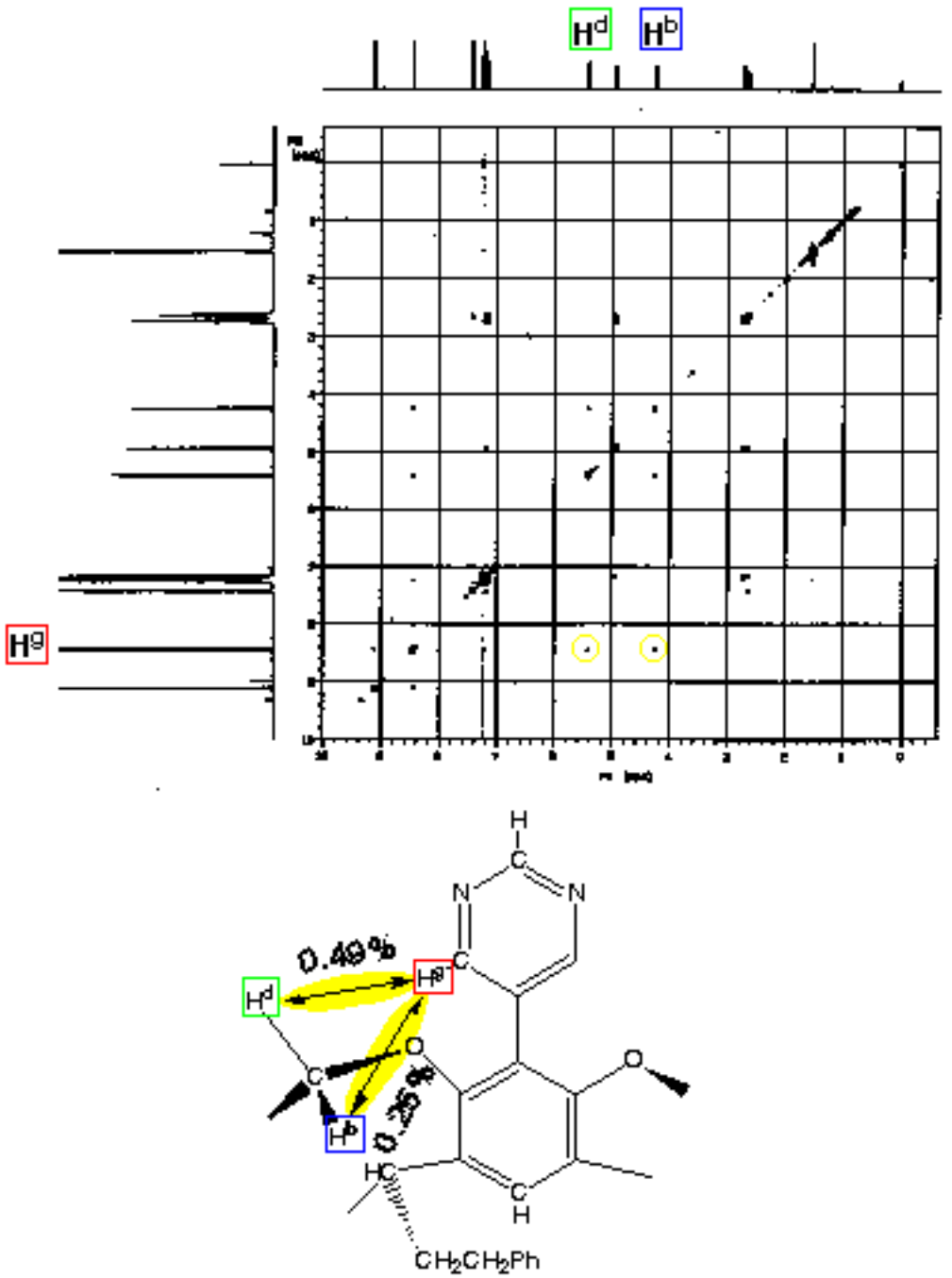


Fig 1S. ^{1}H-^{1}H-2D-ROESY spectrum on a cavitand ligand in $CDCl_3$. The values of NOE between one H^g proton in a 3 or 5 position of the pyrimidyl groups and two protons, H^b and H^d, of the bridging methylene are shown in 0.25% and 0.49%, respectively.

