Supporting Information for

Electronic and steric effects: how do they work in ionic liquids? The case of benzoic acids dissociation

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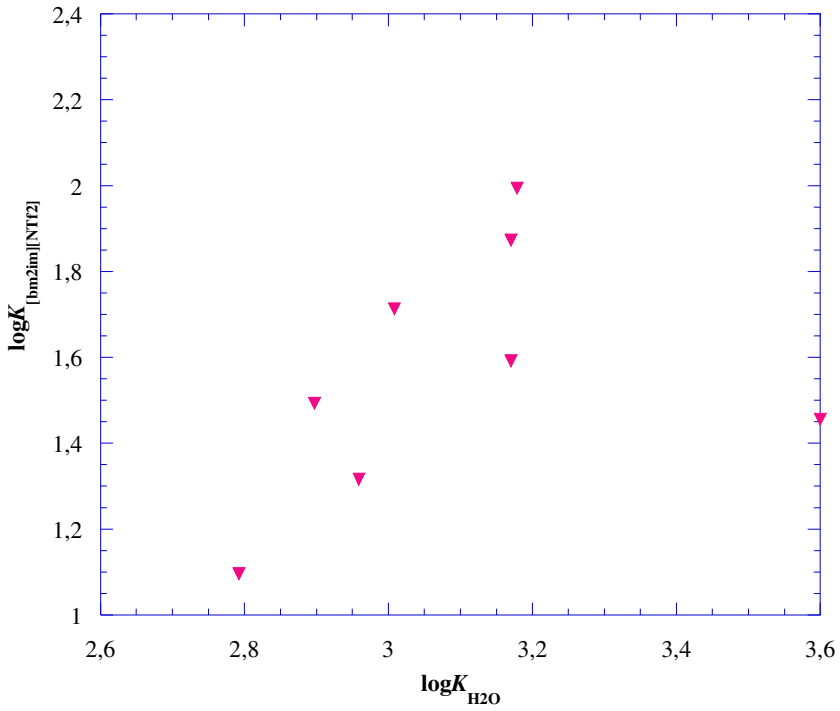

Figure 2. Plot of $\log K_{[bm2im][NTf2]}$ *vs* $\log K_{H2O}$ for *p*-substituted benzoic acids.

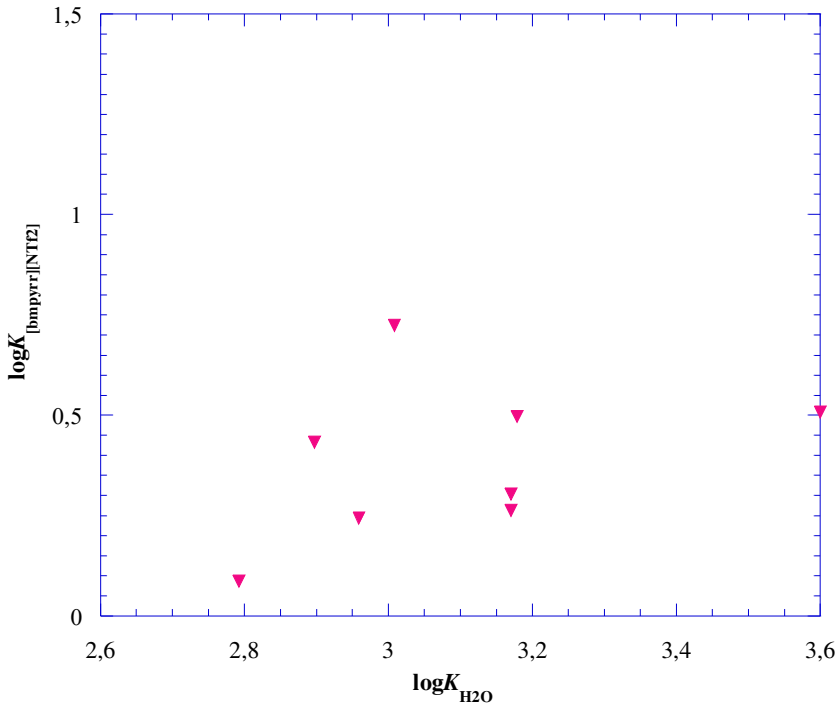

Figure 3. Plot of $\log K_{[bmpyrr][NTf2]}$ *vs* $\log K_{H2O}$ for *p*-substituted benzoic acids.

