Abbreviation Sample type

Description CORE sea ice core SW sea water SNOW snow

**ICES** ice samples with comments

AIR air samples and air sample measurement

FF flost flower

Variables

TEMP temperature SAL salinity CHL chlorophyll A IKA

DMS dimethylsulfide, dimethylsulfoniopropionate, dimethylsulfoxide

POC particulate organic carbon

NUT nutrients

halogenated organic carbon compounds HAL

DEN density

dissolved organic carbon DOC

MET methane NIT nitrogen isotopes

GAS Dissolved Inorganic Carbon, Total Alkalinity, N2O, Bromoform, CH4

HG mercury compounds **EPS** exopolymeric substances

BIO bacterial production, bacterial cell and virus-like particle counts, bacterial community DNA analysis,

eucaryotic community DNA analysis, photosynthetic efficiency -measurements, chlorophyll a, ice

VIR isolation of virus-host systems (bacteria and their viruses)

**SPEC** sea ice algae and bacteria

FΕ Total dissolvable iron, dissovable iron, particulate iron, organic ligands for iron

experiment: temperature, salinity, texture, particulate organic carbon, dissolved organic carbon, nutrients, exopolymeric substances, species, total dissovable iron, dissolvable iron, particulate iron, EXP

organic ligands for iron

CO2 carbon dioxide CHBr3 bromoform CaC calcium carbonate FOR foraminifera

**DMSPEXP** incubation experiments for microbial DMSP degradation

Device

sea ice corer sea ice corer

peristaltic pump persitaltic pump for water sampling

bottle sampel bottle submerged in brine accumulated in brine hole

Ti coated saw Ti coated saw ice axe ice axe

hand sampling using clean gloves hand

Niskin bottle Polyvinylidene Fluoride (PVDF) water sampler Bromoform metal chamber

Metal chamber for bromoform developed by Hokkaido University, Japan. CO2 chamber

CO2 chamber for flux measurements, different models

plastic shovel plastic shovel scoop scoop

Responsible person

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