

Supplementary information:

A QCM based ‘on-off’ mechanistic study of gas
adsorption by plasmid DNA and DNA-[Bmim][PF₆]
construct

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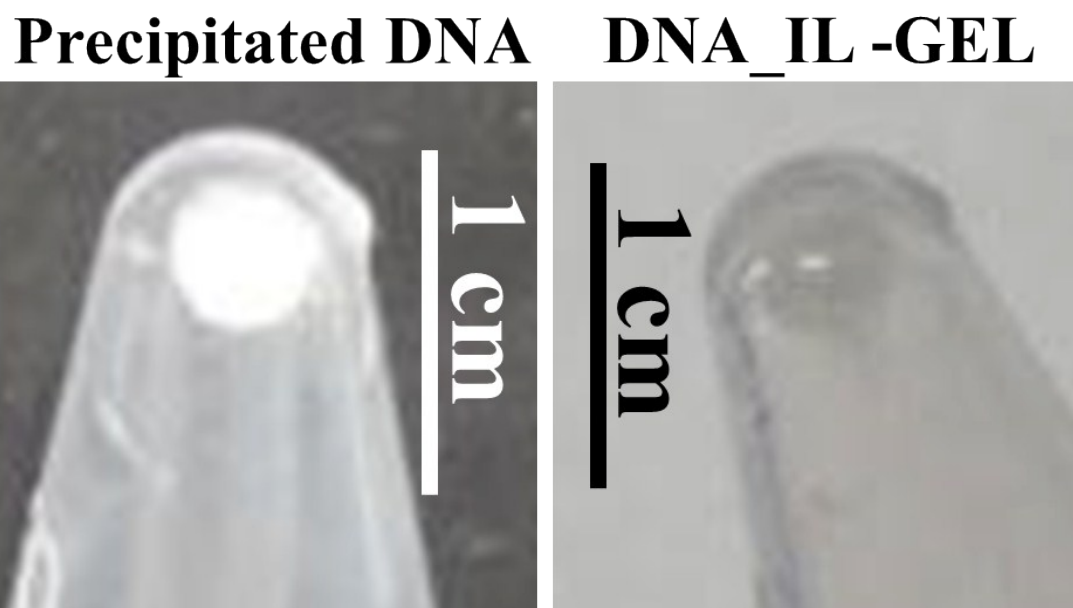


Figure S1. Photographic image of precipitated (by chilled ethanol) pristine DNA and DNA gel after interaction with ionic liquid [Bmim][PF₆].

