

## 흡수식 열펌프에 사용되는 작동유체 개발

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1-Butyl-3-methylimidazolium tetrafluoroborate ([BMIm][BF<sub>4</sub>])+ 2,2,2-trifluoroethanol (TFE) and 1-butyl-3-methylimidazolium bromide([BMIm][Br]) + TFE mixtures exhibit properties which render them suitable as candidates for working fluids in absorption heat pumps or chillers. Refractive indices and heat capacities of each pure ionic liquid were investigated in the temperature range of 298.2–323.2 K. Vapor pressures were measured by using the boiling point method in the concentration range of 40.0–90.0 mass% of ionic liquid and were correlated with an Antoine-type equation. The average absolute deviations between experimental and calculated values were 0.6% for the [BMIm][BF<sub>4</sub>] + TFE and 0.4% for the [BMIm][Br] + TFE system, respectively.