Research publications (last three years)

Research papers

1. Banerjee C, Dubey KK and Shukla P (2016) Metabolic Engineering of microalgal based biofuel production: prospects and challenges. Frontiers in Microbiology.http://dx.doi.org/10.3389/fmicb.2016.00432
2. Saif Khan, Arshad Jawed, Kashyap Kumar Dubey , Mohd Wahid, Mahvish Khan, ShafiulHaque (2016) Constrained azeotropic optimization of extraction system components for safe and efficient recovery of desired metabolite (e.g., 3- demethylated colchicine) RSC advances 10.1039/C5RA26608D.
3. P. Kumar and Kashyap Kumar Dubey (2016) Modulation of fatty acid metabolism and tricarboxylic acid cycle to enhance the lipstatin production through medium engineering in *Streptomyces toxytricini*Bioresource Technology doi:10.1016/j.biortech.2016.01.133.
4. Sunil Dhingra, Arora G, Dubey KK (2016) Comparative performance analysis of jatropha, karanja, mahua and polanga based biodiesel engine using hybrid genetic algorithm. Journal of Renewable and Sustainable Energy 8 (1), 013103.
5. Tilak Kumar, Punit Kumar RadhaRathee, Kashyap Kumar Dubey (2016) Screening of some medicinal plant for their antimicrobial activities International J. of Pharmacy and Pharm. Sciences Vol (8) issue 5.
6. A Jawed, KK Dubey, S Khan, M Wahid, MY Areeshi, S Haque (2015) Efficient solvent system for maximizing 3-demethylated colchicine recovery using response surface methodology Process Biochemistry 50 (12), 2307-2313
7. Amandeep Kaur, Kashyap Kumar Dubey, J N Chakrobarty (2015) Enzymatic Functionalisation of wool for shrink resistance J. of Natural Fibres. (In press)
8. Dubey KK et al. (2015) Implication of Industrial Waste for Biomass and Lipid Production in Chlorella minutissima Under Autotrophic, Heterotrophic, and Mixotrophic Grown Conditions.Applied Biochemistry and Biotechnology, 1-15.
9. Punit Kumar and Dubey Kashyap Kumar (2015) Current trends and future prospects of lipstatin: a lipase inhibitor and pro-drug for obesity. RSC Advances, 5, 86954.
10. Dubey Kashyap, AshwaniDhingra and Shelly Rana (2015)Optimisation of process parameters for enhanced biobutanol production from *Sargassumwightii* hydrolysate. International Journal of Energy Technology and Policy 11 (3), 303-311.
11. KK Dubey, Abhishek Narayan, Dhirendra Kumar, Punit Kumar (2014) Carbon nanotubes used for immobilization of diamine oxidase and its optimization. J. of Computational and Theoretical Nanosciences. Vol 11 (8) 1-5.
12. Sunil K Sheoran, Dubey KK, DP Tiwari, BP Singh (2014) Experimentation and optimization of nutrient components for enhanced biomass production of *Aureobasidium pullulans.* International J of Chemical Engg. Res. Vol 6, 1-9. ISSN 0975-6442.
13. Sunil Dhingra, Gian Arora, Dubey KK (2014) Multi-objective optimization of combustion, performance and emission parameters in a jatropha biodiesel engine using Non-dominated sorting genetic algorithm-II. Front. Mech. Eng. 2014, 9(1): 81–94.
14. Sunil Dhingra, Gian Arora, Dubey KK (2014) A polymath approach for the prediction of optimized trans-esterification process variables of polanga biodiesel. J Am Oil ChemSoc (2014) 91:641–653.

15. Sunil Dhingra, Gian Arora, Dubey KK (2014) Validation and enhancement of waste cooking oil based biodiesel production by trans-esterification process via statistical approach. Energy Sources, Part A: Recovery, utilization, and environmental effects. UESO-2013-0733.R2

16. Sunil Dhingra, Gian Arora, Dubey KK (2014) Understanding the interactions and evaluation of process factors for biodiesel production from waste cooking cotton seed oil by design of experiments through statistical approach. Frontier Energy. FIE-2013-0119R1 (Accepted)

17. Rohit K. Singh, Isha Raj, Rajesh Pujari and SamudralaGourinath. Crystal structures and kinetics of Type III 3-phosphoglycerate dehydrogenase reveal catalysis by lysine, FEBS 281 (2014), 5498-5512.

18. Rohit K. Singh, MohitMazumder, Bhumika Sharma and SamudralaGourinath. Structural investigation and inhibitory response of halide on phosphoserine aminotransferase from Trichomonas vaginalis, BiochimicaetBiophysicaActa (BBA)-General Subjects 1860 (2016) 1508–1518, doi:10.1016/j.bbagen.2016.04.013.

