

## On the determination of empirical absolute chiral structure: chiroptical spectrum correlations for $D_3$ lanthanide (III) complexes.

### Autorzy

Paula Gawryszewska  
Janina Legendziewicz  
Zbigniew Ciunik  
N. Esfandiari  
Gilles Muller  
C. Piguet  
M. Cantuel  
James P. Riehl

### Rok wydania

2006

### Czasopismo

Chirality

### Numer woluminu

18

### Strony

406-412

### DOI

10.1002/chir.20270

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

Circularly polarized luminescence (CPL) from selected transitions of Eu(III) in resolved single crystals of  $\text{Na}_3[\text{Eu}(\text{ODA})_3]_2\text{NaClO}_4 \cdot 6\text{H}_2\text{O}$  are compared to CPL results obtained from solutions containing perturbed racemic mixtures of  $\text{Eu}(\text{2,6-pyridine-dicarboxylate})_3$  and enantiomerically pure d-f helicate  $[\text{LL}-(\text{L})\text{EuCr}(\text{L}8)_3]$  in order to determine an empirical relationship between helicity and CPL spectra. Comparison of the CPL results, even for the magnetic dipole allowed transitions of Eu(III) where one measures large chiral discrimination, shows that the signs and magnitudes do not correlate with the overall helicity of the Eu(III) site. It is concluded that the symmetry of the Eu(III) site in  $[\text{LL}-(\text{L})\text{EuCr}(\text{L}8)_3]$  is not close enough to  $D_3$  to allow for the confirmation of the presumed spectra:structure correlation.

### Słowa kluczowe

circularly polarized luminescence, lanthanide, luminescence, polarization

### Adres publiczny

<https://doi.org/10.1002/chir.20270>

### Strona internetowa wydawcy

[onlinelibrary.wiley.com](http://onlinelibrary.wiley.com)

Plik został wygenerowany dnia 2026-06-23 16:52:42

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/VaCFycn>.