On the magneto-structural role of the coordinating anion in oxamato-bridged copper(II) derivatives[†]

Tatiana R. G. Simões,^a Maria Vanda Marinho,^b Jorge Pasán,^c Humberto O. Stumpf,^d Nicolás Moliner,^e Francesc Lloret^e and Miguel Julve,^{*e}

^aDepartamento de Química, Universidade Federal do Paraná, Centro Politécnico, Curitiba-PR, 81530-900, Brazil

^bInstituto de Química, Universidade Federal de Alfenas, Campus Santa Clara, Alfenas,

Minas Gerais, 37130-001, Brazil

^cLaboratorio de Rayos X y Materiales Moleculares (MATMOL), Departamento de Física, Facultad de Ciencias (Sección Física), Universidad de La Laguna, Edifício de Física y Matemáticas, Apdo. 456, E-38200 La Laguna, Tenerife, Spain.

^dDepartamento de Química, ICEX, Universidade Federal de Minas Gerais, Av. Antônio Carlos 6627, Belo Horizonte-MG, 31270-901, Brazil

^eDepartament de Química Inorgànica/Instituto de Ciencia Molecular, Facultat de Química de la Universitat de València, C/ Catedrático José Beltrán 2, 46980-Paterna (València), Spain. E-mail: <u>miguel.julve@uv.es</u>



Figure S1. IR spectrum of 1.



Figure S2. IR spectrum of 2.



Figure S3. IR spectrum of 3.



Figure S4. IR spectrum of 4.



Figure S5. Experimental (red) and calculated (black) XRD patterns of 1.



Figure S6. Experimental (red) and calculated (black) XRD patterns of 2.



Figure S7. Experimental (red) and calculated (black) XRD patterns of 3.



Figure S8. Experimental (red) and calculated (black) XRD patterns of 4.



Figure S9. χ_M against *T* plot for 1: (o) experimental; (-) best-fit curve through eq (1) (see text).



Figure S10. χ_M against *T* plot for **2**: (o) experimental; (-) best-fit curve through eq (3) (see text).



Figure S11. χ_M against *T* plot for **3**: (o) experimental; (-) best-fit curve through eq (3) (see text).



Figure S12. χ_M against *T* plot for **4**: (o) experimental; (-) best-fit curve through eq (1) (see text).