

1. Record Nr.	UNINA9910816910203321
Titolo	Progress in heterocyclic chemistry . Volume 21 // editors, Gordon W. Gribble and John A. Joule
Pubbl/distr/stampa	Oxford ; ; New York, : Pergamon Press, 2009
ISBN	1-282-38165-2 9786612381652 0-08-096516-4
Descrizione fisica	1 online resource (573 p.)
Collana	Progress in heterocyclic chemistry ; ; 21
Altri autori (Persone)	GribbleGordon W JouleJ. A (John Arthur)
Disciplina	547.59
Soggetti	Heterocyclic chemistry Heterocyclic compounds
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Progress in Heterocyclic Chemistry; Copyright Page; Contents; Foreword; Chapter 1 Biocatalytic Approaches to Chiral Heterocycles; 1.1 Introduction; 1.2 Enzyme classes discussed; 1.3 Three-membered ring systems; 1.4. Four-membered ring systems; 1.5 Five-membered ring systems; 1.6 Six-membered ring systems; 1.7 Seven-membered and larger ring systems; 1.8 Conclusion; 1.9 References; Chapter 2 Ring-Expanded ('fat') Purines and their Nucleoside/ Nucleotide Analogues as Broad-Spectrum Therapeutics; 2.1 Introduction 2.2 Significance of 'fat' purines and their nucleoside/nucleotide analogues 2.3 Chemistry; 2.4 Biochemical and biophysical chemistry; 2.5 Biological activity; 2.6 Conclusion; 2.7 Acknowledgments; 2.8 References; Chapter 3 Three-Membered Ring Systems; 3.1 Introduction; 3.2 Epoxides; 3.3 Aziridines; 3.4 References; Chapter 4 Four-Membered Ring Systems; 4.1 Introduction; 4.2 Azetidines, azetines, and related systems; 4.3 Monocyclic 2-azetidinones (β -lactams); 4.4 Fused and spirocyclic β -lactams; 4.5 Oxetanes, dioxetanes, oxetanediones and 2-oxetanones (β -lactones) 4.6 Thietanes, β -sultams, and related systems 4.7 Silicon and

phosphorus heterocycles. Miscellaneous; 4.8 References; Chapter 5.1 Five-Membered Ring Systems: Thiophenes and Se/Te Analogues; 5.1.1 Introduction; 5.1.2 Thiophene ring synthesis; 5.1.3 Reactions of thiophenes; 5.1.4 Non-polymeric thiophene organic materials; 5.1.5 Thiophene oligomers and polymers; 5.1.6 Thiophene derivatives in medicinal chemistry; 5.1.7 Selenophenes and tellurophenes; 5.1.8 References; Chapter 5.2 Five-Membered Ring Systems: Pyrroles and Benzo Analogs; 5.2.1 Introduction; 5.2.2 Synthesis of pyrroles 5.2.3 Reactions of pyrroles 5.2.4 Pyrrole natural products and materials; 5.2.5 Synthesis of indoles; 5.2.6 Reactions of indoles; 5.2.7 Indole natural products; 5.2.8 Oxindoles and spirooxindoles; 5.2.9 Carbazoles; 5.2.10 Azaindoles and carbolines; 5.2.11 Bioorganic chemistry; 5.2.12 References; Chapter 5.3 Five-Membered Ring Systems: Furans and Benzofurans; 5.3.1 Introduction; 5.3.2 Reactions; 5.3.3 Synthesis; 5.3.4 References; Chapter 5.4 Five Membered Ring Systems: With More than One N Atom; 5.4.1 Introduction; 5.4.2 Pyrazoles and ring-fused derivatives 5.4.3 Imidazoles and ring-fused derivatives 5.4.4 1,2,3-Triazoles and ring-fused derivatives; 5.4.5 1,2,4-Triazoles and ring-fused derivatives; 5.4.6 Tetrazoles and ring-fused derivatives; 5.4.7 References; Chapter 5.5 Five-Membered Ring Systems: With N and S (Se) Atoms; 5.5.1 Introduction; 5.5.2 Thiazoles; 5.5.3 Isothiazoles; 5.5.4 Thiadiazoles and selenodiazoles; 5.5.5 1,3-Selenazoles, 1,3-selenadolidines and 1,3-tellurazoles; 5.5.6 References; Chapter 5.6 Five-Membered Ring Systems: With O & S (Se, Te) Atoms; 5.6.1 1,3-Dioxoles and dioxolanes; 5.6.2 1,3-Dithioles and dithiolanes 5.6.3 1,3-Oxathioles and oxathiolanes

Sommario/riassunto

Progress in Heterocyclic Chemistry (PHC) is an annual review series commissioned by the International Society of Heterocyclic Chemistry (ISHC). Volumes in the series contain both highlights of the previous year's literature on heterocyclic chemistry and articles on emerging topics of particular interest to heterocyclic chemists. The chapters in Volume 21 constitute a systematic survey of the important original material reported in the literature of heterocyclic chemistry in 2008. Additional articles in this volume review "Biocatalytic approaches to chiral heterocycles" and "Ring-e
