



## Supporting Information

for

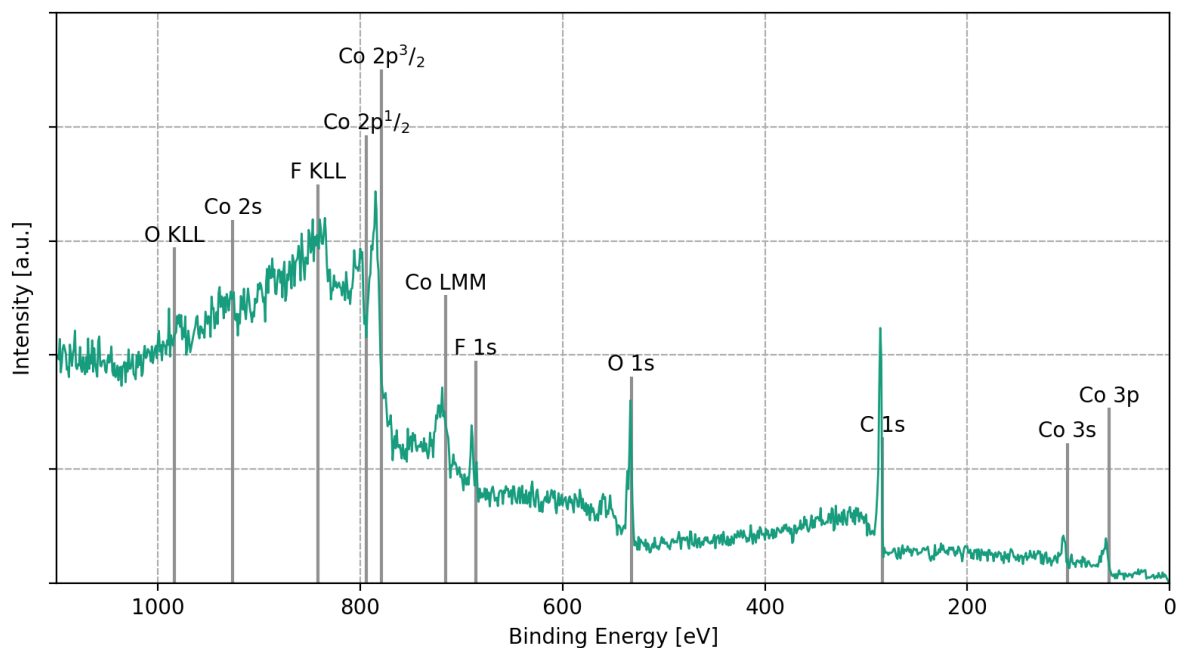
### Low temperature atomic layer deposition of cobalt using dicobalt hexacarbonyl-1-heptyne as precursor

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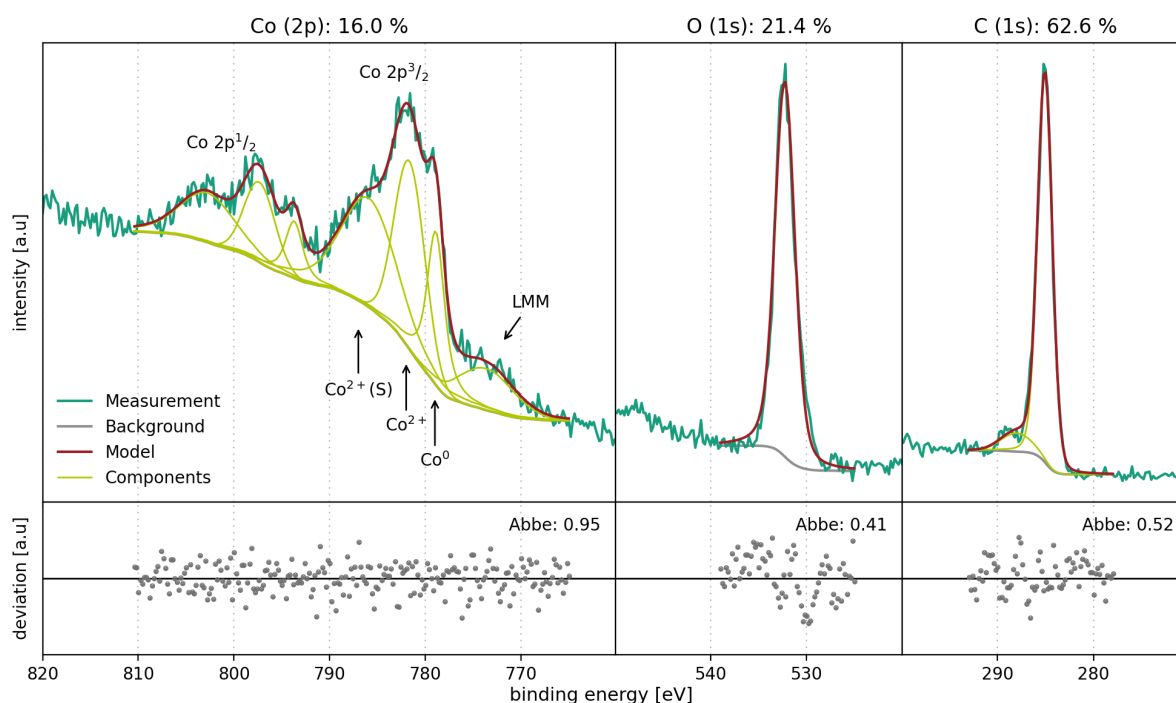
*Beilstein J. Nanotechnol.* **2023**, *14*, 951–963. [doi:10.3762/bjnano.14.78](https://doi.org/10.3762/bjnano.14.78)

