

Research in turquoise fringe judged from a lunar eclipse

*Ryusei Yamaguchi¹, *Tomoko Syojo¹, *Kotone Hagihara¹

1. Kagoshima Gyokuryu High School Science Club Astronomical Group

Turquoise fringe research was conducted from observations of lunar eclipses on October 8, 2014, April 4, 2015, August 8, 2017, and January 31, 2018. Turquoise fringes have been found to be affected by stratospheric ozone, and their color varies depending on the amount. It was found that the turquoise fringes are affected by stratospheric ozone, and that the color of the fringes varies depending on the amount of stratospheric ozone. The reason for this was proven to be due to the absorption of Chapius band in the ozone layer. Furthermore, it was found that the reason as to why the turquoise fringes only appear with a digital camera is due to the difference in construction with analogue cameras. In the future, observation of the ISS will be conducted, and further observations will be made of the stratospheric ozone.

Keywords: Turquoise fringe, stratospheric ozone, firm construction with camera

