. J., Taboada, J., Montojo, C., & Carrera, F. (2013). Granite desalination using electromigration. Influence of type of granite and saline contaminant. *Journal of Cultural Heritage*, 14(5), 365–376. <https://doi.org/10.1016/j.culher.2012.09.004>
- Boccalon, M., Franchi, P., Lucarini, M., Delgado, J. J., Sousa, F., Stellacci, F., ... Pasquato, L. (2013). Gold nanoparticles protected by fluorinated ligands for 19F MRI. *Chemical Communications*, 49(78), 8794. <https://doi.org/10.1039/c3cc44572k>
- Setién-Fernández, I., Echániz, T., González-Fernández, L., Pérez-Sáez, R. B., Céspedes, E., Sánchez-García, J. A., ... Tello, M. J. (2013). First spectral emissivity study of a solar selective coating in the 150–600°C temperature range. *Solar Energy Materials and Solar Cells*, 117, 390–395. <https://doi.org/10.1016/j.solmat.2013.07.002>
- Martin, D. J., Umezawa, N., Chen, X., Ye, J., & Tang, J. (2013). Facet engineered Ag₃PO₄ for efficient water photooxidation. *Energy & Environmental Science*, 6(11), 3380. <https://doi.org/10.1039/c3ee42260g>
- Hernández-Saz, J., Herrera, M., & Molina, S. I. (2013). Fabrication of Needle-Shaped Specimens Containing Subsurface Nanostructures for Electron Tomography (pp. 241–266). https://doi.org/10.1007/978-3-319-02874-3_9
- Linares, P. G., Martí, A., Antolín, E., Ramiro, I., López, E., Hernández, E., ... Luque, A. (2013). Extreme voltage recovery in GaAs:Ti intermediate band solar cells. *Solar Energy Materials and Solar Cells*, 108, 175–179. <https://doi.org/10.1016/j.solmat.2012.09.028>
- Morales, F. M., Mánuel, J. M., García, R., Reuters, B., Kalisch, H., & Vescan, A. (2013). Evaluation of interpolations of InN, AlN and GaN lattice and elastic constants for their ternary and quaternary alloys. *Journal of Physics D: Applied Physics*, 46(24), 245502. <https://doi.org/10.1088/0022-3727/46/24/245502>
- García, V., Zorrilla, D., & Fernández, M. (2013). Electronic confinement effects on the reaction field type calculations of solvent effects. *International Journal of Quantum Chemistry*, 113(18), 2172–2179. <https://doi.org/10.1002/qua.24482>
- del Río, E., López-Haro, M., Cíes, J. M., Delgado, J. J., Calvino, J. J., Trasobares, S., ... Bernal, S. (2013). Dramatic effect of redox pre-treatments on the CO oxidation activity of Au/Ce_{0.50}Tb_{0.12}Zr_{0.38}O_{2-x} catalysts prepared by deposition–precipitation with urea: a nano-analytical and nano-structural study. *Chemical Communications*, 49(60), 6722. <https://doi.org/10.1039/c3cc42051e>

García-Cabeza, A. L., Marín-Barrios, R., Azarken, R., Moreno-Dorado, F. J., Ortega, M. J., Vidal, H., ... Guerra, F. M. (2013). DoE (Design of Experiments) Assisted Allylic Hydroxylation of Enones Catalysed by a Copper-Aluminium Mixed Oxide. *European Journal of Organic Chemistry*, 2013(36), 8307–8314. <https://doi.org/10.1002/ejoc.201301145>

Bakkali, H., & Dominguez, M. (2013). Differential conductance of Pd-ZrO₂ thin granular films prepared by RF magnetron sputtering. *EPL (Europhysics Letters)*, 104(1), 17007. <https://doi.org/10.1209/0295-5075/104/17007>

González-Leal, J. M., & Valverde, J. (2013). Design considerations for tailoring the thickness profile of transparent dielectric deposits by continuous-wave laser deposition. *Journal of Applied Physics*, 113(1), 013108. <https://doi.org/10.1063/1.4773332>

