Supporting Information for

Propulsion of copper microswimmers in folded fluid channels by bipolar electrochemistry

Jin-Zhi Jiang, Mei-Hong Guo, Fen-Zeng Yao, Ju Li and Jian-Jun Sun*

Ministry of Education Key Laboratory of Analysis and Determination for Food Safety, Fujian Provincial Key Laboratory of Analysis and Detection for Food Safety, College of Chemistry And Chemical Engineering, Fuzhou University, Fuzhou, 350108, China.

**Corresponding author. Tel.: +86 591 22866135; Fax: +86 591 22866135; E-mail address: jjsun@fzu.edu.cn.*

ESI figures and tables

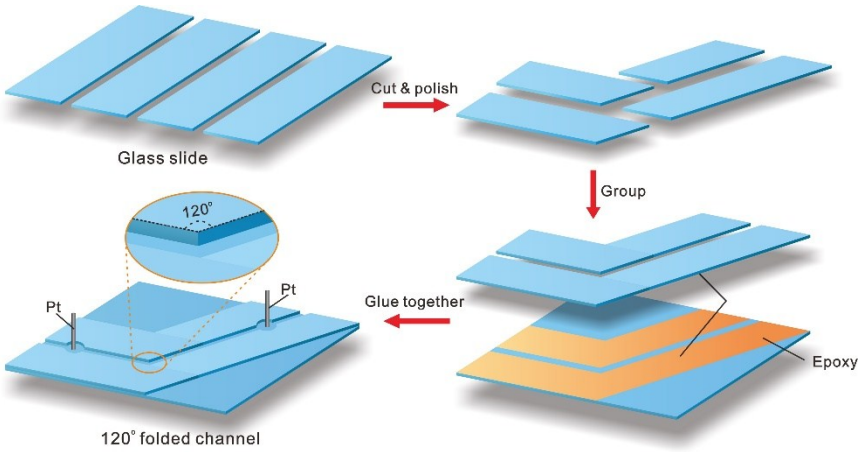

Fig. S1 The fabrication process of 120° folded channel

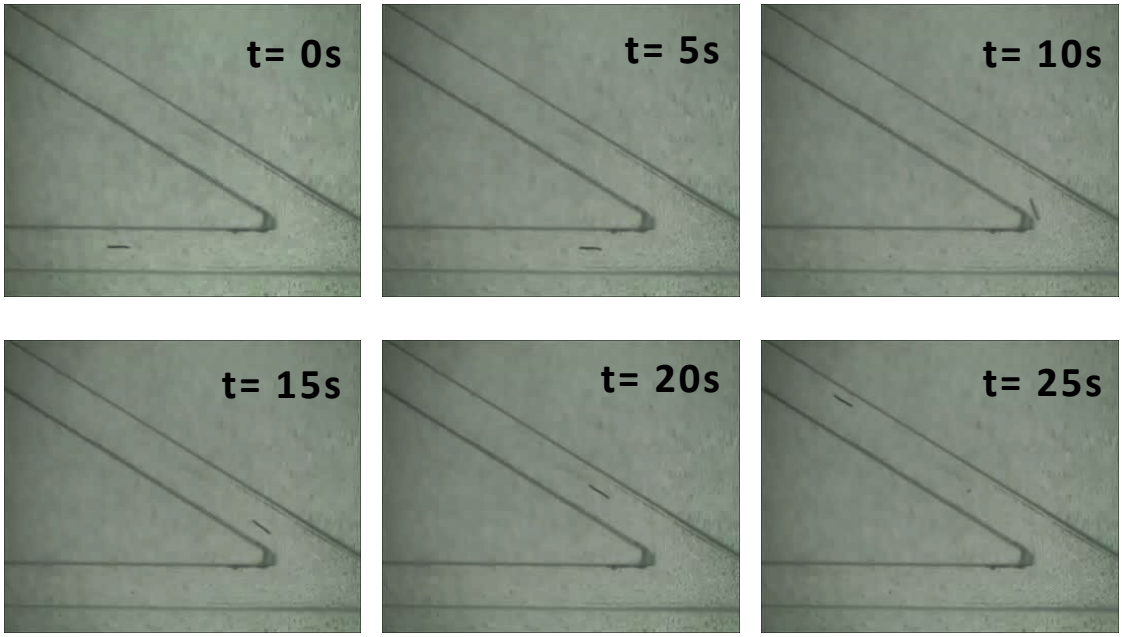

Fig. S2 Images illustrating the motion of copper wire (l= 730 μm, $Ø$ = 0.05 mm) in the folded channel with angle of 30°. See also the **Video S1** in the Supplementary Videos.

