

# Alvaro Mayoral

## List of Publications by Year in descending order

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Version: 2024-02-01

181  
papers

6,314  
citations

87888

38  
h-index

88630

70  
g-index

190  
all docs

190  
docs citations

190  
times ranked

9190  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Exceptional oxidation activity with size-controlled supported gold clusters of low atomicity. Nature Chemistry, 2013, 5, 775-781.   | 13.6 | 394       |
| 2  | Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.   | 4.4  | 333       |
| 3  | Zeolite-Encaged Single-Atom Rhodium Catalysts: Highly Efficient Hydrogen Generation and Shape-Selective Tandem Hydrogenation of Nitroarenes. Angewandte Chemie - International Edition, 2019, 58, 18570-18576.                              | 13.8 | 281       |
| 4  | Sustainable Preparation of MIL-100(Fe) and Its Photocatalytic Behavior in the Degradation of Methyl Orange in Water. Crystal Growth and Design, 2017, 17, 1806-1813.  | 3.0  | 251       |
| 5  | Subnanometer Bimetallic Platinum-Zinc Clusters in Zeolites for Propane Dehydrogenation. Angewandte Chemie - International Edition, 2020, 59, 19450-19459.   | 13.8 | 221       |
| 6  | Synthesis of "unfeasible" zeolites. Nature Chemistry, 2016, 8, 58-62.   | 13.6 | 186       |
| 7  | Rational design of mixed-matrix metal-organic framework membranes for molecular separations. Science, 2022, 376, 1080-1087.   | 12.6 | 160       |
| 8  | Nanoscaled M-MOF-74 Materials Prepared at Room Temperature. Crystal Growth and Design, 2014, 14, 2479-2487.   | 3.0  | 155       |
| 9  | Amino Acid-Assisted Construction of Single-Crystalline Hierarchical Nanozeolites via Oriented-Aggregation and Intraparticle Ripening. Journal of the American Chemical Society, 2019, 141, 3772-3776.                                       | 13.7 | 131       |
| 10 | Impregnating Subnanometer Metallic Nanocatalysts into Self-Pillared Zeolite Nanosheets. Journal of the American Chemical Society, 2021, 143, 6905-6914.   | 13.7 | 124       |
| 11 | Immobilization of lipase in ordered mesoporous materials: Effect of textural and structural parameters. Microporous and Mesoporous Materials, 2008, 114, 201-213.   | 4.4  | 107       |
| 12 | The ultimate step towards a tailored engineering of core@shell and core@shell@shell nanoparticles. Nanoscale, 2014, 6, 13483-13486.   | 5.6  | 101       |
| 13 | Beyond the H <sub>2</sub> /CO <sub>2</sub> upper bound: one-step crystallization and separation of nano-sized ZIF-11 by centrifugation and its application in mixed matrix membranes. Journal of Materials Chemistry A, 2015, 3, 6549-6556. | 10.3 | 99        |
| 14 | Enhanced photocatalytic activity of TiO <sub>2</sub> supported on zeolites tested in real wastewaters from the textile industry of Ethiopia. Microporous and Mesoporous Materials, 2016, 225, 88-97.  | 4.4  | 85        |
| 15 | Atomic Resolution Analysis of Silver Ion-Exchanged Zeolite...A. Angewandte Chemie - International Edition, 2011, 50, 11230-11233.   | 13.8 | 83        |
| 16 | The relevance of Brownian relaxation as power absorption mechanism in Magnetic Hyperthermia. Scientific Reports, 2019, 9, 3992.   | 3.3  | 79        |
| 17 | Metal organic framework synthesis in the presence of surfactants: towards hierarchical MOFs?. CrystEngComm, 2015, 17, 1693-1700.  | 2.6  | 78        |
| 18 | Nanoparticle stability from the nano to the meso interval. Nanoscale, 2010, 2, 335-342.   | 5.6  | 77        |

