

*Special Issue Reprint*

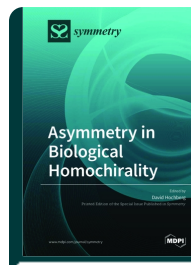
## Asymmetry in Biological Homochirality

[www.mdpi.com/books/reprint/3804](http://www.mdpi.com/books/reprint/3804)

Edited by  
David Hochberg

ISBN 978-3-0365-0442-1 (Hardback)

ISBN 978-3-0365-0443-8 (PDF)



Chirality, or handedness, is a fundamental physical characteristic, which spans the length scales ranging from elementary particles to the chiral asymmetry of spiral galaxies. The way in which chirality in chemistry, or molecular handedness, may have emerged in a primitive terrestrial environment, and how it can be triggered, amplified, and transferred, are deeply challenging problems rooted in both fundamental scientific interests and the technological potentials for science and society. Chirality constitutes a unifying feature of the living world and is a prime driving force for molecular selection and genetic evolution in biology. In this book, we offer a selection of five distinct approaches to this problem by leading experts in the field. The selected topics range from protein chirality and its relevance to protein ageing, protein aggregation and neurodegeneration, entropy production associated with chiral symmetry breaking in closed systems, chiral oscillations in polymerization models involving higher-order oligomers, the mirror symmetry breaking in liquids and its implications for the development of homochirality in abiogenesis, the role of chirality in the chemical sciences, and some philosophical implications of chirality.

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



### **Open Access**

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



### **Author Focus**

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



### **High Quality & Rapid Publication**

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



### **High Visibility**

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



### **Print on Demand and Multiple Formats**

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.