

## ***Interactive comment on “Tracer-based investigation of organic aerosols in marine atmospheres from marginal seas of China to the northwest Pacific Ocean” by Tianfeng Guo et al.***

### **Anonymous Referee #2**

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The manuscript reports the spatiotemporal distributions of organic tracers in TSP collected in two marginal seas of China and the NWPO in the spring season and how the East Asian monsoon carries biogenic and anthropogenic aerosols over these oceanic zones. In addition, the authors discussed the origins of SOAI over the SCS and NWPO. Overall, it is an interesting and inspiring work. However, the follow comments need to be addressed before it can be accepted for publication on ACP.

Major comments: 1) Line 152-154: it's better to see if the levo/TSP ratio had been increased. otherwise it's inconclusive to say the contribution of BB aerosols to particle loading over the NWPO may have increased... 2) Line 227: the relative contribution of

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SOA tracers to TSP in category 2 is much larger than that in category 1. Based on the authors' reasoning, is it realistic to infer that marine sources can contribute around 10% of TSP? 3) Line 294: what are the possible major precursors for DHOPA other than BB emission? 4) Line 362: it might be attributable to the different stability of 2-MGA and LEVO?

Minor comments: 1) Line 28: change “discuss” to “discussed” 2) Line 237: there is a redundant “burning” 3) Line 181: change “surprised” to “surprising” 4) Line 350: better to change “regarding” to “given that”

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