



SOLVIONIC
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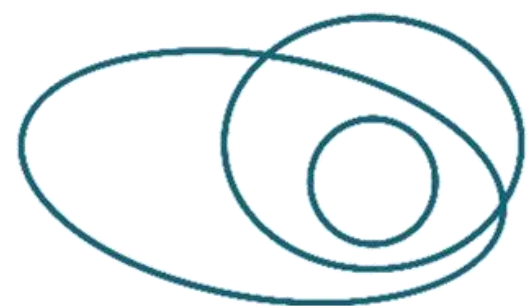
High voltage and non-flammable liquid and polymer/gel electrolytes

HORIZON-CL5-2025-04-D2-01 / HORIZON-CL5-2025-02-D2-02

HORIZON-CL5-2025-04-D2-04 / HORIZON-CL5-2025-04-D2-05



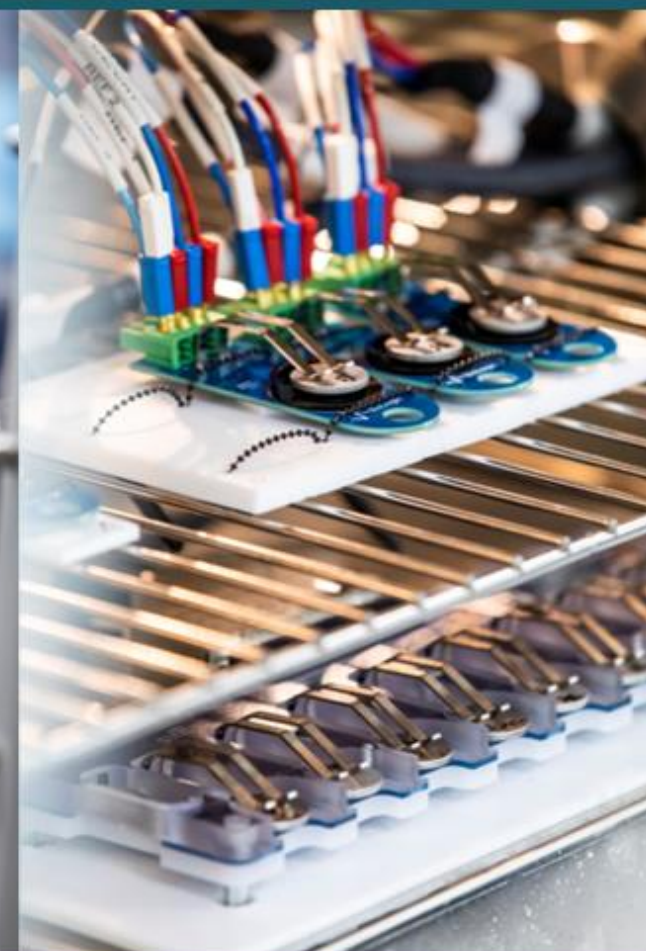
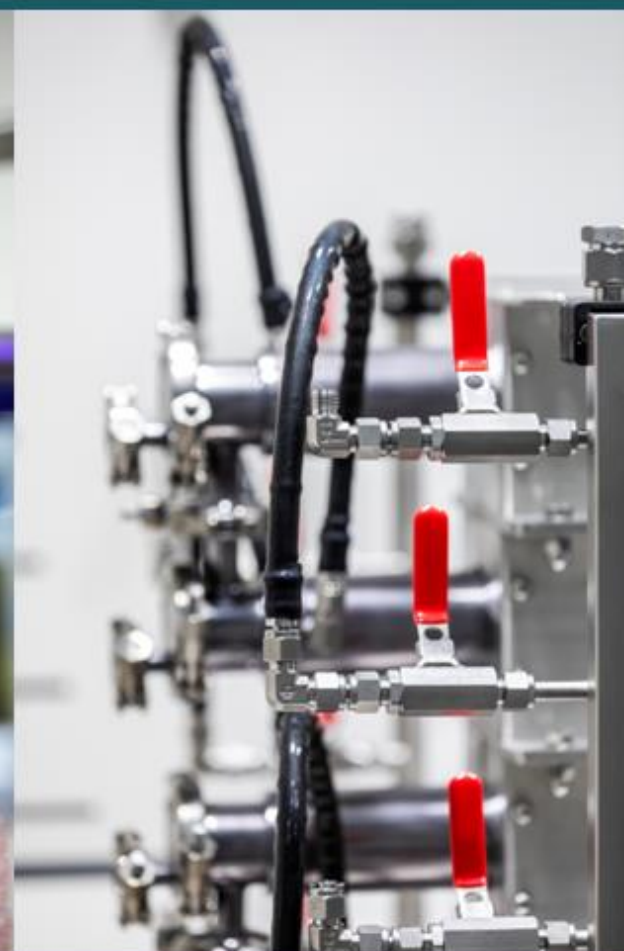
Introduction



