

Publication List:

- R Das, J Mukhopadhyay, S Gupta*, **G.K. Gupta***, Insights into kinetics, reaction mechanism, thermodynamics, and co-combustion characteristics for *Gmelina arborea* with polyethylene using thermogravimetric analyser, Scientific Reports, 2029.
- P. Talukdar, H. Kauser, R. Das, G.K. Gupta*, S.R. Geed*, Kinetic and thermodynamic insights into the non-isothermal thermal decomposition of crude oil tank bottom sludge using isoconversional models: an energy–environment nexus approach, Journal of Thermal Analysis & Calorimetry, 2026.
- R. Das, S Das, J Mukhopadhyay, PK Gupta, S Gupta*, **G.K. Gupta***, Ni-Doped CeO₂ as Ceramic Catalyst for Gamhar Sawdust Pyrolysis: Product Distribution and Enriched Bio-Oil Production, Journal of the American Ceramic Society 109 (5), 2026, e70801.
- V. Gopalakrishnan, P. Patel, S. Gupta*, **G.K. Gupta***, Advancement of FT-SPK Pathway for Sustainable Aviation Fuel (SAF) Production Through Catalyst-Assisted Co-Gasification Integrated Fischer Tropsch Synthesis: A Review, BioEnergy Research 19 (1), 2026, 70.
- R. Ganguly, J. Ponraj, B. Chanda, **G.K. Gupta**, S. Bhattacharya, J. Mukhopadhyay, S. Mandal, Next Generation Fuel Electrode Supported Solid Oxide Electrolyser Cells: A Backend Engineering to Integrate to SOE Stack and System, Electrochemical Society Meeting Abstracts SOFC 2025, 105-105.
- R. Haldar, N. Jacob, G. Ganesh, K. Chatterjee, I. Mandal, A. Chakraborty, K. Haldar, P. Pal, **G.K. Gupta**, N.M.A. Krishnan, M. Chirumamilla, M.R. Motapothula, E. Varrla, A.R Allu, Immobilized Gold Nanoparticles on a Glass-Based Scaffold for Direct Solar-Driven H₂ from Water Vapor, ACS Materials Letters 7 (4), 2025, 1228-134.
- N. Agnihotri, **G.K. Gupta**, M.K. Mondal. Thermo-kinetic analysis, thermodynamic parameters and comprehensive pyrolysis index of Melia azedarach sawdust as a genesis of bioenergy. Biomass Conversion and Biorefinery 14 (2), 2024, 1863-1880.
- M.C. Kannaujiya, **G.K. Gupta**, T. Mandal, M.K. Mondal, Adsorption of Acid Yellow 2GL dye from simulated water using brinjal waste. Biomass Conversion and Biorefinery 13 (17), 2023, 15965-15978
- Dave, **G.K. Gupta**, M.K. Mondal. Study on thermal degradation characteristics, kinetics, thermodynamic, and reaction mechanism analysis of Arachis hypogaea shell pyrolysis for its bioenergy potential. Biomass Conversion and Biorefinery 13 (10), 2023, 9289-9304.
- P.K. Gupta, V. Kumar, S. Maity, **G.K. Gupta**, S. Datta, A. Singh, S. Sengupta, Comparative studies of Co/sba-15 catalysts synthesized with different silica sources including coal fly ash for fischer-tropsch synthesis, ChemistrySelect 8 (11), 2023, e202204962.
- **G.K. Gupta**, M.K. Mondal. Mechanism of Cr(VI) uptake onto sagwan sawdust derived biochar and statistical optimization via response surface methodology. Biomass Conversion and Biorefinery 13 (2), 2023, 709-725.
- P.K. Gupta, V. Kumar, S. Maity, S. Datta, **G.K. Gupta**, A Review on Conversion of Biomass to Liquid Fuels and Methanol through Indirect Liquefaction Route, Chemistry Select 7 (48), 2022, e202203504.
- S. Gupta, **G.K. Gupta**, M.K. Mondal. Thermal degradation characteristics, kinetics, thermodynamic, and reaction mechanism analysis of pistachio shell pyrolysis for its bioenergy potential. Biomass Conversion and Biorefinery 12 (11), 2022, 4847-4861.

- M. Singh, S. Rano, S. Roy, P. Mukherjee, S. Dalui, G.K. Gupta, S. Kumar, M.K. Mondal, Characterization of organophosphate pesticide sorption of potato peel biochar as low-cost adsorbent for chlorpyrifos removal, *Chemosphere* 297, 2022, 134112.
- P.K. Gupta, A. Mahato, **G.K. Gupta**, Gajanan Sahu, Sudip Maity. Fischer - Tropsch synthesis over Pd promoted cobalt based mesoporous supported catalyst. *Oil Gas Science & Technology*, 76, 2021, 21.
- P.K. Gupta, A. Mahato, P. Oraon, **G.K. Gupta**, S. Maity. Coal fly ash-derived mesoporous SBA-15 as support material for production of liquid hydrocarbon through Fischer–Tropsch route. *Asia Pacific Journal of Chemical Engineering*, 15, 2020, e2471.
- **G.K. Gupta**, M.K. Mondal. Kinetics and thermodynamic analysis of maize cob pyrolysis for its bioenergy potential using thermogravimetric analyzer. *Journal of Thermal Analysis and Calorimetry*, 137(4), 2019, 1431–1441.
- S. Gupta, **G.K. Gupta**, M.K. Mondal. Slow pyrolysis of chemically treated walnut shell for valuable products: Effect of process parameters and in-depth product analysis. *Energy*, 2019, 181; 665-676.
- **G.K. Gupta**, M.K. Mondal. Iso-conversional kinetic and thermodynamic studies of Indian sagwan sawdust pyrolysis for its bioenergy potential. *Environmental Progress & Sustainable Energy (AIChE)*, 2019, 38, 13131.
- R. Bala, **G.K. Gupta**, B.V. Dasgupta, M.K. Mondal. Pretreatment optimisation and kinetics of batch anaerobic digestion of liquified OFMSW treated with NaOH: Models verification with experimental data. *Journal of Environmental Management*, 237, 2019, 313-321.
- **G.K. Gupta**, P.K. Gupta, M.K. Mondal. Experimental process parameters optimization and in-depth product characterizations for teak sawdust pyrolysis. *Waste Management*, 2019, 87; 499-511.
- **G.K. Gupta**, M.K. Mondal. Bio-energy generation from sagwan sawdust via pyrolysis: Product distributions, characterizations and optimization using response surface methodology. *Energy*, 2019, 170; 423-437.
- **G.K. Gupta**, M. Ram, R. Bala, M. Kapur, M.K. Mondal. Pyrolysis of Chemically Treated Corncob for Biochar Production and Its Application in Cr(VI) Removal. *Environmental Progress & Sustainable Energy (AIChE)*, 37(5), 2018, 1606-1617.
- A.S. Rathore, **G.K. Gupta**, M. Kapur, M.K. Mondal. Study on Mass Transfer Characteristics for Cr (VI) Removal by Adsorption onto Residual Black Toner Ink. *Environmental Progress & Sustainable Energy (AIChE)*, 36(4), 2017, 1022-1029.