

Deposition of Metastable ZrO_2 Crystalline Films at Low Temperatures by Electron-Enhanced Atomic Layer Deposition (EE-ALD)

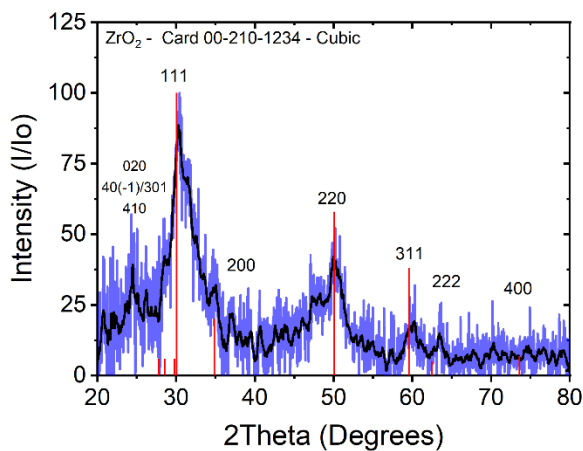


Figure 1. GI-XRD of a ZrO_2 EE-ALD film grown with 5 s electron exposures and no sample bias showing moderate crystallinity.

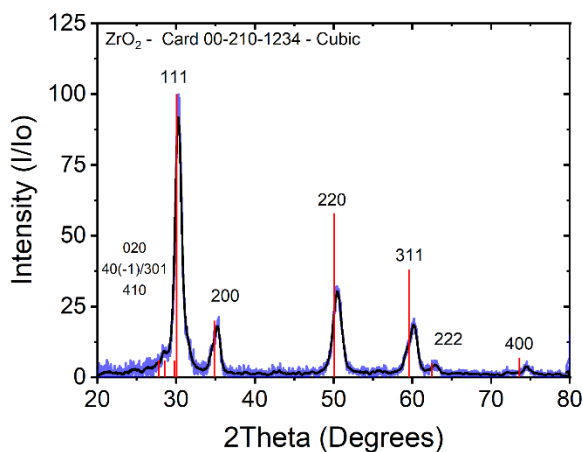


Figure 2. GI-XRD of a ZrO_2 EE-ALD film grown with 10 s electron exposures and no sample bias showing strong crystalline reflexes

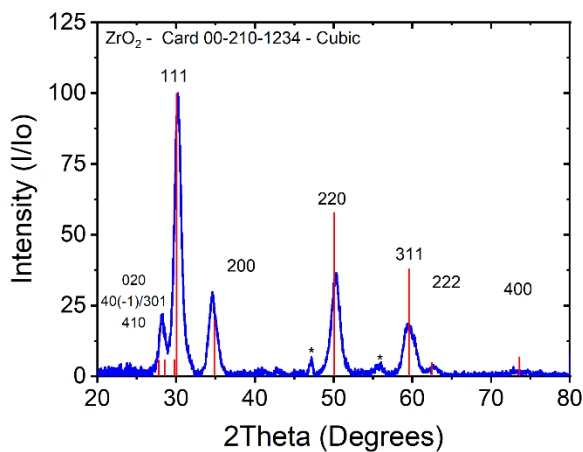


Figure 3. GI-XRD of a ZrO_2 EE-ALD film grown with 15 s electron exposures and a -30 V sample bias showing very strong crystallinity.