

### List of Publications at DIAT under Project

1. YutikaBadhe, Balasubramanian K., Novel Hybrid Ablative composites of Resorcinol Formaldehyde as thermal protection systems for Re-entry vehicles, *RSC Advances*, 2014, 4, 28956-28963
2. YutikaBadhe, Balasubramanian K., Reticulated three-dimensional network ablative composites for heat shields in thermal protection systems., *RSC Adv.*, 2014, 4, 43708
3. YutikaBadhe, K. Balasubramanian, Manpreet Singh, A. Aswathy., Nano-engineered hybrid hydroxyapatite-grafted biocomposites for Euspriapulchella mimicking through chaotic flow regimes, *RSC Adv.*, 2015, 5, 14712
4. YutikaBadhe, Balasubramanian K, Rohit Gupta., Cost-effective, low density, carbon soot doped resorcinol formaldehyde composite for ablative applications., *RSC Adv.*, 2015, 5, 23622
5. YutikaBadhe and K. Balasubramanian., Eco-Friendly Redemption of Butyl Rubber in Cost Efficient Ablative Composites for Aerospace Applications., *ASP Energy Environ. Focus* 2015, Vol. 4, No. Xx
6. K. Balasubramanian, YutikaBadhe, Daisy Tigga, Anjali Kumari, Self Assisted Ceramization Of Formaldehyde /Cenosphere/Nanosilicon Carbide For Cyclic Ultra High Temperatures Application, *Journal of Material Science and Mechanical Engineering*, Volume 1(1), ISSN 2393-9095. 2015
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8. N. Khatavkar, Balasubramanian K, Composite materials for supersonic aircraft radomes with ameliorated radio frequency transmission-a review, *RSC Adv.*, 2016, 6, 6709
9. Deepankar Sri Gyan and Balasubramanian K, Ionic liquid microseeded WC/RF ablative composite for heat shield *RSC Advances* *RSC Adv.*, 2016, 6, 65152
10. P. Gupta, Balasubramanian K, Numerical Investigation of Heat Loss in Nano-Fumed Silica Reinforced Styrene Acrylonitrile Hydrophobic Thermo-Sheath for Heat Inhibition in Hydronic Boiler, *Mat Focus*, 5, 1-9, 2016
11. Prakash M. Gore, Susan Zachariah, Prashant Gupta and Balasubramanian K., Multifunctional nano-engineered and bio-mimicking smart superhydrophobic reticulated ABS/fumed silica composite thin films with heat-sinking applications, *RSC Adv.*, 2016,6, 105180-105191
12. Alex Daniel, YutikaBadhe, Ivaturi Srikanth, Suresh Gokhale, and Balasubramanian K., Laser Shielding and Thermal Ablation Characteristics of Resorcinol Formaldehyde/Boron Nitride Composites for Thermal Protection Systems, *Ind. Eng. Chem. Res.*, 2016, 55 (40), pp 10645–10655.
13. Vijay Kumar, Balasubramanian K., Laser Shielding Characteristics of Ionic Liquid Assisted Fumed Silica/Resorcinol Formaldehyde Nanocomposites., *Materials Focus.*, 2017, 6(3), 345
14. Balasubramanian K., Manoj Tirumali, YutikaBadhe, and Y. R. Mahajan., Nano-enabled Multifunctional Materials for Aerospace Applications., *Aerospace Materials and Material Technologies*, pp. 439-453. Springer Singapore, 2017
15. Vijay Kumar, Sunith Singh, and Balasubramanian K., Thermal Ablation and Laser Shielding Characteristics of Ionic liquid Microseeded Functionalized Nanoclay/Resorcinol Formaldehyde Nanocomposites for Armor Protection., *Polymer-Plastics Technology and Engineering* just-accepted (2017).
16. M.K. Dinker, T. G. Ajithkumar, P.S. Kulkarni, L-Proline Functionalized Dicationic Framework of Bifunctional Mesoporous Organosilica for the Simultaneous Removal of Lead and Nitrate Ions, *ACS Sustainable Chem. Eng.*, manuscript accepted (2017).
17. P.E. Hande, S. Kamble, A.B. Samui, P.S. Kulkarni, An efficient method for determination of the Diphenyl Amine (stabilizer) in Propellants by using Molecularly Imprinted Polymer based

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  21. S. Swati, A.B. Samui, P.S. Kulkarni, Shape-stabilized PEG-cellulose acetate blend preparation with superior PEG loading via microwave-assisted blending, *Solar Energy*, 144 (2017) 32.
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  23. M.K. Dinker, N.V. Patil, P.S. Kulkarni, A diamino based resin modified silica composite for the selective recovery of tungsten from wastewater, *Polymer International*, 65 (2016) 1387.
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  30. A.B. Lende, P.S. Kulkarni, “Selective recovery of tungsten from printed circuit board recycling unit wastewater by using emulsion liquid membrane process”, *Journal of Water Process Engineering*, 8 (2015) 75.
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  32. M.K. Dinker, P.S. Kulkarni, “Temperature based adsorption studies of Cr(VI) using p-toluidine formaldehyde resin coated silica”, *New Journal of Chemistry*, 39 (2015) 3687.
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40. Recent advances in metamaterial split-ring resonator circuits as biosensors and therapeutic agents Sohini Roy Choudhury, Vaishali Rawat, Ahmed Hasnain Jalal, S.N. Kale, Shekhar Bhansali *Biosensors & bioelectronics* 2016 v.86 pp. 595-608
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