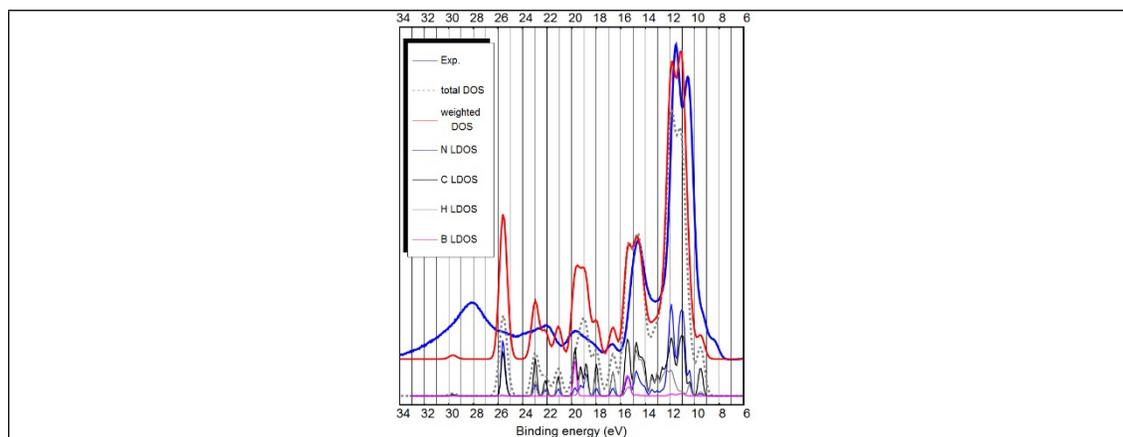
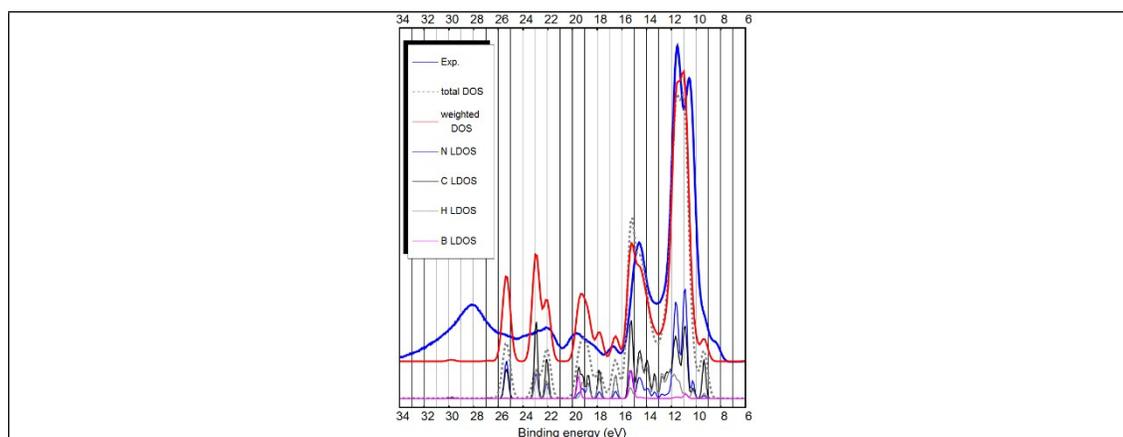


