

X-ray studies of the smectic B phase of the 4-bromobenzylidene-4'-alkoxyanilines.

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Streszczenie

The results of X-ray studies of the nine members (4 ÷ 12) of the 4-bromobenzylidene-4'-alkoxyaniline homologous series (nBBAA) in smectic B (SmB) and smectic A (SmA) phases are presented. Interestingly, no SmC phase was identified. The thickness of smectic layers in the SmA and SmB phases was estimated showing unexpectedly that in SmA it is bigger than in the SmB. For the SmB phase, orthorhombic unit cell parameters were determined as a function of temperature. The obtained data are discussed in relation to rotational dynamics.

Słowa kluczowe

liquid crystals, smectic B, Schiff bases, X-ray, smectic layer thickness

Adres publiczny

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