

# A NMR Spin-Echo Study of Diffusion in Molten Salts

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Pressure-dependent measurements of the cationic self-diffusion coefficients of molten (Na, Li)NO<sub>3</sub> were carried out at 613 K. The pressure range lies between ambient pressure and 200 MPa. A new high-pressure probe, operating with heating coils, was constructed from titanium alloy. The temperature difference across the probe could be confined to 2.5 K. By use of a switchable high-frequency coil the nuclei lithium and sodium could be measured in succession within the same sample. The activation volumes are composition-dependent and range from 5 to 9 cm<sup>3</sup>mol<sup>−1</sup>.

*Key words:* Molten Salts, Self-diffusion, NMR Spin Echo.