Supporting Information

Synthesis, structures and magnetic properties of polynuclear Ru^{III}-3*d* (3*d* = Mn^{II/III}, Ni^{II}, Cu^{II}) compounds based on [Ru^{III}(Q)₂(CN)₂]⁻

Jing Xiang,^{a,b} Li-Hui Jia,^c Bing-Wu Wang,^c Shek-Man Yiu,^a Shie-Ming Peng,^d Wai-Yeung Wong,^e Song Gao,^{*c} and Tai-Chu Lau^{*a}

^a Institute of Molecular Functional Materials and Department of Biology and Chemistry, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong, Hong Kong, China. E-mail: bhtclau@cityu.edu.hk; Fax: (+852)34420522

^b College of Chemistry and Environmental Engineering, Yangtze University, Jingzhou 434020, HuBei, PR China

^c State Key Laboratory of Rare Earth Materials Chemistry and Applications and PKU-HKU Joint Laboratory on Rare Earth Materials and Bioinorganic Chemistry, Peking University, Beijing 100871, China. E-mail: gaosong@pku.edu.cn; Fax: (+86) 10-62751708

^d Department of Chemistry, National Taiwan University, Taipei 106, Taiwan

^e Department of Chemistry, Hong Kong Baptist University, Waterloo Road, Kowloon Tong, Hong Kong, China



Figure S2. The packing diagram of **5** showing the π - π stacking interaction between Q rings.



Figure S3. The packing diagram of **6** showing the face-to-face π - π stacking interactions between Q ligands.



Figure S4. The packing diagram of **7** showing the zigzag chains are well separated by counter-ions $[Ru^{III}(Q)_2(CN)_2]^-$



Figure S5. Zero-field and field cooled magnetization (ZFCM/FCM) of 4 at 100 Oe.



Figure S6. Hysteresis loop at 2.0 K for 4.



Figure S7. Hysteresis loop at 2.0 K for 7.