

# NEMO Quick Start

For Users

# NEMO Landing Page

MIT.nano NEMO-CE

Calendar

Tool control

Status dashboard

Requests

Safety

Welcome, Aaron  Logout



Calendar



Tool control



Training



Safety



Send feedback



View your usage



News 1



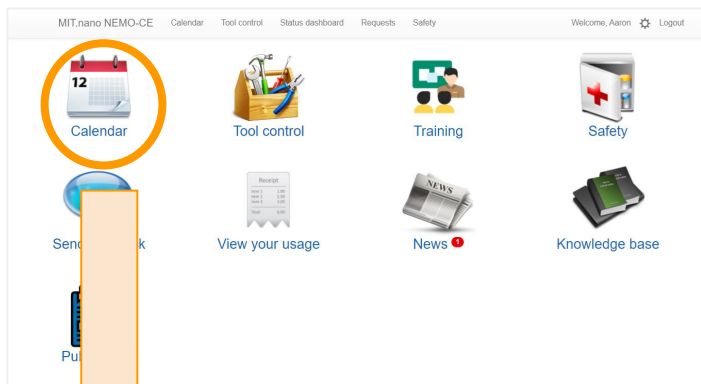
Knowledge base



Publications

This is the NEMO landing page.  
You can always return by clicking  
on the link at the top left.

# NEMO Calendar - Reservations and sign-ups



Calendar

MIT.nano NEMO-CE | Calendar | Tool control | Status dashboard | Requests | Safety

Reservations

Today

ThemisZ\_STEM (circled in orange)

Search for a tool

Personal schedule

All tools

- Characterization.nano
- AFM
- Analysis
- CryoEM
- Dual Beam
- Magnetic
- Materials Prep
- SEM
- Spectroscopy
- Surface Analysis
- TEM
  - FEL\_TecnaI\_TEM
  - Hitachi\_HF5000\_ETEM
  - JEOL\_2010F\_FEG\_TEM
  - JEOL\_2010\_HRTEM
  - JEOL\_2011\_TEM
  - ThemisZ\_STEM
- X-ray Imaging
- XRD
- InversionLab

	Mon 6/03	Tue 6/04	Wed 6/05	Thu 6/06
7am				
8am				
9am	9:00 - 12:00 Eugene Park (eugenesp)	9:00 - 12:00 Rishabh Kothari (rishab02)	9:00 - 11:00 Training by Aubrey Penn	
10am				
11am				
12pm				
1pm				

This is the tool calendar you are making reservations on now.



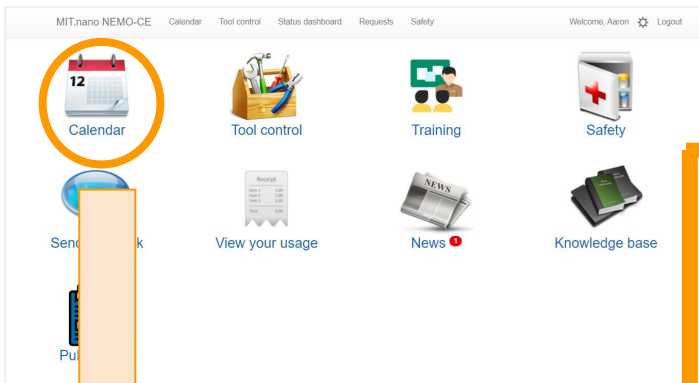
Click and drag to create a reservation



Select a tool to see its calendar.  
(Use the checkboxes to select multiple tools and see their calendars overlaid together.)

You can sign up for training events directly in the calendar as well as from the training section.

# NEMO Calendar - Reservations and sign-ups



MIT.nano NEMO-CE

Reservations

Today

Mon 6/03

7am

8am

9am

10am

11am

12pm

1pm

Search for a tool

Personal schedule (circled in orange)

All tools

- Characterization.nano
- AFM
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  - JEOL\_2010F\_FEG\_TEM
  - JEOL\_2010\_HRTEM
  - JEOL\_2011\_TEM
  - ThemisZ\_STEM
- X-ray Imaging
- XRD
- ImmersionLab

9:00 - 12:00 Eugene Park (eugenesp)

9:00 - 12:00 Rishabh Kothari (rishab602)

9:00 - 11:00 Training by Aubrey Penn

Use this button to quickly expand or collapse the entire tool tree view.

