

Contents

1	Studying Protein Misfolding and Aggregation by Fluorescence Spectroscopy	1
	Mily Bhattacharya and Samrat Mukhopadhyay	
2	Time-Dependent Spectral Shifts in Tryptophan Fluorescence: Bridging Experiments with Molecular Dynamics Simulations	29
	Dmitri Toptygin	
3	Directional Fluorescence Based on Surface Plasmon-Coupling	71
	Yao-Qun Li, Shuo-Hui Cao, Wei-Peng Cai, Qian Liu, Xiao-Qing Liu, and Yu-Hua Weng	
4	Fluorescence Analysis of Thermoresponsive Polymers	97
	Cheryl Morris and Alan G. Ryder	
5	Principles of Fluorogenic Reagent Design for Forensics. Recent Progress Towards New Reagents to Develop Fingerprints in Blood and on Variable Surfaces	127
	Martha Sibrian-Vazquez and Robert M. Strongin	
6	Indicators for Ionic Copper in Biology	147
	Richard B. Thompson and Hui Hui Zeng	
7	Heterogeneous Lipid Distributions in Membranes as Revealed by Electronic Energy Transfer	171
	Radek Šachl and Lennart B.-Å. Johansson	
8	Fluoimaging Determination of Poisons, Pollutants, Narcotics and Drugs with No Added Reagents	189
	Natalia V. Strashnikova, Shlomo Mark, Yehoshua Kalisky, and Abraham H. Parola	

9	Intramolecular Mechanisms for the Occurrence of Fluorescence from Upper Excited States of Aromatic Molecules and Linear Polyenes	213
	Takao Itoh	
10	Developments in the Photonic Theory of Fluorescence	235
	Jamie M. Leeder, David S. Bradshaw, Mathew D. Williams, and David L. Andrews	
11	Luminescent Lanthanide Sensors and Lanthanide Doped Upconversion Nanoparticles: Current Status and Future Expectations	269
	Garima Sharma, Preeti Sehgal, and Anudeep Kumar Narula	
12	Interplay Between DNA-Binding/Catalytic Functions and Oligomerization of Retroviral Integrases Studied by a Combination of Time-Resolved Fluorescence Anisotropy, Fluorescence Correlation Spectroscopy and Resonance Energy Transfer	301
	Olivier Delelis and Eric Deprez	
13	Dual Fluorescence Phenomenon in ‘Push-Pull’ Stilbenes	337
	Dina Pines, Ehud Pines, Terry W.J. Steele, and Vladislav Papper	
14	Molecular Anatomy of an Ion Channel Explored Utilizing Fluorescence Spectroscopy	353
	Arunima Chaudhuri and Amitabha Chattopadhyay	
	Index	369



<http://www.springer.com/978-3-319-24607-9>

Reviews in Fluorescence 2015

Geddes, C.D. (Ed.)

2016, VIII, 380 p. 152 illus., 91 illus. in color., Hardcover

ISBN: 978-3-319-24607-9