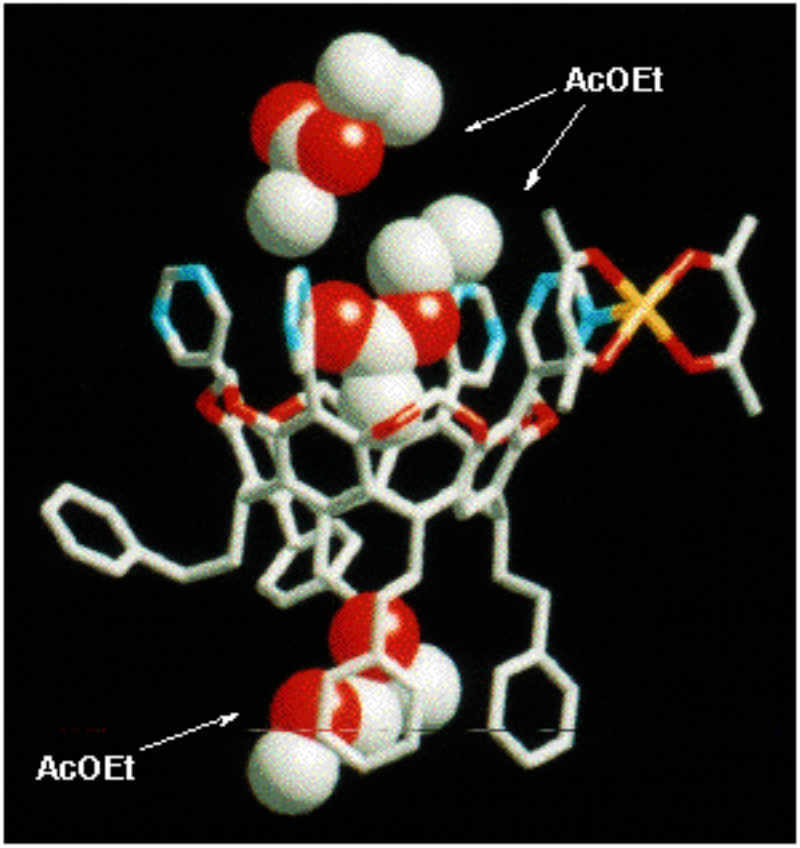


Fig. 2S The asymmetry unit of the crystal: The unit is constructed from a Mn complex with a cavitand ligand, one AcOEt molecule into the cavitand cavity and two AcOEt with heavy disordering. The white, red, blue and yellow atoms represent a carbon, an oxygen, a nitrogen atoms and a manganese (II) ions, respectively.

