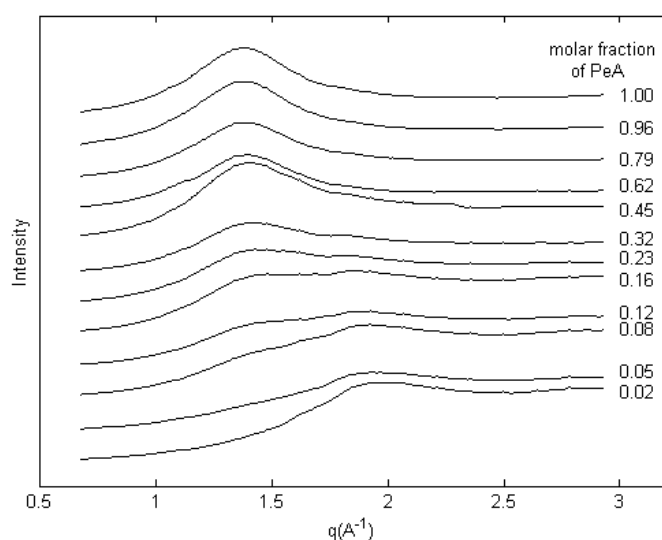


# Nanostructured Protic Ionic Liquids Retain Nanoscale Features in Aqueous Solution while Precursor Brønsted Acids and Bases Exhibit Different Behaviour

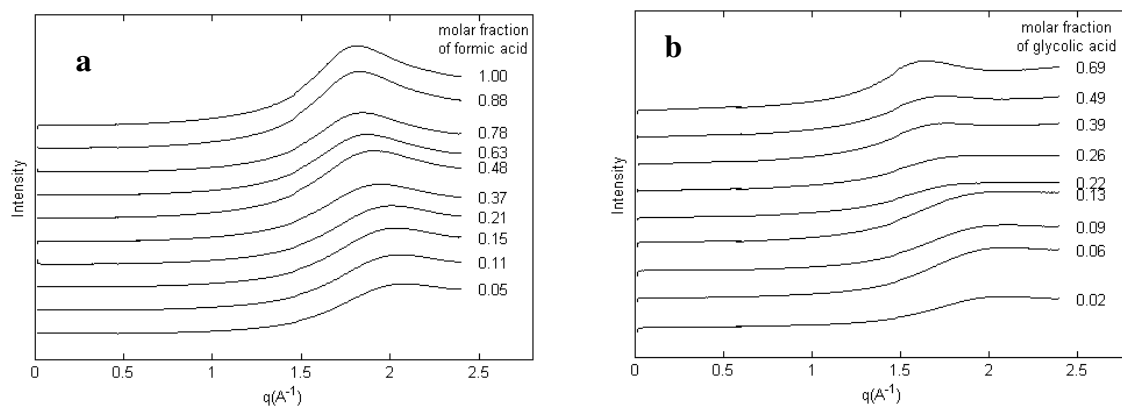
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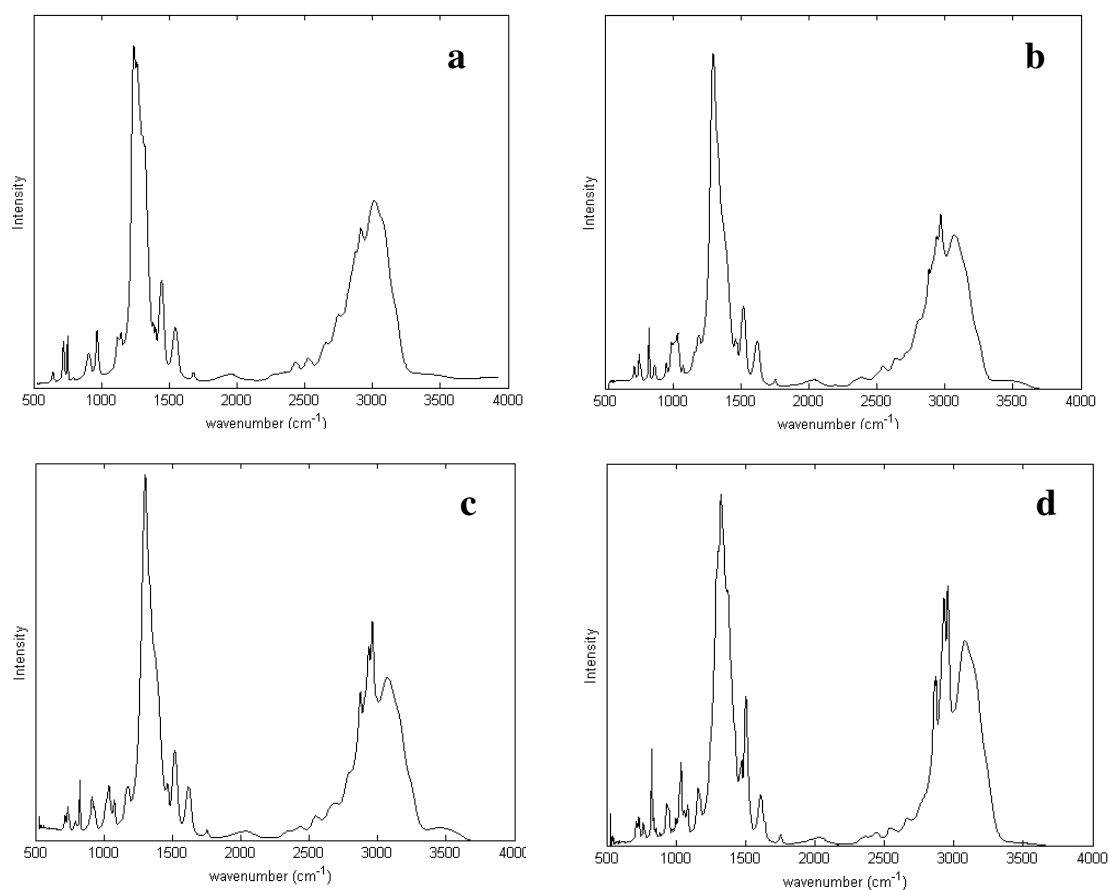
<sup>2</sup> Australian Synchrotron, 800 Blackburn Rd, Clayton VIC 3169, Australia.



