

Center of Excellence in Materials for Advanced Technologies (CeMAT)

Notable Publications

1. Spin state driven weighted mobility and thermal conductivity properties of electron (Hf) doped strongly correlated Mott insulator LaCoO_3 for thermoelectric applications, K P Mohamed Jibri, Simon Sajan John, J. Archana, S. Harish, and M. Navaneethan, Applied Physics Letters, 125/034101, 2024. [IF - 3.5]
2. Realizing an ultralow thermal conductivity via interfacial scattering and rational-electronic band reformation in p-type Mg_3Sb_2 , Priyadharshini, S., V. Vijay, S. Kamalakannan, J. Archana, and M. Navaneethan*, Applied Physics Letters 124, 124/031601, 2023. [IF - 3.5]
3. Interfacial energy barrier tuning in $\text{MnO}_2/\text{MoS}_2$ /Carbon fabric integrated with low resistance textrode for highly efficient wearable thermoelectric generator, Prasanna, C. Suresh, S. Harish, J. Archana, E. Senthil Kumar, H. Ikeda, and M. Navaneethan*, Carbon, 218/118609, 2023. [IF - 10.5]
4. Ultra-high-power factor of p-type Bi_2Se_3 for room-temperature thermoelectric applications, V. Vijay, S. Harish, J. Archana and M. Navaneethan, Chemical Communication., 2023, 59, 8119 [IF:6.22]
5. Perspective on ultrathin layered Ni-doped MoS_2 hybrid nanostructures for the enhancement of electrochemical properties in supercapacitors, Prakash, Kamarajar, Santhanakrishnan Harish, Shanmugasundaram Kamalakannan, Thirumalaisamy Logu, Masaru Shimomura, Jayaram Archana, and Mani Navaneethan*, Journal of Energy Chemistry, 80/335-349., 2023, [IF – 14]
6. Decoupling trade-off thermoelectric relations and controlled out-plane lattice dynamics in few-layer MoS_2 , Abinaya, R., S. Harish, J. Archana, M. Shimomura, and M. Navaneethan*, Applied Physics Letters, 121/123102, 2022. [IF - 3.5]
7. Ultrathin layered MoS_2 and N-doped graphene quantum dots (N-GQDs) anchored reduced graphene oxide (rGO) nanocomposite-based counter electrode for dye-sensitized solar cells, Silambarasan, K., S. Harish, K. Hara, J. Archana, and M. Navaneethan*, Carbon, 181/107-117, 2021. [IF – 10.5]
8. Enhanced thermoelectric figure-of-merit of $\text{MoS}_2/\text{MoO}_3$ nanosheets via tuning of sulphur vacancies, Abinaya, R., S. Harish, S. Ponnusamy, M. Shimomura, M. Navaneethan*, and J. Archana, Chemical Engineering Journal, 416/128484, 2021. [IF - 13.3]
9. One-step fabrication of ultrathin layered 1T@ 2H phase MoS_2 with high catalytic activity based counter electrode for photovoltaic devices, K. Silambarasan, J. Archana*, S. Harish,

M. Navaneethan, S. Ponnusamy, C. Muthamizhchelvan, and K. Hara, Journal of Materials Science & Technology, 51 / 94-101, 2020. [IF – 11.2]