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 [CₙPyDs (n = 4, 6, 8)]:-
The modified ionic liquids, N - Alkyl pyridinium dodecyl sulphate (CₙPyDs) was synthesised from the reaction between sodium dodecyl sulphate (SDS) and N - Alkyl pyridinium chloride (CₙPyCl) in acetone under mild heating. The CₙPyCl-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, [CₙPyDs] products were light yellow to brown waxy type material which have partial solubility in water. The modified ionic liquids were characterized by ¹H-and ¹³C-NMR and by FTIR.

General reaction scheme for the synthesized ionic liquids [CₙPyCl] and its modification for [CₙPyDs]

![Reaction Scheme Diagram]
$^1$H-NMR spectra of C$_1$PyMs
$^1$H-NMR spectra of C$_2$PyEs

![NMR Spectra Image]