Li et al. identified sources of air pollution in Shanghai and quantified their contributions using the PMF model. This study fits the scope of ACP and has some interesting findings. The paper is well structured, while there are many grammar mistakes that needs to be fixed and many sentences that needs to be revised to improve clarity. I also have questions about its methodologies.

Major comments:

1. The authors would need to explain why the data from the two sites can be combined and how this might lead to uncertainties in the results.
2. It is not clear to me how PM2.5 concentrations for the four clusters of air mass were calculated. Please elaborate.
3. Misuses of words and sentence structures sometimes can make it hard for readers to understand. I just listed below some as examples, but there are more mistakes that need to be fixed.

Minor comments:

"While" and "however" are misused many times: For example, in Line 241

28-29: This sentence is grammatically incorrect.

77: What does "change of sources" mean? Change relative to what?

159: Please split this sentence into two sentences.

195: "accounting for 16.2% to OC" -> "and accounts for 16.2% of OC"

199: 67->0.67, 58->0.58

211: 49->0.49

229: There is a grammar mistake. Please split this sentence into two sentences.

284: I'm not sure how the authors concluded that dust are local emissions, since the dust contribution in Cluster 2 is actually lower than the contribution to Cluster 1. Also the sentence is redundant, and could be revised to "Dust is also an important local emission source of PM2.5."

401 - 402: Please revise the sentence to something like "Air quality in Shanghai area is greatly affected by the air pollution transport from the northern regions. "

Figure 8: The upper panel needs y axis label