

Publications

- 2026 Ytterbium silicate-based environmental barrier coatings with hafnia via polymer-derived ceramic technology, **Journal of the European Ceramic Society**, 46, 117932, pp. 1-13
- 2026 Development of photocatalytic active SiCN-Ti e-spun fibers based on a polysilazane-derived precursor for hydrogen generation by photoreforming, **Journal of the European Ceramic Society**, 46, 117840, pp. 1-12
- 2024 Unveiling the potential of ultra-low load Co on porous carbon-rich SiCN(O) fibre mats towards oxygen electrocatalysis in alkaline medium, **International Journal of Hydrogen Energy**, 88, pp. 956-964
- 2024 Tailoring crystal structure of high-entropy carbides in Si-based ceramic nanocomposites through precursor engineering, **Journal of the European Ceramic Society**, 44, pp. 6901-6910
- 2024 Densification, $\beta \rightarrow \alpha$ transformation and nanoindentation studies of SiC_w/SiC composites fabricated by spark plasma sintering, **Journal of the Korean Ceramic Society**, 61, pp. 644-653
- 2022 Synthesis and characterization of precursor derived TiN@Si-Al-C-N ceramic nanocomposites for oxygen reduction reaction, **International Journal of Applied Ceramic Technology**, 20, pp. 56-69
- 2022 Mechanical characterization of spark plasma sintered titania-silicon oxycarbide (TiO₂/SiOC) nanocomposites, **Journal of material science and engineering technology**, 53, pp. 235-243
- 2021 Combustion synthesis of luminescent Eu-doped single phase Mayenite, **Journal of solid state chemistry**, 302, 122420, pp. 1-7
- 2021 Low frequency dielectric behavior and AC conductivity of polymer derived SiC(O)/HfC_xN_{1-x} ceramic nanocomposites, **Material Chemistry and Physics**, 260, 124122, pp. 1-9
- 2020 Metal-like thermal conductivity possessed by atmosphere assisted synthesis of spark plasma sintered mayenite (Ca₁₂Al₁₄O₃₃), **Journal of Innovative Materials in Extreme Conditions**, 1, 1, pp. 7-11
- 2020 In-situ synthesis and characterization of nanocomposites in the Si-Ti-N and Si-Ti-C systems, **Molecules**, 25, 5236, pp. 1-23
- 2020 Design of nanoscaled heterojunctions in precursor-derived t-ZrO₂/SiOC(N) nanocomposites: Transgressing the boundaries of catalytic activity from UV to visible light, **Scientific Reports**, 10:430, pp. 1–13
- 2020 Temperature dependent conductivity and broadband dielectric response of precursor-derived Nb₂O₅, **Ceramics International**, 46[7], pp. 9512-9518
- 2020 Disordered mesoporous polymer derived N-doped TiO₂/Si-O-C-N nanocomposites with nanoscaled heterojunctions towards enhanced adsorption and harnessing of visible light, **Applied Surface Science**, 508, 144953, pp. 1-9
- 2019 Anomalous reduction in the band gap of zirconium titanate based composites, **Materials Letters**, 251, pp. 230-233
- 2019 Thermal shock resistance of precursor derived Si-Hf-C-N(O) foams, **Transactions of the Indian Ceramic Society**, 78, pp. 1–5
- 2018 Dominating role of crystal structure over defect chemistry in black and white zirconia on visible light photocatalytic activity, **Scientific Reports**, 8:5541, pp. 1–11
- 2018 Plasmon enhanced visible light photocatalytic activity in polymer-derived TiN/Si-O-C-N nanocomposites, **Materials & Design**, 157, pp. 87–96
- 2018 Novel precursor-derived meso-/macroporous TiO₂/SiOC nanocomposites with highly stable anatase nanophase providing visible light photocatalytic activity and superior adsorption of organic dyes, **Materials**, 11, 362, pp. 1–23

- 2016 Mechanical properties of ultra-high pressure sintered sphene (CaTiSiO_5), **Processing and Application of Ceramics**, 10 [4], pp. 295–298
- 2016 Organosilicon polymer-derived mesoporous 3D silicon carbide, carbonitride and nitride structures as platinum supports for hydrogen generation by hydrolysis of sodium borohydride, **International Journal of Hydrogen Energy**, 41[34], pp. 15477–15488
- 2016 Ablation resistance of precursor derived Si-Hf-C-N(O) ceramics, **Journal of the European Ceramic Society**, 36, pp. 3717–3723
- 2016 Structural, functional and mechanical properties of spark plasma sintered gadolinia (Gd_2O_3), **Ceramics International**, 42[1], Part B, pp. 1384–1391
- 2016 Electrical and thermal conductivities of dilute nanofluids—experimental determination and parametric studies, **Journal of Nanofluids**, 5, pp. 653-660