

Derrick M Mott

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5277752/derrick-m-mott-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

107
papers

5,183
citations

38
h-index

71
g-index

115
ext. papers

5,555
ext. citations

4.9
avg, IF

5.12
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 107 | Size Correlation of Optical and Spectroscopic Properties for Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 14664-14669 | 3.8 | 464 |
| 106 | Synthesis of size-controlled and shaped copper nanoparticles. <i>Langmuir</i> , 2007 , 23, 5740-5 | 4 | 399 |
| 105 | Characterization of carbon-supported AuPt nanoparticles for electrocatalytic methanol oxidation reaction. <i>Langmuir</i> , 2006 , 22, 2892-8 | 4 | 250 |
| 104 | Phase Properties of Carbon-Supported GoldPlatinum Nanoparticles with Different Bimetallic Compositions. <i>Chemistry of Materials</i> , 2005 , 17, 3086-3091 | 9.6 | 219 |
| 103 | Core/Shell Nanoparticles as Electrocatalysts for Fuel Cell Reactions. <i>Advanced Materials</i> , 2008 , 20, 4342-4347 | 4.47 | 215 |
| 102 | Synergistic activity of gold-platinum alloy nanoparticle catalysts. <i>Catalysis Today</i> , 2007 , 122, 378-385 | 5.3 | 198 |
| 101 | Nanoscale Alloying, Phase-Segregation, and CoreShell Evolution of GoldPlatinum Nanoparticles and Their Electrocatalytic Effect on Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2010 , 22, 4282-4294 | 8.6 | 184 |
| 100 | Core@shell nanomaterials: gold-coated magnetic oxide nanoparticles. <i>Journal of Materials Chemistry</i> , 2008 , 18, 2629 | | 169 |
| 99 | Nanoengineered PtCo and PtNi Catalysts for Oxygen Reduction Reaction: An Assessment of the Structural and Electrocatalytic Properties. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 1682-1694 | 3.8 | 157 |
| 98 | Doxorubicin loaded dual pH- and thermo-responsive magnetic nanocarrier for combined magnetic hyperthermia and targeted controlled drug delivery applications. <i>Nanoscale</i> , 2016 , 8, 12152-61 | 7.7 | 141 |
| 97 | Fuel cell technology: nano-engineered multimetallic catalysts. <i>Energy and Environmental Science</i> , 2008 , 1, 454 | 35.4 | 133 |
| 96 | Interparticle interactions in glutathione mediated assembly of gold nanoparticles. <i>Langmuir</i> , 2008 , 24, 8857-63 | 4 | 133 |
| 95 | Homocysteine-mediated reactivity and assembly of gold nanoparticles. <i>Langmuir</i> , 2007 , 23, 826-33 | 4 | 127 |
| 94 | Adsorption of cyanine dyes on gold nanoparticles and formation of J-aggregates in the nanoparticle assembly. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 6673-82 | 3.4 | 116 |
| 93 | Gold-platinum nanoparticles: alloying and phase segregation. <i>Journal of Materials Chemistry</i> , 2011 , 21, 4012-4020 | | 113 |
| 92 | Ternary alloy nanoparticles with controllable sizes and composition and electrocatalytic activity. <i>Journal of Materials Chemistry</i> , 2006 , 16, 1665 | | 89 |
| 91 | Thermal Treatment of PtNiCo Electrocatalysts: Effects of Nanoscale Strain and Structure on the Activity and Stability for the Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17580-17594 | 3.8 | 84 |

