

2021 1 28

2021 5 10

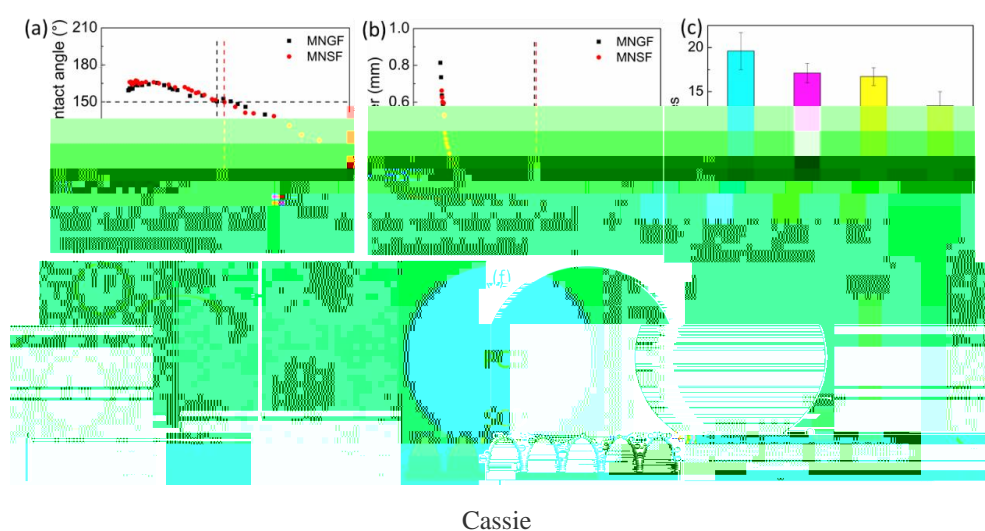
2020-2021 /

2020  
/

-  
GCr15

| 03  
| 100 | 19

MPa



Cassie

-Scale Superhydrophobic Surface with

Excellent Anti-

*ACS Applied Materials & Interfaces*<https://dx.doi.org/10.1021/acsami.0c16259>

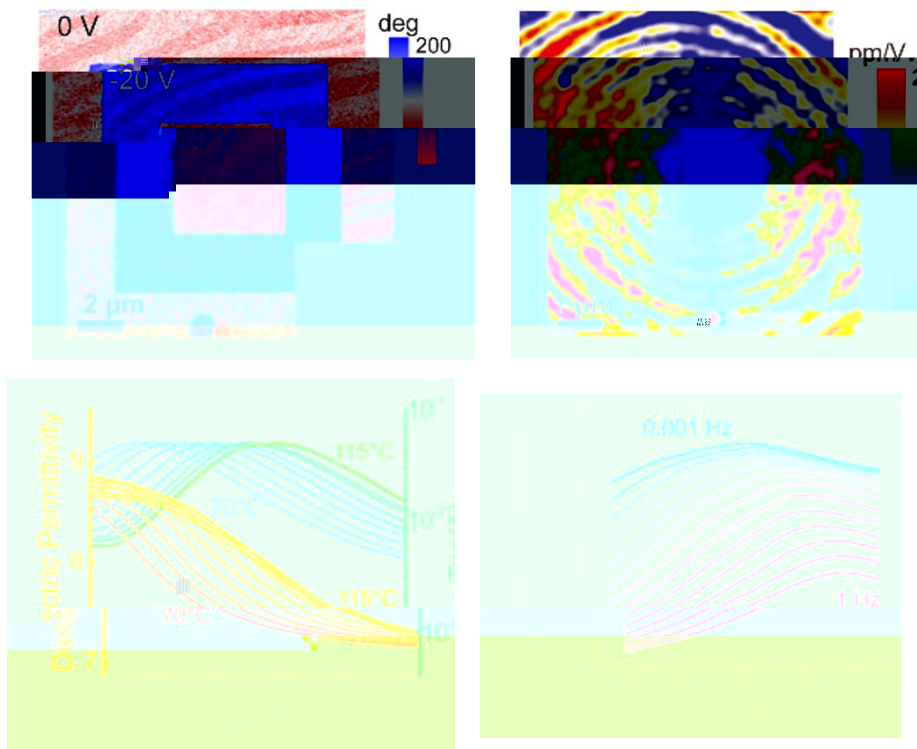
Strained Ferroelectric Polymer

Toroidal Polar Topology in

Science

Whirls and Swirls of Polarization

Lane Martin



2016

Long-Qing Chen

Joseph Strzalka

<https://science.sciencemag.org/content/371/6533/1050>

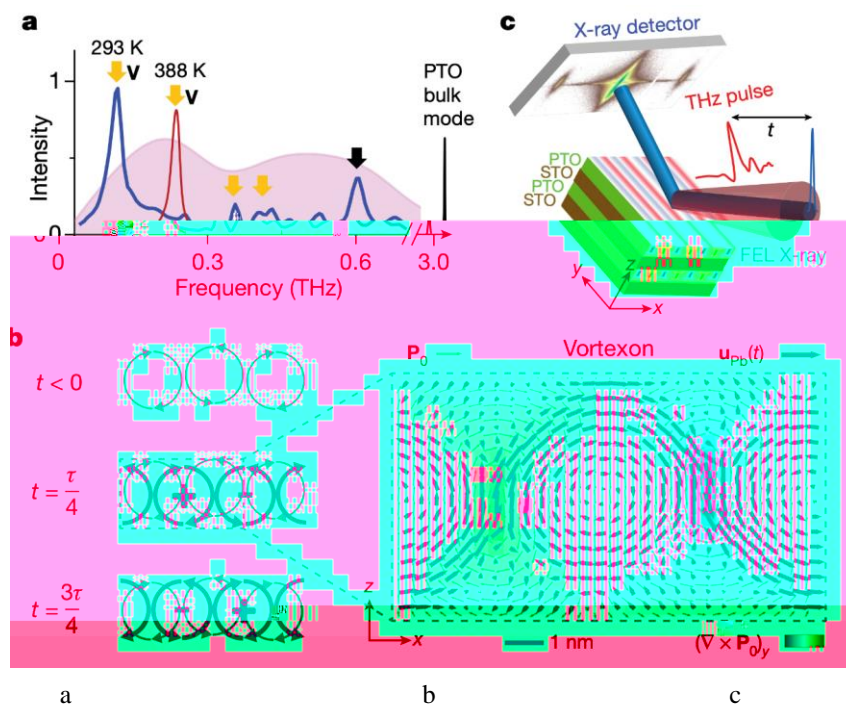
Haidan Wen

vortexon  
5G/6G

4 15  
polar vortices

Subterahertz collective dynamics of  
Nature  
Terra Quantum AG

Valerii M. Vinokur 2020  
Dynamics of ferroelectric vortices revealed



<https://doi.org/10.1038/s41586-021-03342-4>

4 20

\

HRC35

HRC45

3

180

2018

2020

8848

5

2



3



5

**2020-2021**

/

1 7

2020-2021

/

A205

2020

01

01

**2020**

1 11

C202

2020



/

1 29

/

A211

/ 01

/ 01

/ 01

/

/

/



1 22

EBS

EBS

/









1 31

03



