

A Change in Concentration of Charged Aerosol in the air and Earthquake Occurrence

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A lot of anomalous precursory testimonies is reported, when Kobe Earthquake occurred (1995.1.17). Anomalous density changes of atmospheric charged aerosol were also observed in Kobe (Sathutani, 1996). The relation between anomalous variation of radon concentration and earthquake were well known.

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It paid attention to this thing in this laboratory. Since the April of 1998, we have installed an ion Counter of Model KSI-3500. About charged aerosol concentration and particle ratio is introduced to the public at present on the web of PISCO. As a concentration graph contains many weather noise, reliability is low. Therefore particle ratio data paid attention in this year.

KSI-3500 can measure the charged aerosol that is compounded small ions cluster and aerosol. It's measured by 3 channel. And it's separated by size of the particle. The charged aerosol changes as a result even if it is based on the prefecture earthquake except for the weather phenomenon. How to distinguish was not about these two phenomena in the charged aerosol. A distinct difference appeared in the particle ratio graph on the web appeared. The large ion ratio have been high in ion particle ratio for few days. For example, a middle ion ratio is high in the rain. Others, when plus a large ion ratio is high, an earthquake occurs easily. After plus a large ion ratio is low, an earthquake doesn't occur easily.

There are data used this time only with the past two years. Relevance with the ratio isn't definite about within 100km the earthquake which the number of the annual occurrences is small in. It continues from now on, too, and it is necessary to analyze data. You must clear it by examining the element of a charged aerosol to measure that the reason why a change by the season appears.