

Department of Chemistry

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Research Publications

Research Papers Published in International Journals:

1. Vanita Kumari, Rahul Badru, Sandeep Singh, Sandeep Kaushal*, Prit Pal Singh*, Synthesis and electrochemical behaviour of GO doped ZrP nanocompositemembranes, *Journal of Environmental Chemical Engineering* 8 (2020) 103690. (ISSN: 2213-3437)
2. Parul, Kamalpreet Kaur, Rahul Badru, Prit Pal Singh*, Sandeep Kaushal*, Photodegradation of organic pollutants using heterojunctions: A review, *Journal of Environmental Chemical Engineering*, 8 (2020) 103666.(ISSN: 2213-3437)
3. Sandeep Kaushal, Harpreet Kaur, Rahul Badru, Susheel Mittal, Pritpal Singh, Novel Horizon: Smart TiO₂/Sn(IV)SbP Nanocompositewith Enhanced Electrochemical and Photocatalytic Properties, *Russian Journal of Inorganic Chemistry*, 65 (2020) 616-625.(**Impact Factor: 0.822**)(ISSN: 0036-0236)
4. Sandeep Kaushal, Rahul Badru*, Harpreet K. Mann, Sanjeev Kumar and Pritpal Singh*, Efficient removal of cationic and anionic dye from their binary mixtures by adsorption over modified zirconium Phosphoborate. *J. Inorg. Organomet. Polym. Mater.* **2018**, 28(3), 968. (**Impact Factor: 1.754**)(ISSN: 1574-1451)
5. Sandeep Kaushal, J. K. Boparai, R. Kaur, Gurvir Singh, Tejwant S. Kang, Rahul Badru, Pritpal Singh, Pushpinder K. Sharma, Purification of Metagenomic DNA Using Novel Nanocomposite Titanium Dioxide-polyaniline Tin (IV) Antimonophosphate, Insights into the Mechanism Underlying Purification Process, *Current Biotechnology*. **2018**, 7(5), 349-354. (ISSN: 2211-551X)
6. Sandeep Kaushal, Rahul Badru, Pritpal Singh, Sanjeev Kumar and Susheel K Mittal, Estimation of Trace Level Cadmium (II) by Polyaniline-zirconium phosphoborate nanocomposite based membrane electrode. *Journal of Analytical Chemistry*. 2019, 74(8), 800-808.(ISSN: 1608-3199)
7. Sandeep Kaushal, Rahul Badru*, Sanjeev Kumar, Pushpender K. Sharma, Susheel K. Mittal and Pritpal Singh*, Electrochemical behavior of a membrane based on zirconium(IV) phosphoborate nanocomposite and its application in dye removal. *RSC Adv.*, **2016**, 6, 111606. (**Impact Factor: 2.936**)(ISSN: 2046-2069)

8. Sandeep Kaushal, Rahul Badru, Sanjeev Kumar, Susheel K. Mittal and Pritpal Singh*, Nanocomposite zirconium phosphoborate ion-exchanger incorporating carbon nanotubes with photocatalytic activity. *Separation Science and Technology*, 51(18), 2016, 2896. (Impact Factor: 1.083)(ISSN: 1520-5754)
9. Sandeep Kaushal, Rahul Badru, Sanjeev Kumar, Susheel K. Mittal and Pritpal Singh*, Fabrication of a mercury(II) ion selective electrode based on poly-*o*-toluidine–zirconium phosphoborate. *RSC Adv.*, 2016, 6, 3150. (Impact Factor: 2.936)(ISSN: 2046-2069)
10. Rahul Badru and Baldev Singh, Synthesis of imidazolidin-2-ones employing dialkyl carbonates as eco-friendly carbonylation source. *RSC Adv.*, 2014, 4, 38978. (Impact Factor: 2.936)(ISSN: 2046-2069)
11. Rahul Badru and Baldev Singh, Triethylamine catalysed synthesis of oxazepine from maleamic acids. *Journal of Heterocyclic Chemistry*, 2015, 52(3), 635. (ISSN: 1943-5193, Impact Factor: 1.141)(ISSN: 1943-5193)
12. Sakshi Shah, Rahul Badru and Baldev Singh, Diastereoselective synthesis of novel Spiro-isoxazolidines via [3+2] cycloaddition. *Synthetic Communications*. 2013, 43, 1073-1082. (ISSN: 1532-2432, Impact Factor: 1.065) (ISSN: 1532-2432)
13. Rahul Badru, PreetAnand and Baldev Singh, Synthesis and evaluation of hexahydropyrrolo[3,4-*d*]isoxazole-4,6-diones as anti-stress agents, *European Journal of Medicinal Chemistry*. 2012, 48, 81-91. (ISSN: 0223-5234, Impact Factor: 4.816) (ISSN: 0223-5234)
14. Rahul Badru, Sakshi Shah and Baldev Singh, 1,3-Dipolar cycloaddition reactions of 2-substitutedazomethine*N*-oxides with *N*-benzyl maleimides leading to the synthesis of stereoisomers. *Journal of Heterocyclic Chemistry*. 2012, 49, 336-341. (ISSN: 1943-5193, Impact Factor: 1.141) (ISSN: 1943-5193)