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#### Educational Details

- **Ph. D in Physics**, 2016, University of Madras, Chennai-05, Tamil Nadu
- **Masters of Science in Electronics Science** – Bharathidasan University, Trichy (2009). TN.
- **Bachelor of Science in Physics** – Bharathidasan University, Trichy (2007), TN.

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- **Languages Known:** English, Tamil
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#### Professional Experience

- Working as an **Associate Professor** in Department of Physics at DSATM, Bangalore, Karnataka from January-2025.
- Worked as an **Assistant Professor** in Kalasalingam Academy of Research and Education (Deemed to be University), Krishnankoil, Tamil Nadu from June-2017 to Dec-2024.
- Worked as **Post Doctoral Fellow (PDF)** in Kalasalingam University Krishnankoil, Tamil Nadu from from Sep. 2015 – July 2017.
- Worked as **Production and Calibration Engineer** in RASCI instruments Chennai from 2009 – 2010.

## Publications in SCI Journals

- ❖ N Regan Vivegamoorthy, R Anandhi, R Arivuselvi, **P Devendran**, M Murugesan, R Karkuzhali, K Anandhan, K Ravichandran, Enhanced electrochemical performance of spinel-structured  $\text{MnCo}_2\text{O}_4$  nanoparticles as an electrode material for high-performance energy storage device, *Inorganic Chemistry Communications* 176 (2025) 114210. <https://doi.org/10.1016/j.inoche.2025.114210>
- ❖ TR Rajaganesh, K Ravichandran, **P Devendran**, M Murugesan, G Gopu, M Krishnan, P Sakthivel, Nitrogen and air annealed NiO/CuO nanocomposite three electrode system for supercapacitor application: A comparative study, *Materials Letters*, 382 (2025) 137890. <https://doi.org/10.1016/j.matlet.2024.137890>
- ❖ K Seevakan, A Shameem, **P Devendran**, C Sambathkumar, T Alagesan, Manikandan Ayyar, Manickam Selvaraj, Mohammed A Assiri, Facile microwave combustion synthesis and electrochemical properties of  $\text{CaMoO}_4$  nanoparticles for high-stability supercapacitors, *Materials Science and Engineering: B*, 313 (2025) 117955. <https://doi.org/10.1016/j.mseb.2024.117955>
- ❖ N Ambika Devi, P Ravikumar, **P Devendran**, R Mohan, K Ravichandran, M Veeralakshmi, J Yuvaloshini, M Meenakshi Sundari, Efficacy of *Catharanthus roseus* leaf and flower extracts mediated Ag incorporated ZnO nanoparticles for enhanced antimicrobial and antioxidant abilities: a comparative analysis, *Applied Physics A* (2025) 131:97 <https://doi.org/10.1007/s00339-024-08200-4>
- ❖ M Murugesan, **P Devendran**, N Nallamuthu, KR Nagavenkatesh, C Sambathkumar, K Ramesh, Enhancing the electrochemical efficiency of  $\text{Ni}_3\text{V}_2\text{O}_8$  NPs synthesised by hydrothermal methods for supercapattery applications, *Inorganic Chemistry Communications*, 171 (2025) 113511. <https://doi.org/10.1016/j.inoche.2024.113511>
- ❖ M Murugesan, **P Devendran**, N Nallamuthu, KR Nagavenkatesh, C Sambathkumar, T Uthayakumar, Synthesis and electrochemical investigations of nanostructured  $\text{LiNiPO}_4$  as promising electrode for supercapattery applications, *Next Materials*, 6 (2025) 100335. <https://doi.org/10.1016/j.nxmate.2024.100335>.
- ❖ A Shameem, **P Devendran**, A Murugan, V Siva, S Asath Bahadur, Improved electrochemical performances of cobalt molybdate electrode using  $\text{Gd}^{3+}$  dopant and redox additive electrolyte: a simple synthesis platform, *Journal of Materials Science: Materials in Electronics*, 35 (2024) 2180. <https://doi.org/10.1007/s10854-024-13886-6>.
- ❖ M Murugesan, KR Nagavenkatesh, **P Devendran**, N Nallamuthu, C Sambathkumar, M Krishna Kumar, Scalable synthesis of 2D-layered  $\text{Ti}_3\text{C}_2$  MXene by HF etching method; electrochemical investigations and device fabrication to enhancing capacitive nature, *Materials Science and Engineering: B*, 309 (2024) 117607. <https://doi.org/10.1016/j.mseb.2024.117607>
- ❖ P Ravikumar, R Mohan, K Gayathri, B Murali Babu, K Ravichandran, **P Devendran**, S Vadivel, Effective  $\text{NH}_3$  gas sensing at low ppm by ZnO films through improved charge carrier and adsorption: Single and dual doping with Al and Cu-a comparative study, *Materials Science and Engineering: B*, 308 (2024) 117558. <https://doi.org/10.1016/j.mseb.2024.117558>.

