

## Spectroscopic observation of sprite

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Our Earth Science Club has been observing sprite since 2005, when we set two video cameras(Watec 100N,12mm F1.2, 8mm F0.8) on the roof of our school building. We have been analyzing bright line spectrum of meteor, using diffraction gratings(Edmund Optics 600 grooves/mm). On December 12, 2019, we succeeded in getting bright line spectrum of sprite. Using Hg lump and Na lump, we made a conversion formula that shows relation between the pixel distance from light source to the bright line and the wavelength of the lumps. We were able to get N2 near 750nm on the wavelength of the bright line of spite.

Keywords: sprite, Spectroscopic observation, diffraction gratings

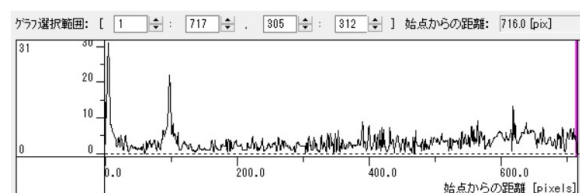


図1

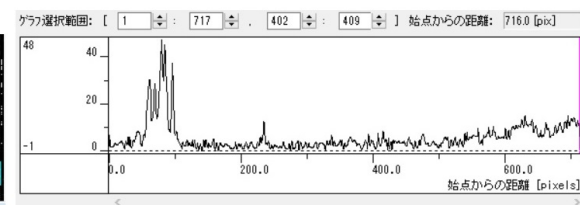
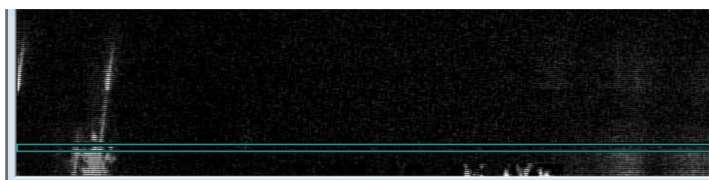


図2

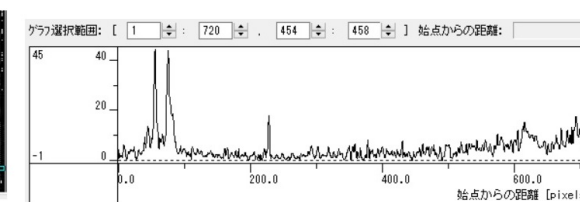


図3