4-(4'-alkyloxyphenylazo)benzoyl chlorides not only intermediates but photosensitive mesogens for optical switching.

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This paper presents results of our studies of a full homologous series of 4-(4′-alkyloxyphenylazo)benzoyl chlorides. Until now these compounds have been used only as intermediates for more complex materials and their properties were not investigated as acid chlorides are considered unstable and hence useless for applications. We show that they are in fact quite durable and possess liquid-crystalline properties in a broad temperature range. In addition fast switching times of cis-trans isomerization with less than an hour relaxation time are demonstrated for the series, which makes these compounds promising materials for optical switching.

Słowa kluczowe

liquid crystals, azobenzene, Chloride, photoisomerization, Optical switching, New materials

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