- ❖ C Sambathkumar, KR Nagavenkatesh, R Thangavel, N Nallamuthu, **P Devendran**, K Rajesh, Investigation and Comparative Studies on Charge Storage Performance in Nanostructured RuO<sub>2</sub>, NiO and Co<sub>3</sub>O<sub>4</sub> Nanoparticles for High Dense Energy Storage, *Electron. Mater. Lett.* 20 (2024) 571–583. <https://doi.org/10.1007/s13391-024-00500-4>.
- ❖ M Murugesan, KR Nagavenkatesh, **P Devendran**, N Nallamuthu, M Krishna Kumar, K Ramesh, Preparation and Electrochemical Investigation of NiO Hollow Sphere from Bio Waste (Sugarcane Bagasse) Extract for Energy Storage Applications, *J. Inorg. Organomet. Polym.* 34 (2024) 3707–3720. <https://doi.org/10.1007/s10904-024-03044-0>
- ❖ KR Nagavenkatesh, M Murugesan, C Sambathkumar, **P Devendran**, N Nallamuthu, M Krishna Kumar, Bio-Inspired Energy Storage Electrode: Utilizing Co<sub>3</sub>O<sub>4</sub> Hollow Spheres Derived from Sugarcane Bagasse Extract Synthesis Via Hydrothermal Route, *Journal of Inorganic and Organometallic Polymers and Materials*, 34 (2024) 6088–6101. <https://doi.org/10.1007/s10904-024-03237-7>.
- ❖ M Murugesan, KR Nagavenkatesh, **P Devendran**, N Nallamuthu, T Uthayakumar, Facile synthesis of Zn<sub>2</sub>V<sub>2</sub>O<sub>7</sub>/RGO nanocomposite for enhancing the electrochemical performance and evaluating the supercapacitor device, *Inorganic Chemistry Communications*, 165 (2024) 112544. <https://doi.org/10.1016/j.inoche.2024.112544>.
- ❖ Raju Ranjithkumar, Pandian Lakshmanan, Nallasamy Palanisami, **Palanivel Devendran**, S Sudhahar, N Nallamuthu, Gode Thrimurthulu, Il Tae Kim, M Krishna Kumar, Facile fabrication of 3D- $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>@ 2D-g-C<sub>3</sub>N<sub>4</sub> heterojunction composite materials: Effect of iron oxide loading on the electrochemical performance, *Inorganic Chemistry Communications*, 165 (2024) 112553. <https://doi.org/10.1016/j.inoche.2024.112553>.
- ❖ M Murugesan, KR Nagavenkatesh, N Nallamuthu, **P Devendran**, K Ramesh, Electrochemical investigation of orthorhombic structured Mg<sub>3</sub>(VO<sub>4</sub>)<sub>2</sub> nanoparticles modified estimable electrode for high dense energy devices, *Journal of Energy Storage*, 89 (2024) 111652. <https://doi.org/10.1016/j.est.2024.111652>.
- ❖ MV Muppuli, K Rajesh, D Anitha Rexalin, K Anandan, K Gayathri, A Mani, **P Devendran**, V Thayanithi, P Kurinjinathan, M Suresh Kumar, Investigation of the Molecular Structure and DFT Insights into (4-(4-nitrophenyl)-9-(phenylsulfonyl)-9H-carbazole-2,3-diyl) Bis(p-tolylmethanone), *Journal of Structural Chemistry*, 65 (2024) 987–1001. <https://doi.org/10.1134/S0022476624050123>.
- ❖ A. Shameem, V. Siva, A Murugan, M. Mayakkannan, P. Karthikeyan, S. Asath Bahadur, **P. Devendran**, Abdullah G Al-Sehemi, Synthesis of transition metal oxide-based nanocomposite as a robust electrode with a simple approach for supercabattery application, *Journal of Alloys and Compounds*, 979 (2024) 173455. <https://doi.org/10.1016/j.jallcom.2024.173455>.
- ❖ KR Nagavenkatesh, C Sambathkumar, M Murugesan, **P Devendran**, N Nallamuthu, P Lakshmanan, A Shameem, Review on the recent improvements in lanthanum ferrite perovskites for visible light driven textile dyes degradation and its various hetero-junctions catalysis mechanism, *Journal of Industrial and Engineering Chemistry*, 136 (2024) 16-45. <https://doi.org/10.1016/j.jiec.2024.02.024>.

