# Ana Borras

List of Publications by Year
in descending order



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|---|---|---|---|
| 100 papers | 2,803 citations | 159525<br>30 h-index | 197736<br>49 g-index |
| 105 all docs | 105 docs citations | 105 times ranked | 3944 citing authors |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 1 | Plasma engineering of microstructured piezo â€“ Triboelectric hybrid nanogenerators for wide bandwidth vibration energy harvesting. Nano Energy, 2022, 91, 106673. | 8.2 | 12 |
| 2 | Highly Anisotropic Organometal Halide Perovskite Nanowalls Grown by Glancingâ€Angle Deposition. Advanced Materials, 2022, 34, e2107739. | 11.1 | 5 |
| 3 | Coarseâ€grained approach to amorphous and anisotropic materials in kinetic Monte Carlo thinâ€filmÂ growth simulations: A case study of TiO<sub>2</sub> and ZnO by plasmaâ€enhanced chemical vapor deposition. Plasma Processes and Polymers, 2022, 19, . | 1.6 | 2 |
| 4 | Highly Anisotropic Organometal Halide Perovskite Nanowalls Grown by Glancingâ€Angle Deposition (Adv. Mater. 18/2022). Advanced Materials, 2022, 34, . | 11.1 | 1 |
| 5 | Ultrathin Plasma Polymer Passivation of Perovskite Solar Cells for Improved Stability and Reproducibility. Advanced Energy Materials, 2022, 12, . | 10.2 | 8 |
| 6 | Anisotropic Resistivity Surfaces Produced in ITO Films by Laserâ€Induced Nanoscale Selfâ€organization. Advanced Optical Materials, 2021, 9, 2001086. | 3.6 | 24 |
| 7 | One-reactor vacuum and plasma synthesis of transparent conducting oxide nanotubes and nanotrees: from single wire conductivity to ultra-broadband perfect absorbers in the NIR. Nanoscale, 2021, 13, 13882-13895. | 2.8 | 4 |
| 8 | Anisotropic Resistivity ITO Surfaces produced by Laser-induced Self-organization at the Nanoscale. , 2021, , . | | 0 |
| 9 | Mechanically Switchable Wetting Petal Effect in Self-Patterned Nanocolumnar Films on Poly(dimethylsiloxane). Nanomaterials, 2021, 11, 2566. | 1.9 | 2 |
| 10 | Plasmaâ€Assisted Deposition of TiO<sub>2</sub> 3D Nanomembranes: Selective Wetting, Superomniphobicity, and Selfâ€Cleaning. Advanced Materials Interfaces, 2021, 8, 2100767. | 1.9 | 6 |
| 11 | Hierarchical Photocatalytic Surfaces: From 1D to 3D Photoactive TiO2 Nanotubes Grown By Plasma Assisted Deposition Techniques. ECS Meeting Abstracts, 2021, MA2021-02, 675-675. | 0.0 | 0 |
| 12 | Plasmaâ€Assisted Deposition of TiO<sub>2</sub> 3D Nanomembranes: Selective Wetting, Superomniphobicity, and Selfâ€Cleaning (Adv. Mater. Interfaces 21/2021). Advanced Materials Interfaces, 2021, 8, 2170122. | 1.9 | 0 |
| 13 | (Invited) Supported Core@Multishell Nanowires and Nanotubes As a Platform for Water Management and Water Energy Harvesting. ECS Meeting Abstracts, 2021, MA2021-02, 670-670. | 0.0 | 0 |
| 14 | Enhanced Stability of Perovskite Solar Cells Incorporating Dopantâ€Free Crystalline Spiroâ€OMeTAD Layers by Vacuum Sublimation. Advanced Energy Materials, 2020, 10, 1901524. | 10.2 | 30 |
| 15 | Robust anti-icing superhydrophobic aluminum alloy surfaces by grafting fluorocarbon molecular chains. Applied Materials Today, 2020, 21, 100815. | 2.3 | 37 |
| 16 | Plasma-Enabled Amorphous TiO<sub>2</sub> Nanotubes as Hydrophobic Support for Molecular Sensing by SERS. ACS Applied Materials & Interfaces, 2020, 12, 50721-50733. | 4.0 | 35 |
| 17 | Hydrophobic and Anti-Icing Behavior of UV-Laser-Treated Polyester Resin-Based Gelcoats. Processes, 2020, 8, 1642. | 1.3 | 13 |
| 18 | Supported Porous Nanostructures Developed by Plasma Processing of Metal Phthalocyanines and Porphyrins. Frontiers in Chemistry, 2020, 8, 520. | 1.8 | 3 |

