

## Supplementary Information

**Electron Donor Ionic Liquids entrapped in Anionic and Cationic Reverse Micelles.**

**Effect of the Interface on the Ionic Liquid –Surfactant Interactions**

Diana Blach, Juana J. Silber, N. Mariano Correa, R. Darío Falcone\*

[\*] Dr. R. Darío Falcone. Corresponding-Author,

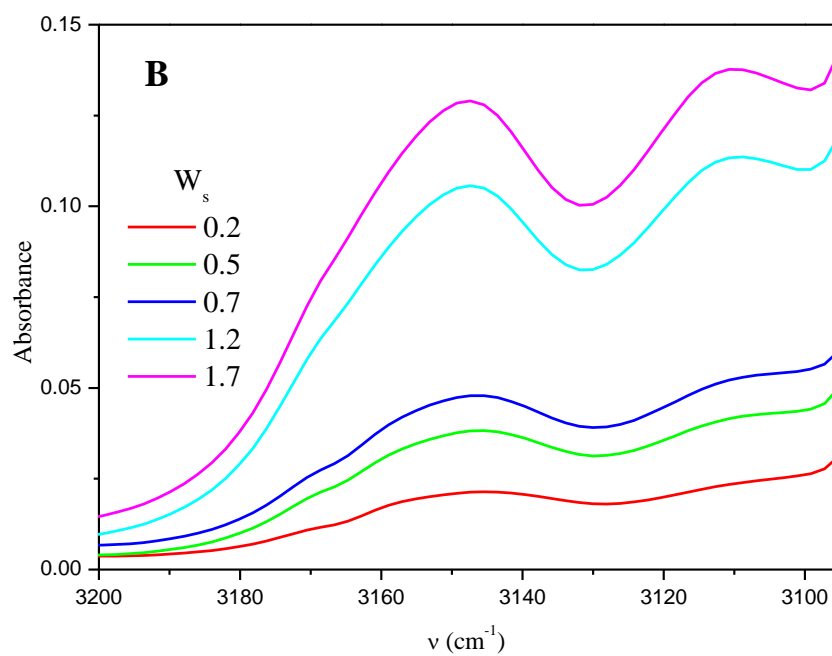
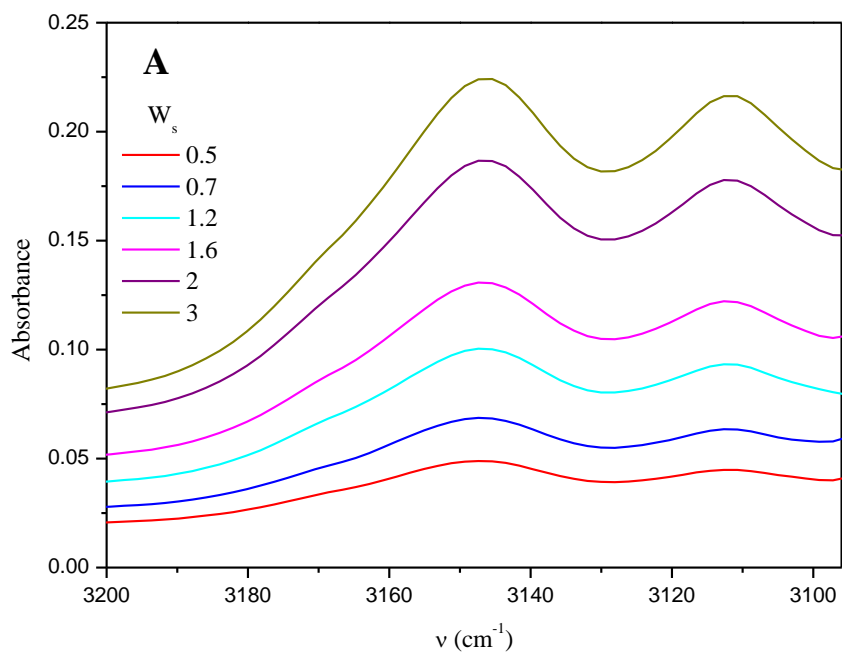
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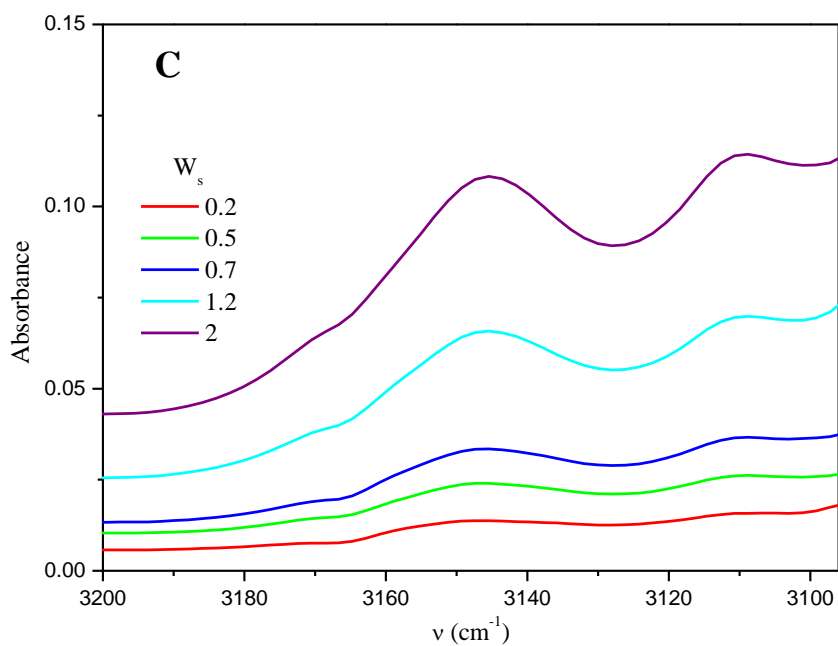
C.P. X5804BYA Río Cuarto. ARGENTINA. E-mail: [rfalcone@exa.unrc.edu.ar](mailto:rfalcone@exa.unrc.edu.ar)

