Electronic Supplementary Information for:

Enhanced efficiency of graphene/silicon heterojunction solar cells by molecular doping

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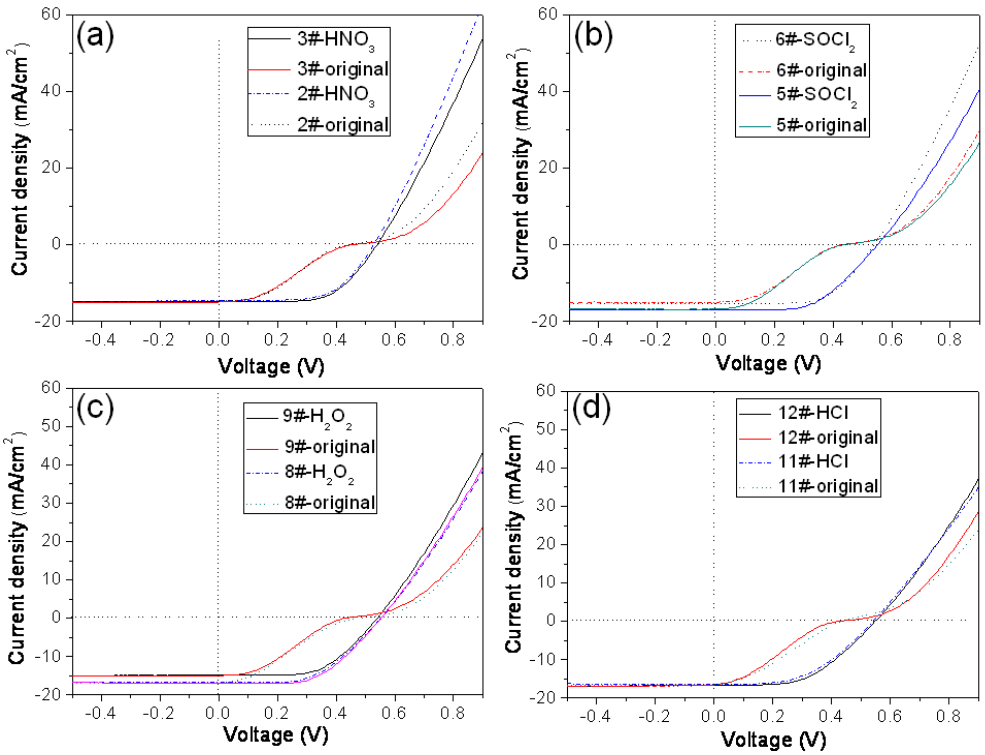

Fig. S1 Light current density-voltage curves of 2#, 3#, 5#, 6#, 8#, 9#, 11# and 12# solar cells before and after volatile oxidant treatment. (a) 2# and 3#, (b) 5# and 6#, (c) 8# and 9#, (d) 11# and 12#.

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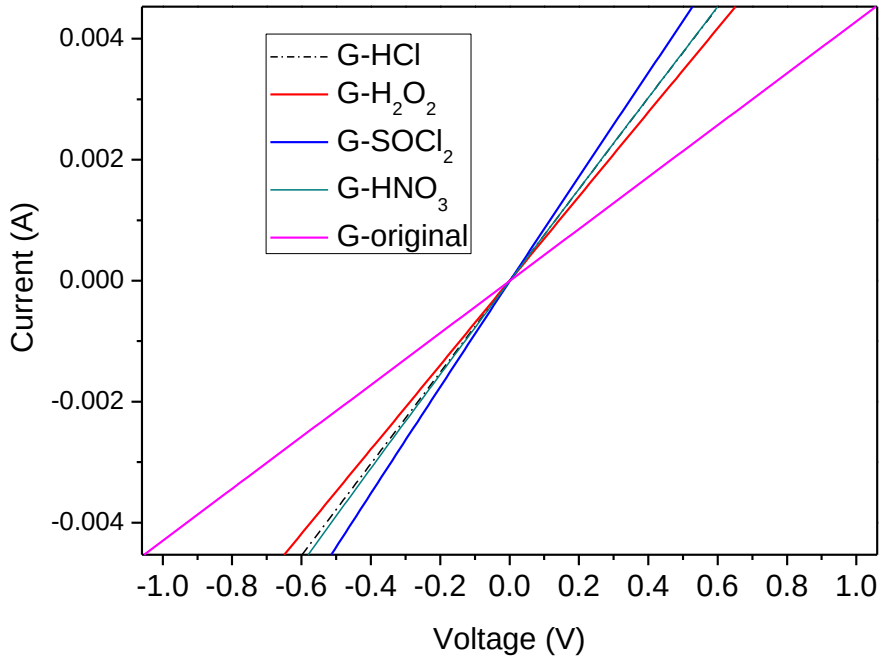

Fig. S2 Current-voltage curves of pristine graphene and HNO_3, $SOCl_2$, H_2O_2, HCl treated graphene. (The slope of each line represents the corresponding sheet resistances of graphene)

