Leonard Deepak Francis

List of Publications by Year
in descending order

108 papers	4,281 citations	126907 33 h-index	114465 63 g-index
111 all docs	111 docs citations	111 times ranked	5883 citing authors

#	Article	IF	Citations
1	Boosting acidic water oxidation performance by constructing arrays-like nanoporous IrxRu1âˆ'xO2 with abundant atomic steps. Nano Research, 2022, 15, 5933-5939.	10.4	25
2	SiO_x Patterned Based Substrates Implemented in Cu(In,Ga)Se₂ Ultrathin Solar Cells: Optimum Thickness. IEEE Journal of Photovoltaics, 2022, 12, 954-961.	2.5	4
3	Doxorubicin delivery performance of superparamagnetic carbon multi-core shell nanoparticles: pH dependence, stability and kinetic insight. Nanoscale, 2022, 14, 7220-7232.	5.6	6
4	Co₃O₄|CoP Coreâ€“Shell Nanoparticles with Enhanced Electrocatalytic Water Oxidation Performance. ACS Applied Nano Materials, 2022, 5, 9150-9158.	5.0	2
5	Sustainable existence of solid mercury (Hg) nanoparticles at room temperature and their applications. Chemical Science, 2021, 12, 3226-3238.	7.4	10
6	Extrinsic room-temperature ferromagnetism in MoS2. Journal of Materials Science, 2021, 56, 9692-9701.	3.7	3
7	Enhancing Lightâ€“Matter Interactions in MoS₂ by Copper Intercalation. Advanced Materials, 2021, 33, e2008779.	21.0	25
8	Morphology-Tunable Synthesis of Intrinsic Room-Temperature Ferromagnetic Î³-Fe₂O₃ Nanoflakes. ACS Applied Materials & Interfaces, 2021, 13, 24051-24061.	8.0	15
9	Atomic-Scale Interface Modification Improves the Performance of Cu(In_{1â€“<i>x</i>}Ga_{<i>x</i>})Se₂/Zn(O,S) Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 44207-44213.	8.0	3
10	Engineering surface electron and active site at electrochemical sensing interface of CN vacancy-mediated Prussian blue analogue for analysis of heavy metal ions. Applied Surface Science, 2021, 564, 150131.	6.1	11
11	Boron doped Ni-rich LiNi0.85Co0.10Mn0.05O2 cathode materials studied by structural analysis, solid state NMR, computational modeling, and electrochemical performance. Energy Storage Materials, 2021, 42, 594-607.	18.0	42
12	Selectivity boost in partial hydrogenation of acetylene via atomic dispersion of platinum over ceria. Catalysis Science and Technology, 2020, 10, 7471-7475.	4.1	4
13	A one-pot route to stable Pickering emulsions featuring nanocrystalline Ag and Au. Chemical Communications, 2020, 56, 4801-4803.	4.1	4
14	<i>In situ</i> generation of sub-10 nm silver nanowires under electron beam irradiation in a TEM. Chemical Communications, 2020, 56, 4765-4768.	4.1	11
15	Ultrafine-Grained Porous Ir-Based Catalysts for High-Performance Overall Water Splitting in Acidic Media. ACS Applied Energy Materials, 2020, 3, 3736-3744.	5.1	26
16	Atomic-scale dynamic observation reveals temperature-dependent multistep nucleation pathways in crystallization. Nanoscale Horizons, 2019, 4, 1302-1309.	8.0	17
17	Nanotube array-based barium titanateâ€“cobalt ferrite composite film for affordable magnetoelectric multiferroics. Journal of Materials Chemistry C, 2019, 7, 10066-10072.	5.5	19
18	Thermal Stability of the Black Perovskite Phase in Cesium Lead Iodide Nanocrystals Under Humid Conditions. Chemistry of Materials, 2019, 31, 9750-9758.	6.7	29