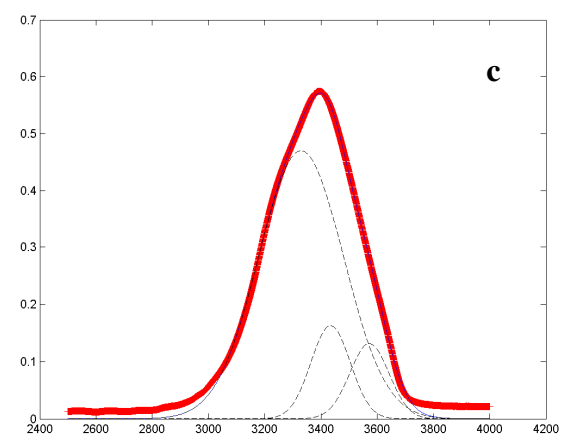
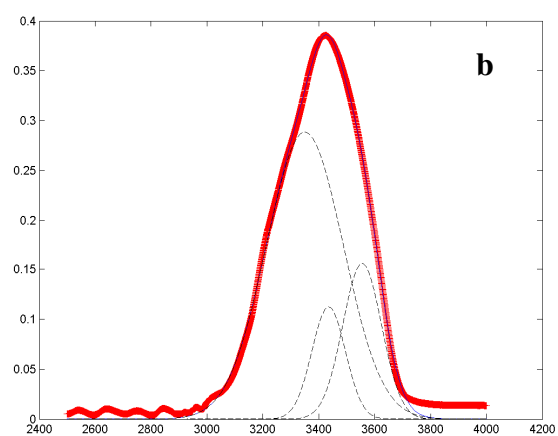
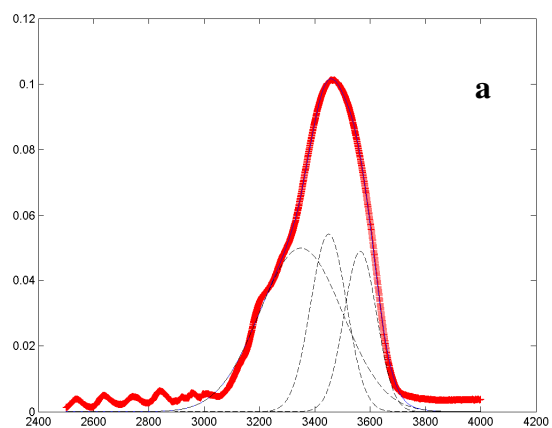
**Supporting information. Figure S1.** WAXS of neat pentylamine (PeA) top, and PeA-water solutions. The WAXS patterns have been offset with intensity to aid in viewing.



**Supporting information. Figure S2.** SWAXS patterns for a) formic acid and b) glycolic acid with water.



**Supporting information. Figure S3.** IR spectra of neat a) EAN b) PAN c) BAN and d) PeAN.



**Supporting information. Figure S4.** Three Gaussian's used to fit IR spectra of a) 10% water in EAN, b) 50% water in EAN and c) 90% water in EAN.