



# Colorado Dust Accelerator Facility

PI: Tobin Munsat / University of Colorado <https://impact.colorado.edu/dustaccelerator>

## Description of Facility

- 3 MV linear accelerator for hypervelocity impacts
- Exposure of any target which is vacuum compatible
- Hypervelocity grain options:
  - Particle radii: 0.01 – 1  $\mu\text{m}$
  - Particle speeds: 1 – 100 km/s
  - Precise selection of mass and speed
  - Materials: Fe, Al, Ni, or any conductive grain
- We provide help setting up experiments, data acquisition, electronics, etc.
- We can provide full-service exposure of passive samples



Dust grain accelerator at the University of Colorado. This device accelerates  $\mu\text{m}$ -sized grains to 10's of km/sec for hypervelocity impact studies of a variety of targets and instruments. Specialized target chambers include a gas target for meteoroid ablation studies and a cryogenic target for ice impact experiments.

## How to use the facility

- Request beam time by contacting us!
- NO cost to users
- Eventual process:
  - Contact our team when writing a ROSES proposal
  - We will help design a feasible experiment and write a support/commitment letter
- Requests are evaluated/prioritized based on technical feasibility
- Typical requests are 1-2 weeks of beam time

## Contact information:

- IMPACT Dust Accelerator Facility
- 3400 Marine St., Boulder CO 80303
- Tobin Munsat, [munsat@colorado.edu](mailto:munsat@colorado.edu), (303) 735-5596 for information and scheduling