



Dr. Sanjukta Bose Goswami

Assistant Professor, Chemical Engineering, SOT

Education Qualification:

Phd (Polymer and Nanotechnology), Technical University of Denmark, Denmark

M.Tech (Polymer Science and Technology), IIT-Delhi, Delhi

B.Tech (Polymer Science and Technology), University of Calcutta, Kolkata

B.Sc (Chemistry), St. Xavier's College, Kolkata

Research Interest:

Polymer processing and characterizations, structure-property relationships, application of polymers in drug delivery

Publications:

1. Tentor, F., Siccardi, G., Sacco, P., Demarchi, D., Marsich, E., Almdal, K., **Bose Goswami, S.**, Boisen, A. (2020) Long lasting mucoadhesive membrane based on alginate and chitosan for intravaginal drug delivery, Journal of Materials Science: Materials in Medicine, 31, 25
2. Nguyen, L.Q., Larsen, P.E., Larsen, T., **Bose Goswami, S.**, Villanueva, L.G., Boisen, A., Keller, S. S., (2019) Pyrolytic carbon resonators for micromechanical thermal analysis. Microsystems and Nanoengineering 5, 58
3. Samaeifara, F., Ceccaccia, A.C., **Bose Goswami, S.**, Nielsen, L.H., Afifi, A., Zóra, K., Boisen, A. (2019) Evaluation of the solid state form of tadalafil in sub-micron thin films using nanomechanical infrared spectroscopy International Journal of Pharmaceutics 565 227–232
4. Marcati A. Alves, G., **Bose Goswami, S.**, Mansanoa, R.D., Boisen, A. (2018) Temperature Modulated Nanomechanical Thermal Analysis IEEE Sensors Journal 18 4001-4007
5. Marcati A. Alves, G., **Bose Goswami, S.**, Mansanoa, R.D., Boisen, A. (2018) Using microcantilever sensors to measure poly (lactic-co-glycolic acid) plasticization by moisture uptake. Polymer Testing 65 407–413
6. Ceccaccia, A., Chen, C., Hwu, E., Morelli, L., **Bose, S.**, Bosco, F., Schmid, S., Boisen, A. (2017) Blu-Ray-based micromechanical characterization platform for biopolymer degradation assessment Sensors and Actuators. B 241, 1303–1309

7. **Bose, S.**, Schmid, S., Larsen, T., Keller, S. S., Boisen, A., Almdal, K. (2015) Micromechanical fast quasi-static detection of α and β relaxations with nanograms of polymer. Journal of Polymer Science Part B: Polymer Physics, 53, 1035–1039
8. **Bose, S.**, Keller, S. S., Boisen, A., Almdal, K. (2015) Microcantilever Sensors for Fast Analysis of Enzymatic Degradation of Poly (D, L-lactide). Polymer Degradation and Stability 119, 1-8
9. **Bose, S.**, Schmid, S., Larsen, T., Keller, S. S., Sommer-Larsen, P., Boisen, A., Almdal, K. (2013) Micromechanical string resonators: analytical tool for thermal characterization of polymers. ACS Macro Letters, 3(1), 55-58
10. **Bose, S.**, Keller, S. S., Alstrøm, T. S., Boisen, A., Almdal, K. (2013) Process optimization of ultrasonic spray coating of polymer films. Langmuir, 29(23), 6911-6919
11. Nandi, S., **Bose, S.**, Mitra, S., Ghosh, A. K. (2013). Dynamic rheology and morphology of HDPE-fumed silica composites: Effect of interface modification. Polymer Engineering & Science, 53(3), 644-650
12. Nandi, S., **Bose, S.**, Mitra, S., Ghosh, A. K. (2012) Effect of maleic anhydride grafted polyethylene on engineering properties and morphology of fumed silica filled polyethylene blown films. Journal of Plastic Film and Sheeting, 28(3), 207-227

Industry Experience:

Internship for Master thesis in SABIC Innovative Plastics, Bangalore (formerly part of GE Global Research)

Courses Taught:

Mass Transfer Operations, Chemical Reaction Engineering, Chemical Process Safety

Conference & Seminar:

1. European Polymer Federation Congress, Pisa, Italy
2. 10th International Workshop on Nanomechanical Sensing, Stanford University, California, USA.
3. 11th International Workshop on Nanomechanical Sensing, Madrid, Spain.
4. 38th International Conference on Micro and Nano Engineering, Toulouse, France

Awards & Honors:

1. Received from IIT Delhi in 2011 "**Buti Foundation Bodhraj Gold Medal**" for being Best Women Student (securing the highest CGPA 9.95/10 among the Graduating students in M.Sc., M.Tech, and M.Des. Programs)
2. All India Rank 37 out of 1107 students in Graduate Aptitude Test in Engineering (GATE) examination (2009). Received Ministry of Human Resource Development (MHRD), Government of India Scholarship

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