

西部太平洋における蛍光性エアロゾル粒子の測定 Measurement of fluorescent particles over the western Pacific

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Recently, fluorescence from suspended single particles has been employed to identify and classify the certain types of organic/biological particles. Bioaerosols, including bacteria and other particles derived from living organisms, may explain large unidentified fraction of organic aerosols and play important roles in the cloud formation. In this study, we employed a single-particle fluorescence sensor, WIBS-4, to understand the abundance of bioaerosol particles over the western Pacific.

We conducted ambient air measurements over the western Pacific at July 2011, 2012, and 2013 by R/V MIRAI cruise. In order to avoid analyzing the particles emitted by ship's funnel, we eliminated the data by the wind direction. In the cruises, the bioaerosol particles based on fluorescent pattern were in the range of 0.1-2 particles/cc over the western Pacific. In the presentation, we will compare ocean surface chlorophyll data with detected fluorescence particles.

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