

# A protective study of UV protection materials against UV exposure in Antarctica

Faculty of Human Sciences, Shimane University  
Professor Tetsuya Takahashi, Ph.D.

Due to the destruction of the environment, the ozone halls in the Antarctica have developed in the spring, creating fears of short-wave ultraviolet light irradiating the ground surface. In this study, various UV-cut materials pasted onto collagen artificial skin were exposed in the Antarctica to study the protective effect of the UV-cut materials on the collagen artificial skin. In addition, human skin cells are cultured in the Antarctica to examine the effect of UV. These are the first such studies in the world, attracting much attention.

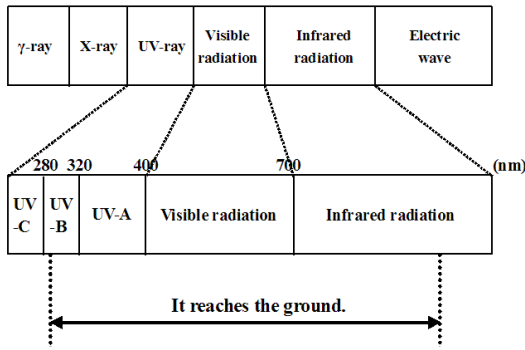
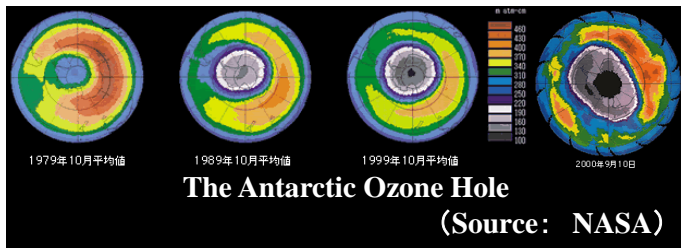


Fig. Solar Spectrum



The author at Syowa Station

Solar Tracking System  
(Concentrated solar energy)



The Antarctic Ozone Hole  
(Source: NASA)



Fig. Sunlight exposure experiment of Takahashi Lab. at Syowa Station, Antarctica



Cultured human skin cells

Incubator for human skin

Fig. Cell culture experiment and its Apparatus



Japanese newspaper article