**Supplementary Material:**

Figure 1: Factor NMF-V1 for particle volume size data for the investigation period 2004 – 2008 in Beijing.

Figure 2: Factor NMF-V2 for particle volume size data for the investigation period 2004 – 2008 in Beijing.

Figure 3: Factor NMF-V3 for particle volume size data for the investigation period 2004 – 2008 in Beijing.

Figure 4: Factor NMF-V4 for particle volume size data for the investigation period 2004 – 2008 in Beijing.

Figure 5: Factor NMF-V5 for particle volume size data for the investigation period 2004 – 2008 in Beijing.