

# Seminar Series 2016 - 2017

Southern Ontario Centre for Atmospheric Aerosol Research  
University of Toronto

## PM2.5 components over China and their changes

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The magnitude and spatial pattern of PM2.5 mass and chemical speciation varied noticeably over geographic regions in China. While noticeable progress in clean air campaign has been achieved in recent years, PM2.5 was still at high levels. North region suffered the most severe PM2.5 pollution, followed by Northwest and Central China. Sulfate, nitrate and ammonium together (SNA, usually referred to secondary inorganic aerosol) constituted one-third of PM2.5 mass on average, exhibiting a clear decreasing gradient from North and East to the South and Southwest China,. It was evident that nitrate and ammonium concentrations, and the mass ratio of NO<sub>3</sub><sup>-</sup> to SO<sub>4</sub><sup>2-</sup> increased constantly during recent years. Organic material was a relatively constant and significant contributor to PM2.5 mass across China, accounting for 15–51%. Due to transported desert dust, local soil dust and construction activities, high content of crustal material occurred mainly in Northwest China. The fraction of EC in PM2.5 mass ranged from 2% to 12% with an average value of 6%. A clear decline trend for EC mass was found in several mega cities, such as Beijing, Chongqing, and Shanghai.

**Monday, October 31 2016, 2 – 3 PM**

**Wallberg Building, 200 College Street, Room 215**



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