Comparison With Existing Solutions

Noble Dome:	Other Products:
• IS the glove box	• Assumes users have their own glove box ($10-100K cost)
• No sample size limit	• Limits sample size
• No stage travel limit	• Limits stage travel
• No mechanic or electronic parts to break or repair	• Overly intricate: self-service difficult & can malfunction inside instrument
• Air-free TEM rod easily fits inside, streamlining FIB to TEM sample transfers	• Complex workflow for TEM preparation

Transparent dome lets users stand directly over samples for easier manipulation

The only glove box load-lock for electron microscopy

An innovative solution for loading air-sensitive materials, eliminating the need for an intermediary device to transfer samples between instruments

NOBLE DOME

AIR-FREE TRANSFER SYSTEM

University of Oregon

The Noble Dome was invented & prototyped at the Center for Advanced Materials Characterization Oregon, University of Oregon with a patent pending

CAMCOR

CONTACT INFO:

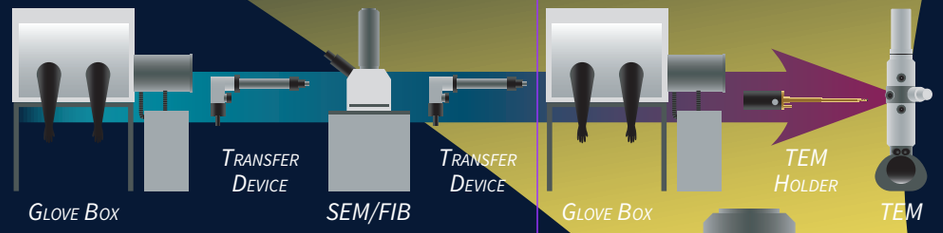
Valerie Brogden
valerie@nobledome.net
nobledome.net

NOBLE DOME

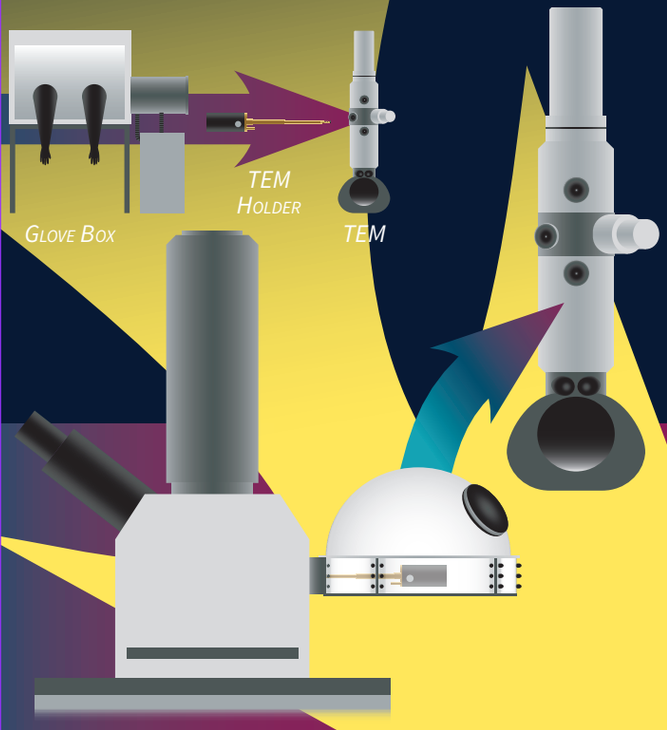
Traditional loading procedures expose samples to atmosphere during transfer, the Noble Dome preserves the integrity of air-sensitive materials by transferring them in and out of an instrument in an oxygen-free environment

Simplify Your Workflow:

Conventional Method: Complicated with multiple devices & standalone glove box



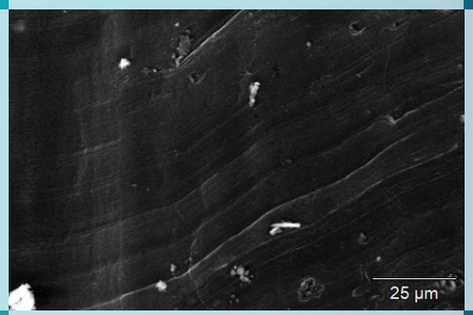
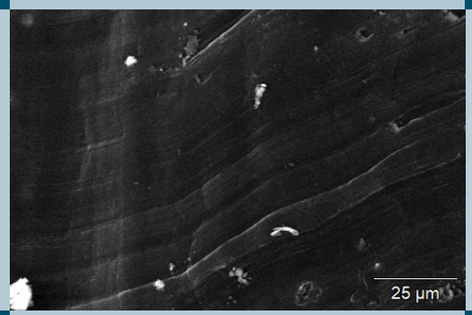
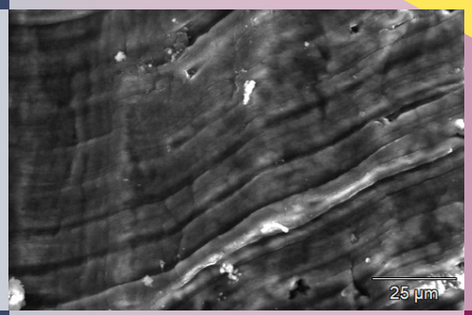
Noble Dome Approach:
Load samples directly onto TEM holder from the SEM/FIB



Lithium Metal Oxidation Experiment:

The same location on a lithium metal sample was imaged & analyzed with EDS in its pristine state, after 30 minutes in an argon environment in Noble Dome, & after 30 minutes in atmosphere

- Very little change seen in surface topography & oxygen counts between sample in its pristine state & after being in Noble Dome
- Notable increase in surface oxidation & topography observed on sample after sitting in atmosphere

	Pristine Sample	30 Minutes in Noble Dome	30 Minutes in Air
SEM Images			
Oxygen EDS Maps *each yellow pixel represents one count*