Supplementary information:

Self-referenced RGB colour imaging of intracellular oxygen

Xu-dong Wang, Hans H. Gorris, Judith A. Stolwijk, Robert J. Meier, Dominik B. M. Groegel, Joachim Wegener, Otto S. Wolfbeis

University of Regensburg, Institute of Analytical Chemistry, Chemo- and Biosensors
93040 Regensburg, Germany

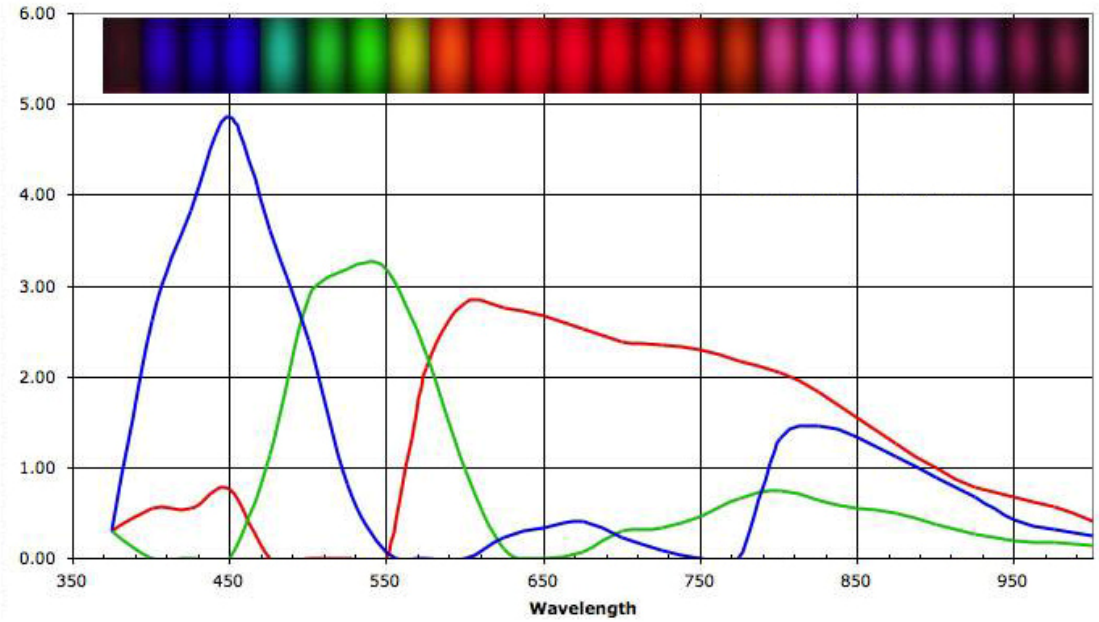

Fig. S.1 Spectral response of the Canon EOS 50D CMOS chip showing the sensitivities of the red, green and blue (RGB) channels.

