

Arumugam Vadivel Murugan

List of Publications by Year in descending order

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papers

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docs citations

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6144
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#	ARTICLE	IF	CITATIONS
1	Rapid, Facile Microwave-Solvothermal Synthesis of Graphene Nanosheets and Their Polyaniline Nanocomposites for Energy Storage. <i>Chemistry of Materials</i> , 2009, 21, 5004-5006.	3.2	733
2	Nanostructured electrode materials for electrochemical energy storage and conversion. <i>Energy and Environmental Science</i> , 2008, 1, 621.	15.6	548
3	High capacity double-layer surface modified $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}]\text{O}_2$ cathode with improved rate capability. <i>Journal of Materials Chemistry</i> , 2009, 19, 4965.	6.7	302
4	Surface Modification of High Capacity Layered $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}]\text{O}_2$ Cathodes by AlPO_4 . <i>Journal of the Electrochemical Society</i> , 2008, 155, A635.	1.3	237
5	Comparison of Microwave Assisted Solvothermal and Hydrothermal Syntheses of LiFePO_4/C Nanocomposite Cathodes for Lithium Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2008, 112, 14665-14671.	1.5	210
6	Rapid microwave-solvothermal synthesis of phospho-olivine nanorods and their coating with a mixed conducting polymer for lithium ion batteries. <i>Electrochemistry Communications</i> , 2008, 10, 903-906.	2.3	189
7	Dimensionally Modulated, Single-Crystalline LiMPO_4 (M= Mn, Fe, Co, and Ni) with Nano-Thumblike Shapes for High-Power Energy Storage. <i>Inorganic Chemistry</i> , 2009, 48, 946-952.	1.9	167
8	Nanoscale networking of LiFePO_4 nanorods synthesized by a microwave-solvothermal route with carbon nanotubes for lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2008, 18, 5661.	6.7	140
9	Microwave-solvothermal synthesis of nanocrystalline cadmium sulfide. <i>Materials Chemistry and Physics</i> , 2001, 71, 98-102.	2.0	120
10	Synthesis of nanocrystalline anatase TiO_2 by microwave hydrothermal method. <i>Materials Letters</i> , 2006, 60, 479-480.	1.3	97
11	Transition Metal Ion (Mn^{2+} , Fe^{2+} , Co^{2+} , and Tj) ETQq1 1.0784314 rgBT /Overlock 10 Tf 50 382 Nanoprobe for Magneto-fluorescent Dual-Modality Bioimaging. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 2582-2596.	2.6	90
12	Synthesis and characterization of a new organo-inorganic poly(3,4-ethylene dioxythiophene) PEDOT/ V_2O_5 nanocomposite by intercalation. <i>Journal of Materials Chemistry</i> , 2001, 11, 2470-2475.	6.7	86
13	Synthesis and Characterization of Nanostructured $\text{Pd}^{\sim}\text{Mo}$ Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2008, 112, 12037-12043.	1.5	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. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 224-236.	3.2	83
15	Tetragonal to Monoclinic Crystalline Phases Change of BiVO_4 via Microwave-Hydrothermal Reaction: In Correlation with Visible-Light-Driven Photocatalytic Performance. <i>Inorganic Chemistry</i> , 2019, 58, 5096-5110.	1.9	79
16	Entrapment of poly(3,4-ethylenedioxythiophene) between VS_2 layers to form a new organo-inorganic intercalative nanocomposite. <i>Journal of Materials Chemistry</i> , 2005, 15, 902-909.	6.7	76
17	Low cost Pd^{\sim}W nanoalloy electrocatalysts for oxygen reduction reaction in fuel cells. <i>Journal of Materials Chemistry</i> , 2009, 19, 159-165.	6.7	76
18	Exfoliation-induced nanoribbon formation of poly(3,4-ethylene dioxythiophene) PEDOT between MoS_2 layers as cathode material for lithium batteries. <i>Journal of Power Sources</i> , 2006, 156, 615-619.	4.0	67

