Full Name : Asaithambi Sankaiya

Email ID : asaithambi901@gmail.com

Research areas : Supercapacitor and photocatalytic applications

Title of the research : Investigation of metal oxide/carbon based composites for supercapacitor and photocatalytic applications

Current position : Research Scholar, Alagappa University, India

PhD exchange student, Western Norway University of Applied Sciences

ResearchGate : https://www.researchgate.net/profile/S-Asaithambi

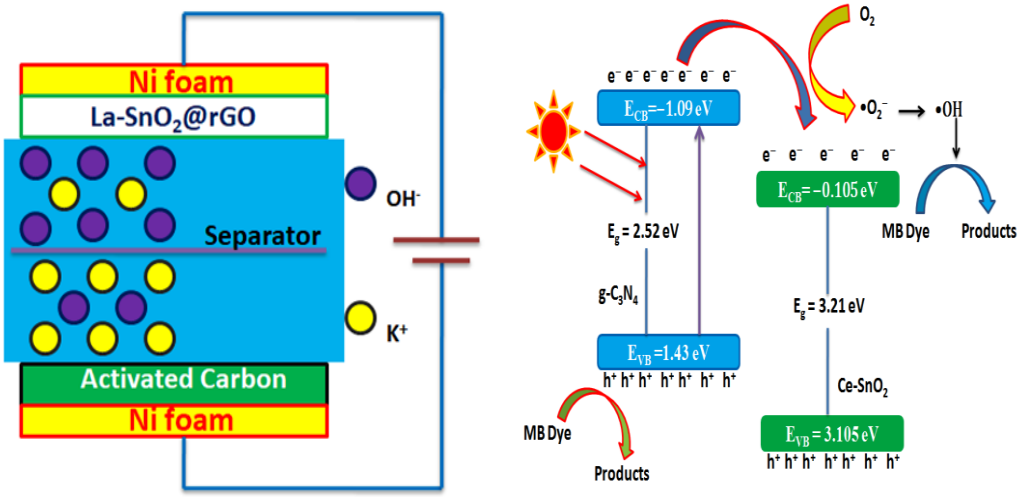
Google Scholar : https://scholar.google.com/citations?user=HWxwrEkAAAAJ&hl=en

LinkedIn : https://www.linkedin.com/in/asai-thambi-2a6a74122/

Description of current and past research:

Energy crisis and environmental pollution are two important issues, which affect the quality of human life. Currently, the world has focused on new renewable energy resources to replace the traditional fossil fuels, which are the prime cause of environmental pollution. Recently, to rectify the shortage of natural resources and pollution in the environment, several methods have been used for energy storage and conversion, which includes the development of devices like supercapacitors, rechargeable batteries, solar cells and fuel cells. Likewise, solar energy has also been effectively used in photo-catalysis to purify organic pollutants from waste industrial water. My research is focusing on developing various metal-doped tin oxide and their composites for supercapacitor devices and photocatalytic applications.

For example:



Journal publications:

1. **S. Asaithambi**, P. Sakthivel, M. Karuppaiah, G. Udhaya sankar, K. Balamurugan, R.Yuvakkumar, M.Thambidurai, G. Ravi*, Investigation of electrochemical properties of various transition metals doped SnO_2 spherical nanostructures for supercapacitor applications, Journal of Energy Storage, 310 (2020) 101530.

2. **S. Asaithambi,** P. Sakthivel, M. Karuppaiah, K. Balamurugan, R.Yuvakkumar, M.Thambidurai, G. Ravi*, Synthesis and characterization of various transition metals doped SnO_2@MoS_2 composites for supercapacitor and photocatalytic applications, Journal of Alloys and Compounds, (2020) 157060.

3. M Karuppaiah, P Sakthivel, **S Asaithambi,** L Krishna Bharat, Goli Nagaraju, Tansir Ahamad, K Balamurugan, R Yuvakkumar, G Ravi, Elevated energy density and cycle stability of α-Mn_2O_3 3D-microspheres with addition of neodymium dopant for pouch-type hybrid supercapacitors, Electrochimica Acta (2020) 137169.

4. Murugesan Karuppaiah, Perumal Sakthivel, **Sankaiya Asaithambi**, Lankamsetty Krishna Bharat, Nagaraju, Goli, Karuppannan Balamurugan, Rathinam Yuvakkumar, Ganesan Ravi, Defect induced in 3D-rhombohedral $MnCO_3$ microcrystals by substitution of transition metals for aqueous and solid-state hybrid supercapacitors, ACS Sustainable Chem. Eng. 2021, 9, 4, 1656–1668

5. **S Asaithambi,** P Sakthivel, M Karuppaiah, R Yuvakkumar, Dhayalan Velauthapillai, Tansir Ahamad, MA Majeed Khan, Mustafa KA Mohammed, N Vijayaprabhu, G Ravi*, The bifunctional performance analysis of synthesized Ce doped SnO_2/g-C_3N_4 composites for asymmetric supercapacitor and visible light photocatalytic applications J.Alloy and Compd, 866, (2021)158807

6. **S. Asaithambi,** P. Sakthivel, M. Karuppaiah, R.Yuvakkumar, K.Balamurugan, Tansir Ahamad, M.A. Majeed Khan, G.Ramalingam, Mustafa K.A.Mohammed, G.Ravi*, Preparation of Fe-SnO_2@CeO_2 nanocomposite electrode for asymmetric supercapacitor device performance analysis, Journal of Energy Storage 36, (2021) 102402.