Dr. A Nirmala Grace

Journals

- 1. C., Santhosh & Velmurugan, Venugopal & Jacob, George & Jeong, Soon & Bhatnagar, Amit. (2016). Role of nanomaterials in water treatment applications: A review. Chemical Engineering Journal. 306. 10.1016/j.cej.2016.08.053.
- 2. Velmurugan, Venugopal & Srinivasarao, U. & Rajendran, Ramachandran & Murugan, Saranya & Chidangil, Santhosh. (2016). Synthesis of Tin Oxide/Graphene (SnO2/G) nanocomposite and its Electrochemical Properties for supercapacitor applications. Materials Research Bulletin. 84. 10.1016/j.materresbull.2016.07.015.
- 3. Malathi, A., Arunachalam, P., Dr. Grace, A., Madhavan, J., & Al-Mayouf, A. (2017). A robust visible-light driven BiFeWO6/BiOI nanohybrid with efficient photocatalytic and photoelectrochemical performance. *Applied Surface Science*, 412, 85-95.
- 4. Santhosh, C., Ehsan Daneshvar, P. Kollu, S. Peräniemi, Dr. A. Grace and A. Bhatnagar. "Magnetic SiO[2]@CoFe[2]O[4] nanoparticles decorated on graphene oxide as efficient adsorbents for the removal of anionic pollutants from water." *Chemical Engineering Journal* 322 (2017): 472-487.
- 5. Ramachandran, R., M. Saranya, Dr. A. N. Grace and F. Wang. "MnS nanocomposites based on doped graphene: simple synthesis by a wet chemical route and improved electrochemical properties as an electrode material for supercapacitors." *RSC Advances* 7 (2017): 2249-2257.
- 6. Aparna, M., Dr. Grace, A., Sathyanarayanan, P., & Sahu, N.K. (2018). A comparative study on the supercapacitive behaviour of solvothermally prepared metal ferrite (MFe2O4, M = Fe, Co, Ni, Mn, Cu, Zn) nanoassemblies. *Journal of Alloys and Compounds*, 745, 385-395.
- 7. Venkateshalu, S., Kumar, P., Kollu, P., Jeong, S., & Dr. Grace, A. (2018). Solvothermal synthesis and electrochemical properties of phase pure pyrite FeS2 for supercapacitor applications. *Electrochimica Acta*, 290, 378-389.
- 8. Anjaneyulu, U., B. Priyadarshini, Dr. A. Nirmala Grace and U. Vijayalakshmi. "Fabrication and characterization of Ag doped hydroxyapatite-polyvinyl alcohol composite nanofibers and its in vitro biological evaluations for bone tissue engineering applications." *Journal of Sol-Gel Science and Technology* 81 (2016): 750-761.
- 9. Syamsai, Ravuri, P. Kollu, S. Jeong and Dr. A. Grace. "Synthesis and properties of 2D-titanium carbide MXene sheets towards electrochemical energy storage applications." *Ceramics International* 43 (2017): 13119-13126.
- 10. Thangamani, J. Gounder, K. Deshmukh, Kishor Kumar Sadasivuni, Deepalekshmi Ponnamma, S. Goutham, K. Venkateswara Rao, K. Chidambaram, M. Basheer Ahamed, Dr. A. Nirmala Grace, M. Faisal and S. K. Khadheer Pasha. "White graphene reinforced polypyrrole and poly(vinyl alcohol) blend nanocomposites as chemiresistive sensors for room temperature detection of liquid petroleum gases." *Microchimica Acta* 184 (2017): 3977-3987.
- 11. Ghosh, Sourav, R. Santhosh, Sofia Jeniffer, V. Raghavan, G. Jacob, Katchala Nanaji, P. Kollu, S. Jeong and Dr. A. N. Grace. "Natural biomass derived hard carbon and activated carbons as electrochemical supercapacitor electrodes." *Scientific Reports* 9 (2019): n. pag.
