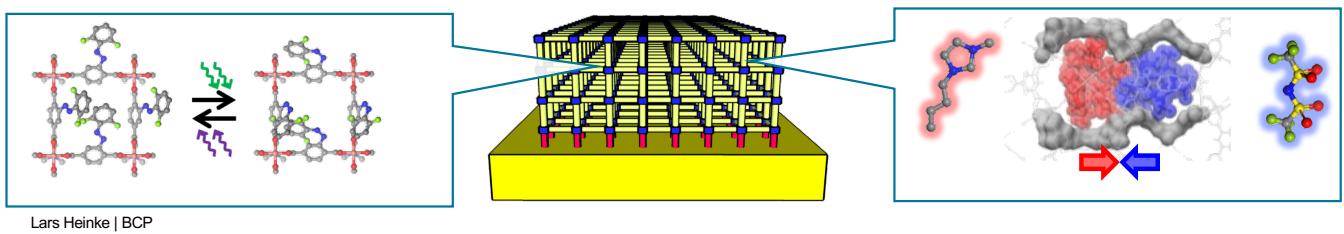


Dynamic Processes in Nanoporous Films

(or Functional Thin Films of Metal-Organic Frameworks)

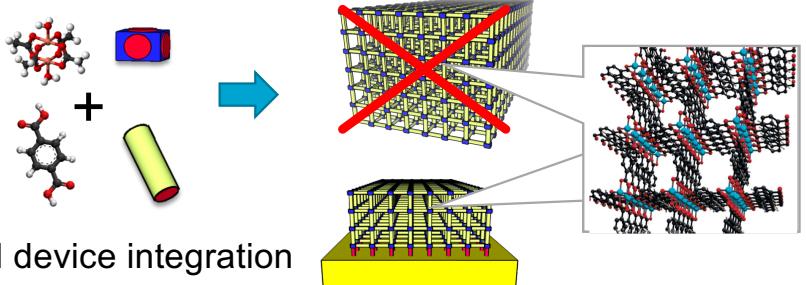
AG Heinke



Thin films of metal-organic frameworks

MOFs

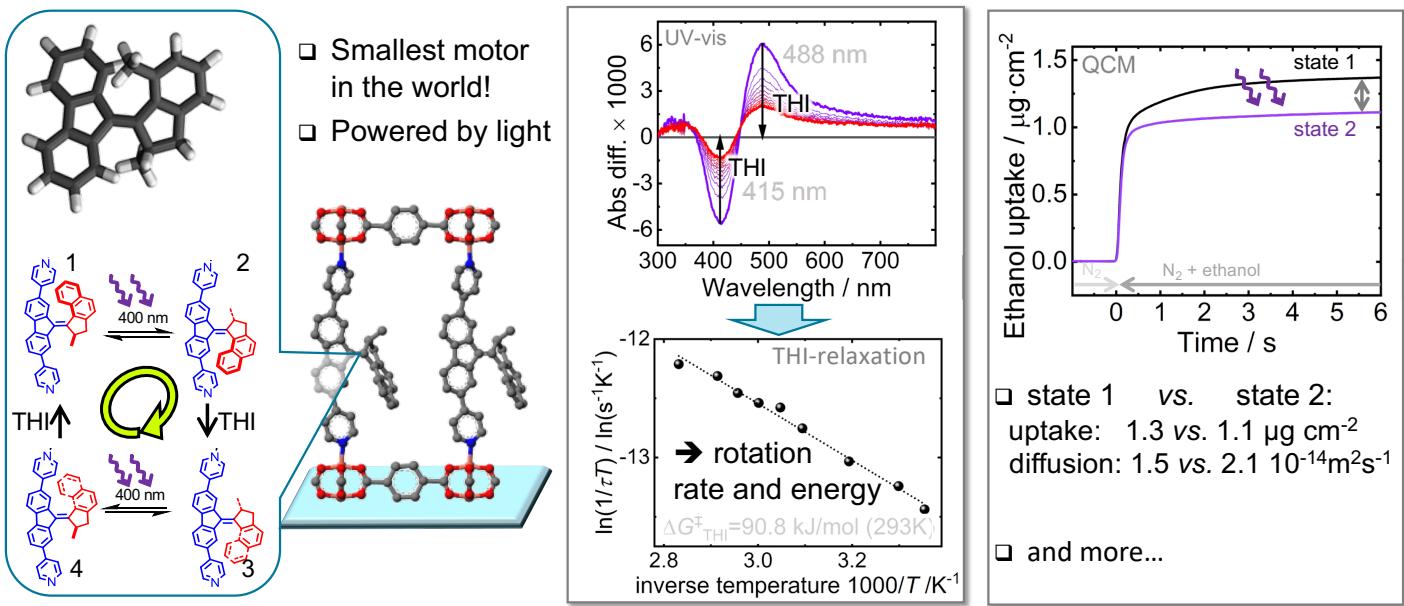
- 3-dim. crystalline solids
 - metal ions → nodes
 - organic ligands → linkers
- Prepared as well-defined films
→ perfect for experiments and device integration