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|----|--|------|-----------|
| 19 | Formation and Encapsulation of All-Inorganic Lead Halide Perovskites at Room Temperature in Metal-Organic Frameworks. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2270-2277.  | 4.6  | 77        |
| 20 | Expansion of the ADOR Strategy for the Synthesis of Zeolites: The Synthesis of IPC-12 from Zeolite UOV. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4324-4327.  | 13.8 | 70        |
| 21 | Hydrodechlorination of chloromethanes with a highly stable Pt on activated carbon catalyst. <i>Journal of Catalysis</i> , 2011, 279, 389-396.  | 6.2  | 62        |
| 22 | Synthesis and structural characterization of Zn <sub>x</sub> Fe <sub>3-x</sub> O <sub>4</sub> ferrite nanoparticles obtained by an electrochemical method. <i>RSC Advances</i> , 2016, 6, 40067-40076.                               | 3.6  | 62        |
| 23 | Anisotropic gold nanoparticles and gold plates biosynthesis using alfalfa extracts. <i>Journal of Nanoparticle Research</i> , 2011, 13, 3113-3121.   | 1.9  | 61        |
| 24 | Assembly-Disassembly-Organization-Reassembly Synthesis of Zeolites Based on <i>cfi</i> -Type Layers. <i>Chemistry of Materials</i> , 2017, 29, 5605-5611.  | 6.7  | 60        |
| 25 | New insights into the properties and interactions of carbon chains as revealed by HRTEM and DFT analysis. <i>Carbon</i> , 2014, 66, 436-441.   | 10.3 | 58        |
| 26 | Sepiolite nanoplatform for the simultaneous assembly of magnetite and zinc oxide nanoparticles as photocatalyst for improving removal of organic pollutants. <i>Journal of Hazardous Materials</i> , 2017, 340, 281-290.             | 12.4 | 57        |
| 27 | Beyond gold: rediscovering tetrakis-(hydroxymethyl)-phosphonium chloride (THPC) as an effective agent for the synthesis of ultra-small noble metal nanoparticles and Pt-containing nanoalloys. <i>RSC Advances</i> , 2013, 3, 10427. | 3.6  | 56        |
| 28 | A novel Co@Au structure formed in bimetallic core@shell nanoparticles. <i>Chemical Communications</i> , 2015, 51, 8442-8445.   | 4.1  | 55        |
| 29 | High Specific Absorption Rate and Transverse Relaxivity Effects in Manganese Ferrite Nanoparticles Obtained by an Electrochemical Route. <i>Journal of Physical Chemistry C</i> , 2015, 119, 6828-6834.                              | 3.1  | 53        |
| 30 | Atomic resolution analysis of porous solids: A detailed study of silver ion-exchanged zeolite A. <i>Microporous and Mesoporous Materials</i> , 2013, 166, 117-122.   | 4.4  | 52        |
| 31 | TEM studies of zeolites and ordered mesoporous materials. <i>Micron</i> , 2011, 42, 512-527.   | 2.2  | 51        |
| 32 | Platinum Electrodeposition on Unsupported Carbon Nano-Onions. <i>Langmuir</i> , 2012, 28, 17202-17210.   | 3.5  | 49        |
| 33 | Functional Hybrid Nanopaper by Assembling Nanofibers of Cellulose and Sepiolite. <i>Advanced Functional Materials</i> , 2018, 28, 1703048.   | 14.9 | 49        |
| 34 | Validity of the Néel-Arrhenius model for highly anisotropic Co <sub>x</sub> Fe <sub>3-x</sub> O <sub>4</sub> nanoparticles. <i>Journal of Applied Physics</i> , 2015, 118, .   | 2.5  | 48        |
| 35 | Subnanometer Bimetallic Platinum-Zinc Clusters in Zeolites for Propane Dehydrogenation. <i>Angewandte Chemie</i> , 2020, 132, 19618-19627.   | 2.0  | 47        |
| 36 | The Co-Au interface in bimetallic nanoparticles: a high resolution STEM study. <i>Nanoscale</i> , 2010, 2, 2647.   | 5.6  | 46        |

