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## **Research Paper Published**

### **2013**

Removing antinutrients from rapeseed press-cake and their benevolent role in waste cooking oil-derived biodiesel: conjoining the valorization of two disparate industrial wastes. M Das Purkayastha, S Das, **AK Manhar**, D Deka, M Mandal, CL Mahanta. Journal of agricultural and food chemistry 61 (45), 10746-10756.

### **2014**

Biocompatible carboxymethylcellulose-g-poly(acrylic acid)/OMMT nanocomposite hydrogel for in vitro release of vitamin B 12. M Boruah, P Gogoi, **AK Manhar**, M Khannam, M Mandal, SK Dolui. RSC advances 4 (83), 43865-43873.

Antioxidative, hemocompatible, fluorescent carbon nanodots from an “End-of-Pipe” agricultural waste: exploring its new horizon in the food-packaging domain. M Das Purkayastha, **AK Manhar**, VK Das, A Borah, M Mandal, AJ Thakur, CL Mahanta. Journal of agricultural and food chemistry 62 (20), 4509-4520.

Green silver nanoparticles: enhanced antimicrobial and antibiofilm activity with effects on DNA replication and cell cytotoxicity. K Gupta, S Barua, SN Hazarika, **AK Manhar**, D Nath, N Karak, ND Namsa, R Mukhopadhyay, VC Kalia, M Mandal. RSC Advances 4 (95), 52845-52855

Preparation and characterization of zinc oxide and nanoclay reinforced crosslinked starch/jute green nanocomposites. M Iman, **AK Manhar**, M Mandal, TK Maji. RSC Advances 4 (64), 33826-33839

Industrial waste-derived nanoparticles and microspheres can be potent antimicrobial and functional ingredients M Das Purkayastha, **AK Manhar**, M Mandal, CL Mahanta. Journal of Applied Chemistry 2014.

### **2015**

Cloning and extracellular expression of a raw starch digesting  $\alpha$ -amylase (Blamy-I) and its application in bioethanol production from a non-conventional source of starch. JK

Roy, **AK Manhar**, D Nath, M Mandal, AK Mukherjee. Journal of basic microbiology 55 (11), 1287-1298.

Evaluation of antioxidant and antibacterial activity of various aspect ratio gold (Au) nanorods. S Sharma, **AK Manhar**, PJ Bora, SK Dolui, M Mandal. Adv Mater Lett 6, 235-241.

In vitro evaluation of cellulolytic *Bacillus amyloliquefaciens* AMS1 isolated from traditional fermented soybean (Churpi) as an animal probiotic. **AK Manhar**, D Saikia, Y Bashir, RK Mech, D Nath, BK Konwar, M Mandal. Research in veterinary science 99, 149-156.

Phytosynthesized iron nanoparticles: effects on fermentative hydrogen production by *Enterobacter cloacae* DH-89. D Nath, **AK Manhar**, K Gupta, D Saikia, SK Das, M Mandal. Bulletin of Materials Science 38 (6), 1533-1538

## **2016**

Cellulolytic potential of probiotic *Bacillus Subtilis* AMS6 isolated from traditional fermented soybean (Churpi): An in-vitro study with regards to application as an animal feed. **AK Manhar**, Y Bashir, D Saikia, D Nath, K Gupta, BK Konwar, R Kumar, ND Namsa, M Mandal. Microbiological research 186, 62-70.

Effect of maleylation on physicochemical and functional properties of rapeseed protein isolate. MD Purkayastha, AK Borah, S Saha, **AK Manhar**, M Mandal, CL Mahanta. Journal of food science and technology 53 (4), 1784-1797.

Assessment of goat milk-derived potential probiotic *L. lactis* AMD17 and its application for preparation of dahi using honey. **AK Manhar**, D Saikia, A Borah, AS Das, K Gupta, R Roy, CL Mahanta, R Mukhopadhyay, M Mandal. Annals of Microbiology 66 (3), 1217-1228

### **BOOK CHAPTER**

Nanotechnological applications in food packaging, sensors and bioactive delivery systems. MD Purkayastha, **AK Manhar**. Nanoscience in Food and Agriculture 2, 59-128.

## **2018**

Hypocholesterolemic activity of indigenous probiotic isolate *Saccharomyces cerevisiae* ARDMC1 in a rat model. D Saikia, **AK Manhar**, B Deka, R Roy, K Gupta, ND Namsa, P Chattopadhyay, R Doley, M Mandal. Journal of food and drug analysis 26 (1), 154-162

## **2019**

Inhibition of Staphylococcus aureus and Pseudomonas aeruginosa Biofilm and Virulence by Active Fraction of Syzygium cumini (L.) Skeels Leaf Extract: In-Vitro K Gupta, SP Singh, **AK Manhar**, D Saikia, ND Namsa, BK Konwar, M Mandal. Indian journal of microbiology 59 (1), 13-21.

## **2020**

### **BOOK CHAPTER**

Dark Fermentative Hydrogen Production from Lignocellulosic Agro-waste by a Newly Isolated Bacteria Staphylococcus Epidermidis B-6. P Mazumder, D Nath, **AK Manhar**, K Gupta, D Saikia, M Mandal. Resilience, Response, and Risk in Water Systems, 381-395.