

Mathias Brust

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/622941/mathias-brust-publications-by-year.pdf>

Version: 2024-04-25

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.

110
papers

15,795
citations

52
h-index

123
g-index

123
ext. papers

16,550
ext. citations

9.5
avg, IF

6.2
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 110 | Ion shuttling between emulsion droplets by crown ether modified gold nanoparticles. <i>Nanoscale Advances</i> , 2021 , 3, 3136-3144 | 5.1 | 1 |
| 109 | Imaging of Nanoscale Gold in Intact Biological Cells by Environmental Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 27865-27875 | 3.8 | |
| 108 | Site-Specific Modification of Gold Nanoparticles by Underpotential Deposition of Cadmium Atoms. <i>ChemElectroChem</i> , 2018 , 5, 1586-1590 | 4.3 | 2 |
| 107 | Entropy-Driven Reversible Agglomeration of Crown Ether Capped Gold Nanoparticles. <i>Chemistry - A European Journal</i> , 2018 , 24, 3151-3155 | 4.8 | 5 |
| 106 | Electrodeposition of Gold Nanostructures at the Interface of a Pickering Emulsion. <i>ChemElectroChem</i> , 2018 , 5, 2055-2058 | 4.3 | 4 |
| 105 | Multimodal cell tracking from systemic administration to tumour growth by combining gold nanorods and reporter genes. <i>ELife</i> , 2018 , 7, | 8.9 | 20 |
| 104 | Biocompatible, Multiresponsive Nanogel Composites for Codelivery of Antiangiogenic and Chemotherapeutic Agents. <i>Chemistry of Materials</i> , 2017 , 29, 2303-2313 | 9.6 | 24 |
| 103 | Conserved effects and altered trafficking of Cetuximab antibodies conjugated to gold nanoparticles with precise control of their number and orientation. <i>Nanoscale</i> , 2017 , 9, 6111-6121 | 7.7 | 25 |
| 102 | Sensitive Analysis of Protein Adsorption to Colloidal Gold by Differential Centrifugal Sedimentation. <i>Analytical Chemistry</i> , 2017 , 89, 6807-6814 | 7.8 | 32 |
| 101 | Spatial Analysis of Metal-PLGA Hybrid Microstructures Using 3D SERS Imaging. <i>Advanced Functional Materials</i> , 2017 , 27, 1701626 | 15.6 | 28 |
| 100 | Ion Transport across Biological Membranes by Carborane-Capped Gold Nanoparticles. <i>ACS Nano</i> , 2017 , 11, 12492-12499 | 16.7 | 33 |
| 99 | Janus and patchy nanoparticles: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 117-139 | 3.6 | 3 |
| 98 | Preventing Plasmon Coupling between Gold Nanorods Improves the Sensitivity of Photoacoustic Detection of Labeled Stem Cells in Vivo. <i>ACS Nano</i> , 2016 , 10, 7106-16 | 16.7 | 66 |
| 97 | Humidity-Dependent Reversible Transitions in Gold Nanoparticle Superlattices. <i>Chemistry of Materials</i> , 2016 , 28, 2970-2980 | 9.6 | 20 |
| 96 | Design of artificial membrane transporters from gold nanoparticles with controllable hydrophobicity. <i>Faraday Discussions</i> , 2016 , 191, 495-510 | 3.6 | 9 |
| 95 | Singlet Oxygen Generation by Laser Irradiation of Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 10647-10657 | 3.8 | 71 |
| 94 | Anisotropic nanoparticles: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 229-254 | 3.6 | 5 |

