

# Ionic liquids as effective additives to enhance the solubility and permeation for puerarin and ferulic acid

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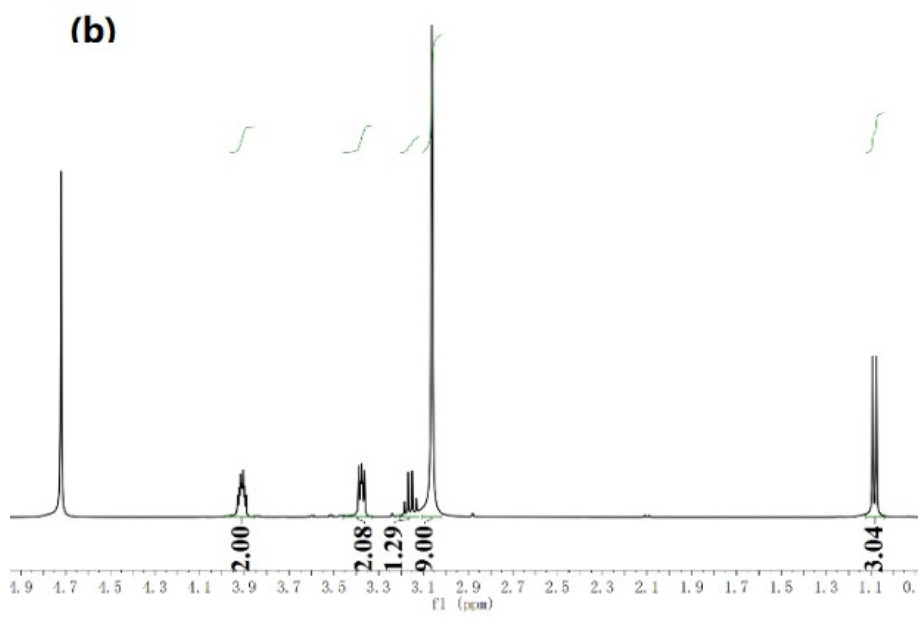
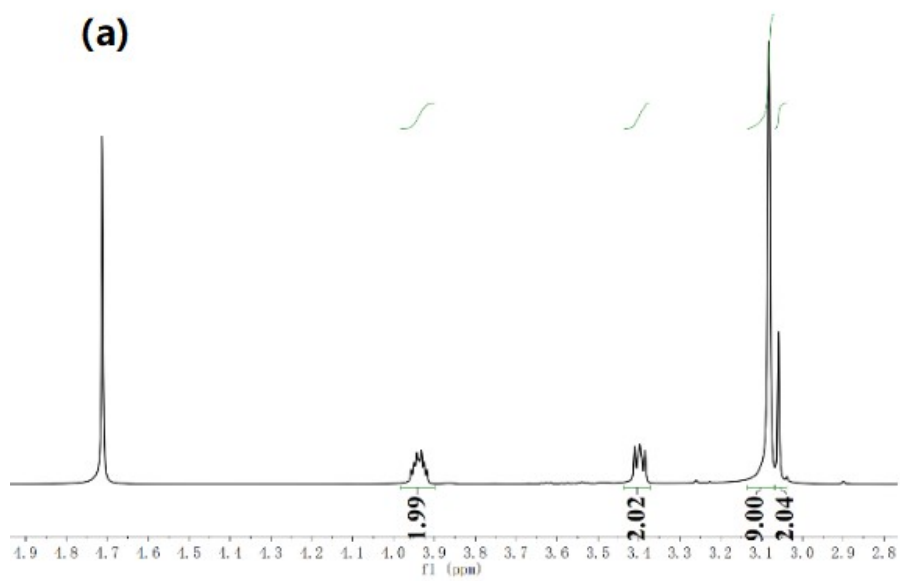
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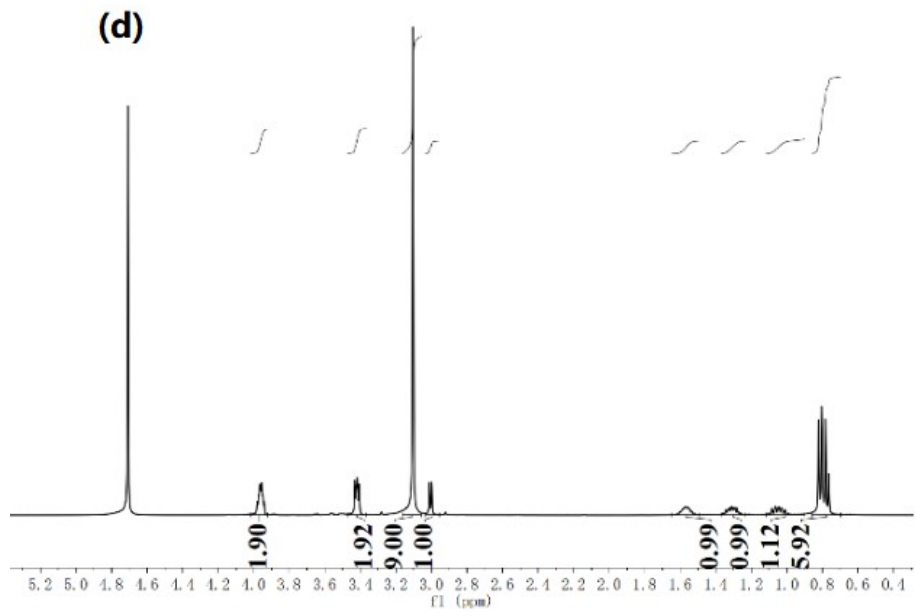
