Dark side of the moon: Is the Earthshine really blue? II

*Shito Fukuda¹, *Honomi Sano¹, Satomi Nakano¹, Neo Takakusagi¹, Shiho Nakajima¹, Misato Roppongi¹

1. Maebashi Girls' High School

Yuri Gagarin, who is a Russian astronaut and the first human in space, said

"The Earth is blue" when he looked at the earth from space.

We would also like to say, "The Earth is blue" as he did, but it is not easy for us to travel into space to see the Earth as he did. Then, how about saying "The Earth SHINE is blue", instead?

The earthshine is a natural phenomenon, where the light which is reflected from the earth shines on dark side of the moon dimly.

Last year, we proved the Earthshine is blue. This time, we looked the process by which we could prove that the Earthshine is blue over again, and we hypothesized that the earth is blue.

To test this hypothesis, we took pictures of the Earthshine, the sun and the full moon whose altitude is equal. Besides, we took a picture of the sun whose altitude is not equal.

After that, we analyzed the color of the Earth based on its reflection in those pictures and recreated the earth's own color.

At last, we came to conclusion that "The earth is blue" .

Keywords: Earthshine, moon, blue, Yuri Gagarin