

Phosphonium based Ionic liquids – Stabilizing or Destabilizing Agent for Collagen?

Aafiya Tarannum, Charuvaka Muvva, Ami Mehta, J. Raghava Rao, N. Nishad Fathima*

Chemical Laboratory, CSIR-Central Leather Research Institute, Adyar, Chennai 600020, India

Corresponding Author

Tel.: +91 44 24411630; fax: +91 44 24911589.

E-mail addresses: nishad@clri.res.in, nishad.naveed@gmail.com (N.N. Fathima).

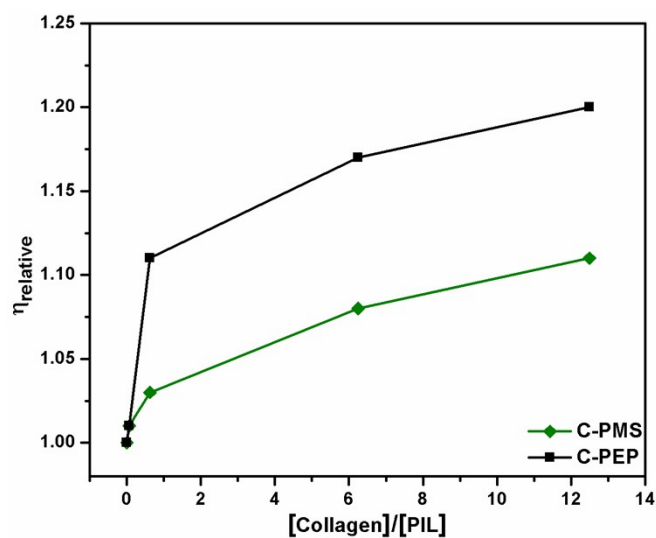


Figure S1. Plot of relative viscosity against $1/R$, $R = [\text{collagen}]/[\text{PIL}]$ (Temperature: 25°C), C-PEP (Collagen: Phosphonium diethyl phosphate), C-PMS (Collagen: Phosphonium methyl sulfate)

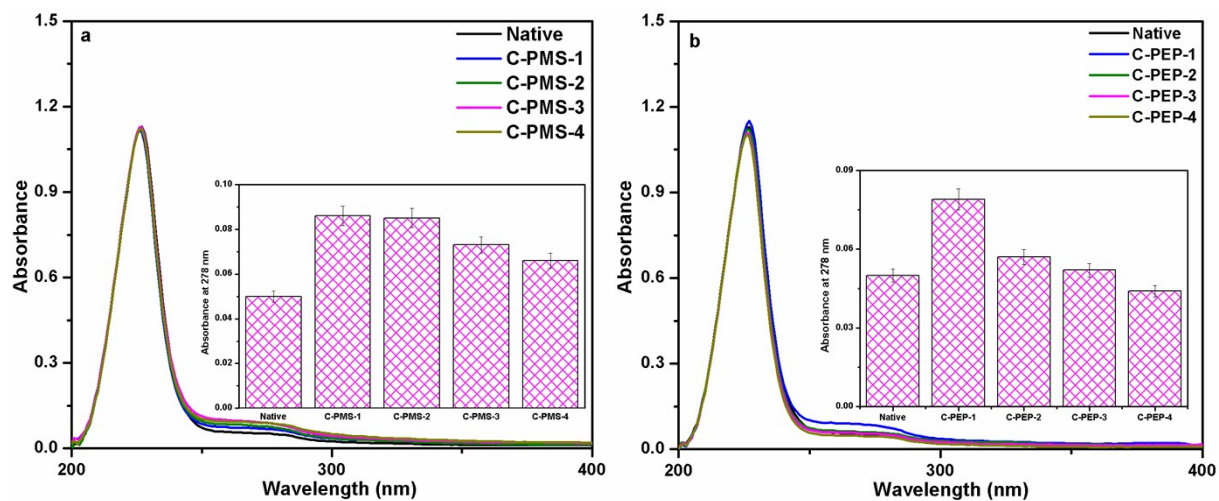


Figure S2. UV – Vis spectra of collagen treated PILs (absorbance at 278 nm in the inset)

(a) C-PMS-1 to C-PMS-4 (Collagen: Phosphonium methyl sulfate 1:0.05% to 1:10%) (b) C-PEP-1 to C-PEP-4 (Collagen: Phosphonium diethyl phosphate 1:0.05% to 1:10%)

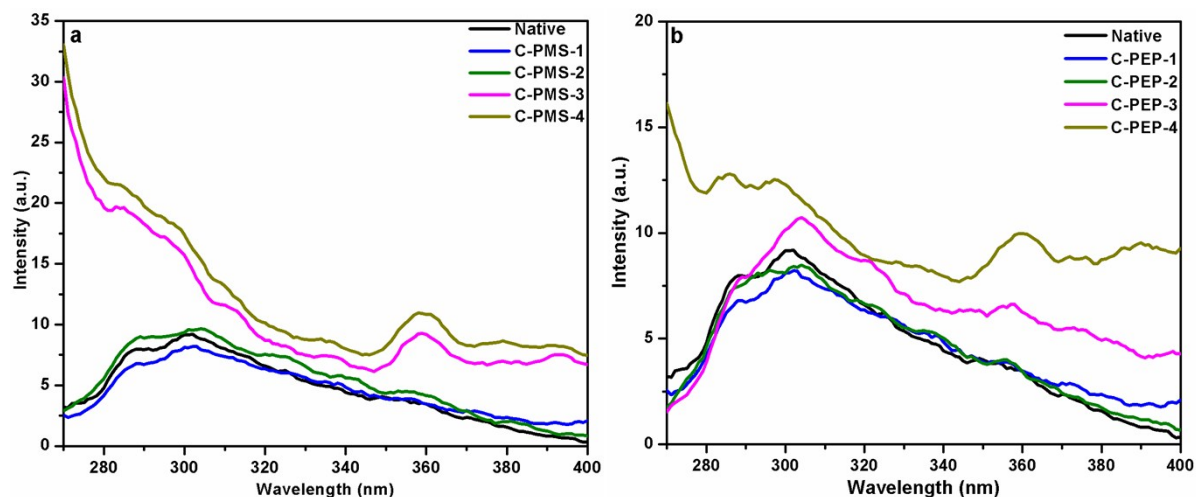


Figure S3. Emission spectra of collagen treated PILs (a) C-PMS-1 to C-PMS-4 (Collagen: Phosphonium methyl sulfate 1:0.05% to 1:10%) (b) C-PEP-1 to C-PEP-4 (Collagen: Phosphonium diethyl phosphate 1:0.05% to 1:10%)