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| 19 | Perovskite Solar Cells: Enhanced Stability of Perovskite Solar Cells Incorporating Dopantâ€Free Crystalline Spiroâ€OMeTAD Layers by Vacuum Sublimation (Adv. Energy Mater. 2/2020). Advanced Energy Materials, 2020, 10, 2070007. | 10.2 | 0 |
| 20 | Plasma Enabled Conformal and Damage Free Encapsulation of Fragile Molecular Matter: from Surfaceâ€Supported to Onâ€Device Nanostructures. Advanced Functional Materials, 2019, 29, 1903535. | 7.8 | 13 |
| 21 | Hydrophobicity, Freezing Delay, and Morphology of Laser-Treated Aluminum Surfaces. Langmuir, 2019, 35, 6483-6491. | 1.6 | 29 |
| 22 | Multifunctional antimicrobial chlorhexidine polymers by remote plasma assisted vacuum deposition. Frontiers of Chemical Science and Engineering, 2019, 13, 330-339. | 2.3 | 8 |
| 23 | Hydrophobic and Icephobic Behaviour of Polyurethane-Based Nanocomposite Coatings. Coatings, 2019, 9, 811. | 1.2 | 14 |
| 24 | 3D Organic Nanofabrics: Plasma-Assisted Synthesis and Antifreezing Behavior of Superhydrophobic and Lubricant-Infused Slippery Surfaces. Langmuir, 2019, 35, 16876-16885. | 1.6 | 13 |
| 25 | 3D core-multishell piezoelectric nanogenerators. Nano Energy, 2019, 58, 476-483. | 8.2 | 39 |
| 26 | Self-Assembly of the Nonplanar Fe(III) Phthalocyanine Small-Molecule: Unraveling the Impact on the Magnetic Properties of Organic Nanowires. Chemistry of Materials, 2018, 30, 879-887. | 3.2 | 9 |
| 27 | Enhancing Moisture and Water Resistance in Perovskite Solar Cells by Encapsulation with Ultrathin Plasma Polymers. ACS Applied Materials & Interfaces, 2018, 10, 11587-11594. | 4.0 | 125 |
| 28 | The Role of Surface Recombination on the Performance of Perovskite Solar Cells: Effect of Morphology and Crystalline Phase of TiO<sub>2</sub> Contact. Advanced Materials Interfaces, 2018, 5, 1801076. | 1.9 | 30 |
| 29 | Multicolored Emission and Lasing in DCM-Adamantane Plasma Nanocomposite Optical Films. ACS Applied Materials & Interfaces, 2017, 9, 8948-8959. | 4.0 | 12 |
| 30 | Lowâ€Temperature Plasma Processing of Platinum Porphyrins for the Development of Metal Nanostructured Layers. Advanced Materials Interfaces, 2017, 4, 1601233. | 1.9 | 10 |
| 31 | Impact of moisture on efficiency-determining electronic processes in perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 10917-10927. | 5.2 | 95 |
| 32 | In Situ Determination of the Water Condensation Mechanisms on Superhydrophobic and Superhydrophilic Titanium Dioxide Nanotubes. Langmuir, 2017, 33, 6449-6456. | 1.6 | 23 |
| 33 | (Invited) Plasma Assisted Oblique Angle Deposition of Transparent and Conductive in-Plane Anisotropic ITO Thin Films. ECS Transactions, 2017, 77, 9-15. | 0.3 | 1 |
| 34 | Plasma assisted deposition of single and multistacked TiO<sub>2</sub> hierarchical nanotube photoanodes. Nanoscale, 2017, 9, 8133-8141. | 2.8 | 16 |
| 35 | One-reactor plasma assisted fabrication of ZnO@TiO 2 multishell nanotubes: assessing the impact of a full coverage on the photovoltaic performance. Scientific Reports, 2017, 7, 9621. | 1.6 | 8 |
| 36 | Solar Cells: Lowâ€Temperature Plasma Processing of Platinum Porphyrins for the Development of Metal Nanostructured Layers (Adv. Mater. Interfaces 14/2017). Advanced Materials Interfaces, 2017, 4, . | 1.9 | 0 |

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|---|---|---|---|
| 37 | Micronâ€scale wedge thin films prepared by plasma enhanced chemical vapor deposition. Plasma Processes and Polymers, 2017, 14, 1700043. | 1.6 | 2 |
