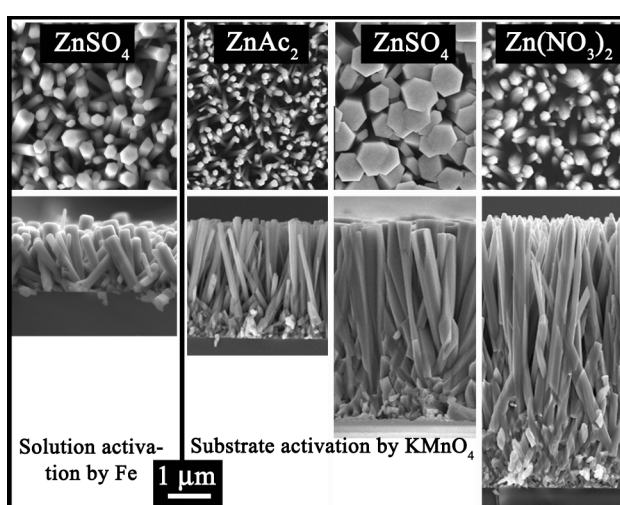


Supporting Information

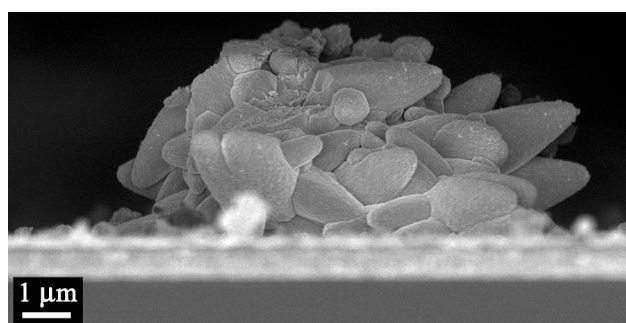
Influence of selective nucleation on the one step chemical bath deposition of CdS/ZnO and CdS/ZnS composite films.

Michael Kokotov and Gary Hodes*

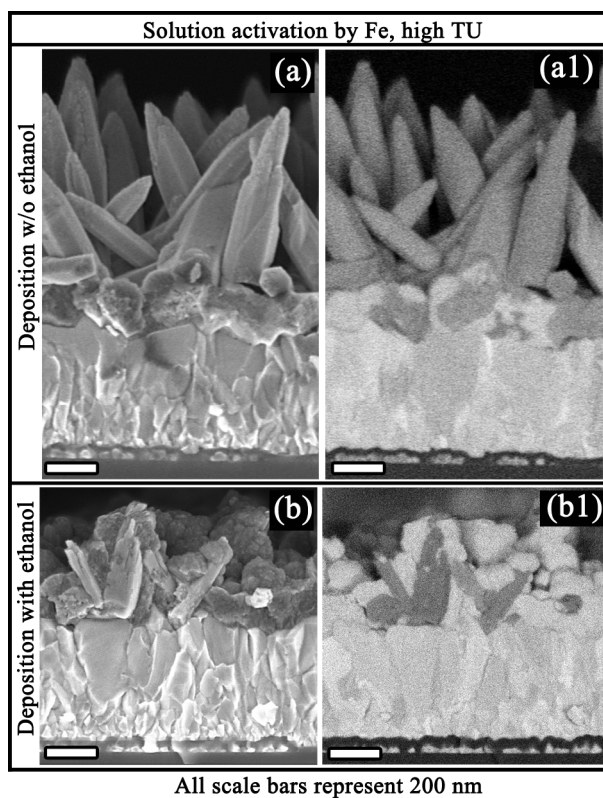
Department of Materials and Interfaces, Weizmann Institute of Science, Rehovot
76100, Israel



