## **Appendices**

**Appendix A**: About the images of particulate matter in backscattered electron (SEM) with corresponding EDS spectra of selected metal bearing particles.

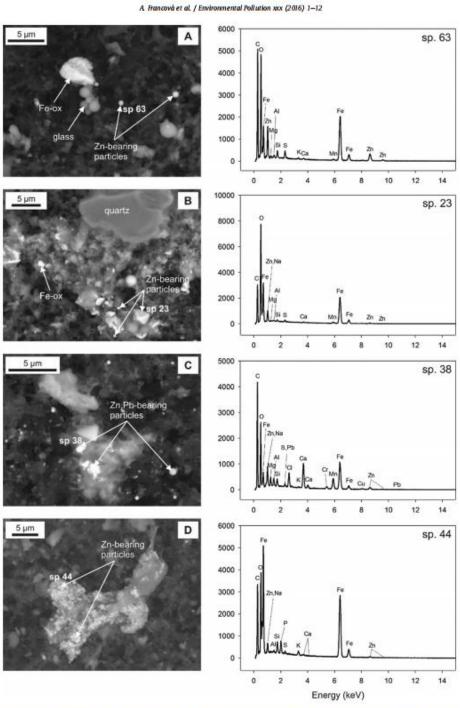


Fig. 5. Images of PM<sub>10</sub> in backscattered electrons (SEM) with corresponding EDS spectra of selected metal-bearing particles. (A) Site 12 summer sample, 5-µm iron oxide-partinext to aluminium-silicate glassy globules and iron oxide-based droplets (<1 µm), containing up to 14 wit Zn; (B) site 7 winter sample, Feoxide-droplets of various shapes and siz and Zn-bearing phases (up to 3 wif Zn) that are associated with silicates; (C) site 13 winter sample, Feoxide droplets and tiny metal-bearing spheres that are spread within silicate/carbon-rich matrix; (D) site 13 summer sample, Zn-bearing Fe oxide-based clusters that are embedded in a silicate matrix.

Appendix B.

Isotopic composition in urban dust and rural surface soil sample and their possible sources in China.

<sup>204</sup>Pb/<sup>206</sup>Pb vs <sup>207</sup>Pb/<sup>206</sup>Pb and <sup>208</sup>Pb/<sup>206</sup>Pb vs <sup>207</sup>Pb/<sup>206</sup>Pb.

**BJC** dust Vehicle exhaust (unleaded) 0.058 MYT dust Aerosols in Beijing A MYC soil Subsample-a Subsample-b 0.057 Sediment Background Coal erosols in Beijing Industry Loess ndustry Coal 0.055 Vehicle exhaust (unleaded) Loess Vehicle exhaust (leaded) Chinese coal line 2.200 Chinese lead ore line Lead growth curve 2.175 42.150 42.2.150 2.125 Northern Chinese Pl osols in Beijing Southern Chinese 2.100 ehicle exhaust (unleaded) 2.075 0.840.85 0.86 0.88 0.89 0.90 0.950.96

Appendix C

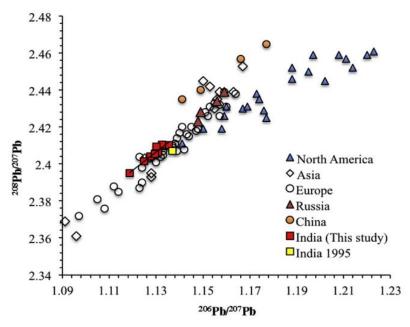
Picture of the key equipment employed in isotope analysis: TIMS and ICP-MS. (Courtesy: CZU Prague).



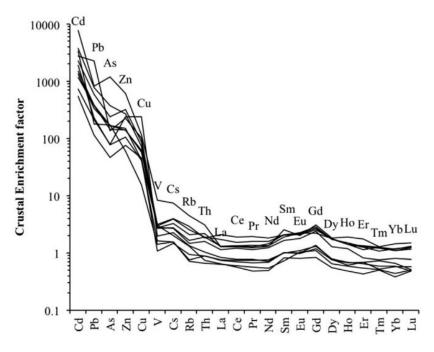


## Appendix D

## Pb isotope and enrichment plots



. Triple isotope plot for the Pb in Kanpur (India) and the aerosols collected from northern hemisphere (Bollhofer and Rosman, 2001)



Natural vs anthropogenic sources. The enrichment factors (EF) were calculated with respect to natural sources represented by the Al concentration of upper continental crust. Cd, Pb, As, Zn and Cu are dominated by anthropogenic sources (McLennan, 2001).