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Title: Structural Characterization of the Interface Structure of Amorphous Silicon Thin Films after Post-deposition Argon or Hydrogen Plasma Treatment

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Highlights

1. Post-deposition argon plasma treatment for interface passivation is proposed
2. Proposed method leads to overall superior material properties
3. Microstructure and tail width is affected by the plasma treatment
4. Effect is still considerable for thick a-Si:H layers
5. Material restructuration explains fully the beneficial influence