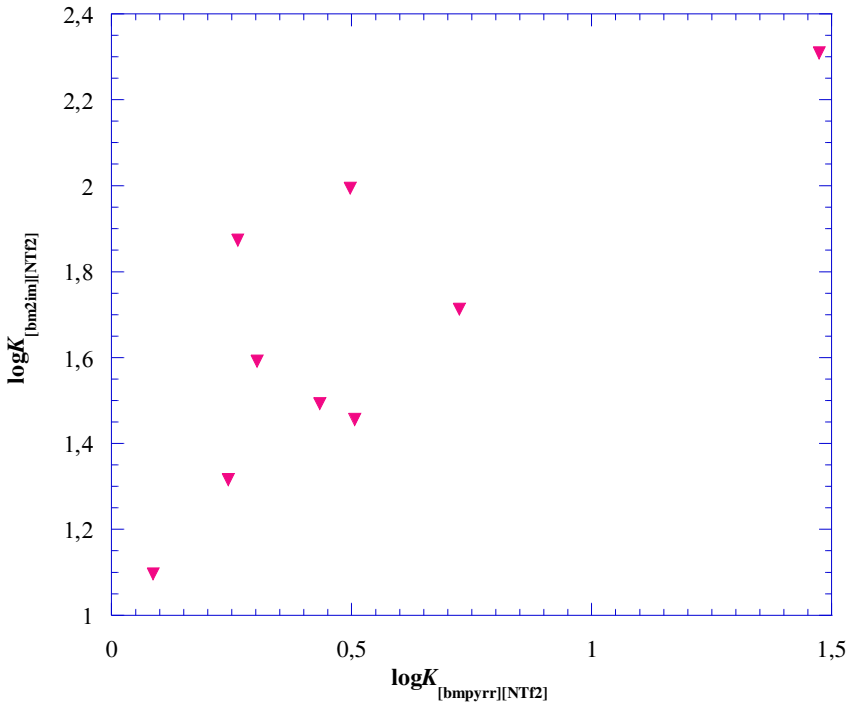

Figure 4. Plot of log$K_{[bm2im][NTf2]}$ *vs* log$K_{[bmpyrr][NTf2]}$ for *p*-substituted benzoic acids.

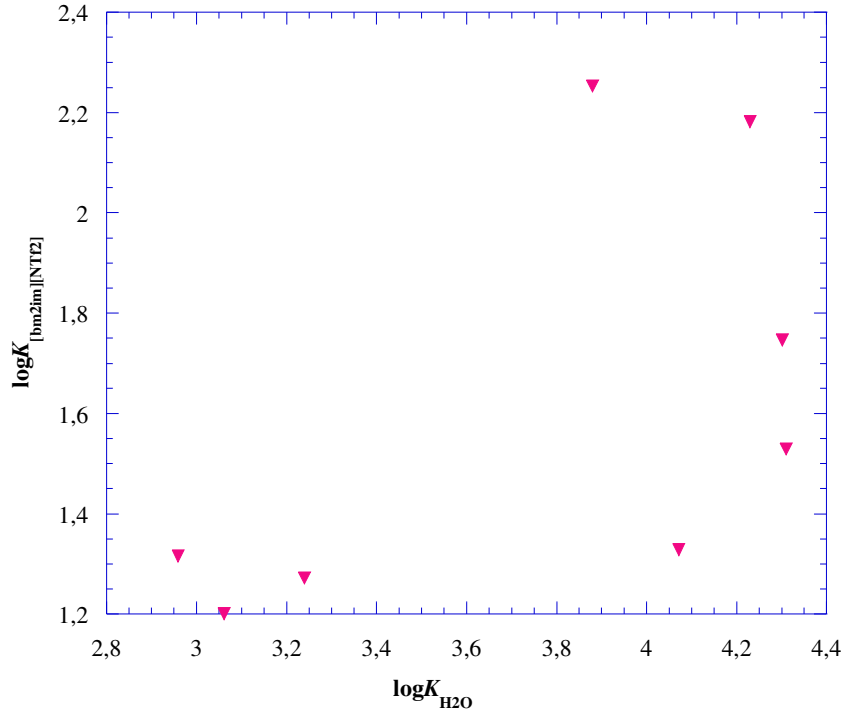

Figure 5. Plot of log$K_{[bm2im][NTf2]}$ *vs* logK_{H2O} for *o*-substituted benzoic acids.