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- 🌀 Toulouse, France – 28 employees
- 🌀 Ionic Liquids, from design to manufacture
- 🌀 Non-flammable electrolytes
- 🌀 Batteries, supercapacitors, electrochromics, ...etc.





Our offer to project proposals – Calls D2-01, D2-02, D2-04, D2-05

- Chemistry lab

- Design and syntheses of chemicals: ILs, solvents, additives, metal salts, ...etc.
- Electrolyte formulations – distribution
- Analyses and quality control

- Application lab

- Electrochemical and physical characterisations
- Coin cell testing
- Electrolyte formulations – distribution
- Analyses and quality control

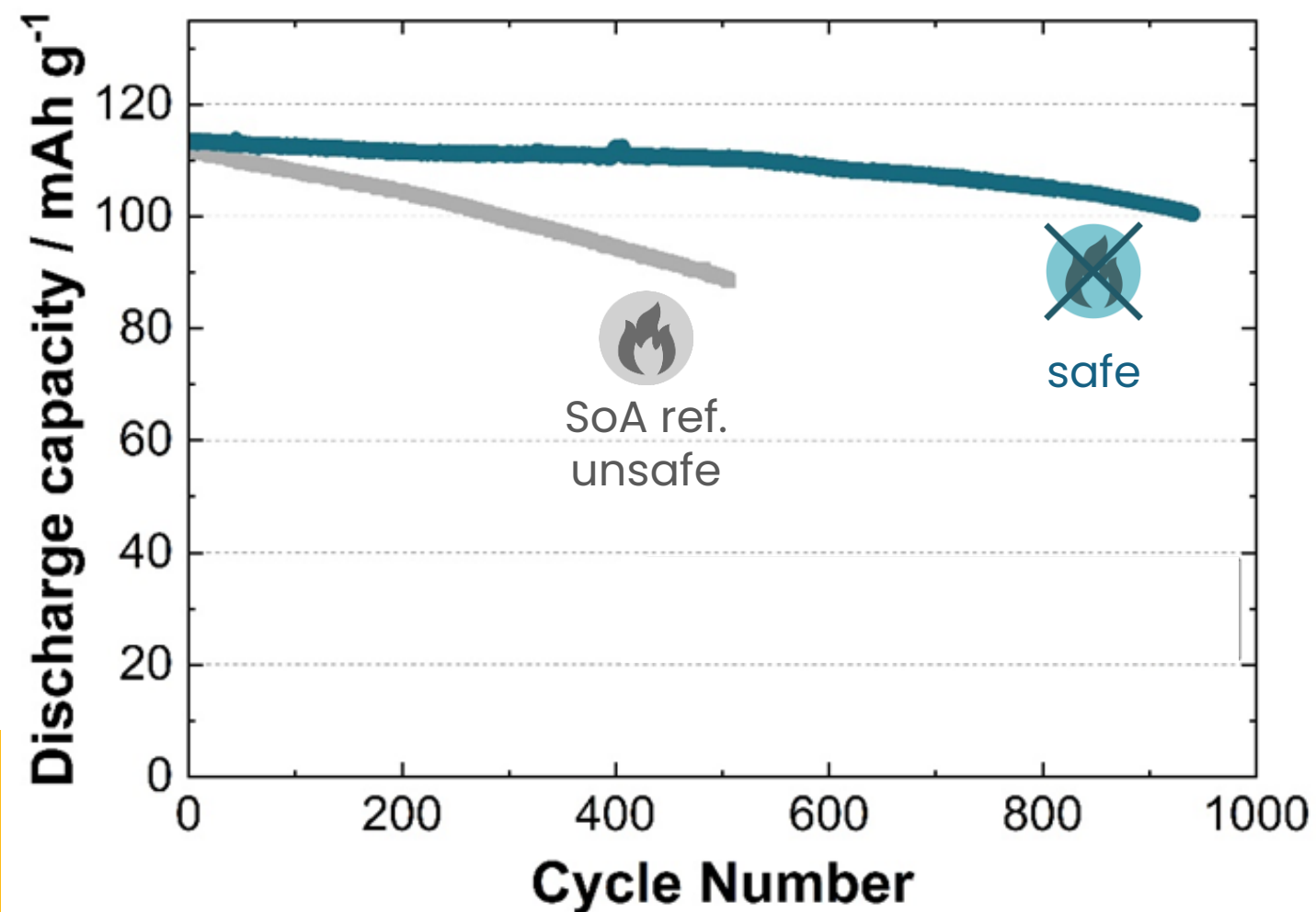
- Pilot plant unit

- Upscaling – batch, continuous flow processes, extrusion
- LCA data

