

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
New Worlds - Non-Traditional Space Education and Outreach (7)

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## MULTIPURPOSE APPROACHES FOR MAPPING AND ANALYZING METEORITES

**Abstract**

The oldest records of the solar system's formation are stored within meteorites and unfold once analyzed. The meteorite collection at the Sharjah Academy for Astronomy, Space Sciences, and Technology (SAASST) is utilized to map meteorite locations. This would expand the International Meteor Organization's (IMO) database of meteorites fall sites, ultimately narrowing down search areas for meteorite hunters. Moreover, samples from the collection are also used by university students to observe and comprehend the differences between meteorite and terrestrial rocks, in addition to understanding their elemental and chemical composition. Along with the Master of Science program in Space Sciences and Astronomy that the University of Sharjah offers, graduate students are encouraged to incorporate meteorite-related analysis using the collection and use techniques such as X-Ray Fluorescence and X-Ray Diffraction techniques. The SAASST meteorite collection also raises awareness among the general public regarding meteorites and their scientific value. In addition, the UAE Meteor Monitoring Network at SAASST would help increase the collection by detecting meteors and observing their possible landing location. In this paper, we will argue that the field of meteorites is a critical aspect in astronomy that should be more emphasized, especially in the Gulf region. Therefore, our meteorite collection contributes to the development of students and general public awareness in our understanding of the formation of the solar system.