

**Electronic Supplementary Material (ESI) for CrystEngComm.**  
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## Electronic Supplementary Information

### **The first photochromic bimetallic assemblies based on Mn(III) and Mn(II) Schiff-base (salpn, dapsc) complexes and pentacyanonitrosylferrate**

Vyacheslav A. Kopotkov,<sup>a\*</sup> Valentina D. Sasnovskaya,<sup>a</sup> Denis V. Korchagin,<sup>a</sup> Roman B. Morgunov,<sup>a</sup> Sergey M. Aldoshin,<sup>a</sup> Sergey V. Simonov,<sup>b</sup> Leokadiya V. Zorina,<sup>b\*</sup> Dominik Schaniel,<sup>c,d</sup> Theo Woike,<sup>e\*</sup> and Eduard B. Yagubskii<sup>a\*</sup>

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<sup>a</sup> *Institute of Problems of Chemical Physics, Chernogolovka, Moscow District, 1 Academician Semenov av., 142432 Russian Federation.* E-mail: yagubski@icp.ac.ru, slavaoven@mail.ru; Fax: +7 496-5225636; Tel: +7 495-9935707

<sup>b</sup> *Institute of Solid State Physics, Chernogolovka, Moscow District, 2 Academician Ossipyan str., 142432 Russian Federation.* E-mail: zorina@issp.ac.ru; Fax: +7 496-5228160; Tel: +7 496-5221982

<sup>c</sup> *Université de Lorraine, CRM2, UMR 7036, Vandoeuvre-les-Nancy, F-54506, France.*  
E-mail: dominik.schaniel@univ-lorraine.fr; Fax: +33 (0) 383 68 4300; Tel: +33 (0) 383 68 4863

<sup>d</sup> *CNRS, CRM2, UMR 7036, Vandoeuvre-les-Nancy, F-54506, France.* E-mail: dominik.schaniel@univ-lorraine.fr;

<sup>e</sup> *Technische Universität Dresden, Institut für Strukturphysik, Zellescher Weg 16, 01069 Dresden, Germany.*  
E-mail: theo.woike@tu-dresden.de Fax: +49 351 463-37048; Tel: +49 351 463-34670

