포스터발표

5.10 (목)–5.11 (금) | 메이플동 에메랄드

연4-P05 **최혜빈*** · **이동헌** · **원은지** · **Morgane Derrien** · **허 진** · **신경훈**
토양 및 조류기원 유기물 혼합 실험을 통한 알칸(alkane) 및 알칸산(alkanoic acid)의 탄소 안정동위원소비($\delta^{13}C$) 변화 연구

연4-P06 **Dong-Hun Lee*** · **Jung-Hyun Kim** · **Yung Mi Lee** · **Young Keun Jin** · **Young-Gyun Kim** · **Kyung-Hoon Shin**
Biogeochemical and microbiological evidence for methane-related archaeal communities at active submarine mud volcanoes on the Canadian Beaufort Sea slope

연합세션5: 자연재해

연5-P01 **이종재*** · **남기표** · **김철희**
우리나라의 태풍과 폭염에 대한 취약성 평가

연합세션6: 낙동강 하구 연안환경, 고해수면 변동

연6-P01 **강정원*** · **장석** · **우한준** · **신동혁** · **강가은** · **최재웅**
낙동강 하구역의 퇴적역사

연6-P02 **정의영*** · **박준용** · **방설희** · **정의용**
낙동강 하구역 울타리섬(도요등)의 지형변화 연구

연6-P03 **방설희*** · **정의영** · **박준용**
낙동강 하구 울타리섬 표층퇴적물의 시 · 공간적 분포

Biogeochemical and microbiological evidence for methane-related archaeal communities at active submarine mud volcanoes on the Canadian Beaufort Sea slope

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In this study, we report lipid biomarker patterns and phylogenetic identities of key microbes mediating anaerobic oxidation of methane (AOM) communities in active mud volcanos (MVs) on the continental slope of the Canadian Beaufort Sea. The enriched $\delta^{13}C$ values of total organic carbon (TOC) as well as lipid biomarkers such as archaeol and biphytanes (BPs) relative to $\delta^{13}C_{CH4}$ values suggested that the contribution of AOM-related biomass to sedimentary TOC was in general negligible in the Beaufort Sea MVs investigated. However, the $\delta^{13}C$ values of *sn*-2- and *sn*-3-hydroxyarchaeol were more negative than CH_4, indicating the presence of AOM communities, albeit in a small amount. The ratio of *sn*-2-hydroxyarchaeol to archaeol and the 16S rRNA results indeed indicated that archaea of the ANME-2c and ANME-3 clades were involved in AOM. Accordingly, it appears that CH_4 is, to a limited extent, being oxidized in the Beaufort Sea MVs investigated. In near future, further studies are needed to investigate the diversity and distribution of AOM communities and to characterize their habitats in the uppermost surface sediments of Beaufort Sea MV systems.