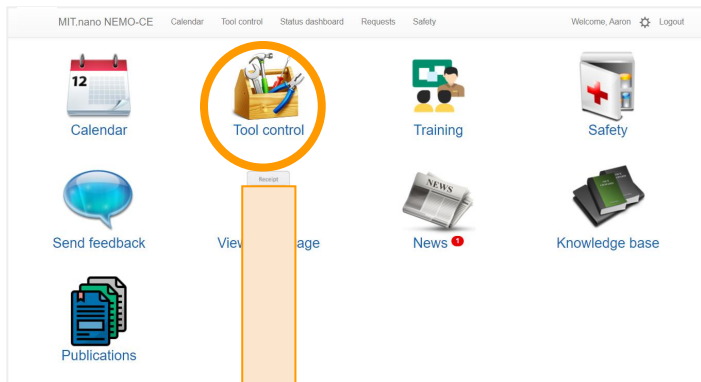
Use this button to only show tools on which you are trained. (Other tools will be grayed out.)

Check this box to change the calendar view to show your personal schedule.

Calendar

Use this button to quickly expand or collapse the entire tool tree view.

# NEMO Tool Control - Engage and disengage tools



Tool Control

MIT.nano NEMO-CE | Calendar | Tool control | Status dashboard | Requests | Safety

ThemisZ\_STEM | Summary | Details | Config History | Report a problem | Post a comment

Search for a tool

Characterization.nano  
AFM  
Analysis  
CryoEM  
Dual Beam  
Magnetic  
Materials Prep  
SEM  
Spectroscopy  
Surface Analysis  
TEM  
FEL\_TecnaI\_TEM  
Hitachi\_HF5000\_ETEM  
JEOL\_2010F\_FEG\_TEM  
JEOL\_2010\_HRTEM  
JEOL\_2011\_TEM  
ThemisZ\_STEM  
X-ray Imaging  
XRD  
ImmersionLab

**✓ This tool is operational and idle.**

Accelerating voltage: 200kV  
Themis Z 60KV position 0 : 60KV

Tool usage will be billed to the project named "6948705-Bimolecular Interactions In Organic Semi".

**▶ Start using the ThemisZ\_STEM**

**Specifications/Capabilities**

- 60, 200 and 300 kV operating range
- Monochromator with < 30 meV energy resolution in EELS (vibrational spectroscopy and automated alignment software)
- Piezoelectric stage compensating drift and fine sample movements
- Sub-100nm imaging at 60kV (particularly useful for 2D materials)
- Grating continuum spectrometer and imaging filter (atomic resolution chemical mapping with monochromated EELS)
- Super X-quadrant EDS detector with separable signals from each detector (atomic resolution elemental mapping with energy-dispersive X-ray spectroscopy (EDS))
- Imaging and EDS tomography to reconstruct structure and chemistry in 3D
- ThermoFisher Scientific EMPAD detector
- Fast 4k pixel CMOS camera
- Segmented diode detector for fast mapping of electromagnetic fields (differential phase contrast) and light elements (integrated differential phase contrast)
- Magnetic domains imaging via Lorentz lens settings

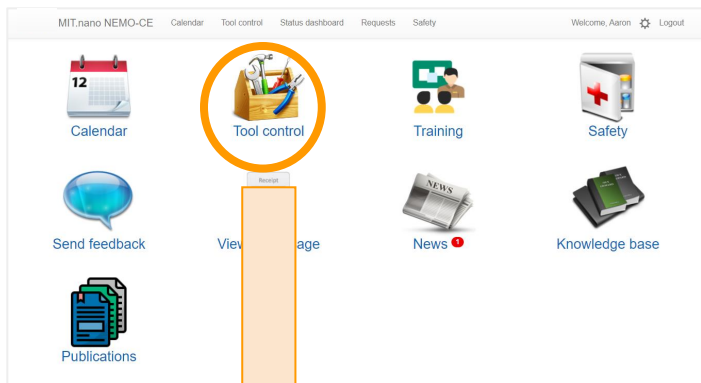
**Accessories/in-situ holders**

- Mel-Built Atmos Double Tilt LN2 Vacuum/Inert Gas Transfer Holder
- DENS sections Lighting Heating and Biasing Double Tilt Holder
- Hummingbird Liquid Flow Holder with electrochemistry

