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[EJ] Evening Poster | M (Multidisciplinary and Interdisciplinary) | M-IS Intersection

## [M-IS08]Drilling Earth Science

convener:Yasuhiro Yamada(Japan Agency for Marine-Earth Science and Technology (JAMSTEC), R&D Center for Ocean Drilling Science (ODS)), Junichiro Kuroda(Department of Ocean Floor Geoscience, Atmosphere and Ocean Research Institute, the University of Tokyo), Kohtaro Ujiie(筑波大学生命環境系, 共同), Yusuke Suganuma(National institute of Polar Research)

Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

"Earth Drilling Science" session aims to exchange the latest information and scientific achievements in Ocean/Continental drilling projects and to promote the interdisciplinary science. The session covers a wide range of drilling sciences, earth dynamics, environments, and the drilling-related technologies. The overview of the recent scientific drillings as well as future projects of any types of scientific drilling will be reported.

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## [MIS08-P03]Development of a portable percussion piston corer

\*Yusuke Suganuma<sup>1,2</sup>, Kota Katsuki<sup>3</sup>, Heitaro Kaneda<sup>4</sup>, Moto Kawamata<sup>2</sup>, Yukiko Tanabe<sup>1,2</sup>, Daisuke Shibata<sup>5</sup> (1.National institute of Polar Research, 2.Department of Polar Science, The Graduate University for Advanced Studies (SOKENDAI), 3.Estuary Research Center, Shimane University, 4.Department of Earth Sciences, Chiba University, 5.Shimoda Marine Research Center, Tsukuda University)

Keywords:Portable percussion piston corer, Lake sediments, Shallow marine sediment

We developed a new portable percussion piston corer for lake and shallow marine sediment coring from a frozen ice surface. This corer is less than 100 kg in total and can be separated into individual components. Therefore, it can be carried to extreme environments such as Antarctica and high mountains, where an application of mechanical drilling is nearly impossible. The percussion coring enables us to obtain relatively coarse and hard sediments down to the basement. The main body of the corer is composed of a transparent polycarbonate pipe, which makes it easy to check length and facies of the cored sediments. The polycarbonate pipe is also suitable for preservation of the sediment and easy to replace for subsequent coring. Overall, this new corer has advantages for lake/marine sediment coring in extreme (cold) environments, and may be applied to a wide range of geoscience fields.