| | | | |
|----|--|------|-----|
| 93 | Applications: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 565-595 | 3.6 | |
| 92 | Monitoring pattern formation in drying and wetting dispersions of gold nanoparticles by ESEM. <i>Faraday Discussions</i> , 2015 , 181, 281-98 | 3.6 | 8 |
| 91 | Preparation and characterization of Au nanoparticles capped with mercaptocarboranyl clusters. <i>Dalton Transactions</i> , 2014 , 43, 5054-61 | 4.3 | 21 |
| 90 | Interactions of gold nanoparticles with a phospholipid monolayer membrane on mercury. <i>ACS Nano</i> , 2014 , 8, 6074-80 | 16.7 | 17 |
| 89 | The plasma protein fibrinogen stabilizes clusters of red blood cells in microcapillary flows. <i>Scientific Reports</i> , 2014 , 4, 4348 | 4.9 | 82 |
| 88 | High-resolution sizing of monolayer-protected gold clusters by differential centrifugal sedimentation. <i>ACS Nano</i> , 2013 , 7, 8881-90 | 16.7 | 60 |
| 87 | Conjugation of PEG and gold nanoparticles to increase the accessibility and valency of tethered RNA splicing enhancers. <i>Chemical Science</i> , 2013 , 4, 257-265 | 9.4 | 6 |
| 86 | Rheology of human blood plasma: viscoelastic versus Newtonian behavior. <i>Physical Review Letters</i> , 2013 , 110, 078305 | 7.4 | 171 |
| 85 | Mercaptocarborane-capped gold nanoparticles: electron pools and ion traps with switchable hydrophilicity. <i>Journal of the American Chemical Society</i> , 2012 , 134, 212-21 | 16.4 | 117 |
| 84 | Electrocatalytic hydrogen redox chemistry on gold nanoparticles. <i>Journal of the American Chemical Society</i> , 2012 , 134, 3318-21 | 16.4 | 45 |
| 83 | Intracellular mapping with SERS-encoded gold nanostars. <i>Integrative Biology (United Kingdom)</i> , 2011 , 3, 922-6 | 3.7 | 116 |
| 82 | Negotiation of intracellular membrane barriers by TAT-modified gold nanoparticles. <i>ACS Nano</i> , 2011 , 5, 5195-201 | 16.7 | 131 |
| 81 | Acrylate-facilitated cellular uptake of gold nanoparticles. <i>Small</i> , 2011 , 7, 1982-6 | 11 | 15 |
| 80 | Electrochemical fabrication of self assembled monolayer using ferrocene-functionalized gold nanoparticles on glassy carbon electrode. <i>Electrochimica Acta</i> , 2011 , 56, 7092-7096 | 6.7 | 4 |
| 79 | Enzymatic activity of lipase-nanoparticle conjugates and the digestion of lipid liquid crystalline assemblies. <i>Langmuir</i> , 2010 , 26, 13590-9 | 4 | 18 |
| 78 | Inflicting controlled nonthermal damage to subcellular structures by laser-activated gold nanoparticles. <i>Nano Letters</i> , 2010 , 10, 4549-54 | 11.5 | 91 |
| 77 | In situ growth of gold nanoparticles on latent fingerprints-from forensic applications to inkjet printed nanoparticle patterns. <i>Nanoscale</i> , 2010 , 2, 2575-8 | 7.7 | 32 |
| 76 | Emulsions-directed assembly of gold nanoparticles to molecularly-linked and size-controlled spherical aggregates. <i>Journal of Colloid and Interface Science</i> , 2010 , 350, 368-72 | 9.3 | 18 |