### Additional figures with XPS and ellipsometry raw data

## Preliminary Experiments in CVD mode

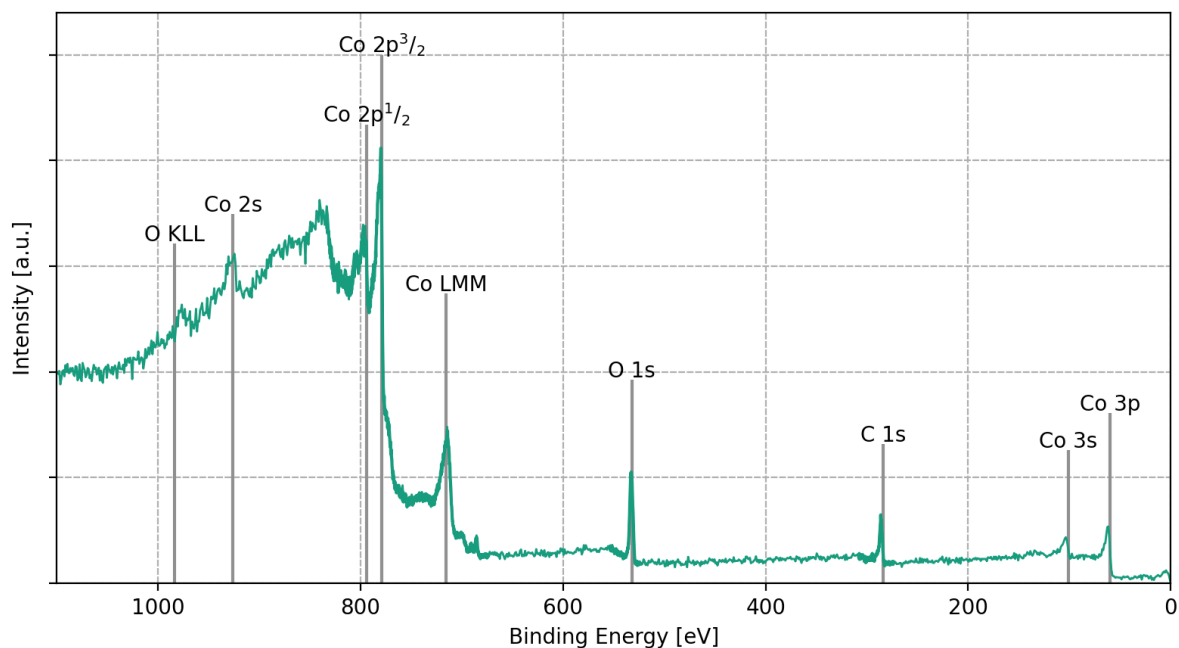


**Figure S1:** XPS overview spectrum of CVD film deposited at 150 °C and the relevant elemental binding energies and Auger transitions for the measured elements.