| 38 | (Invited) Plasma Assisted Oblique Angle Deposition of Transparent and Conductive in-Plane Anisotropic ITO Thin Films. ECS Meeting Abstracts, 2017, , . | 0.0 | 0 |
| 39 | A Full Vacuum Approach for the Fabrication of Hybrid White-Light-Emitting Thin Films and Wide-Range In Situ Tunable Luminescent Microcavities. Advanced Optical Materials, 2016, 4, 1124-1131. | 3.6 | 3 |
| 40 | Vacuum template synthesis of multifunctional nanotubes with tailored nanostructured walls. Scientific Reports, 2016, 6, 20637. | 1.6 | 14 |
| 41 | The interaction between hybrid organicâ€“inorganic halide perovskite and selective contacts in perovskite solar cells: an infrared spectroscopy study. Physical Chemistry Chemical Physics, 2016, 18, 13583-13590. | 1.3 | 55 |
| 42 | White Light Emission: A Full Vacuum Approach for the Fabrication of Hybrid Whiteâ€Lightâ€Emitting Thin Films and Wideâ€Range In Situ Tunable Luminescent Microcavities (Advanced Optical Materials 7/2016). Advanced Optical Materials, 2016, 4, 1134-1134. | 3.6 | 0 |
| 43 | Highly Porous ZnO Thin Films and 1D Nanostructures by Remote Plasma Processing of Zn-Phthalocyanine. Plasma Processes and Polymers, 2016, 13, 287-297. | 1.6 | 7 |
| 44 | Ripening and recrystallization of NaCl nanocrystals in humid conditions. RSC Advances, 2016, 6, 3778-3782. | 1.7 | 10 |
| 45 | A novel 3D absorption correction method for quantitative EDX-STEM tomography. Ultramicroscopy, 2016, 160, 118-129. | 0.8 | 35 |
| 46 | Perspectives on oblique angle deposition of thin films: From fundamentals to devices. Progress in Materials Science, 2016, 76, 59-153. | 16.0 | 564 |
| 47 | Reduced-dose and high-speed acquisition strategies for multi-dimensional electron microscopy. Advanced Structural and Chemical Imaging, 2015, 1, . | 4.0 | 37 |
| 48 | Laser Treatment of Ag@ZnO Nanorods as Long-Life-Span SERS Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 2331-2339. | 4.0 | 50 |
| 49 | Ultraviolet Pretreatment of Titanium Dioxide and Tin-Doped Indium Oxide Surfaces as a Promoter of the Adsorption of Organic Molecules in Dry Deposition Processes: Light Patterning of Organic Nanowires. Langmuir, 2015, 31, 8294-8302. | 1.6 | 5 |
| 50 | Anisotropic In-Plane Conductivity and Dichroic Gold Plasmon Resonance in Plasma-Assisted ITO Thin Films e-Beam-Evaporated at Oblique Angles. ACS Applied Materials & Interfaces, 2015, 7, 10993-11001. | 4.0 | 15 |
| 51 | Plasma Deposition of Superhydrophobic Ag@TiO<sub>2</sub> Core@shell Nanorods on Processable Substrates. Plasma Processes and Polymers, 2014, 11, 164-174. | 1.6 | 8 |
| 52 | Mechanisms of Electron Transport and Recombination in ZnO Nanostructures for Dyeâ€Sensitized Solar Cells. ChemPhysChem, 2014, 15, 1088-1097. | 1.0 | 22 |
| 53 | Luminescent 3-hydroxyflavone nanocomposites with a tuneable refractive index for photonics and UV detection by plasma assisted vacuum deposition. Journal of Materials Chemistry C, 2014, 2, 6561-6573. | 2.7 | 16 |
| 54 | Oxygen Optical Sensing in Gas and Liquids with Nanostructured ZnO Thin Films Based on Exciton Emission Detection. Journal of Physical Chemistry C, 2014, 118, 9852-9859. | 1.5 | 48 |

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| 55 | Bending Induced Self-Organized Switchable Gratings on Polymeric Substrates. ACS Applied Materials & Interfaces, 2014, 6, 11924-11931. | 4.0 | 16 |
| 56 | Enhanced reactivity and related optical changes of Ag nanoparticles on amorphous Al2O3supports. Nanotechnology, 2013, 24, 365702. | 1.3 | 2 |
| 57 | Enhancement of visible light-induced surface photo-activity of nanostructured Nâ€“TiO2 thin films modified by ion implantation. Chemical Physics Letters, 2013, 582, 95-99. | 1.2 | 12 |
