

# Reactive Species Detection in Biology

From Fluorescence  
to Electron  
Paramagnetic Resonance  
Spectroscopy

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Reactive oxygen species have been implicated in the pathogenesis of various diseases, making their detection and identification in biological systems of extreme importance. *Reactive Species Detection* presents theories, chemistries, methodologies and applications for the detection of reactive species in biological systems.

Beginning with a solid introduction to both the contextual background and key chemistry of reactive species detection, the book goes on to discuss the role of reactive species in biological systems before outlining such important tools as fluorescence techniques, electron paramagnetic resonance spectroscopy, UV-Vis absorption and chemiluminescence techniques, electrochemistry, mass spectrometry, immunochemistry and nuclear magnetic resonance techniques.

Drawing together the latest developments in the field, *Reactive Species Detection* provides detailed coverage to assist all researchers investigating free radicals, both within chemistry and right across the fields of science and engineering.

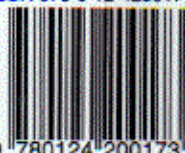
## Key Features

- Reviews current advances in radical detection
- Emphasizes chemical structures and reaction schemes fundamental to radical detection and identification
- Describes the uses, advantages and disadvantages of key techniques



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