Electronic Supplementary Information

New Journal of Chemistry

A photoactive copper iodide phosphine-based coordination polymer

Quentin Benito,[a] Nicolas Desboeufs,[a] Alexandre Fargues,[b] Alain Garcia,[b] Florian Massuyeau,[c] Charlotte Martineau-Corcos,[d,e] Thomas Devic,[c] and Sandrine Perruchas[a,c]*

[a] Laboratoire de Physique de la Matière Condensée (PMC), CNRS - Ecole Polytechnique, 91128 Palaiseau Cedex, France.

[b] Institut de Chimie de la Matière Condensée de Bordeaux (ICMCB) - CNRS, 87 Avenue du Docteur A. Schweitzer, 33608 Pessac Cedex, France.

[c] Université de Nantes, CNRS, Institut des Matériaux Jean Rouxel, IMN, F-44000 Nantes, France.
Phone: (+33) (0)2 40 37 63 35. E-mail: sandrine.perruchas@cnrs-imn.fr

[d] MIM, Institut Lavoisier de Versailles (ILV), UMR CNRS 8180, Université de Versailles St-Quentin en Yvelines (UVSQ), 45, avenue des Etats-Unis, 78035 Versailles Cedex, France.

[e] CNRS, CEMHTI UPR 3079, Université d'Orléans, F-45071 Orléans, France.

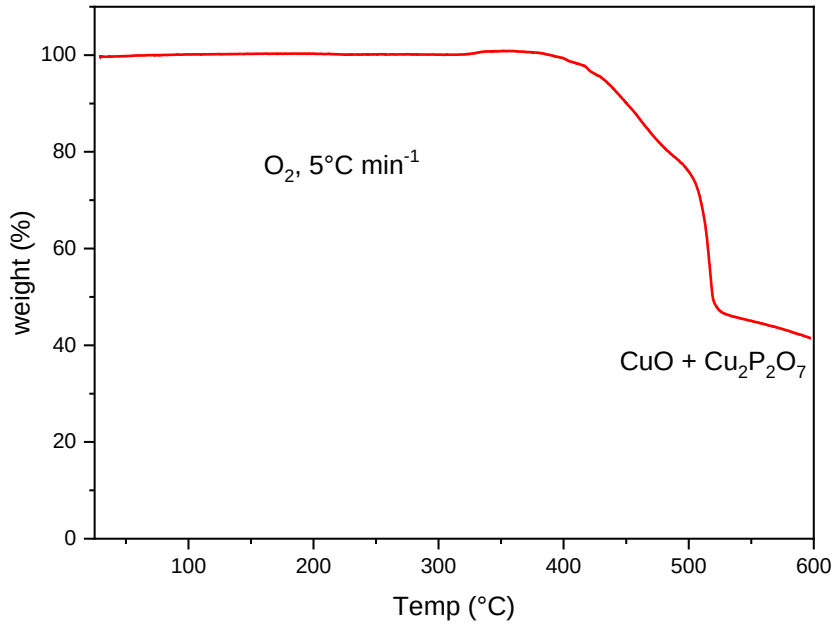

Figure S1. TGA analysis of 1.

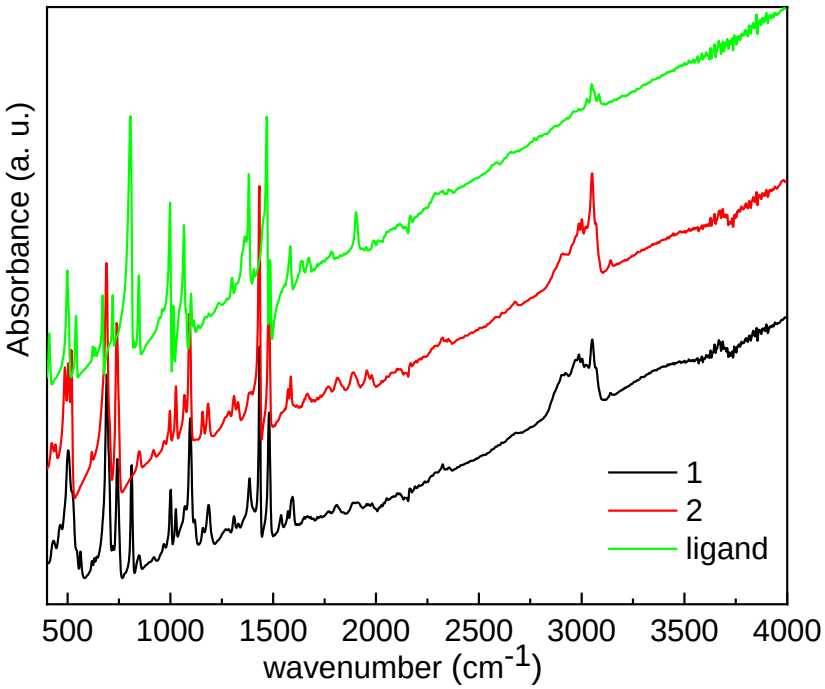

Figure S2. FTIR spectra (400-4000 cm^{-1}) of **1**, **2** and the ligand.

