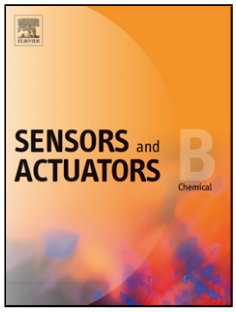

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Atomic layer deposition-developed two-dimensional α-MoO_3 windows excellent hydrogen peroxide electrochemical sensing capabilities

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Highlights

- 4.9 nm 2D α-MoO_3 nano-films were developed by ALD technique.
- 2D α-MoO_3 nano-films were used for H_2O_2 electrochemical detection for the first time.
- Sensors based on 2D α-MoO_3 nano-films showed excellent sensitivity of 168.72 $\mu A \cdot mM^{-1} \cdot cm^{-2}$
- A wide linear range of 0.4 μM – 57.6 mM with low detection limit of 0.076 μM was obtained.

Abstract