- 12. Santhosh, R., S. Raman, S. Krishna, Syam sai Ravuri, V. Sandhya, S. Ghosh, N. K. Sahu, Sathyanarayanan Punniyakoti, M. Karthik, P. Kollu, S. Jeong and Dr. A. N. Grace. "Heteroatom doped graphene based hybrid electrode materials for supercapacitor applications." *Electrochimica Acta* 276 (2018): 284-292.
- 13. Santhosh, C., R. Nivetha, P. Kollu, V. Srivastava, M. Sillanpää, Dr. A. Grace and A. Bhatnagar. "Removal of cationic and anionic heavy metals from water by 1D and 2D-carbon structures decorated with magnetic nanoparticles." *Scientific Reports* 7 (2017): n. pag.

- 14. Sudakaran, Shruthi Vathaluru, J. Venugopal, Gnaneshwar Puvala Vijayakumar, Sivasubramanian Abisegapriyan, Dr. A. Grace and S. Ramakrishna. "Sequel of MgO nanoparticles in PLACL nanofibers for anti-cancer therapy in synergy with curcumin/β-cyclodextrin." *Materials science & engineering. C, Materials for biological applications* 71 (2017): 620-628.
- 15. Gnanasekar, S., Kollu, P., Jeong, S., & Dr. Grace, A. (2019). Pt-free, low-cost and efficient counter electrode with carbon wrapped VO2(M) nanofiber for dye-sensitized solar cells. *Scientific Reports*, 9.
- 16. D'Aguanno, B., Karthik, M., Dr. Grace, A.N., & Floris, A. (2018). Thermostatic properties of nitrate molten salts and their solar and eutectic mixtures. *Scientific Reports*, 8.
- 17. Nivetha, R., S. Chella, P. Kollu, S. Jeong, A. Bhatnagar and Dr. Nirmala Grace Andrews. "Cobalt and nickel ferrites based graphene nanocomposites for electrochemical hydrogen evolution." *Journal of Magnetism and Magnetic Materials* 448 (2018): 165-171.
- 18. achari, Divyalakshmi Saravana, C. Santhosh, Revathy Deivasegamani, R. Nivetha, A. Bhatnagar, Soon Kwan Jeong and Dr.A. Grace. "A non-enzymatic sensor for hydrogen peroxide based on the use of α-Fe2O3 nanoparticles deposited on the surface of NiO nanosheets." *Microchimica Acta* 184 (2017): 3223-3229.
- 19. Felix, Sathiyanathan, Dr. A. Grace and R. Jayavel. "Sensitive electrochemical detection of glucose based on Au-CuO nanocomposites." *Journal of Physics and Chemistry of Solids* 122 (2018): 255-260.
- 20. Venkateshalu, Sandhya and Dr. A. Grace. "MXenes—A new class of 2D layered materials: Synthesis, properties, applications as supercapacitor electrode and beyond." *Applied Materials Today* 18 (2020): 100509.
- 21. Syamsai, Ravuri and A. Grace. "Ta4C3 MXene as supercapacitor electrodes." *Journal of Alloys and Compounds* 792 (2019): 1230-1238
- 22. Felix, Sathiyanathan, P. Kollu and A. Grace. "Electrochemical performance of Ag–CuO nanocomposites towards glucose sensing." *Materials Research Innovations* 23 (2017): 27 32.
- 23. Nivetha, R. and A. Grace. "Manganese and zinc ferrite based graphene nanocomposites for electrochemical hydrogen evolution reaction." *Journal of Alloys and Compounds* 796 (2019): 185-195.
- 24. Nivetha, R., P. Kollu, K. Chandar, S. Pitchaimuthu, S. Jeong and A. Grace. "Role of MIL-53(Fe)/hydrated-dehydrated MOF catalyst for electrochemical hydrogen evolution reaction (HER) in alkaline medium and photocatalysis." *RSC Advances* 9 (2019): 3215-3223.
- 25. Singu, Dayakar Chowdary, B. Joseph, V. Velmurugan, Syamsai Ravuri and A. Grace. "Combustion Synthesis of Graphene from Waste Paper for High Performance Supercapacitor Electrodes." *International Journal of Nanoscience* 17 (2018): 1760023.
