Supplementary Material (ESI) for Chemical Communications

Supplementary Information

Nanostructured Microspheres of MnO_2 formed by Room Temperature Solution Processing

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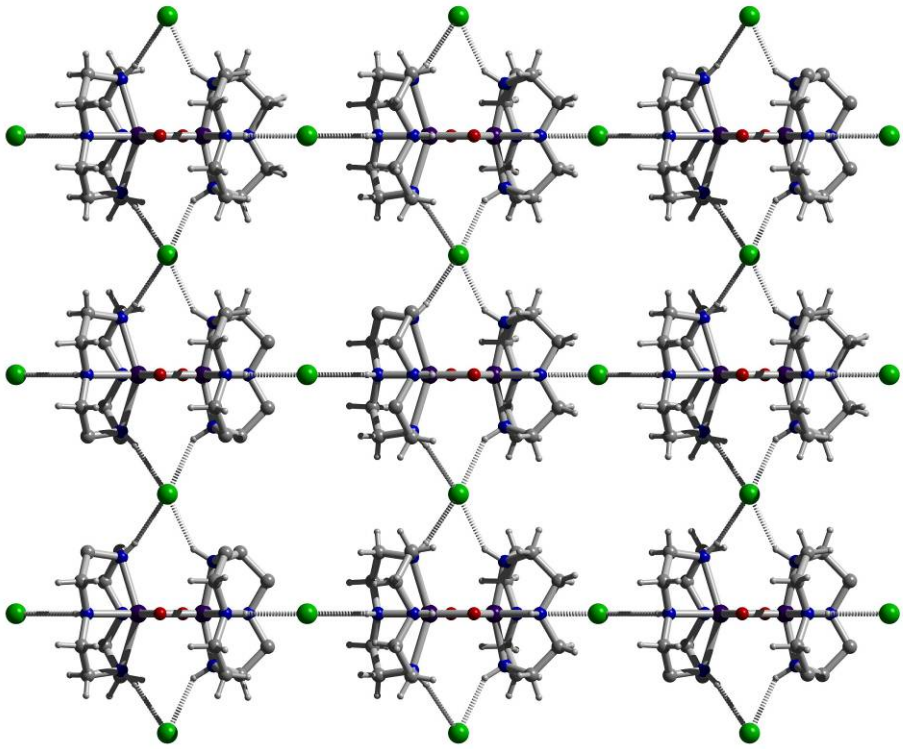


Figure S1(a). X-ray crystal structure of the product from the reaction between MnCl2.4H2O and cyclen in the presence of sodium perchlorate. Sheet-like structure formed by hydrogen bonding between dioxo dinuclear manganese complex and its chloride counteranions. (Viewed down the c-axis.)