Topics

<i>Uptake, diffusion & sensors</i>	<i>Photoresponsive films</i>	<i>(Opto-)electronics</i>	<i>Nanoconfined ions</i>
 <p>cyclohexane</p>	 	 	

Molecular-motor MOF film

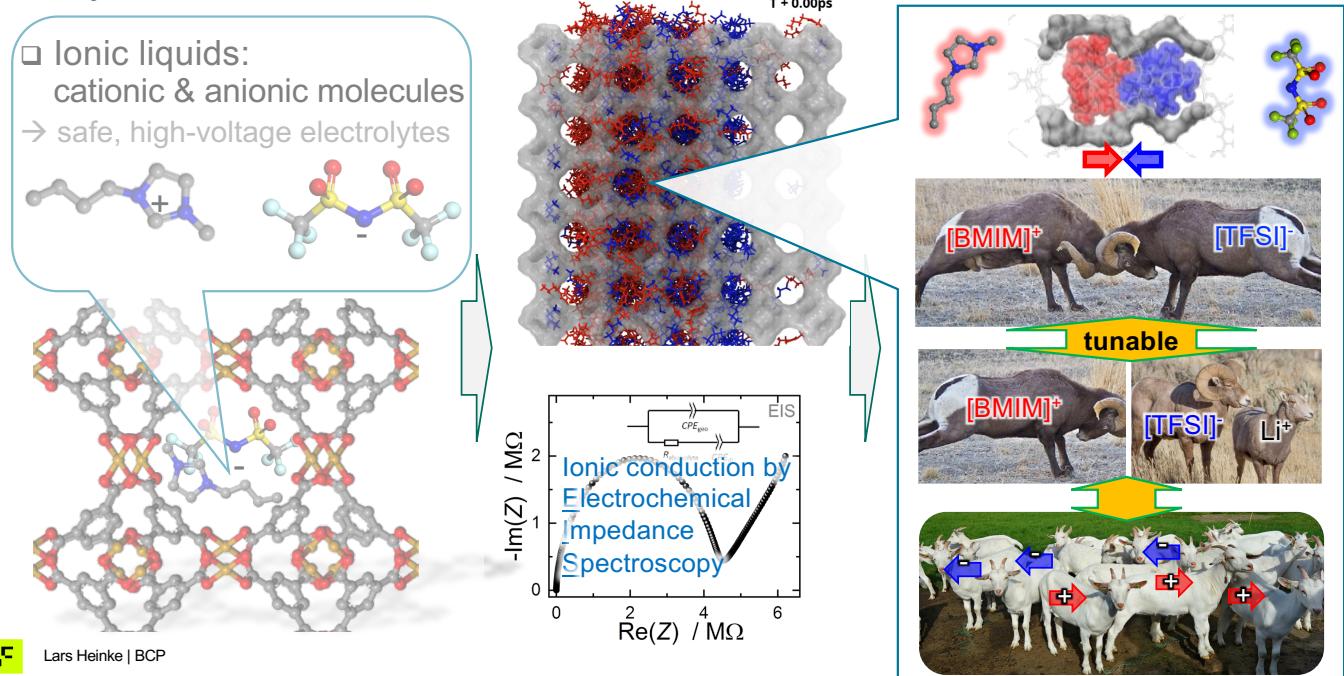


Lars Heinke | BCP

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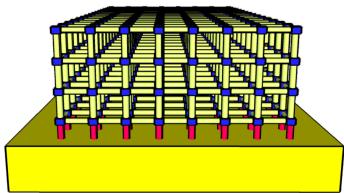
Jiang, Danowski, Feringa, Heinke, *Angew. Chem. Int. Ed.*, 62 (2023) e202214202.

Dynamics of ions under nano-confinement



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If interested...



- Many vacant positions and projects, all levels.
- BSc, MSc, research internship.
- Also PhD student and postdoc positions

Topics

Uptake, diffusion & sensors

uptake $m / \mu\text{g cm}^2$

time t / s

cyclohexane

Photoresponsive films

$-\text{Im}(Z) / \text{M}\Omega$

$\text{Re}(Z) / \text{M}\Omega$

trans

300 nm

500 nm

cis

(Opto-)electronics

current / pA

wavelength / nm

Nanoconfined ions

absorption / a.u.