Electronic Supplementary Information

A highly emissive inorganic hexamolybdenum cluster complex as a handy precursor for the preparation of new luminescent materials

Olga Efremova,^{1a} Michael A. Shestopalov,^{1b} Natalya A. Chirtsova,^{bc} Anton I. Smolentsev,^b Yuri V. Mironov,^b Noboru Kitamura,^d Konstantin A. Brylev^{*bc} and Andrew Sutherland^{*a}

¹ Equally contributed to the work reported.

^a Chemical Engineering and Applied Chemistry, Aston University, Aston Triangle, Birmingham, B4 7ET, UK; Fax: +44 (0)121 204 3679; Tel:+44 (0)121 204 3425; E-mail: a.j.sutherland@aston.ac.uk

^b Nikolaev Institute of Inorganic Chemistry SB RAS, 3 Acad. Lavrentiev Ave., 630090 Novosibirsk, Russia; Fax: +7(383) 330-94-89; Tel: +7(383) 330-92-53; E-mail: kbrylev@gmail.com

^c Novosibirsk State University, 2 Pirogova Str., 630090 Novosibirsk, Russia

^d Department of Chemistry, Faculty of Science, Hokkaido University, 060-0810 Sapporo, Japan

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Fig. S1 A suspension of $\{Mo_6I_8\}$ @PS-SH (2) microspheres in water under a) day-light illumination and b) UV-light illumination.



Fig. S2 The powder X-Ray diffraction patterns of 1, 2 and untreated PS-SH beads.



Fig. S3 Diffuse reflectance spectra of **1**, **2** and pure PS-SH beads. The Kubelka–Munk function, $F(R_{\infty}) = (1 - R_{\infty})^2/2R_{\infty}$, is used as the equivalent of absorbance.



Fig. S4 The FT-IR spectra of 1, 2, pure PS-SH beads and PS beads after blank experiment.



Fig. S5 Flow cytometric data for a suspension of $\{Mo_6I_8\}$ @PS-SH (2) in water.



Fig. S6 The emission decay profiles of solutions of 1 in (a) aerated and (b) deaerated acetone.



Fig. S7 The emission decay profile of a powdered sample of $\mathbf{1}$



Fig. S8 The emission decay profiles of a) a powdered sample of 2 and b) a suspension of 2 in water.



Fig. S9 Excitation spectra of 1 in an acetone solution (red line) and 2 as a suspension in water (black line).



Fig. S10 UV-Vis spectrum of an acetone solution of 1