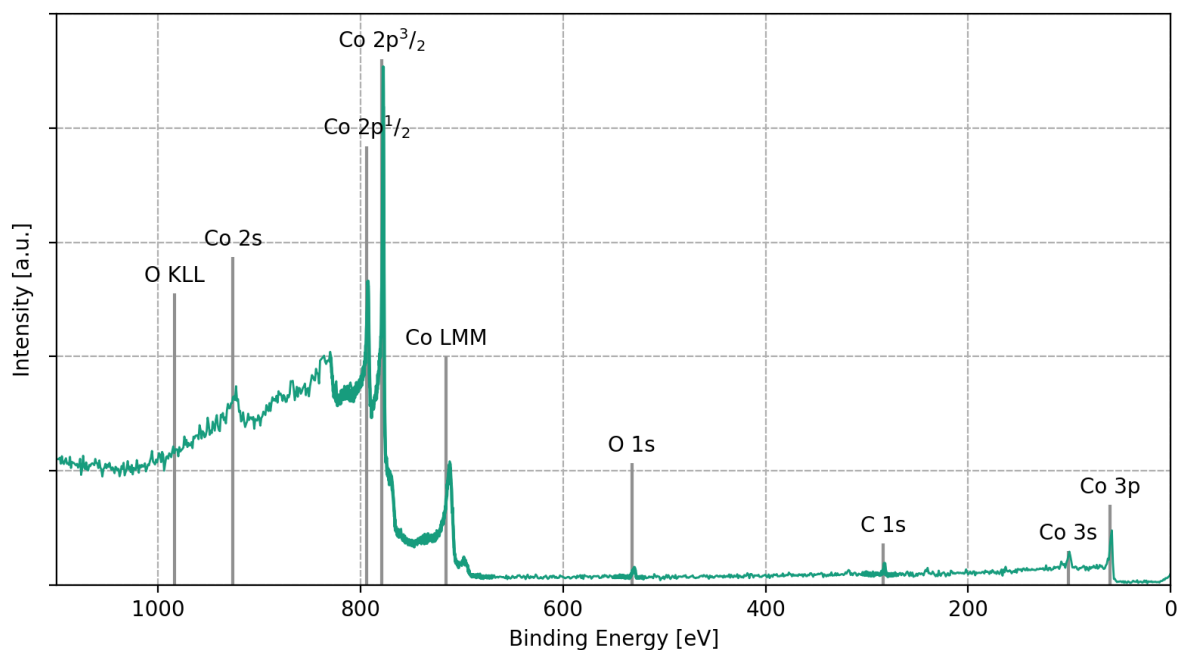


**Figure S2:** XPS measurements of CVD film deposited at 150 °C. The peaks for the O 1s and C 1s transitions were fitted with just one Voigt curve per main feature.

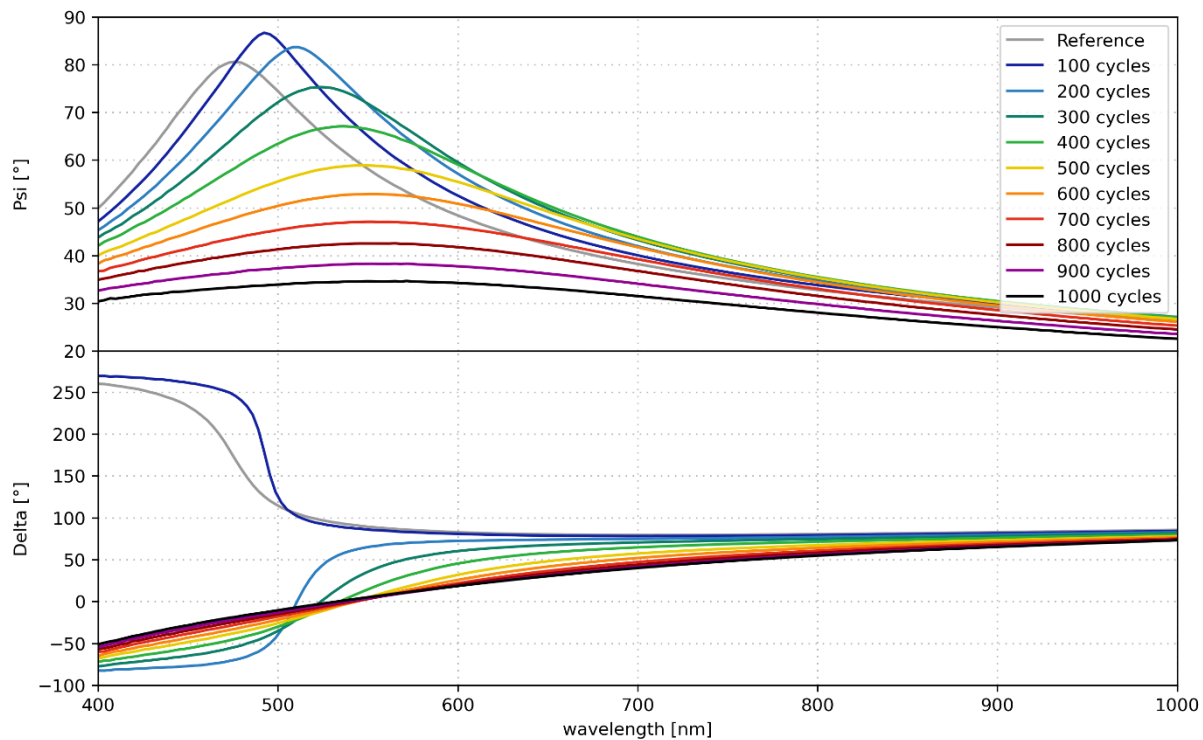
## ALD with $[\text{Co}_2(\text{CO})_6\text{HC}\equiv\text{CC}_5\text{H}_{11}]$ and $\text{H}_2$ plasma



**Figure S3:** XPS overview spectrum of ALD film deposited at 35 °C and the relevant elemental binding energies and Auger transitions for the measured elements.



**Figure S4:** XPS overview spectrum of ALD film deposited at 85 °C and the relevant elemental binding energies and Auger transitions for the measured elements.



**Figure S5:** Ellipsometry raw data for ALD at 85 °C on 100 nm SiO<sub>2</sub>.