- ❖ KR Nagavenkatesh, M Murugesan, C Sambathkumar, N Nallamuthu, **P Devendran**, Comparative electrochemical investigation for scheelite structured metals tungstate (MWO<sub>4</sub> (M= Ni, Cu and Co)) nanocubes for high dense supercapacitors application, *Journal of Energy Storage*, 79 (2024) 110153. <https://doi.org/10.1016/j.est.2023.110153>.
- ❖ A. Shameem, **P. Devendran**, A. Murugan, V. Siva, S. Asath Bahadur, Cost-effective synthesis of efficient La doped CoMoO<sub>4</sub> nanocomposite electrode for sustainable high-energy symmetric supercapacitors, *Journal of Energy Storage* 73 (2023) 108856. <https://doi.org/10.1016/j.est.2023.108856>.
- ❖ A. Shameem, **P. Devendran**, A. Murugan, V. Siva, K. Seevakan, Shamima Hussain, D. Sivaganesh, S. Asath Bahadur, Rare earth doped bismuth molybdate nanoplatelets for boosting electrochemical performance: Facile synthesis and device fabrication, *Journal of Alloys and Compounds* 968 (2023) 171825. <https://doi.org/10.1016/j.jallcom.2023.171825>
- ❖ A. Shameem, **P. Devendran**, A. Murugan c, V. Siva , G. Ramadoss, Hussain Shamima, S. Asath Bahadur, Microwave-assisted design and fabrication of rare earth doped NiMoO<sub>4</sub>: An admirable electrode material in redox electrolytes with excellent power density for high-end energy storage systems, *Sustainable Materials and Technologies* 37 (2023) e00661. <https://doi.org/10.1016/j.susmat.2023.e00661>
- ❖ A. Shameem, **P. Devendran**, A. Murugan, V. Siva, S. Asath Bahadur, Synergistic effects of lanthanum nanoarchitecture in nickel molybdate nanospheres obtained by single-pot microwave synthesis and their applications in high-end asymmetric devices, *Journal of Physics and Chemistry of Solids* 179 (2023) 111392. <https://doi.org/10.1016/j.jpcs.2023.111392>
- ❖ G. Vignesh, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, N-rGO/NiCo<sub>2</sub>O<sub>4</sub> nanocomposite for high performance supercapacitor applications, *J. Mater Sci: Mater Electron* (2023) 34:820. <https://doi.org/10.1007/s10854-023-10242-y>
- ❖ G. Vignesh, R. Ranjithkumar, **P. Devendran**, N. Nallaperumal, S. Sudhahar, M. Krishna Kumar, Structural, Spectral, and Electrochemical Investigations of a Nitrogen-Doped N-rGO/MgCo<sub>2</sub>O<sub>4</sub> Nanocomposite for Supercapacitor Applications, *ChemistrySelect* 2023, 8, e202203915. <https://doi.org/10.1002/slct.202203915>
- ❖ G. Vignesh, R. Ranjithkumar, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, Nitrogen doped reduced graphene oxide/ZnCo<sub>2</sub>O<sub>4</sub> nanocomposite electrode for hybrid supercapacitor application, *Materials Science and Engineering B* 290 (2023) 116328. <https://doi.org/10.1016/j.mseb.2023.116328>
- ❖ M. Jeevaraj, S. Sudhahar, N. Nallamuthu, **P. Devendran**, S. Saravanakumar, D. Sivaganesh, M. Krishna Kumar, Solution processed Mn<sup>2+</sup> doped Cs<sub>2</sub>AgInCl<sub>6</sub> lead free double perovskite as a potential light emitting material, *Physica B* 653 (2023) 414679. <https://doi.org/10.1016/j.physb.2023.414679>
- ❖ M. Jeevaraj, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, Influence of Mn<sup>2+</sup> doping on the optical properties of Cs<sub>2</sub>AgBiCl<sub>6</sub> double perovskite luminescent

phosphors, *J Mater Sci: Mater Electron* (2023) 34:65. <https://doi.org/10.1007/s10854-022-09560-4>

- ❖ R. Ranjithkumar, P. Lakshmanan, N. Palanisami, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, Facile, Morphology-Controlled and Mass Production of 0D-Ag/2D-g-C<sub>3</sub>N<sub>4</sub>/3D-TiO<sub>2</sub> Nano-composite Materials: Effect of Silver Morphology and Loading on the Electrochemical Performance, *Electronic Materials Letters*, (2022). <https://doi.org/10.1007/s13391-022-00385-1>
- ❖ S. Suganya, G. Maheshwaran, M. Ramesh Prabhu, **P. Devendran**, M. Krishna Kumar, S. Sudhahar, Enhanced electrochemical activity of ternary Co-Mn-Zn oxide for the fabrication of hybrid supercapacitor applications, *Journal of Energy Storage*, 56 (2022)106057. <https://doi.org/10.1016/j.est.2022.106057>
- ❖ M. Murugesan, N. Nallamuthu, R. Ranjithkumar, M. Krishna kumar, **P. Devendran**, K. Ramesh, Synthesis and Electrochemical Investigation of Hetero Bimetallic Complexes CoMn<sub>2</sub>O<sub>4</sub> Micro Rods for Novel Supercapacitor Electrode, *Electronic Materials Letters*, 49 (2022) <https://doi.org/10.1007/s13391-022-00380-6>
- ❖ C Sambathkumar, KR Nagavenkatesh, Kumar M Krishna, N Nallamuthu, S Sudhahar, **P Devendran**, Electrochemical exploration on hexadecylamine capped copper sulfide nanocubes using single source precursor for enhanced supercapacitor devices, *Journal of Energy Storage*, 56 (2022) 105898. <https://doi.org/10.1016/j.est.2022.105898>
- ❖ M Jeevaraj, S Sudhahar, **P Devendran**, N Nallamuthu, Naidu Dhanpal Jayram, M Krishna Kumar, Structural, optical and charge density investigations on lead free Mn<sup>2+</sup> doped Cs<sub>2</sub>NaBiC<sub>16</sub> double perovskite microcrystals, *Materials Today Communications*, 33 (2022) 104715. <https://doi.org/10.1016/j.mtcomm.2022.104715>
- ❖ K. R. Nagavenkatesh, C. Sambathkumar, N. Nallamuthu, M. Krishna Kumar, **P. Devendran**, Investigation of Electrochemical and annealing effect on Zinc-cobaltite nanoparticles as working electrode material for energy storage device, *J. of Materials Science: Materials in Electronics*, 33 (2022) 22169–22182. <https://doi.org/10.1007/s10854-022-08997-x>
- ❖ Maheshwaran. G, Nivedhitha Bharathi. A, Kaliasammal R, Ramesh Prabhu. M, **Devendran. P**, Krishna Kumar. M, Sudhahar. S, Two dimensional layered bismuthene nanosheets with ultra-fast charge transfer kinetics as a superior electrode material for high performance asymmetric supercapacitor, *Electrochimica Acta* 426 (2022) 140838. <https://doi.org/10.1016/j.electacta.2022.140838>
- ❖ C. Sambathkumar, N. Nallamuthu, M. Krishna Kumar, S. Sudhahar, **P. Devendran**, Electrochemical exploration of cobalt sulfide nanoparticles synthesis using cobalt diethyldithiocarbamate as single source precursor for hybrid supercapacitor device, *Journal of Alloys and Compounds*, 920 (2022), 165839. <https://doi.org/10.1016/j.jallcom.2022.165839>.
- ❖ M. Jeevaraj, R. Ranjithkumar, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, Stoke shifted photoluminescence in Guanidinium lead halides for light emitting applications, *Chemical Physics Letters* 800 (2022) 139693. <https://doi.org/10.1016/j.cplett.2022.139693>.

