Interactive comment on “A comprehensive modelling way for assessing real-time mixings of mineral and anthropogenic pollutants in East Asia” by F. Lasserre et al.

Anonymous Referee #2

Received and published: 21 November 2007

General comments:
This is an interesting and comprehensive paper dealing with the complex mixing of anthropogenic and natural pollutants over East Asia. It gives a broader perspective for the characteristics of the surface pollutants. The authors have used various remote sensing and in-situ data as well as a regional atmospheric model to address the mixing of the particles. However, this work seems to contain way too much information in one article, some needs to be eliminated or split into more than one. I have a few comments for the authors might take into consideration.

Specific comments:
1. The authors might need to consider shortening the paper significantly. This can be done by 1) focusing on a specific subject (transport and variability). 2) A large number of the references can be easily omitted. For instance, Uno et al. (2003) can easily be eliminated in page 11906. 3) The authors can only show a couple of important cities. It seems to be irrelevant to explain all the details of the surrounding areas. 4) It contains too much details of the information. For example, page 11904 does not seem to contribute to this paper.

2. This paper needs to be rewritten and rephrased in Standard written English without referential redundancy.

3. This paper does not explain why (or where) the real-time simulation is important compared to the other model simulations or averaging.

4. The authors might need to provide the significance of the order of magnitude comparison used at this work to show if this method is reliable.

5. The figures are visually well represented. However, some figures need to be improved. For instance, the boundaries of zone 1-3 are not clear in Fig. 2. The abscissa is not illegible in Fig. 13.

6. The inclusion of satellite data does not seem to contribute to this paper. And most of the cases, the figures are not included. It can be omitted and only focused on in-situ and AERONET data, which can be useful to the model comparison.