At the hypersonic and high-enthalpy wind tunnel (http://daedalus.k.u-tokyo.ac.jp/wt/wt_index.htm) in the transdisciplinary science laboratory building, Kashiwa campus, an extremely high-speed air flow at Mach number 7 can be generated. The picture shows the behavior of a hemi-spherical piece of ice (3 cm in diameter) in the flow. At the frontal surface, the ice is rapidly lost because the flow is stagnated and the temperature rises up to about 400 °C there. On the other hand, around the shoulder part of the ice, where the flow is accelerated and the temperature drops, the water (=melted ice) freezes again to form columns of ice growing outward in the downstream direction. Such strange view of “fire and ice” is caused by the dynamics of the high-speed and high-temperature flow. On the right hand side of the picture, the ice shows a hat-like shape, which reminds us of a spacecraft with the heat shield returning to the earth. After a while, the brim of the hat is broken into pieces due to the dynamic pressure of the flow.