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|----|---|------|-----------|
| 37 | Chiral Imprinting with Amino Acids of Ordered Mesoporous Silica Exhibiting Enantioselectivity after Calcination. <i>Chemistry of Materials</i> , 2011, 23, 1280-1287.   | 6.7  | 42        |
| 38 | On the atomic structure of thiol-protected gold nanoparticles: a combined experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11785.   | 2.8  | 40        |
| 39 | Atomic Observations of Microporous Materials Highly Unstable under the Electron Beam: The Cases of Ti-Doped AlPO <sub>4</sub> and Zn-MOF. <i>ChemCatChem</i> , 2015, 7, 3719-3724.  | 3.7  | 38        |
| 40 | Spontaneous formation of Au-Pt alloyed nanoparticles using pure nano-counterparts as starters: a ligand and size dependent process. <i>Nanoscale</i> , 2015, 7, 10152-10161.  | 5.6  | 37        |
| 41 | Synthesis and characterization of manganese ferrite nanoparticles obtained by electrochemical/chemical method. <i>Materials and Design</i> , 2016, 111, 646-650.  | 7.0  | 37        |
| 42 | STA-20: An ABC-6 Zeolite Structure Prepared by Co-Templating and Solved via a Hypothetical Structure Database and STEM-ADF Imaging. <i>Chemistry of Materials</i> , 2017, 29, 2180-2190.                                  | 6.7  | 37        |
| 43 | Highly efficient and selective extraction of uranium from aqueous solution using a magnetic device: succinyl- $\beta$ -cyclodextrin-APTES@maghemite nanoparticles. <i>Environmental Science: Nano</i> , 2018, 5, 158-168. | 4.3  | 37        |
| 44 | Thermal Diffusion at Nanoscale: From CoAu Alloy Nanoparticles to Co@Au Core/Shell Structures. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3101-3108.  | 3.1  | 35        |
| 45 | Breaking the Si/Al Limit of Nanosized $\beta$ Zeolites: Promoting Catalytic Production of Lactide. <i>Chemistry of Materials</i> , 2020, 32, 751-758.   | 6.7  | 35        |
| 46 | On the behavior of Ag nanowires under high temperature: in situ characterization by aberration-corrected STEM. <i>Journal of Materials Chemistry</i> , 2011, 21, 893-898.   | 6.7  | 34        |
| 47 | Synthesis and magnetic behavior of ultra-small bimetallic FeCo/graphite nanoparticles. <i>Nanotechnology</i> , 2013, 24, 505702.  | 2.6  | 34        |
| 48 | Au deposited on CeO <sub>2</sub> prepared by a nanocasting route: A high activity catalyst for CO oxidation. <i>Journal of Catalysis</i> , 2014, 317, 167-175.  | 6.2  | 34        |
| 49 | High-Temperature Stable Gold Nanoparticle Catalysts for Application under Severe Conditions: The Role of TiO <sub>2</sub> Nanodomains in Structure and Activity. <i>ACS Catalysis</i> , 2015, 5, 1078-1086.               | 11.2 | 34        |
| 50 | Synthesis and characterization of ultra-small magnetic FeNi/G and NiCo/G nanoparticles. <i>Nanotechnology</i> , 2012, 23, 085601.   | 2.6  | 33        |
| 51 | Few-layer graphene by assisted-exfoliation of graphite with layered silicate. <i>Carbon</i> , 2014, 73, 99-105.   | 10.3 | 33        |
| 52 | Real-time monitoring of breathing of MIL-53(Al) by environmental SEM. <i>Microporous and Mesoporous Materials</i> , 2015, 203, 17-23.   | 4.4  | 33        |
| 53 | Insights into the capping and structure of MoS <sub>2</sub> nanotubes as revealed by aberration-corrected STEM. <i>Nanoscale</i> , 2010, 2, 2286.   | 5.6  | 32        |
| 54 | Spatially-Resolved EELS Analysis of Antibody Distribution on Biofunctionalized Magnetic Nanoparticles. <i>ACS Nano</i> , 2013, 7, 4006-4013.  | 14.6 | 32        |

