**Figure S1.** Time series of 1-h and 24-h averaged $M_{BC}$ (COSMOS) and $b_{abs}$ (Aethalometer; $\lambda = 590$ nm) from January 2018 to December 2019 at Alert.
Figure S2. Time series of 1-h and 24-h averaged $M_{BC}$ (COSMOS) and $b_{abs}$ (PSAP; $\lambda = 550$ nm) from April 2012 to September 2016 at Ny-Ålesund.
Figure S3. Time series of 1-h and 24-h averaged $M_{BC}$ (COSMOS) and $b_{abs}$ (Aethalometer; $\lambda = 590$ nm) from April 2012 to August 2019 at Ny-Ålesund.
Figure S4. Time series of 1-h and 24-h averaged $M_{BC}$ (COSMOS) and $b_{abs}$ (PSAP/CLAP; $\lambda = 550$ nm) from August 2012 to December 2019 at Barrow.
Figure S5. Time series of 1-h and 24-h averaged $M_{\text{BC}}$ (COSMOS) and $b_{\text{abs}}$ (MAAP; $\lambda = 637$ nm) from July 2019 to July 2020 at Pallas.
Figure S6. Time series of 1-h and 24-h averaged $M_{BC}$ (COSMOS) and $b_{abs}$ (MAAP; $\lambda = 639$ nm) from April 2009 to May 2019 at Fukue.