

## Phosphorescent emissions of phosphine copper(I) complexes bearing 8-hydroxyquinoline carboxylic acid analogue ligands.

### Autorzy

Jan G. Małecki

Iwona Łakomska

Anna Maroń

Marcin Szala

Marzena Fandzloch

Jacek E. Nycz

### Rok wydania

2015

### Czasopismo

Journal of Luminescence

### Numer woluminu

161

### Strony

382-388

### DOI

10.1016/j.jlumin.2015.01.041

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

The pseudotetrahedral complexes of  $[\text{Cu}(\text{PPh}_3)_2(\text{L})]$ , where  $\text{L}$ =8-hydroxy-2-methylquinoline-7-carboxylic acid (**1**), 8-hydroxy-2,5-dimethylquinoline-7-carboxylic acid (**2**) or 5-chloro-8-hydroxy-2-methylquinoline-7-carboxylic acid (**3**) have been synthesized and structurally characterized by X-ray crystallography. Their properties have been examined through combinations of IR, NMR, electronic absorption spectroscopy and cyclic voltammetry. The complexes exhibit extraordinary photophysical properties. Complex (**1**) in solid state exhibits an emission quantum yield of 4.67% and an excited life time of 1.88 ms (frozen DCM solution up to 6.7 ms). When dissolved in a coordinating solvent (acetonitrile) the charge transfer emission was quenched on a microsecond scale.

### Słowa kluczowe

Copper(I) complexes, 8-Hydroxyquinoline-derived ligands, luminescence

### Adres publiczny

<http://dx.doi.org/10.1016/j.jlumin.2015.01.041>

### Strona internetowa wydawcy

<http://www.elsevier.com>