

**DME**  
**Universidad de Cádiz**

**Publicaciones 2018**

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**1. Multicationic Sr<sub>4</sub>Mn<sub>3</sub>O<sub>10</sub> Mesostructures: Molten Salt Synthesis, Analytical Electron Microscopy Study and Reactivity.**

González-Jiménez, I. N.; Torres-Pardo, A.; Rano, S.; Laberty-Robert, C.; Hernández-Garrido, J. C.; López-Haro, M.; Calvino, J. J.; Varela, Á.; Sanchez, C.; Parras, M.; et al.  
*Mater. Horizons* **2018**, 5 (3).

<https://doi.org/10.1039/c7mh00952f>

**2. A Macroscopically Relevant 3D-Metrology Approach for Nanocatalysis Research.**

López-Haro, M.; Tinoco, M.; Fernández-García, S.; Chen, X.; Hungria, A. B.; Cauqui, M. Á.; Calvino, J.J.

*Part. Part. Syst. Charact.* **2018**, 35 (3).

<https://doi.org/10.1002/ppsc.201700343>

**3. Nanotubes from the Misfit Compound Alloy LaS-Nb<sub>x</sub>Ta<sub>(1-x)</sub>S<sub>2</sub>.**

Stolovas, D.; Serra, M.; Popovitz-Biro, R.; Pinkas, I.; Houben, L.; Calvino, J. J.; Joselevich, E.; Tenne, R.; Arenal, R.; Lajaunie, L.

*Chem. Mater.* **2018**, 30 (24).

<https://doi.org/10.1021/acs.chemmater.8b03632>

**4. A Single Slice Approach for Simulating Two-Beam Electron Diffraction of Nanocrystals.**

Gontard, L. C.; Barroso-Bogeat, A.; Dunin-Borkowski, R. E.; Calvino, J. J.  
*Ultramicroscopy* **2018**, 195.

<https://doi.org/10.1016/j.ultramic.2018.09.004>

**5. Three-Dimensional Chemical Mapping Using Non-Destructive SEM and Photogrammetry.**

Gontard, L. C.; Batista, M.; Salguero, J.; Calvino, J. J.  
*Sci. Rep.* **2018**, 8 (1).

<https://doi.org/10.1038/s41598-018-29458-8>

**6. Synthesis of Densely Packaged, Ultrasmall Pt<sup>0</sup><sub>2</sub> Clusters within a Thioether-Functionalized MOF: Catalytic Activity in Industrial Reactions at Low Temperature**

Mon, M.; Rivero-Crespo, M. A.; Ferrando-Soria, J.; Vidal-Moya, A.; Boronat, M.; Leyva-Pérez, A.; Corma, A.; Hernández-Garrido, J. C.; López-Haro, M.; Calvino, J. J.; et al.  
*Angew. Chemie - Int. Ed.* **2018**, 57 (21).

<https://doi.org/10.1002/anie.201801957>

**7. A Novel Electron Microscopic Characterization of Core/Shell Nanobiostimulator Against Parasitic Plants.**

Mejías, F. J. R.; López-Haro, M.; Gontard, L. C.; Cala, A.; Fernández-Aparicio, M.; Molinillo, J. M. G.; Calvino, J. J.; Macías, F. A.

*ACS Appl. Mater. Interfaces* **2018**, 10 (3).

<https://doi.org/10.1021/acsami.7b16873>

**8. Confined Pt<sub>1</sub><sup>1+</sup> Water Clusters in a MOF Catalyze the Low-Temperature Water–Gas Shift Reaction with Both CO<sub>2</sub> Oxygen Atoms Coming from Water.**

Rivero-Crespo, M. A.; Mon, M.; Ferrando-Soria, J.; Lopes, C. W.; Boronat, M.; Leyva-Pérez, A.; Corma, A.; Hernández-Garrido, J. C.; López-Haro, M.; Calvino, J. J.; et al.

*Angew. Chemie - Int. Ed.* **2018**, *57* (52).

<https://doi.org/10.1002/anie.201810251>

**9. Surface and Redox Characterization of New Nanostructured ZrO<sub>2</sub>@CeO<sub>2</sub> Systems with Potential Catalytic Applications.**

Barroso-Bogeat, A.; Núñez-Pérez, B.; Blanco, G.; Pintado, J. M.; Hernández-Garrido, J. C.;

Calvino, J. *JSurf. Interface Anal.* **2018**, *50* (11).

<https://doi.org/10.1002/sia.6444>

**10. Selective Oxidation of Veratryl Alcohol over Au-Pd/Ce<sub>0.62</sub>ZrO<sub>3.38</sub>O<sub>2</sub> Catalysts Synthesized by Sol-Immobilization: Effect of Au:Pd Molar Ratio.**

Olmos, C. M.; Chinchilla, L. E.; Cappella, A. M.; Villa, A.; Delgado, J. J.; Hungría, A. B.; Blanco, G.; Calvino, J. J.; Prati, L.; Chen, X.

*Nanomaterials* **2018**, *8* (9).

<https://doi.org/10.3390/nano8090669>

**11. Gradual Transformation of Ag<sub>2</sub>S to Au<sub>2</sub>S Nanoparticles by Sequential Cation Exchange Reactions: Binary, Ternary, and Hybrid Compositions**

Dalmases, M.; Torruella, P.; Blanco-Portals, J.; Vidal, A.; Lopez-Haro, M.; Calvino, J. J.; Estradé, S.; Peiró, F.; Figuerola, A.

*Chem. Mater.* **2018**, *30* (19)

<https://doi.org/10.1021/acs.chemmater.8b03208>