| | | | |
|----|--|------|-----|
| 75 | Electron microscopy studies of the thermal stability of gold nanoparticle arrays 2009 , 42, 133-143 | | 30 |
| 74 | A way to control the gold nanocrystals size: using seeds with different sizes and subjecting them to mild annealing. <i>ACS Nano</i> , 2009 , 3, 3622-8 | 16.7 | 34 |
| 73 | Cathepsin L digestion of nanobioconjugates upon endocytosis. <i>ACS Nano</i> , 2009 , 3, 2461-8 | 16.7 | 100 |
| 72 | Controlled step growth of molecularly linked gold nanoparticles: from metallic monomers to dimers to polymeric nanoparticle chains. <i>Langmuir</i> , 2009 , 25, 1934-9 | 4 | 59 |
| 71 | A multidentate peptide for stabilization and facile bioconjugation of gold nanoparticles. <i>Bioconjugate Chemistry</i> , 2009 , 20, 619-24 | 6.3 | 67 |
| 70 | Recyclable molecular trapping and SERS detection in silver-loaded agarose gels with dynamic hot spots. <i>Analytical Chemistry</i> , 2009 , 81, 9233-8 | 7.8 | 93 |
| 69 | In situ preparation of network forming gold nanoparticles in agarose hydrogels. <i>Chemical Communications</i> , 2009 , 6661-3 | 5.8 | 21 |
| 68 | Gold--an introductory perspective. <i>Chemical Society Reviews</i> , 2008 , 37, 1759-65 | 58.5 | 351 |
| 67 | Uptake and intracellular fate of surface-modified gold nanoparticles. <i>ACS Nano</i> , 2008 , 2, 1639-44 | 16.7 | 560 |
| 66 | Preparation of thin ferrite films on silicon using RF sputtering. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008 , 205, 1783-1786 | 1.6 | 5 |
| 65 | Shaping supramolecular nanofibers with nanoparticles forming complementary hydrogen bonds. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 1861-5 | 16.4 | 79 |
| 64 | Shaping Supramolecular Nanofibers with Nanoparticles Forming Complementary Hydrogen Bonds. <i>Angewandte Chemie</i> , 2008 , 120, 1887-1891 | 3.6 | 14 |
| 63 | Design of polymeric stabilizers for size-controlled synthesis of monodisperse gold nanoparticles in water. <i>Langmuir</i> , 2007 , 23, 885-95 | 4 | 149 |
| 62 | Site-specific ligation of DNA-modified gold nanoparticles activated by the restriction enzyme Styl. <i>Small</i> , 2007 , 3, 67-70 | 11 | 37 |
| 61 | Enzymatic disassembly of DNA-gold nanostructures. <i>Small</i> , 2007 , 3, 590-4 | 11 | 49 |
| 60 | Coerced mechanical coarsening of nanoparticle assemblies. <i>Nature Nanotechnology</i> , 2007 , 2, 167-70 | 28.7 | 38 |
| 59 | Fabrication of nanostructure via self-assembly of nanowires within the AAO template. <i>Nanoscale Research Letters</i> , 2007 , 2, 34-39 | 5 | 29 |
| 58 | Search for the optimally suited cantilever type for high-frequency MFM. <i>Journal of Physics: Conference Series</i> , 2007 , 61, 596-600 | 0.3 | 2 |

| | | | |
|----|---|------|-----|
| 57 | A generic approach to monofunctionalized protein-like gold nanoparticles based on immobilized metal ion affinity chromatography. <i>ChemBioChem</i> , 2006 , 7, 592-4 | 3.8 | 61 |
| 56 | Nanoparticle Assemblies and Superstructures. Herausgegeben von Nicholas A. Kotov.. <i>Angewandte Chemie</i> , 2006 , 118, 4507-4507 | 3.6 | |
| 55 | Synthesis of Porous Materials via Multiscale Templating Approaches: Emulsions, Nanoparticles, Supercritical Fluids, and Directional Freezing. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 988, 1 | | |
| 54 | Structure and conductivity of self-assembled films of gold nanoparticles. <i>Applied Physics Letters</i> , 2006 , 89, 063110 | 3.4 | 36 |
| 53 | Thiol-specific and nonspecific interactions between DNA and gold nanoparticles. <i>Langmuir</i> , 2006 , 22, 3294-9 | 4 | 55 |
| 52 | Kinase-catalyzed modification of gold nanoparticles: a new approach to colorimetric kinase activity screening. <i>Journal of the American Chemical Society</i> , 2006 , 128, 2214-5 | 16.4 | 252 |
| 51 | Bionanoconjugation via click chemistry: The creation of functional hybrids of lipases and gold nanoparticles. <i>Bioconjugate Chemistry</i> , 2006 , 17, 1373-5 | 6.3 | 223 |
| 50 | Formation of spherical nanostructures by the controlled aggregation of gold colloids. <i>Langmuir</i> , 2006 , 22, 2938-41 | 4 | 100 |
| 49 | Synthesis of hierarchically porous inorganic-metal site-isolated nanocomposites. <i>Chemical Communications</i> , 2006 , 2539-41 | 5.8 | 25 |
| 48 | Selective enzymatic cleavage of gold nanoparticle-labelled DNA on a microarray. <i>IET Nanobiotechnology</i> , 2005 , 152, 85-8 | | 2 |
| 47 | Studies on the attachment of DNA to silica-coated nanoparticles through a Diels-Alder reaction. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2005 , 24, 1075-9 | 1.4 | 18 |
| 46 | Extremely Stable Water-Soluble Ag Nanoparticles. <i>Chemistry of Materials</i> , 2005 , 17, 4630-4635 | 9.6 | 224 |
| 45 | Microarray-based detection of protein binding and functionality by gold nanoparticle probes. <i>Analytical Chemistry</i> , 2005 , 77, 5770-4 | 7.8 | 146 |
| 44 | The peptide route to multifunctional gold nanoparticles. <i>Bioconjugate Chemistry</i> , 2005 , 16, 497-500 | 6.3 | 96 |
| 43 | Size-controlled synthesis of near-monodisperse gold nanoparticles in the 1-4 nm range using polymeric stabilizers. <i>Journal of the American Chemical Society</i> , 2005 , 127, 16398-9 | 16.4 | 307 |
| 42 | Aligned two- and three-dimensional structures by directional freezing of polymers and nanoparticles. <i>Nature Materials</i> , 2005 , 4, 787-93 | 27 | 640 |
| 41 | Molecular recognition by calix[4]arene-modified gold nanoparticles in aqueous solution. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 2913-6 | 16.4 | 72 |
| 40 | Molecular Recognition by Calix[4]arene-Modified Gold Nanoparticles in Aqueous Solution. <i>Angewandte Chemie</i> , 2005 , 117, 2973-2976 | 3.6 | 12 |