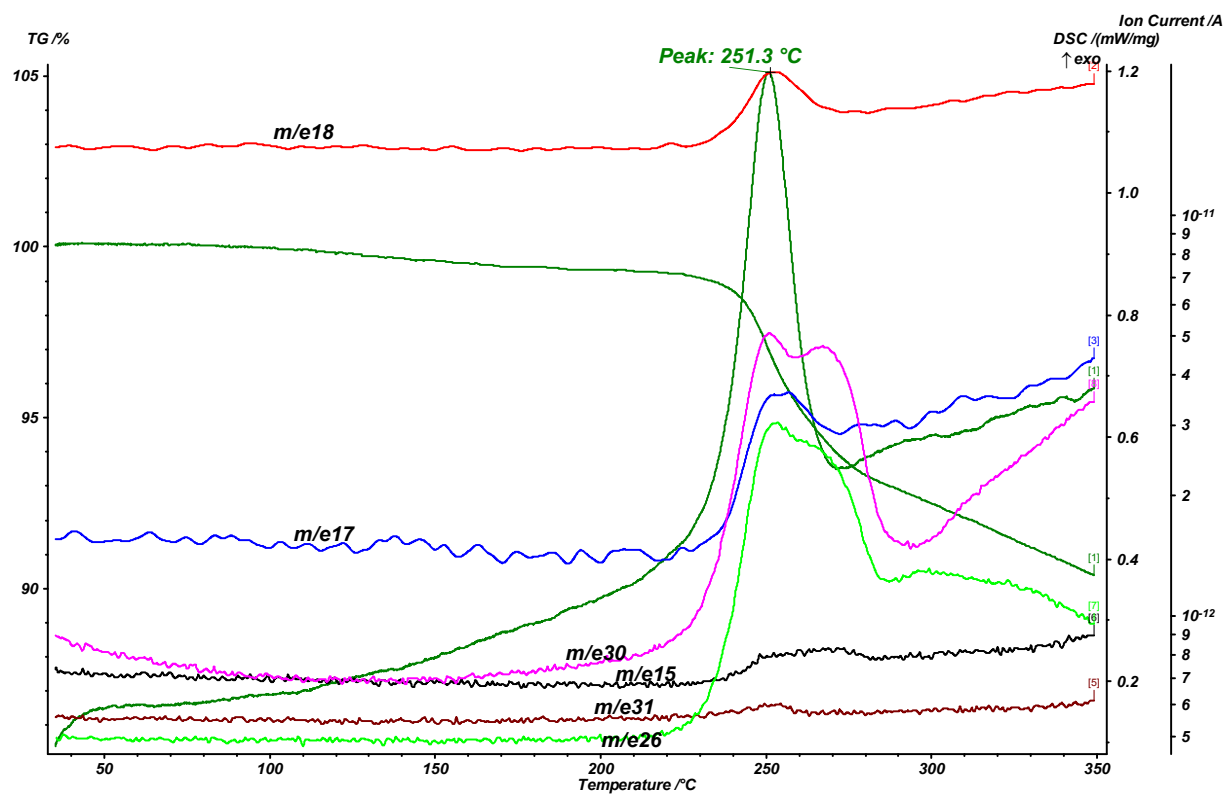


Fig. S1 TG-DSC curves and mass spectra for complex 1.

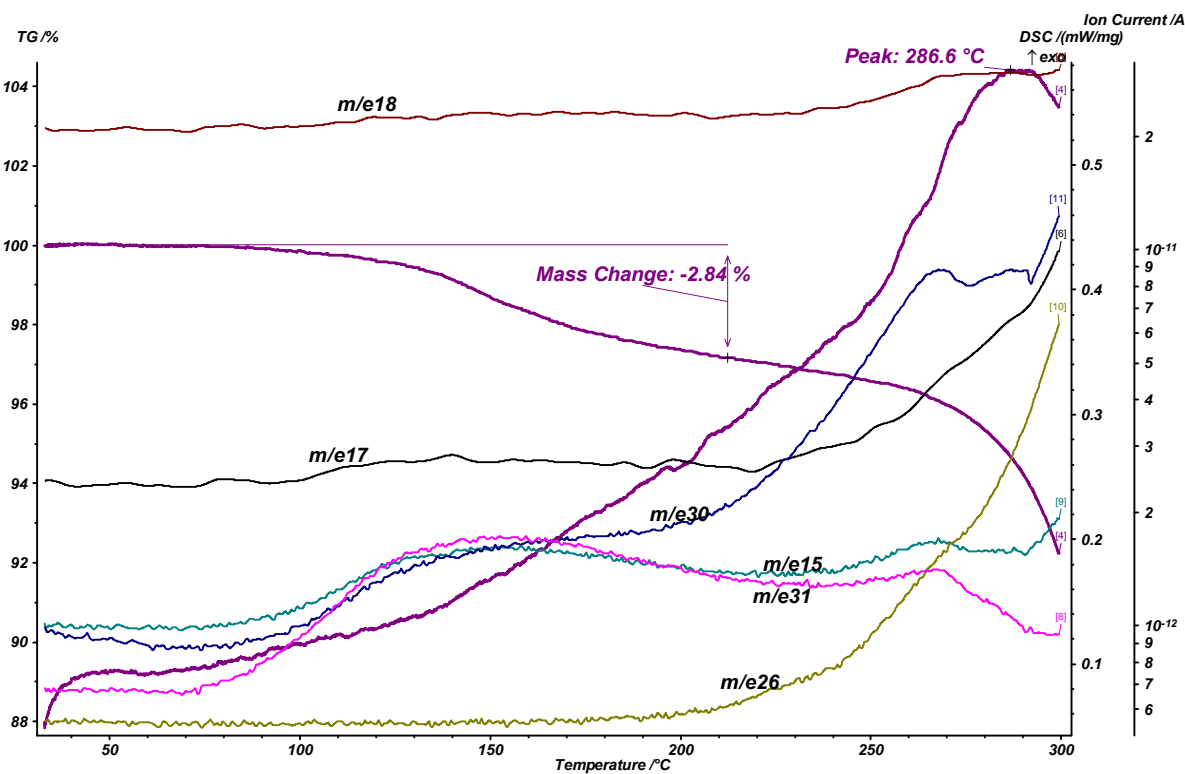
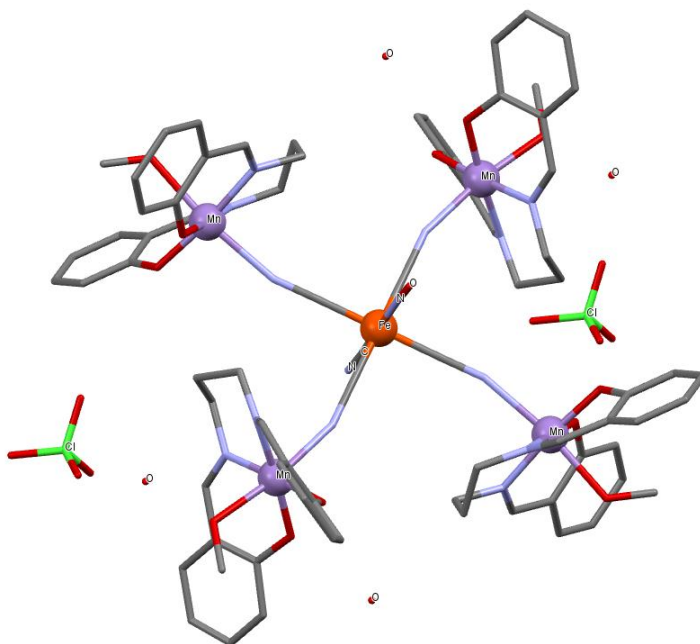


