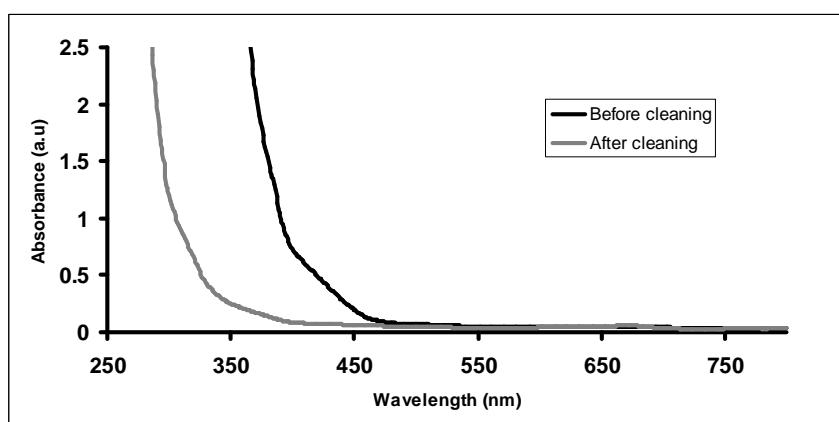


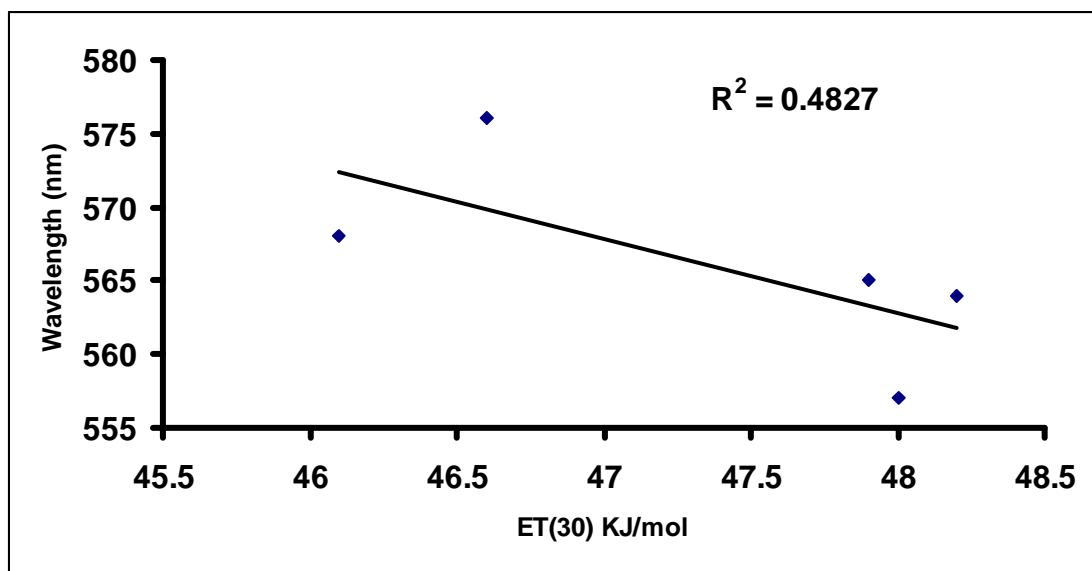
ESI Figure 1. UV-vis spectrum of $[P_{6,6,6,14}][dbsa]$ before and after cleaning.