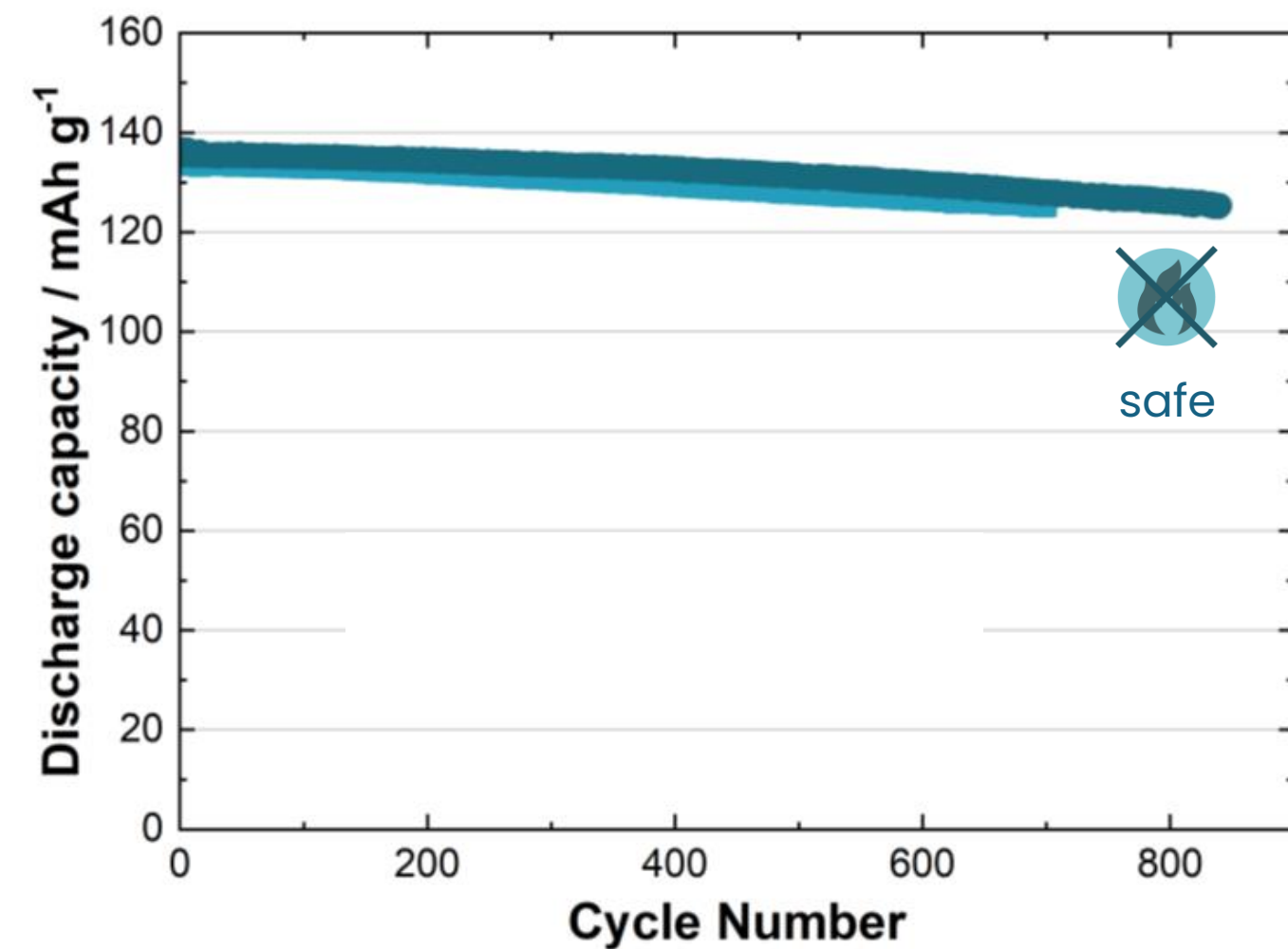


Performances of our non-flammable electrolytes

- LNMO//IL electrolyte//graphite
- 3,5 – 5V ; C/2 at 100 % DoD ; 25 °C

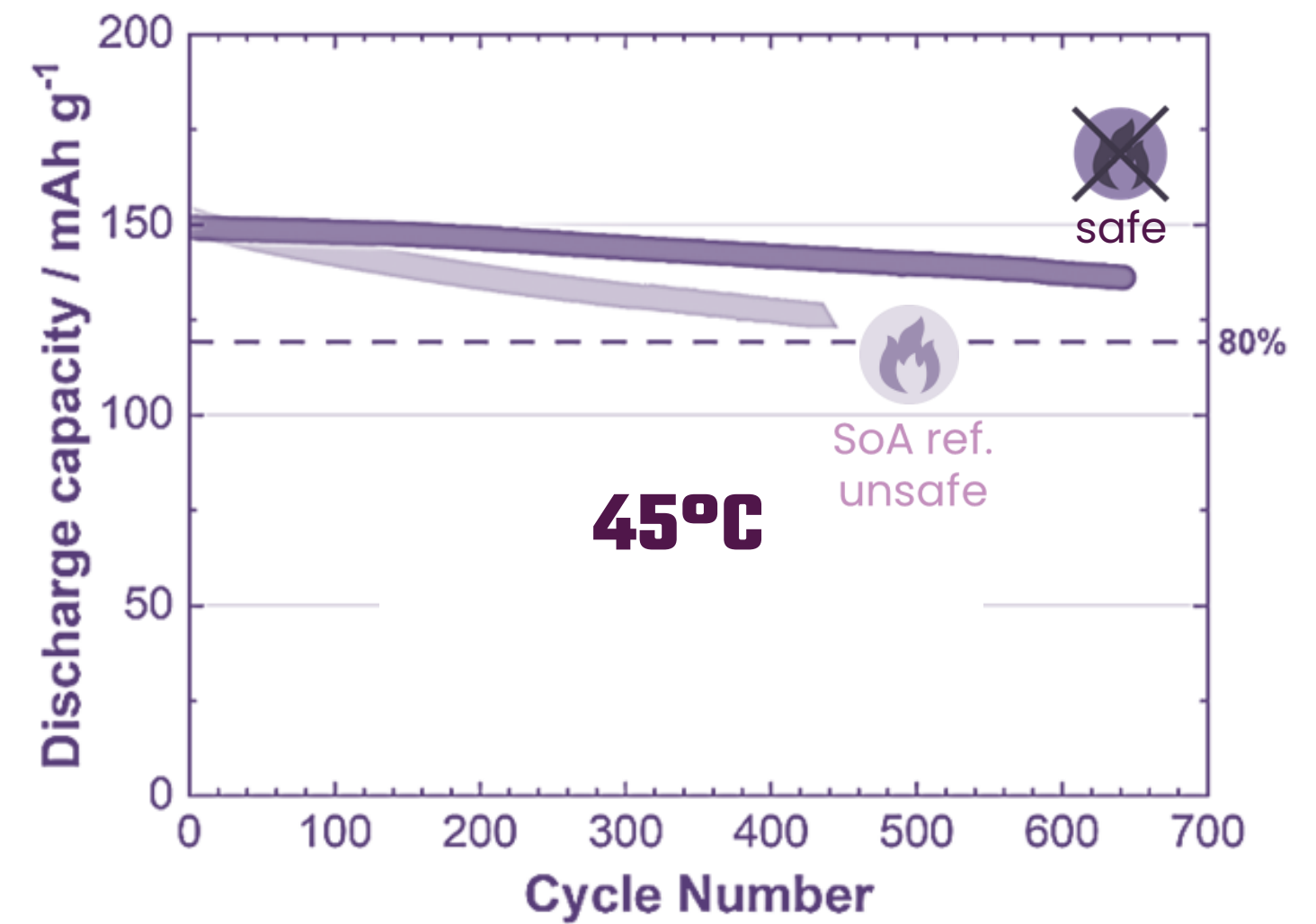
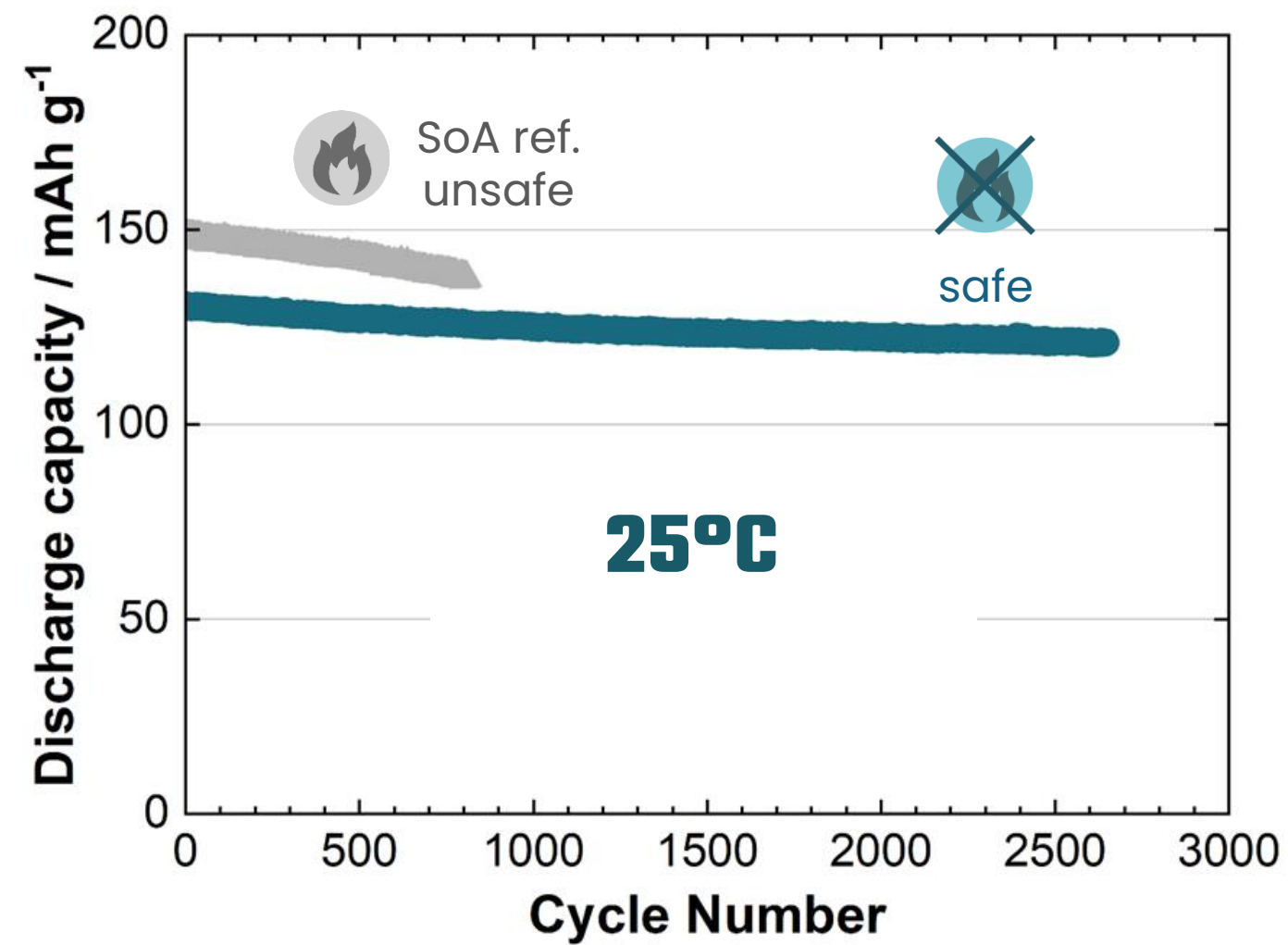


