

Electronic Supplementary Information for the article **“Synthesis and characterization of flexible epoxy nanocomposites reinforced with amine functionalized alumina nanoparticles: A potential encapsulant for organic devices”** by Satyajit Gupta, Praveen C Ramamurthy* and Giridhar Madras

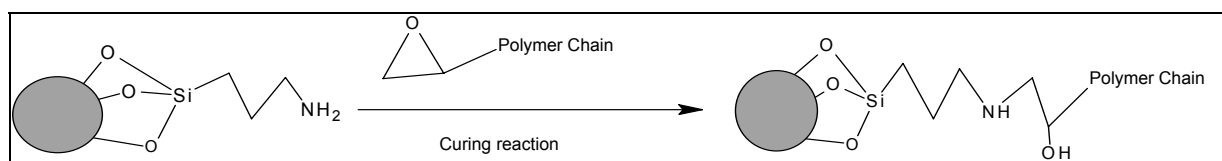


Fig. S1 Schematic of curing reaction (strained epoxy ring opening by nucleophilic attack of amine) at the nanoparticles surface

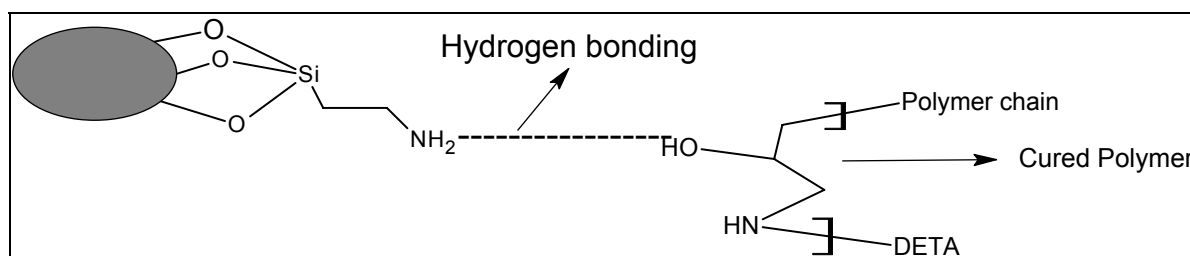


Fig. S2 Schematic of interfacial H-bonding between free amine hydrogens at the surface and oxygen atom of the -OH group of the cured polymer.