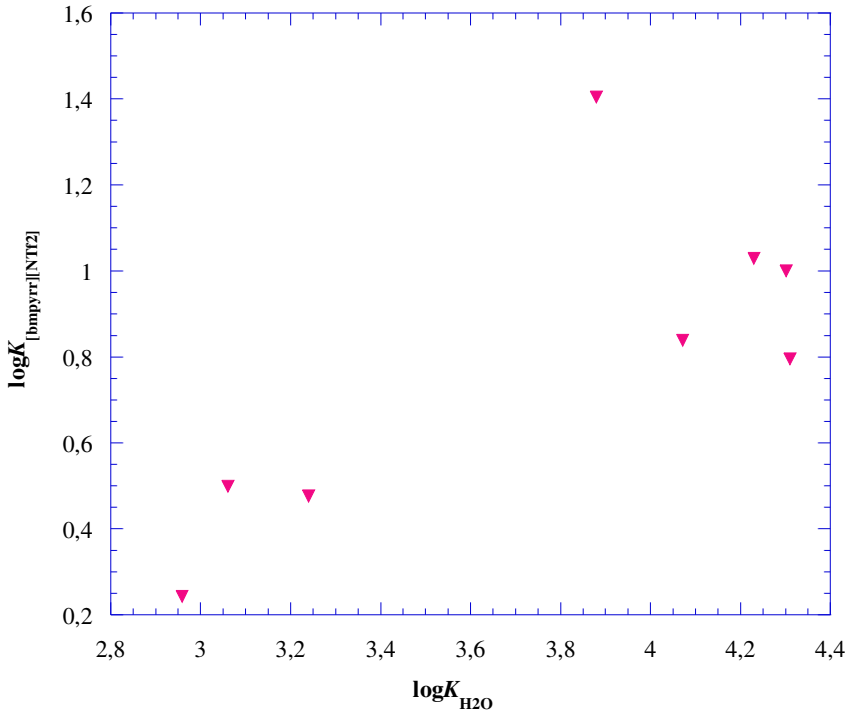

Figure 6. Plot of $\log K_{[\mathrm{bmpyrr}][\mathrm{NTf2}]}$ *vs* $\log K_{\mathrm{H2O}}$ for *o*-substituted benzoic acids.

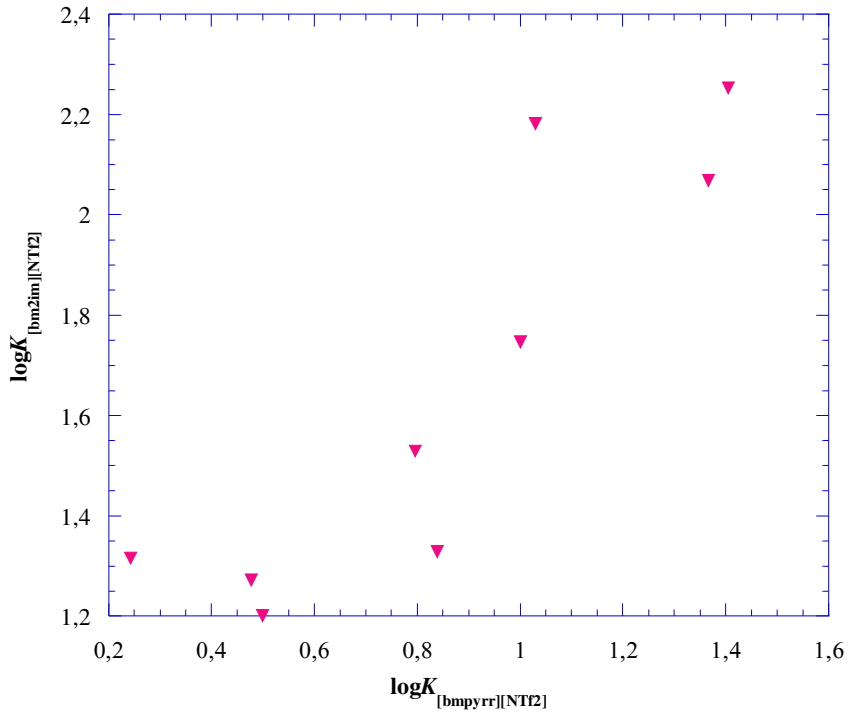

Figure 7. Plot of $\log K_{[\mathrm{bm2im}][\mathrm{NTf2}]}$ *vs* $\log K_{[\mathrm{bmpyrr}][\mathrm{NTf2}]}$ for *o*-substituted benzoic acids.

