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演題名	Proposal of Low Friction Mechanism in Tungsten Disulfide
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内容	In this study, WS2 coatings on disc were fabricated by means of the shot peening method using WS2 powder. Friction experiments were carried out to investigate the friction characteristics of WS2 using the pin-on-disk type of a rotary tribometer at high temperatures in a vacuum. The friction coefficient of WS2 is significantly low as 0.01 at RT, and increase with increasing test temperatures up to 400℃. At 400℃, friction coefficient is average of 0.08, this one is still low enough to applying the moving parts of the spacecraft. In order to investigate the low friction mechanism, surface analyses of WS2 coating after friction tests have been carried out. Based on the experimental observations, a new low friction mechanism of WS2 has been proposed in conjunction with lattice defects.