

NNCI Education and Outreach

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NNCI Education and Outreach Mission

- Offer education and training to address the growing need for a skilled workforce and informed public
- Provide resources, programs, and materials to enhance knowledge of nanotechnology and its application to real-world issues
- Support the US economy by enabling a STEM-literate workforce ready to meet the technological challenges of a nano-enabled economy as well as an informed citizenry that supports continued and safe growth of nanotechnologies

NNCI E&O



From August 2020 through July 2021

Reached over 14,500 people through in-person and virtual activities

Does not include NanoEarth's Pulse of the Planet program or NNF's traveling museum exhibit (~5,000 visitors), RTNN's Coursera (~8,000 registered), or CNF's *Nanooze*

Drop from last year's 32,000

NNCI E&O

Audience	Ex. Activities	This Year	Last Year
K12 Students	Remote Sessions	5,400	18,600
	Class Trips		
	Camps		
	Tours		
K12 Teachers	Workshops	900	800
	Conferences		
	RET		
General Public	Festivals	1,100	3,800
	Science Days		
	NND Events		
Professionals	Student Interns	7,000	8,800
	REU		
	Short Courses		
	Conferences		
	Seminars		

NNCI E&O



**BOYS & GIRLS CLUBS
OF AMERICA**



NNCI E&O – K12 students



NNCI E&O - Educators

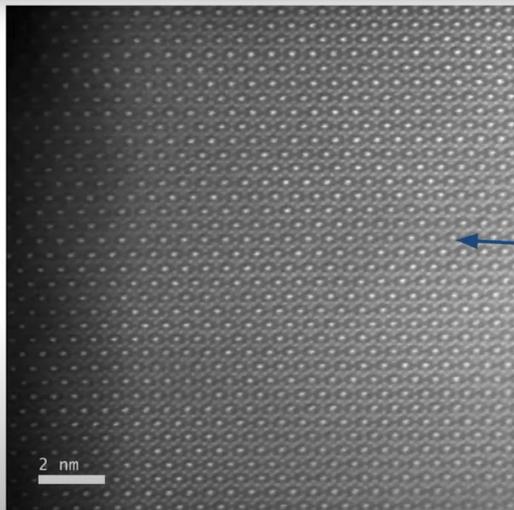
ANALYZING THE PAPER HANDSHEETS

Scanning Electron Microscopy



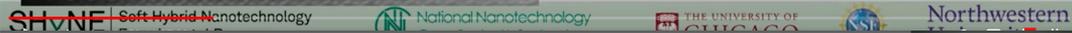
NU RET Research Presentations

We have ATOMS!!!