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19	Surface Science and Colloidal Stability of Double-Perovskite Cs₂AgBiBr₆ Nanocrystals and Their Superlattices. Chemistry of Materials, 2019, 31, 7962-7969.	6.7	57
20	Synthesis and characterization of quaternary La(Sr)Sâ€“TaS₂ misfit-layered nanotubes. Beilstein Journal of Nanotechnology, 2019, 10, 1112-1124.	2.8	5
21	Large-Scale Fabrication of Hollow Pt₃Al Nanoboxes and Their Electrocatalytic Performance for Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 9842-9847.	6.7	14
22	In Situ Atomicâ€Scale Observation of Kinetic Pathways of Sublimation in Silver Nanoparticles. Advanced Science, 2019, 6, 1802131.	11.2	27
23	Mesoporous Shell@Macroporous Core Aluminosilicates as Sustainable Nanocatalysts for Direct <i>N</i>â€alkylation of Amines. ChemNanoMat, 2018, 4, 537-541.	2.8	2
24	Direct Atomic-Scale Observation of Intermediate Pathways of Melting and Crystallization in Supported Bi Nanoparticles. Journal of Physical Chemistry Letters, 2018, 9, 961-969.	4.6	22
25	Atomic-Scale Understanding of Gold Cluster Growth on Different Substrates and Adsorption-Induced Structural Change. Journal of Physical Chemistry C, 2018, 122, 1753-1760.	3.1	18
26	Advanced Electron Microscopy Techniques Toward the Understanding of Metal Nanoparticles and Clusters. , 2018, , 219-287.		3
27	In-Situ Atomic-Scale Observation of Intermediate Pathways of Melting and Crystallization of Supported Bi-Nanoparticles in the TEM. Microscopy and Microanalysis, 2018, 24, 1654-1655.	0.4	0
28	Probing of Thermal Transport in 50 nm Thick PbTe Nanocrystal Films by Time-Domain Thermoreflectance. Journal of Physical Chemistry C, 2018, 122, 27127-27134.	3.1	15
29	Morphological Phase Diagram of Gadolinium Iodide Encapsulated in Carbon Nanotubes. Journal of Physical Chemistry C, 2018, 122, 24967-24976.	3.1	6
30	Direct Atomic-Scale Observation of Droplets Coalescence Driven Nucleation and Growth of Supported Bismuth Nanocrystal in the TEM. Microscopy and Microanalysis, 2018, 24, 1702-1703.	0.4	0
31	Single Walled BiI3 Nanotubes Encapsulated within Carbon Nanotubes. Scientific Reports, 2018, 8, 10133.	3.3	9
32	Toward the use of CVD-grown MoS₂ nanosheets as field-emission source. Beilstein Journal of Nanotechnology, 2018, 9, 1686-1694.	2.8	26
33	In Situ Atomicâ€Scale Study of Particleâ€Mediated Nucleation and Growth in Amorphous Bismuth to Nanocrystal Phase Transformation. Advanced Science, 2018, 5, 1700992.	11.2	74
34	Magneto-Plasmonic Colloidal Nanoparticles Obtained by Laser Ablation of Nickel and Silver Targets in Water. Journal of Physical Chemistry C, 2017, 121, 3597-3606.	3.1	28
35	A Convenient Route for Au@Tiâ€“SiO2 Nanocatalyst Synthesis and Its Application for Room Temperature CO Oxidation. Journal of Physical Chemistry C, 2017, 121, 4946-4957.	3.1	11
36	<i>In Situ</i> Atomic-Scale Observation of Droplet Coalescence Driven Nucleation and Growth at Liquid/Solid Interfaces. ACS Nano, 2017, 11, 5590-5597.	14.6	34

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37	Understanding alloy structure and composition in sinter-resistant AgPd@SiO₂ encapsulated catalysts and their effect on catalytic properties. New Journal of Chemistry, 2017, 41, 14652-14658.	2.8	6
38	Discussion about the use of the volume specific surface area (VSSA) as a criterion to identify nanomaterials according to the EU definition. Part two: experimental approach. Nanoscale, 2017, 9, 14952-14966.	5.6	11