- 26. Venkateshalu, Sandhya, D. Rangappa and A. N. Grace. "Hydrothermal Synthesis and Electrochemical Properties of CoS2–Reduced Graphene Oxide Nanocomposite for Supercapacitor Application." *International Journal of Nanoscience* 17 (2018): 1760020.
- 27. Ravuri, Syamsai, C. Pandey, R. Ramchandran, Soon Kwan Jeon and A. Grace. "Wet Chemical Synthesis of SnS/Graphene Nanocomposites for High Performance Supercapacitor Electrodes." *International Journal of Nanoscience* 17 (2018): 1760022.
- 28. Felix, Sathiyanathan, C. Santhosh and A. Grace. "CuO-MWCNTS for Enzyme-Less Electrochemical Detection of Glucose and Dopamine." (2017).
- 29. Felix, Sathiyanathan, P. Kollu, Soon Kwan Jeong and A. Grace. "A novel CuO–N-doped graphene nanocomposite-based hybrid electrode for the electrochemical detection of glucose." *Applied Physics A* 123 (2017): 1-9.

- 30. Sivanesan, D., Young-Eun Kim, Min Hye Youn, K. Park, Hakjoo Kim, A. N. Grace and S. Jeong. "The salt-based catalytic enhancement of CO2 absorption by a tertiary amine medium." *RSC Advances* 6 (2016): 64575-64580.
- 31. Pandey, C., Syamsai Ravuri, R. Ramachandran, R. Santhosh, Sourav Ghosh, S. Sitaraman and A. N. Grace. "Synthesis of NiS–Graphene Nanocomposites and its Electrochemical Performance for Supercapacitors." *International Journal of Nanoscience* 17 (2018): 1760021.
- 32. Deivasegamani, Revathy, Govardhan Karunanidhi, C. Santhosh, T. Gopal, Divyalakshmi Saravana achari, Ajita Neogi, R. Nivetha, N. Pradeep, Uma Venkatraman, A. Bhatnagar, S. Jeong and A. N. Grace. "Chemoresistive sensor for hydrogen using thin films of tin dioxide doped with cerium and palladium." *Microchimica Acta* 184 (2017): 4765-4773.
- 33. Deivasegamani, Revathy, Govardhan Karunanidhi, C. Santhosh, T. Gopal, Divyalakshmi Saravana achari, Ajita Neogi, R. Nivetha, N. Pradeep, Uma Venkatraman, A. Bhatnagar, S. Jeong and A. N. Grace. "Chemoresistive sensor for hydrogen using thin films of tin dioxide doped with cerium and palladium." *Microchimica Acta* 184 (2017): 4765-4773.
- 34. Venkateshalu, Sandhya and A. Grace. "Review—Heterogeneous 3D Graphene Derivatives for Supercapacitors." *Journal of The Electrochemical Society* 167 (2020): 050509.
- 35. Santhosh, C., A. Malathi, Ehsan Dhaneshvar, Amit Bhatnagar, A. Grace and J. Madhavan. "Iron Oxide Nanomaterials for Water Purification." (2019).
- 36. Felix, Sathiyanathan, X. Charles and A. Grace. "Non-Enzymatic Electrochemical Detection of Glucose Using Graphene/Copper Oxide Nanocomposites." *Sensor Letters* 15 (2017): 60-64.
- 37. Kharangarh, P., V. Gupta, A. Singh, P. Bhardwaj and A. N. Grace. "An efficient pseudocapacitor electrode material with co-doping of iron (II) and sulfur in luminescent graphene quantum dots." *Diamond and Related Materials* 107 (2020): 107913.
- 38. Syamsai, Ravuri and A. N. Grace. "Synthesis, properties and performance evaluation of vanadium carbide MXene as supercapacitor electrodes." *Ceramics International* 46 (2020): 5323-5330.
- 39. Sagar, R., Samanvaya Singh Gaur, A. Grace and M. S. Gaur. "Enhanced energy storage in polyvinylidenefluoride (PVDF) + BaZrO3 electroactive nanocomposites." *Ionics* 24 (2018): 1965-1978.
