

The Structure of Concentrated Aqueous Solutions of Lanthanum Nitrate

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Raman spectra of concentrated aqueous solutions of lanthanum nitrate demonstrate a partial destruction of degeneracy of some internal vibrations of the nitrate anion [1].

The existence of position correlations of the dissolved ions assembled in a *quasi-crystalline-local structure* of the solution was suggested to interpret the profile of the intensity observed in its X-ray diffraction pattern. The behaviour of lanthanum nitrate solutions when the concentration of the salt decreases is compared, in this contribution, with the behaviour observed with solutions of yttrium nitrate [2]. The lack of the aforementioned local *quasi-order* observed by X-ray diffraction makes less apparent the destruction of degeneracy observed in both solutions. This evolution of the local *quasi-order* is tentatively interpreted taking in account the electric multipolar structure of the anion. Previous results are re-examined [3-7].

References

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