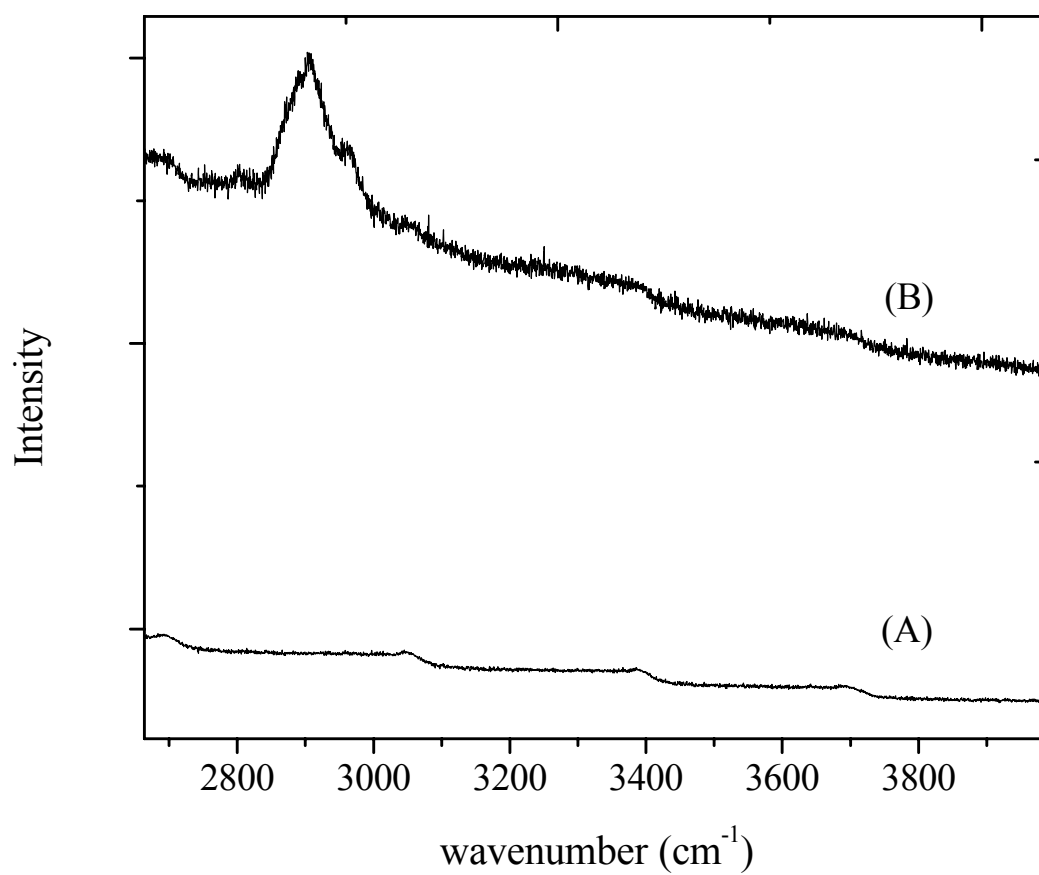


Fig. S3 Raman spectra of neat alumina before (A) and after (B) functionalization.

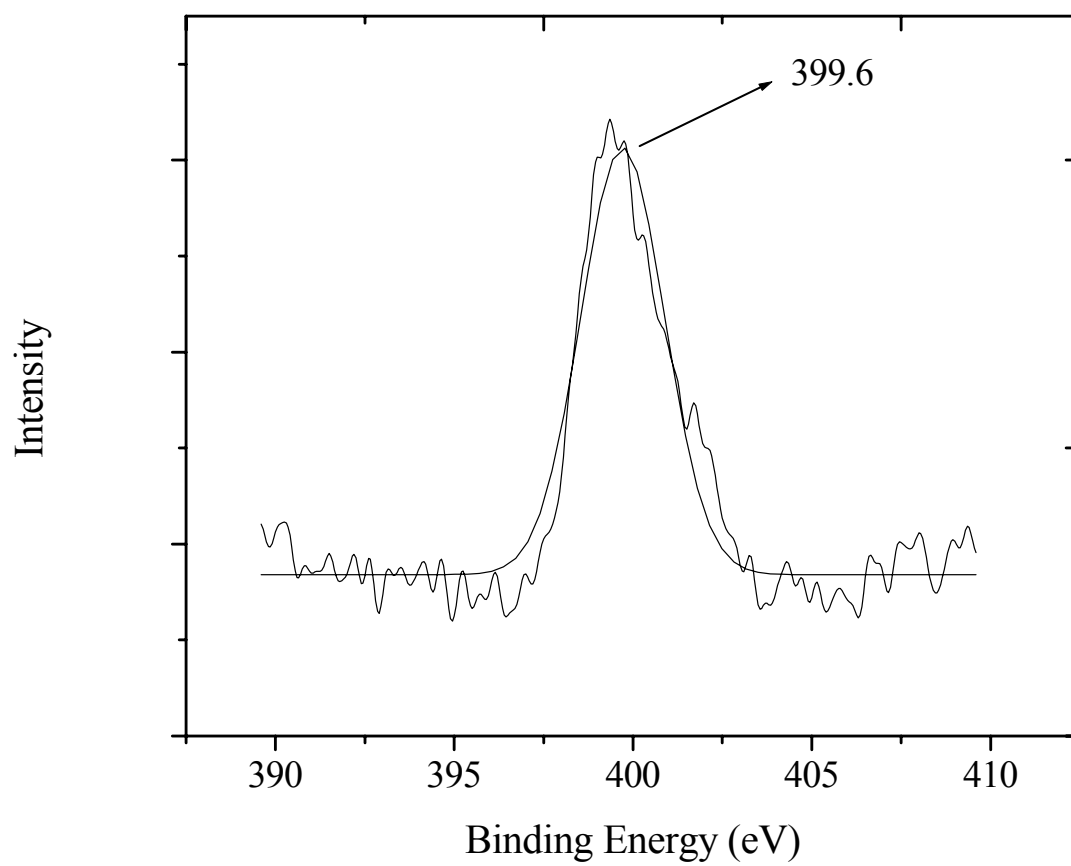


Fig. S4 XPS spectra of Nitrogen (N1s)