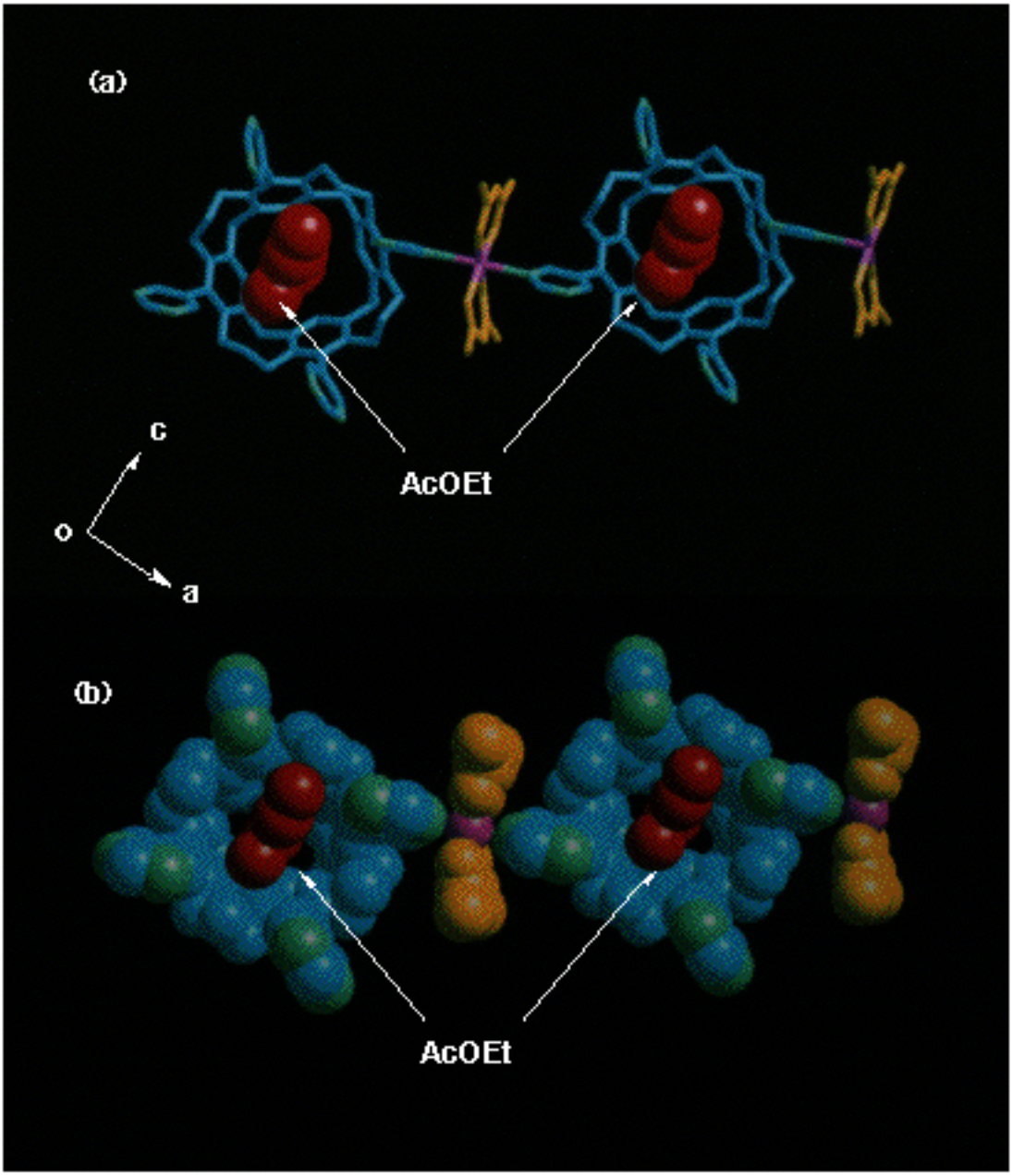


Fig. 3S the upper views of the one-dimensional Mn (II) coordination polymer with cavitand ligands: (a) the coordination polymer is represented by a cylinder model (except for the included AcOEt molecules shown in a red ball model). The framework of the cavitand ligand is shown in blue, and a manganese ion and acetylacetonate ligands are in magenta and yellow, respectively. (b) It is represented by a ball model based on van der Waal's radius.

