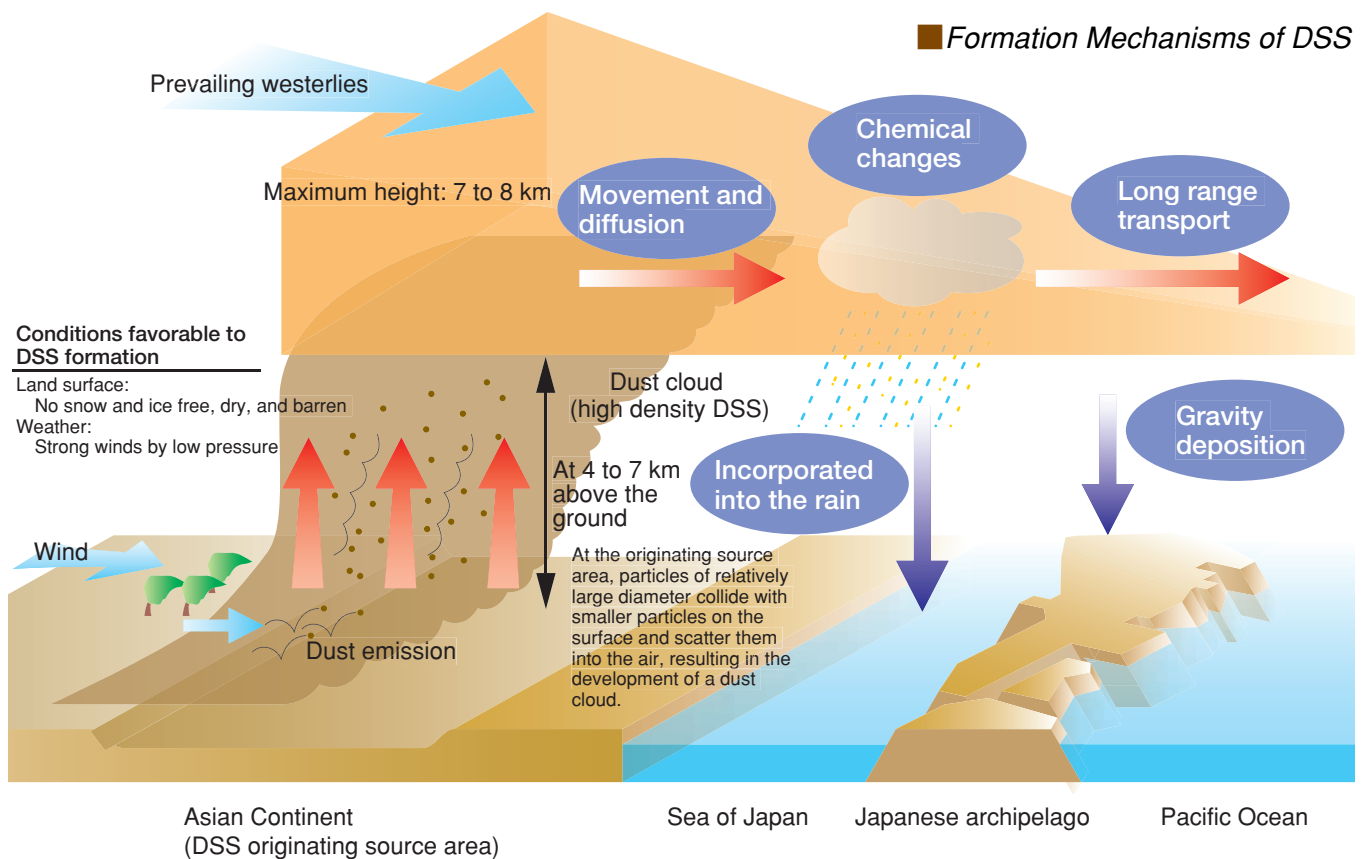


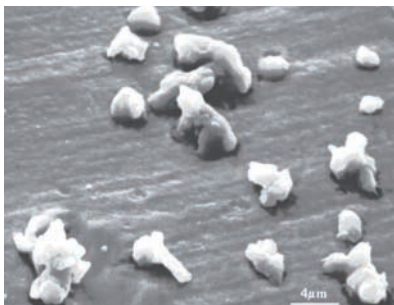
Formation and Transport Mechanisms of DSS

The mechanisms of DSS formation, growth, and movement to Japan, and the physical and chemical changes during transport, etc., are governed by the complicated interaction of factors such as weather and geological features.

It has been shown by satellite imagery and model calculations that DSS originating in Northeast Asia are carried by prevailing westerlies across the North Pacific Ocean and reach the North American continent.



Characteristics of DSS Airborne Particulate



An electron-microscope image of DSS particulate

DSS particulate is principally composed of rock-forming minerals such as quartz and feldspar, and clay minerals such as mica, kaolinite, and chlorite. The range of particle diameters reaching Japan peaks at approximately 4 microns. Analysis of DSS particulate showed the presence of ammonium ions, sulfate ions, and nitrate ions etc., which are not considered to originate from the soil. The possibility has been suggested that DSS particulate adsorbs anthropogenic atmospheric pollutants during transport.