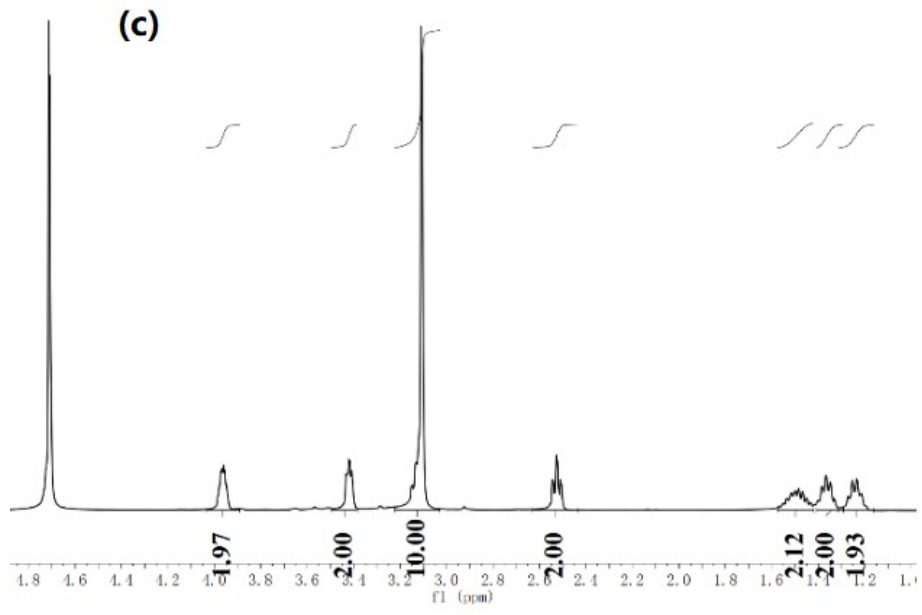
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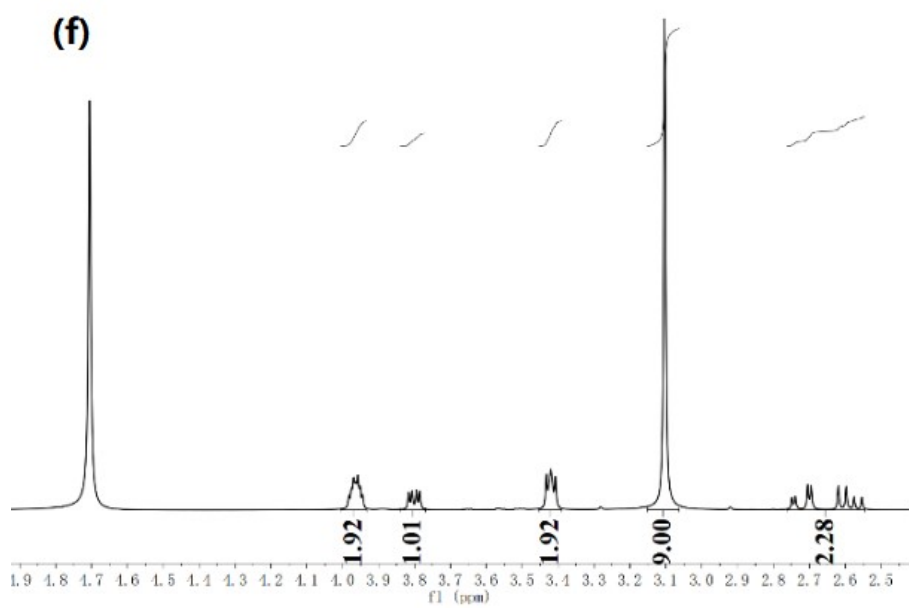
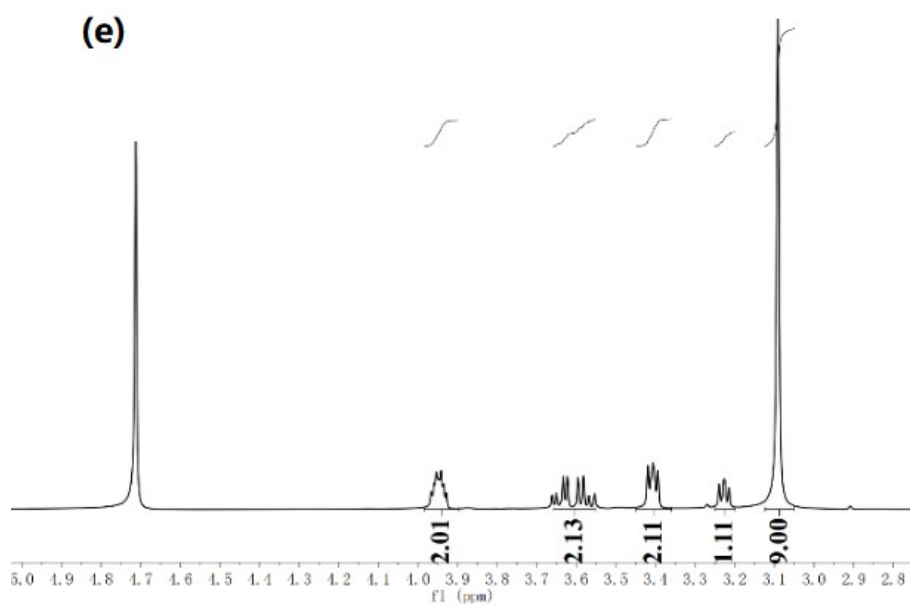
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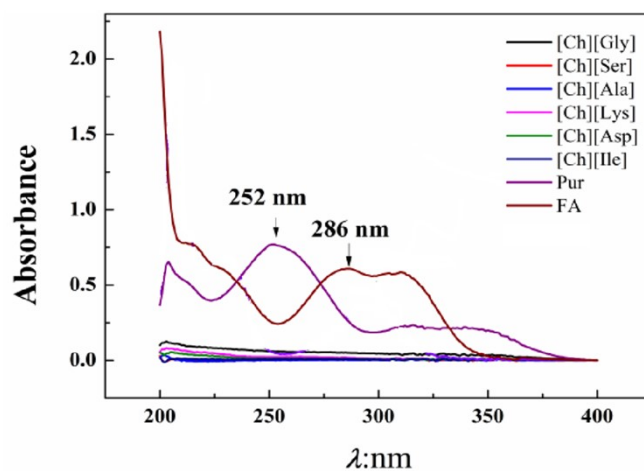
§ These two authors contributed equally to this work.