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|----|---|------|-----------|
| 55 | Faceted MoS <sub>2</sub> nanotubes and nanoflowers. <i>Materials Chemistry and Physics</i> , 2009, 118, 392-397.  | 4.0  | 31        |
| 56 | Atomic Resolution Analysis of Microporous Titanosilicate ETS-10 through Aberration Corrected STEM Imaging. <i>ChemCatChem</i> , 2013, 5, 2595-2598.   | 3.7  | 31        |
| 57 | Synthesis of thermally stable SBT and SBS/SBT intergrowth zeolites. <i>Science</i> , 2021, 373, 104-107.  | 12.6 | 31        |
| 58 | Ten Years of Aberration Corrected Electron Microscopy for Ordered Nanoporous Materials. <i>ChemCatChem</i> , 2020, 12, 1248-1269.   | 3.7  | 30        |
| 59 | The Chemistry of Cosmic Dust Analogs from C, C <sub>2</sub> , and C <sub>2</sub> H <sub>2</sub> in C-rich Circumstellar Envelopes. <i>Astrophysical Journal</i> , 2020, 895, 97.  | 4.5  | 30        |
| 60 | Platinum Electrodeposition on Unsupported Single Wall Carbon Nanotubes and Its Application as Methane Sensing Material. <i>Journal of the Electrochemical Society</i> , 2013, 160, H98-H104.  | 2.9  | 29        |
| 61 | Exploratory Catalyst Screening Studies on the Base Free Conversion of Glycerol to Lactic Acid and Glyceric Acid in Water Using Bimetallic Au-Pt Nanoparticles on Acidic Zeolites. <i>Topics in Catalysis</i> , 2014, 57, 1445-1453. | 2.8  | 29        |
| 62 | Core@shell, Au@TiO <sub>x</sub> nanoparticles by gas phase synthesis. <i>Nanoscale</i> , 2017, 9, 6463-6470.  | 5.6  | 29        |
| 63 | Gas-phase synthesis of nanoparticles: present status and perspectives. <i>MRS Communications</i> , 2018, 8, 947-954.  | 1.8  | 29        |
| 64 | Vapour-phase-transport rearrangement technique for the synthesis of new zeolites. <i>Nature Communications</i> , 2019, 10, 5129.  | 12.8 | 29        |
| 65 | Removal of chromium(VI) using nano-hydrotalcite/SiO <sub>2</sub> composite. <i>Journal of Environmental Chemical Engineering</i> , 2015, 3, 1555-1561.  | 6.7  | 28        |
| 66 | Removal of <sup>90</sup> Sr from highly Na <sup>+</sup> -rich liquid nuclear waste with a layered vanadosilicate. <i>Energy and Environmental Science</i> , 2019, 12, 1857-1865.  | 30.8 | 28        |
| 67 | Direct Atomic-Level Imaging of Zeolites: Oxygen, Sodium in Na- $\delta$ -LTA and Iron in Fe-MFI. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19510-19517.  | 13.8 | 28        |
| 68 | Hydrogen Production by Steam Reforming of Methanol over a Ag/ZnO One Dimensional Catalyst. <i>Advanced Materials Research</i> , 0, 132, 205-219.  | 0.3  | 27        |
| 69 | Designing Functionalized Mesoporous Materials for Enzyme Immobilization: Locating Enzymes by Using Advanced TEM Techniques. <i>ChemCatChem</i> , 2013, 5, 903-909.  | 3.7  | 27        |
| 70 | Stability Assessment of Regenerated Hierarchical ZSM-48 Zeolite Designed by Post-Synthesis Treatment for Catalytic Cracking of Light Naphtha. <i>Energy &amp; Fuels</i> , 2017, 31, 14097-14103.                                    | 5.1  | 27        |
| 71 | Zeolite-Encaged Single-Atom Rhodium Catalysts: Highly Efficient Hydrogen Generation and Shape-Selective Tandem Hydrogenation of Nitroarenes. <i>Angewandte Chemie</i> , 2019, 131, 18743-18749.                                     | 2.0  | 26        |
| 72 | Aberration-Corrected STEM Analysis of a Cubic Cd Array Encapsulated in Zeolite A. <i>Journal of Physical Chemistry C</i> , 2013, 117, 24485-24489.  | 3.1  | 25        |