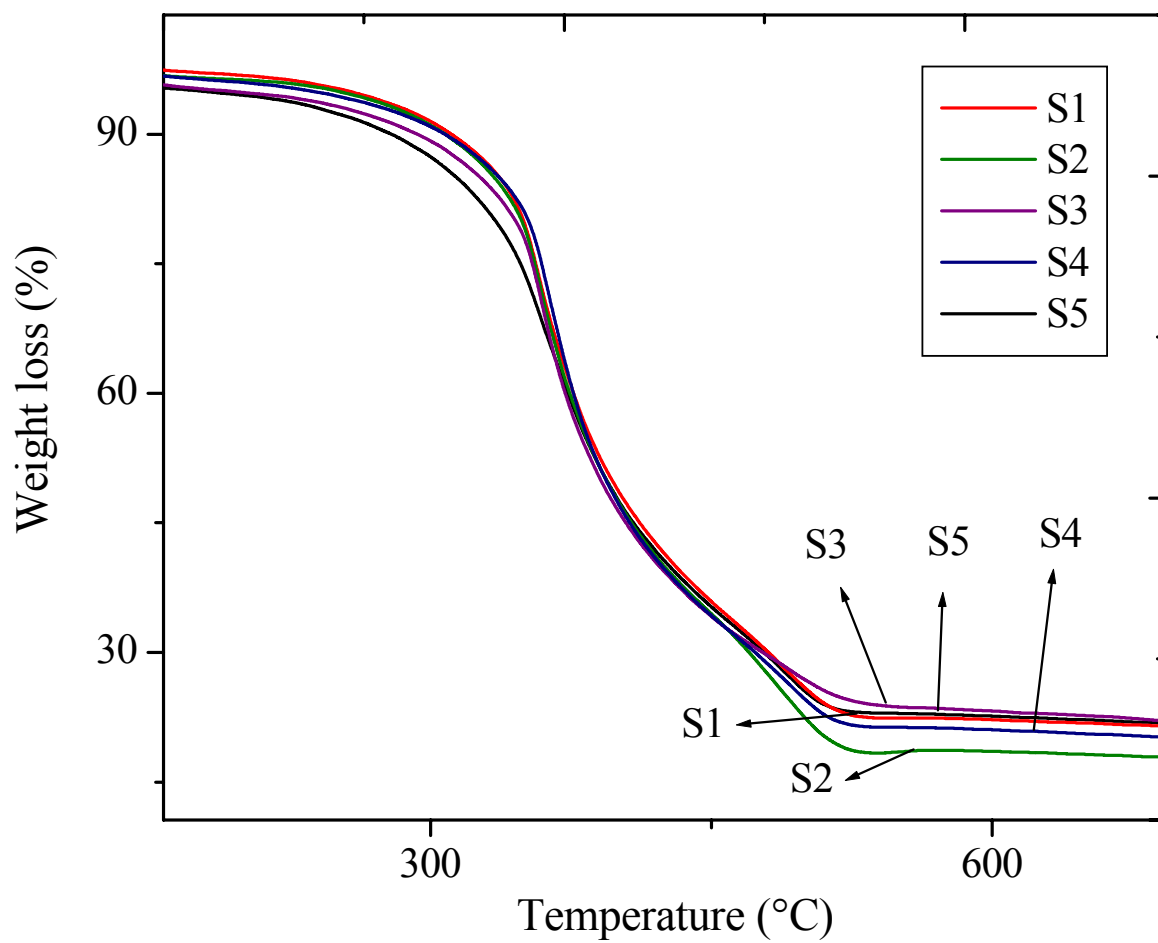


Fig. S5 Thermogravimetric analysis of five different composites

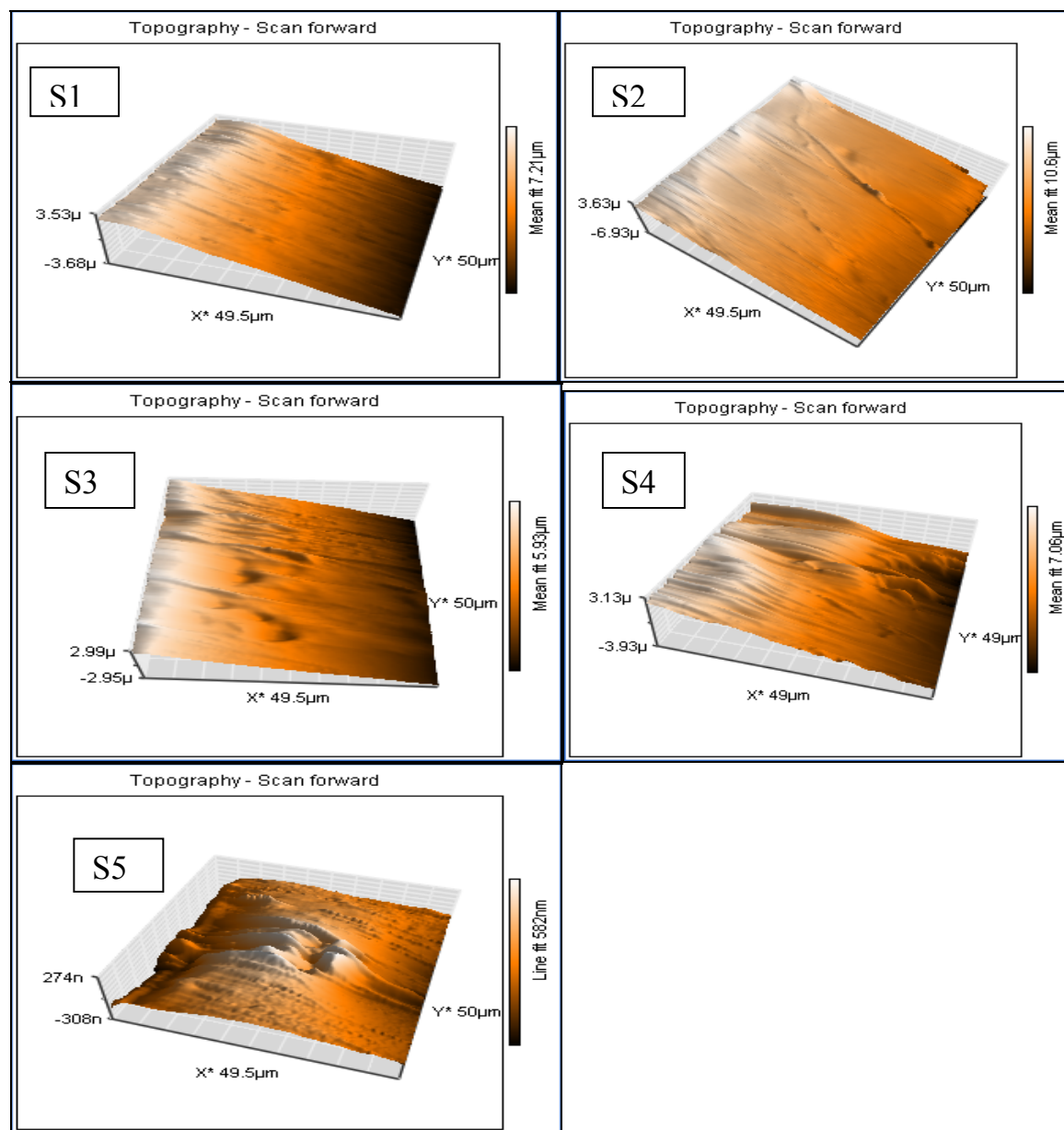


