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Nature Energy

An intermediate temperature
garnet-type solid electrolyte-based molten lithium battery for grid energy storage

$\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ (LLZTO)

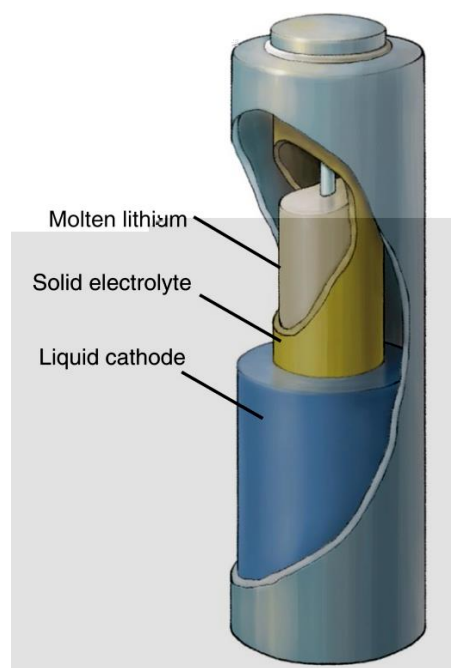
LME

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		LME		
	300		LME	240
LLZTO		240		



1.

Advanced Materials
Science Advances

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Chemical Society Reviews
Nano Letters

2014



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(Advanced Materials)

 $\text{Bi,Sb)}_2\text{Te}_3$:

Melt-centrifuged $(\text{Bi,Sb})_2\text{Te}_3$: engineering microstructure towards high