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|----|---|------|-----------|
| 73 | Zeolites are no longer a challenge: Atomic resolution data by Aberration-corrected STEM. <i>Micron</i> , 2015, 68, 146-151.   | 2.2  | 25        |
| 74 | Effect of the Pt/Pd molar ratio in bimetallic catalysts supported on sulfated zirconia on the gas-phase hydrodechlorination of chloromethanes. <i>Journal of Catalysis</i> , 2017, 352, 562-571.                                      | 6.2  | 25        |
| 75 | Magnetite as a platform material in the detection of glucose, ethanol and cholesterol. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 693-701.   | 7.8  | 25        |
| 76 | l- and d-Proline Adsorption by Chiral Ordered Mesoporous Silica. <i>Langmuir</i> , 2012, 28, 6638-6644.   | 3.5  | 24        |
| 77 | Imaging the Atomic Position of Light Cations in a Porous Network and the Europium(III) Ion Exchange Capability by Aberration-Corrected Electron Microscopy. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 16127-16131. | 13.8 | 24        |
| 78 | Synthesis of zeolite A using raw kaolin from Ethiopia and its application in removal of Cr(III) from tannery wastewater. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 146-154.                                 | 3.2  | 24        |
| 79 | On the influence of diphosphine ligands on the chemical order in small RuPt nanoparticles: combined structural and surface reactivity studies. <i>Dalton Transactions</i> , 2013, 42, 372-382.  | 3.3  | 23        |
| 80 | Polyhedral shaped gold nanoparticles with outstanding near-infrared light absorption. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 97, 11-18.   | 2.3  | 22        |
| 81 | Nanoalloying in real time. A high resolution STEM and computer simulation study. <i>Nanoscale</i> , 2011, 3, 5013.  | 5.6  | 22        |
| 82 | Stabilization of Nanoparticles Produced by Hydrogenation of Palladium-N-Heterocyclic Carbene Complexes on the Surface of Graphene and Implications in Catalysis. <i>ACS Omega</i> , 2018, 3, 15217-15228.                             | 3.5  | 22        |
| 83 | In-situ immobilization of enzymes in mesoporous silicas. <i>Solid State Sciences</i> , 2011, 13, 691-697.   | 3.2  | 21        |
| 84 | Synthesis, Swelling, and Exfoliation of Microporous Lamellar Titanosilicate AM-4. <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 2247-2253.   | 2.0  | 21        |
| 85 | Structural analysis of IPC zeolites and related materials using positron annihilation spectroscopy and high-resolution argon adsorption. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15269-15277.                          | 2.8  | 21        |
| 86 | Structuring of Alkyl-Triazole Bridged Silsesquioxanes. <i>ChemistrySelect</i> , 2017, 2, 432-442.   | 1.5  | 20        |
| 87 | Synthesis of 3D Large-Pore Germanosilicate Zeolites Using Imidazolium-Based Long Dications. <i>Chemistry of Materials</i> , 2019, 31, 5484-5493.  | 6.7  | 20        |
| 88 | Production of bimetallic nanowires through electron beam irradiation of copper- and silver-containing zeolite A. <i>Nanotechnology</i> , 2007, 18, 165708.  | 2.6  | 19        |
| 89 | Atomic resolution structural insights into PdPt nanoparticle-carbon interactions for the design of highly active and stable electrocatalysts. <i>Electrochimica Acta</i> , 2012, 64, 35-45.   | 5.2  | 19        |
| 90 | Synthesis of hybrid magneto-plasmonic nanoparticles with potential use in photoacoustic detection of circulating tumor cells. <i>Mikrochimica Acta</i> , 2018, 185, 130.  | 5.0  | 19        |