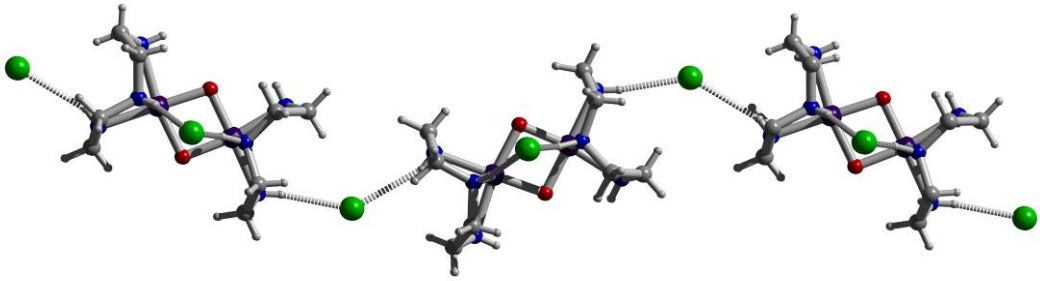
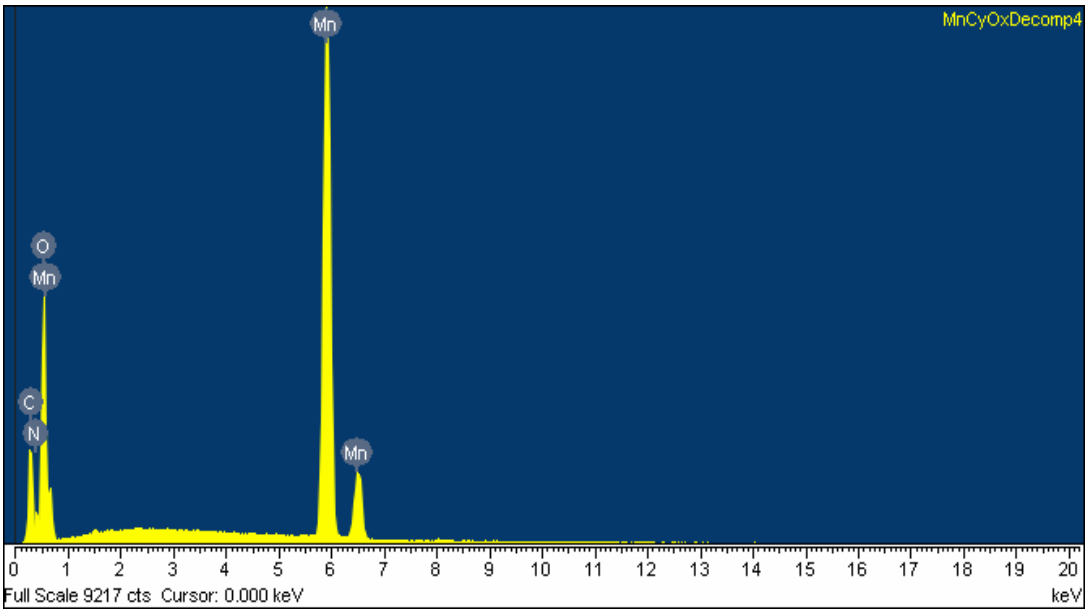
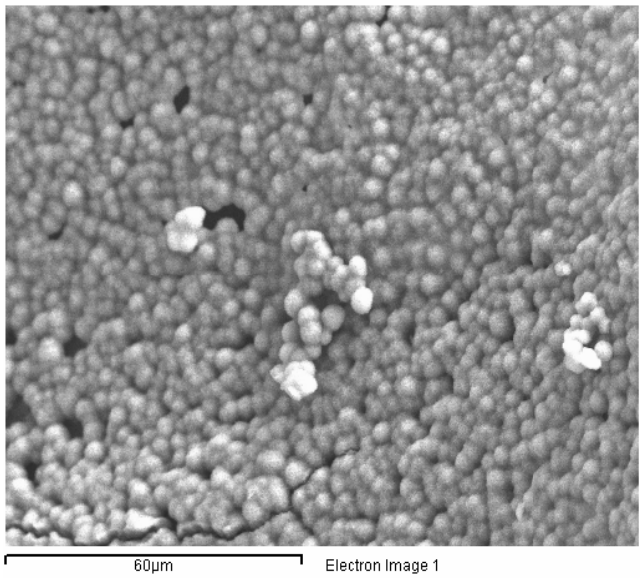


Figure S1(b). X-ray crystal structure of the product from the reaction between MnCl2.4H2O and cyclen in the presence of sodium perchlorate. Edge-on-view of the sheet showing a corrugated structure. (Viewed down the b-axis.)





Element	Weight%
C K	16.59
N K	7.56
O K	24.68
Mn K	51.18
Total	100.00

Figure S2. EDX analysis of the nanostructured microspheres.

