

## **List of publications**

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S.No	Title, Authors, Journal, Volume, Page nos	Year
<b>1</b>	<b>“Effect of Sb substitution on structural, morphological and electrical properties of BaSnO<sub>3</sub> for thermoelectric application”</b> Palani Rajasekaran, Yuki Kumaki, Mukannan Arivanandhan, Mohamed Mathar Sahib Ibrahim Khaleeullah, R Jayavel, Hiroshi Nakatsugawa, Yasuhiro Hayakawa, Masaru Shimomura, Physica B: Condensed Matter.	<b>2020</b>
<b>2</b>	<b>“Crystal growth, structural, optical, thermal, and mechanical properties of new bis (2-amino-6-methyl pyridinium barbiturate) tetrahydrate organic single crystal for nonlinear”</b> R Kaliammal, G Parvathy, G Maheshwaran, K Sankaranarayanan, M Arivanandhan, S Sudhahar, Chinese Journal of Physics, Elsevier	<b>2020</b>
<b>3</b>	<b>“Effect of Gd and Nb co-substitution on enhancing the thermoelectric power factor of nanostructured SrTiO<sub>3</sub>”</b> N Yalini Devi, K Vijayakumar, P Rajasekaran, AS Alagar Nedunchezian, D Sidharth, Shimomura Masaru, M Arivanandhan, R Jayavel, Ceramics International, Elsevier	<b>2020</b>
<b>4</b>	<b>“Rational fabrication of needle with spherical shape ternary reduced Graphene Oxide-HoVO<sub>4</sub>-TiO<sub>2</sub> photocatalyst for degradation of ibuprofen under visible light”</b> A Raja, P Rajasekaran, K Selvakumar, M Arivanandhan, S Asath Bahadur, M Swaminathan, Applied Surface Science, Publisher - North-Holland	<b>2020</b>
<b>5</b>	<b>“Growth, experimental and theoretical investigations on 4-hydroxy-3-methoxybenzaldehyde 5-chloro-2-hydroxybenzoic acid: A new high second order nonlinear optical material”</b> G Parvathy, R Kaliammal, K Sankaranarayanan, M Arivanandhan, M Krishna Kumar, S Sudhahar, Journal of Molecular Structure, Publisher - Elsevier	<b>2020</b>
<b>6</b>	<b>“Effect of B<sub>4</sub>C and SiC nanoparticle reinforcement on the wear behavior and surface structure of aluminum (Al6063-T6) matrix composite”</b> N Ramadoss, K Pazhanivel, SG Kumar, M Arivanandhan, P Anandan, SN Applied Sciences 2 (5), 1-16	<b>2020</b>
<b>7</b>	<b>“Effect of sintering temperatures on mixed phases and thermoelectric properties of nanostructured copper telluride”</b> R Rajkumar, AS Alagar Nedunchezian, D Sidharth, P Rajasekaran, M Arivanandhan, R Jayavel, G Anbalagan, Journal of Alloys and Compounds, Publisher - Elsevier	<b>2020</b>

<b>8</b>	<b>“CuO/MoS<sub>2</sub> nanocomposites for rapid and high sensitive non-enzymatic glucose sensors”</b> S Arunbalaji, R Vasudevan, M Arivanandhan, A Alsalmeh, A Alghamdi, R Jayavel, Ceramics International, Publisher - Elsevier	<b>2020</b>
<b>9</b>	<b>“Efficient Photoreduction of Hexavalent Chromium Using the Reduced Graphene Oxide–Sm<sub>2</sub>MoO<sub>6</sub>–TiO<sub>2</sub> Catalyst under Visible Light Illumination”</b> Annamalai Raja, Palani Rajasekaran, Karuppaiah Selvakumar, Mukannan Arivanandhan, Sultan Asath Bahadur, Meenakshisundaram Swaminathan, ACS omega, Publisher - American Chemical Society	<b>2020</b>
<b>10</b>	<b>“Facile preparation of Mn<sub>3</sub>O<sub>4</sub>/rGO hybrid nanocomposite by sol-gel in situ reduction method with enhanced energy storage performance for supercapacitor applications”</b> M Mohamed Ismail, S Hemaanandhan, D Mani, M Arivanandhan, G Anbalagan, R Jayavel, JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, Publisher - SPRINGER	<b>2020</b>
<b>11</b>	<b>“Synthesis of micro-dumbbell shaped rGO/ZnO composite rods and its application towards as electrochemical sensor for the simultaneous determination of ammonia and formaldehyde”</b> G Padmalaya, BS Sreeja, S Shoba, R Rajavel, S Radha, M Arivanandan, Sujana Shrestha, Journal of Inorganic and Organometallic Polymers and Materials, Publisher - Springer US	<b>2020</b>
<b>12</b>	<b>“Facile synthesis of pervoskite type BiYO<sub>3</sub> embedded reduced graphene oxide (RGO) composite for supercapacitor applications”</b> R Selvarajan, S Vadivel, M Arivanandhan, R Jayavel, Ceramics International 46 (3), 3471-3478	<b>2020</b>
