

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **środę**

23 listopada 2022 r., o godz.10:00

odbędzie się seminarium **on-line (link podany jest na stronie IF PAN)**,

na którym

dr hab. Dawid Pinkowicz, prof. UJ

(Uniwersytet Jagielloński, Wydział Chemii, Kraków)

wygłosi referat na temat:

“Czy potrzebujemy fotomagnesów molekularnych?”

Molecular photomagnets[1] can be designed and prepared via a bottom-up modular approach using low-energy preparation methods developed by coordination, organometallic or supramolecular chemistry, and crystal engineering with the support from physical and computational sciences. They belong to the class of molecule-based materials that become paramagnetic, ferromagnetic or simply change their magnetic properties upon illumination[2] - a feature hardly accessible in conventional solids - metal alloys and oxides.

Currently known photomagnetic compounds are merely laboratory curiosities due to the low operation temperatures below the boiling point of nitrogen in most cases[3]. Hence, the major goal of this field of research is the discovery of new strategies for room temperature (RT) photomagnets that would show light-induced ON/OFF ferromagnetic switching under normal conditions.

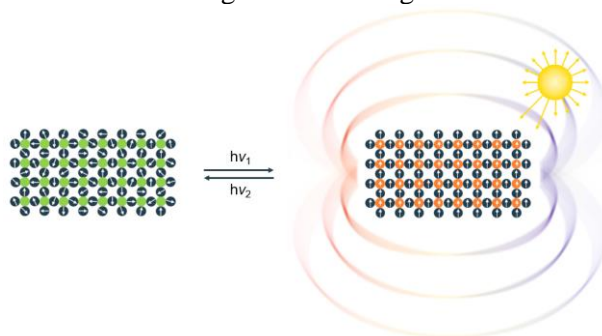


Figure 1: The concept of a molecular photomagnet – the paramagnetic state transforms into the magnetically ordered state upon illumination.

[1] C. Mathonière, H. Tokoro, S.-I. Ohkoshi, *Molecular Photomagnets*. In *Molecular Magnetic Materials* (eds B. Sieklucka and D. Pinkowicz) (2017)

[2] X. Qi, et al., *Angew. Chem. Int. Ed.* **59**, 3117 (2021)

[3] M. Magott, et al., *J. Am. Chem. Soc.* **140**, 15876 (2018)

Acknowledgements

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Seminarium będzie wygłoszone w języku angielskim.

Serdecznie zapraszamy

**Roman Puźniak
Andrzej Szewczyk
Henryk Szymczak**