Supporting Information

New highly fluorescent pH indicator for ratiometric RGB imaging of pCO₂

_Susanne Schutting^a, Ingo Klimant^a, Dirk de Beer^b and Sergey M. Borisov^a_

^aInstitute of Analytical Chemistry and Food Chemistry, Graz University of Technology, Stremayrgasse 9, 8010, Graz, Austria
^bMax-Planck-Institute of Marine Microbiology, Celsiusstrasse 1, 28359, Bremen, Germany
Figure S1. pKa value estimation carried out in a mixture of tetrahydrofuran and buffer (1:1).

Figure S2. Photodegradation profiles for DPPtBu\textsuperscript{3} and BiPh-DiSA dissolved in air-saturated tetrahydrofuran (red dots and black squares, respectively) and for DPPtBu\textsuperscript{3} embedded in ethyl cellulose (blue triangles) obtained from the absorption spectra of the protonated form. The data points represent an average value from 3 independent experiments.
**Figure S3.** Absorption of the protonated form (505 nm) at alternating levels of pCO₂ (0.25 kPa, 1.0 kPa and 5.0 kPa) at 25°C under dry conditions.

**Figure S4.** Emission ($\lambda_{exc} = 430$ nm) spectra for 0.25% w/w (A), 0.75% w/w (B) and 1.5% w/w (C) of DPPtBu$_3$ in ethyl cellulose (EC 49) at 25 °C.