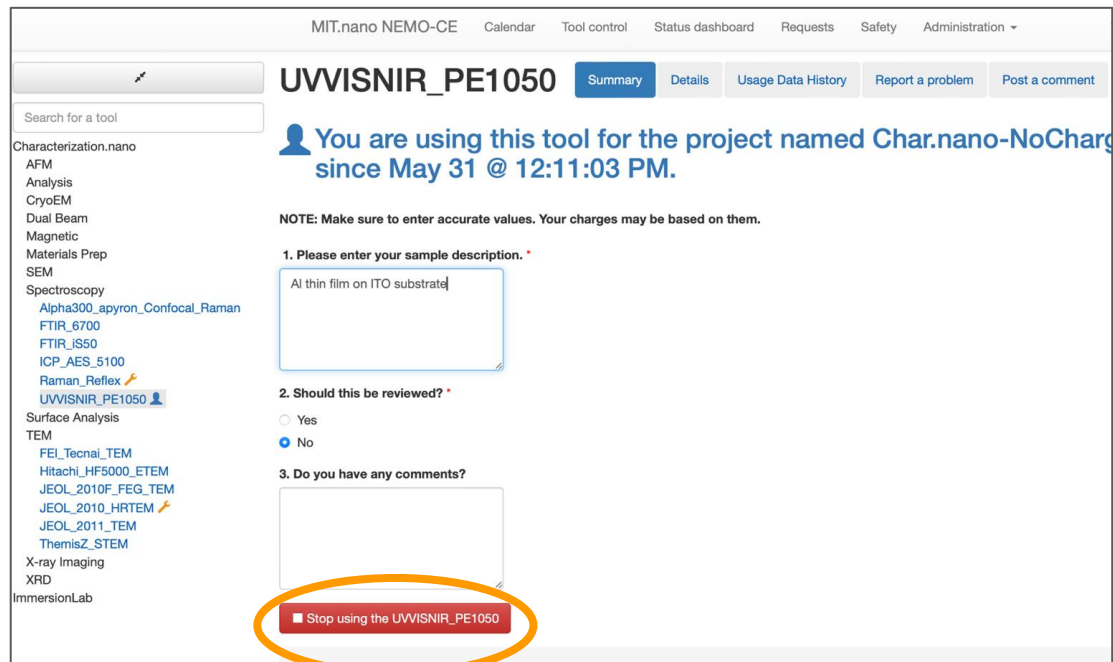
Click to engage and use the tool.

(If you have more than one cost object, you will be prompted to choose one first before the green button will show up.)

# NEMO Tool Control - Engage and disengage tools



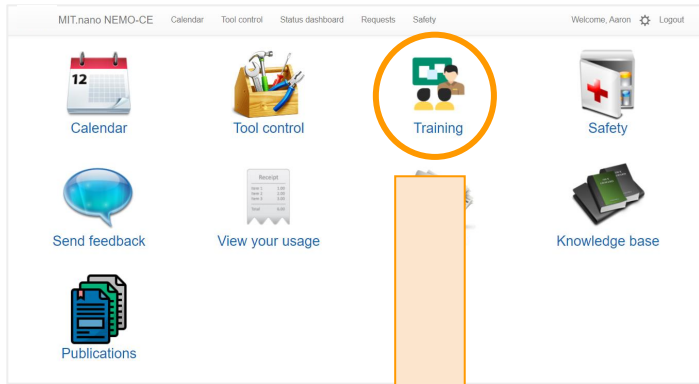
**Tool Control** →



**Click to disengage.**

(You will need to fill out any required questions first to enable the red button.)

# NEMO Trainings - Find and manage your training sessions



You can find upcoming trainings here or on each individual tool calendar

**Trainings**

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## Training dashboard

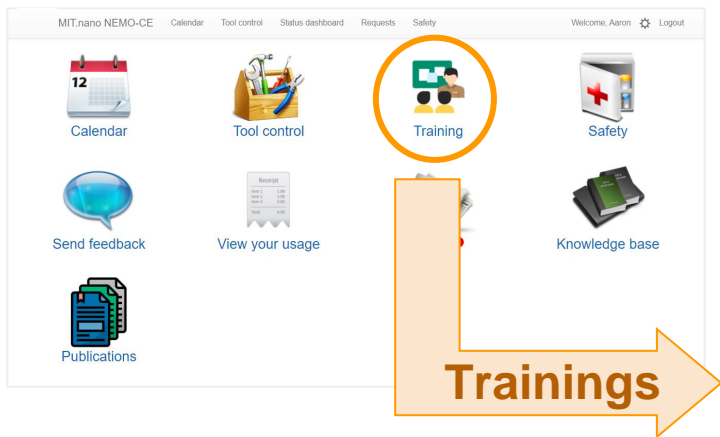
My training requests | Training history | **Upcoming training sessions**

