Electronic Supplementary Information for Dalton Transactions

Fibrous aggregates from dinuclear zinc(II) salphen complexes

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Experimental Section

Crystallography. Crystals of **1c** suitable for X-ray diffraction were grown from dimethyl sulfoxide. All measurements were made on a Bruker X8 APEX CCD diffractometer with graphite monochromated Mo-K_α radiation (λ = 0.71069 Å).

Crystal data. Orange block (0.40 x 0.25 x 0.20 mm), $C_{31}H_{41}N_2O_8S_3Zn$, M = 731.21 g mol^{-1}, monoclinic, space group $P2_1/n$, a = 9.395(5) Å, b = 17.839(5) Å, c = 20.303(5) Å, $\alpha = \gamma$ = 90.000(5)°, β = 95.383(5)°, V = 3388(2) Å^3, Z = 4, ρ_{calcd} = 1.434 g cm^{-3}, F_{000} = 1532, Mo-K_α radiation, λ = 0.71069 Å, T = 173(2) K, $2\theta_{max}$ = 53°, reflections collected 51720, 8061 were unique (R_{int} = 0.0485). Final GoF = 1.175, R_1 = 0.0667, wR_2 = 0.1539, R indices based on 6470 reflections with $I>2\sigma(I)$. The structure was solved by direct methods and the refinement was performed using SHELXL-97.[1] One DMSO molecule was disordered over two positions with a shared oxygen atom. The disordered DMSO was left isotropic and all atoms in it excluding the shared oxygen were modeled with half occupancy. All other atoms were refined anisotropically. Hydrogen atoms were included at fixed positions. Additional details are available in the CIF file.

Reference:

1 Sheldrick, G.M. SHELXL-97, University of Göttingen, Germany, **1997**.

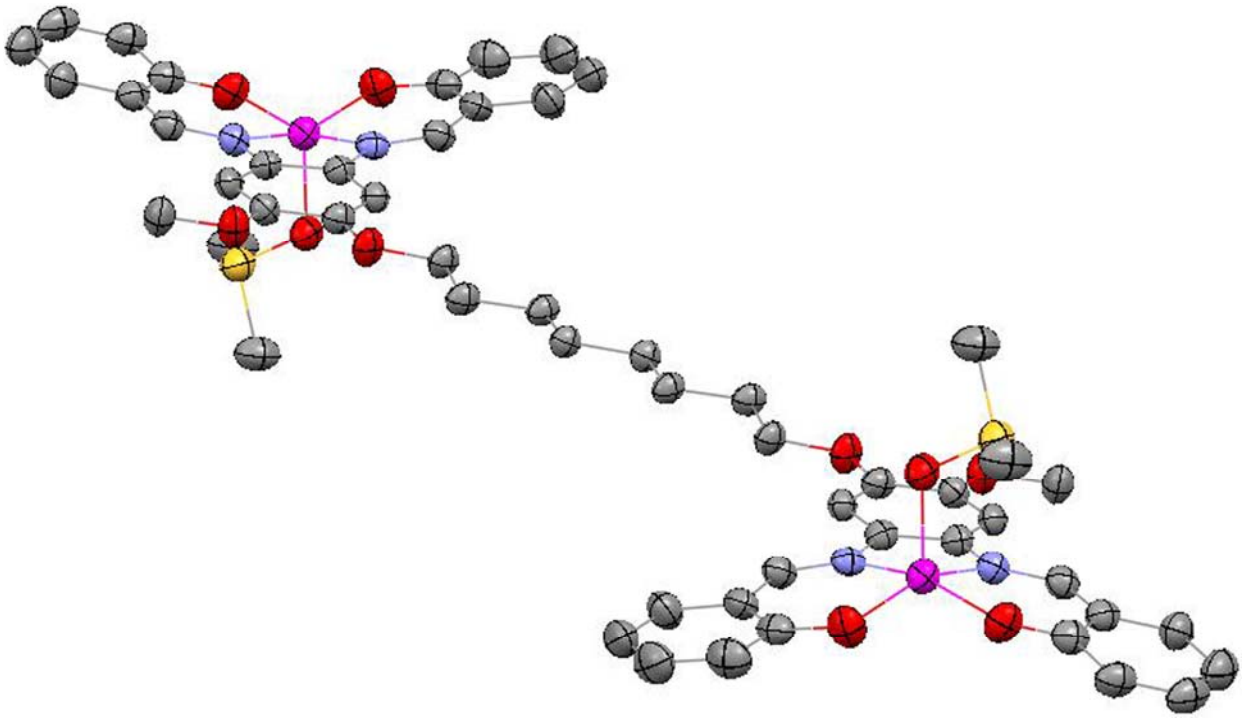

Fig. S1. SCXRD structure of complex **1c**. The hydrogen atoms have been removed for clarity. (Color legend: blue = N, gray = C, pink = Zn, red = O and yellow = S). To accommodate the square pyramidal metal centers, the salphen units are slightly distorted, with the salicylidene moieties bent away from the plane of the complex.

