



ICFE-10

<http://ICFE10.epfl.ch>

Co-chair

Prof. M. Mazzanti
EPFL, ISIC, CH J2 490
CH-1015 LAUSANNE
Switzerland
marinella.mazzanti
@epfl.ch

<http://gcc.epfl.ch/>

Phone +41 21 693 3671
+41 79 505 0898

Co-chair

Prof. J.-C. Bünzli
EPFL, ISIC, BCH 1402
CH-1015 LAUSANNE
Switzerland
jean-claude.bunzli
@epfl.ch

<http://isic.epfl.ch/lcsl>

Phone +41 21 693 9821
+41 78 719 3934

Bank account

ERES website

<http://ereswww.epfl.ch>

INTERNATIONAL CONFERENCE ON f-ELEMENTS (ICFE-10)

Including rare earths (Y, Sc, lanthanides) and actinides

EPFL, September 3-6, 2018

PLENARY LECTURE

Insights into how 4f ions can steer the performance of 3d ions in 3d-4f coordination clusters

Professor **Annie Powell**

Center for Functional Structures, Institute of Inorganic Chemistry
Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany



It is recognised that 4f ions can be useful in materials showing interesting optical and magnetic properties. However, the added trick of mixing 4f ions with 3d ions within a coordination cluster can lead to unexpected attenuation events from both partners and optimising the contributions from both the 3d and 4f ions can lead to some fascinating outcomes, including chiral separations and magnetochiral effects [1, 2].

References

- [1] J. Wu, L. Zhao, L. Zhang, X.L. Li, M. Guo, A.K. Powell, J. Tang, Macroscopic Hexagonal Tubes of 3d-4f Metalloclusters, *Angewandte Chemie International Edition* 55 (2016) 15574-15578.
- [2] M. Ibrahim, V. Mereacre, N. Leblanc, W. Wernsdorfer, C.E. Anson, A.K. Powell, Self-Assembly of a Giant Tetrahedral 3d-4f Single-Molecule Magnet within a Polyoxometalate System, *Angewandte Chemie International Edition* 54 (2015) 15574-15578.