

## **A Relation between Daily Variation of Be-7 Concentration in Atmosphere and Sunspot numbers**

H. Sakurai (1), Y. Shouji(1), T. Maeda(1), H. Sekiguchi (1), S. Gunji (1),  
F. Tokanai (1)

(1) Department of Physics, Yamagata University, Japan  
[sakurai@sci.kj.yamagata-u.ac.jp](mailto:sakurai@sci.kj.yamagata-u.ac.jp) /Fax+81-23-628-4567

Daily concentration of Be-7 in air at a ground level has been observing from using high-volume air sampler .for one year at 2000 when the solar activity will be maximum. Although the anti-correlation between the production of cosmogenic nuclides and sunspots numbers in the 11-yaer solar cycle is evident, main factor of daily variation of Be-7 concentration in atmosphere is not clear. The power spectral analysis for 365 days data shows that the periodicity 18 days and 28 days for Be-7, and 21 days and 26 days for sunspots number, respectively. Since the periodicity of 26 days for sunspots indicates the rotation of the sun, the periodicity of 28 days for Be-7 implies a relationship between the concentration of Be-7 in atmosphere and the sunspots number.

We will describe the relationship between Be -7 concentration and sunspots number considering the weather conditions in the ground in detail.