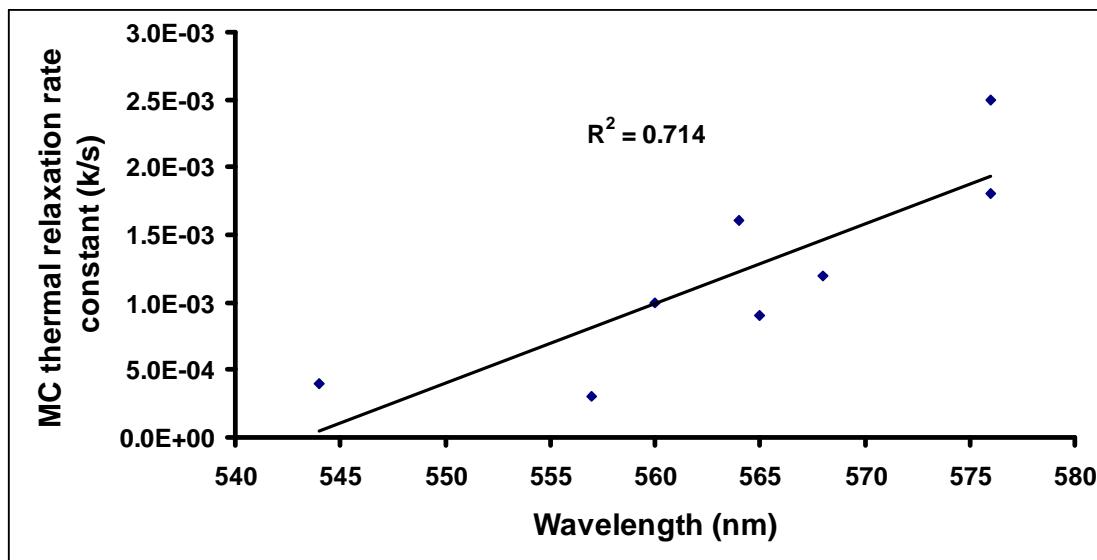
ESI Figure 2. UV-vis spectrum of $[P_{6,6,6,14}][dca]$ before and after cleaning.



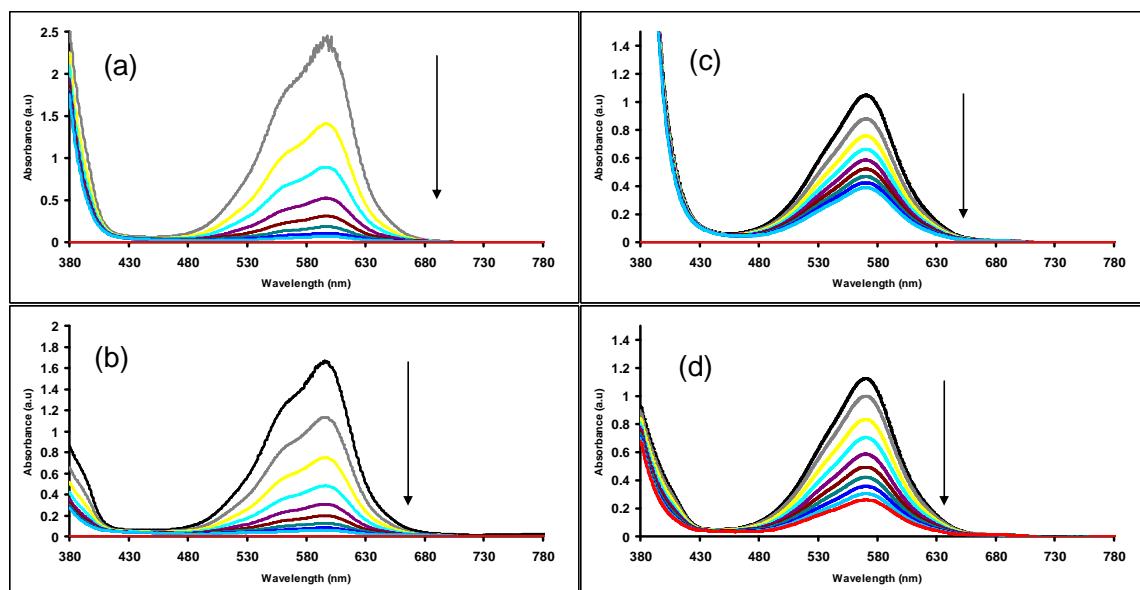
ESI Figure 3. Photograph of $[P_{6,6,6,14}][dca]$ before (right) and after (left) cleaning.