| | | | |
|----|--|------|----|
| 90 | Nanoparticle-structured sensing array materials and pattern recognition for VOC detection. <i>Sensors and Actuators B: Chemical</i> , 2005 , 106, 431-441 | 8.5 | 78 |
| 89 | Interparticle chiral recognition of enantiomers: a nanoparticle-based regulation strategy. <i>Analytical Chemistry</i> , 2009 , 81, 689-98 | 7.8 | 77 |
| 88 | Catalytic and electrocatalytic oxidation of ethanol over palladium-based nanoalloy catalysts. <i>Langmuir</i> , 2013 , 29, 9249-58 | 4 | 75 |
| 87 | Gold-Copper Nanoparticles: Nanostructural Evolution and Bifunctional Catalytic Sites. <i>Chemistry of Materials</i> , 2012 , 24, 4662-4674 | 9.6 | 75 |
| 86 | Synthesis and Characterization of Monolayer-Capped PtVFe Nanoparticles with Controllable Sizes and Composition. <i>Chemistry of Materials</i> , 2005 , 17, 5282-5290 | 9.6 | 75 |
| 85 | From Ultrafine Thiolate-Capped Copper Nanoclusters toward Copper Sulfide Nanodiscs: A Thermally Activated Evolution Route. <i>Chemistry of Materials</i> , 2010 , 22, 261-271 | 9.6 | 73 |
| 84 | Gold and magnetic oxide/gold core/shell nanoparticles as bio-functional nanoprobes. <i>Nanotechnology</i> , 2008 , 19, 305102 | 3.4 | 72 |
| 83 | Nanocrystal and surface alloy properties of bimetallic Gold-Platinum nanoparticles. <i>Nanoscale Research Letters</i> , 2007 , 2, 12-16 | 5 | 72 |
| 82 | Role of base in the formation of silver nanoparticles synthesized using sodium acrylate as a dual reducing and encapsulating agent. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 9335-43 | 3.6 | 71 |
| 81 | Silver nanoparticle loaded TiO ₂ nanotubes with high photocatalytic and antibacterial activity synthesized by photoreduction method. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018 , 352, 106-112 | 4.7 | 65 |
| 80 | MicroRNA conjugated gold nanoparticles and cell transfection. <i>Analytical Chemistry</i> , 2012 , 84, 26-9 | 7.8 | 63 |
| 79 | X-ray Absorption Near-Edge Structure and X-ray Photoelectron Spectroscopy Studies of Interfacial Charge Transfer in Gold-Silver-Gold Double-Shell Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 4511-4516 | 3.8 | 59 |
| 78 | Synthesis and surface functionalization of Fe ₃ O ₄ -SiO ₂ core-shell nanoparticles with 3-glycidoxypropyltrimethoxysilane and 1,2-carbonyldiimidazole for bio-applications. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016 , 504, 376-383 | 5.1 | 55 |
| 77 | Chemical synthesis of blue-emitting metallic zinc nano-hexagons. <i>CrystEngComm</i> , 2013 , 15, 6606 | 3.3 | 48 |
| 76 | Catalytic activity of bimetallic catalysts highly sensitive to the atomic composition and phase structure at the nanoscale. <i>Nanoscale</i> , 2015 , 7, 18936-48 | 7.7 | 47 |
| 75 | Aqueous synthesis and characterization of Ag and Ag-Au nanoparticles: addressing challenges in size, monodispersity and structure. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010 , 368, 4275-92 | 3 | 47 |
| 74 | Chemical stabilization of gold coated by silver core-shell nanoparticles via electron transfer. <i>Nanotechnology</i> , 2012 , 23, 245704 | 3.4 | 45 |
| 73 | Electronic transfer as a route to increase the chemical stability in gold and silver core-shell nanoparticles. <i>Advances in Colloid and Interface Science</i> , 2012 , 185-186, 14-33 | 14.3 | 43 |

