



Solvation of praseodymium and cerium chlorides in anhydrous methanol and *iso*-propanol from ultrasonic velocity measurements.

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Streszczenie

Ultrasonic velocities and densities were measured, and the isentropic compressibility coefficients and solvation numbers for CeCl_3 and PrCl_3 (anhydrous and hydrated) solutions in methanol and *iso*-propanol at 25°C were calculated. The results were interpreted in terms of inner-sphere coordination of chloride anions by lanthanide cations, as well as changing dissociation degree of the solutes with concentration. The steric effect of the solvent molecules on modelling the structure and coordination number of metal ions was considered and compared with the X-ray diffraction of solid solvates. The above studies were correlated with our earlier optical investigation and confirmed by conductivity measurements. For comparison, the same methods were also applied to cesium, calcium and tetraethylammonium chlorides.

Adres publiczny

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