F118-P008 **Room: Poster Session Hall** **Time: May 21**

Origin and seasonal variations of atmospheric methane over western Siberian forest

Fumiko Nakagawa[1]; Hitomi Sato[1]; Daisuke Komatsu[2]; # Urumu Tsunogai[1]; Yoshiyuki Takahashi[3]; Toshinobu Machida[3]

[1] Earth & Planetary Sci., Hokkaido Univ.; [2] Earth and Planetary Sci., Hokkaido Univ.; [3] NIES

The carbon budget in Siberia occupy significant portion of global carbon budget. Besides, the budget must be highly variable due to global climate changes. To quantify the magnitude of the variation, vertical distributions of both CO_2 and CH_4 have been monitored at least once every month for more than 10 years in western Siberia forest area, using both on land monitoring stations and air crafts. The mixing ratios of CH_4 on surface (500 m) exhibit 45 - 105 ppbv higher mixing ratios than that those at free troposphere (7,000 m), suggesting that the area must be source of CH_4.In this study, we have determined the stable carbon isotopic compositions of CH_4 to clarify the sources of CH_4 in western Siberia forest, as well as their seasonal variations. This study have been supported by Drs. Mikhail Arshinov and Boris Belan in Inst. Atmos. Optics SB RAS.