

## The General Atomics Laboratory for Developing Rep-rated Instrumentation and Experiments with Lasers (GALADRIEL)

### Laser Capabilities

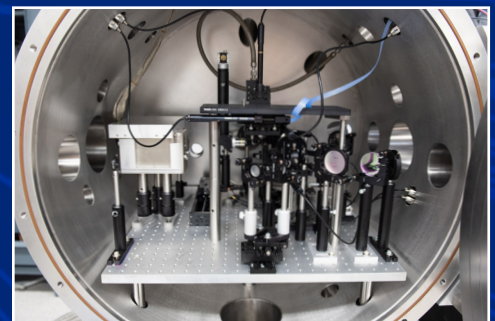
- Terawatt-class Ti:sapphire laser system
- Delivers ~25mJ of 800nm light in ~25fs pulses at a repetition rate of up to 10Hz
- Equipped with a Dazzler/Mazzler combination for spectral control and pulse shaping

### Target Delivery

- Automated pressure control for gas jet experiments (N<sub>2</sub>, He, Ar up to 800psi)
- Tape-drive system with apertured-rolls for complex-target delivery
- Rastered 2-dimensional arrays of solid targets
- Target monitoring available via two long-range Questar microscopes

### Target Diagnostics and Instrumentation

- Probe beam with 300ps scanning range (Schlieren, wavefront, etc.)
- Electron-beam profiler and spectrometer (~0.2 - 4 MeV)
- 4-channel hard x-ray CVD diamond diodes
- HRS-300 spectrometer (150g/mm and 1800g/mm gratings)
- ROSS-1000 streak camera (~3-5ps resolution at 1ns sweep)



Vacuum Chamber

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