

# **Report for the Joint Use/Research of the Institute for Planetary Materials, Okayama University**

**2021** fiscal year first term / second term / others

31/05/2022

**Category:** International Joint Research/ General Joint Research/ Joint Use of Facility/ Workshop

**Name of the research project:** Meteorite analogue constraints on the relationship between Mars and its Moons

**Principal applicant:** Wissam-Farah Mahieddine

**Affiliated institution and department:** Sorbonne University, Dept. Chemistry

**Collaborator**

**Name:**

**Affiliated institution and department:**

**Research report:** During FY 2022 it was not possible to conduct in-person research. However, Farah was able to compile significant background information in preparation for her internship. While awaiting the reopening of the border, additional imaging in visible light and point Raman spectroscopy were conducted on the major sample, Martian meteorite NWA 8171, to identify objects and regions of high interest. Additional samples of carbonaceous chondrite and suitable analogues have also been collected and analyzed by X-ray diffraction and Raman spectroscopy. We anticipate that the summer internship will proceed smoothly and result in new findings regarding the relationship between Mars surface rocks, its two Moons, and possible links between the Moons and D-type asteroids.