

The image is a 3D molecular dynamics simulation of Janus micromotors in water. The background is a dark, rippling surface representing water. Several Janus micromotors are shown, each consisting of a central core of green and silver spheres and a surrounding shell of blue spheres. The micromotors are depicted with long, thin, white filaments extending from their cores, suggesting a catalytic reaction or the presence of a propellant. The text 'NANO · MICRO' is written in red, and 'small' is written in large, bold, black letters. The overall scene is illuminated from below, creating a bright, circular glow on the water surface.

NANO · MICRO small

Janus Micromotors

In article number 1802537, Larysa Baraban, Denys Makarov, and co-workers present novel plasmonic Ag/AgCl-based spherical Janus micromotors and investigate their collective behavior upon interaction with nonmotile passive beads. An efficient exclusion behavior between Ag/AgCl micromotors and the surrounding passive beads is observed under visible light illumination in pure H₂O. The exclusion effect is tunable by the number of catalytically active Janus particles forming a micromotor, which is demonstrated experimentally and using molecular-dynamics simulations.