

Composite sorbents based on the eutectic mixture of nematic liquid crystals and β -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 β -cyclodextrin were studied. It was shown that nature of the substituent in the molecule of β -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.