Supporting Information

Low-temperature Processed and Carbon-based $ZnO/CH_3NH_3PbI_3/C$ Planar Heterojunction Perovskite Solar Cells

Huawei Zhou,[†,] Yantao Shi, *,[†] Kai Wang,[†] Qingshun Dong, [†] Xiaogong Bai, [†] Yujin Xing,[†] Yi Du,[†] Tingli Ma*,[†,§]

[†] State Key laboratory of Fine Chemicals, School of Chemistry, Dalian University of Technology, Dalian, China.

[§] Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, 2-4 Hibikino, Wakamatsu, Kitakyushu, Fukuoka, 808-0196, Japan.

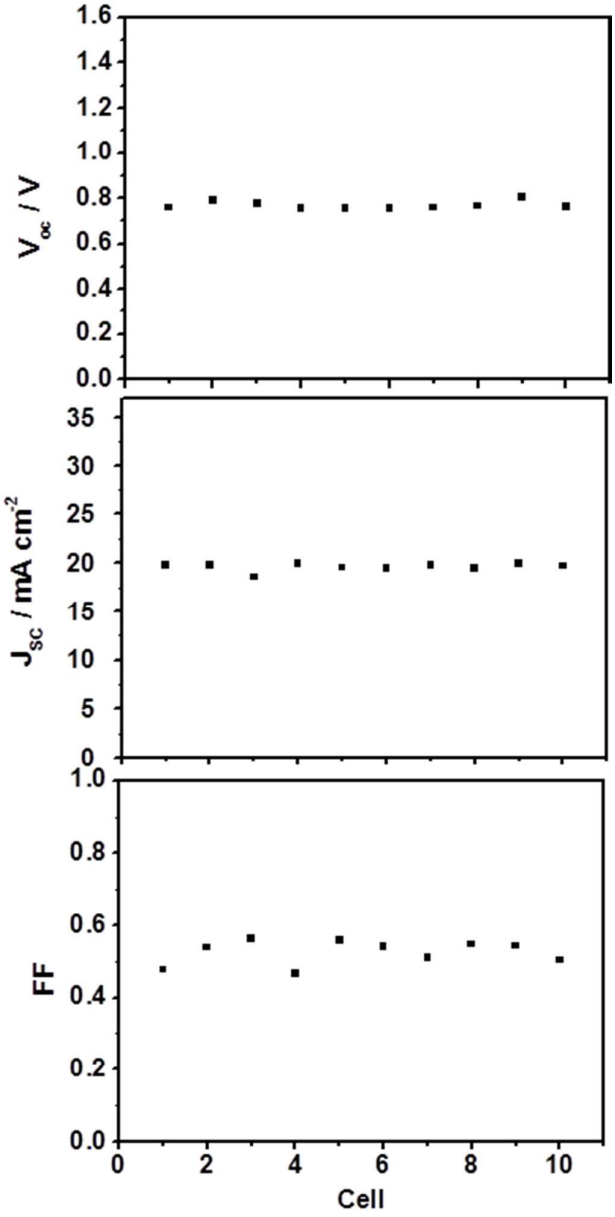

Figure S1 V_{oc}, J_{sc} and FF of ten ZnO/$CH_3NH_3PbI_3$/C PHJ-PSCs prepared on FTO/Glass substrate and measured at a simulated AM1.5G solar irradiation of 100 mW cm^{-2}, 0.12 cm^2 mask