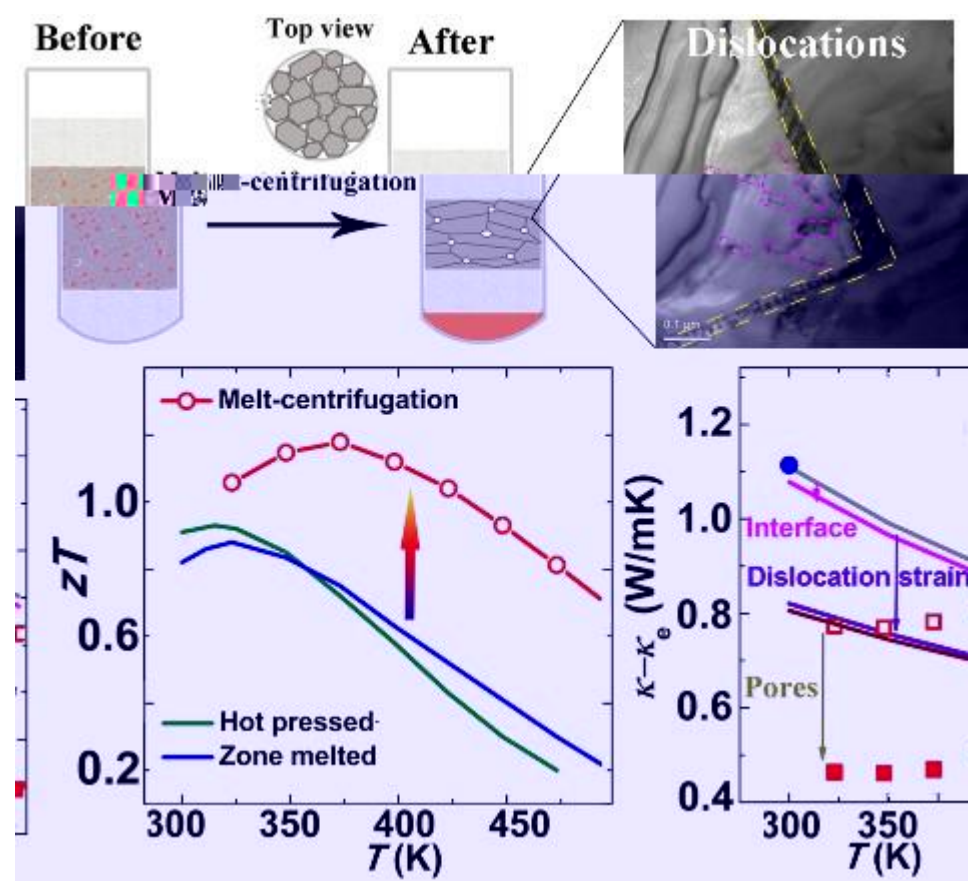
BiSbTe

Jeffrey Snyder
BiSbTe

60%

Debye

50%



2013

Jeffrey Snyder

Umut Aydemir

973

AFM2013 JMCC2015

NPG Asia Mater 2016 Adv Sci 2017

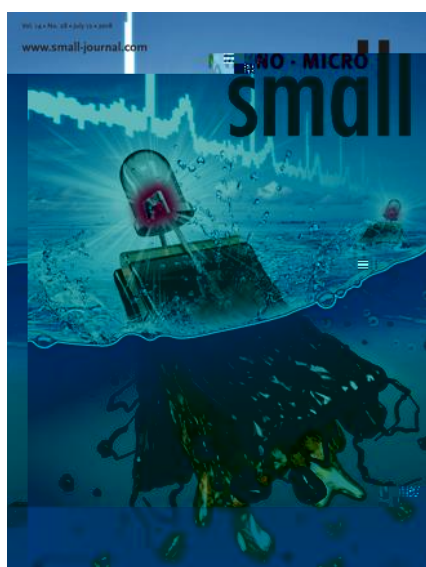
<https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201802016> ★

2018 7 12

SMALL

A fully biodegradable

battery for self-powered transient implant ”



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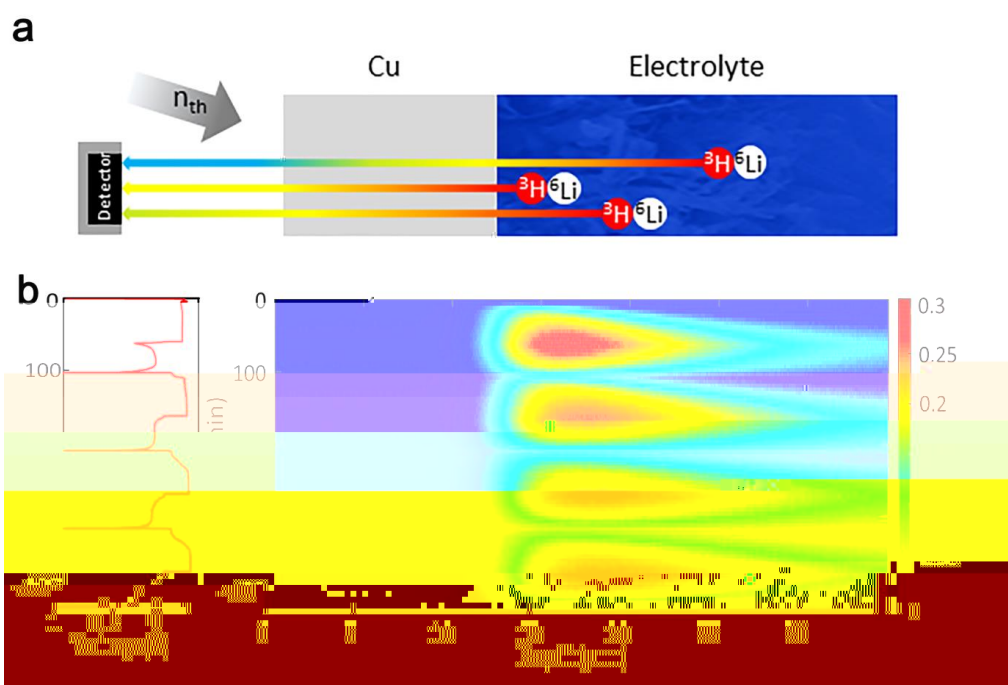
Nature Communications

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” Operando monitoring the lithium spatial distribution of lithium metal anodes

Neutron Depth Profiling, NDP

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1. a. NDP

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b. NDP

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3860 mAh/g

0.59 g/cm³

-3.040 V vs.

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SEI SEI

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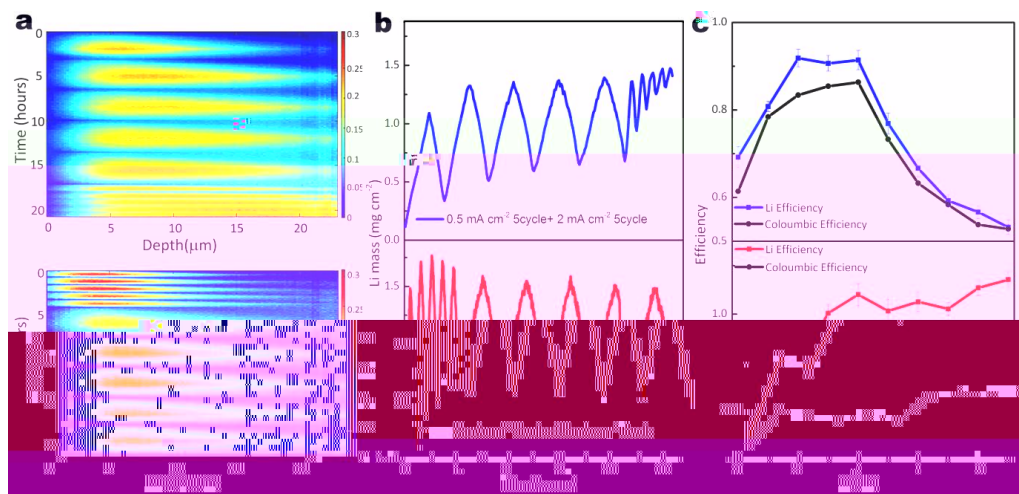
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6Li NDP

