## **Accepted Manuscript**

Photochemical and photophysical properties of photochromic osmium terpyridinedimethyldihydropyrene complexes

Hiroya Sakurai, Margot Jacquet, Frédéric Lafolet, Frédérique Loiseau, Eric Saint-Aman, Guy Royal, Saioa Cobo

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.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



### ACCEPTED MANUSCRIPT

# Photochemical and photophysical properties of photochromic Osmium terpyridine-dimethyldihydropyrene complexes

Hiroya Sakurai, <sup>‡, §</sup> Margot Jacquet, <sup>‡</sup> Frédéric Lafolet, <sup>ξ,</sup> Frédérique Loiseau, <sup>‡</sup> Eric Saint-Aman, <sup>‡</sup> Guy Royal <sup>‡</sup>, Saioa Cobo\*<sup>‡</sup>

- <sup>‡</sup>. Univ. Grenoble Alpes, DCM UMR 5250, F-38000 Grenoble, France.
- §. Graduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8571
- <sup>ξ</sup>. Univ. Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR 7086 CNRS, 15 rue Jean-Antoine de Baïf, 75205 Paris Cedex 13, France.

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

### Download English Version:

# https://daneshyari.com/en/article/6597531

Download Persian Version:

https://daneshyari.com/article/6597531

<u>Daneshyari.com</u>