

## Research about the moon creators~Impact experiment~

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We have performed the impact experiment by using an air-gun. First we collected "volcanic ash of Sakurajima", "olivine sand" and "Ito pyroclastic flow deposits" (Shirasu). Then we classify them according to their size, and compared them for size and pressure. All materials that are smaller than 106 $\mu$ m could make holes that look like moon craters. The value of the ratio of depth and diameter of moon is 0.2 but the holes that we made had a minimum value 0.69. Therefore, we can't reproduce moon craters. In addition, we checked the relation the holes of roundness. The values were 0.5(ash), 0.5(olivine sand), 0.4(Shirasu). There were no significant difference among the three materials. We will inspect the relation of the holes to density from now on.