| | | | |
|----|--|------|-----|
| 39 | Giant field effect in self-assembled metallo-organic nanoscale networks. <i>Physical Review B</i> , 2005 , 72, | 3.3 | 4 |
| 38 | Biocompatible gold nanoparticles. <i>Materials Science and Technology</i> , 2004 , 20, 980-984 | 1.5 | 56 |
| 37 | Emulsion-Templated Gold Beads Using Gold Nanoparticles as Building Blocks. <i>Advanced Materials</i> , 2004 , 16, 27-30 | 24 | 86 |
| 36 | Enzymatic DNA processing on gold nanoparticles. <i>Journal of Materials Chemistry</i> , 2004 , 14, 578 | | 45 |
| 35 | Adaptive chemistry of bifunctional gold nanoparticles at the air/water interface. A synchrotron X-ray study of giant amphiphiles. <i>Faraday Discussions</i> , 2004 , 125, 221-33; discussion 293-309 | 3.6 | 63 |
| 34 | Rational and combinatorial design of peptide capping ligands for gold nanoparticles. <i>Journal of the American Chemical Society</i> , 2004 , 126, 10076-84 | 16.4 | 602 |
| 33 | Fundamental Sintering Studies of 2-Dimensional Gold Nanoparticle Arrays. <i>Microscopy and Microanalysis</i> , 2004 , 10, 384-385 | 0.5 | 47 |
| 32 | Towards Multistep Nanostructure Synthesis: Programmed Enzymatic Self-Assembly of DNA/Gold Systems. <i>Angewandte Chemie</i> , 2003 , 115, 201-204 | 3.6 | 29 |
| 31 | Towards multistep nanostructure synthesis: programmed enzymatic self-assembly of DNA/gold systems. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 191-4 | 16.4 | 139 |
| 30 | Preparation of Acrylate-Stabilized Gold and Silver Hydrosols and Gold Polymer Composite Films. <i>Langmuir</i> , 2003 , 19, 4831-4835 | 4 | 207 |
| 29 | Fabrication of 2D Gold Nanowires by Self-Assembly of Gold Nanoparticles on Water Surfaces in the Presence of Surfactants. <i>Advanced Materials</i> , 2002 , 14, 1126 | 24 | 98 |
| 28 | Some recent advances in nanostructure preparation from gold and silver particles: a short topical review. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002 , 202, 175-186 | 5.1 | 514 |
| 27 | Nanostructured cellular networks. <i>Physical Review Letters</i> , 2002 , 89, 248303 | 7.4 | 86 |
| 26 | Colloidal particle foams: Templates for Au nanowire networks?. <i>Applied Physics Letters</i> , 2002 , 81, 5039-5041 | 9.4 | 15 |
| 25 | Adoption of near-coincident-site lattice orientations by contacting monolayer rafts of metallic nanoparticles with different superlattice periodicities. <i>Philosophical Magazine Letters</i> , 2002 , 82, 21-26 | 1 | 3 |
| 24 | Nanometer Scale Patterning of Langmuir-Blodgett Films of Gold Nanoparticles by Electron Beam Lithography. <i>Nano Letters</i> , 2002 , 2, 43-47 | 11.5 | 94 |
| 23 | Atomic Force Microscope Tip Nanoprinting of Gold Nanoclusters. <i>Langmuir</i> , 2002 , 18, 872-876 | 4 | 64 |
| 22 | Thioalkylated tetraethylene glycol: a new ligand for water soluble monolayer protected gold clusters. <i>Chemical Communications</i> , 2002 , 2294-5 | 5.8 | 210 |

