SPECTRAL AND ELECTRIC CHARACTERISTICS OF IONIC LIQUID CRYSTALS DOPED WITH VIOLOGEN

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S u m m a r y

We present the results of study of the electrooptical and dielectric properties of a liquid crystal composition on the base of a lyotropic ionic liquid crystal (LILC) of K caprylate with the electrochromic admixture of diheptyldipyridyl dibromide (viologen). Under the treatment of the electrostatic field, the colouring of samples takes place. It depends on the applied voltage and manifests itself in absorption spectra. The obtained cyclic voltage-current characteristic of the LILC composition allows us to interpret the processes running inside the sample under the action of an external electric field. The investigation of the permittivity showed that the transition to a coloured state with increase of the applied voltage is accompanied by the general decrease of the sample's conductivity.