

## Accepted Manuscript

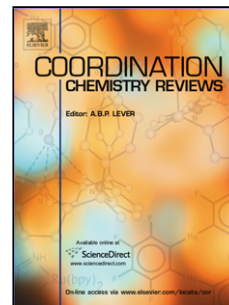
Title: The handedness structure of octahedral metal complexes with chelating ligands

Author: Yue Liu Ying Liu Michael G.B. Drew

PII: S0010-8545(13)00217-8  
DOI: <http://dx.doi.org/doi:10.1016/j.ccr.2013.09.013>  
Reference: CCR 111778

To appear in: *Coordination Chemistry Reviews*

Received date: 13-8-2013  
Revised date: 23-9-2013  
Accepted date: 23-9-2013



Please cite this article as: Y. Liu, Y. Liu, M.G.B. Drew, The handedness structure of octahedral metal complexes with chelating ligands, *Coordination Chemistry Reviews* (2013), <http://dx.doi.org/10.1016/j.ccr.2013.09.013>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# The handedness structure of octahedral metal complexes with chelating ligands.

Yue Liu<sup>a,c</sup>, Ying Liu<sup>a\*</sup>, Michael G. B. Drew<sup>b</sup>

<sup>a</sup> College of Chemistry and Life Science, Shenyang Normal University, Shenyang, P. R. China, 110034, E-mail: yingliusd@163.com

<sup>b</sup> School of Chemistry, The University of Reading, Whiteknights, Reading RG6 6AD, UK

<sup>c</sup> Shanghai Key Laboratory of Rare Earth Functional Materials, Shanghai Normal University, Shanghai 200234, P. R. China

## Abstract

Inorganic chiral compounds are a major focus in today's research. Although there has been a long history of chemical practice in this area and the geometric principles are clearly understood, there has been no single accepted method of assessing chirality in all cases. A variety of methods, some with conflicting conventions, have been developed, but most of them have been presented in isolation and the relationships between them are not well established. In this review, relevant materials are analyzed and methods are contrasted and compared so that some significant new theoretical features are established. Most of the published methods have been modified in such a way that the relationships between them are revealed and subsequently a consistent methodology is established. By reviewing the published material concerning terminal chelate rings and their orientations, both the rings and their donor atoms are considered at the same time to provide a procedure which is more chemically relevant than that presently used in which donor atoms are ignored. When all the relevant materials already developed from chemical practice are brought together, it is possible to generate a new theoretical system that is consistent with all previous methods and can be used with confidence in the future.

## Keywords

Chirality; stereochemistry; optical complex; geometry and structure; chemical education.

Download English Version:

<https://daneshyari.com/en/article/7748145>

Download Persian Version:

<https://daneshyari.com/article/7748145>

[Daneshyari.com](https://daneshyari.com)