Tian, Z.-Y., Chafik, T., Asseban, M., Harti, S., Vidal, H., Gatica, J. M., ... Kohse-Höinghaus, K. (2013). Corrigendum to: Towards biofuel combustion with an easily extruded clay as a natural catalyst [Appl. Energy 107 (2013) 149–156]. *Applied Energy*, 108, 528–529. <https://doi.org/10.1016/j.apenergy.2013.04.076>

Malumbres, A., Martínez, G., Mallada, R., Hueso, J. L., Bomatí-Miguel, O., & Santamaría, J. (2013). Continuous production of iron-based nanocrystals by laser pyrolysis. Effect of operating variables on size, composition and magnetic response. *Nanotechnology*, 24(32), 325603. <https://doi.org/10.1088/0957-4484/24/32/325603>

Toledano, D., Galindo, R. E., Yuste, M., Albella, J. M., & Sánchez, O. (2013). Compositional and structural properties of nanostructured ZnO thin films grown by oblique angle reactive sputtering deposition: effect on the refractive index. *Journal of Physics D: Applied Physics*, 46(4), 045306. <https://doi.org/10.1088/0022-3727/46/4/045306>

Beltrán, A. M., Ben, T., Sánchez, A. M., Gass, M. H., Taboada, A. G., Ripalda, J. M., & Molina, S. I. (2013). Compositional analysis of InAs-GaAs-GaSb heterostructures by Low-Loss Electron Energy Loss Spectroscopy. *Journal of Physics: Conference Series*, 471, 012012. <https://doi.org/10.1088/1742-6596/471/1/012012>

Hernández-Garrido, J. C., Gómez, D. M., Gaona, D., Vidal, H., Gatica, J. M., Sanz, O., ... Calvino, J. J. (2013). Combined (S)TEM-FIB Insight into the Influence of the Preparation Method on the Final Surface Structure of a Co₃O₄/La-Modified-CeO₂ Washcoated Monolithic Catalyst. *The Journal of Physical Chemistry C*, 117(25), 13028–13036. <https://doi.org/10.1021/jp400151y>

Gatica, J. M., Gómez, D. M., Harti, S., & Vidal, H. (2013). Clay honeycomb monoliths for water purification: Modulating methylene blue adsorption through controlled activation via natural coal templating. *Applied Surface Science*, 277, 242–248. <https://doi.org/10.1016/j.apsusc.2013.04.034>

Martínez-Arias, A., Gamarra, D., Hungría, A., Fernández-García, M., Munuera, G., Hornés, A., ... Cámera, A. (2013). Characterization of Active Sites/Entities and Redox/Catalytic Correlations in Copper-Ceria-Based Catalysts for Preferential Oxidation of CO in H₂-Rich Streams. *Catalysts*, 3(2), 378–400.
<https://doi.org/10.3390/catal3020378>

Montes, A., Nunes, A., Gordillo, M. D., Pereyra, C., Duarte, C. M. M., & Martínez de la Ossa, E. J. (2013). Amoxicillin and Ethyl Cellulose Precipitation by Two Supercritical Antisolvent Processes. *Chemical Engineering & Technology*, 36(4), 665–672. <https://doi.org/10.1002/ceat.201200429>

Calderon V., S., Galindo, R. E., Oliveira, J. C., Cavaleiro, A., & Carvalho, S. (2013). Ag⁺ release and corrosion behavior of zirconium carbonitride coatings with silver nanoparticles for biomedical devices. *Surface and Coatings Technology*, 222, 104–111. <https://doi.org/10.1016/j.surfcoat.2013.02.011>

Calderon V., S., Galindo, R. E., Benito, N., Palacio, C., Cavaleiro, A., & Carvalho, S. (2013). Ag⁺ release inhibition from ZrCN–Ag coatings by surface agglomeration mechanism: structural characterization. *Journal of Physics D: Applied Physics*, 46(32), 325303. <https://doi.org/10.1088/0022-3727/46/32/325303>

Escobar Galindo, R., Manninen, N. K., Palacio, C., & Carvalho, S. (2013). Advanced surface characterization of silver nanocluster segregation in Ag–TiCN bioactive coatings by RBS, GDOES, and ARXPS. *Analytical and Bioanalytical Chemistry*, 405(19), 6259–6269. <https://doi.org/10.1007/s00216-013-7058-z>

