

Interactive comment on “Biogeochemical records of past global iron connections” by Z. S. An et al.

Anonymous Referee #2

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This paper examines correlations among Asian dust flux, oceanic export production and atmospheric CO_2 in the past. This paper suggests that one-tenth to one-third of the changes in CO_2 during the LGM could be attributed to variations in the dust supply to the north Pacific. The authors look at proxy data for dust deposition from the Asian plateau to arrive at such an estimate. The paper is interesting and has merit.

In order to improve the paper I suggest that the authors' arguments would be strengthened by presenting more data.

1) For example, in figure 4 the authors present MAROC data in the north Pacific from various cores to show how biological productivity has changed over time. Is it possible to show other proxy data such as $\delta^{15}N$ or Cd/Ca data from a larger number of cores?

2) Similarly, in figure 7 the authors suggest that increased dust deposition in Asia (re-

sults from one core from Lingtai loess deposit) could account for one-tenth to one-third of the CO_2 change between 23 to 18 kyr before present, as seen in the Vostok record. Again, if the authors showed more data from a number of cores in the north Pacific that also indicated increased dust flux, their argument would be more convincing.

Within the paper are a few minor grammatical errors and typos that should be improved. Additionally, the authors have forgotten to refer the reader to figure 3 in the manuscript.

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