Shipborne observations reveal contrasting Arctic marine, Arctic terrestrial and Pacific marine aerosol properties

Jiyeon Park[1], Manuel Dall'Osto[2], Kihong Park[3], Yeontae Gim[1], Hyo Jin Kang[1,4], Eunho Jang[1,4], Ki-Tae Park[1], Minsu Park[5], Seong Soo Yum[5], Jinyoung Jung[1], Bang Yong Lee[1], and Young Jun Yoon[1,*]

[1]Korea Polar Research Institute, 26 Songdomirae-ro, Yeonsu-gu, Incheon 21990, South Korea
[2]Institut de Ciències del Mar, CSIC, Pg. Marítim de la Barceloneta 37-49, 08003, Barcelona, Catalonia, Spain
[3]Gwangju Institute of Science and Technology (GIST), 123 Cheomdangwagi-ro, Buk-gu, Gwangju 61005, Republic of Korea
[4]University of Science and Technology (UST), 217 Gajeong-ro, Yuseong-gu, Daejeon, Republic of Korea
[5]Department of Atmospheric Sciences, Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea
[*]*Correspondence to*: Y.J. Yoon (yjyoon@kopri.re.kr)

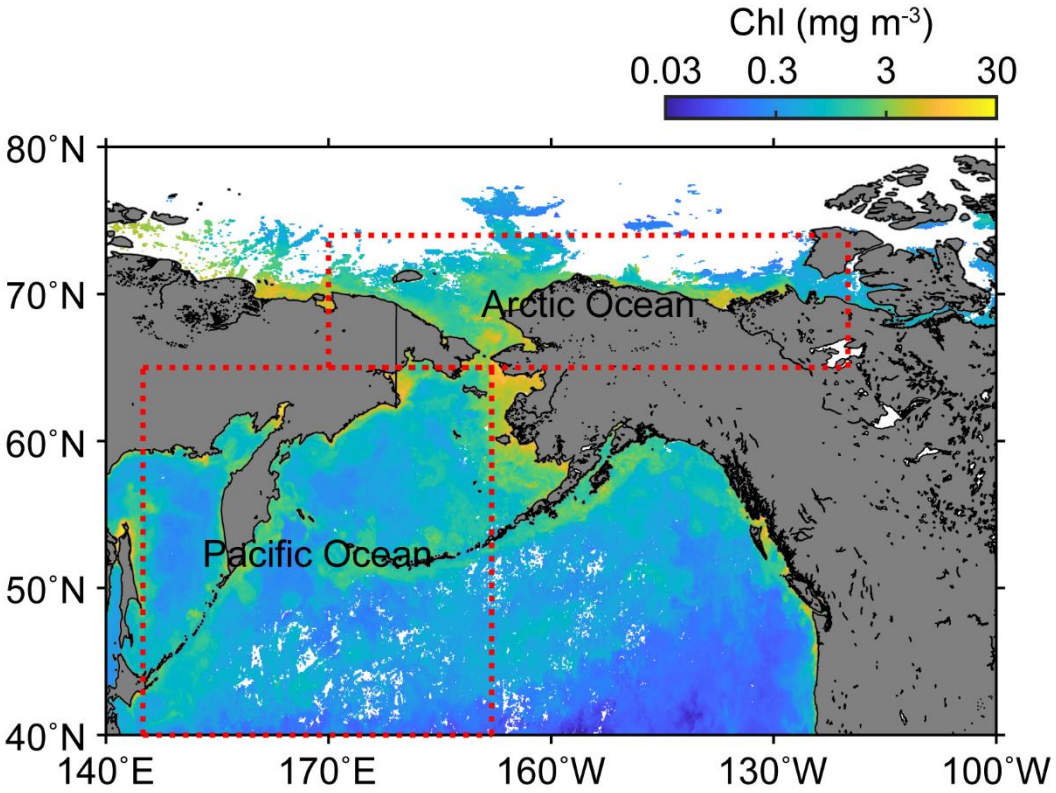

Figure S1. The monthly mean Chlorophyll-*a* concentration in September 2017 (an index of phytoplankton biomass over the ocean) obtained from Satellite data (Aqua Moderate Resolution Imaging Spectroradiometer). The dotted red lines indicate the domains for Arctic Ocean (65°N−74°N and 170°E−120°W) and Pacific Ocean (40°N−65°N and 145°E−168°W).

