## Patricia Abellan

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

56
papers

1,494
citations

h-index

38
g-index

59
ext. papers

1,641
ext. citations

5
avg, IF

L-index

| #  | Paper   | IF     | Citations      |
|----|---|--------|----------------|
| 56 | Determination of the key structural factors affecting permeability and selectivity of PAN and PES polymeric filtration membranes using 3D FIB/SEM. <i>Journal of Membrane Science</i> , <b>2022</b> , 120530    | 9.6    | O              |
| 55 | The effect of interfaces in liquid phase electron microscopy from an empirical viewpoint. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 1048-1049   | 0.5    |                |
| 54 | Synergistic Coupling of a Molybdenum Carbide Nanosphere with Pt Nanoparticles for Enhanced Ammonia Electro-Oxidation Activity in Alkaline Media. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 843-851 | 6.1    | 7              |
| 53 | Nanoscale Chemical Heterogeneity in Aromatic Polyamide Membranes for Reverse Osmosis Applications. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2020</b> , 12, 19890-19902                           | 9.5    | 6              |
| 52 | Liquid Cell Electron Microscopy for the Study of Growth Dynamics of Nanomaterials and Structure of Soft Matter <b>2018</b> , 1-31   |        | 3              |
| 51 | Transmission Electron Microscopy Reveals Deposition of Metal Oxide Coatings onto Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 1348-1357                       | 16.4   | 36             |
| 50 | Analytical STEM Investigation of the Post-Synthetic Modification (PMS) of Metal-Organic Frameworks (MOFs): Metal- and Ligand-Exchange in UiO-66. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 19     | 76-₹97 | 1 <sup>1</sup> |
| 49 | Mapping VIS-terahertz (17 THz) surface plasmons sustained on native and chemically functionalized percolated gold thin films using EELS. <i>Microscopy (Oxford, England)</i> , <b>2018</b> , 67, i30-i39        | 1.3    | 3              |
| 48 | Systematic Analysis of the Coupling Effects within Supported Plasmonic Nanorod Antenna Arrays. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 22041-22053  | 3.8    | 3              |
| 47 | The formation of cerium(III) hydroxide nanoparticles by a radiation mediated increase in local pH. <i>RSC Advances</i> , <b>2017</b> , 7, 3831-3837   | 3.7    | 42             |
| 46 | Defining the radiation chemistry during liquid cell electron microscopy to enable visualization of nanomaterial growth and degradation dynamics. <i>Journal of Microscopy</i> , <b>2017</b> , 265, 135-147      | 1.9    | 108            |
| 45 | Tunable Low Density Palladium Nanowire Foams. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 9814-9818   | 9.6    | 25             |
| 44 | Electron Microscopy Reveals Structural and Chemical Changes at the Nanometer Scale in the Pathology. <i>ACS Biomaterials Science and Engineering</i> , <b>2017</b> , 3, 2788-2797                               | 5.5    | 7              |
| 43 | Investigating Molecule-plasmon Interactions in Chemically-functionalized Metal Nanoparticles Using Monochromated EELS. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1540-1541                        | 0.5    | 1              |
| 42 | Fabrication and Characterisation of an Adaptable Plasmonic Nanorod Array for Solar Energy Conversion. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 902, 012025                                  | 0.3    |                |
| 41 | Harnessing Control of Radiolysis during Liquid Cell Electron Microscopy to Enable Visualization of Nanomaterial Transformation Dynamics. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 40-41          | 0.5    | 2              |
| 40 | The information content in single-molecule Raman nanoscopy. <i>Advances in Physics: X</i> , <b>2016</b> , 1, 35-54  | 5.1    | 8              |

| 39 | Gaining Control over Radiolytic Synthesis of Uniform Sub-3-nanometer Palladium Nanoparticles: Use of Aromatic Liquids in the Electron Microscope. <i>Langmuir</i> , <b>2016</b> , 32, 1468-77                | 4                 | 41  |
|----|--|-------------------|-----|
| 38 | Investigating Surface Plasmon-Enhanced Local Electric Fields by EELS with tunable <b>2016</b> , 1136-1137  |                   |     |
| 37 | The Determining Role of Solution Chemistry in Radiation-Induced Nanoparticles Synthesis in the STEM <b>2016</b> , 31-32  |                   |     |
| 36 | Visualizing surface plasmons with photons, photoelectrons, and electrons. <i>Analyst, The</i> , <b>2016</b> , 141, 356   | 2 <del>.</del> 72 | 16  |
| 35 | Local Variations of Cation Composition on a Nanometer-Sized Scale in a YBa2Cu3 O 6 . 9 2 Superconductor. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2016</b> , 29, 1139-1143               | 1.5               | 2   |
| 34 | Micro-to nano-scale characterisation of polyamide structures of the SW30HR RO membrane using advanced electron microscopy and stain tracers. <i>Journal of Membrane Science</i> , <b>2016</b> , 520, 465-476 | 9.6               | 86  |
| 33 | Tip-enhanced Raman nanographs: mapping topography and local electric fields. <i>Nano Letters</i> , <b>2015</b> , 15, 2385-90   | 11.5              | 25  |
| 32 | Applying compressive sensing to TEM video: a substantial frame rate increase on any camera. <i>Advanced Structural and Chemical Imaging</i> , <b>2015</b> , 1,   | 3.9               | 44  |
| 31 | Microscopy of nanoparticulate dispersions. <i>Journal of Microscopy</i> , <b>2015</b> , 260, 238-47  | 1.9               | 23  |
| 30 | Transmission electron microscopy of a model crystalline organic, theophylline. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 644, 012030  | 0.3               | 2   |
| 29 | Controlled Radiolytic Synthesis in the Fluid Stage. Towards Understanding the Effect of the Electron Beam in Liquids. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 2125-2126                      | 0.5               |     |
| 28 | Observing the growth of metal-organic frameworks by in situ liquid cell transmission electron microscopy. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 7322-8                        | 16.4              | 155 |
| 27 | In Situ Observation of Directed Nanoparticle Aggregation During the Synthesis of Ordered Nanoporous Metal in Soft Templates. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1426-1433                     | 9.6               | 13  |
| 26 | Dynamics of soft nanomaterials captured by transmission electron microscopy in liquid water.<br>Journal of the American Chemical Society, <b>2014</b> , 136, 1162-5  | 16.4              | 81  |
| 25 | Factors influencing quantitative liquid (scanning) transmission electron microscopy. <i>Chemical Communications</i> , <b>2014</b> , 50, 4873-80  | 5.8               | 117 |
| 24 | Probing the degradation mechanisms in electrolyte solutions for Li-ion batteries by in situ transmission electron microscopy. <i>Nano Letters</i> , <b>2014</b> , 14, 1293-9                                 | 11.5              | 119 |
| 23 | In Situ Observation of Directed Nanoparticle Aggregation During the Synthesis of Ordered Nanoporous Metal in Soft Templates. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1600-1601               | 0.5               | 0   |
| 22 | Direct Observation of Electrolyte Degradation Mechanisms in Li-Ion Batteries. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1624-1625  | 0.5               |     |

