

Electronic Supplementary Information: Transition from scattering to orbiting upon increasing the fuel concentration for an active Janus colloid moving at an obstacle-decorated interface

Carolina van Baalen,^{a*} William E. Usual,^{b*} Mihail N. Popescu,^{c*} Lucio Isa^{a*}

^aLaboratory for Soft Materials and Interfaces, Department of Materials, ETH Zürich
Vladimir-Prelog-Weg 5, 8093 Zürich, Switzerland

^bDepartment of Mechanical Engineering, University of Hawai'i at Mānoa
Holmes Hall 302, Honolulu, HI 96822, USA

^c Department of Atomic, Molecular, and Nuclear Physics, University of Seville
41080 Seville, Spain

*To whom correspondence should be addressed;

E-mail: carolina.vanbaalen@mat.ethz.ch, usual@hawaii.edu
mpopescu@us.es, lucio.isa@mat.ethz.ch.

S1. Description of supplementary videos

The supplementary videos show part of typical trajectories of a microswimmer at 3 (Video 1), 5 (Video 2), and 7% H₂O₂ (Video 3). In each video a single microswimmer is followed in real time using an Object Tracker function implemented in NIS-Elements, which allows to record the swimmers over longer timescales. Trajectories are color-coded over time as in Fig. 1 in the main text, and time from the start of the experiment is displayed in the upper right corner of the videos.

S2. Time evolution of the collision events at 5% H_2O_2

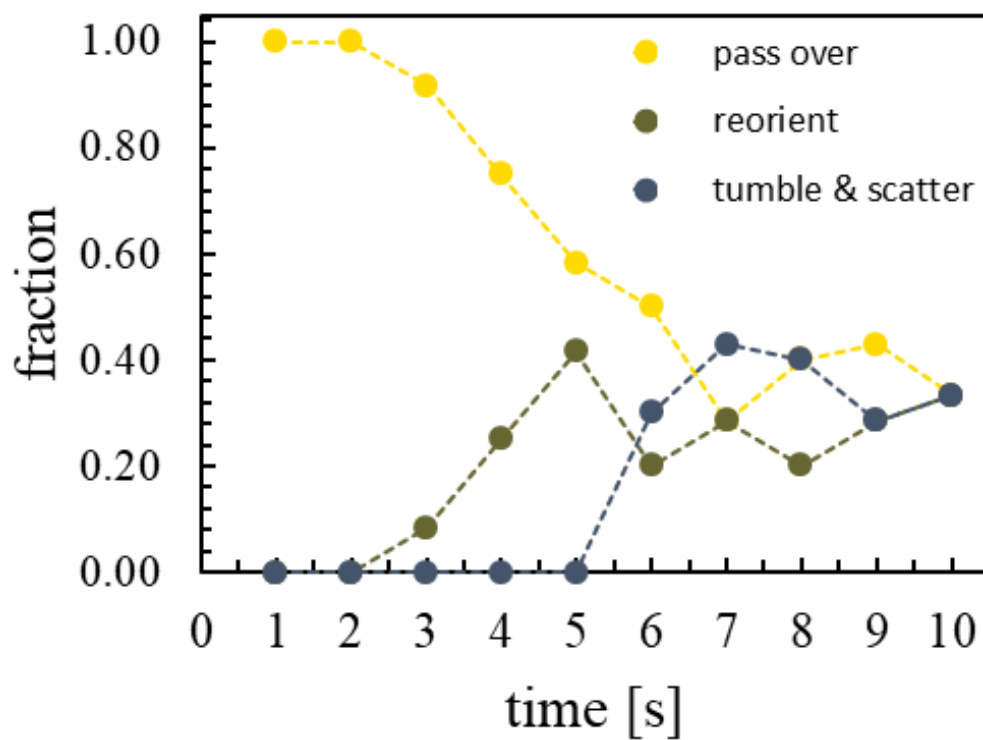


Figure S1: Time evolution of the collision events at 5% H_2O_2 . Fraction of collision events per type (pass over, reorient, tumble & scatter), averaged over 1 min.