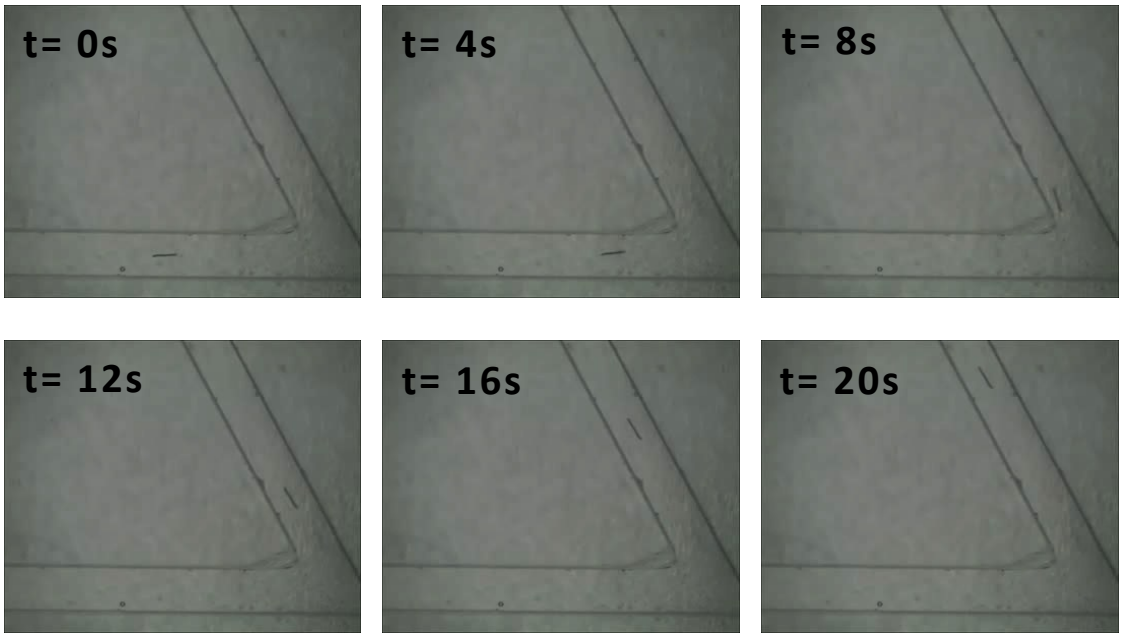

Fig. S3 Images illustrating the motion of copper wire (l= 770 μm, $Ø$ = 0.05 mm) in the folded channel with angle of 60°. See also the **Video S2** in the Supplementary Videos.

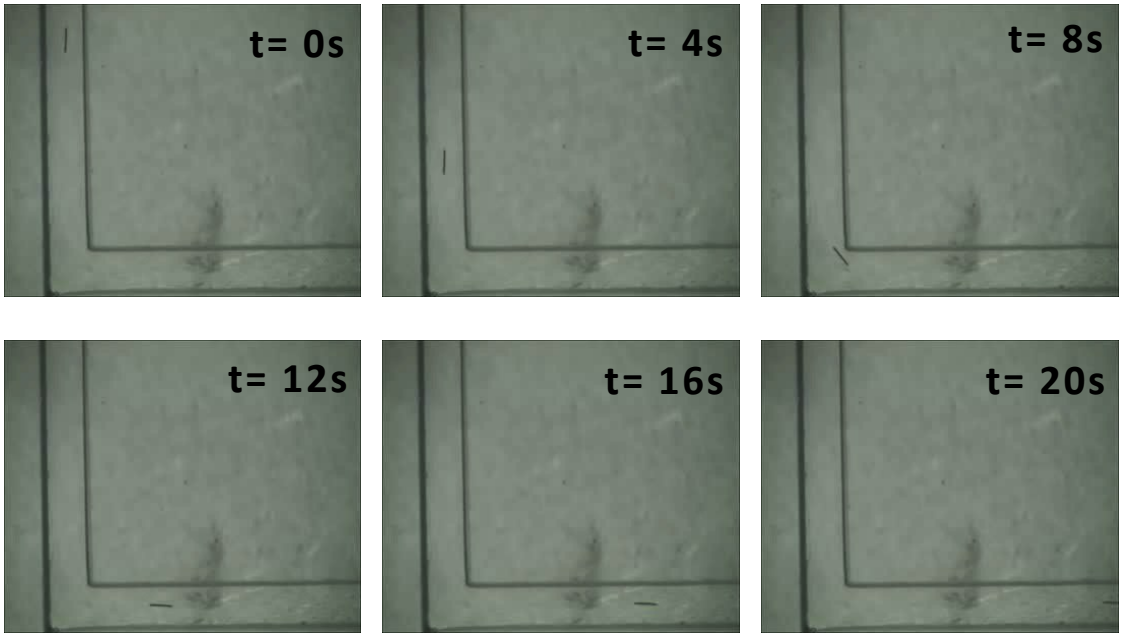

Fig. S4 Images illustrating the motion of copper wire (l= 690 μm, $Ø$ = 0.05 mm) in the folded channel with angle of 90°. See also the **Video S3** in the Supplementary Videos.