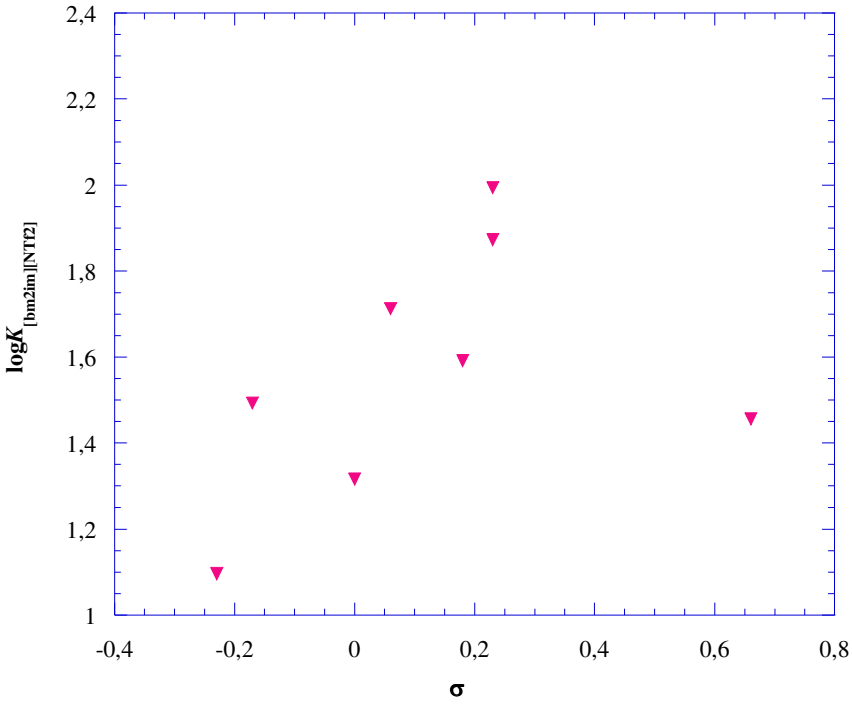

Figure 8. Plot of log$K_{[bm2im][NTf2]}$ *vs* σ values for *p*-substituted benzoic acids.

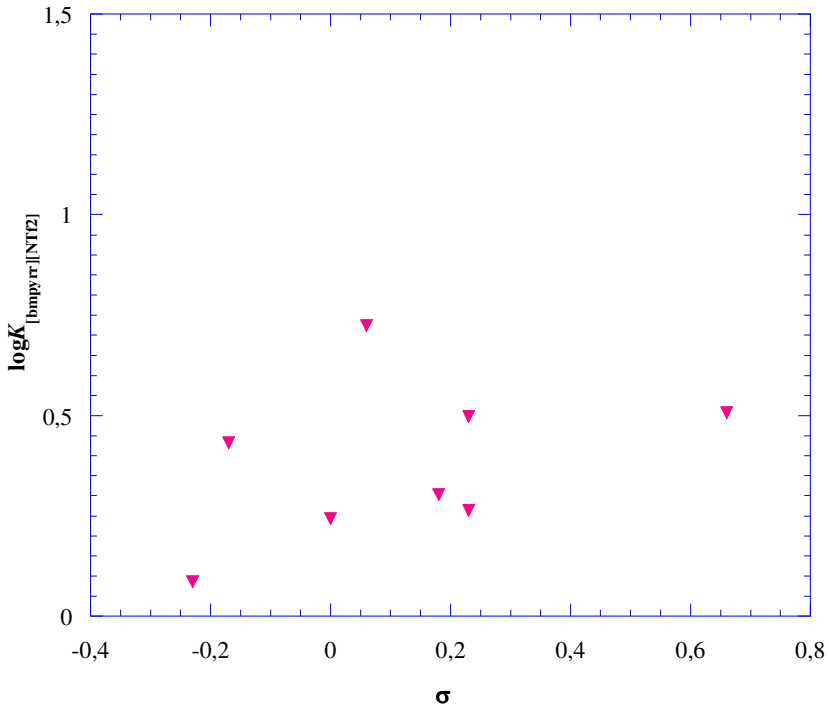

Figure 9. Plot of log$K_{[bmpyrr][NTf2]}$ *vs* σ values for *p*-substituted benzoic acids.

