

研究論文

AgNO₃およびPb(NO₃)₂を用いた海水中の陰イオン処理に関する基礎的研究

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Fundamental Study on Desalination Treatment of Anions in Seawater with AgNO₃ and Pb(NO₃)₂Takaaki WAJIMA [†], Tomoe SHIMIZU ^{††}, Takahiko YAMATO ^{†*} and Yasuyuki IKEGAMI ^{†††}

We examined the desalination treatment of seawater using AgNO₃ and Pb(NO₃)₂ for the removal of anions, such as Cl⁻, Br⁻, and SO₄²⁻. AgNO₃ could remove Br⁻ and Cl⁻ from seawater, while Pb(NO₃)₂ could remove SO₄²⁻, Br⁻ and Cl⁻. The pH of solution treated with AgNO₃ was constant at pH 8.1, but the pH of the solution treated with Pb(NO₃)₂ decreased to acidic. The reactions of AgNO₃ and Pb(NO₃)₂ with anions in seawater were rapid. Regardless of temperature of seawater, the time for anion removal by AgNO₃ was almost same, while that by Pb(NO₃)₂ delayed with decreasing temperature of seawater.

Key Words : Seawater, AgNO₃, Pb(NO₃)₂, Anion Reduction, Desalination