## Optimum Conditions for Ionic Liquid-based Dispersive Extraction and Separation of Phenolic Acids from *Undaria Pinnatifida*

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This study reports the application of a dispersive extraction method for the extraction and separation of phenolic acids from *Undaria pinnatifida* using poly (ionic liquid)s (PILs) as sorbents. A suitable sorbent for phenolic acid extraction and separation was first identified based on the adsorption behavior of phenolic acids on different PILs. The sample was then mixed with the optimized sorbent and solvent to achieve dispersive extraction. After transferring the supernatant to an empty cartridge, a solid phase extraction process was used to separate the phenolic acids from other interferences. The good linearity and low relative standard deviations (< 4.91 %) justify its continuing development. Overall, the proposed method expected to wide potential applicability.