19. Pal, S., Joy, S., Kumbhar, P., Trimukhe, KD., Gupta, R., Kuhad, RC., Varma, A., Shankar, S. (2016). 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. Biomass Conversion and Biorefinery . doi: 10.1007/s13399-016-0220-z.

20. Chakraborty, S., Gupta, R., Jain, KK.,Kuhad, RC. (2016) Cost-effective production of cellulose hydrolysing enzymes from Trichoderma sp. RCK65 under SSF and its evaluation in saccharification of cellulosic substrates Bioprocess and Biosystems Engineering

21. Shukla, R., Kumar, M., Chakraborty, S., Gupta R, Kumar S, Sahoo, D.,Kuhad, R.C (2016) Process development for the production of bioethanol from waste algal biomass of Gracilariaverrucosa. Bioresource Technology.

22. Mkhize, T., Mthembu, LD., Gupta, R., Kaur, A., Kuhad, RC., Reddy, P., Deenadayalu N. (2016). Enzymatic Saccharification of Acid/Alkali Pre-treated, Mill-run, and Depithed Sugarcane Bagasse. Bioresources DOI: 10.15376/biores.11.3.6267-628

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24. Sharma, A., Thakur, V.V., Shrivastava, A., Jain, R.K., Mathur, R.M., Gupta, R., Kuhad R.C. (2014). Xylanase and laccase based enzymatic kraft pulp bleaching reduces adsorbable organic halogen (AOX) in bleach effluents: A pilot scale study. Bioresource Technology. http://dx.doi.org/10.1016/j.biortech.2014.06.066

25. Antil, P., Gupta, R., Kuhad, R.C. (2014) Simultaneous saccharification and fermentation of pretreated sugarcane bagasse to ethanol using new thermotolerant yeast. Annals of Microbiology. DOI 10.1007/s13213-014-0875-2

26. Deswal, D., Gupta, R., Nandal, P., Kuhad RC.(2014). Fungal pretreatment improves amenability of lignocellulosic material for its saccharification to sugars. Carbohydrate Polymers 99:264-269

27. Aggarwal S, Rajput YS, Singh G, Sharma R., (2016), Synthesis and characterization of oxytetracycline imprinted magnetic polymer for application in food, Applied Nanoscience : 6, (2): 209–214.

28. Divya MP, Rajput YS, Sharma R., Singh G, (2015), Molecularly imprinted polymer for separation of lactate. Journal of analytical chemistry , 70(10): 1213–1217

29. BhuwalAK, SinghG, AggarwalNK, GoyalV, Yadav A (2014) Poly-β-hydroxybutyrate production and management of cardboard industry effluent by new Bacillus sp. NA10 Bioresources and Bioprocessing, July 2014, 1-9

30. GoyalV, MittalA, BhuwalAK, SinghG, YadavA, AggarwalNK, Parametric optimization of cultural conditions for carboxymethylcellulase production using pretreated rice straw by Bacillus sp. 313SI under stationary and shaking conditions, Biotechnology research international 2014.

31. Goyal M., Kumar P. and Dhillon S. (2015). Molecular marker analysis reveals genetic diversity among wheat (*Triticum aestivum* L. em. Thell) genotypes varying for thermo-tolerance. *Vegetos, 28 (4)*: 54-61.

32. Goyal M., Gautam R., Kumar P. and Dhillon S. (2015). Application of inter simple sequence repeat markers to analyze molecular relationships in wheat (Triticum aestivum L. em. Thell). *Agric. Sci. Digest., 35 (3)*: 195-198.

33. Kumar Pardeep, Goyal M., Boora K.S. and Dhillon S. Molecular characterization and identification of unique alleles for thermo-tolerance in wheat varieties. *Romanian Biotechnological Letters* (Accepted, Nov. 2016)

Chapter published in Books:

1. Dhirendra Kumar, Kashyap Kumar Dubey (2016) Betulin biotransformation towards its antitumor activities: A brief overview. Book Chapter published in an Edited book "Microbial Biotechnology: An Interdisciplinary Approach" edited by Prof. P. Shukla. (accepted)

2. Chakraborty, S., Gupta, R., Jain, K.K., Hemansi, Gautam, S. and Kuhad RC. (2016). Cellulases: Application in Wine and Brewery Industry. In: New and Future Developments in Microbial Biotechnology and Bioengineering. (Editor) Gupta VK. Elsevier, USA. http://dx.doi.org/10.1016/B978-0-444-63507-5.00017-4.