1. Record Nr. UNINA9910298301603321

Titolo	Artemisia annua - Pharmacology and Biotechnology / / edited by Tariq Aftab, Jorge F.S. Ferreira, M. Masroor A. Khan, M. Naeem
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2014
ISBN	3-642-41027-8
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (288 p.)
Disciplina	572.572
Soggetti	Plant biotechnology Pharmacology Botanical chemistry Plant Biotechnology Plant Biochemistry
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.
Nota di contenuto	How a herbal drug application interrelates with its therapeutic effects: reflections on qinghao (Artemisia annua, L.) in the Chinese materia medica -- Ethno-pharmacology of Artemisia annua: A review -- Artemisia annua: a miraculous herb to cure malaria -- The whole-plant approach to therapeutic use of Artemisia annua L. (Asteraceae) -- Pharmacological potentials of artemisinin and related sesquiterpene lactones: recent advances and trends -- Taxonomic implications of Artemisia annua L. (Asteraceae) -- Trichomes in Artemisia annua: initiation, development, maturation and the possibility to influence these factors -- Potential methods to improve the efficiency of artemisinin extraction from Artemisia annua -- Extraction, purification and quantification of artemisinin and its analogs from Artemisia annua L -- Effect of mineral nutrition, growth regulators and environmental stresses on biomass production and artemisinin concentration of Artemisia annua -- Recent Advances to Enhance Yield of Artemisinin - A Novel Antimalarial Compound, in Artemisia annua L. Plants -- Artemisinin in cancer therapy -- Recent Developments in Controlling Insect, Acari, Nematode and Plant Pathogens of Agricultural and Medical Importance by Artemisia annua L. (Asteraceae) -- Reverse

pharmacology and drug discovery: Artemisia annua and its anti-HIV activity.

Sommario/riassunto

This book summarizes global research on the medicinal plant Artemisia annua and its component artemisinin, an antimalarial agent. It explores further artemisinin applications and future research possibilities. Artemisinin is an effective antimalarial agent, particularly for multi-drug-resistant and cerebral malaria. As the chemical synthesis of artemisinin is complicated and not economically feasible in view of the poor yield of the drug, the intact plant remains the only viable source for artemisinin production. Therefore, it is necessary to increase the concentration of artemisinin in A. annua to reduce the costs of artemisinin-based drugs. Plant scientists have focused their efforts on A. annua to achieve a higher artemisinin crop yield and summarize their findings in this book.