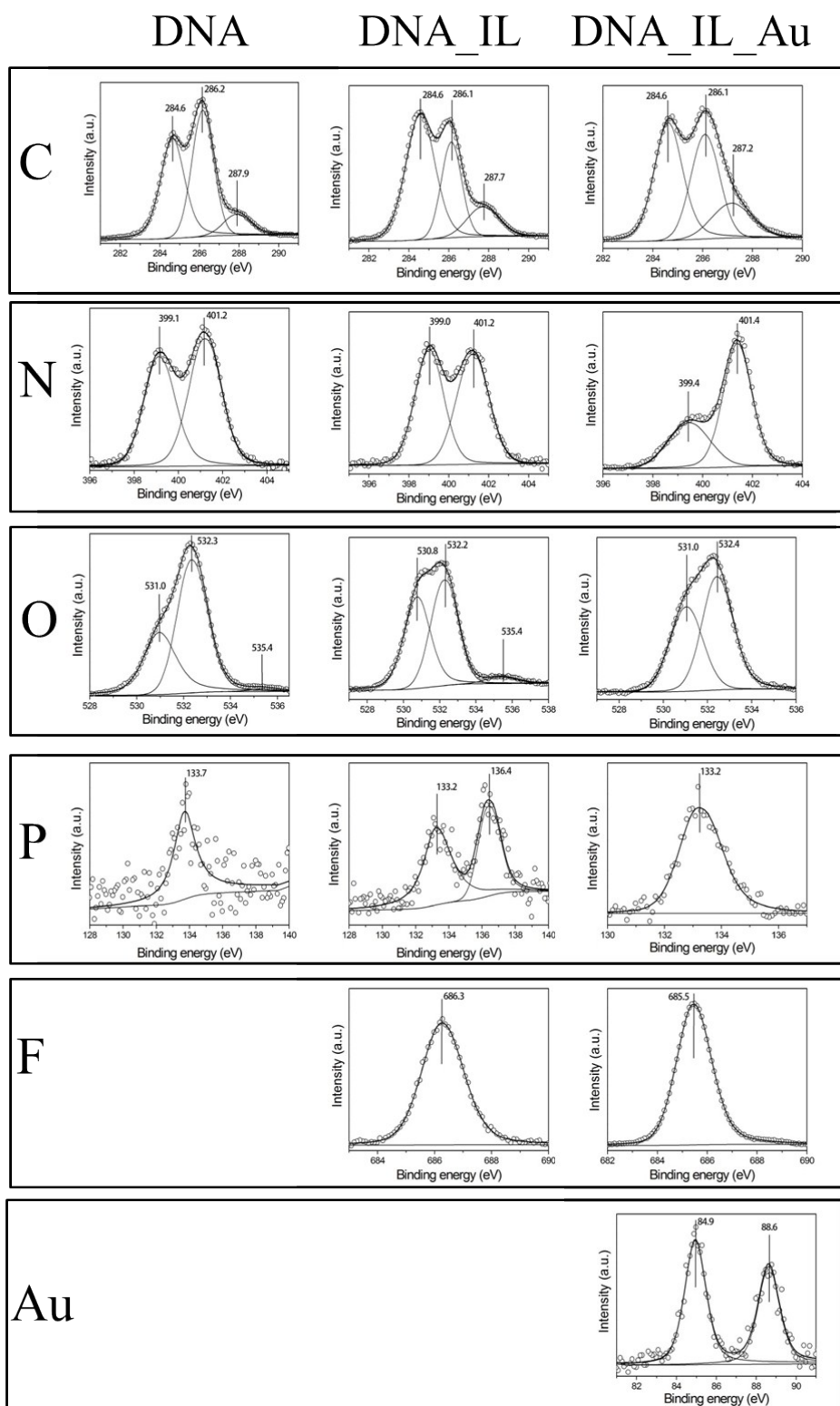


Figure S2. XPS spectra of DNA, DNA-IL and DNA-IL-Au showing deconvoluted raw spectra.

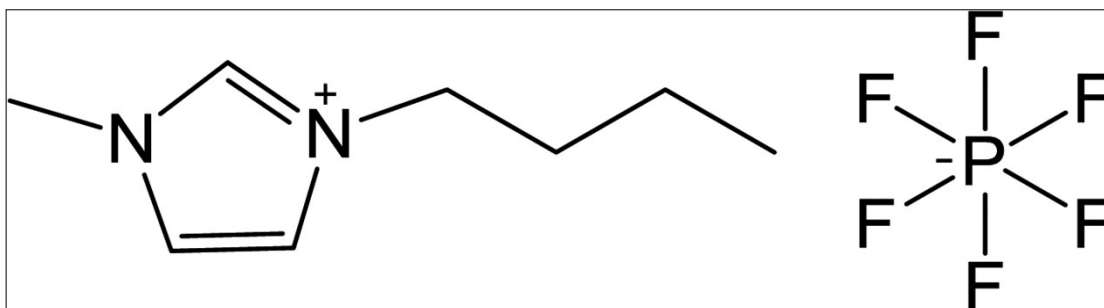


Figure S3. Molecular structure of ionic liquid [Bmim]PF₆.

Table S1. Gaussian fitting values obtained from the IR adsorption spectra (Fig. 4) for [Bmim][PF₆]

$\nu_{ss}HC(4)C(5)H$	3162		$\nu_{FR}CH_3$	2939
$\nu_{as}HC(4)C(5)H$	3122		$\nu_{ss}CH_3$	2870
$\nu_{as}CH_3$	2965			

Note: ss, as, and FR represent the symmetric stretch, the antisymmetric stretch, and the Fermi resonance, respectively)