- 40. Pradeep, N., Chaitra Venkatachalaiah, Uma Venkatraman, C. Santhosh, A. Bhatnagar, S. Jeong and A. N. Grace. "Magnesium oxide nanocubes deposited on an overhead projector sheet: synthesis and resistivity-based hydrogen sensing capability." *Microchimica Acta* 184 (2017): 3349-3355.
- 41. Pradeep, N., V. Chaitra, V. Uma and A. Grace. "Antimony oxide nanobelts: synthesis by chemical vapour deposition and its characterisation." *International Journal of Nanotechnology* 14 (2017): 752.
- 42. Chaitra, V., N. Pradeep, A. Grace, V. Uma and R. Sellappan. "Electrodeposition and Characterization of Polyaniline Films for the Detection of Staphylococcus Aureus Bacteria in Food Products." *Sensor Letters* 15 (2017): 65-70.
- 43. Syamsai, Ravuri, J. R. Rodríguez, V. Pol and A. Grace. "Reversible, stable Li-ion storage in 2 D single crystal orthorhombic α-MoO3 anodes." *Journal of colloid and interface science* 565 (2019): 197-204.
- 44. Venkateshalu, Sandhya and A. N. Grace. "Ti3C2Tx MXene and Vanadium nitride/Porous carbon as electrodes for asymmetric supercapacitors." *Electrochimica Acta* 341 (2020): 136035.
- 45. Krupa, Nithya Deva, A. N. Grace and V. Raghavan. "Process optimisation for green synthesis of ZnO nanoparticles and evaluation of its antimacrofouling activity." *Iet Nanobiotechnology* 13 (2019): 510-514.
- 46. Pradeep, N., V. Chaitra, V. Uma and A. Grace. "Simultaneous Growth of Magnesium Oxide Nanowire and Nanocubes for Gas Sensor Application." *Sensor Letters* 15 (2017): 413-418.

- 47. Nguyen, V., Ha Huu Do, T. Nguyen, Pardeep Singh, Pankaj Raizada, A. Sharma, Siva Sankar Sana, A. N. Grace, M. Shokouhimehr, Sang Hyun Ahn, Changlei Xia, S. Y. Kim and Q. Le. "Perovskite oxide-based photocatalysts for solar-driven hydrogen production: Progress and perspectives." *Solar Energy* 211 (2020): 584-599.
- 48. Venkateshalu, Sandhya, J. Cherusseri, M. Karnan, K. S. Kumar, P. Kollu, M. Sathish, J. Thomas, S. Jeong and A. N. Grace. "New Method for the Synthesis of 2D Vanadium Nitride (MXene) and Its Application as a Supercapacitor Electrode." *ACS Omega* 5 (2020): 17983 17992.
- 49. Bhardwaj, P. and A. N. Grace. "Antistatic and microwave shielding performance of polythiophene-graphene grafted 3-dimensional carbon fibre composite." *Diamond and Related Materials* 106 (2020): 107871.
- 50. Rajeev, Priyada V., S. Gnanasekar, R. Sellappan and A. Grace. "Synthesis and analysis of Mo2N as efficient counter electrodes for dye sensitized solar cells." *Materials Today: Proceedings* (2019): n. pag.
- 51. Revathi, B., L. Balakrishnan, Sudhagar Pichaimuthu, A. Nirmala Grace and N. Krishna Chandar. "Photocatalytic degradation of rhodamine B using BiMnO3 nanoparticles under UV and visible light irradiation." *Journal of Materials Science: Materials in Electronics* (2020): 1 11.
- 52. Bhuvaneswari, K., G. Palanisamy, T. Pazhanivel, T. Maiyalagan, P. Shanmugam and A. N. Grace. "In-situ development of metal organic frameworks assisted ZnMgAl layered triple hydroxide 2D/2D hybrid as an efficient photocatalyst for organic dye degradation." *Chemosphere* (2020): 128616.
- 53. Bhardwaj, P., Shalu Singh, P. Kharangarh and A. N. Grace. "Surfactant decorated polypyrrole-carbon materials composites electrodes for supercapacitor." *Diamond and Related Materials* 108 (2020): 107989.