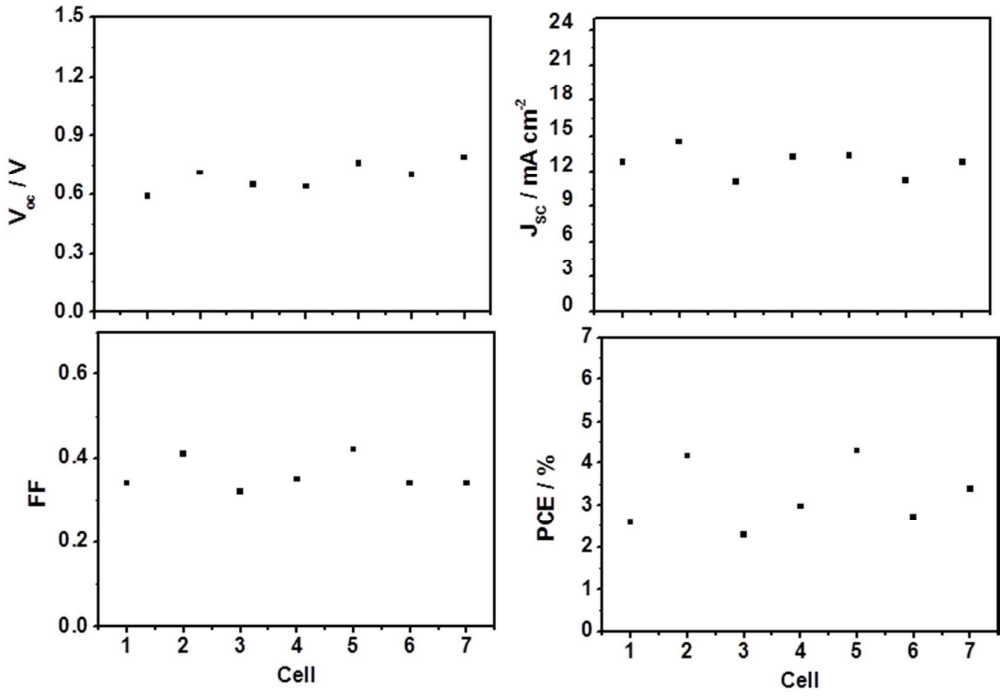

Figure S2 Photovoltaic parameters of seven individual flexible ZnO/$CH_3NH_3PbI_3$/C PHJ-PSCs

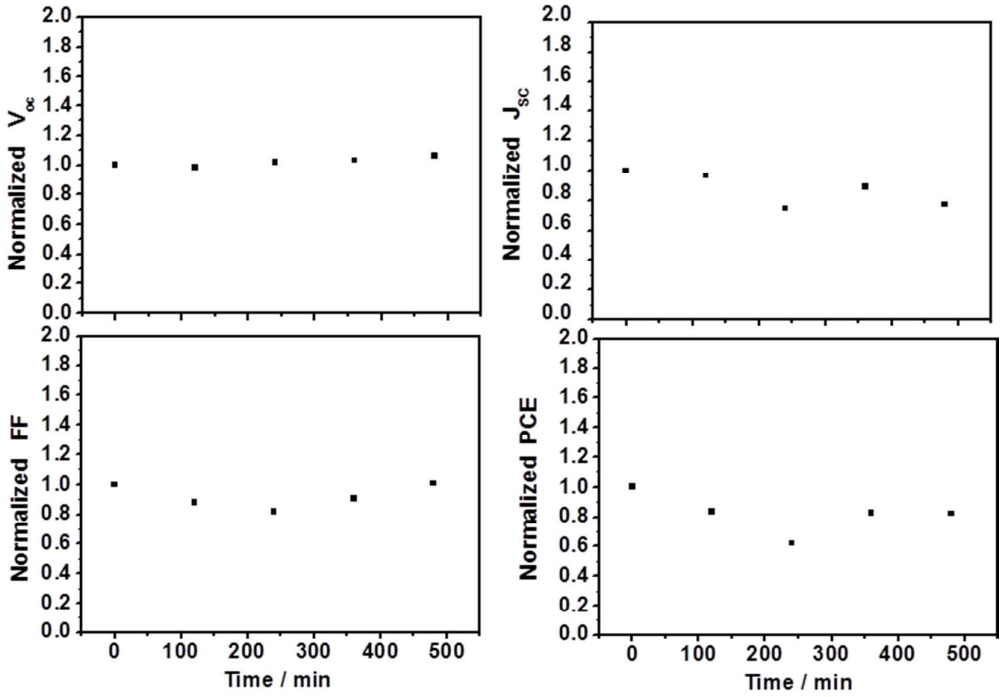

Figure S3 Primary stability of flexible ZnO/$CH_3NH_3PbI_3$/C PHJ-PSCs(25℃, 30% humidity, without encapsulation, AM 1.5, 100 mW cm^{-2})