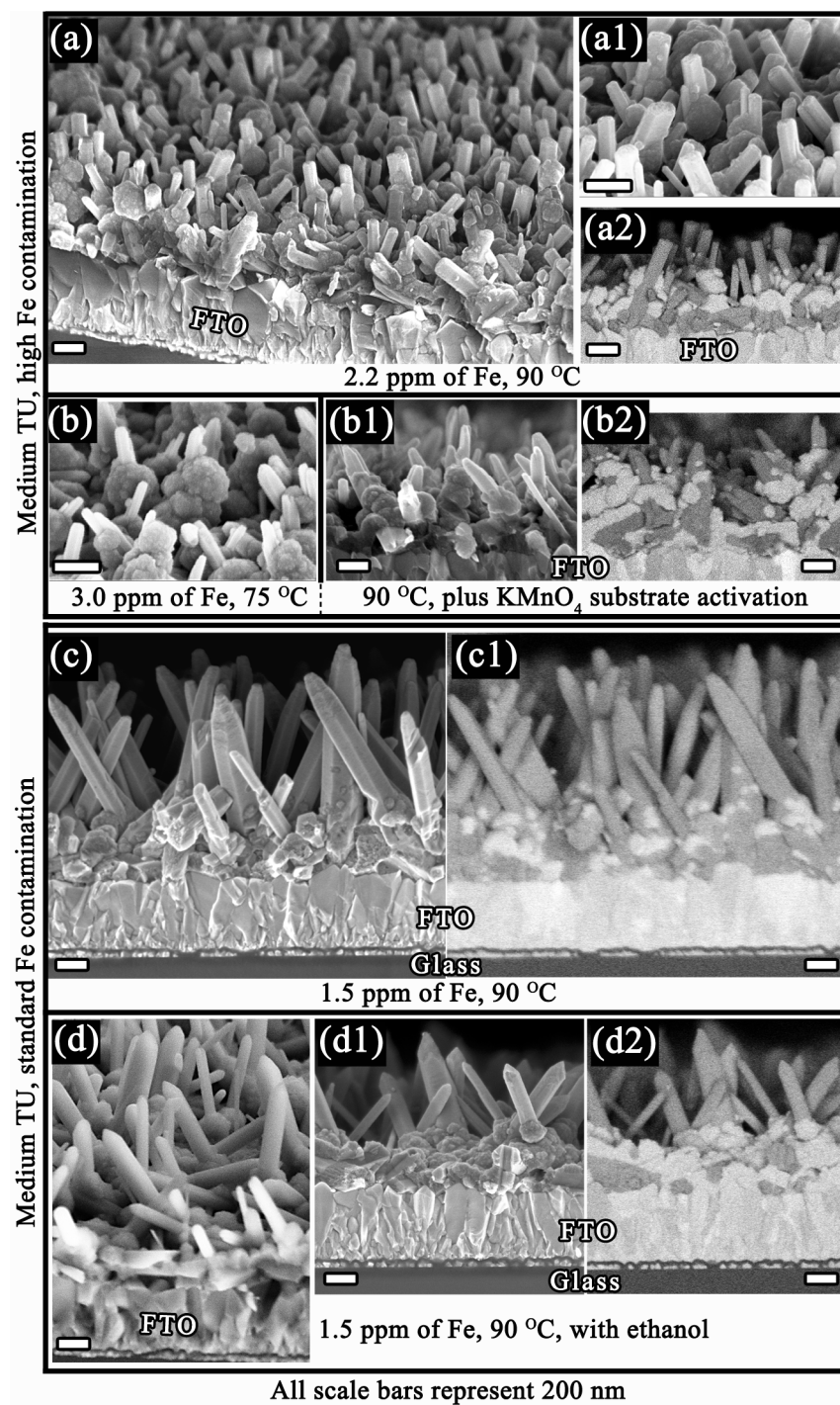
S1. ZnO films possessing different morphologies deposited on glass from MEA-based (Cd^{2+} free) deposition solutions using substrate and solution activation methods.



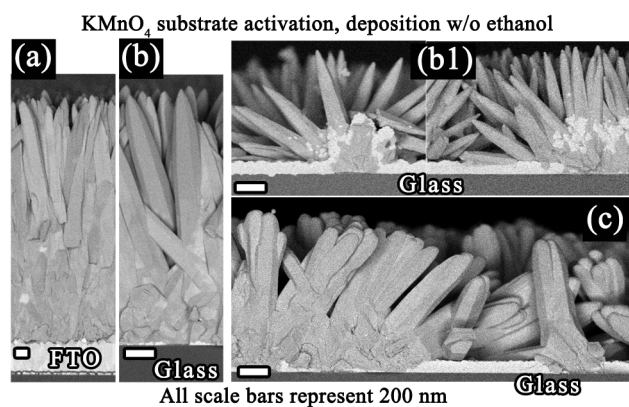
S2. Example of a spurious ZnO precipitate attached to a film deposited without activation.



