

Psyche Sampling Research Notes

Impact Craters

- Impact craters could contain materials from interior of Psyche leading to a good option for where to sample.
<https://link.springer.com/article/10.1007/s11214-022-00891-6>
- Measure residual magnetization with fluxgate magnetometer
<https://youtu.be/314GUagR7o4>
<https://link.springer.com/article/10.1007/s11214-022-00891-6>
- Osiris Rex made small (but much larger than expected) impact crater
<https://www.youtube.com/watch?v=42EwbQ3afPA>
- This conclusion holds true also in case of a high metal content for Psyche, as laboratory experiments reveal that cratering in Fe-Ni meteorites and ingots can produce small metal fragments similar to rocky regolith
<https://link.springer.com/article/10.1007/s11214-022-00891-6>

Mid-Atlantic Ridge (on Earth ideas)

- Magnetic striping and magnetic properties are measured from the seafloor crust produced by mid-Atlantic ridge. Finding magnetic properties on Psyche could be useful for the scientific community.
<https://www.youtube.com/watch?v=JJEZ3Vizdww>
- Timeline of Earth's geomagnetic reversals
https://en.wikipedia.org/wiki/Geomagnetic_reversal
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Sampling Methods

- Claw and Filtration Funnel (loose particulates)
<https://psyche.asu.edu/get-involved/capstone-projects/capstone-projects-tungsten-class/isru-claw-and-filtration-funnel-rit/>
Watch: [YouTube](#)
- Archimedes Screw (breaks the surface)
<https://psyche.asu.edu/get-involved/capstone-projects/capstone-projects-tungsten-class/sample-acquisition-archimedes-screw-for-sample-collection-asu/>
Watch: [YouTube](#)
- Touch & Go with Pneumatics to blow up and collect particles
<https://psyche.asu.edu/get-involved/capstone-projects/capstone-projects-tungsten-class/sample-return-nasa-psyche-sample-return-osu/>