Diana Blach, Dr. N. Mariano Correa, Prof. Juana J. Silber,

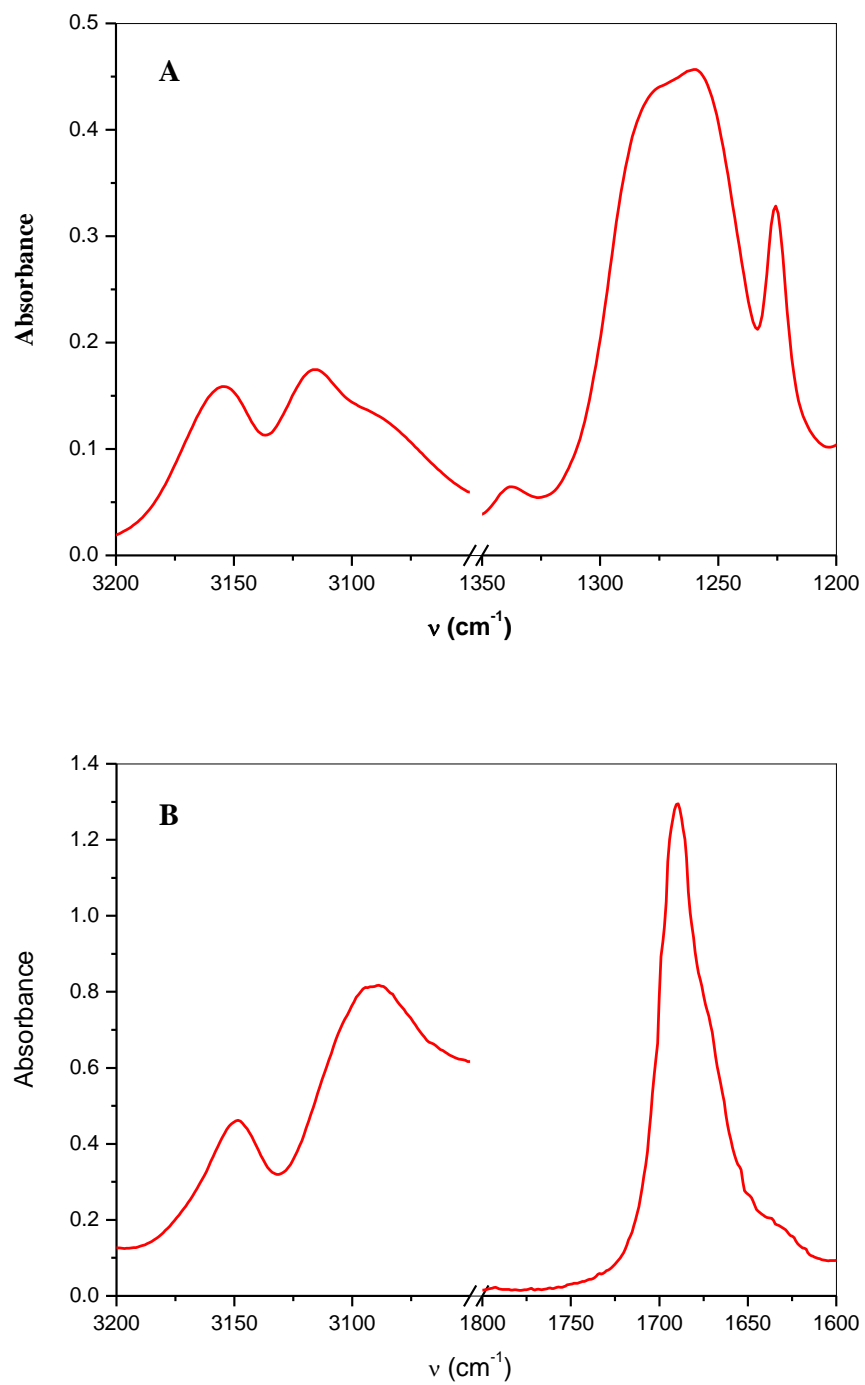
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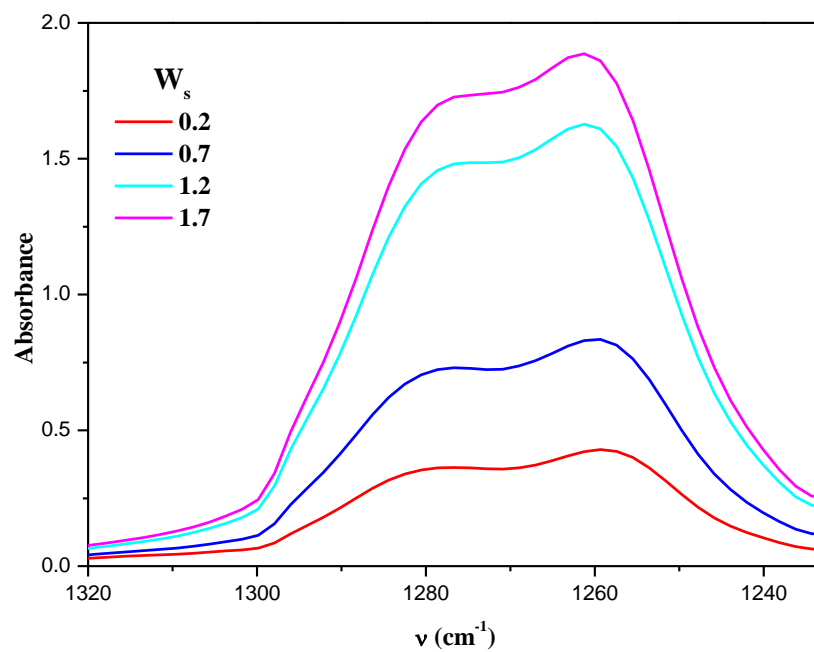