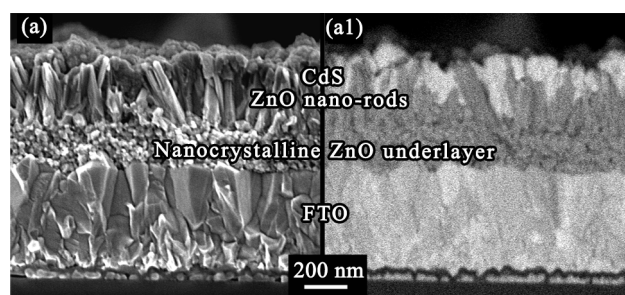
S3. Secondary and backscattered SEM images of films deposited on non-activated FTO substrates using in-situ solution activation by Fe (high TU concentration, with and w/o ethanol).



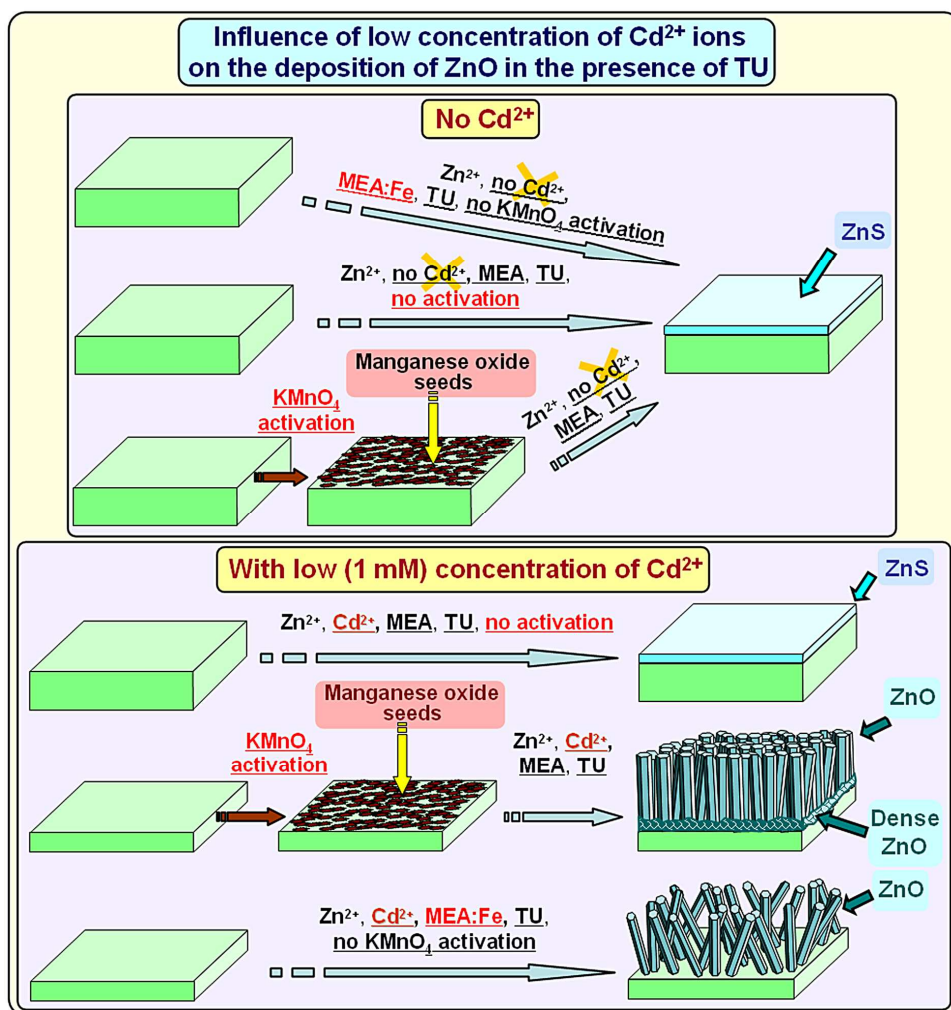
S4. Secondary and backscattered SEM images of films deposited on FTO using in-situ solution activation by Fe (Medium TU concentration, various other deposition parameters as shown).



S5. Backscattered SEM images of films deposited on KMnO_4 -activated substrates w/o addition of ethanol to the deposition solutions. (a) on FTO using MEA and medium TU, (b) (b1) on glass using MEA and medium TU, (c) on glass using MEA and high TU.



S6. Cross-section and backscattered cross-section SEM images of a composite film deposited on a nanocrystalline ZnO seed layer using MEA (no other activation used).



S7 Scheme showing the influence of a low concentration of Cd^{2+} ions on the outcome of the deposition of ZnO from solutions containing TU.