

## Three-dimensional structures of barred olivine chondrules

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Three-dimensional structures of barred olivine chondrules were examined by an X-ray CT method and observation of thin sections under an optical microscope. Most of the chondrules have oblate shapes. Platy crystals of olivine are aligned almost perpendicular to the minor axes of the oblate chondrules. These features suggest that the chondrules were spinning while they were molten. The spinning rates estimated from the aspect ratios of the oblate shapes are about 100-200 rps, and this will constrain the origin of chondrule formation.