

Transition Metal Dichalcogenides, TMDCs

Atmospheric-Pressure Chemical Vapor Deposition, AP-CVD

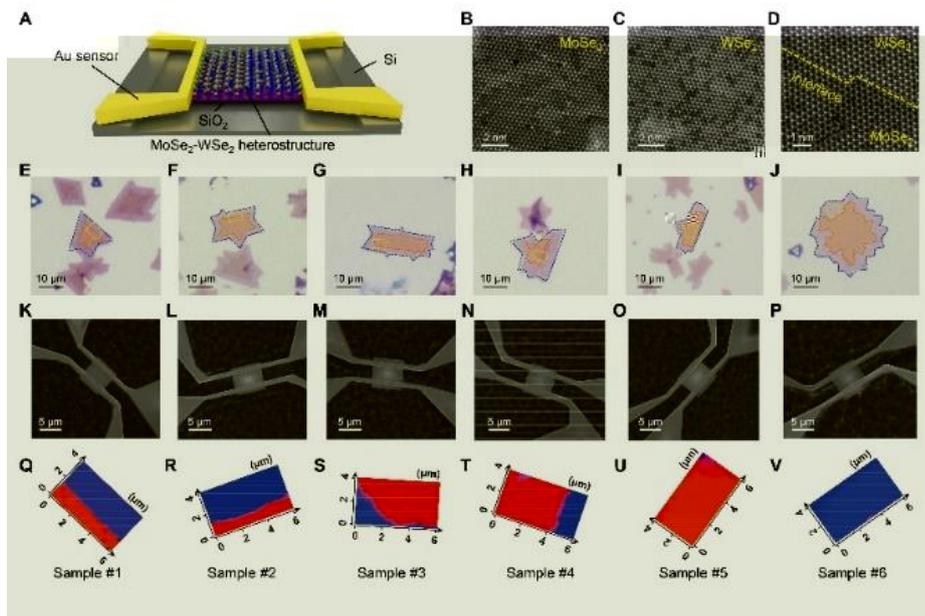
WSe₂

H

MoSe₂

96%

10⁴



MoSe₂-WSe₂

monolayer lateral heterojunction)

2018

2018

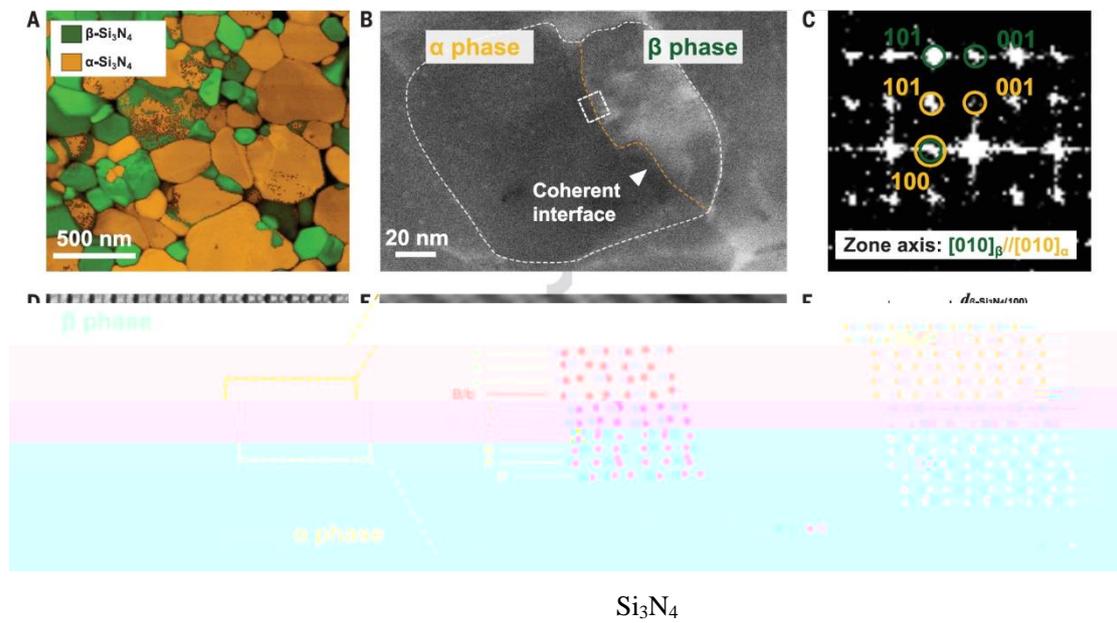
electrical and thermal rectification in Science