Aguilar, T., Navas, J., Alcántara, R., Fernández-Lorenzo, C., Gallardo, J. J., Blanco, G., & Martín-Calleja, J. (2013). A route for the synthesis of Cu-doped TiO₂ nanoparticles with a very low band gap. *Chemical Physics Letters*, 571, 49–53. <https://doi.org/10.1016/j.cplett.2013.04.007>

Pinho, L., Elhaddad, F., Facio, D. S., & Mosquera, M. J. (2013). A novel TiO₂–SiO₂ nanocomposite converts a very friable stone into a self-cleaning building material. *Applied Surface Science*, 275, 389–396. <https://doi.org/10.1016/j.apsusc.2012.10.142>

Pinho, L., Hernández-Garrido, J. C., Calvino, J. J., & Mosquera, M. J. (2013). 2D and 3D characterization of a surfactant-synthesized TiO₂–SiO₂ mesoporous photocatalyst obtained at ambient temperature. *Physical Chemistry Chemical Physics*, 15(8), 2800. <https://doi.org/10.1039/c2cp42606d>

Endrino, J. L., Abrasonis, G., & Galindo, R. E. (2013). <I>A Special Issue on</I> Advances in Solar Selective Nanostructures and Thin Films. *Nanoscience and Nanotechnology Letters*, 5(1), 1–2. <https://doi.org/10.1166/nnl.2013.1529>

LISTADO DE PROFESORES UCA: Especialidad, Categoría y Vínculo a sus CV.

PROFESOR UCA	CORREO-E	PLAZA QUE OCUPA	ÁREA DE CONOCIMIENTO	LÍNEA DE INVESTIGACIÓN	CODIGO ORCID – ACCESO A CV
ALCANTARA PUERTO, RODRIGO	rodrigo.alcantara@uca.es	Profesor Titular Universidad	QUIMICA FISICA	Línea 2	https://orcid.org/0000-0003-1566-7070
BELLIDO MILLA, DOLORES	dolores.milla@uca.es	Profesor Titular Universidad	QUIMICA ANALITICA	Línea 3	https://orcid.org/0000-0002-1824-4199
BLANCO MONTILLA, GINESA	ginesa.blanco@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0003-3242-1339
BLANCO OLLERO, EDUARDO	eduardo.blanco@uca.es	Catedrático de Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0002-2234-1477
BOMATI MIGUEL, OSCAR	oscar.bomati@uca.es	Profesor Contratado Doctor	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0003-4787-6061
CALVINO GAMEZ, JOSE JUAN	jose.calvino@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2. RESPONSABLE	https://orcid.org/0000-0002-0989-1335
CAUQUI LOPEZ, MIGUEL ANGEL	miguelangel.cauqui@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0001-6982-2246
CHEN , XIAOWEI	xiaowei.chen@uca.es	Profesor Titular Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0001-6426-5399
CIFREDO CHACON, GUSTAVO AURELIO	gustavo.cifredo@uca.es	Catedrático de Escuela Univer.	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0003-4657-7182
CUBILLANA AGUILERA, LAURA	laura.cubillana@uca.es	Profesor Titular Universidad	QUIMICA ANALITICA	Línea 3	https://orcid.org/0000-0002-3559-2697
DE LA ROSA FOX, NICOLAS DANIEL	nicolas.rosafox@uca.es	Catedrático de Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0002-7066-5660
DELGADO JAEN, JUAN JOSE	juanjose.delgado@uca.es	Contrato Ramón y Cajal	QUIMICA INORGANICA	Línea 1	https://orcid.org/0000-0001-7956-1166
DOMINGUEZ DE LA VEGA, MANUEL	manolo.dominguez@uca.es	Profesor Titular Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 1	https://orcid.org/0000-0002-7889-7220
ESCOBAR GALINDO, RAMÓN	ramon.escobar@uca.es	Contratado ASCETI	CIENCIA DE LOS MATERIALES E IM	Línea 3	https://orcid.org/0000-0001-9952-9489
FERNANDEZ LORENZO, CONCEPCION	concha.fernandez@uca.es	Catedrático de Universidad	QUIMICA FISICA	Línea 2	https://orcid.org/0000-0003-3187-2066
GATICA CASAS, JOSE MANUEL	josemanuel.gatica@uca.es	Profesor Titular Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0003-4176-3357
GIL MONTERO, Mª LUISA ALMORAIMA	almoraima.gil@uca.es	Profesor Titular Universidad	QUIMICA FISICA	Línea 3	https://orcid.org/0000-0001-6297-5004
GONZALEZ LEAL, JUAN MARIA	juanmaria.gonzalez@uca.es	Catedrático de Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0003-1077-2197
HERNANDEZ GARRIDO, JUAN CARLOS	jcarlos.hernandez@uca.es	Contrato Ramón y Cajal	CIENCIA DE LOS MATERIALES E IM	Línea 1	https://orcid.org/0000-0001-8499-0395
HERRERA COLLADO, MIRIAM	miriam.herrera@uca.es	Profesor Titular Universidad	CIENCIA DE LOS MATERIALES E IM	Línea 1	https://orcid.org/0000-0002-2325-5941
HUNGRIA HERNANDEZ, ANA BELEN	ana.hungria@uca.es	Profesor Titular Universidad	QUIMICA INORGANICA	Línea 1	https://orcid.org/0000-0002-4622-6967
LITRAN RAMOS, ROCIO	rocio.litran@uca.es	Profesor Titular Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0003-2116-5309
LOPEZ HARO, MIGUEL	miguel.lopezharo@uca.es	PROFESOR AYUDANTE DOCTOR	QUIMICA INORGANICA	Línea 1	https://orcid.org/0000-0003-2560-8015