Tool	Technique	Trainer	Start	Duration	Attendees	
ThemisZ_STEM	Aberration Corrected STEM Imaging	Aubrey Penn	Thursday, June 6th, 2024 @ 9:00:00 AM	90 minutes	0/5	
ThemisZ_STEM	Energy Dispersive X-ray Spectroscopy (EDS)	Aubrey Penn	Wednesday, June 5th, 2024 @ 9:00:00 AM	120 minutes	0/5	

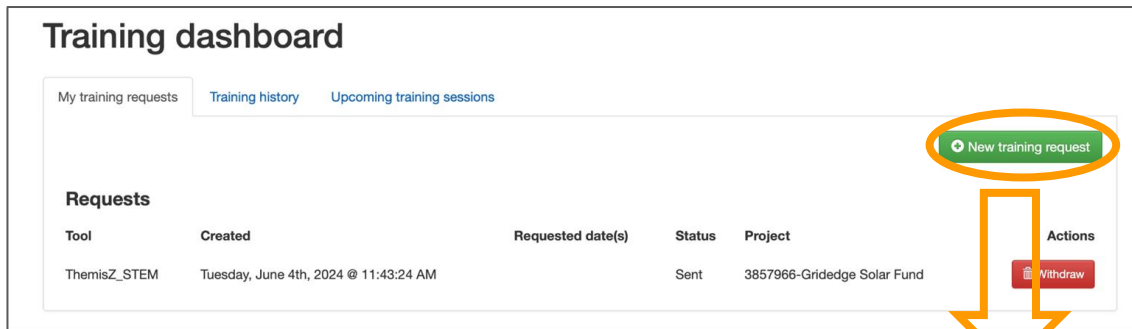
Click to register for specific training sessions

(You can also sign up via the calendar)

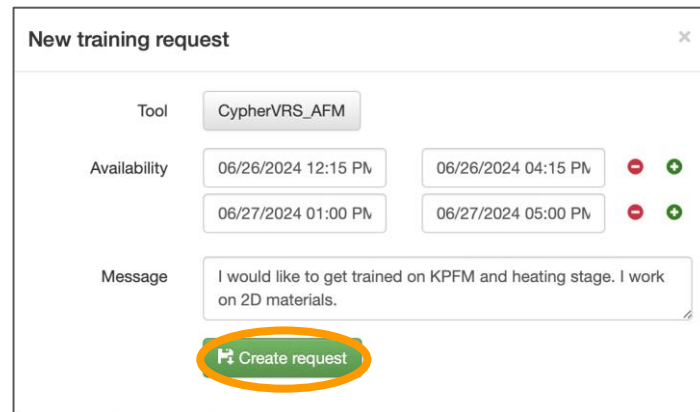
# NEMO Trainings - Find and manage your training sessions



If you don't see an upcoming group training, you can send a training request to the tool owner.



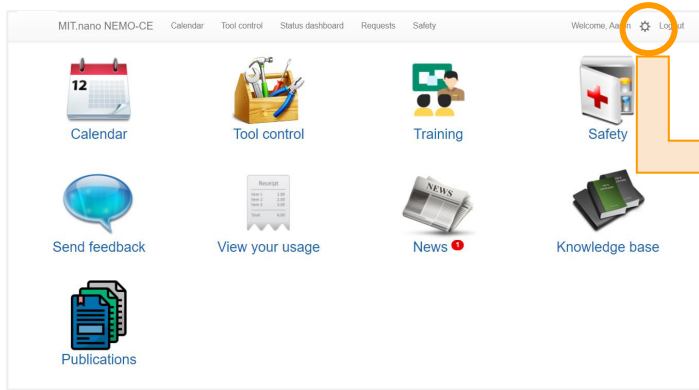
Include your availability in your request.  
Include details about what you want to do.



From the training dashboard, you can also cancel your request if it's no longer needed.

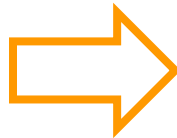


# NEMO User Preferences - Choose your notifications



## Setting Your User Preferences

Choose what email notifications you wish to receive from NEMO.



