Record Nr. UNINA9910298270103321 Autore Saakov Vladimir S Titolo Derivative Spectrophotometry and PAM-Fluorescence in Comparative Biochemistry / / by Vladimir S. Saakov, Alexander I. Krivchenko, Eugene V. Rozengart, Irina G. Danilova Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 3-319-11596-0 ISBN Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (624 p.) Disciplina 570 Soggetti **Bioinformatics** Computational biology **Biophysics** Biological physics **Biochemistry** Computer Appl. in Life Sciences Biological and Medical Physics, Biophysics Biochemistry, general 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 at the end of each chapters. Nota di contenuto Introduction. Development of the methodological base, disputes, conclusions -- Successes of the pulse amplitude modulated fluorescence application -- Methodological approaches in our experimental work -- Application of Derivative Spectrophotometry in Comparative Biochemical Studies -- The Range of DHSO Application in Experiments with Pigments of Plants and Animals -- Conclusion. Sommario/riassunto This book presents various examples of how advanced fluorescence and spectroscopic analytical methods can be used in combination with computer data processing to address different biochemical questions. The main focus is on evolutionary biochemistry and the description of biochemical and metabolic issues; specifically, the use of pulse amplitude modulated fluorescence (PAM) for the functional analysis of

the cellular state, as well as results obtained by means of the derivative spectroscopy method characterizing structural reorganization of a cell

under the influence of external factors, are discussed. The topics presented here will be of interest to biologists, geneticists, biophysicists and biochemists, as well as experts in analytical chemistry, pharmaceutical chemistry and radioactivation studies with protonen and alpha-particles. It also offers a valuable resource for advanced undergraduate and graduate students in biological, physical and chemical disciplines whose work involves derivative spectrophotometry and PAM-fluorescence.