Single-particle characterization of aerosols collected at a remote site in the Amazonian rainforest and an urban site in Manaus, Brazil

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Figure S1. Typical SEM images of aerosol particles for stage 1 (PM_{0.25-0.5}), stage 2 (PM_{0.5-1.0}), and stage 3 (PM_{1.0-2.0}) samples of SA1 collected on Apr. 1, 2012 at the ATTO site. For convenience, ammonium sulfate, secondary organic aerosol, aluminosilicates, and reacted sea-salt are denoted as "AS", "SOA", "AlSi" and "rss", respectively.

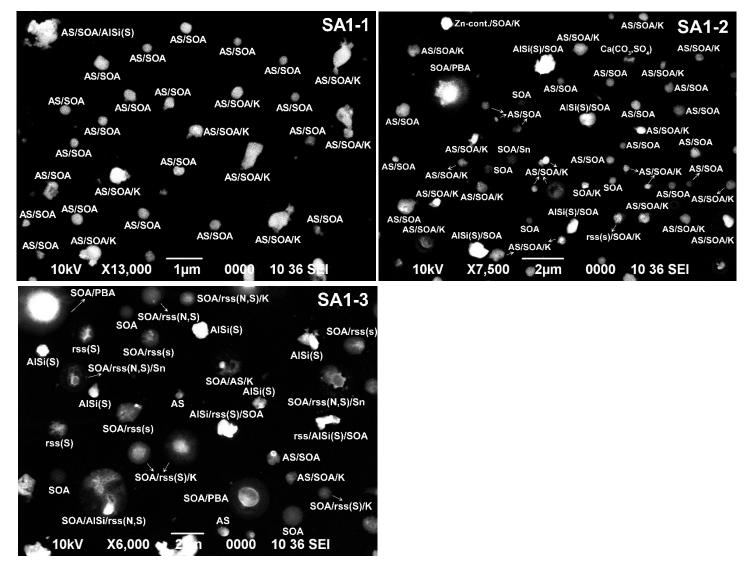


Figure S2. Typical SEM images of aerosol particles for stage 1 ($PM_{0.25-0.5}$), stage 2 ($PM_{0.5-1.0}$), and stage 3 ($PM_{1.0-2.0}$) samples of SA2 collected on Apr. 16, 2012 at the ATTO site.

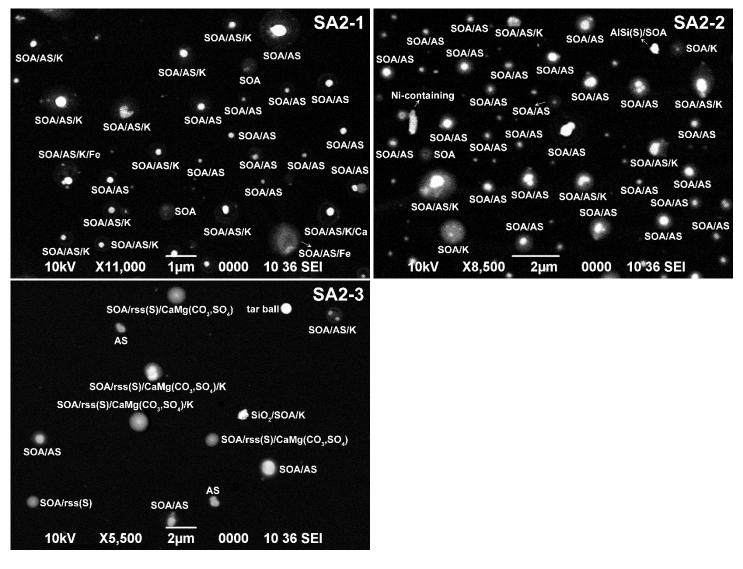


Figure S3. Typical SEM images of aerosol particles for stage 1 (PM_{0.25-0.5}), stage 2 (PM_{0.5-1.0}), and stage 3 (PM_{1.0-2.0}) samples of SA3 collected on Apr. 17, 2012 at the ATTO site.

SA3-2 SOA/AS SA3-1 SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS/K SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS .S SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS 10 SOA/AS SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS SOA/AS/K SOA/AS/K SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS SOA/AS/K SOA/AS/K SOA/AS 1 SOA/AS SOA/AS/K SOA/AS SOA/AS SOA/AS SOA/AS 07 32 SEI 0000 10kV 10kV X16,000 X5,500 2µm 0000 10 45 SEI 1µm SA3-3 rss(S)/K CaMg(CO₃,SO₄,NO₃) AS/SOA rss(s)/SOA/K rss(S)/SOA rss(s)/SOA/K rss(s)/SOA AS/SOA AS/SOA AS/SOA SOA/AS/K 🖤 AS/SOA AS rss(s)/SOA/K AS rss(S)/K rss(s) CaMg(CO3,SO4) rss(S)/K SOA/rss(S)/K AISi(S)/CaMg(CO3,SO4) SOA/rss(S)/K •AS AS SOA/rss(S) SOA/PBA 10kV X3,700 5µm 0000 10 37 SEI

Figure S4. Typical SEM images of aerosol particles for stage 1 ($PM_{0.25-0.5}$), stage 2 ($PM_{0.5-1.0}$), stage 3 ($PM_{1.0-2.0}$) and stage 4 ($PM_{2.0-4.0}$) samples of SA4 collected on Apr. 18, 2012 at the ATTO site.