| | | | |
|----|--|------|----|
| 72 | Chromium-assisted synthesis of platinum nanocube electrocatalysts. <i>Chemical Communications</i> , 2010 , 46, 7184-6 | 5.8 | 41 |
| 71 | Charge-transfer-induced suppression of galvanic replacement and synthesis of (Au@Ag)@Au double shell nanoparticles for highly uniform, robust and sensitive bioprobes. <i>Applied Physics Letters</i> , 2011 , 99, 073107 | 3.4 | 41 |
| 70 | Nanostructured PtVFe catalysts: Electrocatalytic performance in proton exchange membrane fuel cells. <i>Electrochemistry Communications</i> , 2009 , 11, 1139-1141 | 5.1 | 39 |
| 69 | Nanoscale alloying effect of gold-platinum nanoparticles as cathode catalysts on the performance of a rechargeable lithium-oxygen battery. <i>Nanotechnology</i> , 2012 , 23, 305404 | 3.4 | 36 |
| 68 | Ag/FeCo/Ag core/shell/shell magnetic nanoparticles with plasmonic imaging capability. <i>Langmuir</i> , 2015 , 31, 2228-36 | 4 | 30 |
| 67 | Assembly of gold nanoparticles mediated by multifunctional fullerenes. <i>Langmuir</i> , 2007 , 23, 10715-24 | 4 | 30 |
| 66 | Sensing Arrays Constructed from Nanoparticle Thin Films and Interdigitated Microelectrodes. <i>Sensors</i> , 2006 , 6, 667-679 | 3.8 | 27 |
| 65 | An in situ real-time x-ray diffraction study of phase segregation in Au-Pt nanoparticles. <i>Nanotechnology</i> , 2009 , 20, 245708 | 3.4 | 26 |
| 64 | Synthesis, characterization and potential application of MnZn ferrite and MnZn ferrite @ Au nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 3005-12 | 1.3 | 26 |
| 63 | Rigid, conjugated and shaped aryethynes as mediators for the assembly of gold nanoparticles. <i>Journal of Materials Chemistry</i> , 2011 , 21, 1890-1901 | | 25 |
| 62 | Intensification of surface enhanced Raman scattering of thiol-containing molecules using Ag@Au core@shell nanoparticles. <i>Journal of Applied Physics</i> , 2011 , 109, 094301 | 2.5 | 25 |
| 61 | Oxophilicity and Structural Integrity in Maneuvering Surface Oxygenated Species on Nanoalloys for CO Oxidation. <i>ACS Catalysis</i> , 2013 , 3, 3075-3085 | 13.1 | 24 |
| 60 | Bifunctional nanoparticles for SERS monitoring and magnetic intervention of assembly and enzyme cutting of DNAs. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 4320-4330 | 7.3 | 23 |
| 59 | One-pot synthesis and characterization of well defined core-shell structure of FePt@CdSe nanoparticles. <i>RSC Advances</i> , 2011 , 1, 100 | 3.7 | 23 |
| 58 | Preparation of PdCu Alloy Nanocatalysts for Nitrate Hydrogenation and Carbon Monoxide Oxidation. <i>Catalysts</i> , 2016 , 6, 96 | 4 | 23 |
| 57 | High-performance nonvolatile write-once-read-many-times memory devices with ZnO nanoparticles embedded in polymethylmethacrylate. <i>Applied Physics Letters</i> , 2011 , 99, 233303 | 3.4 | 22 |
| 56 | Boehmite nanorod/gold nanoparticle nanocomposite film for an easy-to-use optical humidity sensor. <i>Sensors and Actuators B: Chemical</i> , 2012 , 168, 429-435 | 8.5 | 21 |
| 55 | Synthesis of delafossite CuAlO ₂ p-type semiconductor with a nanoparticle-based Cu(I) acetate-loaded boehmite precursor. <i>Materials Research Bulletin</i> , 2011 , 46, 1819-1827 | 5.1 | 20 |

| | | | |
|----|---|------|----|
| 54 | Formation mechanism of magnetic plasmonic Ag@FeCo@Ag core-shell-shell nanoparticles: fact is more interesting than fiction. <i>CrystEngComm</i> , 2015 , 17, 6923-6929 | 3.3 | 19 |
| 53 | Copper Sulfide/Zinc Sulfide Janus Nanoparticles and Their Seebeck Characteristics for Sustainable Thermoelectric Materials. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 5869-5875 | 3.8 | 18 |
| 52 | Bismuth, antimony and tellurium alloy nanoparticles with controllable shape and composition for efficient thermoelectric devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 52-58 | 1.6 | 17 |
| 51 | Multicore magnetic FePt nanoparticles: controlled formation and properties. <i>RSC Advances</i> , 2014 , 4, 1039-1044 | 3.7 | 16 |
| 50 | Magnetic Plasmonic FePt@Ag Core-Shell Nanoparticles and Their Magnetic and SERS Properties. <i>Plasmonics</i> , 2013 , 8, 1177-1184 | 2.4 | 16 |
| 49 | Comparative trial of saccharin-added electrolyte for improving the structure of an electrodeposited magnetic FeCoNi thin film. <i>Thin Solid Films</i> , 2017 , 642, 51-57 | 2.2 | 16 |
| 48 | Enhanced electronic properties of Pt@Ag heterostructured nanoparticles. <i>Sensors</i> , 2013 , 13, 7813-26 | 3.8 | 16 |
| 47 | Molecularly-mediated assembly of gold nanoparticles with interparticle rigid, conjugated and shaped aryl ethynyl structures. <i>Chemical Communications</i> , 2010 , 46, 2218-20 | 5.8 | 15 |
| 46 | Exchange bias in Ag/FeCo/Ag core/shell/shell nanoparticles due to partial oxidation of FeCo intermediate shell. <i>Journal of Magnetism and Magnetic Materials</i> , 2016 , 401, 339-344 | 2.8 | 14 |
| 45 | Sustainable thermoelectric materials fabricated by using Cu ₂ Sn _{1-x} Zn _x S ₃ nanoparticles as building blocks. <i>Applied Physics Letters</i> , 2017 , 111, 263105 | 3.4 | 12 |
| 44 | AuFePt Ternary Homogeneous Alloy Nanoparticles with Magnetic and Plasmonic Properties. <i>Langmuir</i> , 2017 , 33, 1687-1694 | 4 | 11 |
| 43 | Peak shape analysis of Ag 3d core-level X-ray photoelectron spectra of Au@Ag core-shell nanoparticles using an asymmetric Gaussian/Lorentzian mixed function. <i>Surface and Interface Analysis</i> , 2012 , 44, 1611-1614 | 1.5 | 11 |
| 42 | Study on formation mechanism and ligand-directed architectural control of nanoparticles composed of Bi, Sb and Te: towards one-pot synthesis of ternary (Bi,Sb) ₂ Te ₃ nanobuilding blocks. <i>RSC Advances</i> , 2011 , 1, 1089 | 3.7 | 11 |
| 41 | Enhancement of the Thermoelectric Figure of Merit in Blended Cu ₂ Sn _{1-x} Zn _x S ₃ Nanobulk Materials. <i>ACS Applied Nano Materials</i> , 2018 , 1, 4819-4827 | 5.6 | 10 |
| 40 | Novel nickel/palladium catalysts encased in a platinum nanocage. <i>RSC Advances</i> , 2014 , 4, 26667-26672 | 3.7 | 10 |
| 39 | Low-temperature phase and morphology transformations in noble metal nanocatalysts. <i>Nanotechnology</i> , 2011 , 22, 025701 | 3.4 | 9 |
| 38 | A Study on the Plasmonic Properties of Silver Core Gold Shell Nanoparticles: Optical Assessment of the Particle Structure. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 065004 | 1.4 | 9 |
| 37 | Surface oxygenation of multicomponent nanoparticles toward active and stable oxidation catalysts. <i>Nature Communications</i> , 2020 , 11, 4201 | 17.4 | 9 |

