Supplementary data

Giant magnetoresistance in silicene nanoribbons

Chengyong Xu,1 Guangfu Luo,1,2 Qihang Liu,1 Jiaxin Zheng,1,3 Zhimeng Zhang,1 Shigeru Nagase,2 Zhengxiang Gao,1 and Jing Lu1,*

1 State Key Laboratory of Mesoscopic Physics and Department of Physics, Peking University, Beijing 100871, P. R. China
2 Department of Theoretical and Computational Molecular Science, Institute for Molecular Science, Okazaki 444-8585, Japan
3 Academy for Advanced Interdisciplinary Studies, Peking University, Beijing 100871, P. R. China

E-mail: jinglu@pku.edu.cn
Figure S1. $I-V_{bias}$ characteristics of the AFM- and FM-coupled (a) 3-ZSiNR, (b) 4-ZSiNR, (c) 5-ZSiNR, (d) 6-ZSiNR, (e) 7-ZSiNR and (f) 8-ZSiNR as a function of bias.

Figure S2. Spin-resolved $I-V_{bias}$ characteristics of the AFM- and FM-coupled (a) 3-ZSiNR, (b) 4-ZSiNR, (c) 5-ZSiNR, (d) 6-ZSiNR, (e) 7-ZSiNR, and (f) 8-ZSiNR as a function of bias. The red lines with solid and hollow icons in each panel are all almost overlapped.
Figure S3. Spin-resolved currents of the different-length 5-ZSiNR in the (a) AFM and (b) FM configurations. SFEs of the different-length 5-ZSiNR in the (c) AFM and (d) FM configurations as a function of bias. Blue lines in panel (a) and (b) are 10 times augmented to separate from red lines.