| 58 | Preparation and characterization of CrO2 films by Low Pressure Chemical Vapor Deposition from CrO3. Thin Solid Films, 2013, 539, 1-11. | 0.8 | 13 |
| 59 | Vertically Aligned Hybrid Core/Shell Semiconductor Nanowires for Photonics Applications. Advanced Functional Materials, 2013, 23, 5981-5989. | 7.8 | 36 |
| 60 | Laser induced enhancement of dichroism in supported silver nanoparticles deposited by evaporation at glancing angles. Nanotechnology, 2013, 24, 045301. | 1.3 | 11 |
| 61 | Performance of Porous, Nanocolumnar ZnO Electrodes Obtained at Low Temperature by Plasma-Enhanced Chemical Vapor Deposition in Dye-Sensitized Solar Cells. Energy and Environment Focus, 2013, 2, 270-276. | 0.3 | 2 |
| 62 | Correlation lengths, porosity and water adsorption in TiO2thin films prepared by glancing angle deposition. Nanotechnology, 2012, 23, 205701. | 1.3 | 61 |
| 63 | Vertical and tilted Ag-NPs@ZnO nanorods by plasma-enhanced chemical vapour deposition. Nanotechnology, 2012, 23, 255303. | 1.3 | 17 |
| 64 | Superhydrophobic supported Ag-NPs@ZnO-nanorods with photoactivity in the visible range. Journal of Materials Chemistry, 2012, 22, 1341-1346. | 6.7 | 41 |
| 65 | Following the Wetting of One-Dimensional Photoactive Surfaces. Langmuir, 2012, 28, 15047-15055. | 1.6 | 11 |
| 66 | Roughness assessment and wetting behavior of fluorocarbon surfaces. Journal of Colloid and Interface Science, 2012, 376, 274-282. | 5.0 | 32 |
| 67 | Critical thickness and nanoporosity of TiO2 optical thin films. Microporous and Mesoporous Materials, 2012, 160, 1-9. | 2.2 | 19 |
| 68 | Soft plasma processing of organic nanowires: a route for the fabrication of 1D organic heterostructures and the template synthesis of inorganic 1D nanostructures. Nanoscale, 2011, 3, 4554. | 2.8 | 20 |
| 69 | Supported plasma-made 1D heterostructures: perspectives and applications. Journal Physics D: Applied Physics, 2011, 44, 174016. | 1.3 | 11 |
| 70 | Comments on â€œAn Essay on Contact Angle Measurementsâ€ Determination of Surface Roughness and Modeling of the Wetting Behavior. Plasma Processes and Polymers, 2011, 8, 998-1002. | 1.6 | 10 |
| 71 | Transparent Nanometric Organic Luminescent Films as UVâ€Active Components in Photonic Structures. Advanced Materials, 2011, 23, 761-765. | 11.1 | 33 |
| 72 | Selective Dichroic Patterning by Nanosecond Laser Treatment of Ag Nanostripes. Advanced Materials, 2011, 23, 848-853. | 11.1 | 37 |

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| 73 | Luminescent Thin Films: Transparent Nanometric Organic Luminescent Films as UV-Active Components in Photonic Structures (Adv. Mater. 6/2011). Advanced Materials, 2011, 23, 684-684. | 11.1 | 2 |
| 74 | Dichroic Optical Structures: Selective Dichroic Patterning by Nanosecond Laser Treatment of Ag Nanostripes (Adv. Mater. 7/2011). Advanced Materials, 2011, 23, 800-800. | 11.1 | 0 |
| 75 | Enhanced Photoactivity in Bilayer Films with Buried Rutileâ€“Anatase Heterojunctions. ChemPhysChem, 2011, 12, 191-196. | 1.0 | 23 |
| 76 | Tunable In-Plane Optical Anisotropy of Ag Nanoparticles Deposited by DC Sputtering onto SiO2 Nanocolumnar Films. Plasmonics, 2010, 5, 241-250. | 1.8 | 18 |
| 77 | Air- and Light-Stable Superhydrophobic Colored Surfaces Based on Supported Organic Nanowires. Langmuir, 2010, 26, 1487-1492. | 1.6 | 21 |
| 78 | One-Step Dry Method for the Synthesis of Supported Single-Crystalline Organic Nanowires Formed by ï€-Conjugated Molecules. Langmuir, 2010, 26, 5763-5771. | 1.6 | 36 |