39	High power and low critical current density spin transfer torque nano-oscillators using MgO barriers with intermediate thickness. Scientific Reports, 2017, 7, 7237.	3.3	35
40	Capillary Imbibition of Gadolinium Halides into WS₂ Nanotubes: a Molecular Dynamics View. Israel Journal of Chemistry, 2017, 57, 501-508.	2.3	1
41	Structural and chemical analysis of gadolinium halides encapsulated within WS₂nanotubes. Nanoscale, 2016, 8, 12170-12181.	5.6	7
42	From Chromonic Self-Assembly to Hollow Carbon Nanofibers: Efficient Materials in Supercapacitor and Vapor-Sensing Applications. ACS Applied Materials & Interfaces, 2016, 8, 31231-31238.	8.0	43
43	Real-Time Dynamical Observation of Lattice Induced Nucleation and Growth in Interfacial Solidâ€“Solid Phase Transitions. Crystal Growth and Design, 2016, 16, 7256-7262.	3.0	19
44	Controlling Bimetallic Nanostructures by the Microemulsion Method with Subnanometer Resolution Using a Prediction Model. Langmuir, 2015, 31, 7435-7439.	3.5	22
45	Selfâ€Assembled Functionalized Graphene Nanoribbons from Carbon Nanotubes. ChemistryOpen, 2015, 4, 115-119.	1.9	6
46	Stable Ruthenium colloids by laser ablation. , 2015, , .		2
47	Wavelength dispersion of the local field intensity in silverâ€“gold nanocages. Physical Chemistry Chemical Physics, 2015, 17, 7355-7365.	2.8	18
48	A Systematic Study of the Structural and Magnetic Properties of Mn-, Co-, and Ni-Doped Colloidal Magnetite Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 11947-11957.	3.1	93
49	Synthesis and characterization of reduced graphene oxide/spiky nickel nanocomposite for nanoelectronic applications. Journal of Materials Chemistry C, 2015, 3, 11516-11523.	5.5	35
50	High-Temperature Magnetism as a Probe for Structural and Compositional Uniformity in Ligand-Capped Magnetite Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 28322-28329.	3.1	26
51	Plasmonic response of DNA-assembled gold nanorods: Effect of DNA linker length, temperature and linker/nanoparticles ratio. Journal of Colloid and Interface Science, 2014, 433, 34-42.	9.4	13
52	A novel and high yield synthesis of CdSe nanowires. Journal of Materials Science, 2013, 48, 4983-4988.	3.7	4
53	Switching Field Variation in MgO Magnetic Tunnel Junction Nanopillars: Experimental Results and Micromagnetic Simulations. IEEE Transactions on Magnetics, 2013, 49, 4405-4408.	2.1	13
54	Ag nanowires as precursors to synthesize novel Ag-CeO2 nanotubes for H2 production by methanol reforming. Catalysis Today, 2013, 212, 225-231.	4.4	19

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55	Advanced Methods of Electron Microscopy in Catalysis Research. Advances in Imaging and Electron Physics, 2013, , 279-342.	0.2	2
56	Nanomaterial Properties: Size and Shape Dependencies. Journal of Nanomaterials, 2012, 2012, 1-2.	2.7	87
57	Physicochemical Characterization, and Relaxometry Studies of Micro-Graphite Oxide, Graphene Nanoplatelets, and Nanoribbons. PLoS ONE, 2012, 7, e38185.	2.5	57
58	Insights into the Structure of MoS2/WS2 Nanomaterial Catalysts as Revealed by Aberration Corrected STEM. Microscopy and Microanalysis, 2012, 18, 65-66.	0.4	1
