

# 物質工学域セミナー

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筑波大学 工学系学系3B-213号室

## “Luminescent lanthanide molecular nanomagnets supported by non-innocent cyanido transition metal complexes”

Lanthanide complexes can serve as luminescent single-molecule magnets (SMMs) linking a magnetic memory effect with optical phenomena. This lecture will discuss the recent advances in the functionalization of lanthanide SMMs by cyanido transition metal complexes towards their optical (e.g., optical thermometry or non-linear optics) and electrical properties, as well as their responsivity to physical and chemical external stimuli. This work is aimed at the design of a new generation of smart multifunctional molecular materials.

- [1] J. Wang, et al., *Chem. Sci.* **2021**, 12, 730.
- [2] J. J. Zakrzewski, et al., *J. Phys. Chem. Lett.* **2021**, 12, 10558.
- [3] M. Liberka, et al., *Chem. Commun.* **2022**, 58, 6381.
- [4] R. Jankowski, et al., *Chem. Commun.* **2023**, 59, 5961.
- [5] J. Wang, et al., *Angew. Chem. Int. Ed.* **2023**, 62, e202306372.



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