

COMPARISON WITH EXISTING SOLUTIONS

NOBLE DOME:

- IS the glove box
- No sample size limit
- No stage travel limit
- No robotic or electronic parts to break or repair
- Air-free TEM rod easily fits inside, streamlining FIB to TEM sample transfers

OTHER PRODUCTS:

- Assumes users have their own glove box (\$10-100K cost)
- Limits sample size
- Limits stage travel
- Overly intricate: self-service difficult & can malfunction inside instrument
- Complex workflow for TEM preparation



U N B O Z

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



Transparent dome lets users stand directly over samples for easier manipulation



THE NOBLE DOME WAS INVENTED & PROTOTYPED AT THE CENTER FOR ADVANCED MATERIALS CHARACTERIZATION OREGON, UNIVERSITY OF OREGON WITH A PATENT PENDING



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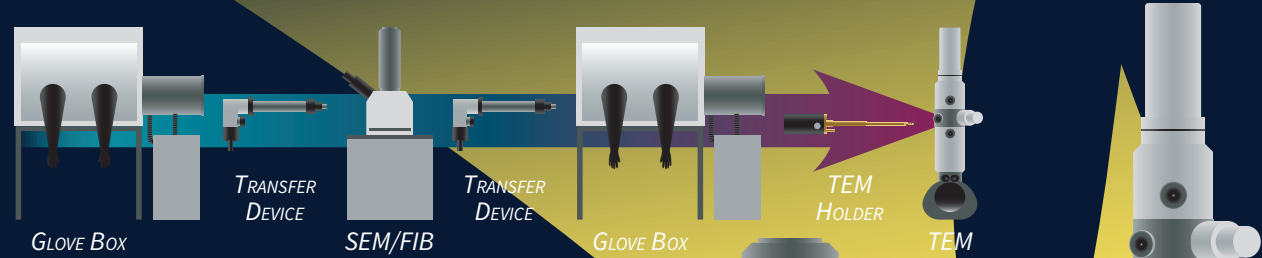
AIR-FREE TRANSFER SYSTEM

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

