

研究论文

具有圆偏振光特性的卟啉衍生物的合成、表征和CD光谱研究

骆开均^{1,2}, 晋军³, 谢明贵^{*2}, 蒋青², 徐玲玲¹

(¹四川师范大学化学与材料学院 成都 610068)

(²四川大学化学学院 成都 610064)

(³四川大学分析测试中心 成都 610064)¹

收稿日期 2006-6-20 修回日期 2006-11-27 网络版发布日期 2007-5-18 接受日期 2007-1-9

摘要 合成了一组不同碳链的胆甾醇酯侧链卟啉配体和金属Zn配合物. 研究了它们的吸收光谱和发射光谱. 将这些卟啉配体以一定浓度掺杂在聚甲基丙烯酸甲酯(PMMA)中制成固体薄膜, 发现由于在卟啉环上引入了手性的胆甾醇酯侧链, 卟啉化合物在soret带和Q带均有较强的CD吸收, 这种现象可能是卟啉环上的四个手性胆甾醇酯侧链与四苯基卟啉环发生偶合作用. 进一步还发现这些卟啉化合物的圆偏振吸收性质与在PMMA中的浓度有关.

关键词 [胆甾醇酯侧链](#) [卟啉化合物](#) [圆二色谱\(CD\)](#) [圆偏振发光材料](#)

分类号

Synthesis, Characterization and CD Spectrum of Porphyrin Derivatives with Circularly Polarized Property

LUO Kai-Jun^{1,2}, JIN Jun³, XIE Ming-Gui^{*2}, JIANG Qing², XU Ling-Ling¹

(¹ Institute of Chemistry and Materials, Sichuan Normal University, Chengdu 610068)

(² Institute of Chemistry, Sichuan University, Chengdu 610064)

(³ Testing Centre of Sichuan University, Chengdu 610064)

Abstract A series of porphyrin compounds and Zn complexes with cholesterol ester side chains were synthesized and their UV-Vis and fluorescence spectrum were tested. CD spectrum showed that these compounds in polymethyl methacrylate (PMMA) solid film had circular dichroism property in soret and Q bands because of mutual coupling between chiral cholesterol ester moieties and tetraphenylporphyrin ring, furthermore, it was found that the CD spectrum of cholesterol ester porphyrin compounds was changed along with concentration of these compounds in PMMA solid film.

Key words [cholesterol ester side chain](#) [porphyrin compound](#) [circular dichroism](#) [circularly polarized luminescence](#)

DOI:

通讯作者 谢明贵 xiemingg@mail.sc.cninfo.net

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(250KB\)](#)

▶ [\[HTML全文\]\(42KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“胆甾醇酯侧链” 的相关文章](#)

▶ 本文作者相关文章

· [骆开均](#)

·

· [晋军](#)
· [谢明贵](#)

·

· [蒋青](#)
· [徐玲玲](#)