

Seminar

Evaluation of black carbon aerosols measurements in the Arctic

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Black carbon (BC) aerosols are dark-colored carbonaceous particles (soot particles), which are generated during the combustion processes of fossil fuel and biomass. BC transported from mid- and high-latitudes to the Arctic region strongly absorbs the solar radiation and may accelerate the warming of the Arctic. However, estimates by climate models of the effects of BC on Arctic warming are still highly uncertain, in part because measurements of the spatio-temporal distribution of the mass concentration of BC (M_{BC}) in the atmosphere are limited and not sufficiently accurate. For this purpose, we conducted laboratory and field experiments to assess the accuracy of BC measurement at Barrow and Ny-Ålesund in the Arctic. The accuracy of M_{BC} has been critically assessed by this study, and we anticipate that the derived M_{BC} will continue to be a reliable reference value for M_{BC} at Barrow and Ny-Ålesund in the Arctic.

Tuesday, Oct 3rd 2017

04:00 PM (Tea/Coffee at 03:45 PM)

Auditorium, TIFR-H (FReT-B)