Supporting Materials for

Change of iron species and iron solubility in Asian dust during the long-range transport from western China to Japan

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Summary of the number in Supplementary Information
• the number of pages: 4 (including this sheet)
• the number of figures: 2
• the number of table: 1
Table S1. Sampling sites and periods.

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Latitude (N), Longitude (E)</th>
<th>Height (meters above S. L.)</th>
<th>Sampling Period (low-volume)</th>
<th>Sampling Period (high-volume)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aksu</td>
<td>The Aksu Water Budget Experiment Station, Chinese Academy of Science</td>
<td>40°37′, 80°44′</td>
<td>7</td>
<td>15–21 March, 2002</td>
<td>15–18 March, 2002</td>
</tr>
<tr>
<td>Qingdao</td>
<td>Ocean University of China</td>
<td>36°07′, 120°33′</td>
<td>80</td>
<td>20–23 March, 2002</td>
<td></td>
</tr>
</tbody>
</table>
Figure S1. (a) Normalized Fe K-edge XANES and (b) normalized $k^3$-weighted EXAFS spectra for various reference materials. 1 hematite ($\alpha$-Fe$_2$O$_3$); 2 ferrihydrite; 3 goethite ($\alpha$-FeOOH); 4 Fe(III) oxalate; 5 Fe(III) citrate; 6 Fe(III) sulfate; 7 smectite (SWy-2); 8 illite (IMt-1); 9 magnetite (Fe$_3$O$_4$); 10 Fe (II) oxide; 11 chlorite (CCa-2); 12 Fe(II) sulfide; 13 fayalite (Fe$_2$SiO$_4$); 14 siderite (FeCO$_3$); 15 pyrrhotite (Fe$_7$S$_8$); 16 pyrite (FeS$_2$). SWy-2, IMt-1, and CCa-2 were obtained from the Source Clays Repository of the Clay Mineral Society.
Figure S2. SEM image of aerosol particles collected on stage 1 in Tsukuba in the dust period. Small particle of Fe oxide is associated with clay particles.