<https://www.science.org/doi/10.1126/science.abq0883>

20%

2.3 ~11GPa

[NSi3]



10 28

Science

Plastic deformation in silicon nitride ceramics via bond switching at coherent interfaces

Research Highlights

Phasing out fracture

Perspective

phys.org nanowerk

<https://www.science.org/doi/10.1126/science.abq7490>

2022 11

FeGe

94

180

0.1

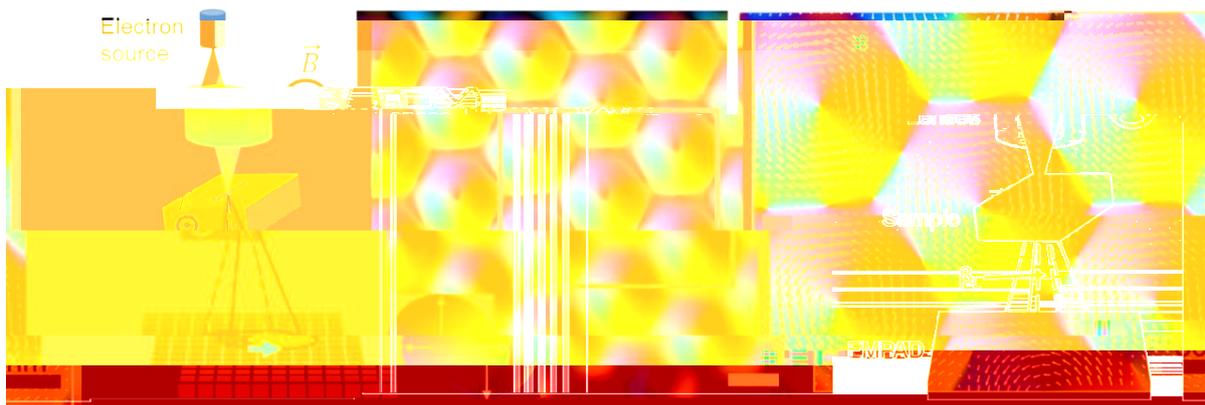
2018

2021

20

2021

2



10 31

Nature Nanotechnology
Lorentz electron ptychography for imaging magnetic textures beyond the diffraction limit

<https://www.nature.com/articles/s41565-022-01224-y#Sec10>



2022

8 31

2022

C217



2022

9 9

A211

20



11

3

26

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2022

C202

10 15 16

7 120

40

45

20

1

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2014

8

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900



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9 3

192

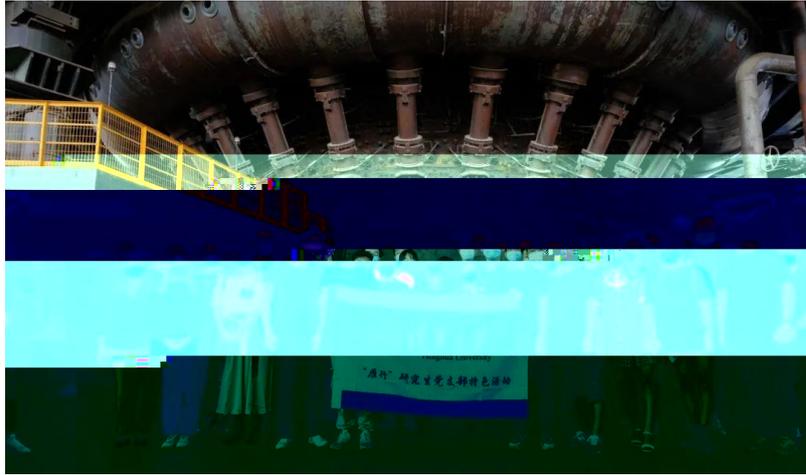
202



2

9 8

201



201

3

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73

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212



4

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222

212

|

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192

202



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Early Discovery Award

2022 11
Division 124

The American Ceramic Society, ACerS
Early Discovery Award

Basic Science

1898

70

Early Discovery Award

2022

the Basic Science

2022

2012

2012 2017

2017 2022

Edward C. Henry Award
Sidney J. Stein Prize

Acta Materialia

Acta Student Award

