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Carbon dioxide absorption in ionic liquids [emim][AC] and [bmim][AC]

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Authors:	Marek Tańczyk, Adam Rotkegel, Zenon Ziobrowski, Roman Krupiczka
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Abstract: The experimental results of equilibrium capacity of carbon dioxide absorption in ionic liquids are presented. [bmim][Ac] and [emim][Ac] ionic liquids were investigated in gravimetric analyser IGA and in bubbling apparatus in temperature range 20-60°C. Measured equilibrium carbon dioxide absorption capacities are comparable with those obtained for 15% aqueous MEA solutions used in industry. High absorption capacities, thermal stability and negligible volatility of investigated ionic liquids may be an alternative for MEA solutions despite of much lower carbon dioxide absorption rate in ionic liquids.

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