A screenshot of the 'User Preferences' page. The page title is 'User Preferences'. The 'Reservations' section is circled in orange, and an arrow points to it from the text 'NEMO can send you calendar invitations for your reservations.' The 'Tool freed time notifications' section has a text input field for 'Tools' with the value 'Add a tool' and a button 'Add a tool'. An arrow points to this section from the text 'Subscribe to equipment waitlists and get notified of cancelled reservations'. The 'Buddy System' section has two checked checkboxes: 'Check this box to see notification badges for new buddy requests' and 'Check this box to receive an email notification when users reply to buddy requests you replied to'. The 'Adjustment Requests' section has one checked checkbox: 'Check this box to receive an email notification for replies to your adjustment requests'. The 'Email notifications' section is circled in orange, and an arrow points to it from the text 'Choose what email notifications you wish to receive from NEMO.'

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### User Preferences

**Reservations**

- Check this box to receive ICS calendar invitation when creating a reservation
- Check this box to receive ICS calendar invitation when cancelling a reservation
- Check this box to be asked to confirm before making a reservation
- Check this box to be asked to confirm before moving or resizing a reservation

**Tool freed time notifications**

Minimum freed time:  minutes Minimum amount of minutes freed to receive a notification.

Maximum future days:  days Maximum number of days in the future to receive a notification for.

Tools:  Add a tool

You are not receiving notifications for any tools.

**Buddy System**

- Check this box to see notification badges for new buddy requests
- Check this box to receive an email notification when users reply to buddy requests you replied to

**Adjustment Requests**

- Check this box to receive an email notification for replies to your adjustment requests

**Email notifications**

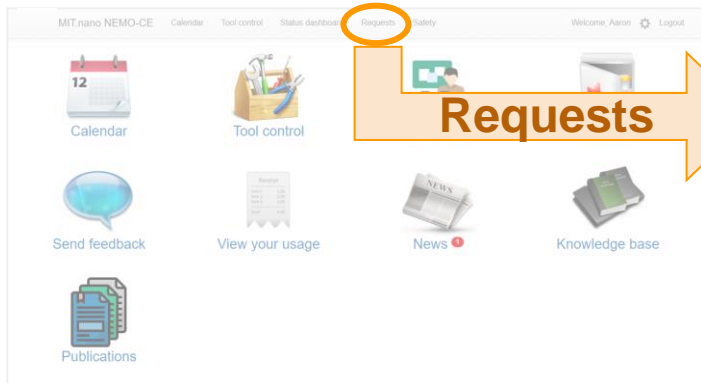
The following is a list of notifications you will receive from [TEST] MIT.nano NEMO-CE. You have the option to set an alternate email address and define your preferences for which notifications you want to be sent to either of your emails, or both.

Some notifications can also be turned off completely.

NEMO can send you calendar invitations for your reservations.

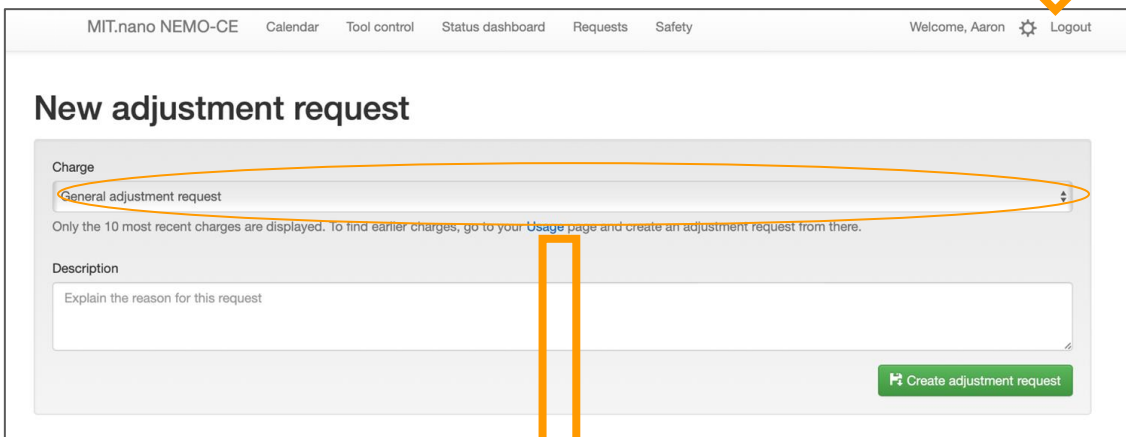
Subscribe to equipment waitlists and get notified of cancelled reservations