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|-----|---|------|-----------|
| 91  | Palladium doping of In <sub>2</sub> O <sub>3</sub> towards a general and selective catalytic hydrogenation of amides to amines and alcohols. <i>Catalysis Science and Technology</i> , 2019, 9, 6965-6976.                    | 4.1  | 19        |
| 92  | Impact of N on the atomic-scale Sb distribution in quaternary GaAsSbN-capped InAs quantum dots. <i>Nanoscale Research Letters</i> , 2012, 7, 653.   | 5.7  | 18        |
| 93  | C <sub>s</sub> -Corrected STEM Imaging of both Pure and Silver-Supported Metal-Organic Framework MIL-100(Fe). <i>ChemCatChem</i> , 2017, 9, 3497-3502.  | 3.7  | 18        |
| 94  | Zeolite framework functionalisation by tuneable incorporation of various metals into the IPC-2 zeolite. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 2746-2755.  | 6.0  | 17        |
| 95  | Structural transformation of MoO <sub>3</sub> nanobelts into MoS <sub>2</sub> nanotubes. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 96, 861-867.  | 2.3  | 16        |
| 96  | High-Yield Production of Long Branched Au Nanoparticles Characterized by Atomic Resolution Transmission Electron Microscopy. <i>Crystal Growth and Design</i> , 2011, 11, 4538-4543.  | 3.0  | 16        |
| 97  | Pillaring of layered zeolite precursors with ferrierite topology leading to unusual molecular sieves on the micro/mesoporous border. <i>Dalton Transactions</i> , 2018, 47, 3029-3037.  | 3.3  | 16        |
| 98  | Preparation of mesoporous Beta zeolite by fluoride treatment in liquid phase. Textural, acid and catalytic properties. <i>Microporous and Mesoporous Materials</i> , 2019, 284, 296-303.                                      | 4.4  | 16        |
| 99  | Photoluminescence Enhancement of InAs(Bi) Quantum Dots by Bi Clustering. <i>Applied Physics Express</i> , 2013, 6, 042103.  | 2.4  | 15        |
| 100 | Pursuit of optimal synthetic conditions for obtaining colloidal zero-valent iron nanoparticles by scanning pulsed laser ablation in liquids. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 81, 340-351.      | 5.8  | 15        |
| 101 | HPM-4: A New Germanosilicate Zeolite with Interconnected Extra-Large Pores Plus Odd-Membered and Small Pores**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3438-3442.                                       | 13.8 | 15        |
| 102 | Gold clusters showing pentagonal atomic arrays revealed by aberration-corrected scanning transmission electron microscopy. <i>Chemical Communications</i> , 2010, 46, 8758.   | 4.1  | 14        |
| 103 | Location of enzyme in lipase-SBA-12 hybrid biocatalyst. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2013, 90, 23-25.   | 1.8  | 14        |
| 104 | Structures of Silica-Based Nanoporous Materials Revealed by Microscopy. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2014, 640, 521-536.   | 1.2  | 14        |
| 105 | Gold nanoclusters prepared from an eighteenth century two-phases procedure supported on thiol-containing SBA-15 for liquid phase oxidation of cyclohexene with molecular oxygen. <i>Catalysis Today</i> , 2018, 304, 172-180. | 4.4  | 14        |
| 106 | Observation of Ag Nanoparticles in/on Ag@MIL-100(Fe) Prepared Through Different Procedures. <i>Frontiers in Chemistry</i> , 2019, 7, 686.   | 3.6  | 14        |
| 107 | Electron Microscopy Studies of Local Structural Modulations in Zeolite Crystals. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19403-19413.  | 13.8 | 14        |
| 108 | Base-free selective oxidation of pectin derived galacturonic acid to galactaric acid using supported gold catalysts. <i>Green Chemistry</i> , 2018, 20, 2763-2774.  | 9.0  | 13        |