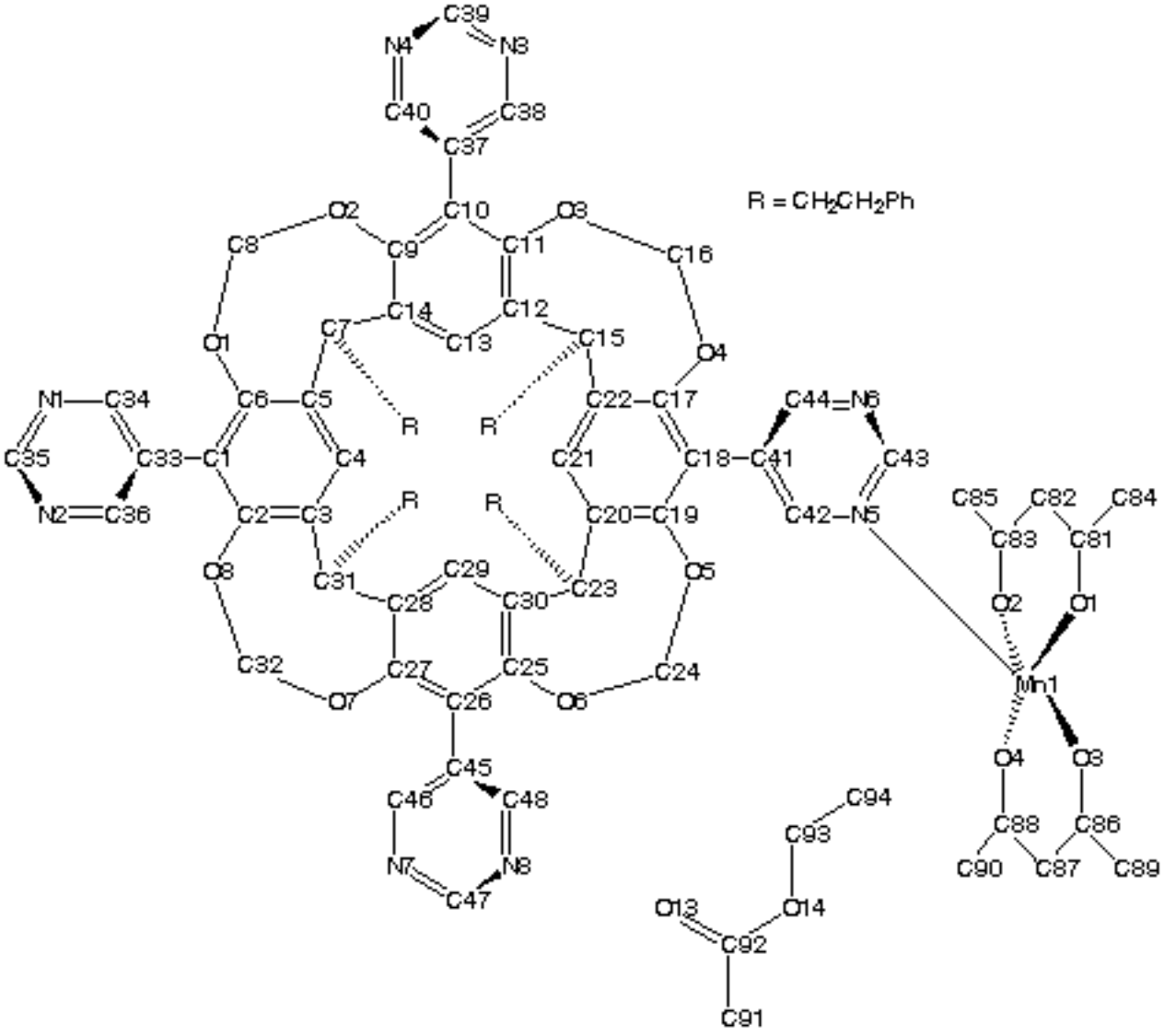
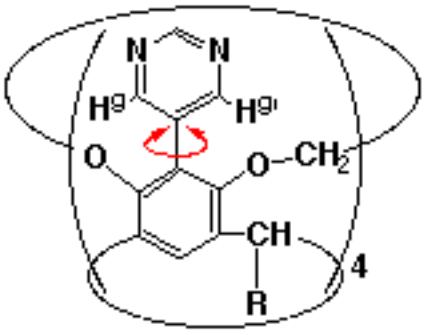


Fig. 4S the main atom-numbering schemes of a unit of the Mn complex with a cavitand ligand and the AcOEt molecules included into the cavity.



9b

T_c = -75°C

$\Delta G^{\ddagger}$ = 40kJ·mol^{-1}

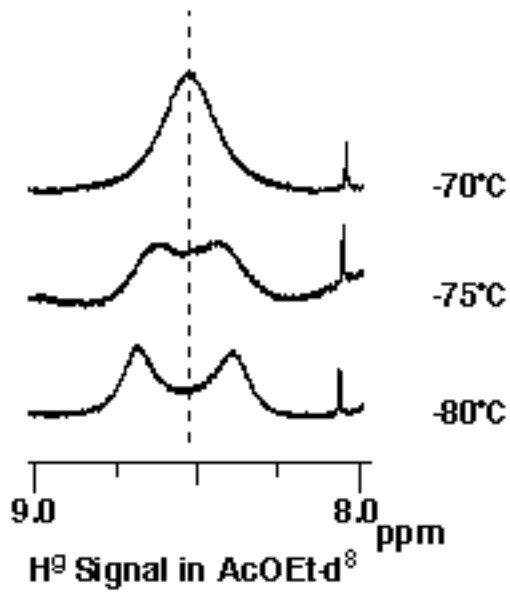


Fig. 5S the H^g signals in 1H-NMR spectra in AcOEt-d^8 depending upon the temperatures are indicated a coalescence phenomenon at –75℃. The activated energy of ~40 kJ/mol is estimated from the temperature.

