

## Electronic Supplementary Information

### **Ionic Liquid Induced Sphere-to-Ribbon Transition in Block Copolymer Mediated Synthesis of Silver Nanoparticles**

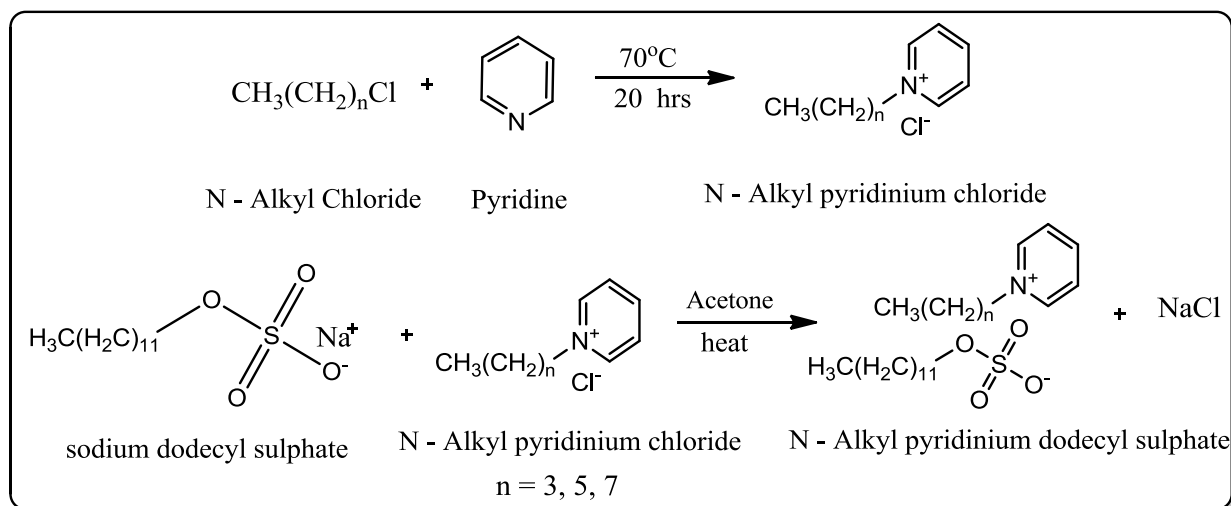
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#### Synthesis and Characterization of ionic liquids:

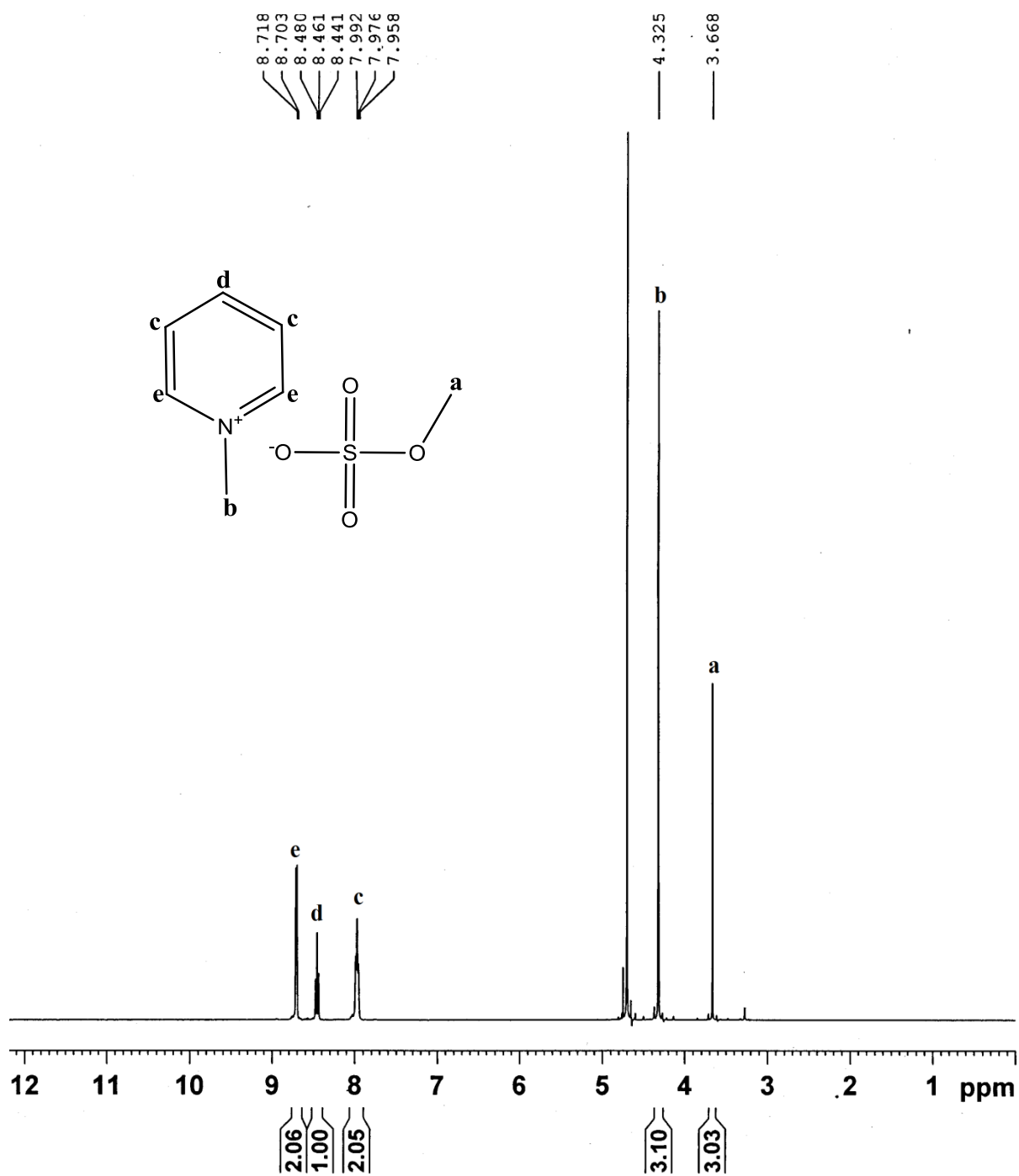
##### **Reaction Scheme of modified ionic liquids [C<sub>n</sub>PyDs (n = 4, 6, 8)]:-**

The modified ionic liquids, N - Alkyl pyridinium dodecyl sulphate (C<sub>n</sub>PyDs) was synthesised from the reaction between sodium dodecyl sulphate (SDS) and N - Alkyl pyridinium chloride (C<sub>n</sub>PyCl) in acetone under mild heating. The C<sub>n</sub>PyCl-SDS-acetone mixture was filtered to remove sodium chloride and the filtrate was kept in oven at 75°C under vacuum in order to remove any residual acetone. The resultant, [C<sub>n</sub>PyDs] products were light yellow to brown waxy type material which have partial solubility in water. The modified ionic liquids were characterized by <sup>1</sup>H- and <sup>13</sup>C-NMR and by FTIR.

General reaction scheme for the synthesized ionic liquids [C<sub>n</sub>PyCl] and its modification for [C<sub>n</sub>PyDs]



### <sup>1</sup>H-NMR spectra of C<sub>1</sub>PyMs



### <sup>1</sup>H-NMR spectra of C<sub>2</sub>PyEs

