

Chlorophylls and Bacteriochlorophylls: Biochemistry, Biophysics, Functions and Applications
B. Grimm, R. Porra, W. Rüdiger, H. Scheer (eds.)

Vol. 25 of Advances in Photosynthesis and Respiration
Govindjee (series editor)

Published 2006 by Springer, ISBN 1-4020-4515-8

Supplement to chapter 1

An Overview of Chlorophylls and Bacteriochlorophylls: Biochemistry, Biophysics, Functions and Applications (H. Scheer)

All formulas in chapter 1 have been generated with the freeware program "C-Design" (J. Bauer, E. Fontain), which is available under: <http://www.ch.tum.de/oc1/EFontain/C-Design/>

Sample formulas and schemes prepared with "C-Design" (ending .cdw) can be downloaded from this page. They require C-Design for opening and editing. A non-editable compilation in AdobeWriter format (.pdf) can be downloaded [here](#).

Chlorophyll formulas	Major chlorophylls, with phytol and farnesol Chlorophylls a and b (IUPAC numbered) Chlorin-type chlorophylls and several esterifying alcohols Bacteriochlorophyll a (IUPAC numbered) Metallo bacteriochlorophylls Protochlorophyllide a Chlorophyll enols (partial structures)
Chlorophyll Biosynthesis:	Overview From protoporphyrin IX to chlorophylls Porphobilinogen cyclization to protoporphyrin
Chlorophyll nomenclature	Fischer (left) vs. IUPAC numbering (right) Numbering, β-ligand, and spectroscopic axes
Others	Major tetrapyrrole formulas Z-scheme of photosynthesis