

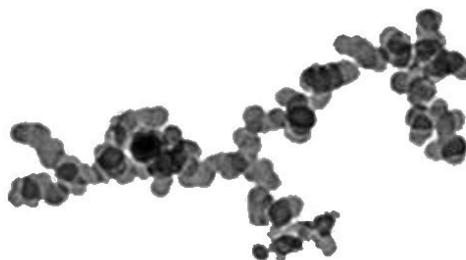
14 set 2015
ore 10:00



Consiglio Nazionale delle Ricerche
Istituto per l'Energetica e le Interfasi
U.O.S. di Milano

SEMINARIO

IMPROVING THE MEASUREMENT SCIENCE OF BLACK CARBON



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Black Carbon (BC) is well known for its adverse health effects and has been identified as the second most significant positive climate forcing agent next to carbon dioxide; however, significant uncertainty budgets are assigned to its climate forcing potential. A large contributor to the uncertainty is the accuracy of emission factors used in climate models which are influenced by the accuracy of BC mass concentration measurements at emission sources. Quantitative BC measurements are intrinsically challenging because BC is not completely distinct in its physical, chemical, and optical nature and is typically co-emitted with semi-volatile carbonaceous particles. Since a variety of instruments are used for source measurements with different operating principles and calibration methods it is likely that this will lead to differences in the responsivity of the instruments to BC-containing aerosols and sensitivity of the responsivity to different sources. Understanding and mitigating instrument differences and quantifying measurement uncertainty represent the key activities of the Black Carbon Metrology (BCM) group. BCM is part of the National Research Council of Canada's national metrology institute: Measurement Science and Standards (MSS). Dr. Kevin Thomson is the group leader of BCM and also the program leader for MSS's Measurement Science for Emerging Technology program which includes research activities in Bio, Nano, and BC metrology. In this talk, Dr. Thomson will present the research activities of the BCM group.

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Informazioni

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