- 54. Sitaaraman, S. R., R. Santhosh, P. Kollu, S. Jeong, Raja Sellappan, V. Raghavan, George Jacob and A. N. Grace. "Role of graphene in NiSe2/graphene composites Synthesis and testing for electrochemical supercapacitors." *Diamond and Related Materials* 108 (2020): 107983.
- 55. Hwang, Sun-Mi, S. Y. Choi, Min Hye Youn, W. Lee, K. Park, Kannan Gothandapani, A. Grace and S. Jeong. "Investigation on Electroreduction of CO2 to Formic Acid Using Cu3(BTC)2 Metal—Organic Framework (Cu-MOF) and Graphene Oxide." *ACS Omega* 5 (2020): 23919 23930.
- 56. Nivetha, R., Kannan Gothandapani, V. Raghavan, G. Jacob, Raja Sellappan, P. Bhardwaj, S. Pitchaimuthu, A. M. Kannan, S. Jeong and A. Grace. "Highly Porous MIL-100(Fe) for the Hydrogen Evolution Reaction (HER) in Acidic and Basic Media." *ACS Omega* 5 (2020): 18941 18949.
- 57. Raghavan, V., Ananya Deb and A. Grace. "Honokiol-Camptothecin loaded graphene oxide nanoparticle towards combinatorial anti-cancer drug delivery." *Iet Nanobiotechnology* (2020): n. pag.
- 58. Paul, A., Aparna Sajeev, R. Nivetha, Kannan Gothandapani, P. Bhardwaj, K. Govardhan, V. Raghavan, George Jacob, Raja Sellapan, S. Jeong and A. N. Grace. "Cuprous oxide (Cu2O)/graphitic carbon nitride (g-C3N4) nanocomposites for electrocatalytic hydrogen evolution reaction." *Diamond and Related Materials* 107 (2020): 107899.
- 59. Selvi, G. T., A. Grace and S. Jeong. "Synthesis of rare earth hydroxycarbonate (LaOHCO3) nanocrystals with tuneable morphology and luminescence properties." *Advanced Powder Technology* 31 (2020): 2366-2378.
- 60. Archana, T., K. Vijayakumar, G. Subashini, A. N. Grace, M. Arivanandhan and R. Jayavel. "Facile synthesis of CdS Quantum dots for QDSSC with high photo current density." (2020).
- 61. Sana, Siva Sankar, D. V. Kumbhakar, Akbar Pasha, S. Pawar, A. Grace, R. P. Singh, V. Nguyen, Q. Le and Wanxi Peng. "Crotalaria verrucosa Leaf Extract Mediated Synthesis of Zinc Oxide Nanoparticles: Assessment of Antimicrobial and Anticancer Activity." *Molecules* 25 21 (2020): n. pag.

- 62. Archana, T., K. Vijayakumar, G. Subashini, A. N. Grace, M. Arivanandhan and R. Jayavel. "Effect of co-sensitization of InSb quantum dots on enhancing the photoconversion efficiency of CdS based quantum dot sensitized solar cells." *RSC Advances* 10 (2020): 14837-14845.
- 63. Srinivasan, K., E James Jabaseelan Samuel, V. Poopathi and A. Nirmala Grace. "Investigation on energy dependency of dose enhancement factor produced by gold nanoparticle." *Materials Today: Proceedings* 9 (2019): 446-449.
- 64. Nivetha, R., S. Chella, P. Kollu, S. Jeong, A. Bhatnagar and Nirmala Grace Andrews. "Cobalt and nickel ferrites based graphene nanocomposites for electrochemical hydrogen evolution." *Journal of Magnetism and Magnetic Materials* 448 (2018): 165-171.
- 65. Velmurugan, V., I. Bharathithasan and A. Grace. "Synthesis and Physiothermal Analysis of Boron Nitride Based Nanofluid." *Indian journal of science and technology* 9 (2016): n. pag.
- 66. Velmurugan, V., V. Sumanth, R. Ramachandran, M. Saranya and A. N. Grace. "Synthesis of Silver Decorated Graphene Oxide Nanocomposite and Its Thermal Conductivity Enhancement." *Advanced Science Letters* 22 (2016): 1055-1058.