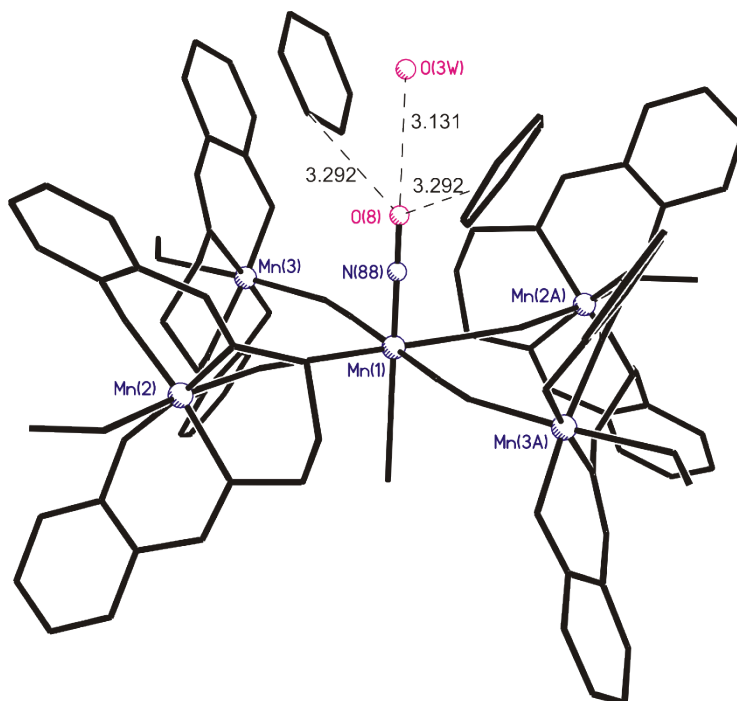
Fig. S2 TG-DSC curves and mass spectra for freshly prepared complex 3.

## Crystal structures



**Fig. S3** Structure of  $\{[\text{Mn}(\text{salpn})(\text{CH}_3\text{OH})_4][\text{Fe}(\text{CN})_5\text{NO}]\}(\text{ClO}_4)_2 \cdot 4\text{H}_2\text{O}$  (**4**) (space group  $P2(1)/n$ ,  $a=15.372(1)\text{\AA}$ ,  $b=17.519(1)\text{\AA}$ ,  $c=15.692(1)\text{\AA}$ ,  $\beta=90.05(1)^\circ$ ). H atoms are omitted for clarity.

As in the case of compound **2**, the nitrosyl group is disordered between two sites with 1/2 occupancies due to space group symmetry.



**Fig. S4** The environment of NO ligand in complex  $\{[\text{Mn}(\text{salpn})(\text{CH}_3\text{OH})_4][\text{Mn}(\text{CN})_5\text{NO}]\}[\text{C}(\text{CN})_3] \cdot 3\text{H}_2\text{O}$  (**2**) (the distances in  $\text{\AA}$ ).