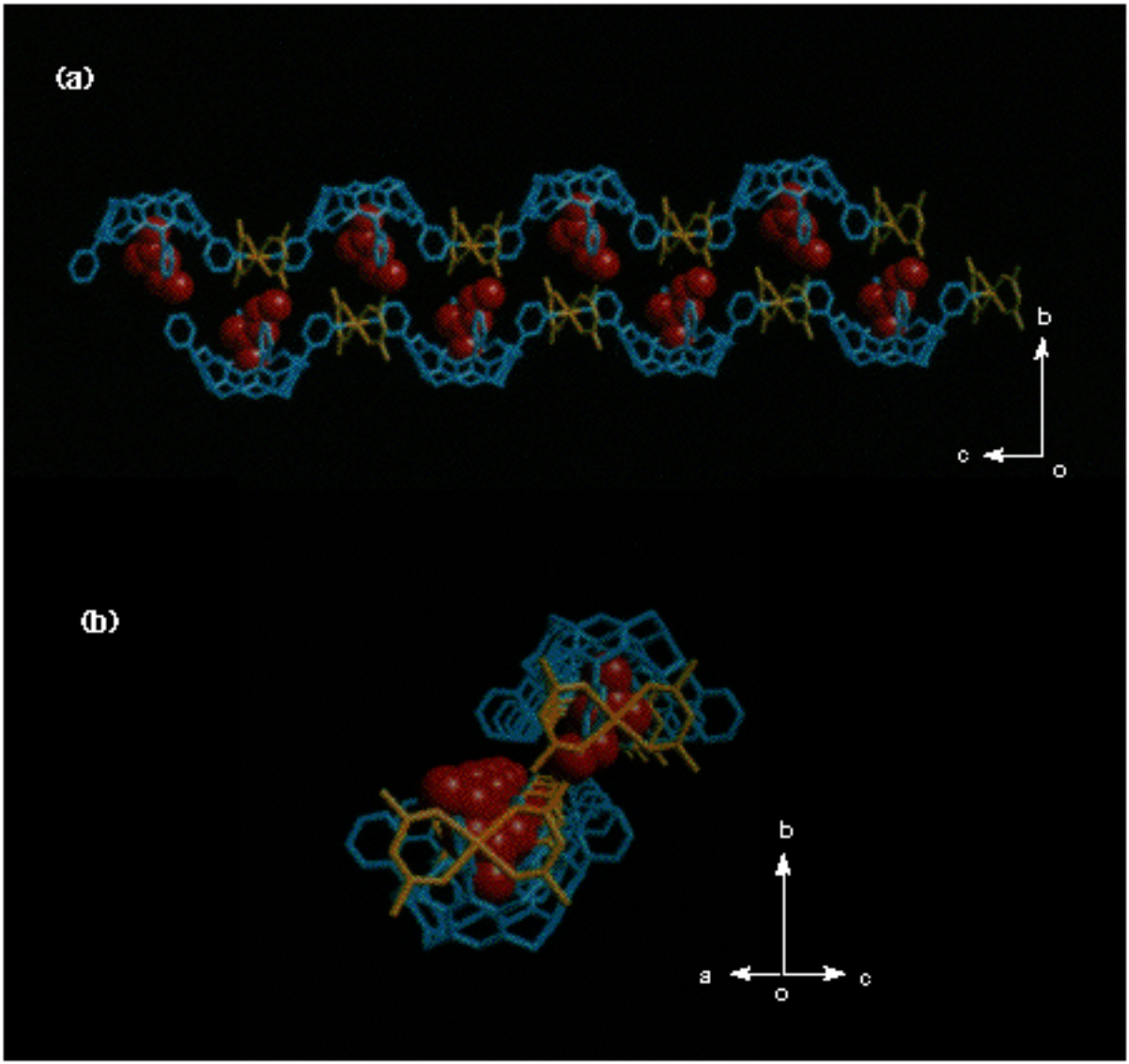


Fig. 6S (a) the projection through the *a* axis on two chains of the coordination polymers: It is understood that the cavitand ligands form no capsule formation. (b) The perspective view of two polymer chains along the diagonal lines in *ac* plane.

