

# Studies of Orientational Order of Some Nematogens by means of Raman Scattering Spectroscopy

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The orientational behaviour of some liquid crystals with various molecular structures was studied by means of the Raman scattering depolarization method. The Raman scattering spectra of linearly polarized light were recorded as a function of temperature in the nematic phase. On the basis of these spectra the order parameters  $\langle P_2 \rangle$  and  $\langle P_4 \rangle$  as well as the molecular distribution function were determined. The obtained data were compared with those estimated on the basis of polarized light absorption and emission measurements. The influence of the molecular structure on the orientational order of liquid crystals was discussed.

*Key words:* Liquid Crystal; Raman Scattering; Order Parameter; Distribution Function.