Arumugam Vadivel Murugan

List of Publications by Year
in descending order

57 papers	4,391 citations	147801 31 h-index	149698 56 g-index
58 all docs	58 docs citations	58 times ranked	6144 citing authors

#	Article	IF	Citations
1	High-Energy-Density LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ and Dual-Phase LTO-R-TiO₂ Materials via a Microwave-Assisted Reaction: Alleviating the Capacity Fading Mechanism by Nanocoating of Al₂O₃ and PEDOT. ACS Applied Energy Materials, 2021, 4, 11419-11435.	5.1	4
2	Human Umbilical Cord Whartonâ€™s Jelly-Derived Mesenchymal Stem Cells Labeled with Mn²⁺ and Gd³⁺ Co-Doped CuInS₂â€“ZnS Nanocrystals for Multimodality Imaging in a Tumor Mice Model. ACS Applied Materials & Interfaces, 2020, 12, 3415-3429.	8.0	27
3	Microwave-assisted hydrometallurgical extraction of Li₄Ti₅O₁₂ and LiFePO₄ from ilmenite: effect of PPy-Br₂ derived C-coating with N, Br, and Nb⁵⁺ Co-doping on electrodes for high-rate energy storage performance. Dalton Transactions, 2020, 49, 6227-6241.	3.3	9
4	Microwave-Enhanced Chemistry at Solidâ€“Liquid Interfaces: Synthesis of All-Inorganic CsPbX₃ Nanocrystals and Unveiling the Anion-Induced Evolution of Structural and Optical Properties. Inorganic Chemistry, 2020, 59, 6161-6175.	4.0	13
5	The rapid microwave-assisted hydrothermal synthesis of NASICON-structured Na₃V₂O_{2x}(PO₄)₂F_{3â^'2x}(0) Tj ETQq1 0.784314 rgBT	3.1	43
6	Bioimaging: Microwaveâ€Assisted Synthesis of Quasiâ€Pyramidal CuInS₂â€“ZnS Nanocrystals for Enhanced Nearâ€Infrared Targeted Fluorescent Imaging of Subcutaneous Melanoma (Adv. Biosys.) Tj ETQq0 0 0 rgBT /Overlock 10 T	3.0	0
7	Tetragonal to Monoclinic Crystalline Phases Change of BiVO₄ via Microwave-Hydrothermal Reaction: In Correlation with Visible-Light-Driven Photocatalytic Performance. Inorganic Chemistry, 2019, 58, 5096-5110.	4.0	79
8	Microwaveâ€Assisted Synthesis of Quasiâ€Pyramidal CuInS₂â€“ZnS Nanocrystals for Enhanced Nearâ€Infrared Targeted Fluorescent Imaging of Subcutaneous Melanoma. Advanced Biology, 2019, 3, e1800127.	3.0	4
9	Noninvasive Tracking and Regenerative Capabilities of Transplanted Human Umbilical Cord-Derived Mesenchymal Stem Cells Labeled with I-III-IV Semiconducting Nanocrystals in Liver-Injured Living Mice. ACS Applied Materials & Interfaces, 2019, 11, 8763-8778.	8.0	25
10	Transition Metal Ion (Mn²⁺, Fe²⁺, Co²⁺, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 392 Td (Ni<s Nanoprobe for Magneto-fluorescent Dual-Modality Bioimaging. ACS Biomaterials Science and Engineering, 2018, 4, 2582-2596.	5.2	90
11	Energy efficient, one-step microwave-solvothermal synthesis of a highly electro-catalytic thiospinel NiCo₂S₄/graphene nanohybrid as a novel sustainable counter electrode material for Pt-free dye-sensitized solar cells. Journal of Materials Chemistry C, 2017, 5, 3146-3155.	5.5	53
12	Unveiling the Co²⁺ Ion Doping-Induced Hierarchical Shape Evolution of ZnO: In Correlation with Magnetic and Photovoltaic Performance. ACS Sustainable Chemistry and Engineering, 2017, 5, 9981-9992.	6.7	17
13	Microwave-solvothermal synthesis of various TiO₂ nano-morphologies with enhanced efficiency by incorporating Ni nanoparticles in an electrolyte for dye-sensitized solar cells. Inorganic Chemistry Frontiers, 2017, 4, 1665-1678.	6.0	24
14	One-pot microwave-assisted in situ reduction of Ag⁺and Au³⁺ions by Citrus limon extract and their carbon-dots based nanohybrids: a potential nano-bioprobe for cancer cellular imaging. RSC Advances, 2016, 6, 103482-103490.	3.6	30
15	Sustainable, Rapid Synthesis of Bright-Luminescent CuInS2-ZnS Alloyed Nanocrystals: Multistage Nano-xenotoxicity Assessment and Intravital Fluorescence Bioimaging in Zebrafish-Embryos. Scientific Reports, 2016, 6, 26078.	3.3	32
16	Investigation of the effect of reaction parameters on the microwave-assisted hydrothermal synthesis of hierarchical jasmine-flower-like ZnO nanostructures for dye-sensitized solar cells. New Journal of Chemistry, 2016, 40, 5080-5089.	2.8	40
17	Development of Sustainable Rapid Microwave Assisted Process for Extracting Nanoporous Si from Earth Abundant Agricultural Residues and Their Carbon-based Nanohybrids for Lithium Energy Storage. ACS Sustainable Chemistry and Engineering, 2015, 3, 224-236.	6.7	83
18	Energy-efficient, microwave-assisted hydro/solvothermal synthesis of hierarchical flowers and rice grain-like ZnO nanocrystals as photoanodes for high performance dye-sensitized solar cells. CrystEngComm, 2015, 17, 8353-8367.	2.6	54

