

Supplementary Materials: Potassium Acetate-Based Treatment for Thermally Co-Evaporated Perovskite Solar Cells

Jia Li ¹, Hao Wang ¹, Herlina Arianita Dewi ¹, Nripan Mathews ^{1,2,*}, Subodh Mhaisalkar ^{1,2,*} and Annalisa Bruno ^{1,*}

¹ Energy Research Institute @ NTU (ERI@N), Nanyang Technological University, Singapore 637553, Singapore; li-jia@ntu.edu.sg (J.L.); wanghao@ntu.edu.sg (H.W.); herlina@ntu.edu.sg (H.A.D.)

² School of Materials Science & Engineering, Nanyang Technological University, Singapore 639798, Singapore

* Correspondence: nripan@ntu.edu.sg (N.M.); subodh@ntu.edu.sg (S.M.); annalisa@ntu.edu.sg (A.B.)

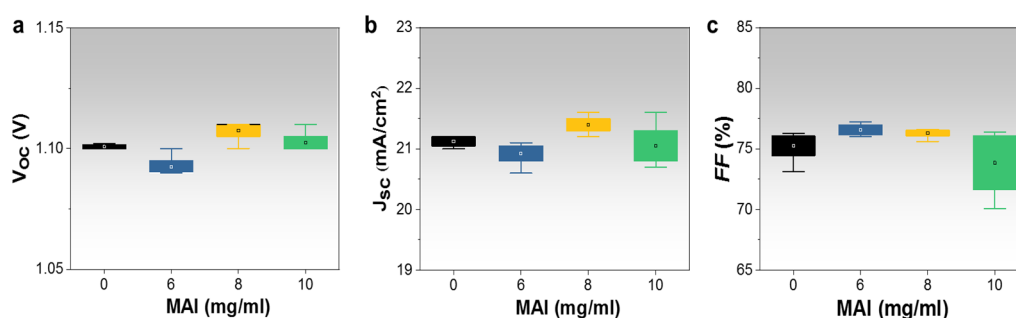


Figure S1. Photovoltaic parameters of the PSC with MAI treatment: (a) V_{oc} (b) J_{sc} and (c) FF.

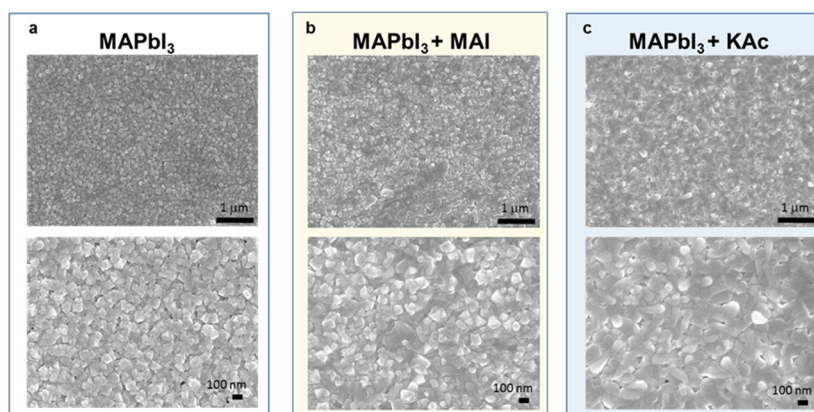


Figure S2. MAPbI₃ thin films morphology: FESEM top view of (a) as-deposited MAPbI₃ film, (b) MAPbI₃ film after MAI treatment, (c) MAPbI₃ film after KAc treatment.

