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Titolo	Biomedical Applications of Acridines : Derivatives, Syntheses, Properties and Biological Activities with a Focus on Neurodegenerative Diseases / / by Jan Ježek, Jan Hlaváek, Jaroslav Šebestík
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Disciplina	547.593
Soggetti	Medicinal chemistry Neurochemistry Pharmacology Proteins Bioorganic chemistry Nucleic acids Medicinal Chemistry Pharmacology/Toxicology Protein-Ligand Interactions Bioorganic Chemistry Nucleic Acid Chemistry
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Preliminary ToC 1 Introduction -- 2 Nomenclature -- 3. Syntheses -- 4. Interactions of acridines with nucleic acids -- 5. Intercations with proteins -- 6. Applications for treatment of neurodegenerative diseases -- 7. Some applications of selective toxicities of acridines -- 8. Acridine on dendrimeric carriers -- 9 Acridines used for staining -- 10 Miscellaneous -- 11 Conclusions and outlook.
Sommario/riassunto	This book describes applications of acridines for the treatment of various neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease, and various prion diseases, and discusses the potential of acridines in neuro-regenerative medicine. Using modern

data-mining software, it presents structures of acridines with nucleic acids and proteins and compares them with the native structures. Furthermore, the book presents modern methods of acridine synthesis, comparing them with the most useful conventional methods. Acridines interact with both nucleic acids and proteins, and due to their direct interactions with various enzymes, they can be suitable for the treatment of neurodegenerative diseases, inflammation, immunological disorders, and protozoal diseases. The characteristic spectral properties of acridines can be employed in labeling proteins, nucleic acids, lipids, and even cells and their compartments. Moreover, they can be applied in photodynamic therapy.

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