Composite sorbents based on the eutectic mixture of nematic liquid crystals and \(\beta\)-cyclodextrin derivatives

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Abstract

Mesomorphic, sorption and selective properties of the ternary sorbents based on the eutectic mixture of achiral nematic liquid crystal 4-methoxy-4’-etoksiazoksibenzol and 4,4-dietoksiazoksibenzene and three chiral macrocyclic derivatives of \(\beta\)-cyclodextrin were studied. It was shown that nature of the substituent in the molecule of \(\beta\)-cyclodextrin affects on the type of generated mixed mesophase (\(N\) or \(N^*\)). The reasons of manifestation of isomer-selective properties of composite sorbents with respect to the structural, cis-trans- and optical isomers in gas chromatography were discussed.