

Does the Influence of Substituents Impact Upon the Surface Composition of Pyrrolidinium-Based Ionic Liquids: An Angle Resolved XPS Study

Shuang Men, Bitu Birru Hurisso, Kevin R. J. Lovelock ‡*, Peter Licence*

School of Chemistry, University of Nottingham, University Park, Nottingham, NG7 2RD, UK.

*To whom correspondence should be addressed. E-mail: pete.licence@nottingham.ac.uk

Phone: +44 (0) 115 846 6176. Fax: +44 (0)115 9513563

‡ Current E-mail Address: k.lovelock@ucl.ac.uk

XP spectra at $\theta = 0^\circ, 70^\circ, 80^\circ$ and 84° for pure $[C_nC_1Pyrr][Tf_2N]$

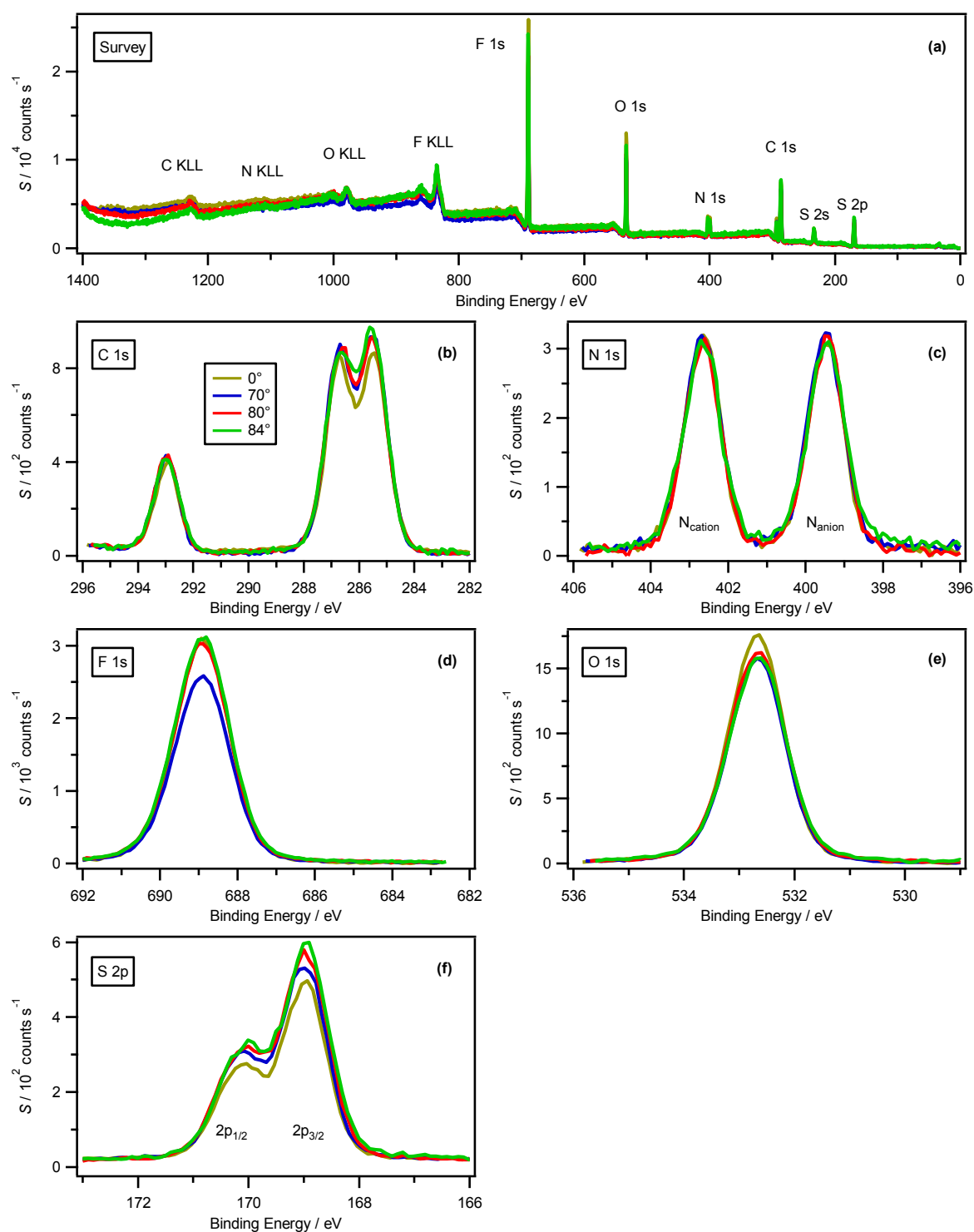


Figure S1. XP spectra of $[C_4C_1Pyrr][Tf_2N]$ for all emission angles for : (a) survey, (b) C 1s, (c) N 1s, (d) F 1s, (e) O 1s and (f) S 2p.