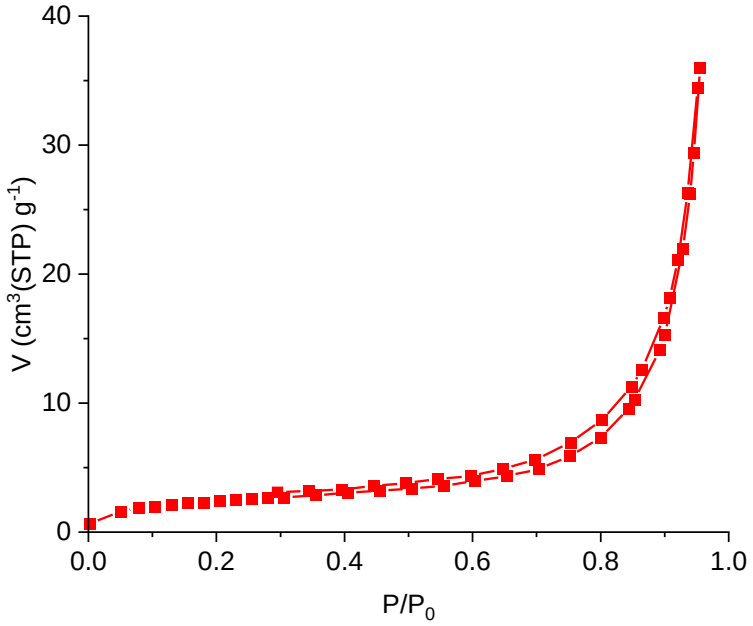

Figure S3. N_2 adsorption and desorption isotherms of **1** measured at 77 K.

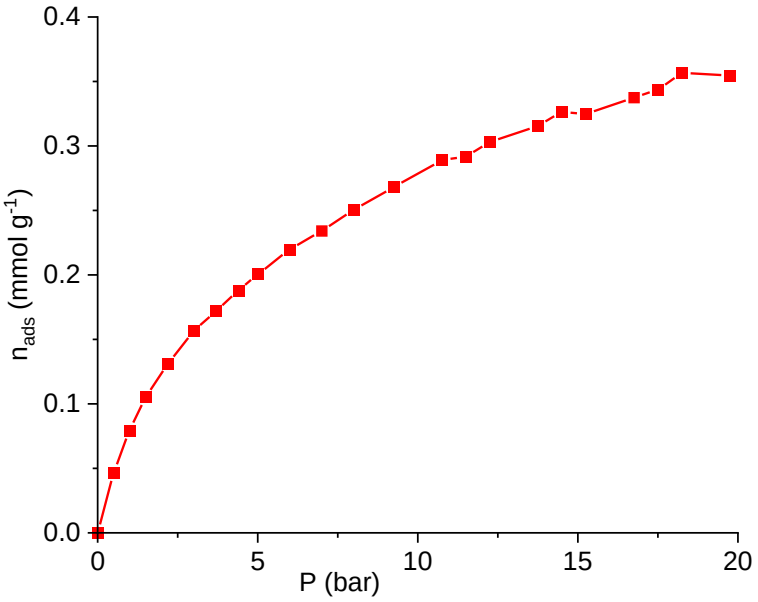

Figure S4. CO_2 adsorption isotherm of **1** measured at 298 K.

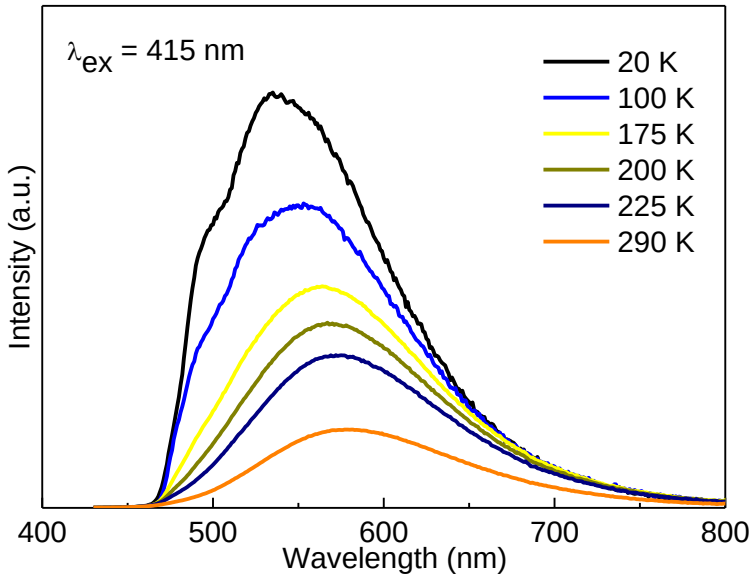

Figure S5. Temperature-dependent emission spectra of **1** recorded at λ_{ex} = 415 nm.

Table S1. Photoluminescence data of **1** and **2**. Lifetimes and quantum yields have been measured at 293 K.

	λ_{max} (nm) [λ_{ex} (nm)]		Lifetime τ (μs) [λ_{em} (nm)]	Quantum Yield QY (%) [λ_{ex} (nm)]
	293 K	**20 K**		
1	573 [300]	510 [300]	2.95 [590]	2 [390]
2	545 [300]	415 [300]	4.30 [550]	64 [260]