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List of Publications

1. Raj, K. and Krishnan, C., 2020. Improved co-production of ethanol and xylitol from low-temperature aqueous ammonia pretreated sugarcane bagasse using two-stage high solids enzymatic hydrolysis and Candida tropicalis. *Renewable Energy*, *153*, pp.392-403.
2. Suriyaraj, S.P., Ramadoss, G., Chandraraj, K. and Selvakumar, R., 2019. One pot facile green synthesis of crystalline bio-ZrO2 nanoparticles using Acinetobacter sp. KCSI1 under room temperature. *Materials Science and Engineering: C*, *105*, p.110021.
3. Raj, K. and Krishnan, C., 2019. Improved high solid loading enzymatic hydrolysis of low-temperature aqueous ammonia soaked sugarcane bagasse using laccase-mediator system and high concentration ethanol production. *Industrial Crops and Products*, *131*, pp.32-40.
4. Rajagopalan, G. and Krishnan, C., 2019. Functional Oligosaccharides: Production and Action. In *Next Generation Biomanufacturing Technologies* (pp. 155-180). American Chemical Society.
5. Kanak Raj and Chandraraj, K. (2018) High sugar yields from sugarcane (*Saccharum officinarum*) bagasse using low-temperature aqueous ammonia pretreatment and laccase-mediator assisted enzymatic hydrolysis. *Industrial Crops and Products*. 111: 673–683.
6. Swain MR, Natarajan V, Krishnan C. (2017) Marine Enzymes and Microorganisms for Bioethanol Production. *Advances in Food and Nutrition Research.* 80: 181-197.
7. Reddy SS, Chandraraj, K. (2016) Production of xylooligosaccharides in SSF by *Bacillus subtilis* KCX006 producing β-xylosidase-free endo-xylanase and multiple xylan debranching enzymes. *Preparative Biochemistry and Biotechnology*. 46: 49-55.
8. Sarangi A, Chandraraj, K. (2016) Detoxification of hexavalent chromium by Leucobacter sp. uses a reductase with specificity for dihydrolipoamide. *Journal of Basic Microbiology.* 56: 175-183.
9. Reddy SS, Chandraraj, K. (2016) Production of high-pure xylooligosaccharides from sugarcane bagasse using crude b-xylosidase-free xylanase of *Bacillus subtilis* KCX006 and their bifidogenic function. *LWT – Food Science Technology.* 65: 237-245.
10. Swain MR, Chandraraj, K. (2015) Improved conversion of rice straw to ethanol and xylitol by combination of moderate temperature ammonia pretreatment and sequential fermentation using *Candida tropicalis*. *Industrial Crops and Products.* 77: 1039-1046.
11. Shyam S. Reddy and Chandraraj, K. (2013) Characterization of enzyme released antioxidant phenolic acids and xylooligosaccharides from different graminaceae or poaceae members. *Food Biotechnology*, 27:357–370.
12. Elangovan & Ligy Philip and Chandraraj, K. (2010) Hexavalent Chromium Reduction by Free and Immobilized Cell-free Extract of Arthrobacter rhombi-RE. *Applied Biochemistry and Biotechnology*. 160: 81–97.
13. Gobinath, R., and Chandraraj, K. (2010) Hyper-production of alpha-amylase from agro-residual medium with high-glucose in SSF using catabolite derepressed Bacillus subtilis KCC103. *Journal of Basic Microbiology*. 50: 336-343.

14. Shao Q, Chundawat SP, Krishnan C, Bals B, Sousa Lda C, Thelen KD, Dale BE, Balan V. (2010) Enzymatic digestibility and ethanol fermentability of AFEX-treated starch-rich lignocellulosics such as corn silage and whole corn plant. *Biotechnology Biofuels.* 9:3-12.
15. Krishnan C, Sousa Lda C, Jin M, Chang L, Dale BE, Balan V. (2010) Alkali-based AFEX pretreatment for the conversion of sugarcane bagasse and cane leaf residues to ethanol. *Biotechnology and Bioengineering.* 107:441-450, 2010.
16. Gao D, Chundawat SP, Krishnan C, Balan V, Dale BE. (2010) Mixture optimization of six core glycosyl hydrolases for maximizing saccharification of ammonia fiber expansion (AFEX) pretreated corn stover. *Bioresource Technology.* 101:2770-2781.
17. Nagarajan DR, Krishnan C. (2010) Use of a new catabolite repression resistant promoter isolated from Bacillus subtilis KCC103 for hyper-production of recombinant enzymes. *Protein Expression and Purification.* 70:122-128.
18. Gobinath, R., and Chandraraj, K. (2009-Apr) Optimization of agro-residual medium for α-amylase production from a hyper-producing Bacillus subtilis KCC103 in submerged fermentation. Journal of Chemical Technology and Biotechnology, 84, 618-625
19. Gobinath, R., and Chandraraj, K. (2008-Oct) Immobilization of malto-oligosaccharide forming α-amylase from Bacillus subtilis KCC103: properties and application in starch hydrolysis. Journal of Chemical Technology and Biotechnology, 83, 1511-1517
20. Gobinath, R., and Chandraraj, K. (2008-May) Optimization of medium and process parameters for a constitutive α-amylase production from a catabolite derepressed Bacillus subtilis KCC103. Journal of Chemical Technology and Biotechnology, 83,654-61.
21. Abhipsa S. and Chandraraj, K. (2008-Jul) Comparison of in vitro Cr(VI) reduction by CFEs of chromate resistant bacteria isolated from chromate contaminated soil. Bioresource Technology, 99, 4130-4137.
22. Gobinath Rajagopalan, Chandraraj Krishnan (2008-May) a-Amylase production from catabolite derepressed Bacillus subtilis KCC103 utilizing sugarcane bagasse hydrolysate. Bioresource Technology, 99,3044-3050.
23. Elangovan, R., Ligy Philip, K. Chandraraj, (2008-Jul) Biosorption of hexavalent and trivalent chromium by palm flower (Borassus aethiopum). Chemical Engineering Journal, 141, 99-111.
24. Senthilkumar, S.R., Dempsey, M., Chandraraj, K. , Gunasekaran, P. (2008-Nov) Optimization of biobleaching of paper pulp in an expanded bed bioreactor with immobilized alkali stable xylanase by using response surface methodology. Bioresource Technology, 99, 7781-7787.
25. Elangovan, R., Ligy Philip, K. Chandraraj (2008-Mar) Biosorption of chromium species by aquatic weeds: Kinetics and mechanism studies. Journal of Hazardous Materials, 152, 100-112.
26. S. Gokulakrishnan, K. Chandraraj, Sathyanarayana N. Gummadi (2007) A preliminary study of caffeine degradation by Pseudomonas sp. GSC 1182. International Journal of Food Microbiology 113, 346–350.
27. Dillirani N, AKR Gopinath, K. Chandraraj (2006) Purification and characterization of a maltooligosaccharide-forming a-amylase from a new Bacillus subtilis KCC103. Applied Microbiology and Biotechnology, 73,591-597.
28. Elangovan R, S. Abipsha, B. Rohit, P. Ligy, K. Chandraraj (2006) Reduction of Cr(VI) by a Bacillus sp. RE. Biotechnology Letters, 28:247-252.