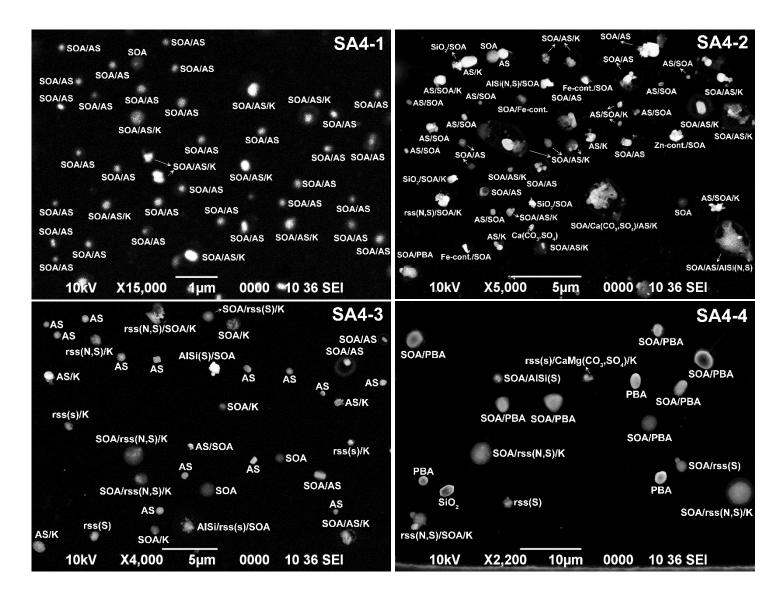


Figure S5. Typical SEM images of aerosol particles for stage 1 ($PM_{0.25-0.5}$), stage 2 ($PM_{0.5-1.0}$), and stage 3 ($PM_{1.0-2.0}$) samples of SM1 collected on May. 1, 2012 at the Manaus site.

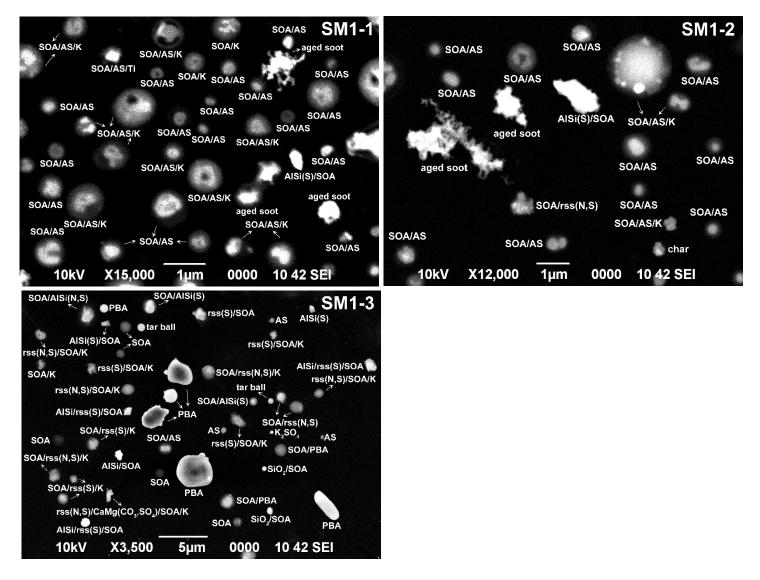


Figure S6. Typical SEM images of aerosol particles for stage 1 (PM_{0.25-0.5}), stage 2 (PM_{0.5-1.0}), and stage 3 (PM_{1.0-2.0}) samples of SM2 collected on May. 2, 2012 at the Manaus site.

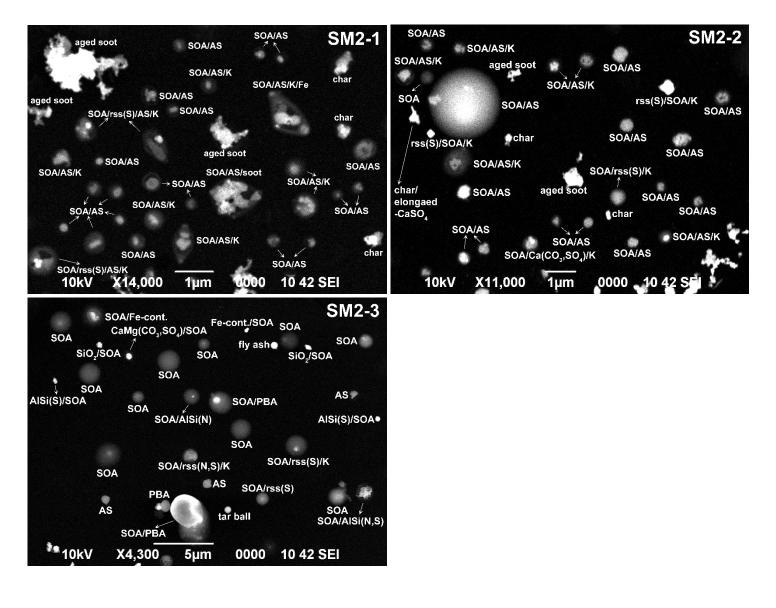


Figure S7. Typical SEM images of aerosol particles for the stage 1 (PM_{0.25-0.5}), stage 2 (PM_{0.5-1.0}), and stage 3 (PM_{1.0-2.0}) samples of SM3 collected on May. 3, 2012 at the Manaus site.

