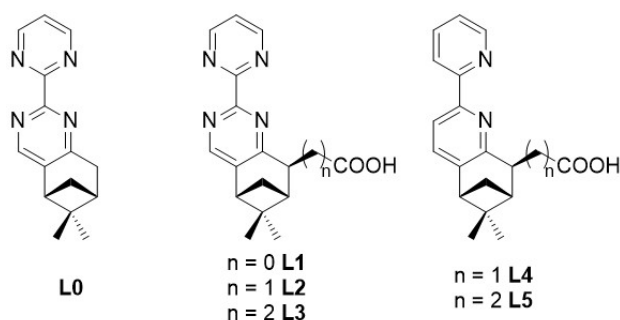


**Enantiopure ligands and their luminescent lanthanide complexes**A. B. Solea<sup>1,3</sup>, L. Yang<sup>2</sup>, C. Allemann<sup>1</sup>, K. M. Fromm<sup>3</sup>, O. Mamula Steiner<sup>1\*</sup><sup>1</sup>University of Applied Sciences of Western Switzerland, HEIA-FR, <sup>2</sup>Henan University of Technology, <sup>3</sup>University of Fribourg

One of the possible ways for predetermining the stereochemistry of a metal centre is through diastereoselective synthesis: the chiral information is transferred from the chiral ligand to the metal ion, enabling the preferential formation of one stereoisomer. Ligands containing a chiral pinene moiety are one type of such molecules and they have been used extensively to control the configuration in complexes of transition metals.[1] If a carboxylic unit is also attached to this backbone these ligands form complexes with interesting luminescent and supramolecular features when reacted with lanthanide(III) ions.[2]

We have synthesized and fully characterized a series of chiral ligands with a bipyrimidine (**L0-L3**) or bipyridine backbone (**L4, L5**). These ligands were further employed in complexations with Eu(III) and Tb(III) ions. The characterization of the obtained complexes will be presented herein.



[1] Olimpia Mamula, Alex von Zelewsky *Coord. Chem. Rev.* **2003**, 242, 87-95.

[2] Olimpia Mamula, Marco Lama, Helen Stoeckli-Evans, Sergiu Shova *Angew. Chem. Int. Ed.* **2006**, 45, 4940-4944.