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19	A Novel Approach To Prepare Poly(3,4-ethylenedioxythiophene) Nanoribbons between V ₂ O ₅ Layers by Microwave Irradiation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 10736-10742.	1.2	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. <i>CrystEngComm</i> , 2015, 17, 8353-8367.	1.3	54
21	Energy efficient, one-step microwave-solvothermal synthesis of a highly electro-catalytic thiospinel NiCo ₂ S ₄ /graphene nano hybrid as a novel sustainable counter electrode material for Pt-free dye-sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3146-3155.	2.7	53
22	Varistors based on Ta-doped TiO ₂ . <i>Ceramics International</i> , 2007, 33, 301-303.	2.3	44
23	Photoluminescence studies of Eu ³⁺ doped Y ₂ O ₃ nanophosphor prepared by microwave hydrothermal method. <i>Applied Physics Letters</i> , 2006, 89, 123120.	1.5	43
24	A rapid, one-pot microwave-solvothermal synthesis of a hierarchical nanostructured graphene/LiFePO ₄ hybrid as a high performance cathode for lithium ion batteries. <i>RSC Advances</i> , 2013, 3, 25403.	1.7	43
25	Novel organic-inorganic poly (3,4-ethylenedioxythiophene) based nano hybrid materials for rechargeable lithium batteries and supercapacitors. <i>Journal of Power Sources</i> , 2006, 159, 312-318.	4.0	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. <i>New Journal of Chemistry</i> , 2016, 40, 5080-5089.	1.4	40
27	Enhancement of double-layer capacitance behavior and its electrical conductivity in layered poly (3,4-ethylenedioxythiophene) V ₂ O ₅ hybrid. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 1078-1084.	1.5	38
28	Template Free Synthesis of Mesoporous TiO ₂ with High Wall Thickness and Nanocrystalline Framework. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 371-377.	0.9	38
29	Pt-Encapsulated Pd-Co Nanoalloy Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. <i>Langmuir</i> , 2010, 26, 2894-2903.	1.6	33
30	The rapid microwave-assisted hydrothermal synthesis of NASICON-structured Na ₃ V ₂ O ₇ (PO ₄) ₂ F ₃ ·xH ₂ O. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 1078-1084.	1.5	33
31	Electrochemical properties of microwave irradiated synthesis of poly(3,4-ethylenedioxythiophene)/V ₂ O ₅ nanocomposites as cathode materials for rechargeable lithium batteries. <i>Electrochimica Acta</i> , 2005, 50, 4627-4636.	2.6	32
32	Synthesis of nanocrystalline La ₂ O ₃ powder at 100 °C. <i>Materials Letters</i> , 2006, 60, 848-849.	1.3	32
33	Sustainable, Rapid Synthesis of Bright-Luminescent CuInS ₂ -ZnS Alloyed Nanocrystals: Multistage Nano-xenotoxicity Assessment and Intravital Fluorescence Bioimaging in Zebrafish-Embryos. <i>Scientific Reports</i> , 2016, 6, 26078.	1.6	32
34	Poly(3,4-ethylenedioxythiophene)/V ₂ O ₅ hybrids for lithium batteries. <i>Electrochemistry Communications</i> , 2002, 4, 384-387.	2.3	30
35	Preparation of nanocrystalline ferroelectric BaBi ₄ Ti ₄ O ₁₅ by Pechini method. <i>Materials Letters</i> , 2006, 60, 1023-1025.	1.3	30
36	One-pot microwave-assisted in situ reduction of Ag ⁺ and Au ³⁺ ions by Citrus limon extract and their carbon-dots based nano hybrids: a potential nano-bioprobe for cancer cellular imaging. <i>RSC Advances</i> , 2016, 6, 103482-103490.	1.7	30

