

## The Solubility of Carbon Dioxide in Ionic Liquids

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Ionic liquids are actively studied as reacting media and green solvents. In particular, ionic liquids + carbon dioxide systems are important in the recovery of solutes in supercritical liquid extraction. In the present study, the solubility of carbon dioxide was experimentally studied in ionic liquids : 1-ethyl-3-methyl-imidazolium tetrafluoroborate([Emim][BF<sub>4</sub>]), 1-hexyl-3-methyl- imidazolium tetrafluoroborate ([C<sub>6</sub>mim][BF<sub>4</sub>]), and 1-butyl-3-methyl-imidazolium hexafluorophosphate ([Bmim][PF<sub>6</sub>]). The effects of alkyl chains in cations and the type of anions on the solubility were examined.