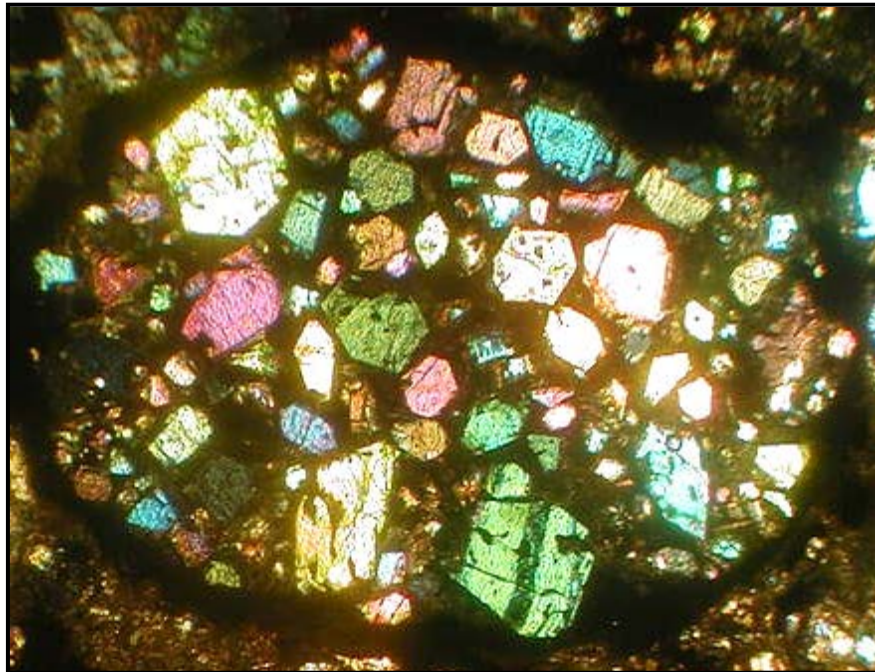


METEORITES CAN BE SLICED TO STUDY THEIR MINERAL STRUCTURE



This photograph of a **Gibeon iron meteorite** specimen shows its **fusion crust** on the outside (*top*), from melting during flight through Earth's atmosphere as a glowing meteor (caused by **ram pressure** super-heating and ionizing the air being compressed in front of it), while minerals inside (broad bands of low-nickel *kamacite* and narrow ribbons of high-nickel *taenite*) are visible in the crystalline **Widmanstätten Pattern** of octahedron crystals, after the **cut surface** (sliced with a diamond-tipped saw) has been **polished** and **etched** with dilute nitric acid.



In this photomicrograph, light projected from behind shines through a sliced thin section of the **stone meteorite Sayh al Uhaymir 001**, effectively illuminating a circular **chondrule** of olivine grains surrounded by a dark opaque iron rim so that scientists can examine the specimen with a microscope. Tiny chondrules are the oldest solid material accreted in our evolving solar system billions of years ago.

You can hold chondrules, plus stone and iron meteorite specimens in the *Space Rocks* collection.

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