

Allantoin-loaded porous silica nanoparticles / polycaprolacton nanofiber composites: fabrication, characterization and drug release properties

Ma Ke^a, Jatoi Abdul Wahab^{a,b}, Bang Hyunsik^a, Kyung-Hun Song^c, Jung Soon Lee^d, Mayakrishnan Gopiraman^{a,*}, Ick Soo Kim^{a,*}

^a*Nano Fusion Technology Research Group, Department of Bioscience and Technology, Interdisciplinary Graduate School of Science and Technology, Shinshu University, Tokida, Ueda, Nagano Prefecture, 386-8567, Japan. E-mail addresses: kim@shinshu-u.ac.jp (I.S. Kim) and gopiramannitt@gmail.com (M. Gopiraman).*

^b*Nanomaterials Research Lab., Department of Textile Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan*

^c*Department of Clothing & Textiles, PaiChai University, Daejeon 302-735, South Korea*

^d*Department of Clothing and Textiles, Chungnam National University, Daejeon 305-764, South Korea*

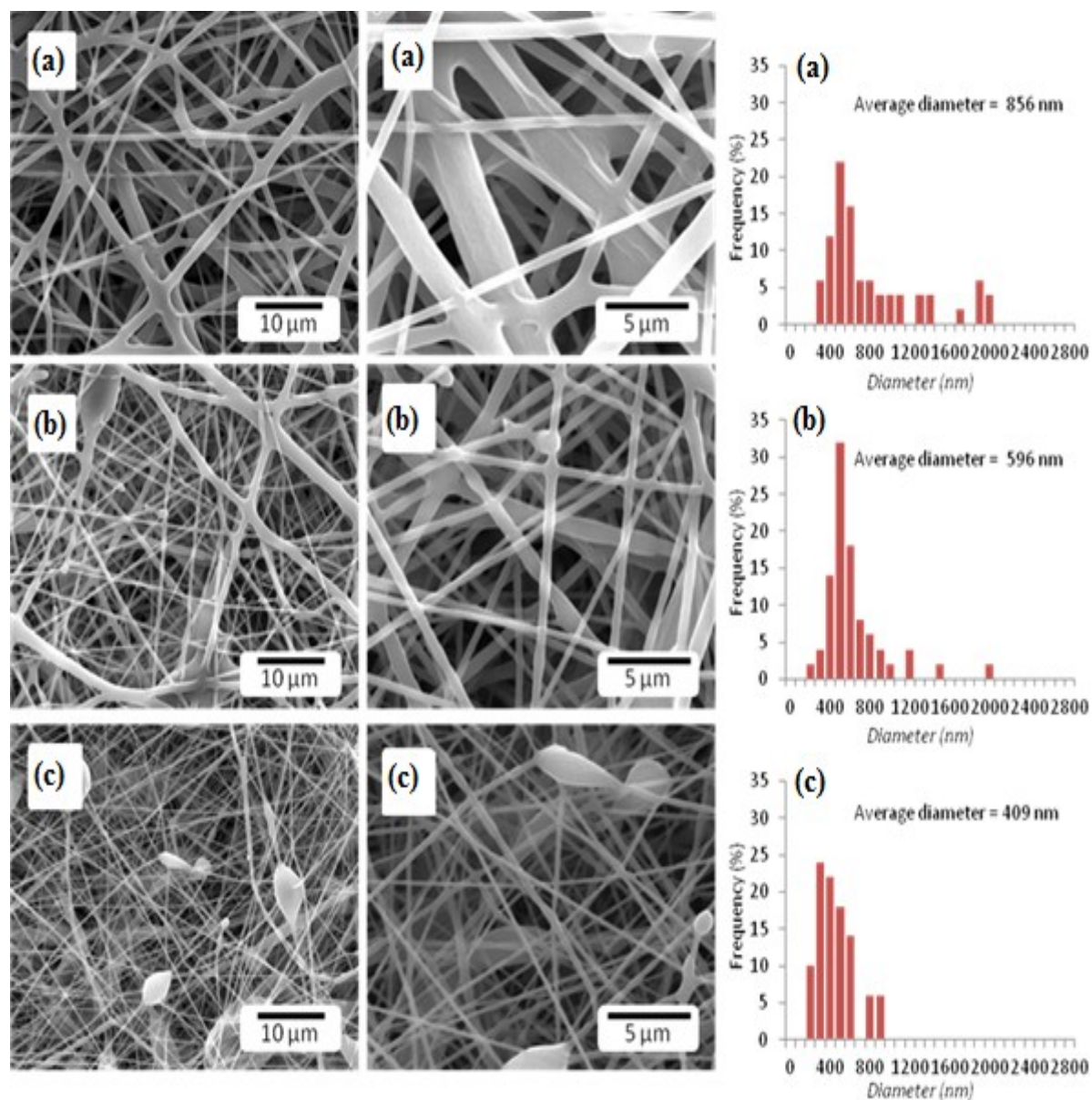


Fig. S1 SEM images and diameter distribution for 8 wt% PCL **(a)** DCM: DMF = 8:2 **(b)** DCM: DMF = 6:4 **(c)** DCM: DMF = 4:6

