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Nota di contenuto	Introduction -- Assays for thiols and modifications -- Pitfalls of ROS measurements by fluorescent probes and mitochondrial superoxide determination using MitoSOX -- Methods and Reagents -- Clinical Probes for ROS and Oxidative Stress -- Measurement of oxidative stress markers in vitro using commercially available kits -- Oxidative Lipidomics - Analysis of Oxidized Lipids and Lipid Peroxidation in Biological Systems with Relevance to Health & Disease -- Clinically Related Models and Approaches -- Oxidant-Induced Models of Vascular Leak -- Ozone-Specific' Oxysterols and Neuronal Cell Signaling -- Measurement Oxidative Stress Status in Human Populations: A Critical Need for a Metabolomic Approach -- Instrumental Methods -- Sense and Sensibility of Oxygen in Pathophysiology using EPR Oximetry -- Resonators for Clinical EPR -- Biomedical Overhauser Magnetic Resonance Imaging (OMRI).

Noninvasive Imaging of Redox Processes -- Index.

Sommario/riassunto

This book describes the methods of analysis and determination of oxidants and oxidative stress in biological systems. Reviews and protocols on select methods of analysis of ROS, RNS, oxygen, redox status, and oxidative stress in biological systems are described in detail. It is an essential resource for both novices and experts in the field of oxidant and oxidative stress biology.