<b>13</b>	<b>“The effect of mixed solvents on solute-solvent interactions and bulk growth of 3, 4-diamino benzophenone: A novel benzophenone derivative for NLO applications”</b> S Usharani, J Jude, V Natarajan, M Arivanandhan, P Anandan, Dmitry A Vorontsov, Mikhail O Marychev, Optical Materials, Publisher - North-Holland	<b>2020</b>
<b>14</b>	<b>“Enhancement of thermoelectric power factor of hydrothermally synthesised SrTiO<sub>3</sub> nanostructures”</b> N Yalini Devi, P Rajasekaran, K Vijayakumar, AS Alagar Nedunchezian, D Sidharth, G Anbalagan, M Arivanandhan, R Jayavel, Materials Research Express, Publisher - IOP Publishing	<b>2020</b>
<b>15</b>	<b>“Facile synthesis of CdS Quantum dots for QDSSC with high photo current density”</b> T Archana, K Vijayakumar, G Subashini, A Nirmala Grace, M Arivanandhan, R Jayavel, Materials Research Express, Publisher - IOP Publishing	<b>2020</b>
<b>16</b>	<b>“Antimonene nanosheets with enhanced electrochemical performance for energy storage applications”</b> M Mohamed Ismail, J Vigneshwaran, S Arunbalaji, D Mani, M Arivanandhan, Sujana P Jose, R Jayavel, Dalton Transactions, Publisher - Royal Society of Chemistry	<b>2020</b>
<b>17</b>	<b>“Facile synthesis of morphology-controlled La: BaSnO<sub>3</sub> for the enhancement of thermoelectric power factor”</b> Palani Rajasekaran, Mukannan Arivanandhan, Yuki Kumaki, Ramasamy Jayavel, Yasuhiro Hayakawa, Masaru Shimomura, CrystEngComm, Publisher - Royal Society of Chemistry	<b>2020</b>
<b>18</b>	<b>“High Sensitive Electrochemical nitrite sensor using Fe<sub>2</sub>O<sub>3</sub>/MoS<sub>2</sub> nanocomposites synthesized by facile method”</b> S Arunbalaji, M Mohamed Ismail, M Arivanandhan, A Alsalmeh, A Alghamdi, R Jayavel, Bulletin of the Chemical Society of Japan, Publisher - The Chemical Society of Japan	<b>2020</b>
<b>19</b>	<b>“A facile synthesis of novel ε-Fe<sub>2</sub>O<sub>3</sub> grafted 2D h-BN nanostructures for enhanced visible active photocatalytic applications”</b> Durai Mani, Durai Mathivanan, Ho Chang, Kumaravel Sakthivel, Erusappan Elangovan, Thiripuranthagan Sivakumar, Mukannan Arivanandhan, Ramasamy Jayavel, New Journal of Chemistry, Publisher - Royal Society of Chemistry	<b>2020</b>

<b>20</b>	<b>“Enhanced electrochemical performance of <math>\alpha</math>-MoO<sub>3</sub>/graphene nanocomposites prepared by an in situ microwave irradiation technique for energy storage applications”</b> P Nagaraju, M Arivanandhan, A Alsalmeh, A Alghamdi, R Jayavel, RSC Advances 10 (38), 22836-22847	<b>2020</b>
<b>21</b>	<b>“Enhancing the thermoelectric power factor of nanostructured ZnCo<sub>2</sub>O<sub>4</sub> by Bi substitution”</b> AS Alagar Nedunchezian, D Sidharth, R Rajkumar, N Yalini Devi, K Maeda, M Arivanandhan, K Fujiwara, G Anbalagan, R Jayavel, RSC Advances, Publisher - Royal Society of Chemistry	<b>2020</b>
<b>22</b>	<b>“Effect of co-sensitization of InSb quantum dots on enhancing the photoconversion efficiency of CdS based quantum dot sensitized solar cells”</b> T Archana, K Vijayakumar, G Subashini, A Nirmala Grace, M Arivanandhan, R Jayavel, RSC Advances, Publisher - Royal Society of Chemistry	<b>2020</b>
<b>23</b>	<b>“Surfactant-Free Synthesis of Nb<sub>2</sub>O<sub>5</sub> Nanoparticles Anchored Graphene Nanocomposites with Enhanced Electrochemical Performance for Supercapacitor Electrodes”</b> P Nagaraju, R Vasudevan, A Alsalmeh, A Alghamdi, M Arivanandhan, R Jayavel, Nanomaterials, Publisher - Multidisciplinary Digital Publishing Institute	<b>2020</b>
<b>24</b>	<b>“High-performance electrochemical capacitor based on cuprous oxide/graphene nanocomposite electrode material synthesized by microwave irradiation method”</b> P Nagaraju, R Vasudevan, M Arivanandhan, A Alsalmeh, R Jayavel, Emergent Materials 2 (4), 495-504	<b>2019</b>
<b>25</b>	<b>“TiO<sub>2</sub> nanostructures with controlled morphology for improved electrical properties of photoanodes and quantum dot sensitized solar cell characteristics”</b> T Archana, K Vijayakumar, M Arivanandhan, R Jayavel, Surfaces and Interfaces 17, 100350	<b>2019</b>