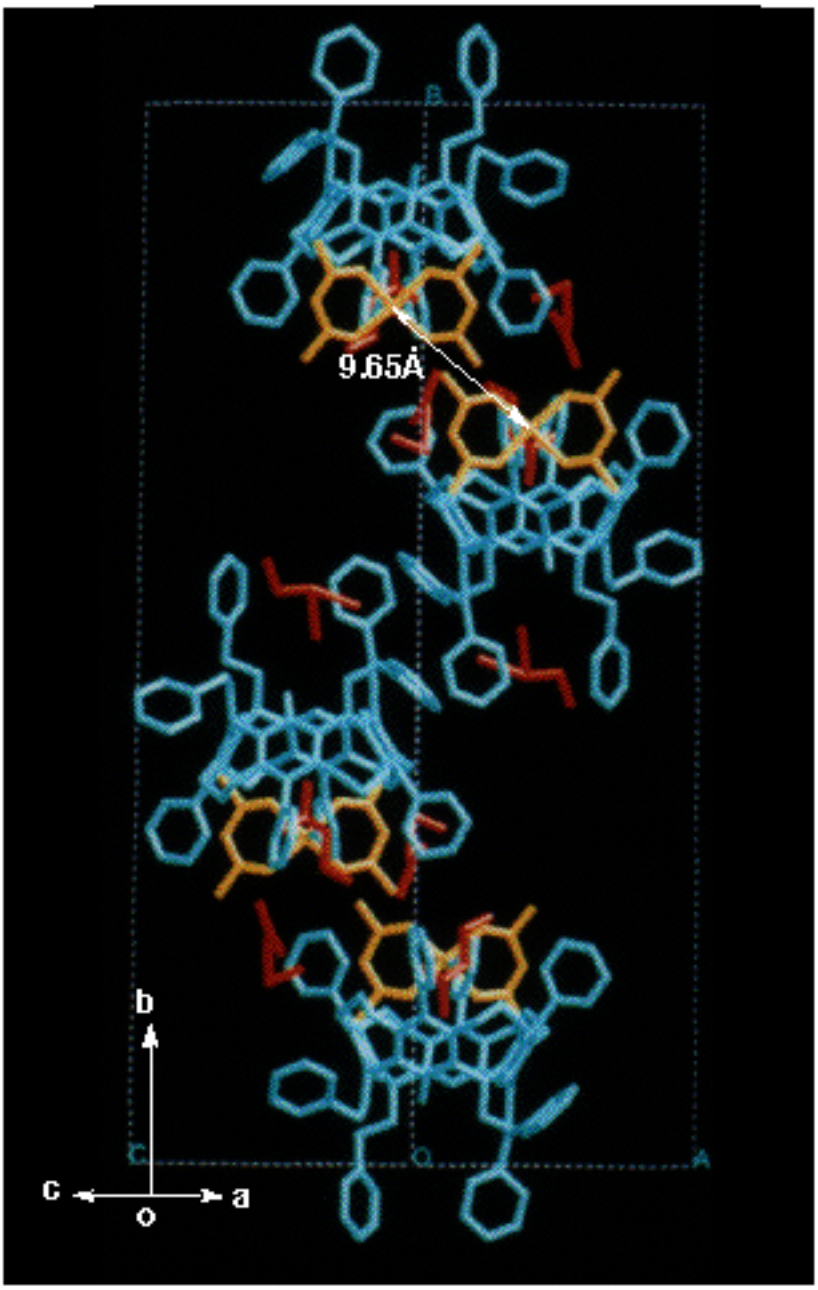


Fig 7S the locations of the coordination polymers in crystal: The one-dimensional polymer chains are directed to a diagonal line in the *ac* plane. The cavitand ligands, AcOEt molecules and acetylacetonato Mn (II) complexes are shown in blue, red and yellow lines, respectively.

M. Tadokoro, *et al.*, "One-Dimensional Void-Space Arrays Constructed from Coordination Polymer ....."