Optical and magnetic properties of the photo-induced state in the coordination network $Na_2Co_4[Fe(CN)_6]_{3.3}$●$14H_2O$.

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Supporting information
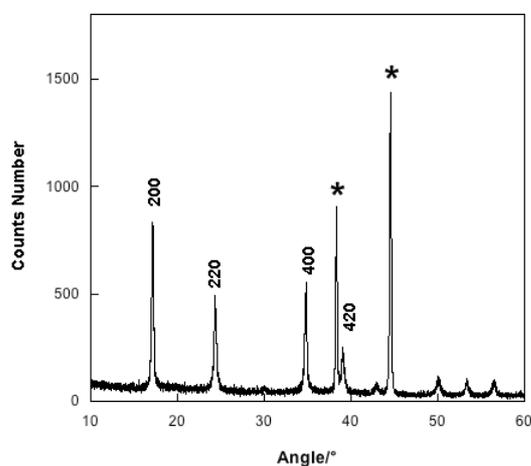
Figure S1: X-ray powder pattern at room temperature for $Na_2Co_4[Fe(CN)_6]_{3.3}$●$14H_2O$.
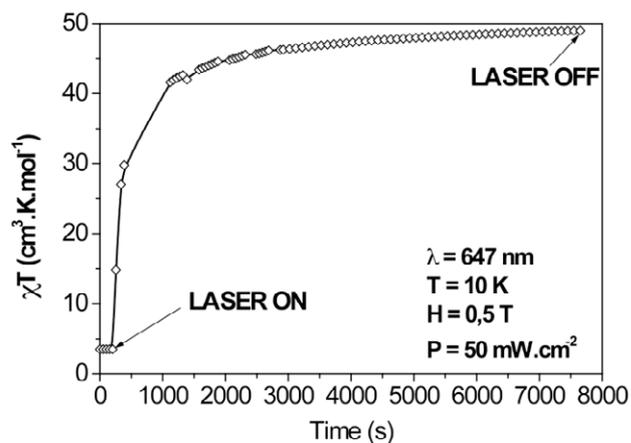
Figure S2: χT *vs* time at 10 K under a red light at 647 nm (50 mW/cm^2) for $Na_2Co_4[Fe(CN)_6]_{3.3}$●$14H_2O$
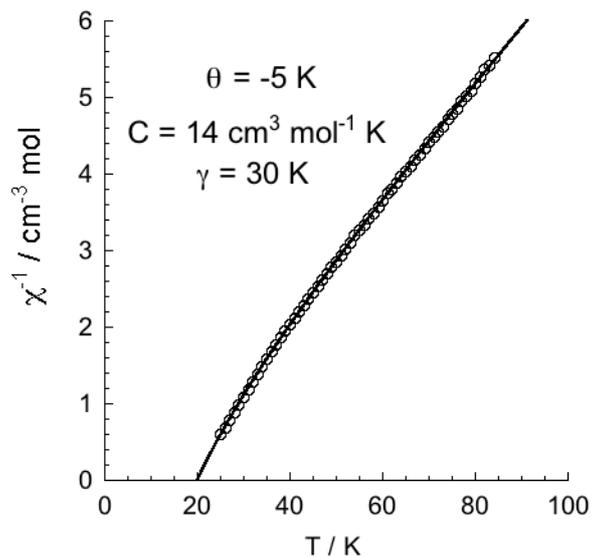
Figure S3: $1/\chi$ *vs* T at 10 K for $Na_2Co_4[Fe(CN)_6]_{3.3} \bullet 14H_2O$ in the PI state. (•) experimental points. (——) fit using the theoretical law for a ferrimagnetic network AB:

The fit parameters are Θ, which is the Curie-Weiss constant, C the Curie constant (=C_A+C_B= 3.3*C_{Fe} + 4C_{Co}), γ being a parameter proportional to the molecular field coefficient W.[1]

$$\frac{1}{\chi} = \frac{T+\theta}{C} + \frac{\gamma}{T-\theta}$$

The best parameters are given on the figure S3. The Θ value is in agreement with the ferrimagnetic nature of the compound.[2]

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[1] L. Néel, *Ann. Phys.* 1948, t. **3**, 10.

[2] O. Sato, Y. Einaga, A. Fujishita, K. Hashimoto, *Inorg. Chem.*, 1999, **38**, 4405.