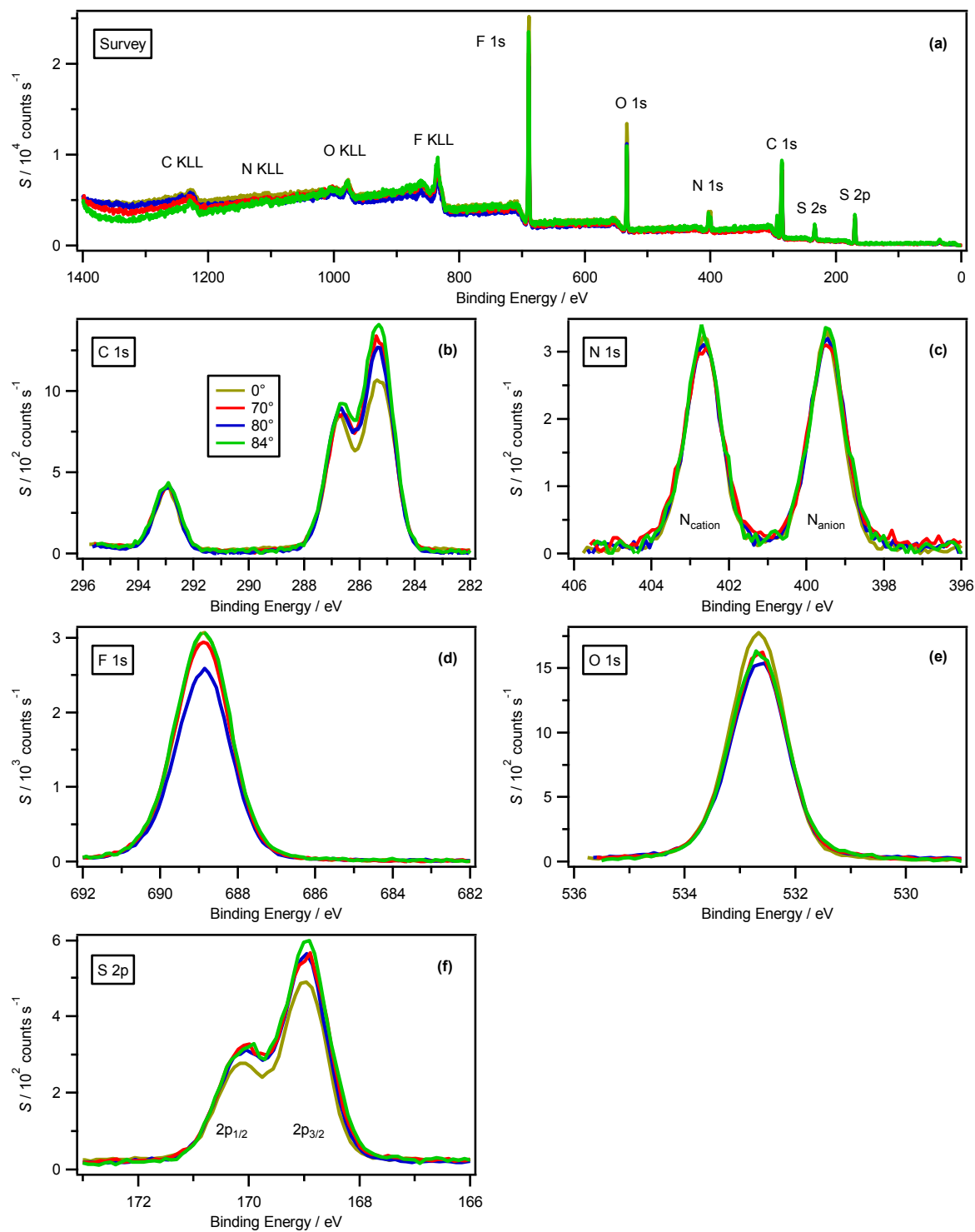


Figure S2. XPS spectra of $[C_6C_1Pyrr][Tf_2N]$ for all emission angles for : (a) survey, (b) C 1s, (c) N 1s, (d) F 1s, (e) O 1s and (f) S 2p.

