

205.Title: BL037: A nematic mixture with high terahertz birefringence

Author: Vieweg, N; Shakfa, MK; Koch, M

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Abstract: We investigate the properties of the nematic mixture BL037 with terahertz time domain spectroscopy. Both, the refractive indices and absorption coefficients for extraordinary and ordinary polarization are extracted from the measured data. Besides the frequency dependence of the material parameters we also study their temperature dependence and compare the results to the properties of the pure liquid crystals. We find that the mixture exhibits the largest terahertz birefringence reported so far for liquid crystals. Thus, BL037 is an ideal candidate for THz devices.