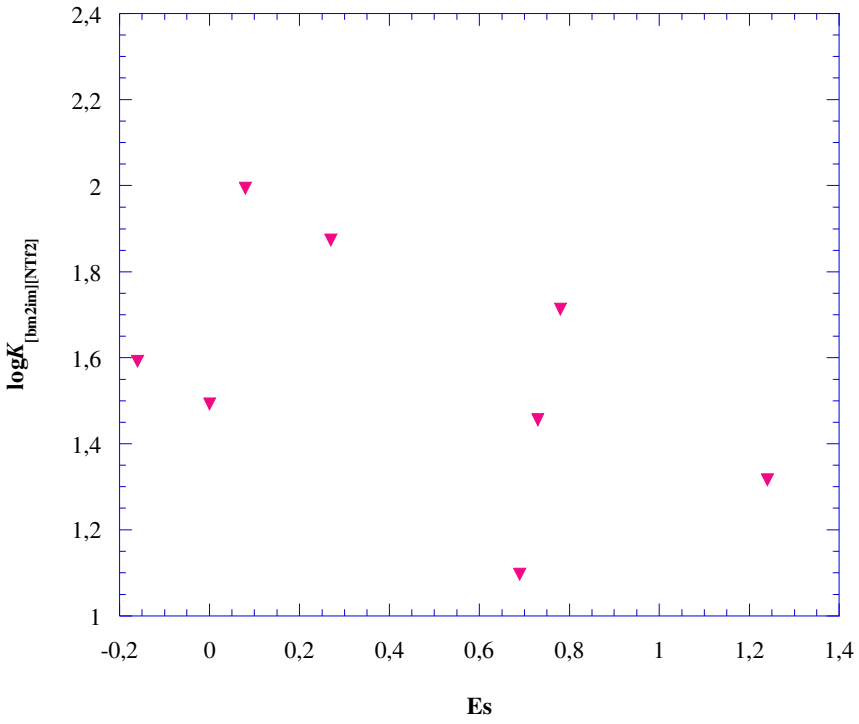

Figure 10. Plot of log$K_{[bm2im][NTf2]}$ *vs* Es values for *p*-substituted benzoic acids.

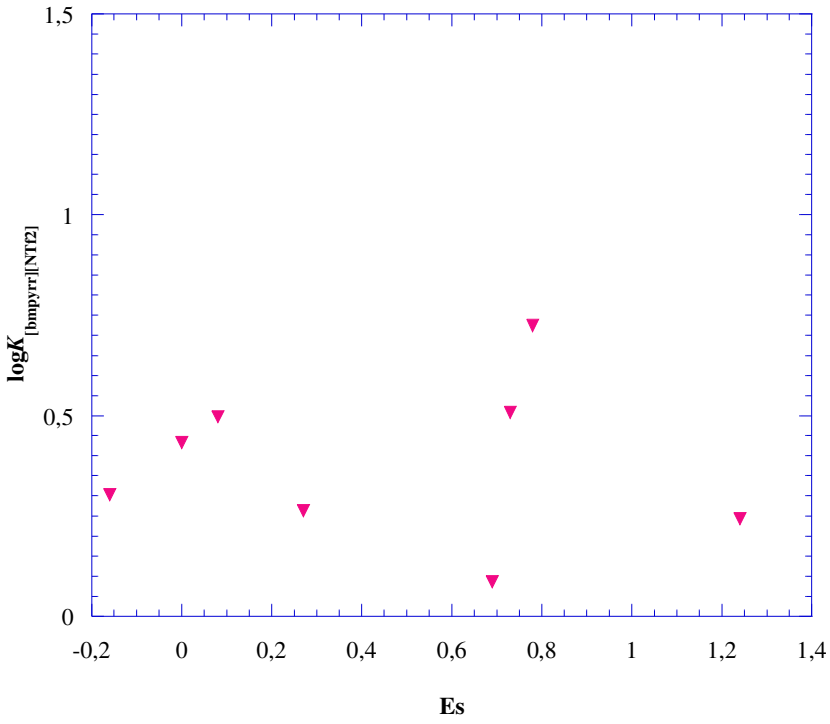

Figure 11. Plot of log$K_{[bmpyrr][NTf2]}$ *vs* Es values for *p*-substituted benzoic acids.

