

Fluorescent and Chemluminescent Probes in Cells: Molecular design and applications

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Triaryl boron compounds with electronic donor group and other intramolecular charge transfer (ICT) compounds show sensitive fluorescence with their environment. The compounds could be designed to be high fluorescence emission with different donor and acceptor groups. For their good stability and unique luminescent properties, the compounds are expected to be potential intrinsic luminescent materials and some novel compounds are used as fluorescent or chemluminescent probes for the detection of temperature, viscosity and special component in solutions and in bio-cells.

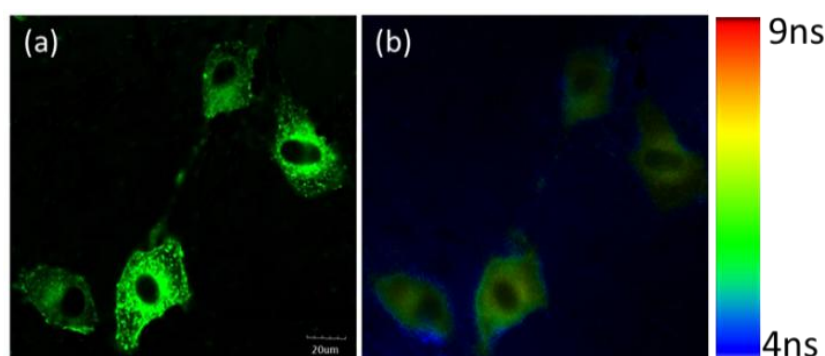


Figure 1. Confocal fluorescence images of live NIH/3T3 cells incubated with CBS in DMEM at 37°C for 8h and then incubated with TAB-2-Cu²⁺ for 5min a) Fluorescence intensity image. b) Fluorescence lifetime image. Excitation wavelength: λ_{exc} =760 nm. Emission wavelength: 500–550 nm.

Funding: National Basic Research Program (2013CB834703, 2013CB834505,) and the National Natural Science Foundation of China 21233011, 21273252 and 21205122)

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