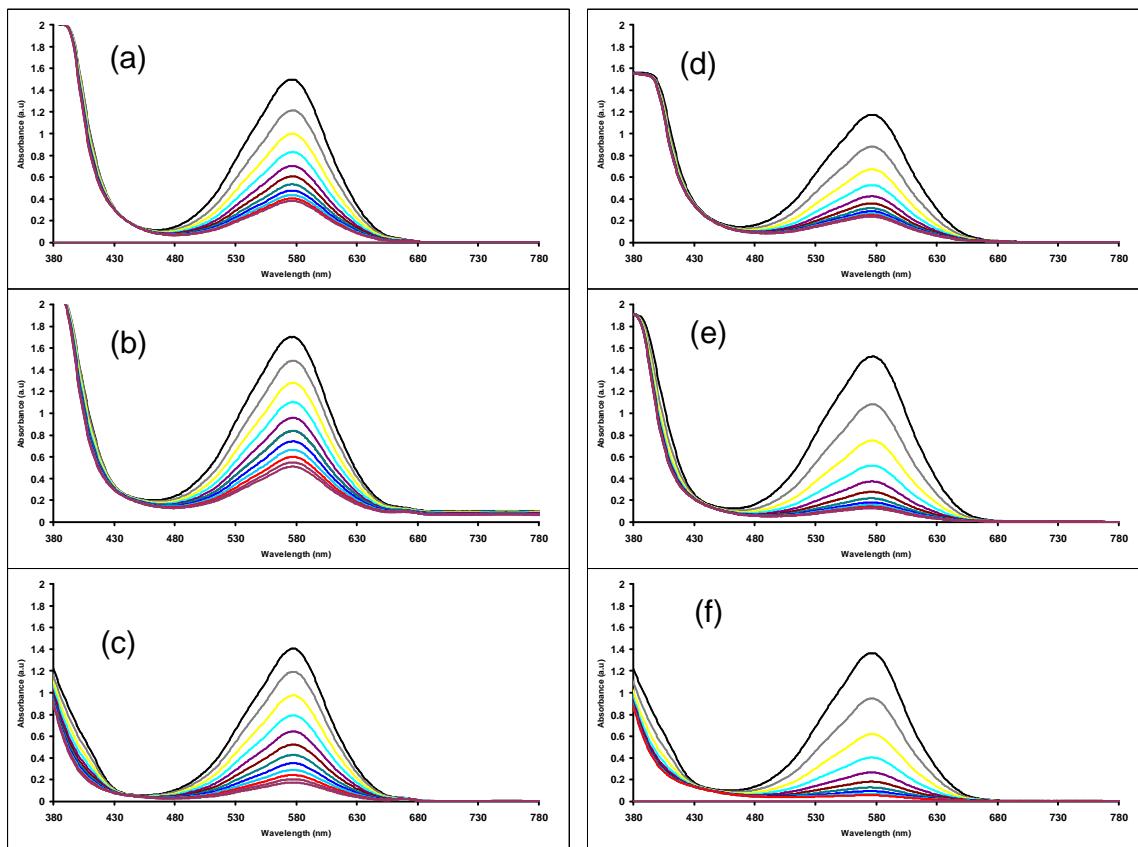
ESI Figure 4. Correlation between MC (λ_{\max}) and $E_T(30)$ values for ionic liquids.



ESI Figure 5. Correlation between MC (λ_{\max}) and its thermal relaxation rate constant (k) for BSP-1.



ESI Figure 6. Continuous UV-vis spectra of (a) BSP-3 ($1 \times 10^{-3} M$) in diethyl ether, (b) BSP-3 ($1 \times 10^{-4} M$) in diethyl ether, (c) BSP-3 ($1 \times 10^{-3} M$) in acetone, and (d) BSP-3 ($1 \times 10^{-4} M$) in acetone, after 60 seconds of UV light 365 nm.



ESI Figure 7. Continuous UV-vis spectra of (a) BSP-3 (1×10^{-3} M) in $[P_{6,6,6,14}][dca]$, (b) BSP-3 (5×10^{-4} M) in $[P_{6,6,6,14}][dca]$, (c) BSP-3 (1×10^{-4} M) in $[P_{6,6,6,14}][dca]$, (d) BSP-3 (1×10^{-3} M) in $[P_{6,6,6,14}][NTf_2]$, (e) BSP-3 (5×10^{-4} M) in $[P_{6,6,6,14}][NTf_2]$, and (f) BSP-3 (1×10^{-4} M) in $[P_{6,6,6,14}][NTf_2]$ after 60 seconds of UV light 365 nm.