

Supplementary Information

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: This videoclip illustrates the formation of a colloidal raft composed of a central hematite particle and a growing shell of passive spheres. During growth, the raft displays self-propulsion. The aggregation has been induced by blue light (wavelength $\lambda = 450 - 490\text{nm}$) at an intensity $I = 125 \text{ mW cm}^{-2}$. The video has been accelerated 30 times, and it corresponds to Figure 1(b) of the main manuscript.

File Name: Supplementary Movie 2

Description: Videoclip made from numerical simulations illustrating the aggregation and propulsion of a composite raft. In the video, the passive particles are illustrated by the blue disks, while the active one is a dimer composed of two orange disks. The input parameters are the same as the experimental ones, as described in the Method Section.

File Name: Supplementary Movie 3

Description: Videoclip made from numerical simulations illustrating the long persistence length of a composite raft moving with the active particle at the rear. In the video, the passive particles are illustrated by the blue disks, while the active one is a dimer composed of two orange disks. Considering the clustering phenomenon, the input parameters are like the experimental one, as described in this supporting information. For the cluster propulsion, we impose the cluster to move with the active particle at the rear, and the velocity verifies the formula, $v_{cl} = k\chi/A$, where $k = 90 \mu\text{m}^{-1} \text{ s}^{-1}$ as determined in the experiments.