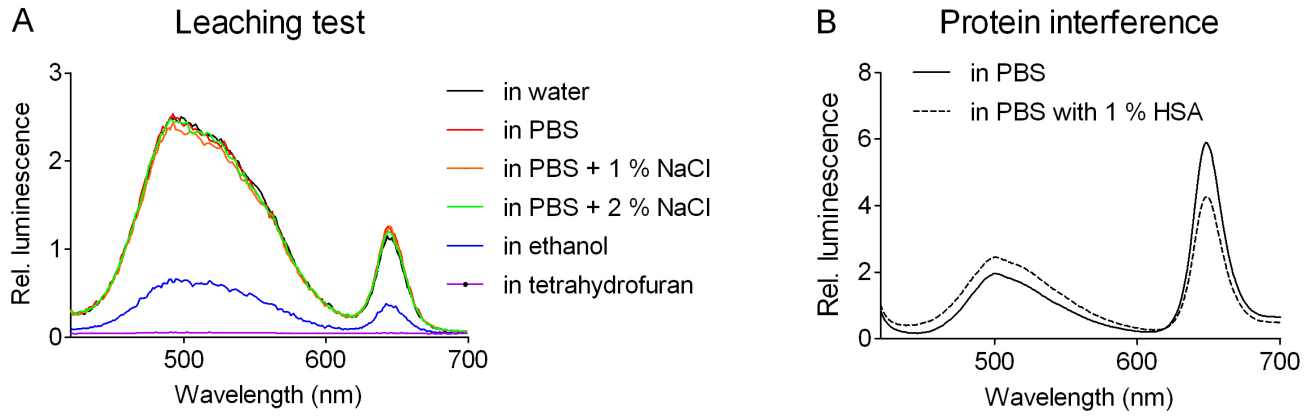

Fig. S.2 A) Dye leaching in different buffers / solvents and **B)** Spectral response in PBS in absence and in presence of 1 % HSA.

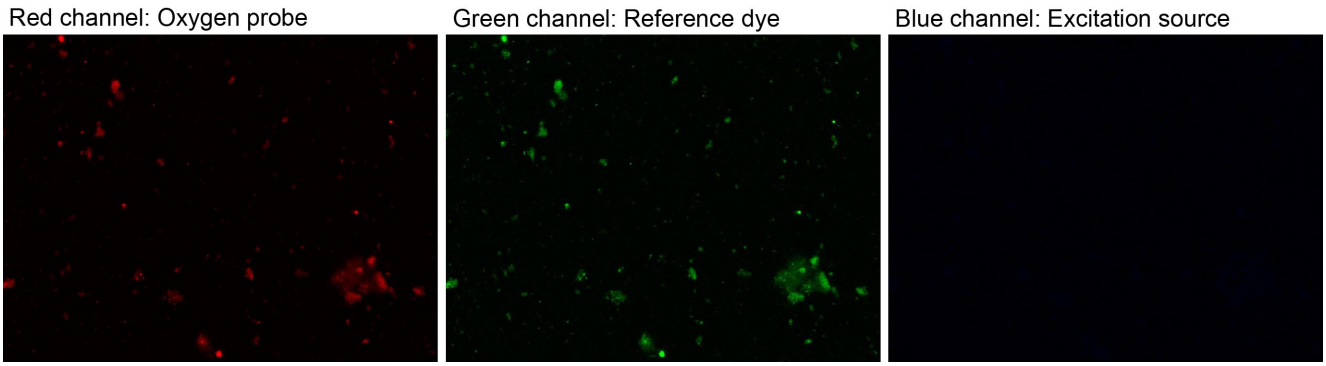

Fig. S.3 Agglomerates of RGB PEBBLEs with a diameter of 100 nm are visible by light microscopy. The three channels of the RGB camera are shown separately. The response of the oxygen probe is recorded on the red channel, the response of the reference dye on the green channel. The blue channel contains no information as blue light is reserved for the excitation source.

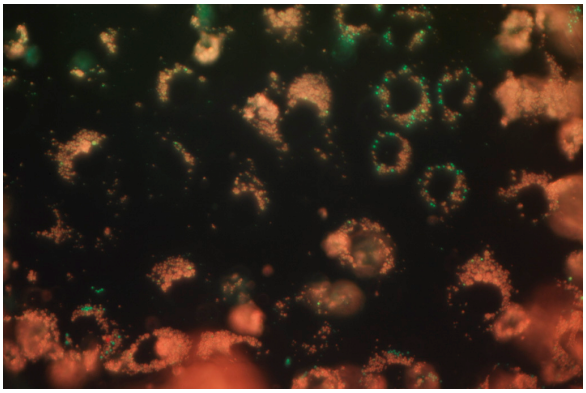

Fig. S.4 RGB PEBBLEs undergoing endocytosis by NRK cells after 24 h incubation time.
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Supplementary video: Oxygen response of RGB PEBBLEs (Fig. 2E).