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19	A rapid, one-pot microwave-solvothermal synthesis of a hierarchical nanostructured graphene/LiFePO4 hybrid as a high performance cathode for lithium ion batteries. RSC Advances, 2013, 3, 25403.	3.6	43
20	Pt-Encapsulated Pdâ˜Co Nanoalloy Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. Langmuir, 2010, 26, 2894-2903.	3.5	33
21	Rapid Microwaveâ€Assisted Solvothermal Synthesis of Methanol Tolerant Ptâ€“Pdâ€“Co Nanoalloy Electrocatalysts. Fuel Cells, 2010, 10, 375-383.	2.4	26
22	Template Free Synthesis of Mesoporous TiO₂ with High Wall Thickness and Nanocrystalline Framework. Journal of Nanoscience and Nanotechnology, 2009, 9, 371-377.	0.9	38
23	Rapid, Facile Microwave-Solvothermal Synthesis of Graphene Nanosheets and Their Polyaniline Nanocomposites for Energy Strorage. Chemistry of Materials, 2009, 21, 5004-5006.	6.7	733
24	Dimensionally Modulated, Single-Crystalline LiMPO₄ (M= Mn, Fe, Co, and Ni) with Nano-Thumblike Shapes for High-Power Energy Storage. Inorganic Chemistry, 2009, 48, 946-952.	4.0	167
25	Low cost Pdâ€“W nanoalloy electrocatalysts for oxygen reduction reaction in fuel cells. Journal of Materials Chemistry, 2009, 19, 159-165.	6.7	76
26	High capacity double-layer surface modified Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with improved rate capability. Journal of Materials Chemistry, 2009, 19, 4965.	6.7	302
27	Rapid microwave-solvothermal synthesis of phospho-olivine nanorods and their coating with a mixed conducting polymer for lithium ion batteries. Electrochemistry Communications, 2008, 10, 903-906.	4.7	189
28	Nanoscale networking of LiFePO4 nanorods synthesized by a microwave-solvothermal route with carbon nanotubes for lithium ion batteries. Journal of Materials Chemistry, 2008, 18, 5661.	6.7	140
29	Nanostructured electrode materials for electrochemical energy storage and conversion. Energy and Environmental Science, 2008, 1, 621.	30.8	548
30	Comparison of Microwave Assisted Solvothermal and Hydrothermal Syntheses of LiFePO₄/C Nanocomposite Cathodes for Lithium Ion Batteries. Journal of Physical Chemistry C, 2008, 112, 14665-14671.	3.1	210
31	Synthesis and Characterization of Nanostructured Pdâ˜Mo Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. Journal of Physical Chemistry C, 2008, 112, 12037-12043.	3.1	85
32	Surface Modification of High Capacity Layered Li[Li[sub 0.2]Mn[sub 0.54]Ni[sub 0.13]Co[sub 0.13]]O[sub 2] Cathodes by AlPO[sub 4]. Journal of the Electrochemical Society, 2008, 155, A635.	2.9	237
33	Varistors based on Ta-doped TiO2. Ceramics International, 2007, 33, 301-303.	4.8	44
34	Preparation of nanocrystalline ferroelectric CaBi4Ti4O15 by citrate gel method. Ceramics International, 2007, 33, 569-571.	4.8	10
35	Photoluminescence studies of Eu3+ doped Y2O3 nanophosphor prepared by microwave hydrothermal method. Applied Physics Letters, 2006, 89, 123120.	3.3	43
36	Synthesis and characterization of organicâ€“inorganic poly(3,4-ethylenedioxythiophene)/MoS2 nanocomposite via in situ oxidative polymerization. Journal of Materials Research, 2006, 21, 112-118.	2.6	21