Atomic resolution image from the JEOL ARM200CF

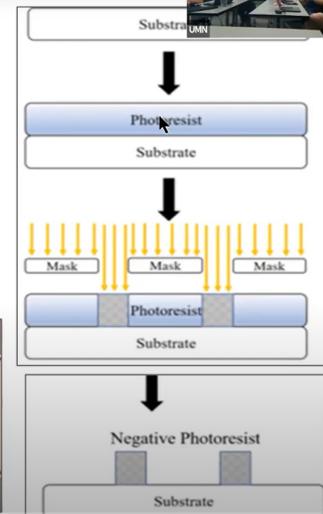
manganese atoms



UMN Research Presentations

My Next Steps

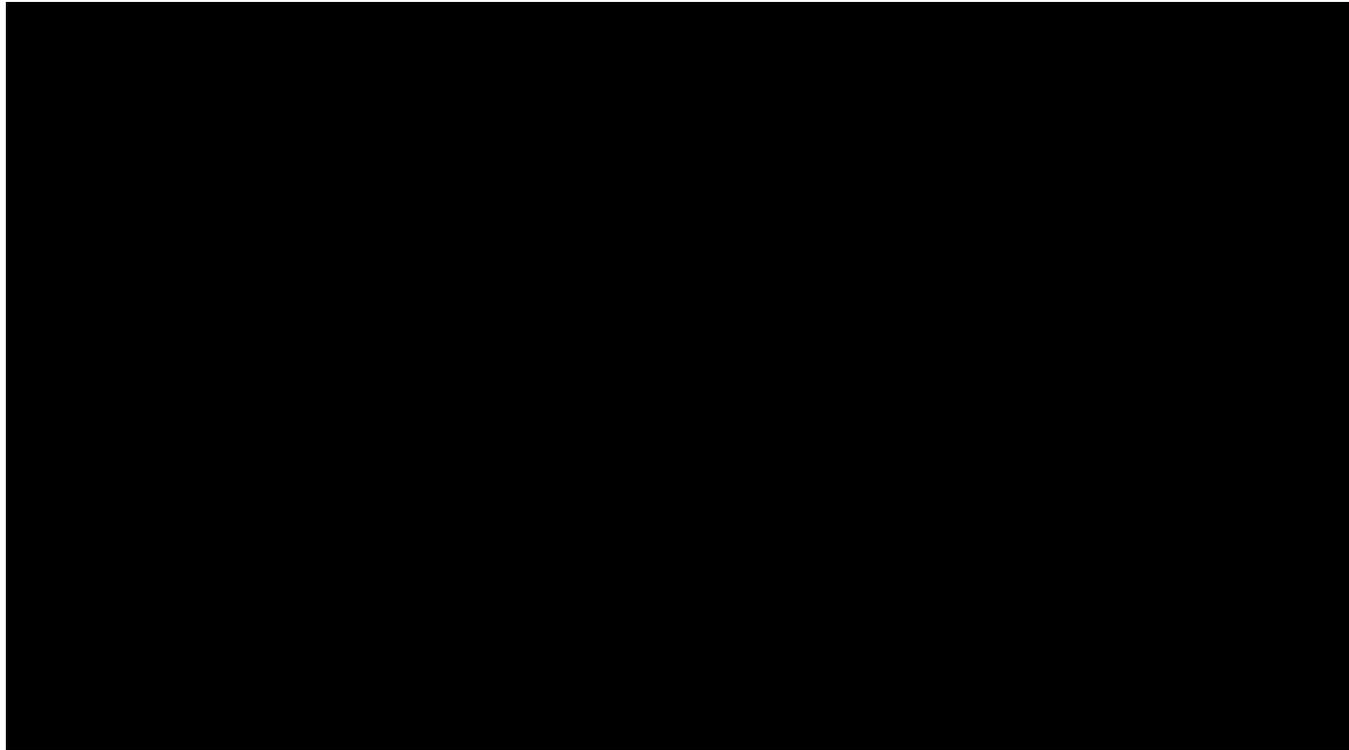
Fabricate microdisks
(Photolithography in clean room)



TESTING
NANOPARTICLES
AS GAS SENSORS

KENDRA SIBBERSEN, PHD
UNIVERSITY OF NEBRASKA - LINCOLN
METROPOLITAN COMMUNITY COLLEGE

NNCI E&O - Educators

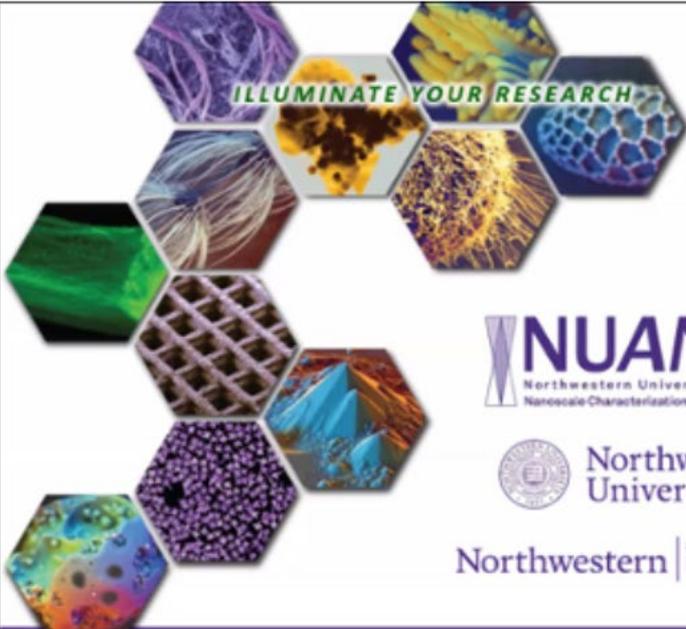


NNCI E&O - Undergraduates



NNCI E&O - Professionals

Women in Microscopy Conference
in celebration of International Women's Day



ILLUMINATE YOUR RESEARCH

Welcome

Founding Director: **Vinayak P. David**
MSE, McCormick School of Engineering

NUANCE
Northwestern University Atomic and
Nanoscale Characterization Experimental Center