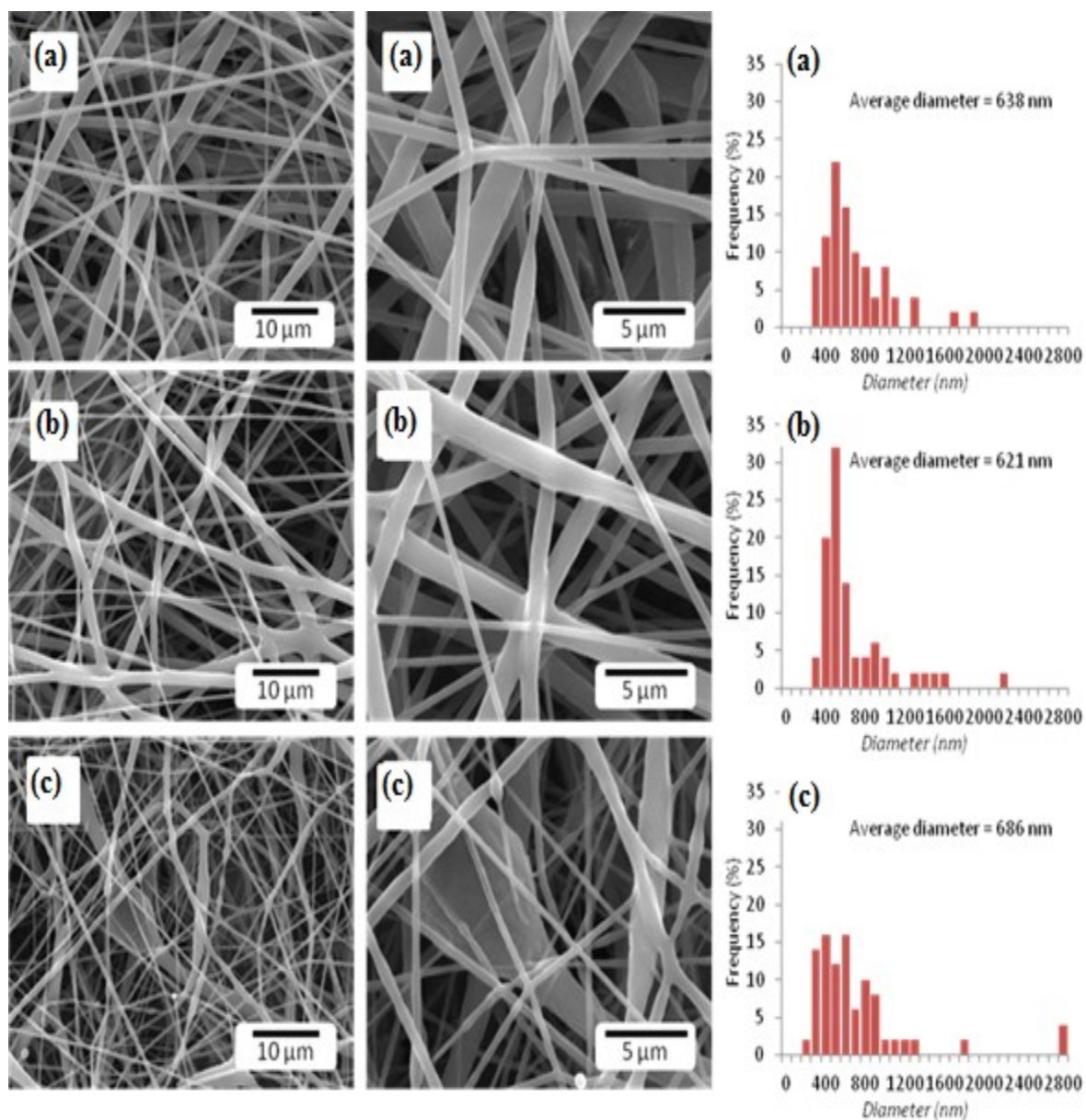


Fig.S2 SEM images and diameter distribution for 10 wt% PCL **(a)** DCM: DMF = 8:2
(b) DCM: DMF = 6:4 **(c)** DCM: DMF = 4:6