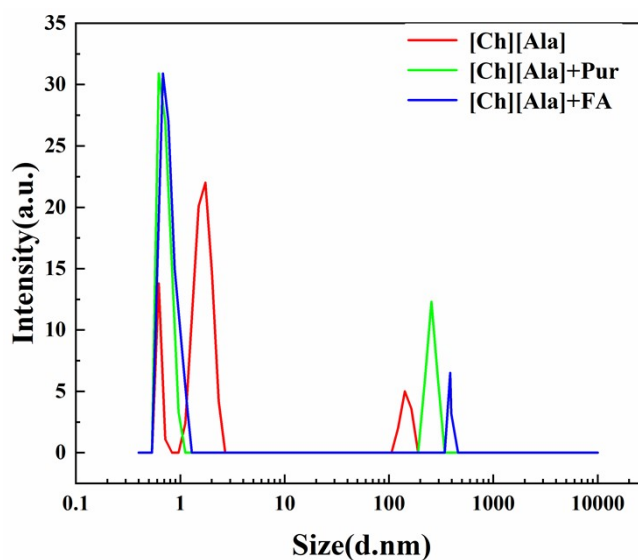




**Fig. S1**  $^1\text{H}$ NMR (400 MHz,  $\text{D}_2\text{O}$ ) spectra for CHAAILs: (a) [Ch][Gly], (b) [Ch][Ala], (c) [Ch][Lys], (d) [Ch][Ile], (e) [Ch][Ser], and (f) [Ch][Asp]



**Figure S2** UV-vis spectra of PBS solutions of APIs and CHAAILs. Pur and FA refer to puerarin and ferulic acid, respectively.



**Figure S3** DLS measurements on the solution of (a) ferulic acid and (b) puerarin in the absence and presence of [Ch][Ala]. Pur and FA refer to puerarin and ferulic acid, respectively.