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37	Exfoliation-induced nanoribbon formation of poly(3,4-ethylene dioxythiophene) PEDOT between MoS2 layers as cathode material for lithium batteries. Journal of Power Sources, 2006, 156, 615-619.	7.8	67
38	Novel organicâ€“inorganic poly (3,4-ethylenedioxythiophene) based nanohybrid materials for rechargeable lithium batteries and supercapacitors. Journal of Power Sources, 2006, 159, 312-318.	7.8	41
39	Comparison of different soft chemical routes synthesis of nanocrystalline LiMn2O4 and their influence on its physicochemical properties. Journal of Solid State Electrochemistry, 2006, 10, 104-109.	2.5	8
40	A coprecipitation technique to prepare Sro.5Bao.5Nb206. Bulletin of Materials Science, 2006, 29, 221-223.	1.7	12
41	Preparation of nanocrystalline Mg4Nb2O9 by citrate gel method. Bulletin of Materials Science, 2006, 29, 7-9.	1.7	25
42	A co-precipitation technique for the preparation of ferroelectric BaBi2Ta2O9. Materials Chemistry and Physics, 2006, 98, 344-346.	4.0	14
43	Synthesis of nanocrystalline anatase TiO2 by microwave hydrothermal method. Materials Letters, 2006, 60, 479-480.	2.6	97
44	Synthesis of nanocrystalline La2O3 powder at 100 Â°C. Materials Letters, 2006, 60, 848-849.	2.6	32
45	Preparation of nanocrystalline ferroelectric BaBi4Ti4O15 by Pechini method. Materials Letters, 2006, 60, 1023-1025.	2.6	30
46	Eu3+doped lanthanum oxide nanowhiskers: microwave hydrothermal synthesis, characterization and photoluminescence properties. Journal Physics D: Applied Physics, 2006, 39, 3974-3977.	2.8	19
47	Electrochemical properties of microwave irradiated synthesis of poly(3,4-ethylenedioxythiophene)/V2O5 nanocomposites as cathode materials for rechargeable lithium batteries. Electrochimica Acta, 2005, 50, 4627-4636.	5.2	32
48	Novel approach to control CdS morphology by simple microwave-solvothermal method. Journal of Materials Science: Materials in Electronics, 2005, 16, 295-299.	2.2	20
49	Enhancement of double-layer capacitance behavior and its electrical conductivity in layered poly (3,) Tj ETQq1 1 0.784314 rgBT /Overlock	3.3	38
50	Entrapment of poly(3,4-ethylenedioxythiophene) between VS2layers to form a new organicâ€“inorganic intercalative nanocomposite. Journal of Materials Chemistry, 2005, 15, 902-909.	6.7	76
51	A Novel Approach To Prepare Poly(3,4-ethylenedioxythiophene) Nanoribbons between V2O5Layers by Microwave Irradiation. Journal of Physical Chemistry B, 2004, 108, 10736-10742.	2.6	59
52	Synthesis and Characterization of Novel Organo-Inorganic Hybrid Material of Poly(3,4-Ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14 81-86.	0.3	13
53	Preparation, Characterization and Electrochemical Lithium Insertion Into the New Organicâ€“Inorganic Poly(3,4-Ethylene Dioxythiophene)/V2O5Hybrid. Active and Passive Electronic Components, 2003, 26, 171-183.	0.3	6
54	Electrochemistry of Inorganic Nanocrystalline Electrode Materials for Lithium Batteries. Active and Passive Electronic Components, 2003, 26, 23-29.	0.3	4

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55	Poly(3,4-ethylenedioxythiophene)V2O5 hybrids for lithium batteries. Electrochemistry Communications, 2002, 4, 384-387.	4.7	30
56	Synthesis and characterization of a new organoâ€“inorganic poly(3,4-ethylene dioxythiophene) PEDOT/V2O5 nanocomposite by intercalation. Journal of Materials Chemistry, 2001, 11, 2470-2475.	6.7	86
57	Microwaveâ€“solvothermal synthesis of nanocrystalline cadmium sulfide. Materials Chemistry and Physics, 2001, 71, 98-102.	4.0	120