Supporting Information

Natural Sugar: A Green Assistance to Efficiently Exfoliate Inorganic Layered Nanomaterials

Kai Chen,[†] Wentao Zhang,[†] Xinjie Pan,[§] Lunjie Huang,[†] Jing Wang,[†] Qingfeng Yang,[†] Na Hu,[‡] Yourui Suo,[‡] Daohong Zhang,[†] Jianlong Wang[†]*

[†]College of Food Science and Engineering, Northwest A&F University, Yangling, 712100, Shaanxi, P. R. China

[‡]Qinghai Key Laboratory of Qinghai-Tibet Plateau Biological Resources, Northwest Institute of Plateau Biology, Chinese Academy of Sciences, Xining, 810008, Qinghai, P. R. China

[§]College of chemistry and pharmacy, Northwest A&F University, Yangling, 712100, Shaanxi, P. R. China

* Corresponding authors: wanglong79@yahoo.com

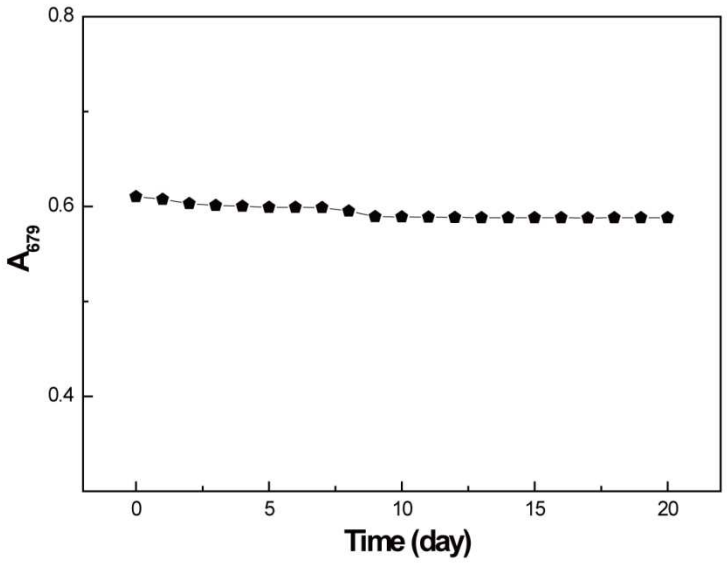

Figure S1. The storage stability of exfoliated MoS_2 dispersion for 20 days.

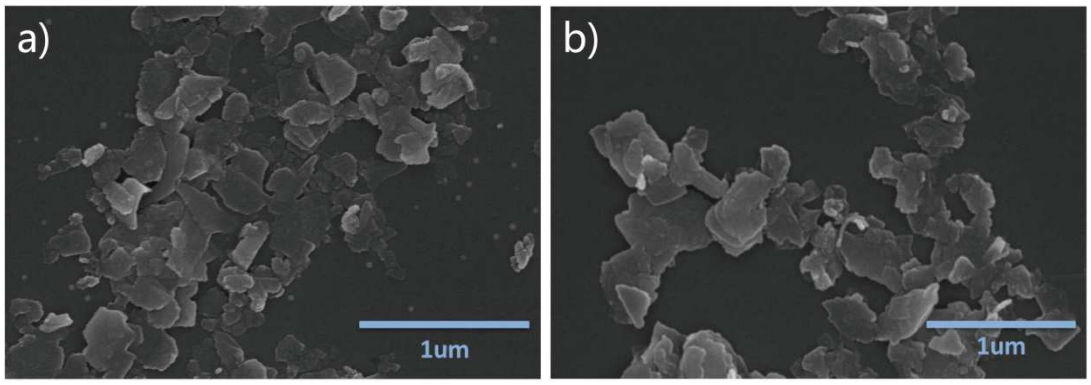

Figure S2. SEM images of MoS_2 nanosheets exfoliated by (a) fructose and (b) arabinose.

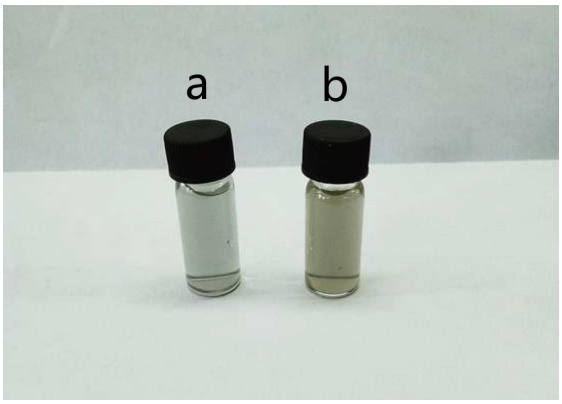

Figure S3. Dispersions of MoS_2 nanosheets exfoliated by (left) the alcohol-assisted sonicating and (right) our method.

REFERENCES

(1) Zhang, W.; Wang, Y.; Zhang, D.; Yu, S.; Zhu, W.; Wang, J.; Zheng, F.; Wang, S.; Wang, J. A One-step approach to the large-scale synthesis of functionalized Mos_2 nanosheets by ionic liquid assisted grinding. *Nanoscale* **2015,** *7*, 10210-10217.
(2) Wang, J.; Zhang, W.; Wang, Y.; Zhu, W.; Zhang, D.; Li, Z.; Wang, J. Enhanced exfoliation effect of solid auxiliary agent on the synthesis of biofunctionalized Mos_2 using grindstone chemistry. *Part. Part. Syst. Char.* **2016,** *33*, 825-832.
(3) Coleman, J. N.; Lotya, M.; O'Neill, A.; Bergin, S. D.; King, P. J.; Khan, U.; Young, K.; Gaucher, A.; De, S.; Smith, R. J.; Shvets, I. V.; Arora, S. K.; Stanton, G.; Kim, H. Y.; Lee, K.; Kim, G. T.; Duesberg, G. S.; Hallam, T.; Boland, J. J.; Wang, J. J.; Donegan, J. F.; Grunlan, J. C.; Moriarty, G.; Shmeliov, A.; Nicholls, R. J.; Perkins, J. M.; Grieveson, E. M.; Theuwissen, K.; McComb, D. W.; Nellist, P. D.; Nicolosi, V. Two-dimensional nanosheets produced by liquid exfoliation of layered materials. *Science* **2011,** *331*, 568-571.