- ❖ **Pazhanivel Devendran**, Duraisamy Selvakumar, Govindarajan Ramadoss, Ramachandran Sivaramakrishnan, Thangavel Alagesan, Ramasamy Jayavel, Kannaiyan Pandian, A novel visible light active rare earth doped CdS nanoparticles decorated reduced graphene oxide sheets for the degradation of cationic dye from wastewater, *Chemosphere* 287 (2022) 132091.  
<https://doi.org/10.1016/j.chemosphere.2021.132091>
  
- ❖ R. Packiaraj, K. Mahendraprabhu, **P. Devendran**, P. Baskaran, K. S. Venkatesh, K. Ramesh, N. Nallamuthu, Electrochemical Performances of ZnO-NiO-CuO Mixed Metal Oxides as Smart Electrode Material for Solid State Asymmetric Device Fabrication, (*ACS*) *Energy & Fuels*, 36 (2022) 603–617.  
<https://doi.org/10.1021/acs.energyfuels.1c02703>
  
- ❖ C.Sambathkumar, M. Krishna Kumar, N. Nallamuthu K. Rajesh **P. Devendran**, Investigations on electrochemical performances of Co(OH)<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub> and Mn<sub>3</sub>O<sub>4</sub> nanoparticles covered carbon micro spheres for supercapacitor application, *Inorganic Chemistry Communications*, 134 (2021) 109057.  
<https://doi.org/10.1016/j.inoche.2021.109057>
  
- ❖ S. Ezhil Arasi, R. Ranjithkumar, **P. Devendran**, M. Krishna kumar, A. Arivarasan, Studies on electrochemical mechanism of nano structured cobalt vanadate electrode material for pseudo capacitors, *Journal of Energy Storage* 41 (2021) 102986.  
<https://doi.org/10.1016/j.est.2021.102986>
  
- ❖ C. Sambathkumar, R. Ranjithkumar, S. Ezhil Arasi, A. Manikandan, N. Nallamuthu, M. Krishna Kumar, A. Arivarasan, **P. Devendran**, High-performance nickel sulfide modified electrode material from single-source precursor for energy storage application, *Journal of Materials Science: Materials in Electronics*, 32 (2021) 20058–20070. <https://doi.org/10.1007/s10854-021-06383-7>
  
- ❖ G. Vignesh, R. Ranjithkumar, **P. Devendran**, N. Nallamuthu, P. Lakshmanan, S. Sudhahar, M. Krishna Kumar, Investigations on Electrochemical Performance of Hausmannite Manganese Oxide Nanoparticles in KOH and Na<sub>2</sub>SO<sub>4</sub> Electrolytes for Energy Storage Applications, *Nano* (2021) 2150144.  
<https://doi.org/10.1142/S1793292021501447>
  
- ❖ C. Sambathkumar, V. Manirathinam, A. Manikandan, M. Krishna Kumar, S. Sudhahar, **P. Devendran**, Solvothermal synthesis of Bi<sub>2</sub>S<sub>3</sub> nanoparticles for active photocatalytic and energy storage device applications, *Journal of Materials Science: Materials in Electronics*, 32 (2021) 20827–20843. <https://doi.org/10.1007/s10854-021-06596-w>
  
- ❖ R. Packiaraj, **P. Devendran**, K.S. Venkatesh, N. Nallamuthu Investigation on the Structural, Morphological and Electrochemical Properties of Nickel Tungstate for energy storage application, *Inorganic Chemistry Communications*. 126 (2021) 108490.  
<https://doi.org/10.1016/j.inoche.2021.108490>