| | | | |
|----|---|------|-----|
| 21 | The fate of sulfur-bound hydrogen on formation of self-assembled thiol monolayers on gold: (1)H NMR spectroscopic evidence from solutions of gold clusters. <i>Journal of the American Chemical Society</i> , 2002 , 124, 1132-3 | 16.4 | 176 |
| 20 | Templates for Metal Nanowire Self-Assembly 2002 , 139-146 | | |
| 19 | Templated Gold Nanowire Self-Assembly on Carbon Substrates. <i>Advanced Materials</i> , 2001 , 13, 1800-1803 | 3.4 | 63 |
| 18 | Polydisperse Au nanoclusters on silicon: fractal aggregates via spinodal decomposition?. <i>Chemical Physics Letters</i> , 2001 , 348, 27-33 | 2.5 | 5 |
| 17 | Interaction of passivated clusters in solution with micro-patterned surfaces: guided flow versus defect pinning. <i>Nanotechnology</i> , 2001 , 12, 6-10 | 3.4 | 11 |
| 16 | Langmuir-Blodgett Films of Alkane Chalcogenide (S,Se,Te) Stabilized Gold Nanoparticles. <i>Nano Letters</i> , 2001 , 1, 189-191 | 11.5 | 72 |
| 15 | Characterisation of thin films containing Au and Pd nanoparticles by grazing-incidence X-ray diffraction and related methods. <i>Journal of Alloys and Compounds</i> , 2001 , 328, 248-252 | 5.7 | 7 |
| 14 | Deposition of passivated gold nanoclusters onto prepatterned substrates. <i>Applied Physics Letters</i> , 1999 , 74, 2833-2835 | 3.4 | 27 |
| 13 | Detection of near-wall hydrodynamic effects by electrochemiluminescence. <i>Journal of Electroanalytical Chemistry</i> , 1999 , 470, 89-94 | 4.1 | 8 |
| 12 | Electrochemical Charge Injection into Immobilized Nanosized Gold Particle Ensembles: Potential Modulated Transmission and Reflectance Spectroscopy. <i>Langmuir</i> , 1999 , 15, 866-871 | 4 | 99 |
| 11 | Self-Assembly of Nanostructured Materials 1999 , | | 1 |
| 10 | Self-Assembled Gold Nanoparticle Thin Films with Nonmetallic Optical and Electronic Properties. <i>Langmuir</i> , 1998 , 14, 5425-5429 | 4 | 539 |
| 9 | Spontaneous ordering of bimodal ensembles of nanoscopic gold clusters. <i>Nature</i> , 1998 , 396, 444-446 | 50.4 | 649 |
| 8 | C60 Mediated Aggregation of Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 1998 , 120, 12367-12368 | 16.4 | 92 |
| 7 | Characterization and Surface Charge Measurement of Self-Assembled CdS Nanoparticle Films. <i>Chemistry of Materials</i> , 1998 , 10, 1160-1165 | 9.6 | 99 |
| 6 | Self-Assembly of Photoluminescent Copper(I)Dithiol Multilayer Thin Films and Bulk Materials. <i>Langmuir</i> , 1997 , 13, 5602-5607 | 4 | 122 |
| 5 | Fabrication and characterization of self-assembled spherical gold ultramicroelectrodes. <i>Analytical Chemistry</i> , 1997 , 69, 2323-8 | 7.8 | 109 |
| 4 | Novel gold-dithiol nano-networks with non-metallic electronic properties. <i>Advanced Materials</i> , 1995 , 7, 795-797 | 24 | 641 |

- 3 Synthesis of thiol-derivatised gold nanoparticles in a two-phase Liquid-Liquid system. *Journal of the Chemical Society Chemical Communications*, **1994**, 801-802 5396
- 2 Monolayer Protected Clusters of Gold and Silver 96-119 2
- 1 Multimodal cell tracking from systemic administration to tumour growth by combining gold nanorods and reporter genes 1