

## Department of Chemistry

### Publications of the faculty members in the year 2016

#### Prof. A. J. Varma

1. Kumar V, Mathur D, Srivastava S, Malhotra S, Rana N, Singh SK, Singh BK, Prasad AK, **Varma AJ**, Len C, Kuhad RC, Saxena RK, Parmar VS. Biocatalytic synthesis of novel partial esters of a bioactive dihydroxy 4-methylcoumarin by *Rhizopus Oryzae* Lipase. *Molecules* 2016; 21: 1499.
2. Pal S, Joy S, Kumbhar P, Trimuke KD, **Varma AJ**, Padmanabhan S. Pretreatment and Enzymatic Process Modification Strategies to Improve Efficiency of Sugar Production from Sugarcane Bagasse. *3Bitech Journal* 2016; 6 (2):1-14.
3. Pal S, Joy S, Kumbhar P, Trimuke KD, **Varma AJ**, Padmanabhan S. Effect of mixed acid catalysis on pretreatment and enzymatic digestibility of sugarcane bagasse. *Energy and Fuels* 2016; 30 (9):7310–18.
4. Pal S, Joy S, Kumbhar P, Trimuke KD, Gupta R, Kuhad RC, **Varma AJ**, Padmanabhan S. Pilot-scale pretreatments of sugarcane bagasse with steam explosion and mineral acid, organic acid, and mixed acids: synergies, enzymatic hydrolysis efficiencies, and structure-morphology correlations, *Bioconversion and Biorefinery* 2016.

#### Dr. Anurag Kr Sunda

1. Mondal A, **Sunda AP**, Balasubramanian S. Thermal phase behavior and ion hopping in a 1,2,4-triazolium perfluorobutanesulfonate protic organic ionic plastic crystal. *Physical Chemistry Chemical Physics* 2016; 18:2047-53.

#### Dr. Manoj Kumar Gupta

1. O'Reilly K, Gupta MK, Gandhi H, Kumar VP, Eccles KS, Lawrence SE, O'Sullivan TP. Cinchona-catalysed, enantioselective synthesis of peroxy-carboxylic acids, ~~E~~peroxyesters and -peroxyalcohols. *Current Organic Chemistry* 2016; 20 (24):2633-2638.
2. Undeela S, Ravikumar G, Nanubolu JB, Singarapu KK, Menon RS. Facile synthesis of 1-benzoazepine derivatives via gold-catalyzed regioselective cycloisomerization reactions of N-(o-alkynylaryl)-N-vinyl sulfonamides; *Chemical Communications* 2016; 52 (26):4824-27.
3. Joshi PR, Nanubolu JB, Menon RS. Novel oxygenative and dehydrogenative [3+3] benzannulation reactions of  $\alpha$ ,  $\beta$ -unsaturated aldehydes and  $\gamma$ phosphonyl crotonates mediated by air: A regioselective synthesis of 4-hydroxybiaryl-2-carboxylates. *Organic Letters* 2016; 18 (4):752-55.
4. Menon RS, Biju AT, Nair V. Recent advances in N-heterocyclic carbene (NHC)-catalysed benzoin reactions. *Beilstein journal of organic chemistry* 2016; 12 (1):444-61.

5. Thadkapally S, Kunjachan AC, Menon RS. Facile synthesis of 4H-chromene derivatives via base-mediated annulation of ortho-hydroxychalcones and 2-bromoallyl sulfones. *Beilstein journal of organic chemistry* 2016; 12 (1):1621.
6. Kanoo P, Haldar R, Reddy SK, Hazra A, Bonakala S, Matsuda R, Kitagawa S, Balasubramanian S, Maji TK. Crystal dynamics in multi-stimuli responsive entangled metal-organic frameworks. *Chemistry-A European Journal* 2016; 22 (44):15864-73.