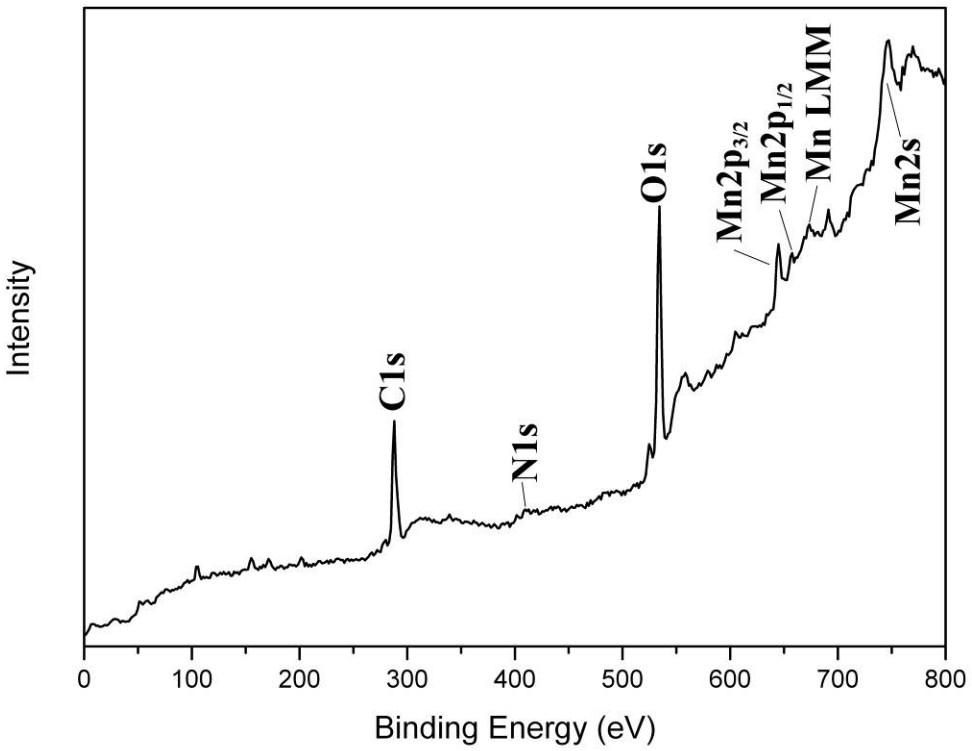


Figure S3. Survey scan XPS spectrum of the nanostructured microspheres

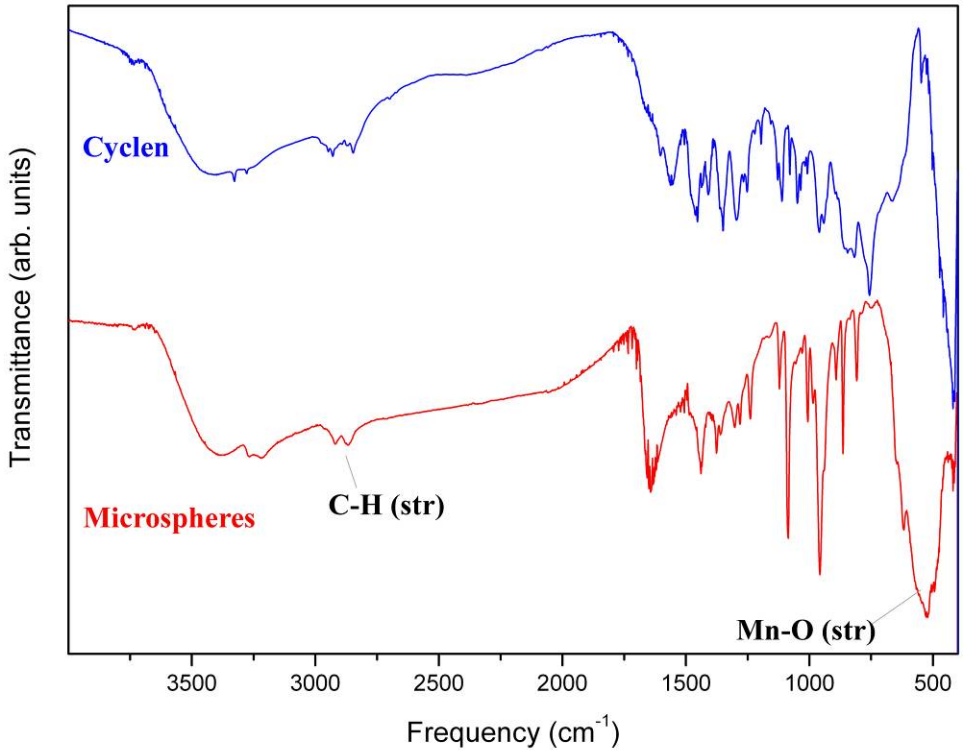


Figure S4. FTIR spectra of cyclen and the nanostructured microspheres.

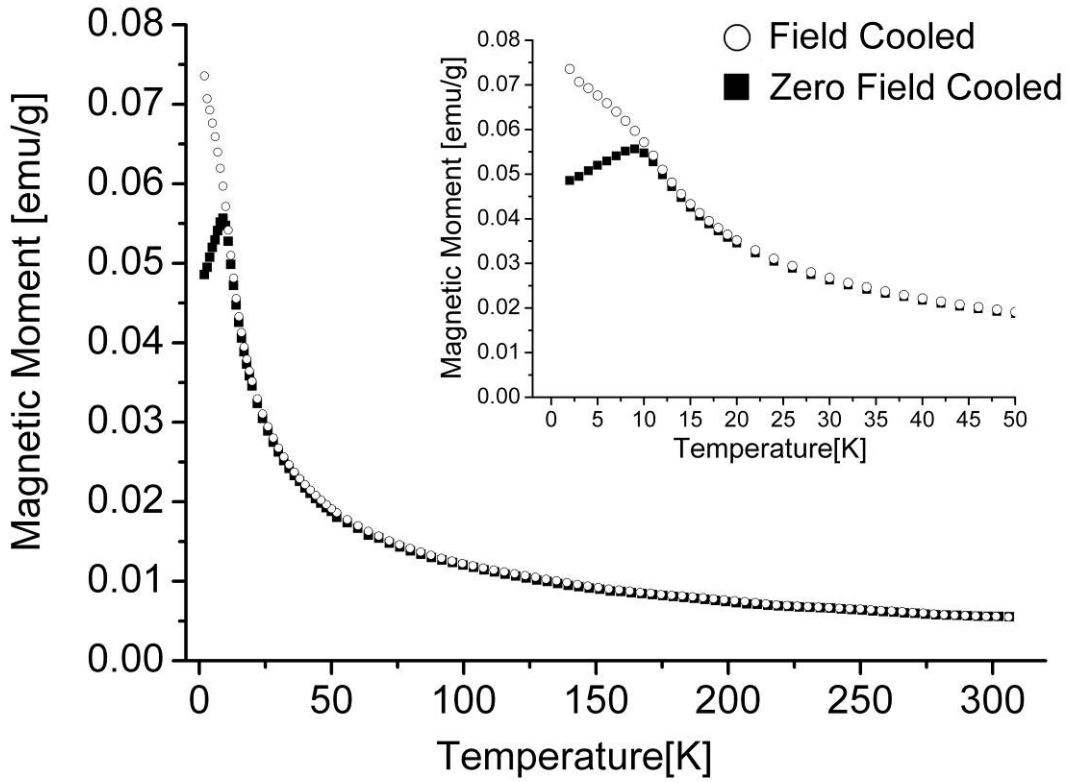


Figure S5. Temperature dependence of the magnetic moment of the nanostructured microspheres derived form the reaction between manganese oxalate and cyclen. Inset shows expansion of the sub-50K region. (Magnetic susceptibility measurements were carried out on a Quantum Design MPMS operating at 5 Tesla.)