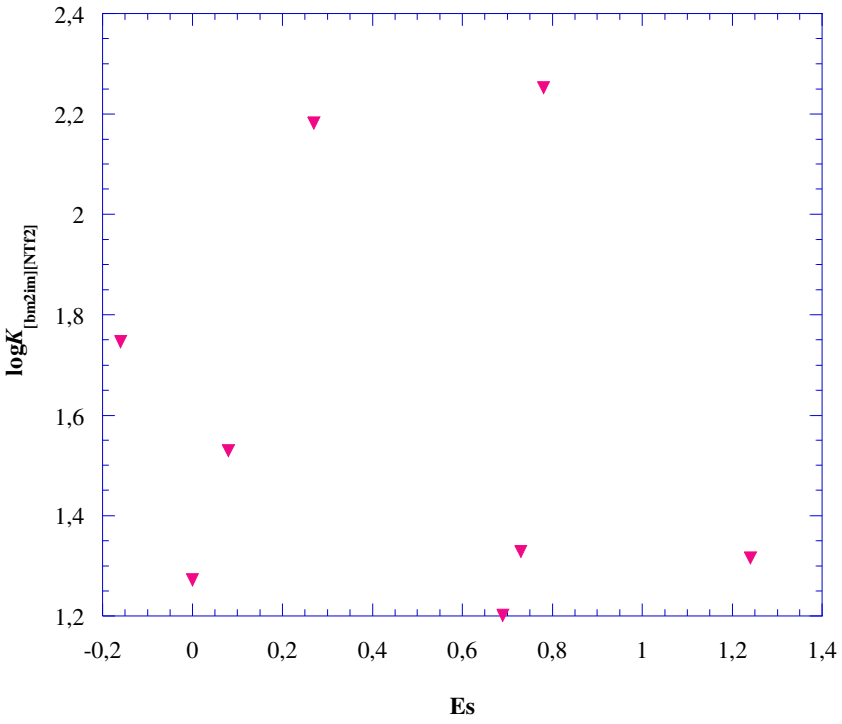

Figure 12. Plot of log$K_{[bm2im][NTf2]}$ *vs* Es values for *o*-substituted benzoic acids.

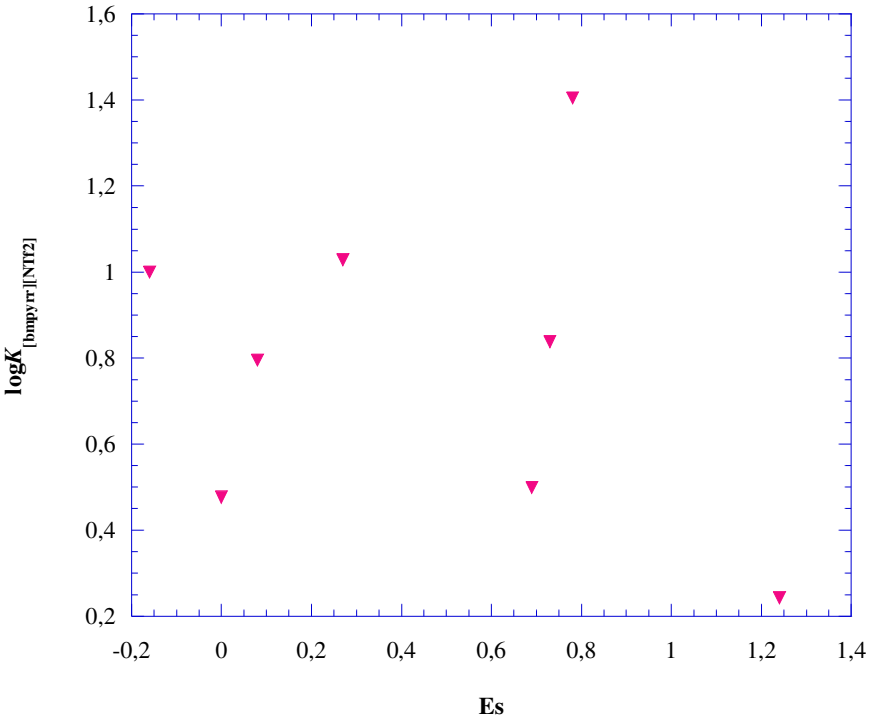

Figure 13. Plot of log$K_{[bmpyrr][NTf2]}$ *vs* Es values for *p*-substituted benzoic acids.