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|-----|--|------|-----------|
| 109 | Some Efforts Toward Understanding Structural Features of MOF/COF. <i>Israel Journal of Chemistry</i> , 2018, 58, 1157-1163.  | 2.3  | 13        |
| 110 | Electrochemical Synthesis and Magnetic Properties of $MFe_2O_4$ ( $M = Fe, Mn$ ). <i>Nanotechnology</i> , 2019, 19, 2008-2015.   | 0.9  | 13        |
| 111 | On the structure of bimetallic noble metal nanoparticles as revealed by aberration corrected scanning transmission electron microscopy (STEM). <i>Micron</i> , 2012, 43, 557-564.                              | 2.2  | 12        |
| 112 | Controlled 3D-coating of the pores of highly ordered mesoporous antiferromagnetic $Co_3O_4$ replicas with ferrimagnetic $FexCo_{3-x}O_4$ nanolayers. <i>Nanoscale</i> , 2013, 5, 5561.                         | 5.6  | 12        |
| 113 | 3D reconstruction of atomic structures from high angle annular dark field (HAADF) STEM images and its application on zeolite silicalite-1. <i>Dalton Transactions</i> , 2014, 43, 14158-14163.                 | 3.3  | 12        |
| 114 | Amino-modified periodic mesoporous biphenylene-silica. <i>Microporous and Mesoporous Materials</i> , 2015, 217, 167-172.   | 4.4  | 12        |
| 115 | Expansion of the ADOR Strategy for the Synthesis of Zeolites: The Synthesis of IPC-12 from Zeolite UOV. <i>Angewandte Chemie</i> , 2017, 129, 4388-4391.   | 2.0  | 12        |
| 116 | Development of exfoliated layered stannosilicate for hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13180-13188.   | 7.1  | 11        |
| 117 | Generation of gold nanoparticles according to procedures described in the eighteenth century. <i>Gold Bulletin</i> , 2014, 47, 161-165.  | 2.4  | 11        |
| 118 | Imaging the Atomic Position of Light Cations in a Porous Network and the Europium(III) Ion Exchange Capability by Aberration-Corrected Electron Microscopy. <i>Angewandte Chemie</i> , 2016, 128, 16361-16365. | 2.0  | 11        |
| 119 | Tuning the size, composition and structure of $Au$ and $Co_{50}Au_{50}$ nanoparticles by high-power impulse magnetron sputtering in gas-phase synthesis. <i>Nanotechnology</i> , 2019, 30, 065606.             | 2.6  | 11        |
| 120 | Library Creation of Ultrasmall Multimetallic Nanoparticles Confined in Mesoporous MFI Zeolites. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14571-14577.                                      | 13.8 | 11        |
| 121 | Coating of Magnetite Nanoparticles with Fucoidan to Enhance Magnetic Hyperthermia Efficiency. <i>Nanomaterials</i> , 2021, 11, 2939.   | 4.1  | 11        |
| 122 | Controlled growth of nano-hydroxyapatite on stilbite: Defluoridation performance. <i>Microporous and Mesoporous Materials</i> , 2017, 254, 86-95.  | 4.4  | 10        |
| 123 | Green synthesis of starch-capped $Cu_2O$ nanocubes and their application in the direct electrochemical detection of glucose. <i>RSC Advances</i> , 2021, 11, 13711-13721.                                      | 3.6  | 10        |
| 124 | Composition-Dependent Cytotoxic and Antibacterial Activity of Biopolymer-Capped Ag/Au Bimetallic Nanoparticles against Melanoma and Multidrug-Resistant Pathogens. <i>Nanomaterials</i> , 2022, 12, 779.       | 4.1  | 10        |
| 125 | GTM-3, an Extra-Large Pore Enantioselective Chiral Zeolitic Catalyst. <i>Journal of the American Chemical Society</i> , 2022, 144, 8249-8256.  | 13.7 | 10        |
| 126 | Chiral periodic mesoporous copper(II) bis(oxazoline) phenylene-silica: A highly efficient and reusable asymmetric heterogeneous catalyst. <i>Journal of Catalysis</i> , 2014, 320, 63-69.                      | 6.2  | 9         |



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|-----|---|------|-----------|
| 127 | Strain mapping accuracy improvement using super-resolution techniques. <i>Journal of Microscopy</i> , 2016, 262, 50-58.   | 1.8  | 9         |
| 128 | Nanostructured carbon-metal hybrid aerogels from bacterial cellulose. <i>RSC Advances</i> , 2017, 7, 42203-42210.   | 3.6  | 9         |
| 129 | Nano-crystalline titanium(IV)tungstomolybdate cation exchanger: Synthesis, characterization and ion exchange properties. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 1004-1014. | 6.7  | 9         |
| 130 | Al-promoted increase of surface area and adsorption capacity in ordered mesoporous silica materials with a cubic structure. <i>Chemical Communications</i> , 2011, 47, 12337.                       | 4.1  | 8         |
| 131 | Laser Control of Zeolite Nucleation. <i>ChemPhysChem</i> , 2012, 13, 736-740.   | 2.1  | 8         |
| 132 | Location of laccase in ordered mesoporous materials. <i>APL Materials</i> , 2014, 2, .  | 5.1  | 8         |
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