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A. Publications list (Title of paper, authors, Journal details, pages, year etc.)

1) " The Non-inducible Nature of Super-Repressors of the gal-operon in Escherchia Coli"

Yan-Ning Zhou, **Sumana Chatterjee**, Siddhartha Roy & Sankar Adhya.

J.Mol. Biol (1995) **253**,414-425

2) "Interaction of Gal repressor with inducer and operators; Induction of gal transcription from repressor bound DNA."

Sumana Chatterjee, Yan Ning Zhou, Siddhartha Roy & Sankar Adhya.

Proc.Natl.Acad.Sci (U.S.A) (1997) 94, 2957-2962

3) “ Ligand Specificity and Ligand induced conformational change in Gal Repressors.”

Sumana Chatterjee Amlan Joyti Dhar, Kajari Ghosh & Siddhartha Roy.

Protein : Structure Function and Genetics(2002) 49, 554-559

4) “Biophysical Characterization of Protease Induced Enzymatic Degradation of Poly--3-hydroxy butyric Acid”

Sumana Chatterjee

Res.J.Chem.Environ.(2005) 9,(2)20-25(chemenviron.org)

5) “ Isolation and Identification of poly beta hydroxybutyric acid accumulating bacteria of staphylococcal Sp. And characterization of biodegradable polyester” Bappaditya Roy, Rajat Banerjee & Sumana Chatterjee .Ind. J. Expt. Biol (2009) 47, 250-256

6) Enzyme mediated biodegradation of heat treated commercial polyethylene by *Staphylococcal* species Chatterjee S, Roy B, Roy D, Banerjee R (2010). *Polyr Degrad stab.* 95:195-200.

7. Poly- β -hydroxybutyrate (Bio-plastic) production utilizing Waste

Effluent of a Sugar Industry., Sarkar K, Roy B, Banerjee R, Saha S, Roy S, Chatterjee S,(2014) IOSR-JESTFT, Vol 8, version 1,10-14

8. Characterization of a *Staphylococcus haemolyticus* Strain Isolated from Agroindustrial Waste Effluent and Susceptibility of its Biofilm on Polyethylene to Antibiotics . Keka Sarkar, Rajat Banerjee, Sumana Chatterjee. (2015) International Journal of Biochemistry and Biomolecules Vol. 1: Issue 1,27-36

.9. "Heat –treated polyethylene degradation in presence of extracellular enzymes of *Staphylococcus epidermidis*" Roy B, Sarkar K, Banerjee R, Chatterjee S(2018) International Journal of Molecular Biotechnology, Vol 4:Issue 1,10-22

10.Role of sugars in formation and maintenance of biofilm of Coagulase negative staphylococcal strain(CoNs) strain" ,Sarkar K, Mandal P, Banerjee R, Chatterjee S(2019) International Journal of Chemical and Environmental Sciences, Vol 1:Issue 1,10-22

3. Title of project: Indigenous generation of natural, biodegradable and renewable plastics for industrial purpose".

Name of the granting Agency: DST under Green Chemistry programme.

Sanction No: SR/S5/GC-12/2009 dated 05.01.2010

Amount of grant: Rs 30,68,000/-

Date of Completion: March 2013

Status: Completed

Scientific results obtained

- Produced bioplastic characterized in detail.
- Bioplastic production made cost effective by using industrial waste.
- Enzymatic degradation of conventional plastics studied.

3) Doctoral Thesis produced from the projects : “Studies on a polyhydroxyalkanoate producing strain of *Staphylococcal* species”.

Ph.D awarded to research fellow Mr Bappaditya Roy from Calcutta University (currently doing his post doctoral research in USA)

4) Currently Keka Sarkar is pursuing her doctoral research under the mentorship of Sumana Chatterjee and is registered in Calcutta University. Topic of research Studies on two species of Coagulase Negative Staphylococci in relation to their

8. association with polymers of different origin. Thesis submitted on 21/11/2017. Any other information.

Paper had been accepted for oral presentation at the Annual Meeting of Biodegradable polymers and environment, which took place at Monterrey, Mexico 5-10th December 2004. However could not attend the same due to non timely release of traveling funds from UGC.

#“ Paper presented in National Seminar on Strategies for Environment Quality Management in Urban Area” organized by Department of Zoology, Sri Agrasen Kanya Autonomous P.G. College, Varanasi (U.P) 28th October 2004.

Paper presented for poster presentation at 21st International Congress for Molecular Resonance in Biological Systems” at Hyderabad on 16th-21st January 2005

Paper presented in (Basanti Devi Faculty Series Lectures) 30th March 2005

Paper presented in Bose Institute (Special Seminar) 26th May 2005

Paper presented in CECRI (Karaikudi)Tamil Nadu in the GMW of DST Fast Track project 9/12/2008

Papers published in **Conference Proceedings**, Popular Journals etc.

No 1. (Second International Conference on natural polymers, ICNP-2010, held in Kottayam, Kerala , India)” September 2010, **BIODEGRADATION OF HEAT TREATED COMMERCIAL POLYETHYLENE BY STAPHYLOCOCCAL SPECIES”**

No 2. **BIODEGRADATION OF HEAT TREATED COMMERCIAL POLYETHYLENE BY EXTRACELLULAR ENZYMES OF Staphylococcus epidermis SPECIES BP/SU1 paper published in (IBBS-15) held in Vienna , Austria on 19th to 24th September 2011**

No.3. **Paper presented at DHWU on 7th January 2020 on Colonization and degradation of plastic packaging surfaces by staphylococci**

7. Professional recognition, awards, fellowships received:

CSIR-NET in Physical Sciences 1992

Support for participation at International Symposium of IUBMB, as **Young Scientist** (1994)

Figure Featured in the Cover Page of J.Mol.Biol

1) **’The Non-inducible Nature of Super-Repressors of the gal-operon in Escherchia Coli”**

.Yan-Ning Zhou, **Sumana Chatterjee**, Siddhartha Ray & Sankar Adhya.

J.Mol. Biol(1995) **253**,414-425

Life Member of **Nuclear Magnetic Resonance Society**

