

What causes the change in the color of the sky ?

\*Asuka Goto<sup>1</sup>

1.Fukushima Prefectural Iwaki Senior High School

When I observed the sky, I found that the shade of the blue sky different day by day.I began my study because I was interested in the factor of how the sky shade changed.According to the preceding studies, water vapor is involved in the shade of color of the sky. The fewer vapors the air contains, the blue sky color is more deeply.

This time, I studied the factor expect water vapor which causes the changes in the color of the blue sky, and compared the color in autumn with that in winter.

I took pictures of the sky. I later lowered the pixel, and then I examined "RGB" using analysis software and researched the association of weather data and the color of the blue sky.

I obtained the result that the shade of the blue sky was changed by the atmospheric pressure and wind power.

The quantity of water vapor contained in the air in autumn was larger than that in winter. I compared the color of the blue sky and found that it was deeper in autumn than in winter.

I compared the atmospheric pressure and the amount of water vapor of the days in autumn and in winter in which the color of blue was the deepest. In winter, the atmospheric pressure was low, but the water vapor was high compared to other observation days. That result was different from preceding studies.According to the research, the atmospheric pressure is the common factor which causes the change of the shade of the blue sky.

Keywords: shade of blue sky, water vapor, atmospheric pressure