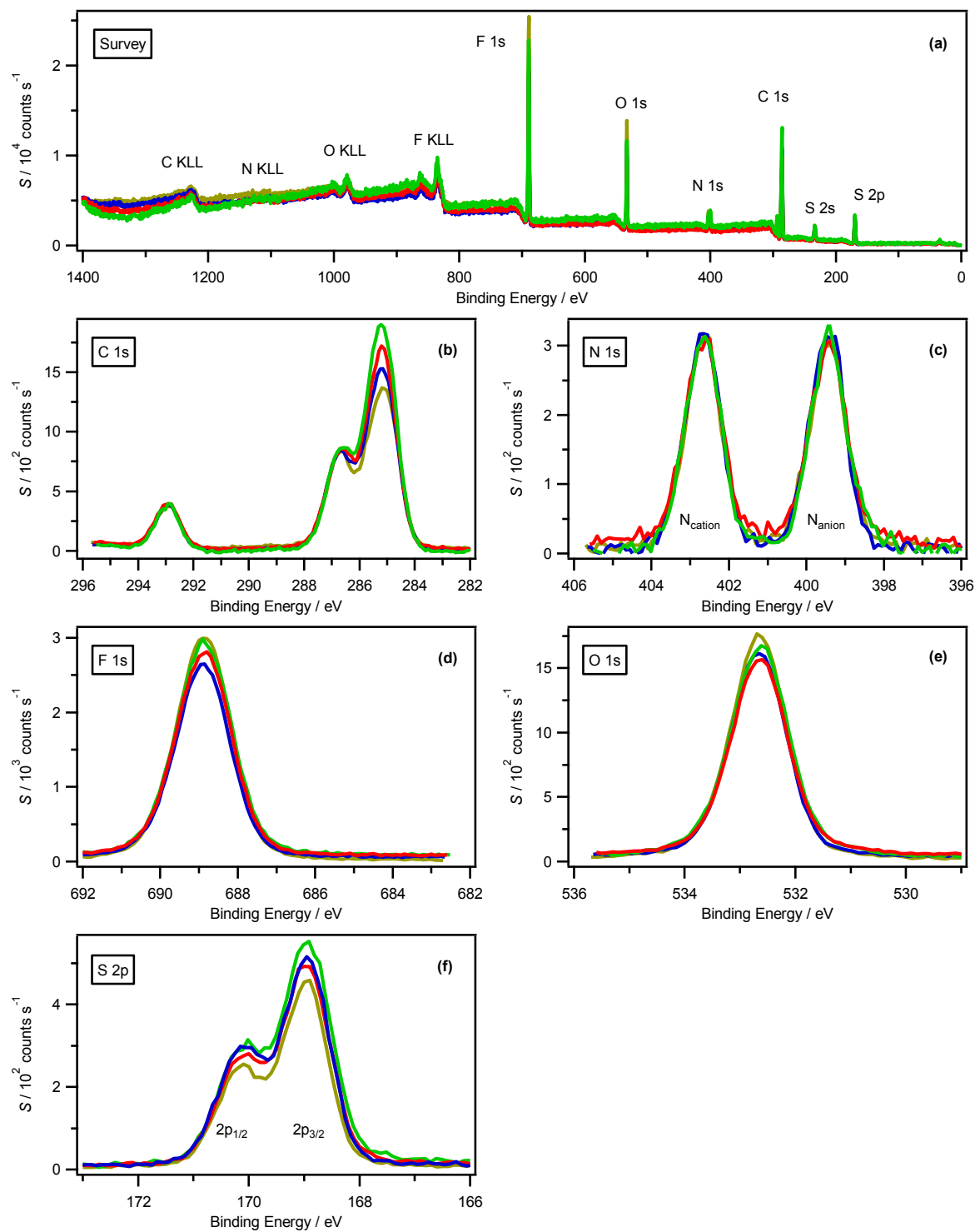


Figure S3. XPS spectra of $[\text{C}_8\text{C}_1\text{Pyrr}][\text{Tf}_2\text{N}]$ for all emission angles for : (a) survey, (b) C 1s, (c) N 1s, (d) F 1s, (e) O 1s and (f) S 2p.

