Caged fluorophore NPE-HPTS

NPE-HPTS releases the fluorophore HPTS (pyranine), a ratiometric pH indicator with pK 7.25. It has been used to study compartmentalization by measuring diffusion following point release. Although the near-UV photolysis is relatively slow at pH 7, half-time 10-20 ms, with two-photon excitation the rate of release was found to be much faster, >3000 s⁻¹, suitable for diffusional studies in small compartments.¹² NPE-HPTS is routinely used for photolysis calibration.³⁴

References