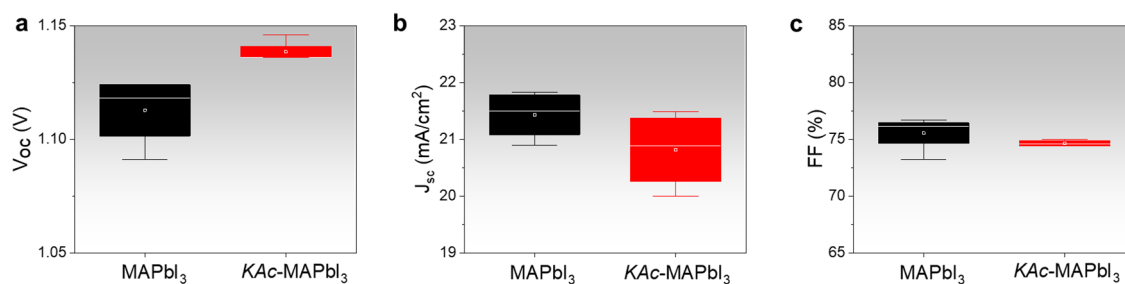


Figure S3. Photovoltaic parameters of the PSC without and with KAc treatment: (a) V_{oc} (b) J_{sc} and (c) FF.

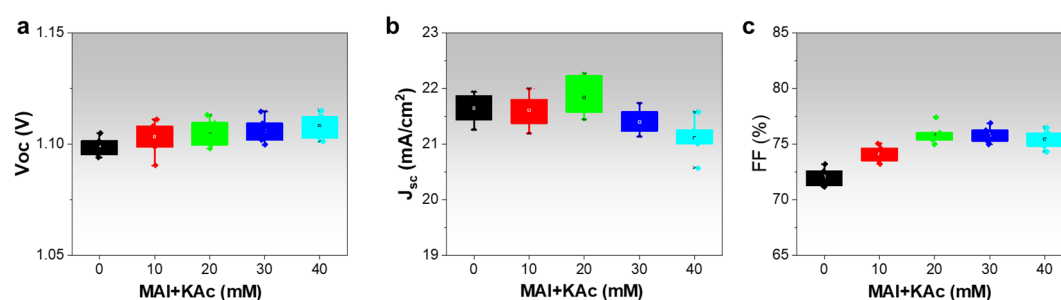


Figure S4. Photovoltaic parameters of the PSC with a combined MAI/KAc treatment: (a) V_{oc} (b) J_{sc} and (c) FF.

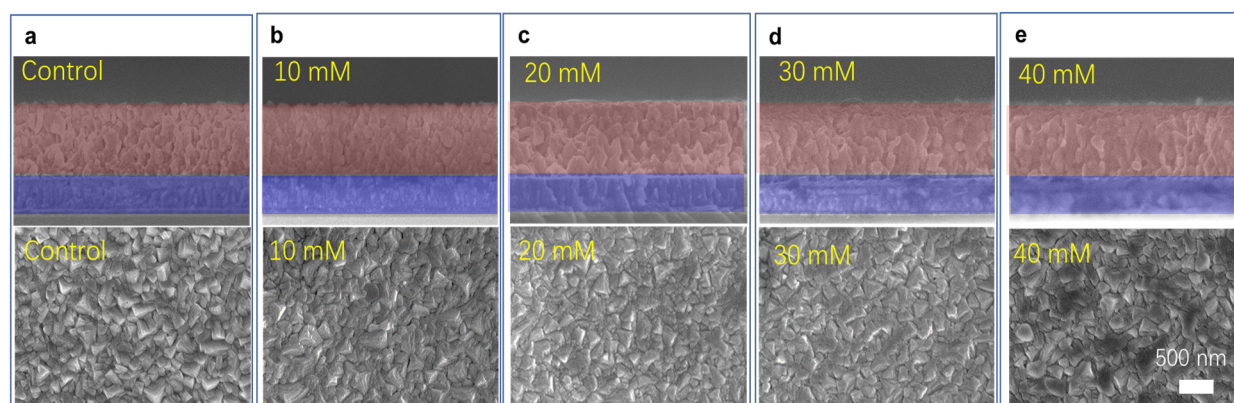


Figure S5. MAPbI₃ thin films morphology: FESEM cross-section and top view of (a) as-deposited MAPbI₃ film; (b) MAPbI₃ film after MAI + KAc treatment, MAI + KAc concentration of 10 mM; (c) MAPbI₃ film after MAI + KAc treatment, MAI + KAc concentration of 20 mM; (d) MAPbI₃ film after MAI + KAc treatment, MAI + KAc concentration of 30 mM; (e) MAPbI₃ film after MAI + KAc treatment, MAI + KAc concentration of 40 mM.

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2020 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).