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XRD

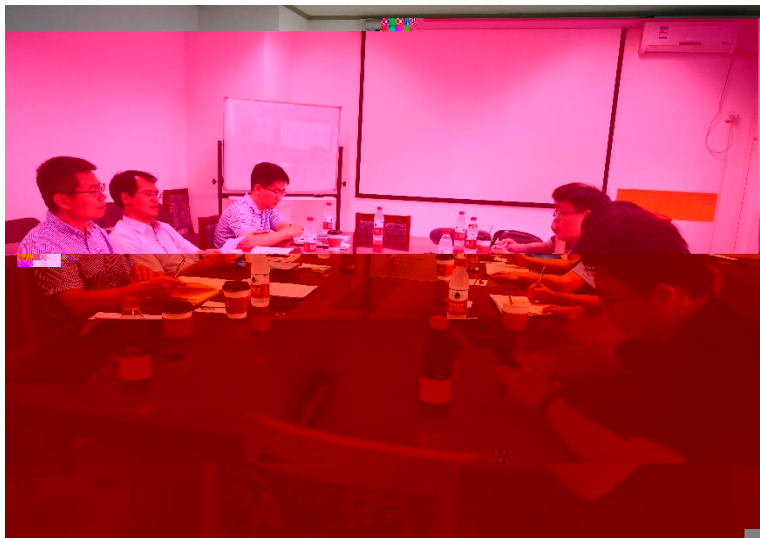


2. Li a. NDP b.
Li c.

2016

Marnix Wagemaker

<https://www.nature.com/articles/s41467-018-04394-3> ★



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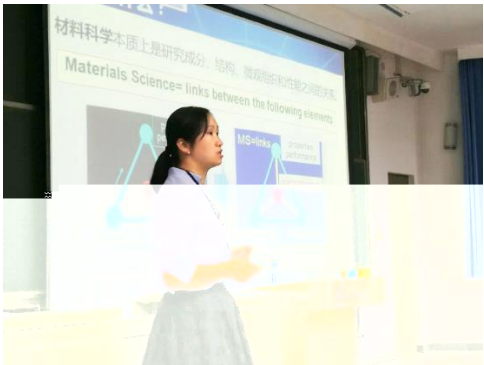
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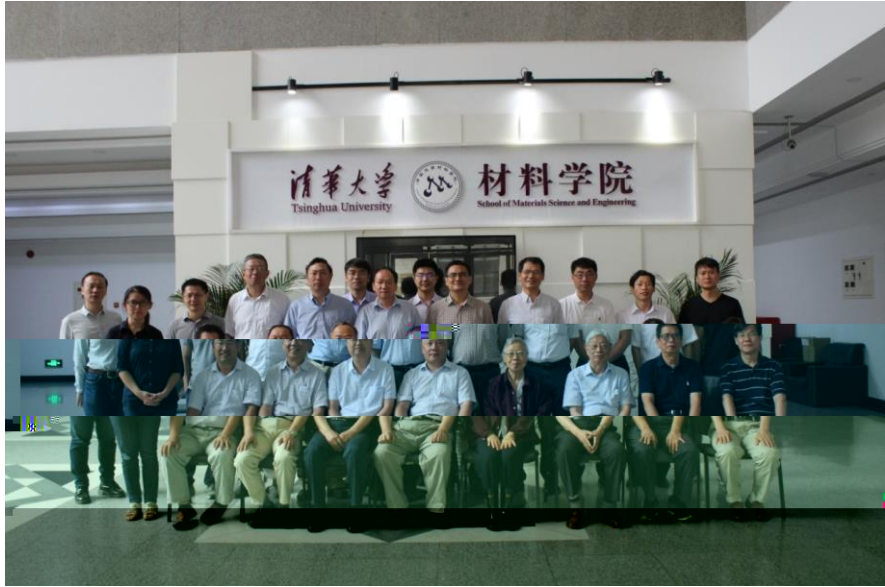
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clx@tsinghua.edu.cn

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