Fig. S6 AFM images of different composites

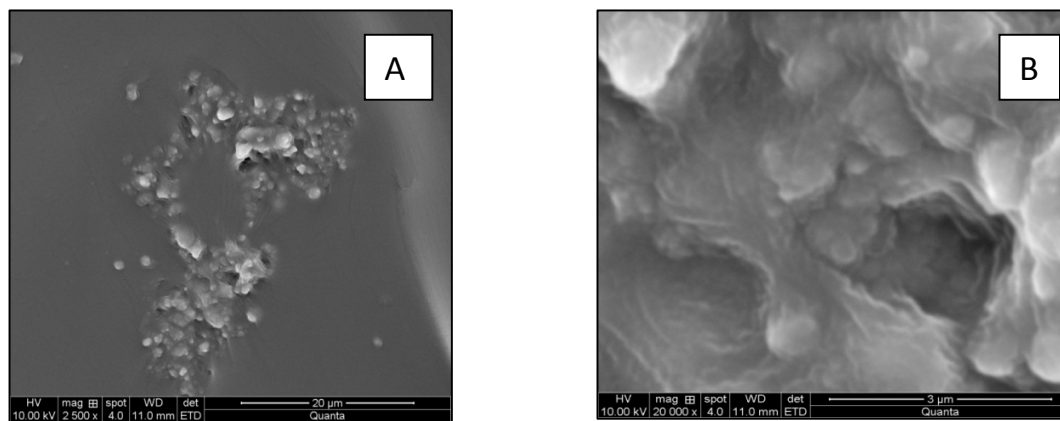


Fig. S7 SEM images of S5 at 2,500X (A) and 20,000X (B)