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37	Human Umbilical Cord Wharton's Jelly-Derived Mesenchymal Stem Cells Labeled with Mn ²⁺ and Gd ³⁺ Co-Doped CuInS ₂ ZnS Nanocrystals for Multimodality Imaging in a Tumor Mice Model. ACS Applied Materials & Interfaces, 2020, 12, 3415-3429.	4.0	27
38	Rapid Microwave-Assisted Solvothermal Synthesis of Methanol Tolerant Pt-Pd-Co Nanoalloy Electrocatalysts. Fuel Cells, 2010, 10, 375-383.	1.5	26
39	Preparation of nanocrystalline Mg ₄ Nb ₂ O ₉ by citrate gel method. Bulletin of Materials Science, 2006, 29, 7-9.	0.8	25
40	Noninvasive Tracking and Regenerative Capabilities of Transplanted Human Umbilical Cord-Derived Mesenchymal Stem Cells Labeled with III-IV Semiconducting Nanocrystals in Liver-Injured Living Mice. ACS Applied Materials & Interfaces, 2019, 11, 8763-8778.	4.0	25
41	Microwave-solvothermal synthesis of various TiO ₂ nano-morphologies with enhanced efficiency by incorporating Ni nanoparticles in an electrolyte for dye-sensitized solar cells. Inorganic Chemistry Frontiers, 2017, 4, 1665-1678.	3.0	24
42	Synthesis and characterization of organic-inorganic poly(3,4-ethylenedioxythiophene)/MoS ₂ nanocomposite via in situ oxidative polymerization. Journal of Materials Research, 2006, 21, 112-118.	1.2	21
43	Novel approach to control CdS morphology by simple microwave-solvothermal method. Journal of Materials Science: Materials in Electronics, 2005, 16, 295-299.	1.1	20
44	Eu ³⁺ -doped lanthanum oxide nanowhiskers: microwave hydrothermal synthesis, characterization and photoluminescence properties. Journal Physics D: Applied Physics, 2006, 39, 3974-3977.	1.3	19
45	Unveiling the Co ²⁺ Ion Doping-Induced Hierarchical Shape Evolution of ZnO: In Correlation with Magnetic and Photovoltaic Performance. ACS Sustainable Chemistry and Engineering, 2017, 5, 9981-9992.	3.2	17
46	A co-precipitation technique for the preparation of ferroelectric BaBi ₂ Ta ₂ O ₉ . Materials Chemistry and Physics, 2006, 98, 344-346.	2.0	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 Solid-Liquid Interfaces: Synthesis of All-Inorganic CsPbX ₃ Nanocrystals and Unveiling the Anion-Induced Evolution of Structural and Optical Properties. Inorganic Chemistry, 2020, 59, 6161-6175.	1.9	13
49	A coprecipitation technique to prepare Sr _{0.5} Ba _{0.5} Nb ₂ O ₆ . Bulletin of Materials Science, 2006, 29, 221-223.	0.8	12
50	Preparation of nanocrystalline ferroelectric CaBi ₄ Ti ₄ O ₁₅ by citrate gel method. Ceramics International, 2007, 33, 569-571.	2.3	10
51	Microwave-assisted hydrometallurgical extraction of Li ₄ Ti ₅ O ₁₂ and LiFePO ₄ from ilmenite: effect of PPy-Br ₂ derived C-coating with N, Br, and Nb ₅₊ Co-doping on electrodes for high-rate energy storage performance. Dalton Transactions, 2020, 49, 6227-6241.	1.6	9
52	Comparison of different soft chemical routes synthesis of nanocrystalline LiMn ₂ O ₄ and their influence on its physicochemical properties. Journal of Solid State Electrochemistry, 2006, 10, 104-109.	1.2	8
53	Preparation, Characterization and Electrochemical Lithium Insertion Into the New Organic-Inorganic Poly(3,4-Ethylene Dioxothiophene)/V ₂ O ₅ Hybrid. 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	Microwave-Assisted Synthesis of Quasi-Pyramidal CuInS_2 -ZnS Nanocrystals for Enhanced Near-Infrared Targeted Fluorescent Imaging of Subcutaneous Melanoma. <i>Advanced Biology</i> , 2019, 3, e1800127.	3.0	4
56	High-Energy-Density $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ and Dual-Phase LTO-R-TiO ₂ Materials via a Microwave-Assisted Reaction: Alleviating the Capacity Fading Mechanism by Nanocoating of Al_2O_3 and PEDOT. <i>ACS Applied Energy Materials</i> , 2021, 4, 11419-11435.	2.5	4
57	Bioimaging: Microwave-Assisted Synthesis of Quasi-Pyramidal CuInS_2 -ZnS Nanocrystals for Enhanced Near-Infrared Targeted Fluorescent Imaging of Subcutaneous Melanoma (<i>Adv. Biosys.</i>) Tj ETQq1 1 0.784314 RGBT /Over	3.784314	4