| 21 | Implementing in situ Experiments in Liquids in the (Scanning) Transmission Electron Microscope ((S)TEM) and Dynamic TEM (DTEM). <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1648-1649                                | 0.5  | 1   |
|----|--|------|-----|
| 20 | Electric field enhancement in a self-assembled 2D array of silver nanospheres. <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 214308  | 3.9  | 18  |
| 19 | In-situ electrochemical transmission electron microscopy for battery research. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 484-92  | 0.5  | 39  |
| 18 | TEM for Characterization of Nanocomposite Oxide Thin Films: A Case Study on Solution-Derived Lanthanum Strontium Manganites <b>2014</b> , 537-575  |      | 1   |
| 17 | Demonstration of an electrochemical liquid cell for operando transmission electron microscopy observation of the lithiation/delithiation behavior of Si nanowire battery anodes. <i>Nano Letters</i> , <b>2013</b> , 13, 6106-12 | 11.5 | 232 |
| 16 | Photoemission electron microscopy study of sub-200 nm self-assembled LallerLallenOlepitaxial islands. <i>Nanoscale</i> , <b>2013</b> , 5, 2990-8   | 7.7  | 9   |
| 15 | A (S)TEM gas cell holder with localized laser heating for in situ experiments. <i>Microscopy and Microanalysis</i> , <b>2013</b> , 19, 470-8   | 0.5  | 23  |
| 14 | High gas pressure / high temperature in situ investigation of nanomaterials by STEM-EELS. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 1170-1171  | 0.5  | 1   |
| 13 | Nanoscale magnetic structure and properties of solution-derived self-assembled La0.7Sr0.3MnO3 islands. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 024307   | 2.5  | 27  |
| 12 | Interface structure governed by plastic and structural dissimilarity in perovskite La0.7Sr0.3MnO3 nanodots on rock-salt MgO substrates. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 083104                               | 3.4  | 3   |
| 11 | Nanocomposite lanthanum strontium manganite thin films formed by using a chemical solution deposition. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 023103  | 3.4  | 7   |
| 10 | Misfit relaxation of La0.7Sr0.3MnO3 thin films by a nanodot segregation mechanism. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 041903   | 3.4  | 15  |
| 9  | Chemical solution approaches to YBa2Cu3O7_delta-Au nanocomposite superconducting thin films.<br>Journal of Nanoscience and Nanotechnology, <b>2011</b> , 11, 3245-55   | 1.3  | 15  |
| 8  | Orientation and shape selection of self-assembled epitaxial Ce1\(\mathbb{Q}\)GdxO2\(\mathbb{J}\)nanostructures grown by chemical solution deposition. \(CrystEngComm\), \(\mathbb{2011}\), 13, 6719                              | 3.3  | 24  |
| 7  | Interaction between solution derived BaZrO3 nanodot interfacial templates and YBa2Cu3O7 films leading to enhanced critical currents. <i>Acta Materialia</i> , <b>2011</b> , 59, 2075-2082  | 8.4  | 29  |
| 6  | Orientational ordering of solution derived epitaxial Gd-doped ceria nanowires induced by nanoscratching. <i>Nanotechnology</i> , <b>2010</b> , 21, 025302  | 3.4  | 13  |
| 5  | Temperature-dependent structural characterization of silicon nanowires 2010,   |      | 2   |
| 4  | Self-organized Ce(1-x)Gd(x)O(2-y) nanowire networks with very fast coarsening driven by attractive elastic interactions. <i>Small</i> , <b>2010</b> , 6, 2716-24   | 11   | 20  |

## LIST OF PUBLICATIONS

| 3 | Strain Relaxation of Self-Nanostructured Solution Derived La0.7Sr0.3MnO3 Films. <i>Materials Research Society Symposia Proceedings</i> , <b>2009</b> , 1174, 1                                    |      | 4  |
|---|---|------|----|
| 2 | Spontaneous Outcropping of Self-Assembled Insulating Nanodots in Solution-Derived Metallic Ferromagnetic La0.7Sr0.3MnO3 Films. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 2139-2146 | 15.6 | 32 |
| 1 | Epitaxial growth of Al on Si(111) with Cu buffer layers. <i>Surface Science</i> , <b>2006</b> , 600, 610-616  | 1.8  | 3  |