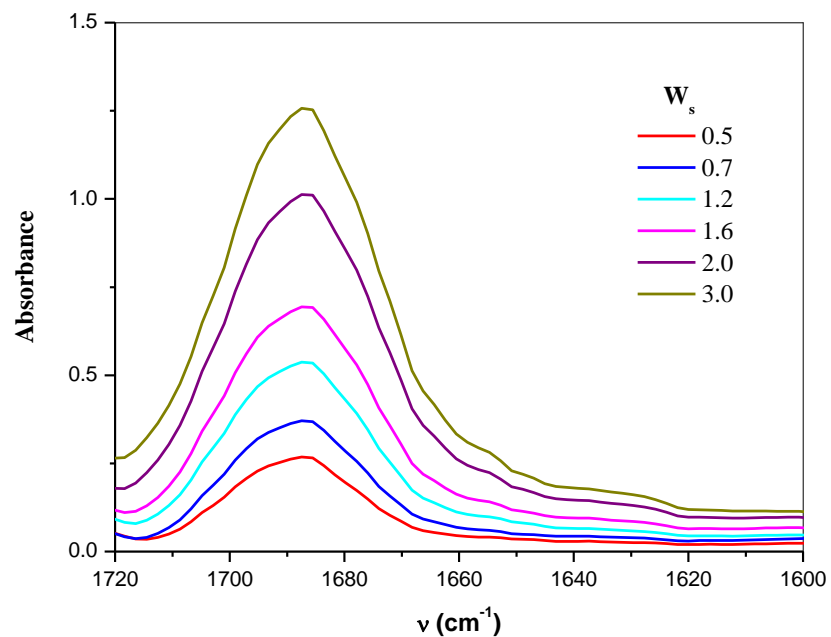
**Figure S1.** FT-IR spectra of ILs entrapped in chlorobenzene/surfactant RMs at different  $W_s$  values, in the region of 3100-3200 cm<sup>-1</sup>. A) bmimTfA in AOT RMs, B) bmimTfO in BHDC RMs and C) bmimTfA in BHDC RMs. [Surfactant] = 0.02 M. The chlorobenzene bands have been subtracted.



**Figure S2.** FT-IR spectrum of neat bmimTfO (A) and neat bmimTfA (B).



**Figure S3.** FT-IR spectra of bmimTfO entrapped in chlorobenzene/BHDC RMs at different  $W_s$  values, in the region of 1320-1230  $\text{cm}^{-1}$ . [BHDC] = 0.02 M. The chlorobenzene bands have been subtracted.



**Figure S4.** FT-IR spectra of bmimTfA entrapped in chlorobenzene/AOT RMs at different  $W_s$  value, in the region of 1720-1600 cm<sup>-1</sup> (TfA's  $\nu_{\text{asym}}\text{COO}^-$ ). [AOT] = 0.02 M. The chlorobenzene and AOT bands have been subtracted.