- ❖ R. Packiaraj, **P. Devendran**, K.S. Venkatesh, K. Mahendraprabhu, N. Nallamuthu, Unveiling the structural, charge density distribution and supercapacitor performance of NiCo<sub>2</sub>O<sub>4</sub> nano flowers for asymmetric device fabrication, *Journal of Energy Storage*, 34 (2021) 102029. <https://doi.org/10.1016/j.est.2020.102029>
- ❖ S. Ezhil Arasi, R. Ranjithkumar, **P. Devendran**, M. Krishnakumar, A. Arivarasan, Investigation on electrochemical behaviour of manganese vanadate nanopebbles as potential electrode material for supercapacitors, *Journal of Alloys and Compounds*, 857, (2021) 157628. <https://doi.org/10.1016/j.jallcom.2020.157628>
- ❖ R. Ranjithkumar, P. Lakshmanan, **P. Devendran**, N. Nallamuthu, S. Sudhahar, M. Krishna Kumar, Investigations on effect of g-C<sub>3</sub>N<sub>4</sub> loading on the properties and electrochemical performance of g-C<sub>3</sub>N<sub>4</sub>/TiO<sub>2</sub> nanocomposites for energy storage device applications, *Materials Science in Semiconductor Processing*, 121 (2021) 105328. <https://doi.org/10.1016/j.mssp.2020.105328>
- ❖ **P. Devendran**, T. Alagesan, N. Nallamuthu, S. Asath Bahadur, K. Pandian, Single-precursor synthesis of sub-10 nm CdS nanoparticles embedded on graphene sheets nanocatalyst for active photo degradation under visible light, *Applied Surface Science*, 534 (2020) 147614. <https://doi.org/10.1016/j.apsusc.2020.147614>
- ❖ R. Ranjithkumar, S. Ezhil Arasi, **P. Devendran**, N. Nallamuthu, A. Arivarasan, P. Lakshmanan, S. Sudhahar, M. Krishna Kumar, Investigations on structural, morphological and electrochemical properties of Co(OH)<sub>2</sub> nanosheets embedded carbon nanotubes for supercapacitor applications, *Diamond & Related Materials* 110 (2020) 108120. <https://doi.org/10.1016/j.diamond.2020.108120>
- ❖ R. Ranjithkumar, S. Ezhil Arasi, **P. Devendran**, N. Nallamuthu, P. Lakshmanan, S. Sudhahar, A. Arivarasan, M. Krishna Kumar, Investigations and fabrication of Ni(OH)<sub>2</sub> encapsulated carbon nanotubes nanocomposites based asymmetrical hybrid electro chemical supercapacitor, *Journal of Energy Storage* 32 (2020) 101934. <https://doi.org/10.1016/j.est.2020.101934>
- ❖ G. Parvathy, R. Kaliammal, G. Maheshwaran, **P. Devendran**, M. Krishna Kumar, and S. Sudhahar, Experimental and theoretical studies on 4-hydroxy-3-methoxybenzaldehyde nicotinamide organic co-crystal for third harmonic nonlinear optical applications, *J. of Materials Science: Materials in Electronics*, 31(2020)18937–18953. <https://doi.org/10.1007/s10854-020-04431-2>
- ❖ S. Ezhil Arasi, R. Ranjithkumar, **P. Devendran**, M. Krishna Kumar, A. Arivarasan, Electrochemical evaluation of binary Ni<sub>2</sub>V<sub>2</sub>O<sub>7</sub> nanorods as pseudo capacitor electrode material, *Ceramics International* 46 (2020) 22709–22717. <https://doi.org/10.1016/j.ceramint.2020.06.034>

- ❖ A. Shameem, **P. Devendran**, V. Siva, A. Murugan, S. Sasikumar, N. Nallamuthu, Shamima Hussain, S. Asath Bahadur, Robust one-step synthesis of bismuth molybdate nanocomposites: A promising negative electrode for high end ultracapacitors, *Solid State Sciences*, 106 (2020) 106303. <https://doi.org/10.1016/j.solidstatesciences.2020.106303>
- ❖ R. Packiaraj, K. S. Venkatesh, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu, Structural, morphological and electrochemical studies of nanostructured BiVO<sub>4</sub> for supercapacitor application, *Materials Science in Semiconductor Processing*, 115 (2020) 105122. <https://doi.org/10.1016/j.mssp.2020.105122>
- ❖ S. EzhilArasi, R. Ranjithkumar, **P. Devendran**, M. Krishna kumar, A. Arivarasan, Enhanced electrochemical performance of copper vanadate nanorods as an electrode material for pseudocapacitor application, *Journal of Materials Science: Materials in Electronics*, 31 (2020) 7012–7021. <https://doi.org/10.1007/s10854-020-03267-0>
- ❖ R. Ranjithkumar, S. Ezhil Arasi, N. Nallamuthu, **P. Devendran**, P. Lakshmanan, A. Arivarasan, M. Krishna Kumar, Investigation and fabrication of asymmetrical supercapacitor using nanostructured Mn<sub>3</sub>O<sub>4</sub> immobilized carbon nanotube composite, *Superlattices and Microstructures*, 138 (2020) 106380. <https://doi.org/10.1016/j.spmi.2019.106380>
- ❖ S. Ezhil Arasi, **P. Devendran**, R. Ranjithkumar, S. Arunpandiyam, A. Arivarasan, electrochemical property analysis of zinc vanadate nanostructure for efficient supercapacitors, *Materials Science in Semiconductor Processing*, 106 (2020) 104785. <https://doi.org/10.1016/j.mssp.2019.104785>
- ❖ K. Rajesh, P. Krishnan, A. Mani, K. Anandan, K. Gayathri, **P. Devendran**, Physical strength and Opto-electrical conductivity of L-Serine Phosphate single crystal for structural and photonics devices fabrication, *Materials Research Innovations*, 24 (5) (2020) 295-300. <https://doi.org/10.1080/14328917.2019.1664178>
- ❖ K. Jeyabanu, **P. Devendran**, A. Manikandan, R. Packiaraj, K. Ramesh, N. Nallamuthu, Preparation and characterization studies of La doped CuS nanospheres by microwave irradiation for high performance supercapacitors, *Physica B: Condensed Matter* 573 (2019) 92–101. <https://doi.org/10.1016/j.physb.2019.08.028>
- ❖ K. Seevakan, A. Manikandan, **P. Devendran**, Y. Slimani, A. Baykal, T. Alagesan, Structural, magnetic and electrochemical characterizations of Bi<sub>2</sub>Mo<sub>2</sub>O<sub>9</sub> nanoparticle for supercapacitor application, *Journal of Magnetism and Magnetic Materials*, 486 (2019) 165254. <https://doi.org/10.1016/j.jmmm.2019.165254>
- ❖ K. Jeyabanu, K. Sundaramahalingam, **P. Devendran**, A. Manikandan, N. Nallamuthu, Effect of electrical conductivity studies for CuS nano fillers mixed magnesium ion based PVA-PVP blend polymer solid electrolyte, *Physica B: Condensed Matter* 572 (2019) 129–138. <https://doi.org/10.1016/j.physb.2019.07.049>

