

Redox Potentials of Samarium and Europium in Molten Lithium Chloride

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The samarium (III)/(II) and europium (III)/(II) redox potentials in molten lithium chloride were measured using the direct potentiometric method in the temperature range from 923 to 1094 K. Glassy carbon was used as the indifferent working electrode, and the standard chlorine electrode as a reference. The total concentration of rare-earth chlorides dissolved in molten lithium chloride did not exceed 4.5 mol%.

Key words: Molten Salts; Redox Potentials; Samarium Chlorides; Europium Chlorides; Lithium Chloride.