| | | | |
|----|--|-----|---|
| 36 | Chalcopyrite nanocomposite material for sustainable thermoelectrics. <i>Japanese Journal of Applied Physics</i> , 2014 , 53, 120301 | 1.4 | 8 |
| 35 | Gold-Based Nanoparticle Catalysts for Fuel Cell Reactions 2007 , 289-307 | | 8 |
| 34 | Catalytic oxidation of propane over palladium alloyed with gold: an assessment of the chemical and intermediate species. <i>Catalysis Science and Technology</i> , 2018 , 8, 6228-6240 | 5.5 | 8 |
| 33 | Elucidation of the Complex Structure of Nanoparticles Composed of Bismuth, Antimony, and Tellurium Using Scanning Transmission Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 17334-17340 | 3.8 | 7 |
| 32 | Size Determination of Nanoparticles Based on Tapping-Mode Atomic Force Microscopy Measurements. <i>Journal of Scanning Probe Microscopy</i> , 2008 , 3, 1-8 | | 7 |
| 31 | Ultrafast Exciton Dynamics in Cd x Hg (1-x) Te alloy Quantum Dots. <i>Chemical Physics</i> , 2016 , 469-470, 25-30 | 2.3 | 5 |
| 30 | Gold/Wurtzite core-shell nanoparticles: suppression of iron oxidation through the electron-transfer phenomenon. <i>ChemPhysChem</i> , 2013 , 14, 3278-83 | 3.2 | 5 |
| 29 | Chalcopyrite Nanoparticles as a Sustainable Thermoelectric Material. <i>Nanomaterials</i> , 2015 , 5, 1820-1830 | 5.4 | 5 |
| 28 | One-pot Chemical Synthesis of Zinc Antimonide Nanoparticles as Building Blocks for Nanostructured Thermoelectric Materials. <i>Chemistry Letters</i> , 2012 , 41, 1529-1531 | 1.7 | 5 |
| 27 | Attenuation of surface-enhanced Raman scattering of magnetic plasmonic FePt@Ag core-shell nanoparticles due to an external magnetic field. <i>Chemical Physics Letters</i> , 2013 , 574, 94-99 | 2.5 | 5 |
| 26 | An influence of bottom electrode material on electrical conduction and resistance switching of TiO _x thin films. <i>EPJ Applied Physics</i> , 2013 , 64, 30102 | 1.1 | 5 |
| 25 | Combinatorial Assessment of the Activity-Composition Correlation for Several Alloy Nanoparticle Catalysts. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 4675-4682 | 3.9 | 5 |
| 24 | A Study on the Plasmonic Properties of Silver Core Gold Shell Nanoparticles: Optical Assessment of the Particle Structure. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 065004 | 1.4 | 5 |
| 23 | Organic nanocrystal enrichment in paper microfluidic analysis. <i>Sensors and Actuators B: Chemical</i> , 2021 , 333, 129548 | 8.5 | 5 |
| 22 | Evolution of surface catalytic sites on thermochemically-tuned gold-palladium nanoalloys. <i>Nanoscale</i> , 2018 , 10, 3849-3862 | 7.7 | 4 |
| 21 | Quantitative two-dimensional strain mapping of small core-shell FePt@Fe ₃ O ₄ nanoparticles. <i>New Journal of Physics</i> , 2016 , 18, 033016 | 2.9 | 4 |
| 20 | Colloid Chemical Approach for Fabricating Cu ₂ FeS Nanobulk Thermoelectric Materials by Blending Cu ₂ S and FeS Nanoparticles as Building Blocks. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 3688-3697 | 3.9 | 4 |
| 19 | Transition of exchange bias from the linear to oscillatory regime with the progression of surface oxidation of Ag@FeCo@Ag core@shell@shell nanoparticles. <i>Journal of Applied Physics</i> , 2016 , 120, 134301 | 2.5 | 3 |