SHYNE
Soft and Hybrid Nanotechnology
Experimental Resource

Northwestern University

Northwestern | MCCORMICK SCHOOL OF ENGINEERING

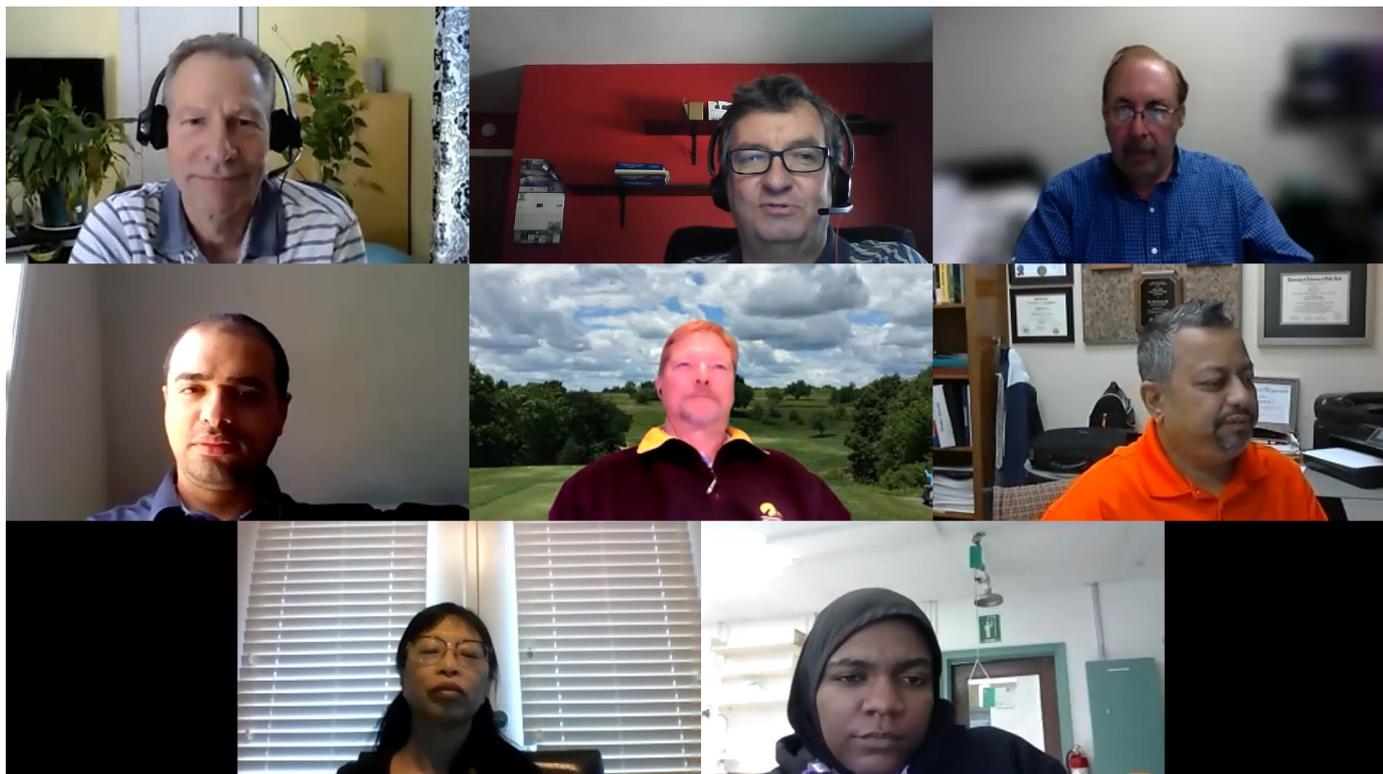
National Nanotechnology Coordinated Infrastructure



“It was so wonderful to meet and connect with so many extraordinary women and electron microscopists from national labs, academia, core facilities, and industry. I had so much fun at this conference!” -- Dr. Juleen Dickson, UW Madison

