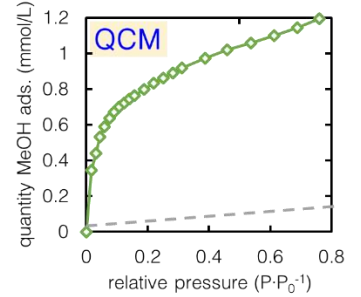
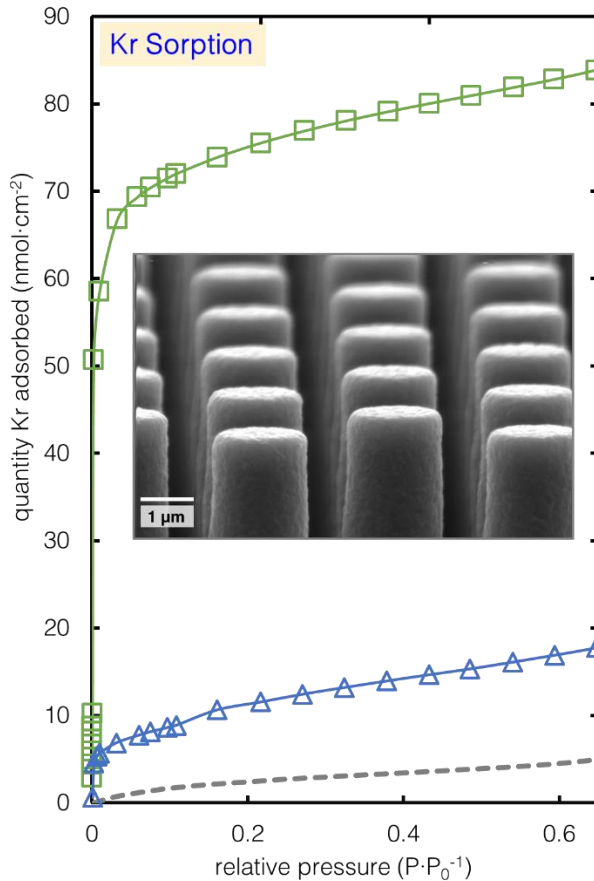
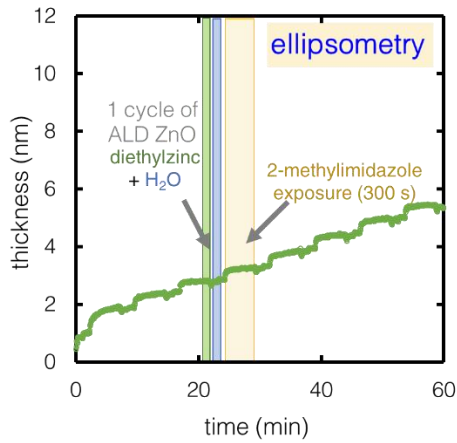
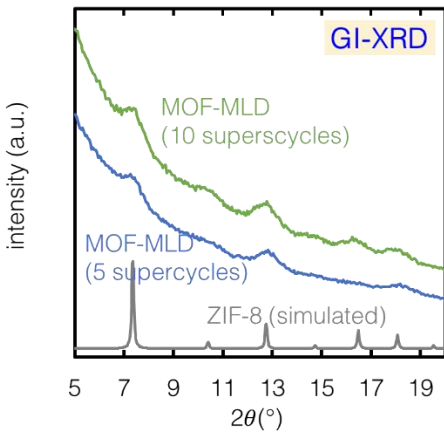


MOF-MLD ZIF-8 on a page

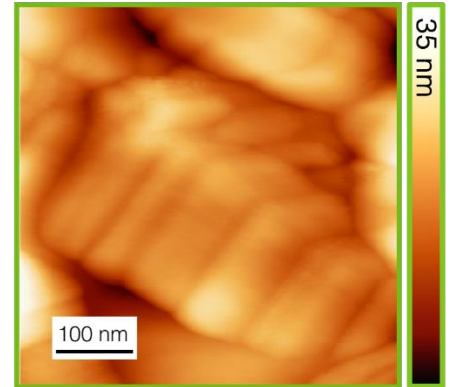
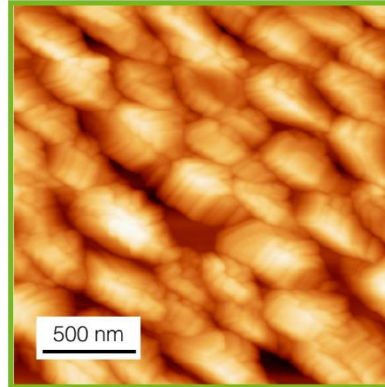
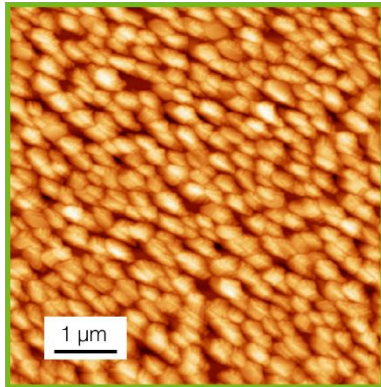
crystalline □ porous □ conformal



1 cm² high-aspect ratio Si pillars (AR = 25)



MOF-MLD (10 supercycles)



AFM topography

pioneering study of MLD ZIF-8

crystalline and porous *as-deposited* under mild conditions

- ✓ single-chamber
- ✓ mild condition
- ✓ elimination of post-deposition treatments

our process distinguishes itself from previous studies* on MLD/CVD MOF coatings

establishment of a *standard* film quality evaluation protocol

complementary film characterization techniques
ellipsometry, AFM, SEM, krypton and methanol porosimetry

*Medishetty, R. et al., Dalton Trans. 47, 14179–14183 (2018) | Ahvenniemi, E. & Karppinen, Chem. Commun. 52, 1139–1142 (2016) | Lausund, K. B. & Nilsen, Nat. Commun. 7, 13578 (2016) | Lausund, K. B., Petrovic, V. & Nilsen, O. Dalton Trans. 46, 16983–16992 (2017) | Salmi, L. D. et al., Microporous Mesoporous Mater. 182, 147–154 (2013)