Molecular Light Scattering And Optical Activity
Ranging from the physics of elementary particles to the structure of viruses, the subject matter of this book stresses the importance of optical activity and chirality in modern science and will be of interest to a wide range of scientists. Using classical and quantum methods with a strong emphasis on symmetry principles, the volume develops the theory of varied optical activity and related phenomena from the perspective of molecular scattering of polarized light. First Edition Hb (1983): 0-521-24602-4 --This text refers to the Printed Access Code edition.

**Book Information**

Hardcover: 419 pages  
Publisher: Cambridge University Press; 1st edition (February 28, 1983)  
Language: English  
ISBN-10: 0521246024  
Product Dimensions: 6 x 9 inches  
Shipping Weight: 1.8 pounds  
Average Customer Review: 5.0 out of 5 stars  
Best Sellers Rank: #7,094,819 in Books (See Top 100 in Books)  
> Chemistry > Photochemistry  
> #533 in Books > Science & Math > Chemistry > Physical & Theoretical > Electrochemistry  
> #15964 in Books > Science & Math > Chemistry > General & Reference

**Customer Reviews**

The book of Barron is concerned with the theoretical foundations of molecular chirality, an important property associated to objects (in this case molecules) which exist as mirror images one of the other. In other words, molecules that have identical composition may exist as mirror images (enantiomers) whose 3D structures cannot be superimposed one onto the other. Such molecules are quite important in the field of medicinal/pharmaceutical chemistry where one enantiomer is a "good" medicine but the other one is a dangerous poison for the organism. Physical chemists have developed a variety of methods for the identification and characterization of chiral molecules, each based on different physical properties such as vibrational, optical, and magnetic excitations. Using quantum mechanical principles and symmetry arguments, the author has put together a unified theoretical treatment of optical activity. The book is highly recommended to those physical chemists and molecular physicists that are interested in this fascinating field of molecular science.