- ❖ M. Thiruppathi, M. Vahini, **P. Devendran**, M. Arunpandian, K. Selva kumar, C. Ramalingan, M. Swaminathan, and E. R. Nagarajan, CuWO<sub>4</sub> Nanoparticles: Investigation of Dielectric, Electrochemical Behaviour and Photodegradation of Pharmaceutical Waste, *Journal of Nanoscience and Nanotechnology*, 19 (2019) 7026-7034. <https://doi.org/10.1166/jnn.2019.16601>
- ❖ R. Ranjithkumar, S. Ezhil Arasi, S. Sudhahar, N. Nallamuthu, **P. Devendran**, P. Lakshmanan, M. Krishna Kumar, Enhanced electro chemical studies of ZnO/CNT nanocomposite for supercapacitor devices, *Physica B: Condensed Matter* 568 (2019) 51–59. <https://doi.org/10.1016/j.physb.2019.05.025>
- ❖ A. Shameem, **P. Devendran**, V. Siva, R. Packiaraj, N. Nallamuthu, S. Asath Bahadur, Electrochemical performance and optimization of  $\alpha$ -NiMoO<sub>4</sub> by different facile synthetic approach for supercapacitor application, *J. of Materials Science: Materials in Electronics*, 30 (2018) 3305–3315. <https://doi.org/10.1007/s10854-018-00603-3>
- ❖ R. Packiaraj, **P. Devendran**, K. S. Venkatesh, S. Asath bahadur, A. Manikandan, N. Nallamuthu, Electrochemical Investigations of Magnetic Co<sub>3</sub>O<sub>4</sub> Nanoparticles as an Active Electrode for Super capacitor Applications, *Journal of Superconductivity and Novel Magnetism*, 32 (2018) 2427–2436. <https://doi.org/10.1007/s10948-018-4963-6>
- ❖ K. Seevakan, A. Manikandan, **P. Devendran**, A. Baykal, Y. Slimani, T. Alagesan Structural, morphological and magneto-optical properties of CuMoO<sub>4</sub> electrochemical nanocatalyst as supercapacitor electrode, *Ceramics International* 44 (2018) 20075–20083. <https://doi.org/10.1016/j.ceramint.2018.07.282>
- ❖ R. Packiaraj, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu, Structural and electrochemical studies of Scheelite type BiVO<sub>4</sub> nanoparticles: synthesis by simple hydrothermal method, *Journal of Materials Science: Materials in Electronics* 29 (2018) 13265–13276. <https://doi.org/10.1007/s10854-018-9450-0>
- ❖ K. Seevakan, A. Manikandan, **P. Devendran**, A. Baykal, T. Alagesan, Electrochemical and magneto-optical properties of cobalt molybdate nanocatalyst as high-performance supercapacitor, *Ceramics International*, 44 (2018) 17735–17742. <https://doi.org/10.1016/j.ceramint.2018.06.240>
- ❖ M. Thiruppathi, P. Senthil Kumar, **P. Devendran**, C. Ramalingan, M. Swaminathan, E.R. Nagarajan, Ce@TiO<sub>2</sub> nanocomposites: An efficient, stable and affordable photocatalyst for the photo degradation of diclofenac sodium, *Journal of Alloys and Compounds* 735 (2018) 728-734. <https://doi.org/10.1016/j.jallcom.2017.11.139>
- ❖ K. Seevakan, A. Manikandan, **P. Devendran**, A. Shameem, T. Alagesan, Microwave combustion synthesis, magneto-optical and electrochemical properties of NiMoO<sub>4</sub> nanoparticles for super capacitor application, *Ceramics International* 44 (2018) 13879–13887. <https://doi.org/10.1016/j.ceramint.2018.04.235>