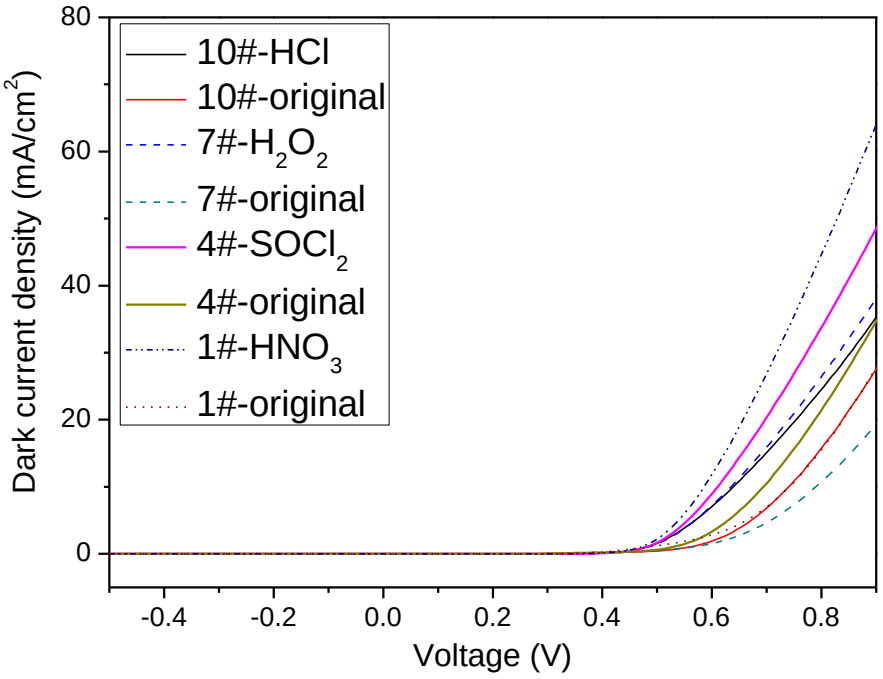

Fig. S3 Dark current density-voltage curves of 1#, 4#, 7# and 10# cells before and after volatile oxidant treatment.

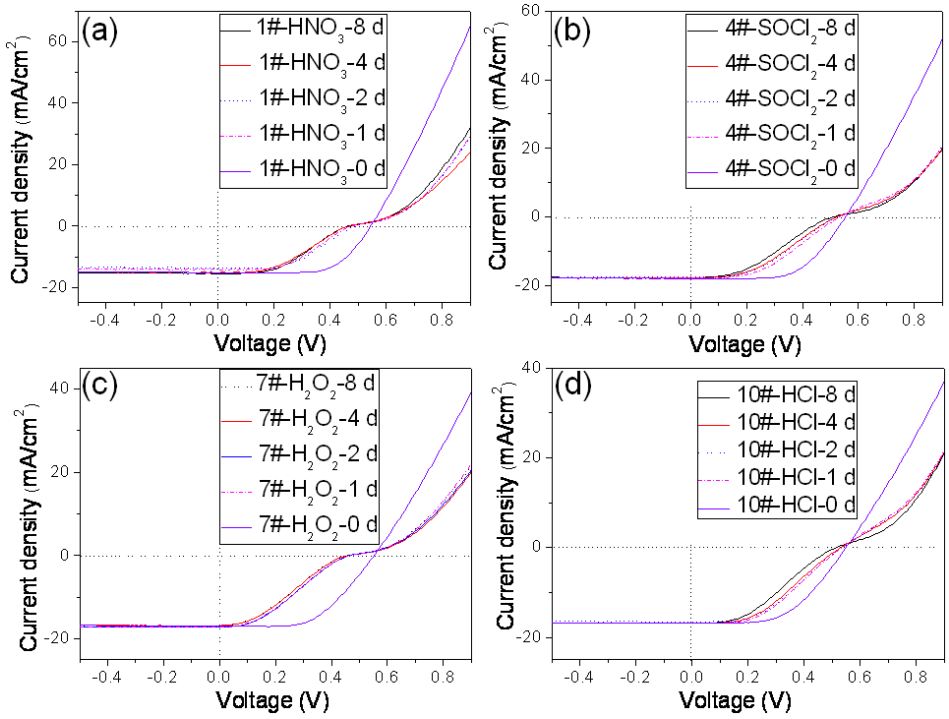

Fig. S4 Light current density-voltage curves of 1#-HNO_3, 4#-$SOCl_2$, 7#-H_2O_2, and 10#-HCl cells during 8 days storage in air.

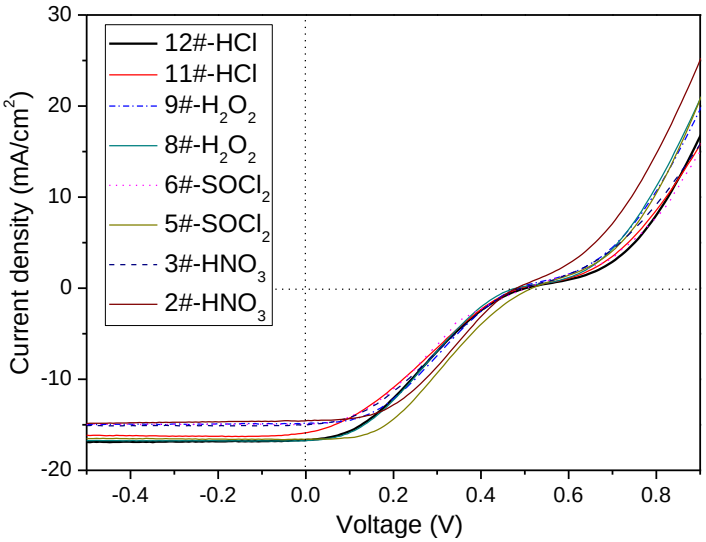

Fig. S5 Light current density-voltage curves of 2#-HNO_3, 3#-HNO_3, 5#-$SOCl_2$, 6#-$SOCl_2$, 8#-H_2O_2, 9#-H_2O_2, 11#-HCl and 12#-HCl cells after 8 days storage in air.