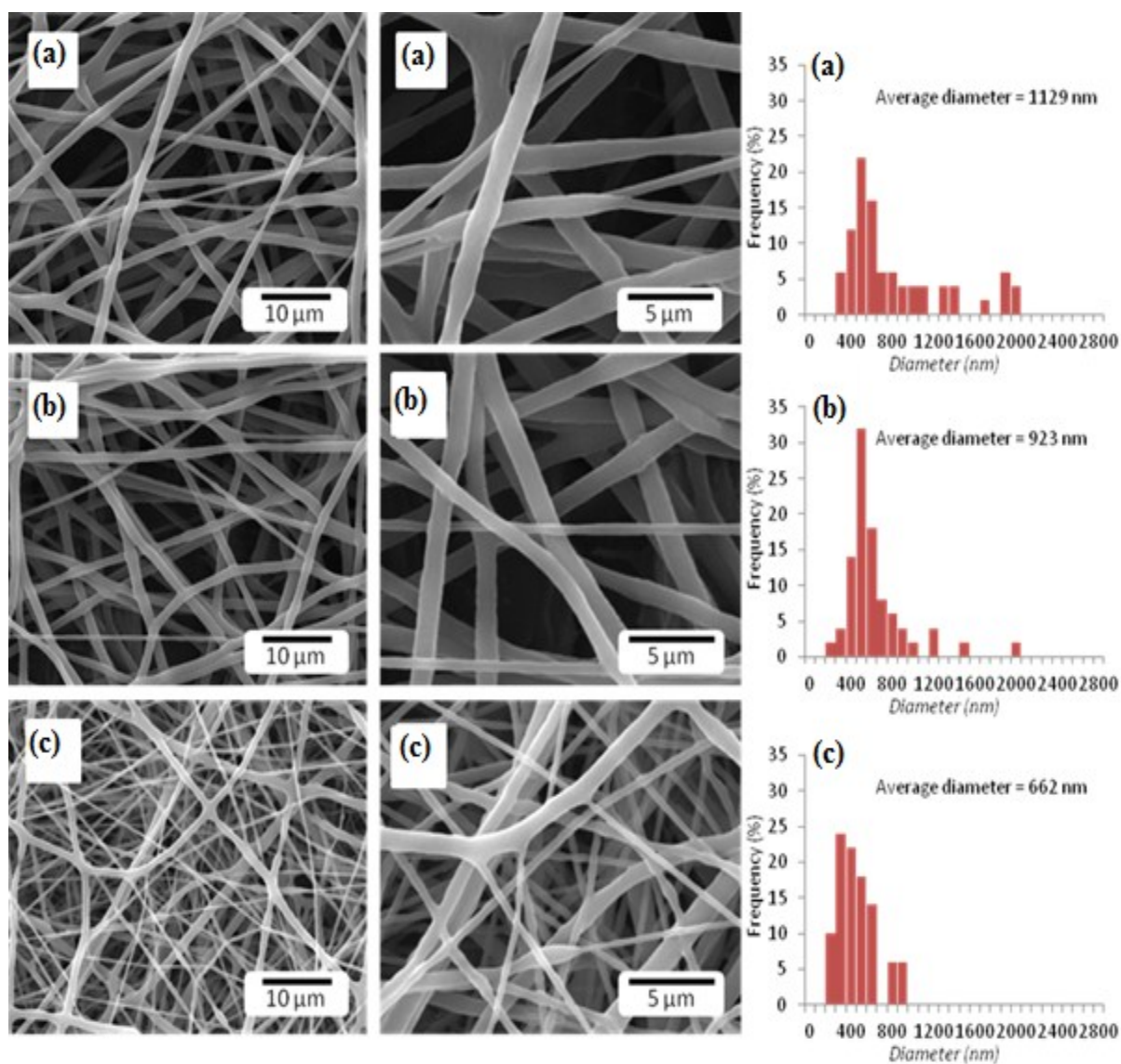


Fig. S3 SEM images and diameter distribution for 12 wt% PCL (a) DCM: DMF = 8:2
 (b) DCM: DMF = 6:4 (c) DCM: DMF = 4:6



Fig. S4 Physical appearance of (a) rice husks (b) purified silica particles

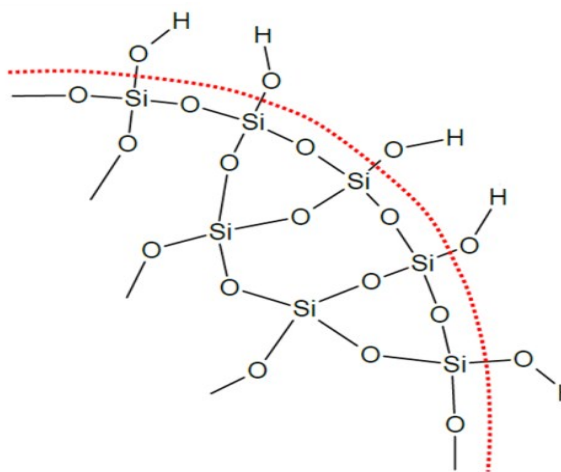


Fig. S5 Molecular structure of porous silica