- ❖ A. Shameem, **P. Devendran**, V. Siva, K. S. Venkatesh, A. Mani kandan, S. Asath Bahadur, N. Nallamuthu, Dielectric Investigation of NaLiS Nanoparticles Loaded on Alginate Polymer Matrix Synthesized by Single Pot Microwave Irradiation, *Journal of Inorganic and Organometallic Polymers and Materials*, 28 (2017) 671–678. <https://doi.org/10.1007/s10904-017-0710-x>
- ❖ V. Parameswaran, N. Nallamuthu, **P. Devendran**, E.R. Nagarajan, A. Manikandan, Assimilation of NH<sub>4</sub>Br in PVA/PVP Polymer Blend-based Electrolyte and its Effect on Ionic Conductivity. *Journal of Nanoscience and Nanotechnology*, 17(2017) 1–10. <https://doi.org/10.1166/jnn.2018.15040>
- ❖ V. Parameswaran, N. Nallamuthu, **P. Devendran**, E.R. Nagarajan, A. Manikandan, Electrical conductivity studies on Ammonium bromide incorporated with Zwitterionic polymer blend electrolyte for battery application, *Physica B*, 2017, 515, 89–98. <http://dx.doi.org/10.1016/j.physb.2017.03.043>
- ❖ A. Shameem, **P. Devendran**, V. Siva, M. Raja, A. Manikandan, S. Asath Bahadur, Preparation and Characterization of Nanostructured CdO thin films by SILAR method for Photocatalytic Application, *Journal of inorganic and organometallic polymers and materials*, 2017, 27, 692–699. <https://doi.org/10.1007/s10904-017-0512-1>
- ❖ **P. Devendran**, T. Alagesan, A. Manikandan, S. Asath Bahadur, M. Krishna Kumar, S. Rathinavel, K. Pandian, “Sonochemical Synthesis of Bi<sub>2</sub>S<sub>3</sub> Nanowires using Single Source Precursor and Study of its Electrochemical Activity” *Nanoscience and Nanotechnology Letters*, 8 (2016) 1-6. <https://doi.org/10.1166/nnl.2016.2111>
- ❖ K. Seevakan, A. Manikandan, **P. Devendran**, S. Arul Antony, T. Alagesan, One-pot synthesis and characterization studies of iron molybdenum mixed metal oxide (Fe<sub>2</sub>(MoO<sub>4</sub>)<sub>3</sub>) nanocatalysts, *Advanced Science, Engineering and Medicine*, 2016, 8, 1-7. <https://doi.org/10.1166/ asem.2016.1884>
- ❖ **P. Devendran**, T. Alagesan, T. R. Ravindran, K. Pandian, Synthesis of spherical CdS quantum dots using cadmium diethyldithio carbamate as single source precursor in olive oil medium, *Current Nanoscience*, 2014, 10, 302-307. <https://dx.doi.org/10.2174/15734137113096660117>
- ❖ **P. Devendran**, T. Alagesan, K. Pandian, Synthesis & Characterization of Bi<sub>2</sub>S<sub>3</sub> nanorods decorated on carbon sphere and study its electrochemical application” *Advanced Materials Research*, 2014, 938, 215-220. <https://doi.org/10.4028/www.scientific.net/AMR.938.215>
- ❖ K. Ravichandran, R. Mohan, B. Sakthivel, S. Varadharajaperumal, **P. Devendran**, T. Alagesan, K. Pandian, Enhancing the photocatalytic efficiency of sprayed ZnO thin films through double doping (Sn+F) and annealing under different ambiances” *Applied Surface Science*, 2014, 321, 310-317. <http://dx.doi.org/10.1016/j.apsusc.2014.10.023>

- ❖ P. Sivakumar, P. Karthika, P. Sivakumar, N. G. Muralidharan, **P. Devendran**, S. Renganathan, Bio-Synthesis of Silver nano cubes from active compound quercetin-3-O-B-D-galactopyranoside containing plant extract and its antifungal application, *Asian Journal of Pharmaceutical and Clinical Research* 2013, 6 (4) 76-79. <https://innovareacademics.in/journals/index.php/ajpcr/article/view/360>.
- ❖ **P. Devendran**, T. Alagesan, K. Pandian, Single pot microwave synthesis of CdS nanoparticles in ionic liquid and their photocatalytic application, *Asian Journal of Chemistry*, 25 (2013) S79-S82. [https://asianpubs.org/index.php/ajchem/article/view/25\\_Supplementary%20Issue\\_21](https://asianpubs.org/index.php/ajchem/article/view/25_Supplementary%20Issue_21)

#### Book Chapters : 05

- **Book Title:** Photocatalytic Functional Materials for Environmental Remediation. **Chapter 9, Publisher: WILEY, 2019. (ISBN: 978-1-119-52984-2)**
- **Book Title:** Supercapacitor: Fundamental, Advanced and Future Technological Applications, **Chapters; 04, 09, 10 & 25**  
**Publisher: RSC 2025 (Accepted)**

#### Other Conference Publications

- ✚ **P. Devendran**, S. Ezhil Arasi, R. Ranjithkumar, C. Sambathkumar, V. Manirathinam, N.Nallamuthu, M. Krishna Kumar, A. Arivarasan, S. Asath Bahadur. Transition hausmannite nanoparticles embedded on uniform carbon micro spheres synthesis for electrochemical investigation, *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* ISSN: 2278-3075, Volume-9, Issue-2S2, 2019
- ✚ **P. Devendran**, S. Ezhil Arasi, R. Ranjithkumar, C. Sambathkumar, V. Manirathinam, N. Nallamuthu, M. Krishna kumar, A. Arivarasan, S. Asath Bahadur, Structural, morphological and electrochemical investigation of carbon spheres wrapped by maghemite nanoparticles *International Journal of Engineering and Advanced Technology (IJEAT)* ISSN: 2249-8958 (Online), Volume-9 Issue-1S4, 2019
- ✚ C. Sambathkumar, S. Ezhil Arasi, R. Ranjithkumar, V. Manirathinam, N. Nallamuthu, A. Arivarasan, M. Krishna Kumar, **P. Devendran**, investigation of structural morphological and magnetic behaviour of ZnFe<sub>2</sub>O<sub>4</sub> nanoparticle synthesised by co-precipitation method, *International Journal of Engineering and Advanced Technology (IJEAT)* ISSN: 2249-8958 (Online), Volume-9 Issue-1S4, 2019
- ✚ C. Sambathkumar, R. Ranjithkumar, S. Ezhil Arasi, V. Manirathinam, N. Nallamuthu, A. Arivarasan, M. Krishna Kumar, **P. Devendran**, Electrochemical studies of cobalt hydroxide layered carbon spheres synthesized via hydrothermal route, *International Journal of Engineering and Advanced Technology (IJEAT)* ISSN: 2249-8958 (Online), Volume-9 Issue-1S4, 2019.
- ✚ R. Ranjithkumar, S. Ezhil Arasi, C. Sambathkumar, N.Nallamuthu, P. Lakshmanan, M. Krishna kumar, **P. Devendran**, Studies of structural, morphological & electrochemical on

