Bulk synthesis of silver-head colloidal rodlike micromotors

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Supplementary information

Fig. S1 Schematics on a negatively-charged Ag-SiO 2 Janus rod driven to move in H 2 O 2 by electrolyte self-diffusiophoresis (not drawn to scale). The silver reacts with H 2 O 2 , which releases Ag + and OOH − asymmetrically around the particle. The Ag + ions diffuse faster than the OOH − ions, which generates a local electric field that points to the silver head. The electric field will drive the negatively-charged rod in the direction of its silver head.

Movie S1 Particle tracking for colloidal Janus rods at H 2 O 2 concentration of (a) 0 w% and (b) 0.1 w%. The red dots mark the starting points, with trajectories shown as blue lines. The field of view is 187 × 187 μm 2.