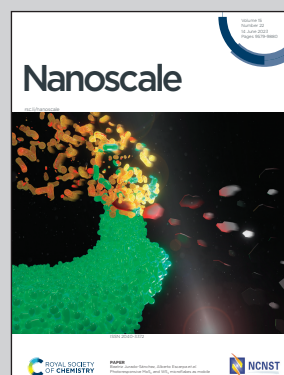


Showcasing research from Prof. Jun Zhu's group at Academy of Opto-Electric Technology, Hefei University of Technology, Hefei, China.

Tailoring multifunctional anions to inhibit methanol absorption on a CsPbBr_3 quantum dot surface for highly efficient semi-transparent photovoltaics

Methanol is frequently produced when preparing perovskite quantum dot films due to the methyl acetate used for ligand exchange. An anion modification strategy is developed to inhibit methanol absorption in CsPbBr_3 quantum dot films. The anion treatment inhibits the methanol absorption, improves the charge transport and reduces the defect density, leading to a power conversion efficiency of 7.04%, which is the highest efficiency reported for CsPbBr_3 quantum dot solar cells to date.

As featured in:



See Jun Zhu *et al.*, *Nanoscale*, 2023, 15, 9691.