

## **Identification of additional Ceres-like asteroids in the Main Belt**

Primitive (i.e., low-albedo and water-rich) asteroids are remnants from the early formation of the solar system. They offer insight into the physical and chemical processes that took place during this early period. Previous research has shown that many large primitive asteroids (with a diameter greater than 100 km) have similar spectral characteristics to the dwarf planet Ceres. These asteroids are found in a specific region beyond Ceres' orbit, between approximately 3.0 AU and 3.4 AU from the Sun. These Ceres-like asteroids have highly porous interiors, formed relatively late (1.5-3.5 million years after the formation of calcium-aluminum-rich inclusions), and experienced maximum interior temperatures of less than 900K. We have obtained new spectra of additional large primitive asteroids with similar spectral characteristics to Ceres, such as asteroid (168) Sibylla, some of which are located beyond 3.4 AU. The new spectra were measured at the NASA Infrared Telescope Facility in Hawai'i, using the prism (0.7-2.5  $\mu\text{m}$ ) and the long-wavelength cross-dispersed (LXD: 1.9–4.2- $\mu\text{m}$ ) modes of the SpeX spectrograph/imager. We will also discuss the implications of these new results on the mechanisms responsible for implanting Ceres-like asteroids into the Main Belt, such as dynamical instability.