Ni (OH)<sub>2</sub> Coated carbon sphere by Hydrothermal method, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958 (Online), Volume-9 Issue-1S4, 2019

- ✚ A. Arivarasan, S. Bharathi, S. Arunpandiyan, S. Ezhil Arasi, **P. Devendran** Drying Mediated Aggregation Pattern of CdTe QDs towards the Fabrication of Molecular Devices International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-1S4, 2019
- ✚ S. Ezhil Arasi, **P. Devendran**, R. Ranjithkumar, M. Krishnakumar, A. Arivarasan Pseudocapacitive Behavioral Testing of Iron Vanadate Nanoparticles Synthesized by Simple Co- Precipitation Method International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-1S4, 2019
- ✚ S. Arunpandiyan, A. Raja, Bilash Jyoti Gogoi, P. Soumya, **P. Devendran**, A. Arivarasan Synthesis and Electrochemical Examination of Fe<sub>2</sub>O<sub>3</sub>/CeO<sub>2</sub> Nanocomposite for Supercapacitor Application International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-1S4, 2019
- ✚ S. Arunpandiyan, C. Selvameenakshi, S. Ezhil Arasi, **P.Devendran**, A. Arivarasan, Effect of Redox Additive Electrolyte on the Electrochemical Performance of MnO<sub>2</sub> Nanorods for Supercapacitor Application International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-2S2, 2019
- ✚ S. Ezhil Arasi, **P. Devendran**, A. Arivarasan Electrochemical Performance of Surfactant Assisted Hematite Nanoparticles by Chemical Synthesis Method International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-4S4, 2019
- ✚ R. Packiaraj, K. S. Venkatesh, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu Synthesis and Characterization of Sol-Gel Derived BiVO<sub>4</sub> Nanoparticles for Electrochemical Applications, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-1S4, 2019
- ✚ K. Jeyabanu, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu Electrical Impedance and Proton Conductivity Studies of Polymer Electrolyte Materials International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8, Issue-4S2, 2019
- ✚ R. Packiaraj, K.S. Venkatesh, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu Gel Combustion Synthesis and Characterization of ZnO/NiO Nanocomposite for Supercapacitor Application International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9, Issue-2S2, 2019
- ✚ K. Jeyabanu, **P. Devendran**, S. Asath Bahadur, N. Nallamuthu Structural Identification and Electrical Conductivity Analysis of Sodium Hypophosphate Mixed Blend Polymer Electrolytes International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-1S4, 2019.

## Awards and Recognitions

- **Top 2% Scientist:** Recognized among the **top 2 % of scientists worldwide**, as announced by Stanford University, USA, and Elsevier in 2024–2025.
- **Visiting Scientist:** Selected as an **INSA Visiting Scientist Fellow**, funded by the Indian National Science Academy (INSA) under the Department of Science and Technology (DST), New Delhi. Visited the Condensed Matter Physics Lab, Department of Physics, **IIT (ISM) Dhanbad, Jharkhand, India.**
- **Best Researcher Award** has been conferred at National Conference on RAAN 2023, Organized by Dept. Physics, Sri Pushpam College, Thanjavur.
- **Best Paper Awards:** Received **Five Times** Best Paper Awards at various **international and national conferences** in different institutions across India.
- **Doctoral Research Committee (DRC) Member** in Various Universities and Institutes at Tamil Nadu.
- **Acting as a potential reviewer** for over **40 SCI journals**, including those published by Elsevier, Springer, Taylor & Francis, Bentham Science, and Wiley, and having **reviewed more than 250 SCI journal articles.**

## Research and Academic Activity

- Completed a research project as Co-Principal Investigator, funded by the UGC-DAE Consortium for Scientific Research.
- Acted as Center In-charge for Center for competitive Examinations at KARE.
- Coordinator – Department placement activities, KARE.
- Class-Coordination and Faculty Advisor for B. Tech and B. Sc Students.
- Class committee chairperson – for the class committee meetings.
- NSS Coordinator Department level at KARE.
- University level online valuation in-charge for END semester Examination valuation from last 6 years (2018-2024) at KARE.

## Faculty Development Activity/Workshops

- Presented research works more than 25 International/National conferences in various institutes across India.
- Participated more than 20 FDP's
- Organized 3 FDP's and 2 workshops.

## Professional Membership

- 2019-Present: Life Member in International Association of Engineers (IAENG)
- 2020-Present: Life Member in Science and Engineering Institute (SCIEI).
- 2023- Present: Life Member in Raman Research Foundation (RRF)

### Acted as Resource person in many events

- ✓ International Conferences
- ✓ National Conferences,
- ✓ Faculty Development Programs
- ✓ Workshops and
- ✓ Webinars

### Research Guidance

- ✓ 2 Scholars completed their Doctoral Degree (PhD) at KARE, Tamil Nadu
- ✓ 2 Research Scholars Submitted PhD Thesis at KARE, Tamil Nadu
- ✓ 2 Scholars Pursuing their PhD at KARE, Tamil Nadu.
- ✓ 7 Students Completed their M. Sc, Project at KARE, Tamil Nadu.
- ✓ 10 Students Completed their B. Sc Project at KARE, Tamil Nadu.

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