

## Al-Fe-Mg-Sc system of Chinese loess of Langzhou and loessic sediment of Kashi and Hotan.

# Mitsuo Shimada [1], Yugo Ono [2], Kazuhiro Toyoda [3]

[1] Material Sci., GSEES, Hokkaido Univ., [2] Geosci., GSEES, Hokkaido Univ., [3] Environ. Earth Sci., Hokkaido Univ.

To examine the possibility to estimate the source area of Chinese loess, Al-Fe-Mg-Sc systems for loess of Langzhou and loess sediment of Kashi and Hotan are analyzed. In eight grain size fraction, the smaller in grain size, the larger in elemental contents and Al normalized ratios, but these ratios are smaller than Zhang et al.(1996). Elemental ratios in Fe-Mg-Sc system, excluded in Al, are almost constant in each grain size fraction, so bulk chemistry can be used to estimate the origin. However, samples of Kashi and Hotan have different values of these ratios with aerosols of Taklamakan region (previously reported), and almost the same with loess of Langzhou. In addition, loess of Langzhou have almost constant ratios and do not show periodic change of its composition.