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	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
2	Nanostructured electrode materials for electrochemical energy storage and conversion. Energy and Environmental Science, 2008, 1, 621.	30.8	548
3	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
4	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
5	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
6	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
7	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
8	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
9	Microwaveâ€“solvothermal synthesis of nanocrystalline cadmium sulfide. Materials Chemistry and Physics, 2001, 71, 98-102.	4.0	120
10	Synthesis of nanocrystalline anatase TiO2 by microwave hydrothermal method. Materials Letters, 2006, 60, 479-480.	2.6	97
11	Transition Metal Ion (Mn²⁺, Fe²⁺, Co²⁺, and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 3 Nanoprobe for Magneto-fluorescent Dual-Modality Bioimaging. ACS Biomaterials Science and Engineering, 2018, 4, 2582-2596.	5.2	90
12	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
13	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
14	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
15	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
16	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
17	Low cost Pdâ€“W nanoalloy electrocatalysts for oxygen reduction reaction in fuel cells. Journal of Materials Chemistry, 2009, 19, 159-165.	6.7	76
18	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

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19	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
20	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
21	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
22	Varistors based on Ta-doped TiO2. Ceramics International, 2007, 33, 301-303.	4.8	44
23	Photoluminescence studies of Eu3+ doped Y2O3 nanophosphor prepared by microwave hydrothermal method. Applied Physics Letters, 2006, 89, 123120.	3.3	43
24	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
25	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
26	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
27	Enhancement of double-layer capacitance behavior and its electrical conductivity in layered poly (3,) Tj ETQq1 1 0.784314 rgBT /Overlock	3.3	38
28	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
29	Pt-Encapsulated Pdâ^'Co Nanoalloy Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. Langmuir, 2010, 26, 2894-2903.	3.5	33
30	The rapid microwave-assisted hydrothermal synthesis of NASICON-structured Na₃V₂O_{2x}(PO₄)₂F_{3â^'2x}(0) Tj ETQq1 0.60 0 rgBT /Overlock	3.6	33
31	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
32	Synthesis of nanocrystalline La2O3 powder at 100 Â°C. Materials Letters, 2006, 60, 848-849.	2.6	32
33	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
34	Poly(3,4-ethylenedioxythiophene)V2O5 hybrids for lithium batteries. Electrochemistry Communications, 2002, 4, 384-387.	4.7	30
35	Preparation of nanocrystalline ferroelectric BaBi4Ti4O15 by Pechini method. Materials Letters, 2006, 60, 1023-1025.	2.6	30
36	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

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37	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
38	Rapid Microwaveâ€Assisted Solvothermal Synthesis of Methanol Tolerant Ptâ€“Pdâ€“Co Nanoalloy Electrocatalysts. Fuel Cells, 2010, 10, 375-383.	2.4	26
39	Preparation of nanocrystalline Mg4Nb2O9 by citrate gel method. Bulletin of Materials Science, 2006, 29, 7-9.	1.7	25
40	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
41	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
42	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
43	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
44	Eu3+doped lanthanum oxide nanowhiskers: microwave hydrothermal synthesis, characterization and photoluminescence properties. Journal Physics D: Applied Physics, 2006, 39, 3974-3977.	2.8	19
45	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
46	A co-precipitation technique for the preparation of ferroelectric BaBi2Ta2O9. Materials Chemistry and Physics, 2006, 98, 344-346.	4.0	14
47	Synthesis and Characterization of Novel Organo-Inorganic Hybrid Material of Poly(3,4-Ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 81-86.	0.3	13
48	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
49	A coprecipitation technique to prepare Sro.5Bao.5Nb206. Bulletin of Materials Science, 2006, 29, 221-223.	1.7	12
50	Preparation of nanocrystalline ferroelectric CaBi4Ti4O15 by citrate gel method. Ceramics International, 2007, 33, 569-571.	4.8	10
51	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
52	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
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	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
56	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
57	Bioimaging: Microwaveâ€Assisted Synthesis of Quasiâ€Pyramidal CuInS₂â€“ZnS Nanocrystals for Enhanced Nearâ€Infrared Targeted Fluorescent Imaging of Subcutaneous Melanoma (Adv. Biosys.) Tj ETQq1 1 0.784314 rgBT /Ov	3.78	0