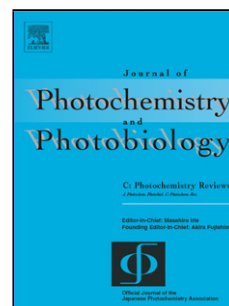


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Oxygen imaging of living cells and tissues using luminescent molecular probes

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Highlights

Biological oxygen imaging using luminescent molecular probes is reviewed.

Metal complexes serve as an oxygen sensing probe for living cells and tissues.

Phosphorescence quenching mechanism of metal complexes by oxygen is discussed.

Lifetime-based measurements allow tissue oxygen imaging and hypoxic tumor imaging.

Abstract

Oxygen imaging of biological cells and tissues is becoming increasingly important in cell biology and in the pathophysiology of various hypoxia-related diseases. The optical oxygen-sensing method using luminescent probes provides very useful, high spatial resolution information regarding oxygen distribution in living cells and tissues. This

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