59	On the structure of bimetallic noble metal nanoparticles as revealed by aberration corrected scanning transmission electron microscopy (STEM). Micron, 2012, 43, 557-564.	2.2	12
60	Structure and catalytic properties of hexagonal molybdenum disulfide nanoplates. Catalysis Science and Technology, 2011, 1, 1024.	4.1	34
61	Experimental Evidence of Icosahedral and Decahedral Packing in One-Dimensional Nanostructures. ACS Nano, 2011, 5, 6272-6278.	14.6	61
62	Direct Imaging and Identification of Individual Dopant Atoms in MoS₂ and WS₂ Catalysts by Aberration Corrected Scanning Transmission Electron Microscopy. ACS Catalysis, 2011, 1, 537-543.	11.2	59
63	Rippled and Helical MoS2 Nanowire Catalysts: An Aberration Corrected STEM Study. Catalysis Letters, 2011, 141, 518-524.	2.6	19
64	Anisotropic gold nanoparticles and gold plates biosynthesis using alfalfa extracts. Journal of Nanoparticle Research, 2011, 13, 3113-3121.	1.9	61
65	Adsorption of Glucose Oxidase to 3â€Ð Scaffolds of Carbon Nanotubes: Analytical Applications. Electroanalysis, 2011, 23, 1462-1469.	2.9	41
66	Experimental and theoretical properties of Sâ€“Moâ€“Coâ€“S clusters. Applied Catalysis A: General, 2011, 397, 46-53.	4.3	5
67	New insights into the structure of Pdâ€“Au nanoparticles as revealed by aberration-corrected STEM. Journal of Crystal Growth, 2011, 325, 60-67.	1.5	27
68	Recent Highlights in the Synthesis, Structure, Properties, and Applications of MoS₂ Nanotubes. Israel Journal of Chemistry, 2010, 50, 426-438.	2.3	9
69	Synthesis of Coreâ€“Shell Inorganic Nanotubes. Advanced Functional Materials, 2010, 20, 2459-2468.	14.9	54
70	Synthesis, Morphology, and Optical Characterization of Nanocrystalline Er3+:Y2O3. Journal of Physical Chemistry C, 2010, 114, 874-880.	3.1	56
71	Insights into the capping and structure of MoS2 nanotubes as revealed by aberration-corrected STEM. Nanoscale, 2010, 2, 2286.	5.6	32
72	A Rapid Microwave Synthesis at Low Temperatures, Electron Microscopy and Raman Study of MoO₃ and WO<I>_x</I> Nanostructures. Journal of Advanced Microscopy Research, 2010, 5, 16-25.	0.3	0

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73	Faceted MoS2 nanotubes and nanoflowers. Materials Chemistry and Physics, 2009, 118, 392-397.	4.0	31
74	Structural transformation of MoO3 nanobelts into MoS2 nanotubes. Applied Physics A: Materials Science and Processing, 2009, 96, 861-867.	2.3	16
75	Fullereneâ€like Mo(W)_{1âˆ’<i>x</i>}Re_{<i>x</i>}S₂ Nanoparticles. Chemistry - an Asian Journal, 2008, 3, 1568-1574.	3.3	33
76	Gas-phase synthesis of inorganic fullerene-like structures and inorganic nanotubes. Open Chemistry, 2008, 6, 373-389.	1.9	13
77	Fullerene-like WS₂nanoparticles and nanotubes by the vapor-phase synthesis of WCl_{<i>n</i>}and H₂S. Nanotechnology, 2008, 19, 095601.	2.6	33
78	Optically Driven Nanorotors: Experiments and Model Calculations. Journal of Nanoscience and Nanotechnology, 2007, 7, 1800-1803.	0.9	4
79	Fullerene-Like (IF) Nb<i>_x</i>Mo₁₋<i>_x</i>S₂ Nanoparticles. Journal of the American Chemical Society, 2007, 129, 12549-12562.	13.7	49
80	A study of the dispersions of metal oxide nanowires in polar solvents. Chemical Physics Letters, 2006, 417, 535-539.	2.6	43
81	Nanorotors using asymmetric inorganic nanorods in an optical trap. Nanotechnology, 2006, 17, S287-S290.	2.6	29
