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AREA OF INTEREST

- Biomedical Materials,
- Drug Delivery Systems
- Biomimetic Materials.

LIST OF PUBLICATIONS

1. MCS Mary, A Chatterjee, J Abraham, **S Sasikumar**, “A study of the in-vitro bioactivity, dissolution and antibacterial activity of larnite prepared by a novel sol–gel combustion method using sucrose as a fuel”, Bulletin of Materials Science 43 (1), 1-9, 2020.
2. Senthil Kumar Venkatraman, Mohit Saraswat, Rajan Choudhary, Fedor Senatov, Sergey Kaloshkin, **Sasikumar Swamiappan**, “Photocatalytic Degradation of Methylene Blue Dye by Calcium-and Magnesium-Based Silicate Ceramics”, ChemistrySelect 5 (39), 12198-12205, 2020.
3. Rajan Choudhary, Senthil Kumar Venkatraman, Inna Bulygina, Ankita Chatterjee, Jayanthi Abraham, Fedor Senatov, Sergey Kaloshkin, Artem Ilyasov, Maxim Abakumov, Marina Knyazeva, Dimitri Kukui, Frank Walther, **Sasikumar Swamiappan**, “Impact of forsterite addition on mechanical and biological properties of composites”, Journal of Asian Ceramic Societies, 1-15, 2020.
4. Rajan Choudhary, Senthil Kumar Venkatraman, Inna Bulygina, Fedor Senatov, Sergey Kaloshkin, **Sasikumar Swamiappan**, “Designing of porous PMMA/diopside bone cement for non-load bearing applications”, Journal of Asian Ceramic Societies 8 (3), 862-872, 2020.

5. SK Venkatraman, **S Swamiappan**, “Review on calcium-and magnesium-based silicates for bone tissue engineering applications”, Journal of Biomedical Materials Research Part A 108 (7), 1546-1562, 2020.
6. Sivasankar Koppala, Renita Mishal D Souza, Poornima Sivanandam, Sai Kumar Tammina, Lei Xu, Kangqiang Li, Quan Chen, Ramdas Balan, Kishore Kumar Devarepally, **Sasikumar Swamiappan**, “Sol gel combustion derived monticellite bioceramic powders for apatite formation ability evaluation”, Materials Research Express 6 (12), 125431, 2020.
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8. Rajan Choudhary, Senthil Kumar Venkatraman, Ankita Chatterjee, Jana Vecstaudza, Maria Josefa Yáñez-Gascón, Horacio Perez-Sanchez, Janis Locs, Jayanthi Abraham, **Sasikumar Swamiappan**, “Biom mineralization, antibacterial activity and mechanical properties of biowaste derived diopside nanopowders”, Advanced Powder Technology 30 (9), 1950-1964, 2019.
9. R Lakshmi, R Choudhary, D Ponnamm a, KK Sadasivuni, **S Swamiappan**, “Wollastonite/forsterite composite scaffolds offer better surface for hydroxyapatite formation”, Bulletin of Materials Science 42 (3), 107, 2019.
10. Genasan Krishnamurithy, Saktiswaren Mohan, Noor Azlin Yahya, Azura Mansor, Malliga Raman Murali, Hanumantha Rao Balaji Raghavendran, Rajan Choudhary, **Swamiappan Sasikumar**, Tunku Kamarul, “The physicochemical and biomechanical profile of forsterite and its osteogenic potential of mesenchymal stromal cells”, PloS one, 14 (3), e0214212, 2019.
11. Rajan Choudhary, Ankita Chatterjee, Senthil Kumar Venkatraman, Sivasankar Koppala, Jayanthi Abraham, **Sasikumar Swamiappan**, “Antibacterial forsterite (Mg₂SiO₄) scaffold: A promising bioceramic for load bearing applications”, Bioactive materials 3 (3), 218-224, 2018.
12. Sivasankar Koppala, **Sasikumar Swamiappan**, Yuvaraj Gangarajula, Lei Xu, Kishor Kumar Sadasivuni, Deepalekshmi Ponnamm a, Vijayaraghavan Rajagopalan, “Calcium deficiency in hydroxyapatite and its drug delivery applications”, Micro & Nano Letters 13 (4), 562-564, 2018.

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14. S kumar **Swamiappan**, "Effect of pH and Ageing Time in the Preparation of A Ceramic Drug Delivery Carrier", International Journal of Drug Delivery Technology 8 (01), 15-18, 2018.
15. M. Christe Sonia Mary¹, O. Pingala², S. Sheetal² and S. **Sasikumar**, "Preparation, Characterization and Drug Delivery Applications of Polyethylene Glycol/Corn Starch Microspheres", Asian Journal of Chemistry 30 (1), 20-24, 2018.
16. Rajan Choudhary, Prasanth Manohar, Jana Vecstaudza, Maria Josefa Yáñez-Gascón, Horacio Pérez Sánchez, Ramesh Nachimuthu, Janis Locs, **Sasikumar Swamiappan**, "Preparation of nanocrystalline forsterite by combustion of different fuels and their comparative *in-vitro* bioactivity, dissolution behaviour and antibacterial studies", Materials Science and Engineering: C 77, 811-822, 2017.
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27. M Christe Sonia Mary, **S Sasikumar**, "Sodium Alginate/Starch Blends Loaded with Ciprofloxacin Hydrochloride as a Floating Drug Delivery System-In Vitro Evaluation", Iranian Journal of Chemistry and Chemical Engineering (IJCCE) 34 (2), 25-31, 2015.
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