

Adjusting acceptor redistribution for highly efficient solvent additive-free polymer solar cells

Jian Wang,^a Fujun Zhang*,^a Qiaoshi An,^a Miao Zhang,^a Jian Zhang,^b Weihua Tang^c

^a Key Laboratory of Luminescence and Optical Information, Ministry of Education, Beijing Jiaotong University, Beijing 100044, People's Republic of China

^b Key Laboratory of Soft Chemistry and Functional Materials (Ministry of Education of China), Nanjing University of Science and Technology, Nanjing 210094, People's Republic of China.

^c School of Materials Science and Engineering, Guilin University of Electronic Technology, Guilin 541004, People's Republic of China.

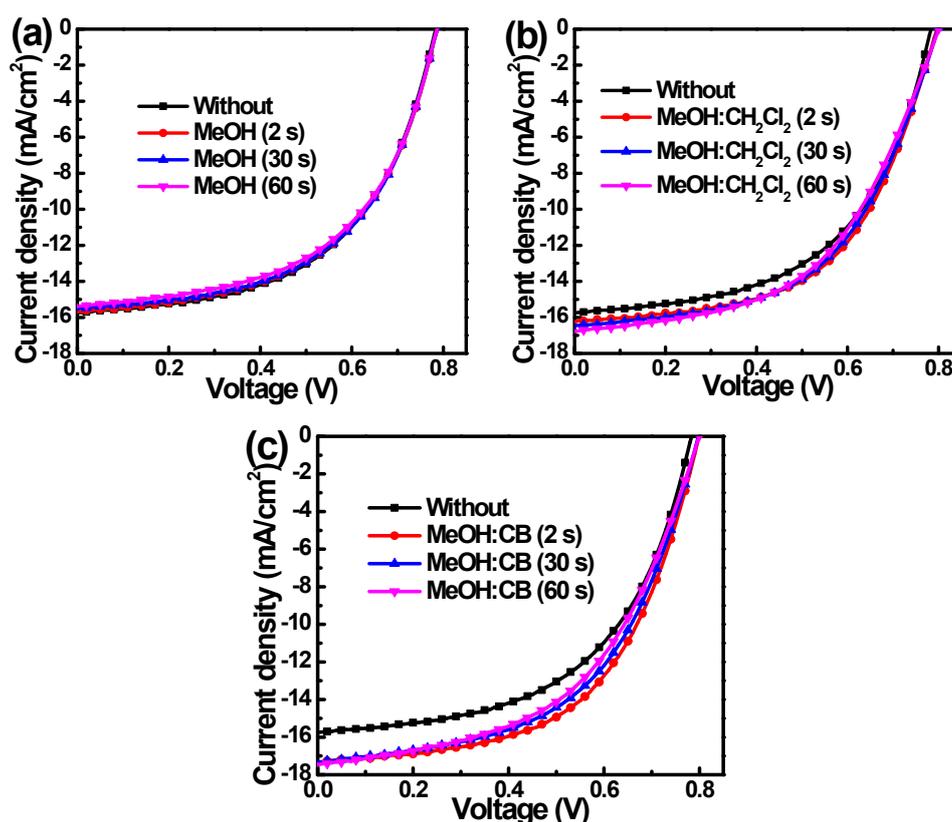


Figure S1 The J - V curves of PSCs based on active layer with different solvents soaking treatment:

(a) MeOH solvent, (b) MeOH:CH₂Cl₂ mixed solvents and (c) MeOH:CB mixed solvents.

* Email: fjzhang@bjtu.edu.cn (Fujun) Tel: 0086-10-51684908

Table S1. The key parameters of PSCs without or with different solvents soaking treatment

Post-treatment	J_{sc} (mA/cm)	V_{oc} (V)	FF (%)	PCE (%)
Without	15.76	0.78	54.5	6.69
MeOH (2 s)	15.67	0.79	53.8	6.66
MeOH (30 s)	15.52	0.79	54.3	6.66
MeOH (60 s)	15.39	0.79	53.7	6.53
MeOH:CH ₂ Cl ₂ (9:1, 2 s)	16.26	0.80	55.4	7.21
MeOH:CH ₂ Cl ₂ (9:1, 30 s)	16.45	0.80	53.9	7.09
MeOH:CH ₂ Cl ₂ (9:1, 60 s)	16.77	0.80	51.8	6.96
MeOH:CB (9:1, 2 s)	17.33	0.80	56.0	7.76
MeOH:CB (9:1, 30 s)	17.31	0.80	53.6	7.42
MeOH:CB (9:1, 60 s)	17.48	0.80	51.4	7.19

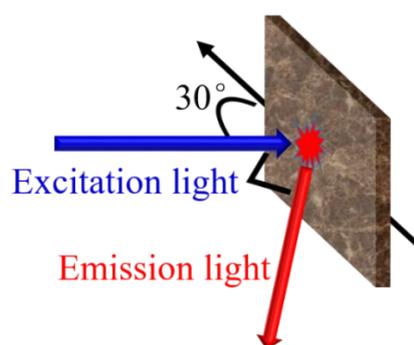


Figure S2 The schematic beam path of PL emission measurement

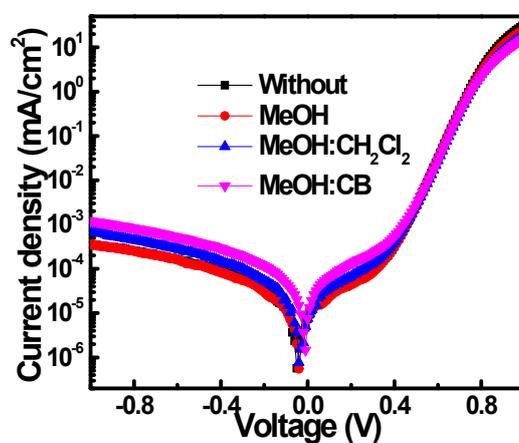


Figure S3 The J - V curves of PSCs without or with different solvents soaking treatment in dark conditions