MOLINA RUBIO, SERGIO IGNACIO	sergio.molina@uca.es	Catedrático de Universidad	CIENCIA DE LOS MATERIALES E IM	Línea 1. RESPONSABLE	https://orcid.org/0000-0002-5221-2852
MORALES SANCHEZ, FRANCISCO MIGUEL	fmiguel.morales@uca.es	Catedrático de Universidad	CIENCIA DE LOS MATERIALES E IM	Línea 1	https://orcid.org/0000-0002-8341-2478
MOSQUERA DIAZ, MARIA JESUS	mariajesus.mosquera@uca.es	Catedrático de Universidad	QUIMICA FISICA	Línea 3. RESPONSABLE	https://orcid.org/0000-0002-4632-0195
NAVAS PINEDA, FRANCISCO JAVIER	javier.navas@uca.es	Profesor Titular Universidad	QUIMICA FISICA	Línea 2	https://orcid.org/0000-0001-7569-0809
PALACIOS SANTANDER, JOSE MARIA	josem.palacios@uca.es	Profesor Titular Universidad	QUIMICA ANALITICA	Línea 3	https://orcid.org/0000-0001-5407-1208
PEREYRA LOPEZ, CLARA MARIA	clara.pereyra@uca.es	Catedrático de Universidad	INGENIERIA QUIMICA	Línea 3	https://orcid.org/0000-0003-1949-2773
PEREZ OMIL, JOSE ANTONIO	jose.perez-omil@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 1	https://orcid.org/0000-0001-7718-4475
PINTADO CAÑA, JOSE MARIA	josemaria.pintado@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0002-1283-1114
POCE FATOU, JUAN ANTONIO	juanantonio.poce@uca.es	Profesor Titular Universidad	QUIMICA FISICA	Línea 2	https://orcid.org/0000-0003-3792-4066
RAMIREZ DEL SOLAR, MILAGROSA	milagrosa.ramirez@uca.es	Catedrático de Universidad	FISICA DE LA MATERIA CONDENSADA	Línea 3	https://orcid.org/0000-0002-9707-4246
RODRIGUEZ-IZQUIERDO GIL, JOSE MARIA	josemaria.izquierdo@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0003-0671-4074
TRASOBARES LLORENTE, SUSANA	susana.trasobares@uca.es	Profesor Titular Universidad	QUIMICA INORGANICA	Línea 1	https://orcid.org/0000-0003-3820-4327
VIDAL MUÑOZ, HILARIO	hilario.vidal@uca.es	Catedrático de Universidad	QUIMICA INORGANICA	Línea 2	https://orcid.org/0000-0002-2020-1622
ZORRILLA CUENCA, DAVID	david.zorrilla@uca.es	Profesor Titular Universidad	QUIMICA FISICA	Línea 2	https://orcid.org/0000-0003-1673-5274