NNCI E&O - Professionals

Micro Nano Technology Health & Safety Course
through the Micro Nano Technology Education Center (MNT-EC)



NNCI E&O - Professionals

Future career goals after your involvement with this internship

STEM Grad School	4.5
STEM Career	4.8
STEM Faculty	3.4
Working in Industry	4.3

Not at all interested (1) to Extremely interested (5)

“I came in as a sophomore with little working knowledge of semiconductors but a desire to learn more... Through this internship I was picked up by a large semiconductor company, and it was largely due to the knowledge that the engineers at ASU NanoFab gave to me that I was able to begin an internship in industry. I have nothing but incredibly positive things to say about this experience!” Student Worker

E&O Breakout Session

Tomorrow, Nov. 3, at 3 pm EDT



Mike Russo
NIIT Chairman



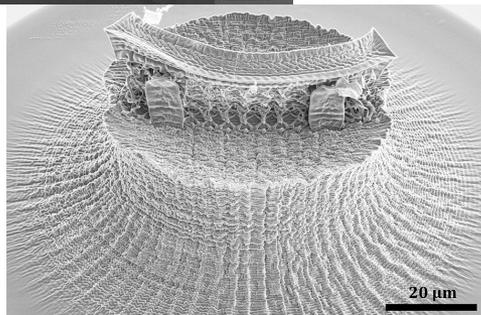
Robert Weinman
Innovation &
Infrastructure lead

*The Mission of the National Institute for
Innovation and Technology is to identify
current and future roadblocks to
innovation in strategic industry sectors
and ensure they are eliminated.*

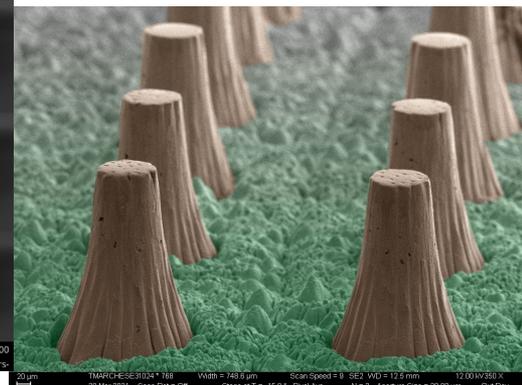
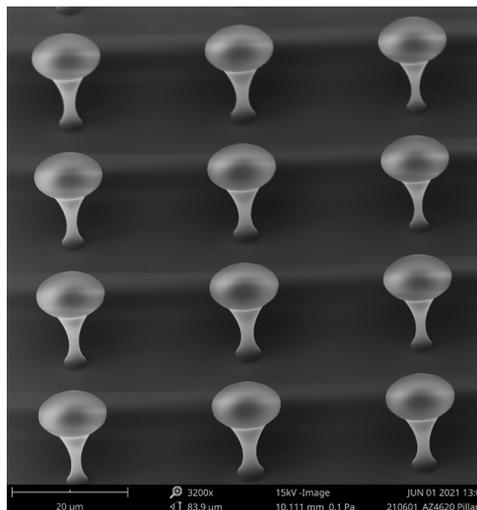


Plenty of Beauty at the Bottom

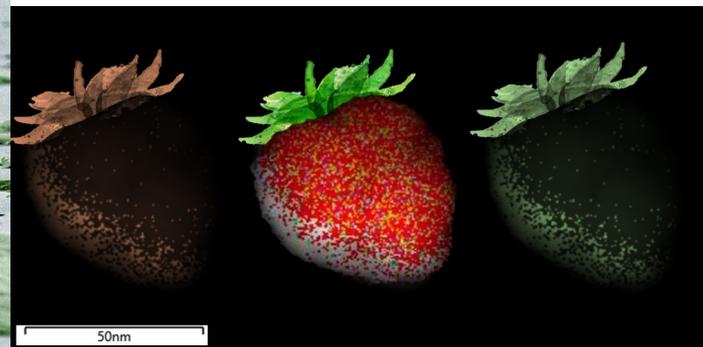
Most Stunning - NNF/NNI



Most Unique Capability - RTNN/ SENIC



Most Whimsical - NanoEarth/ NCI-SW



Thank You!

Questions?