

1. Record Nr.	UNINA9911018938203321
Titolo	The biosynthesis of the tetrapyrrole pigments
Pubbl/distr/stampa	Chichester ; ; New York, : Wiley, 1994
ISBN	9786612137914 9781282137912 1282137913 9780470514535 0470514531 9780470514542 047051454X
Descrizione fisica	1 online resource (372 p.)
Collana	Ciba Foundation symposium ; ; 180
Altri autori (Persone)	ChadwickDerek AckrillKate
Disciplina	572/.59
Soggetti	Tetrapyrroles - Synthesis Tetrapyrroles - Metabolism Pigments (Biology) - Synthesis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Editors, Derek J. Chadwick and Kate Ackrill. Proceedings of a symposium held at the Ciba Foundation, London, 30 March-1 April 1993.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Enzymic and mechanistic studies on the conversion of glutamate to 5-aminolaevulinate / C.G. Kannangara ... [et al.] -- 5-aminolaevulinic acid synthase and uroporphyrinogen methylase: two key control enzymes of tetrapyrrole biosynthesis and modification / M.J. Warren, E. Bolt, S.C. Woodcock -- 5-aminolaevulinic acid dehydratase: characterization of the [alpha] and [beta] metal binding sites of the Escherichia coli enzyme / P. Spencer, P.M. Jordan -- Porphobilinogen deaminase: mechanism of action and role in the biosynthesis of uroporphyrinogen III / P.M. Jordan -- Structural studies on porphobilinogen deaminase / R. Lambert ... [et al.] -- Evidence for a spirocyclic intermediate in the formation of uroporphyrinogen III by cosynthase / F.J. Leeper -- Modification of acetate and propionate side chains during the biosynthesis of haem

and chlorophylls: mechanistic and stereochemical studies / M. Akhtar -- Biosynthesis of open-chain tetrapyrroles in plants, algae and cyanobacteria / S.I. Beale -- Chlorophyll degradation -- Evolution of the series III porphyrinogens.

(cont) Chlorophyll a biosynthetic heterogeneity / C.A. Rebeiz ... [et al.] -- Biosynthetic studies on chlorophylls: from protoporphyrin IX to protochlorophyllide / P.A. Castelfranco, C.J. Walker, J.D. Weinstein -- Biosynthesis of coenzyme F, a nickel porphinoid involved in methanogenesis / R.K. Thauer, L.G. Bonacker -- Haem d and other haem cofactors from bacteria / C.K. Chang -- Genetics and enzymology of the B pathway / N.P.J. Stamford -- New intermediates in the B pathway / A.R. Battersby -- Recent studies of enzymically controlled steps in B biosynthesis / A.I. Scott -- B: reminiscences and afterthoughts / A. Eschenmoser -- Aerobiosis and anaerobiosis.

---

Sommario/riassunto

Prestigious contributors summarize current knowledge regarding the biosynthesis of tetrapyrrole pigments--chlorophyll, haem, vitamin B12. Describes the structure and regulation of key enzymes along with various pathways, molecular genetic studies and structural characterization of the natural biosynthetic intermediates.

---