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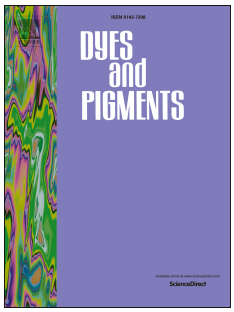

Photochemical and photophysical properties of photochromic osmium terpyridine-dimethyldihydropyrene complexes

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PII: S0143-7208(18)30470-4

DOI: 10.1016/j.dyepig.2018.07.047

Reference: DYPI 6901

To appear in: *Dyes and Pigments*

Received Date: 24 April 2018

Revised Date: 3 July 2018

Accepted Date: 27 July 2018

Please cite this article as: Sakurai H, Jacquet M, Lafolet Fréé, Loiseau Fréé, Saint-Aman E, Royal G, Cobo S, Photochemical and photophysical properties of photochromic osmium terpyridine-dimethyldihydropyrene complexes, *Dyes and Pigments* (2018), doi: 10.1016/j.dyepig.2018.07.047.

Photochemical and photophysical properties of photochromic Osmium terpyridine-dimethyldihydropyrene complexes

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A series of terpyridine osmium complexes linked to the dimethyldihydropyrene (DHP) photochromic unit have been synthetized and fully characterized by cyclic voltammetry, absorption, emission and transient spectroscopies. The complexation of the photochromic molecule by an osmium metal ion highly affects the emission properties of the molecules; i.e these compounds, in the closed-ring form, show unusually low emission quantum yield comparing to osmium terpyridine complexes. These emission properties can be controlled through the photo-isomerization state of the DHP core.

1. Introduction