- LNMO//IL electrolyte//Li-metal-40μm
- 3,5 – 5V ; C/2 at 100 % DoD ; 25 °C



Performances of our non-flammable electrolytes

- NMC811//IL electrolyte//graphite
- 3,0 – 4,2V ; 1C ; 100 % DoD



Same chemistry to get gel / polymer electrolytes

Increasing ionic conductivity
and Li⁺ transference number

$\sigma = 0.8 \text{ mS/cm}$
 $t_{\text{Li}^+} = 0.44$
at 25°C

Self-standing
Stretchable
Homogeneous

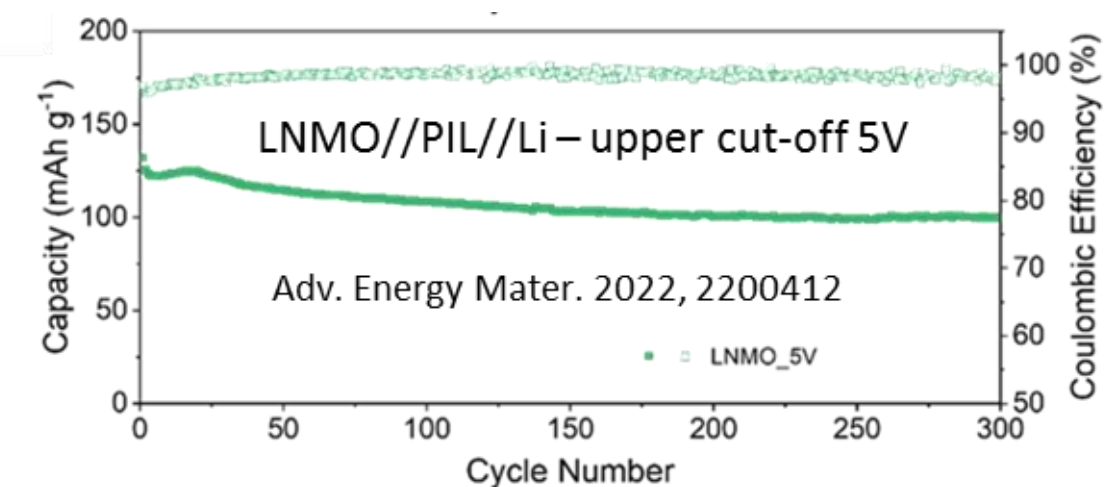
Improve processability

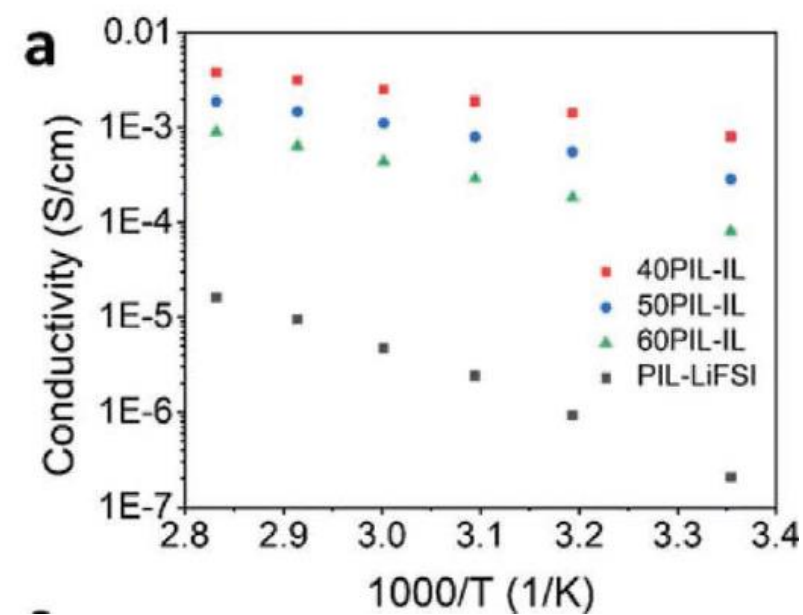
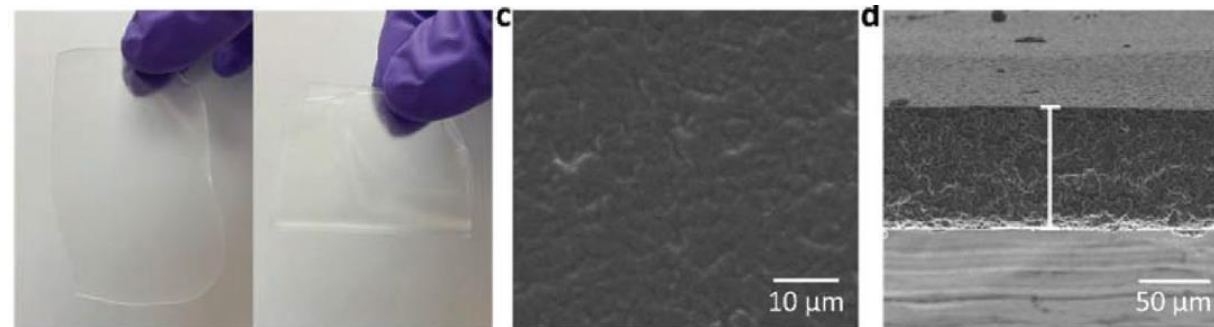
Creating stable
interfaces