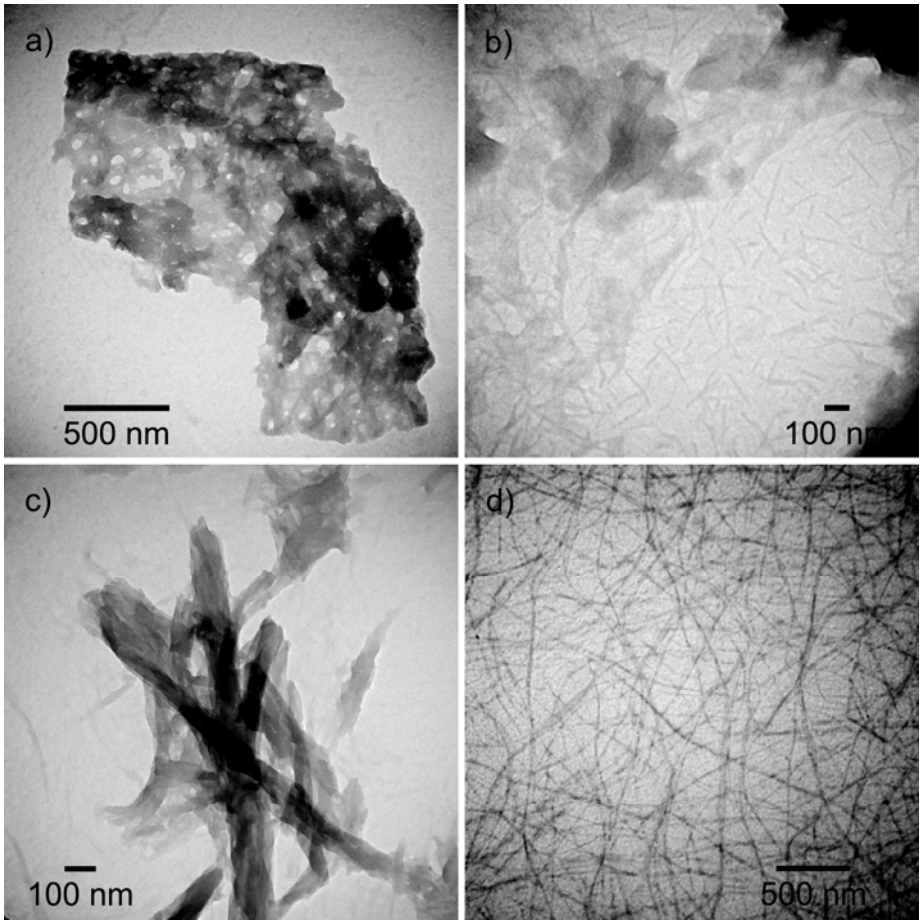

Fig. S2. (a–d) TEM images of complexes **1a**–**d** drop-cast from chloroform.

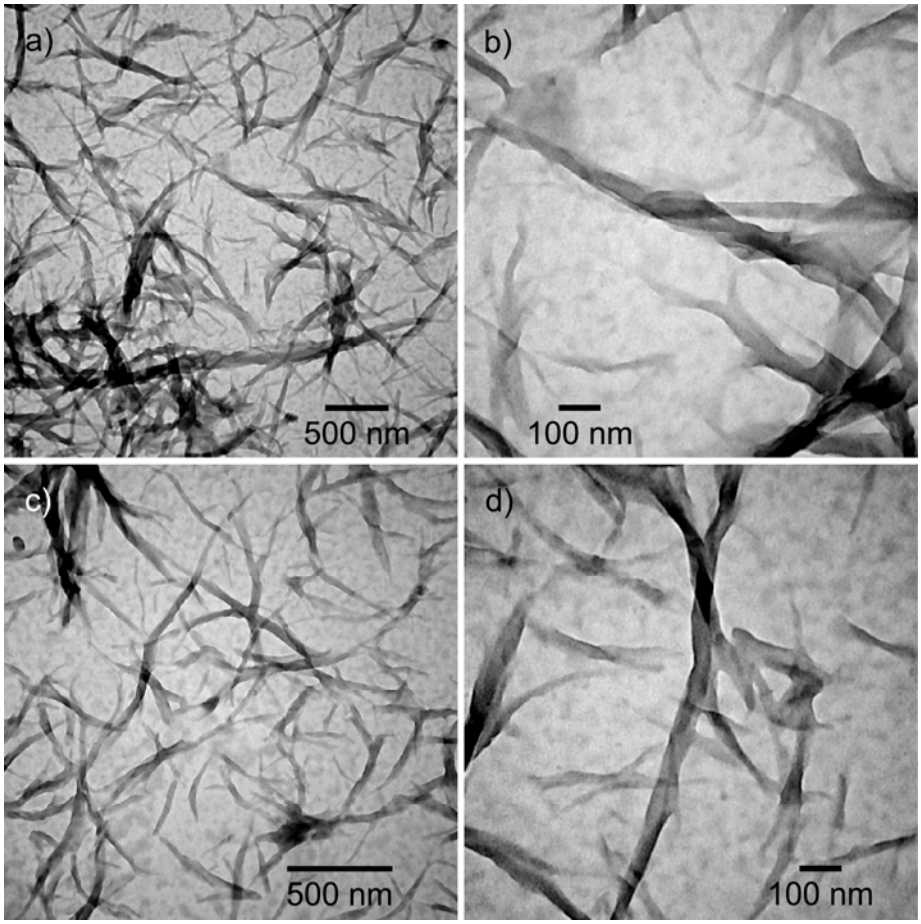

Fig. S3. (a–d) TEM images of complexes **1d** with 4,4'-bipyridine drop-cast from methanol/chloroform mixture. (b) is the magnified view of (a).