# NEMO User Requests - Using Adjustment Requests



**Forgot to disengage?  
Make an adjustment  
request, specifying the  
actual time you finished  
using the tool/instrument.**

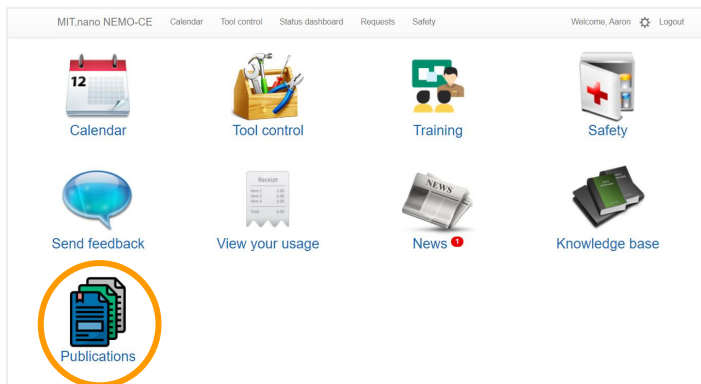
NEMO is designed to send out reminders to disengage if the instrument is still engaged past your reserved time.



The drop down menu will display the 10 most recent charges associated with your account.

**All adjustment requests must be made by 5pm of the last day of the current month. Once the monthly billing is closed no adjustment request will be accepted.**

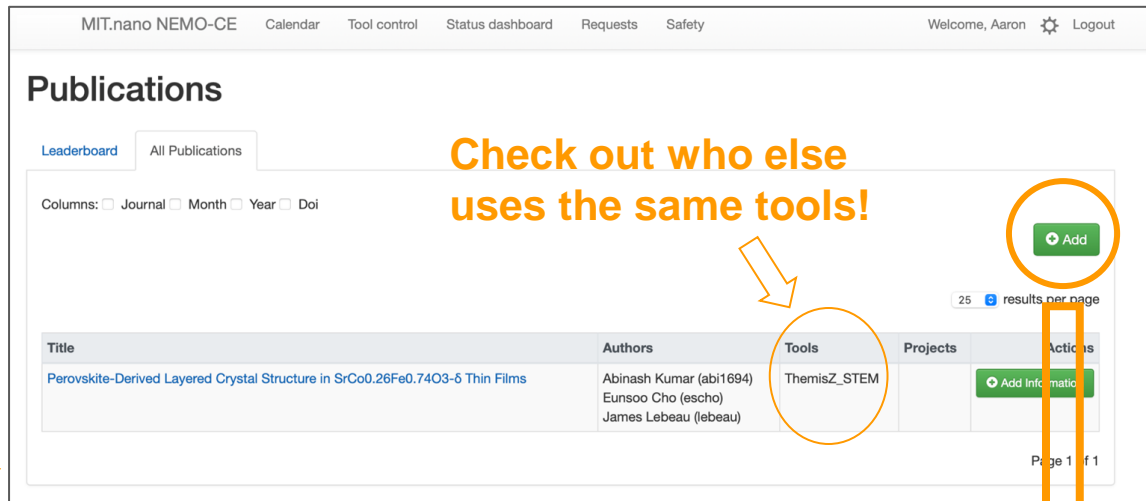
# NEMO Publications - Add yours to the database!



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- Calendar
- Tool control
- Training
- Safety
- Send feedback
- View your usage
- News
- Knowledge base
- Publications**

**Publications**



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## Publications

Leaderboard | All Publications

Columns:  Journal  Month  Year  Doi

25 results per page

Title	Authors	Tools	Projects	Actions
<a href="#">Perovskite-Derived Layered Crystal Structure in SrCo<sub>0.26</sub>Fe<sub>0.74</sub>O<sub>3-δ</sub> Thin Films</a>	Abinash Kumar (abi1694) Eunsoo Cho (escho) James Lebeau (lebeau)	ThemisZ_STEM		<a href="#">Add Information</a>

Page 1 of 1

Check out who else uses the same tools!

Add your publications simply by entering the DOI.

## Create publication

Search Publication By DOI

Search

Adding to the database of publications of work that utilized MIT.nano shared facilities is helpful in many ways, including in applying for funding to bring in new tools and instruments!