

Collisional fragmentation and dynamics of asteroids, and the solar system origin revealed by them

Hiroshi Kobayashi^{1*}

¹Nagoya University

Planets are formed via collisions of kilometer size of larger planetesimals such as asteroids. Collisional outcomes (coagulation or fragmentation) are very important to reveal the origin of the solar system. In spite of many efforts, we still have uncertainty of collisional physics for such large bodies. The size distribution of bodies are affected by collisional outcomes and hence the size distribution of asteroids may give a clue to clarify collisions of such large bodies and the origin of the solar system.

Keywords: Origin of the solar system, asteroids, collisional physics, dynamics