| | | | |
|----|--|-----|---|
| 18 | Characterization of Metallic Nanoparticles Based on the Abundant Usages of X-ray Techniques 2015 , 1-24 | | 2 |
| 17 | Chemical Synthesis of Binary Solid Solution Bismuth-Antimony Nanoparticles with Control of Composition and Morphology. <i>Chemistry Letters</i> , 2014 , 43, 615-617 | 1.7 | 2 |
| 16 | Wet-chemical preparation of digold bismuthide, gold diantimonide, and gold ditelluride particles. <i>Journal of Materials Research</i> , 2013 , 28, 2106-2112 | 2.5 | 2 |
| 15 | Characterization of the detector subsystem for the near-infrared spectrograph (NIRSpec) on the James Webb Space Telescope 2008 , | | 2 |
| 14 | Synthesis and Characterization of Copper Sulfide-Manganese Sulfide Nanoparticles with Chestnut Morphology and Study on the Semiconducting Properties. <i>ChemistrySelect</i> , 2019 , 4, 3898-3904 | 1.8 | 1 |
| 13 | Harvesting Nanocatalytic Heat Localized in Nanoalloy Catalyst as a Heat Source in a Nanocomposite Thin Film Thermoelectric Device. <i>Langmuir</i> , 2015 , 31, 11158-63 | 4 | 1 |
| 12 | Nanoparticle Building Blocks as a Foundation for Advanced Thermoelectric Energy Generators. <i>ACS Symposium Series</i> , 2015 , 41-54 | 0.4 | 1 |
| 11 | FePt Nanoparticles as Promising Magnetic Nanobeads for Biomedical Applications. <i>Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy</i> , 2014 , 61, S104-S110 | 0.2 | 0 |
| 10 | Manipulation of the Electronic Properties of Gold and Silver Core-Shell Nanoparticles. <i>ACS Symposium Series</i> , 2012 , 327-358 | 0.4 | |
| 9 | Anisotropic Nanoparticles for Efficient Thermoelectric Devices 2012 , 521-543 | | |
| 8 | Synthesis, Fabrication, and Characterization of Multidimensional Nanoparticle Based Thermoelectric Materials Composed of Bismuth, Antimony, and Tellurium.. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1329, 1 | | |
| 7 | Synthesis of Size and Shape Controlled Silver Nanoparticles Coated by a Thin Layer of Gold and Their Use as Ultrasensitive Biomolecular Probes. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1253, 4 | | |
| 6 | Assembly of Ag@Au Nanoparticles Using Complementary Stranded DNA Molecules and Their Detection Using UV-Vis and RAMAN Spectroscopic Techniques. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1272, 1 | | |
| 5 | Design and Synthesis of One and Two Dimensional Thermoelectric Nanomaterials Composed of Bismuth, Antimony, and Tellurium. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1267, 1 | | |
| 4 | True Atomic Level Imaging of Shaped Nanoparticles Composed of Bismuth, Antimony and Tellurium using Scanning Transmission Electron Microscopy.. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1349, 140201 | | |
| 3 | Silica-Supported Au and Pt Nanoparticles and CO Adsorption. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 900, 1 | | |
| 2 | Characterization of Metallic Nanoparticles Based on the Abundant Usages of X-ray Techniques 2016 , 217-244 | | |
| 1 | Plasmonic-magnetic dual-functional graded nanoparticles with oxide shell passivation designed for bioapplications. <i>Applied Physics Express</i> , 2018 , 11, 105001 | 2.4 | |

