

### Measurements of the solubility of water in carbon dioxide using an indirect measurement method

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Data for the mutual solubility of water and carbon dioxide provide important information for the carbon dioxide sequestration in coal-beds because water in carbon dioxide can act as an impurity. Particularly, the measurements of the solubility of water in carbon dioxide were difficult and the reliable data were rarely reported. An indirect method was employed for the determination of the solubility of water in carbon dioxide at constant pressure and predetermined compositions. The measurements were carried out at 72 and 100 bar. Present and literature data were calculated and analyzed by both the Cubic-Plus-Association and the Nonrandom Lattice Fluid with Hydrogen Bonding Equation of State.