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<b>27</b>	<b>“A facile preparation, performance and emission analysis of pongamia oil based novel biodiesel in diesel engine with CeO<sub>2</sub>: Gd nanoparticles”</b> K Dhanasekar, M Sridaran, M Arivanandhan, R Jayavel, Fuel 255, 115756	<b>2019</b>
<b>28</b>	<b>“Study on Photo-Catalytic and Antimicrobial Activity of Green Synthesized TiO<sub>2</sub> Nanoparticles Coated Vitrified Tiles”</b> M Sivaraj, S Sudhakar, M Arivanandhan, S Ganesan, R Jayavel, Journal of Nanoscience and Technology, 836-839	<b>2019</b>
<b>29</b>	<b>“Facile synthesis of Yb<sub>2</sub>O<sub>3</sub>-graphene nanocomposites for enhanced energy and environmental applications”</b> T Saravanan, P Anandan, M Shanmugam, M Azhagurajan, M Mohamed Ismail, M Arivanandhan, Y Hayakawa, R Jayavel, Polymer Bulletin, Publisher - Springer Berlin Heidelberg	<b>2019</b>
<b>30</b>	<b>“Synthesis and characterization of g/Ni-SiO<sub>2</sub> composite for enhanced hydrogen storage applications”</b> B Krishnakumar, S Kumar, JM Gil, D Mani, M Arivanandhan, AJFN Sobral, International Journal of Hydrogen Energy 44 (41), 23249-23256	<b>2019</b>
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<b>34</b>	<b>“Synthesis and Characterization of Pure and Gd-Doped CeO<sub>2</sub> Nanoparticles”</b> M Sridaran, K Dhanasekar, M Arivanandhan, Journal of Nanoscience and Technology, 725-726	<b>2019</b>
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<b>36</b>	<b>“A facile synthesis, structural, morphological and electrical characterizations of Zn<sub>1-x</sub>CoxO nanocrystals for thermoelectric applications”</b> TMV Muruguthiruvalluvan, AS Alagar Nedunchezian, V Natarajan, R Chandramohan, M Azhagurajan, P Anandan, M Arivanandhan, Solid State Sciences, Publisher - Elsevier Masson	<b>2019</b>
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<b>39</b>	<b>“Homogeneous InGaSb crystal grown under microgravity using Chinese recovery satellite SJ-10”</b> Jianding Yu, Yuko Inatomi, Velu Nirmal Kumar, Yasuhiro Hayakawa, Yasunori Okano, Mukannan Arivanandhan, Yoshimi Momose, Xiuhong Pan, Yan Liu, Xingwang Zhang, Xinghong Luo, npj Microgravity, Publisher - Nature Publishing Group	<b>2019</b>
<b>40</b>	<b>“Enhancing effects of Te substitution on the thermoelectric power factor of nanostructured SnSe 1– x Te x”</b> D Sidharth, AS Alagar Nedunchezian, R Rajkumar, N Yalini Devi, P Rajasekaran, M Arivanandhan, K Fujiwara, G Anbalagan, R Jayavel, Physical Chemistry Chemical Physics, Publisher - Royal Society of Chemistry	<b>2019</b>
<b>41</b>	<b>“Production, characterization and effectiveness of cellulose acetate functionalized ZnO nanocomposite adsorbent for the removal of Se (VI) ions from aqueous media”</b> P Gurunathan, S Hari, SB Suseela, R Sankararajan, A Mukannan, Environmental Science and Pollution Research 26 (1), 528-543	<b>2019</b>
<b>42</b>	<b>“Effects of Al composition on the secondary phase formation and thermoelectric properties of Zn<sub>1-x</sub>Al<sub>x</sub>O nanocrystals”</b> TMV Murugu Thiruvalluvan, V Natarajan, V Manimuthu, S Valanarasu, P Anandan, M Arivanandhan, Journal of Physics and Chemistry of Solids, Publisher - Pergamon	<b>2018</b>
<b>43</b>	<b>“Facile synthesis of RuO<sub>2</sub> nanoparticles anchored on graphene nanosheets for high performance composite electrode for supercapacitor applications”</b> R Thangappan, M Arivanandhan, RD Kumar, R Jayavel, Journal of Physics and Chemistry of Solids 121, 339-349	<b>2018</b>
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<b>46</b>	<b>“Orientation-dependent dissolution and growth kinetics of In<sub>x</sub>Ga<sub>1-x</sub>Sb by vertical gradient freezing method under microgravity”</b> V Nirmal Kumar, Yasuhiro Hayakawa, M Arivanandhan, G Rajesh, Tadanobu Koyama, Yoshimi Momose, Tetsuo Ozawa, Yasunori Okano, Yuko Inatomi, Journal of Crystal Growth, Publisher - North-Holland	<b>2018</b>
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