| 79 | Tunable Nanostructure and Photoluminescence of Columnar ZnO Films Grown by Plasma Deposition. Journal of Physical Chemistry C, 2010, 114, 20932-20940. | 1.5 | 30 |
| 80 | Wetting Properties of Polycrystalline TiO<sub>2</sub> Surfaces: A Scaling Approach to the Roughness Factors. Langmuir, 2010, 26, 15875-15882. | 1.6 | 37 |
| 81 | Connecting Organic Nanowires. Advanced Materials, 2009, 21, 4816-4819. | 11.1 | 17 |
| 82 | Luminescent and Optical Properties of Nanocomposite Thin Films Deposited by Remote Plasma Polymerization of Rhodamine 6G. Plasma Processes and Polymers, 2009, 6, 17-26. | 1.6 | 16 |
| 83 | Porosity and microstructure of plasma deposited TiO2 thin films. Microporous and Mesoporous Materials, 2009, 118, 314-324. | 2.2 | 42 |
| 84 | Fabrication of ordered crystalline zirconium nanoporous membranes by an one-step procedure. Nano Today, 2009, 4, 21-26. | 6.2 | 9 |
| 85 | Chemical State of Nitrogen and Visible Surface and Schottky Barrier Driven Photoactivities of N-Doped TiO<sub>2</sub> Thin Films. Journal of Physical Chemistry C, 2009, 113, 13341-13351. | 1.5 | 63 |
| 86 | Wetting Angles on Illuminated Ta2O5 Thin Films with Controlled Nanostructure. Journal of Physical Chemistry C, 2009, 113, 3775-3784. | 1.5 | 29 |
| 87 | Growth of Crystalline TiO2 by Plasma Enhanced Chemical Vapor Deposition. Crystal Growth and Design, 2009, 9, 2868-2876. | 1.4 | 54 |
| 88 | Optically Active Luminescent Perylene Thin Films Deposited by Plasma Polymerization. Journal of Physical Chemistry C, 2009, 113, 431-438. | 1.5 | 37 |
| 89 | Preillumination of TiO2 and Ta2O5 Photoactive Thin Films As a Tool to Tailor the Synthesis of Composite Materials. Langmuir, 2008, 24, 9460-9469. | 1.6 | 37 |
| 90 | Reversible Superhydrophobic to Superhydrophilic Conversion of Ag@TiO2 Composite Nanofiber Surfaces. Langmuir, 2008, 24, 8021-8026. | 1.6 | 87 |

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| 91 | Synthesis of Supported Single-Crystalline Organic Nanowires by Physical Vapor Deposition. Chemistry of Materials, 2008, 20, 7371-7373. | 3.2 | 40 |
| 92 | Type of Plasmas and Microstructures of TiO[sub 2] Thin Films Prepared by Plasma Enhanced Chemical Vapor Deposition. Journal of the Electrochemical Society, 2007, 154, P152. | 1.3 | 56 |
| 93 | Relationship between scaling behavior and porosity of plasma-deposited<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>thin films. Physical Review B, 2007, 76, . | 1.1 | 34 |
| 94 | Effect of Visible and UV Illumination on the Water Contact Angle of TiO2Thin Films with Incorporated Nitrogen. Journal of Physical Chemistry C, 2007, 111, 1801-1808. | 1.5 | 71 |
| 95 | Synthesis of undoped and Ni doped InTaO4 photoactive thin films by metal organic chemical vapor deposition. Surface and Coatings Technology, 2007, 201, 9365-9368. | 2.2 | 6 |
| 96 | Factors that Contribute to the Growth of Ag@TiO<sub>2</sub> Nanofibers by Plasma Deposition. Plasma Processes and Polymers, 2007, 4, 515-527. | 1.6 | 25 |
| 97 | Supported Agâ€"TiO2coreâ€"shell nanofibres formed at low temperature by plasma deposition. Nanotechnology, 2006, 17, 3518-3522. | 1.3 | 28 |
| 98 | Effect of visible light on the water contact angles on illuminated oxide semiconductors other than TiO2. Solar Energy Materials and Solar Cells, 2006, 90, 2944-2949. | 3.0 | 47 |
| 99 | Design and control of porosity in oxide thin films grown by PECVD. Journal of Materials Science, 2006, 41, 5220-5226. | 1.7 | 35 |
| 100 | Rhodamine 6G and 800 intermolecular heteroaggregates embedded in PMMA for Near-Infrared wavelength shifting. Journal of Materials Chemistry C, 0, , . | 2.7 | 0 |