

## Attribution of iron in aerosols to combustion sources

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Atmospheric deposition of iron (Fe) to the ocean has been suggested to modulate primary ocean productivity and thus indirectly affect the climate. However, there are large uncertainties regarding the relative importance of different sources of Fe and effects of atmospheric processing on the bioavailability of the delivered Fe. Here, we compared Fe loading and solubility in aerosols from four atmospheric chemistry transport models and a number of field measurements. The model results suggest that combustion aerosols substantially contribute to labile Fe loading at high solubility in aerosols. Thus, assessments of dust-borne Fe fertilization of open oceans should include Fe-containing mineral aerosols affected by combustion sources.

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