Enhanced solubilization and extraction of hydrophobic bioactive compounds using water/ionic liquid mixtures

Fig. S1 Molecular structures of LCC-IL
Fig. S2 Structures of other ILs used and the corresponding abbreviations.
**Fig. S3** Mass solubility of α-tocopherol in aqueous solutions of \([\text{P}_{4444}]\text{[C}_{11}\text{H}_{23}\text{COO}]\) with higher concentration at temperature from 25-45°C.

**Fig. S4** Yield of tocopherols extracted from soybean flour (T = 40°C, S/L ratio = 1:20, t = 2h) in
water/[P_{4444}][C_{11}H_{23}COO] mixtures with IL’s concentration from 0.1-1.0M (5 to 50 wt%). The line between points is provided as a guide to the eye.

**Fig. S5** Yield of tocopherols extracted from soybean flour (T = 40°C, x = 20 wt%, t = 2h) in water/[P_{4444}][C_{11}H_{23}COO] mixtures with solid to liquid ratio from 1:10-1:30.

**Fig. S6** Visual depiction of gelation after a certain amount of HBCs dissolving in neat [P_{4444}][C_{11}H_{23}COO]
at 25°C. Photograph of the $[P_{4444}][C_{11}H_{23}COO]/HBCs$ sample (a) 25% rutin and (b) 30% ginkgolides.