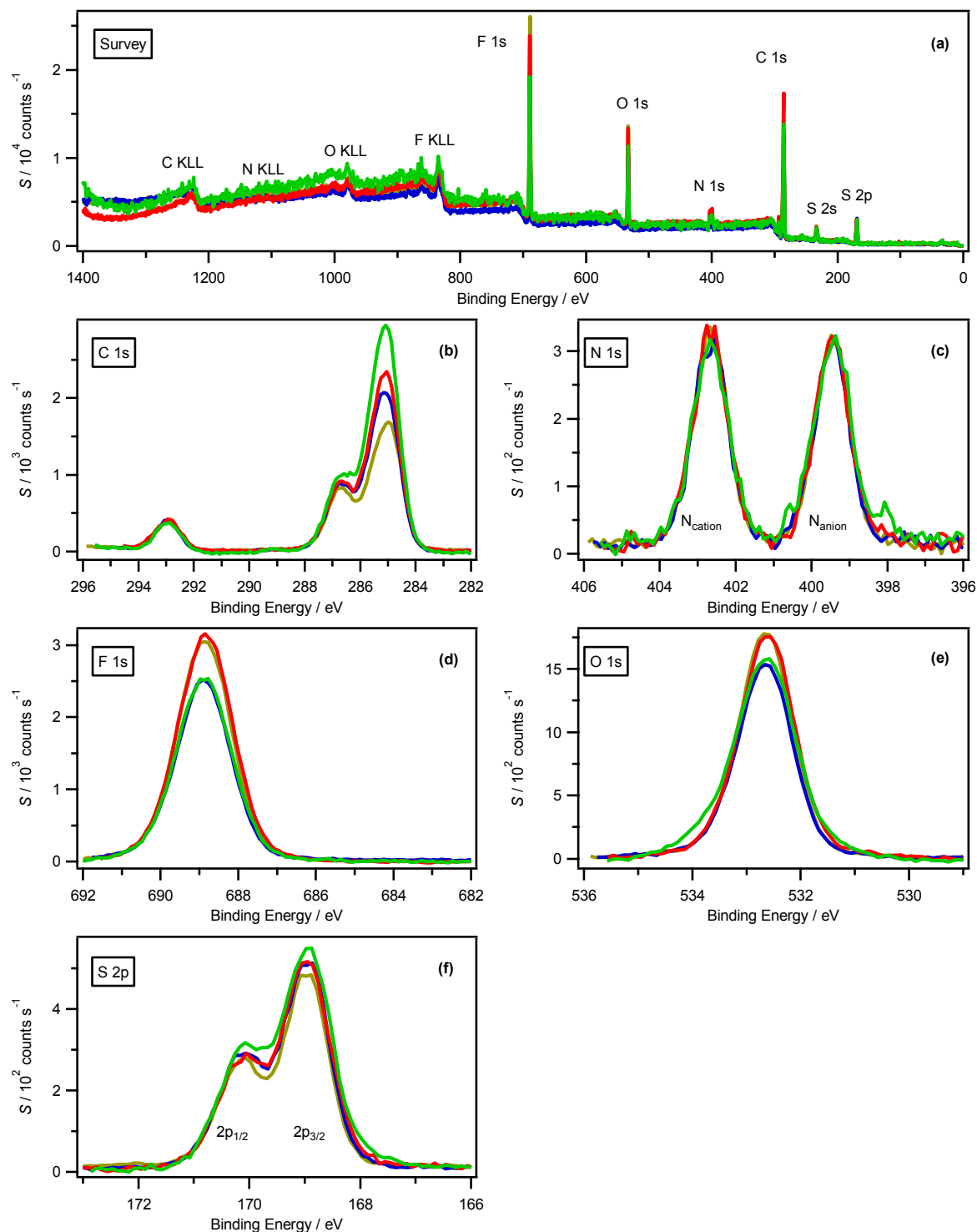


Figure S4. XPS spectra of $[C_{10}C_1Pyrr][Tf_2N]$ for all emission angles for : (a) survey, (b) C 1s, (c) N 1s, (d) F 1s, (e) O 1s and (f) S 2p.