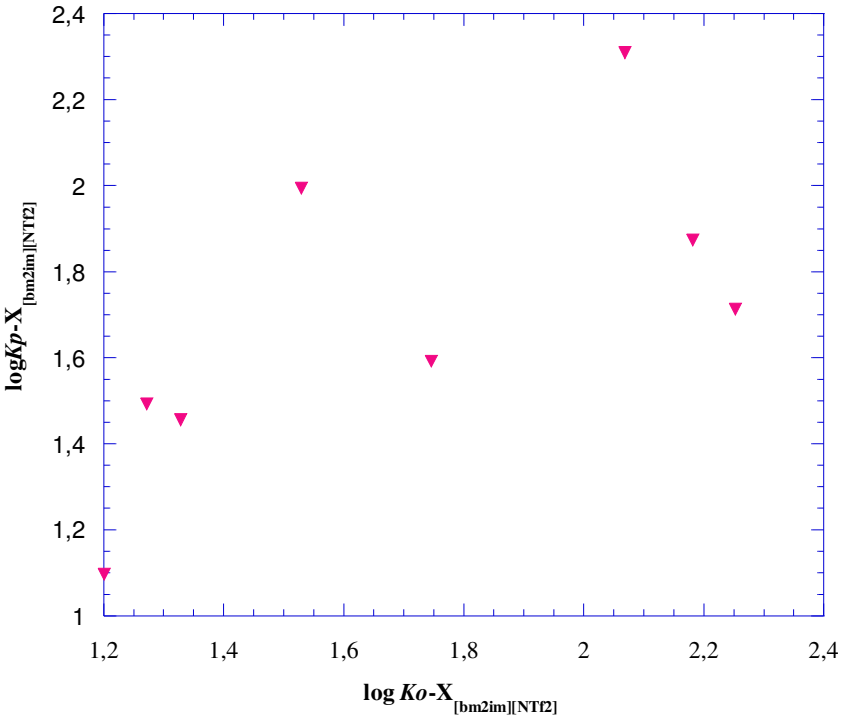

Figure 14. Plot of log*Kp*-X *vs* log*Ko*-X values in [bm$_2$im][NTf$_2$] solution.

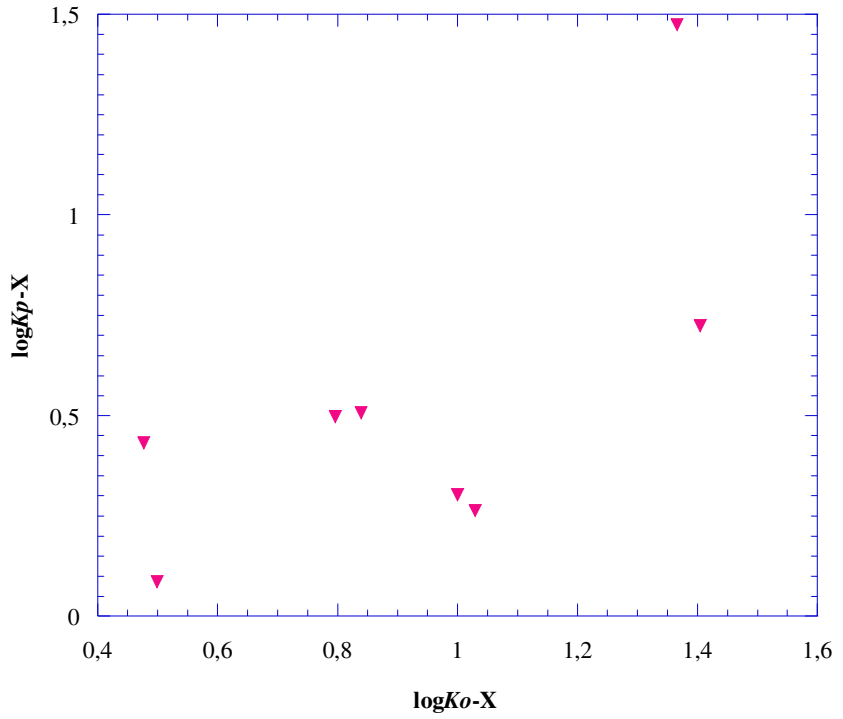

Figure 15. Plot of log*Kp*-X *vs* log*Ko*-X values in [bmpyrr][NTf$_2$] solution.