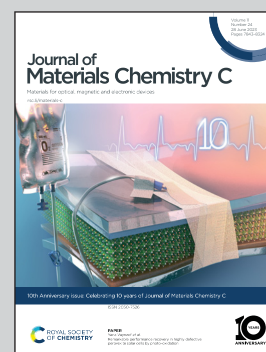
Research from Seoul National University, Korea.

Atomic layer deposition of HfN_x films and improving the film performance by annealing under NH_3 atmosphere

A new atomic layer deposition (ALD) method for depositing hafnium nitride is introduced. Before the primary ALD cycle, a pre-cleaning step was added to remove oxygen and OH groups inside the chamber to deposit a low-oxygen concentration nitride thin film. Atomic-layer-deposited hafnium nitride is anticipated to be an essential component of ferroelectric nanodevice electrodes due to its high compatibility with hafnium-based oxides and low bulk resistance.

As featured in:



See Cheol Seong Hwang *et al.*, *J. Mater. Chem. C*, 2023, **11**, 8018.

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