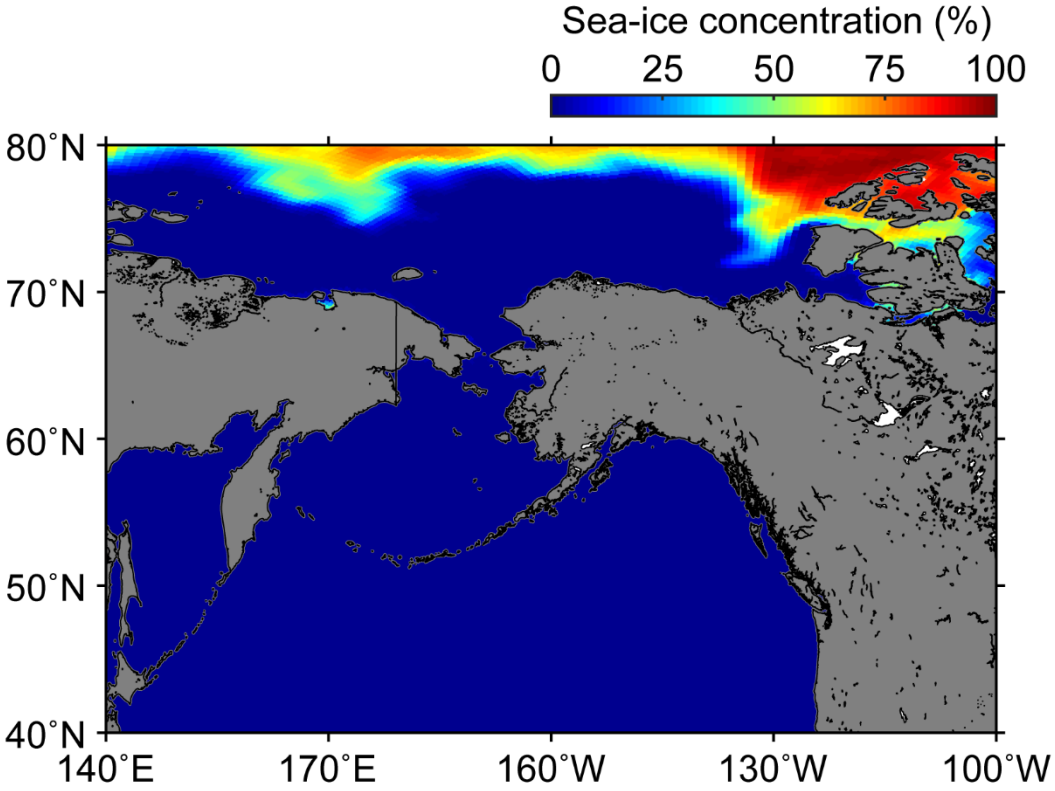

Figure S2. The monthly mean sea-ice concentration in September 2017 obtained from the Sea Ice Index (SII) provided by the National Snow and Ice Data Center, (https://doi.org/10.7265/N5K072F8).

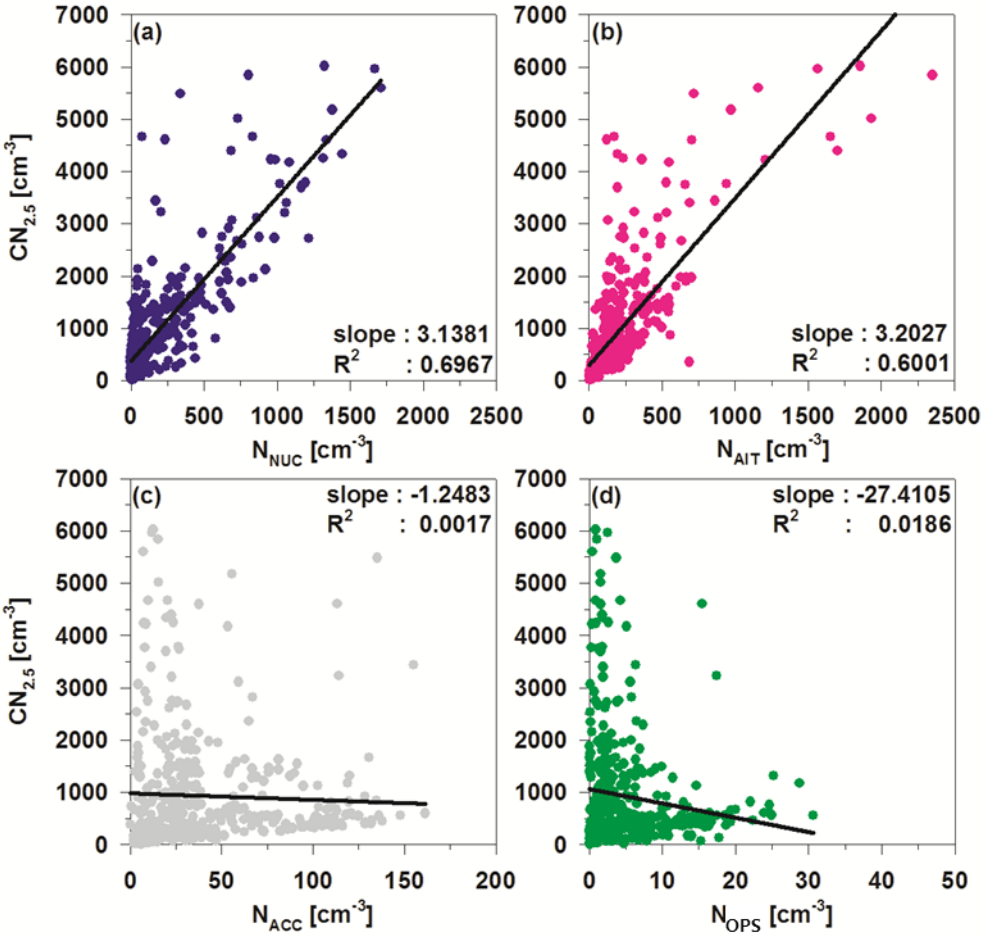

Figure S3. Correlations between (a) $CN_{2.5}$ and N_{NUC}, (b) $CN_{2.5}$ and N_{AIT},, (c) $CN_{2.5}$ and N_{ACC}, and (d) $CN_{2.5}$ and N_{OPS} during the entire sampling periods