82	Improved synthesis of carbon nanotubes with junctions and of single-walled carbon nanotubes. Journal of Chemical Sciences, 2006, 118, 9-14.	1.5	10
83	MoS2 FULLERENE-LIKE NANOPARTICLES AND NANOTUBES USING GAS-PHASE REACTION WITH MoCl5. Nano, 2006, 01, 167-180.	1.0	17
84	Pressure-Induced Structural Phase Transformations in Silicon Nanowires. Journal of Nanoscience and Nanotechnology, 2005, 5, 729-732.	0.9	9
85	Tuning the bandgap of ZnO by substitution with Mn2+, Co2+ and Ni2+. Solid State Communications, 2005, 135, 345-347.	1.9	206
86	Nature and electronic properties of Y-junctions in CNTs and N-doped CNTs obtained by the pyrolysis of organometallic precursors. Chemical Physics Letters, 2005, 411, 468-473.	2.6	41
87	Carbon-assisted synthesis of nanowires and related nanostructures of MgO. Materials Research Bulletin, 2005, 40, 831-839.	5.2	38
88	Soft chemical routes to semiconductor nanostructures. Pramana - Journal of Physics, 2005, 65, 549-564.	1.8	11
89	Absence of ferromagnetism in Mn- and Co-doped ZnO. Journal of Materials Chemistry, 2005, 15, 573.	6.7	304
90	Crystalline silica nanowires. Journal of Materials Research, 2004, 19, 2216-2220.	2.6	26

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91	Properties of nanostructured GaN prepared by different methods. Solid State Sciences, 2004, 6, 1107-1112.	3.2	6
92	InN Nanocrystals, Nanowires, and Nanotubes. Small, 2004, 1, 91-94.	10.0	84
93	Carbon nanotubes by nebulized spray pyrolysis. Chemical Physics Letters, 2004, 386, 313-318.	2.6	85
94	In_2O_3 nanowires, nanobouquets and nanotrees. Chemical Physics Letters, 2004, 397, 329-334.	2.6	57
95	Carbon-assisted synthesis of inorganic nanowires. Journal of Materials Chemistry, 2004, 14, 440.	6.7	93
96	Carbothermal Synthesis of the Nanostructures of $Al_2O_3$and ZnO. Topics in Catalysis, 2003, 24, 137-146.	2.8	46
97	Carbon-assisted synthesis of silicon nanowires. Chemical Physics Letters, 2003, 381, 579-583.	2.6	30
98	Photoluminescence spectra and ferromagnetic properties of GaMnN nanowires. Chemical Physics Letters, 2003, 374, 314-318.	2.6	61
99	Inorganic nanowires. Progress in Solid State Chemistry, 2003, 31, 5-147.	7.2	690
100	Photoluminescence spectra and ferromagnetic properties of GaMnN nanowires. World Scientific Series in 20th Century Chemistry, 2003, , 355-359.	0.0	0
101	Optical Spectra of Nanowires of Cu and Zn Chalcogenides. Journal of Nanoscience and Nanotechnology, 2002, 2, 417-420.	0.9	17
102	A Raman Study of CdSe and ZnSe Nanostructures. Journal of Nanoscience and Nanotechnology, 2002, 2, 495-498.	0.9	34
103	Boron nitride nanotubes and nanowires. Chemical Physics Letters, 2002, 353, 345-352.	2.6	153
104	Surfactant-assisted synthesis of semiconductor nanotubes and nanowires. Applied Physics Letters, 2001, 78, 1853-1855.	3.3	233
105	Semiconductor nanorods: Cu, Zn, and Cd chalcogenides. Israel Journal of Chemistry, 2001, 41, 23-30.	2.3	31
106	Single Crystal GaN Nanowires. Journal of Nanoscience and Nanotechnology, 2001, 1, 303-308.	0.9	16
107	Synthetic strategies for Y-junction carbon nanotubes. Chemical Physics Letters, 2001, 345, 5-10.	2.6	108
108	Hydrogen Production by Steam Reforming of Methanol over a Ag/ZnO One Dimensional Catalyst. Advanced Materials Research, 0, 132, 205-219.	0.3	27