Supplementary Information:

Ultrathin TiN by thermal ALD as electrically conducting Li-ion diffusion barrier for integrated 3D thin-film batteries

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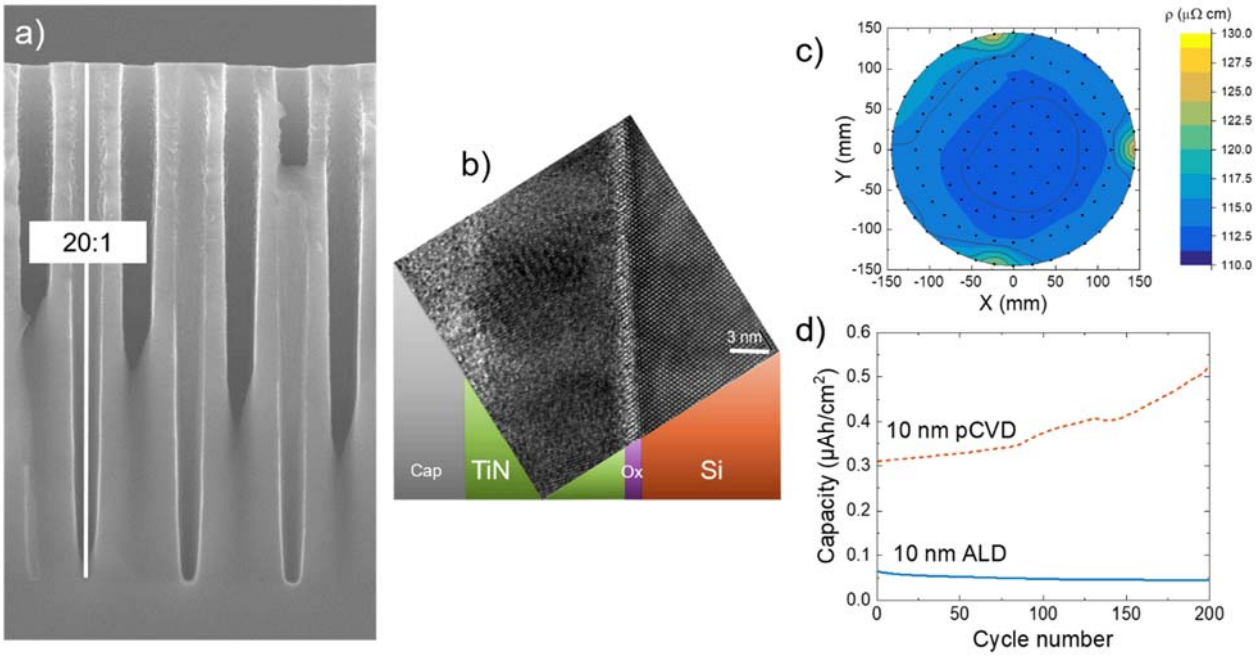

Figure a) SEM image of the coated 3D substrate with holes with an aspect ratio of 20:1; b) TEM photograph of the ALD 10 nm TiN film; c) 300 mm wafer map of the specific resistivity with an average value of 115 µΩ cm for the ALD film; d) Comparison of the capacity over 200 cycles at 3 µA/cm^2 between 0.05 and 3 V vs. Li/Li$^+$. The ALD TiN shows the insertion of only 0.03 Li per TiN formula unit.