SPE film // IL filled electrodes
⇒ optimised compatibility and reduced ESR

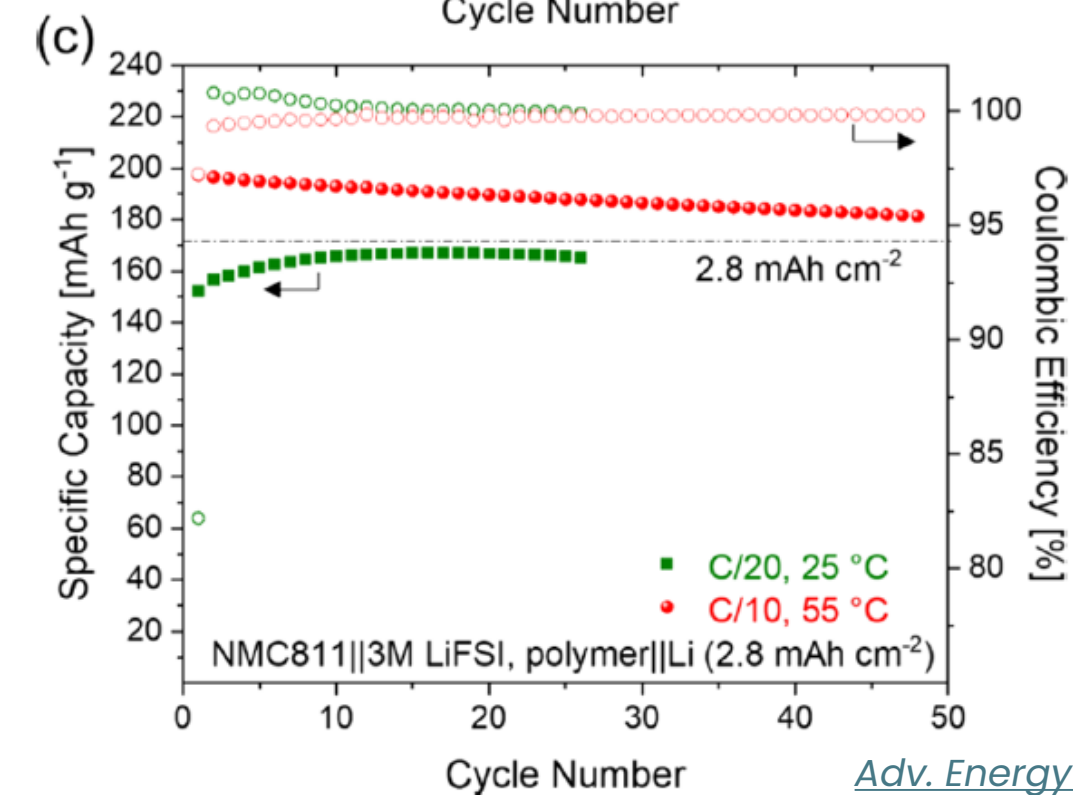
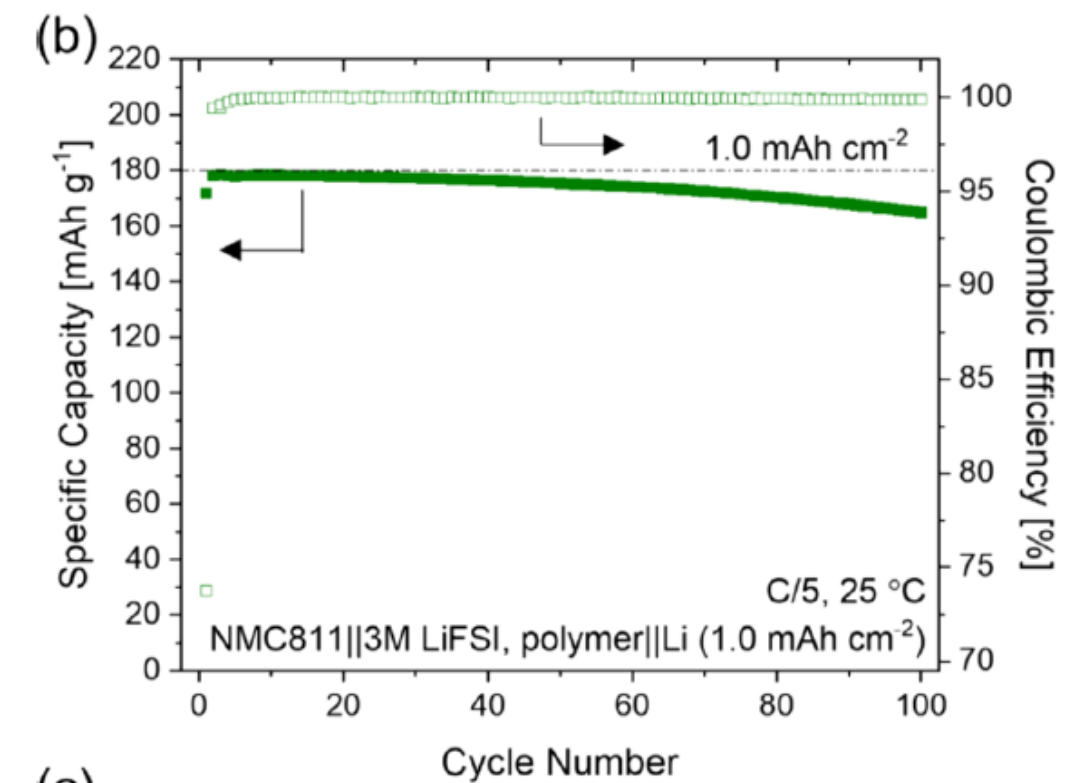
IL like chemistry
> 5V
Wide T range

Optimising thermal and
electrochemical stability





- ❑ NMC811//PIL//LiM
- ❑ 3,0 – 4,4V ; 100 % DoD





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Thank you for your attention

Find more on



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