

稀土-锂双金属螯合物的研究(LaCl)DMECu~2-Cl)~5(u~3)Cl(La,DME)Li(THF)~2的合成及其晶体结构

李祥高,刘静芝,胡宁海,金钟声,刘国智

中国科学院长春应用化学研究所

收稿日期 修回日期 网络版发布日期 接受日期

摘要 本文合成了组成为(LaCl)DME(u~2-Cl)~5(u~3-Cl)(La.DME)-Li(THF)~2的新型桥式链状配合物,并测定了晶体结构。

关键词 [晶体结构测定](#) [环戊二烯 P](#) [四氢呋喃](#) [稀土金属络合物](#) [双核络合物](#) [桥环化合物](#) [锂络合物](#) [乙二醇甲醚 P](#)

分类号 [0611.662](#)

Study of bimetallic complexes of rare earth-lithium synthesis and crystal structure of the (LaCl)DME(u2-Cl)5(u3-Cl)(La.DME)Li(THF)~2

LI XIANGGAO,LIU JINGZHI,HU NINGHAI,JIN ZHONGSHENG,LIU GUOZHI

Abstract The reaction between LaCl₃ and LiCl in THF at room temperature, with hexane as precipitant and glycol di-Me ether (DME) as complexing agent, gave LaCl(DME)(m₂-Cl)₅(m₃-Cl)(La.DME)Li(THF)₂. Its structure was studied by single crystal x-ray diffraction technique. The complex belongs to the triclinic space group P1 with a 11.123(3), b 16.564(5), c 8.653(3) Å; a 95.16(3)°, b 95.63(3)°, g 74.71(2)°; Z = 2, R = 0.0303. The mol. presumes to have a chain conformation in which the La³⁺ ions are linked by m₂- and m₃-bridged Cl atoms alternatively. The average bond lengths of La-Cl in m₃-chloro-bridge bond and m₂-chloro-bridge bond are 2.972 and 2.886 Å resp. The average bond lengths of La-O and Li-O are 2.611 and 1.927 Å resp.

Key words [CRYSTAL STRUCTURE DETERMINATION](#) [CYCLOPENTADIENE P](#) [TETRAHYDROFURAN](#) [RARE EARTH METAL COMPLEX](#) [DINUCLEAR COMPLEX](#) [BRIDGE COMPOUNDS](#) [LITHIUM COMPLEX](#) [ETHYLENE ALCOHOL METHYL ETHER P](#)

DOI:

通讯作者

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(420KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [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“晶体结构测定” 的相关文章](#)

▶ 本文作者相关文章

- [李祥高](#)
- [刘静芝](#)
- [胡宁海](#)
- [金钟声](#)
- [刘国智](#)