

FORCE

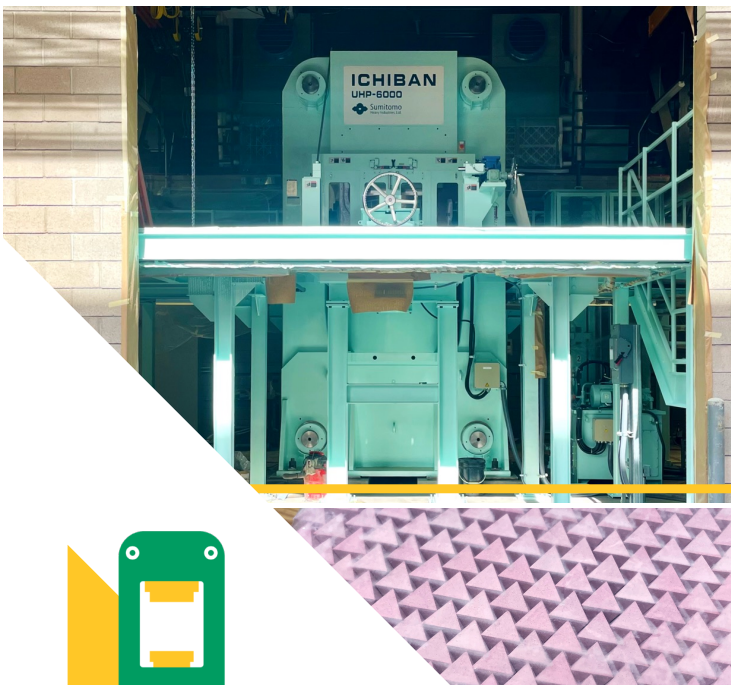
Facility for Open Research
in a Compressed Environment

FORCE progress update – February 2024

FORCE is fast becoming a reality

Phase 1 construction of the FORCE High Pressure Lab, located in Interdisciplinary Science and Technology Building 2 (ISTB2) on the ASU Tempe campus, was completed at the end of December 2023. During this phase of the project, two major pieces of high pressure equipment that comprise FORCE were installed and commissioned: “Ichiban”, a 6000-ton uniaxial Kawai-type multi-anvil press from Sumitomo Heavy Industries and “Twister”, a 500-ton high pressure torsional press from Riken Enterprise. Major renovations completed during Phase 1 included a chemistry lab with fume hood; sample prep area with multiple workstations; a safety enclosure for an Internally Heated Pressure Vessel (IHPV); a bridge crane and dumbwaiter to service Ichiban; and structural, lighting, electrical, and HVAC upgrades.

Two more major items will be installed during Phase 2: “Jasmine”, a 1500-ton DIA-type multi-anvil press from Max Voggenteiter, and “Nebula”, an IHPV from Wille Geotechnik. During Phase 2, support devices and equipment will also be installed in the lab including a glove box, welder, wire saw, microscopes, and milling, machining, and polishing equipment.



PI Kurt Leinenweber | SMS, Eyring Materials Center (EMC)

Co-Is Alexandra Navrotsky | SMS, SEMTE, SESE

Thomas Sharp | SESE

Dan (Sang-Heon) Shim | SESE

David J. Smith | Physics

Research Scientists

Kyusei Tsuno | EMC

Kara Brugman | EMC

Research Technician Logan Leinbach | EMC

Project Manager Steven Winn | Knowledge Enterprise

Construction Timeline

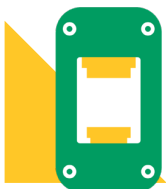
Future dates for equipment are estimates

- 05/11/2023 FORCE lab construction began
- 09/30/2023 Ichiban installation & commissioning
- 11/24/2023 Twister installation & commissioning
- 02/15/2024 Phase 1 construction complete
- 03/30/2024 IHPV installation
- 08/30/2024 Jasmine installation
- 09/05/2024 Phase 2 complete, Experiments begin
- 10/01/2024 FORCE lab construction complete

Questions?

Please contact Dr. Kara Brugman

Research Scientist & Outreach Coordinator | kara.brugman@asu.edu



Learn more about FORCE at force.asu.edu

