Record Nr. UNINA9910557577003321

Autore Matos Maria Joao

Titolo Coumarin and Its Derivatives

Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing

Institute, 2021

Descrizione fisica 1 electronic resource (406 p.)

Soggetti Research & information: general

Biology, life sciences

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto Coumarins are widely distributed in nature and can be found in a large

number of naturally occurring and synthetic bioactive molecules. The unique and versatile oxygen-containing heterocyclic structure makes them a privileged scaffold in Medicinal Chemistry. Many coumarin derivatives have been extracted from natural sources, designed, synthetized, and evaluated on different pharmacological targets. In addition, coumarin-based ion receptors, fluorescent probes, and biological stains are growing quickly and have extensive applications to monitor timely enzyme activity, complex biological events, as well as accurate pharmacological and pharmacokinetic properties in living cells. The extraction, synthesis, and biological evaluation of coumarins have become extremely attractive and rapidly developing topics. A large number of research and review papers have compiled information on this important family of compounds in 2020. Research articles, reviews, communications, and concept papers focused on the multidisciplinary profile of coumarins, highlighting natural sources, most recent synthetic pathways, along with the main biological applications and theoretical studies, were the main focus of this book. The huge and growing range of applications of coumarins described in this book is a demonstration of the potential of this family of

compounds in Organic Chemistry, Medicinal Chemistry, and different

sciences related to the study of natural products. This book includes 23 articles: 17 original papers and six review papers.