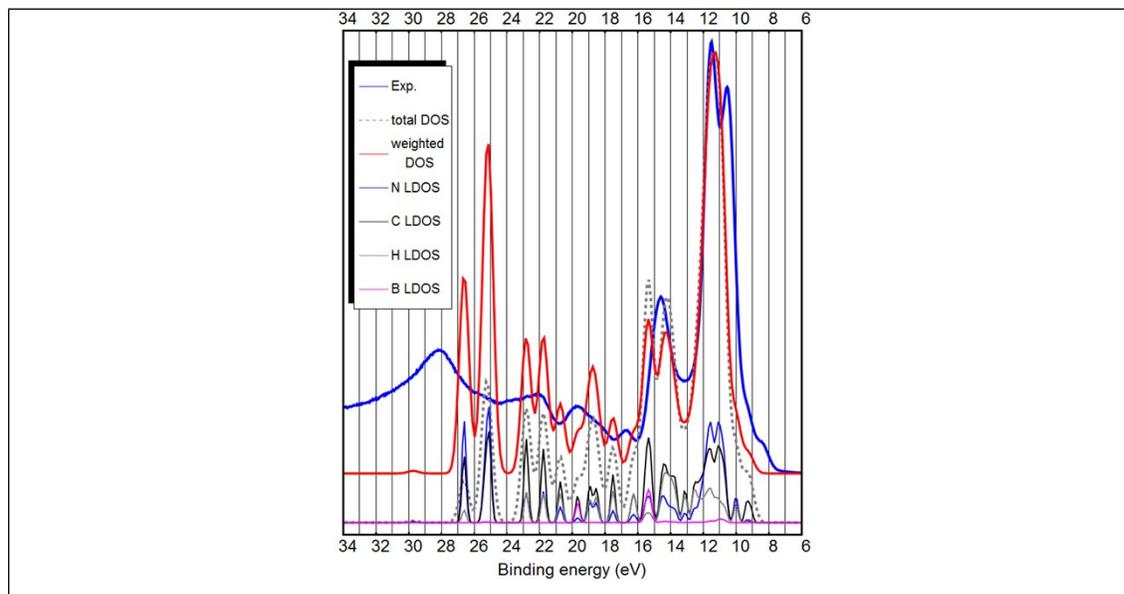
Supplementary information



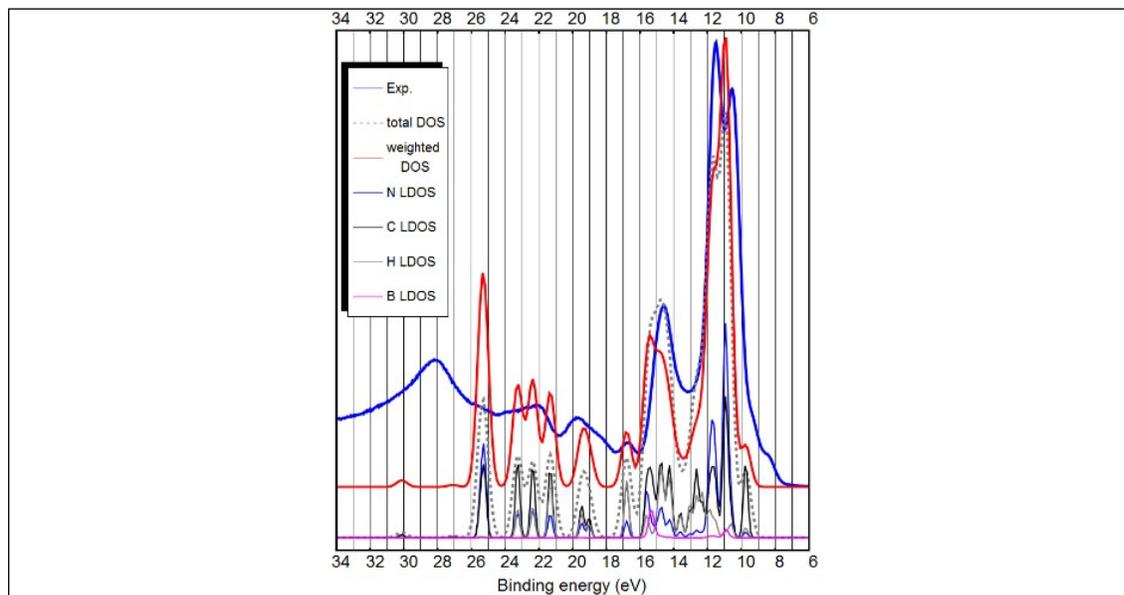
SUPPLEMENTARY S1. A linear background was subtracted from the experimental UPS spectrum of the [EMIM][B(CN)₄] ionic liquid (blue curve), the BLYP-D3(BJ) bulk total DOS calculation (dashed gray curve), the BLYP-D3(BJ) bulk DOS calculation weighted to account for photoemission cross sections of different orbitals (red curve) and LDOS of the different elements (curves below).



SUPPLEMENTARY S2. A linear background was subtracted from the experimental UPS spectrum of the [EMIM][B(CN)₄] ionic liquid (blue curve), the B97-D bulk total DOS calculation (dashed gray curve), the B97-D bulk DOS calculation weighted to account for photoemission cross sections of different orbitals (red curve) and LDOS of the different elements (curves below).



SUPPLEMENTARY S3. The experimental UPS spectrum of the [EMIM][B(CN)₄] ionic liquid (blue curve), the LDA bulk total DOS calculation (dashed gray curve), the LDA bulk DOS calculation weighted to account for photoemission cross sections of different orbitals (red curve) and LDOS of the different elements (curves below).



SUPPLEMENTARY S4. The experimental UPS spectrum of the [EMIM][B(CN)₄] ionic liquid (blue curve), the PBE bulk total DOS calculation (dashed gray curve), the PBE bulk DOS calculation weighted to account for photoemission cross sections of different orbitals (red curve) and LDOS of the different elements (curves below).