

**II-P-3. SYNTHESIS AND LUMINESCENCE PROPERTIES
OF NEW LANTHANIDE(III)-DOPED LIQUID CRYSTAL COMPLEXES**

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Abstract

A new class of lanthanidom, containing liquid crystals, was synthesized. Upon reaction with $\text{Ln}(\text{NO}_3)_3$, the N-Alkyl-4-pyridine unit is tricoordinated to the metal to give disklike monomeric $[\text{Ln}(\text{L})_3(\text{NO}_3)_3]$ complexes. The ligands possess mesogenic cyanobiphenyl groups attached to the 4-pyridone unit via a flexible long alkyl spacer and show a very high thermal stability. IR spectroscopies were used to confirm the formed product. The photochemical and thermal behavior properties of the lanthanidomessogens were investigated using DSC, cross-polarized optical microscopy, fluorescence spectroscopy and thermogravimetry.

Keywords: *Liquid crystal, lanthanide, luminescence*

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