An ISRU water harvester has the potential to answer questions of scientific interest related to:
(a) Collecting water in planetary surface environments
(b) Cosmic origin of water via isotopic composition
(c) Water release mechanisms from hydrated minerals
(d) Mission volume requirements of regolith and water
(e) ISRU instrument design
(f) Low-power induction furnaces
(g) Induction skin depth design
(h) Nuclear-powered instrument design

References