

The Research for Asteroid's Surface Color ~ Difference of BVR magnitude ~

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There are around 400,000 asteroids in the space between Mars and Jupiter. There is currently no way an Asteroid's composition using only its surface color. The current research investigate the relationship between an asteroid's surface color and its composition. First, we observed eleven target asteroids using photometric observation. Second, we measured the brightness of target asteroids and compared these using "Makali" software. Third, we determined an asteroid's class and observed B(Blue),V(Visual),R(Red) magnitude. Results showed the presence of three distinct spectral emission groups which were strongly correlated to the three composition groups investigated. In conclusion, there is a relationship between an asteroid's composition and the asteroid's surface color.

Keywords: Photometric Observation, BVR Magnitude, Physical Quantity

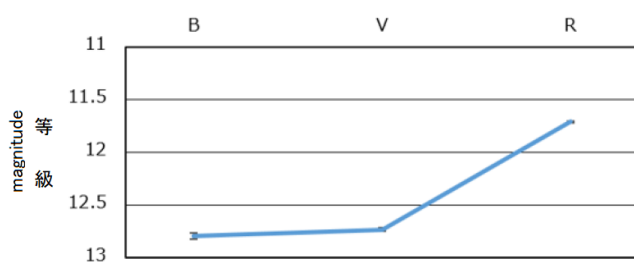


図 1 AbundantiaのBVR等級
Fig.1. BVR magnitude of Abundantia

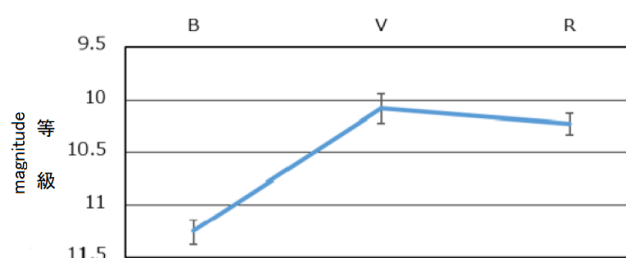


図 2 VictoriaのBVR等級
Fig.2. BVR magnitude of Victoria

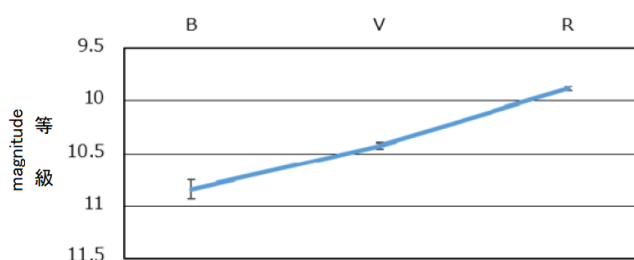


図 3 AriadneのBVR等級
Fig.3. BVR magnitude of Ariadne