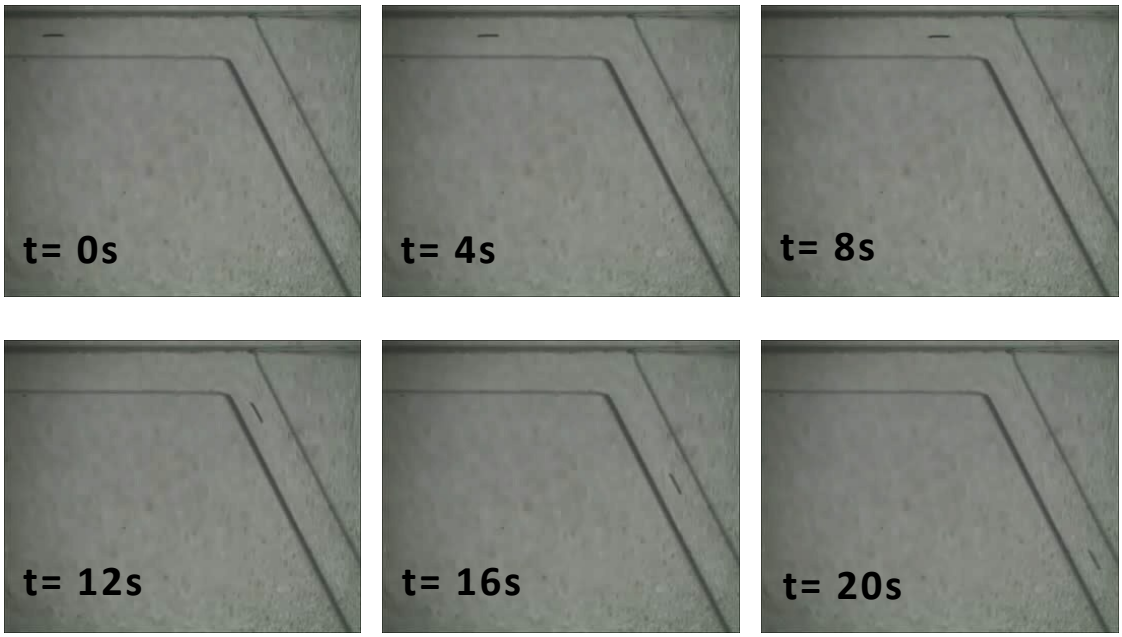

Fig. S5 Images illustrating the motion of copper wire (l= 820 μm, $Ø$ = 0.05 mm) in the folded channel with angle of 120°. See also the **Video S4** in the Supplementary Videos.

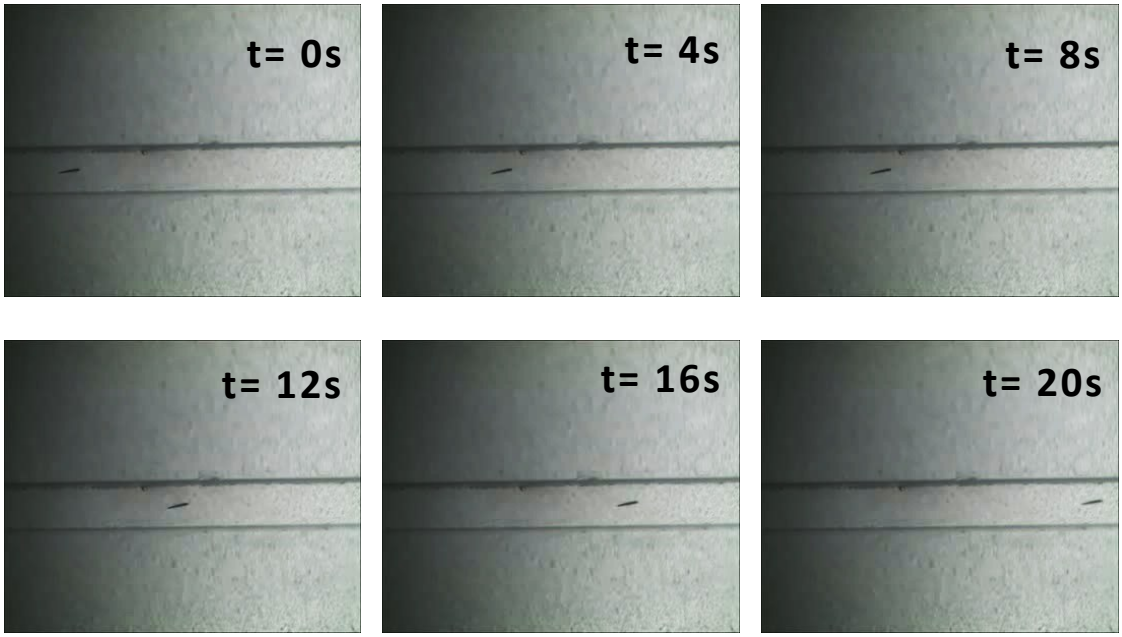

Fig. S6 Images illustrating the motion of copper wire (*l*= 720 μm, *Ø* = 0.05 mm) in the linear channel with angle of 180°. See also the **Video S6** in the Supplementary Videos.

Table S1 The effect of applied voltage on the average speed of copper microswimmers in 180° fluid channel

E/ V	Δ E/ V	v/ mm s^{-1}
750	4.47	0.22
930	5.55	0.45
990	5.90	0.52
1090	6.50	0.71
1190	7.01	0.81
1760	10.50	1.78