


Lunar Flashlight: Mapping Lunar Surface Volatiles Using a Cubesat



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Why look for water?

- The Moon is highly depleted in volatile compounds, especially water
- Humans exploring the Moon will need water:
 - Option 1: Carry it there. ← expensive (at \$10K/lb, 1 gal H₂O=\$80K)
 - Option 2: Use water that may be there already. ← “live off the land”
- Can mine O₂ from minerals and H from solar wind implantation, however, this is very energy intensive
- **Life would be much easier and cheaper if we could just find H₂O on the Moon**
 - At the surface or near surface
 - In “operationally useful” quantities

