

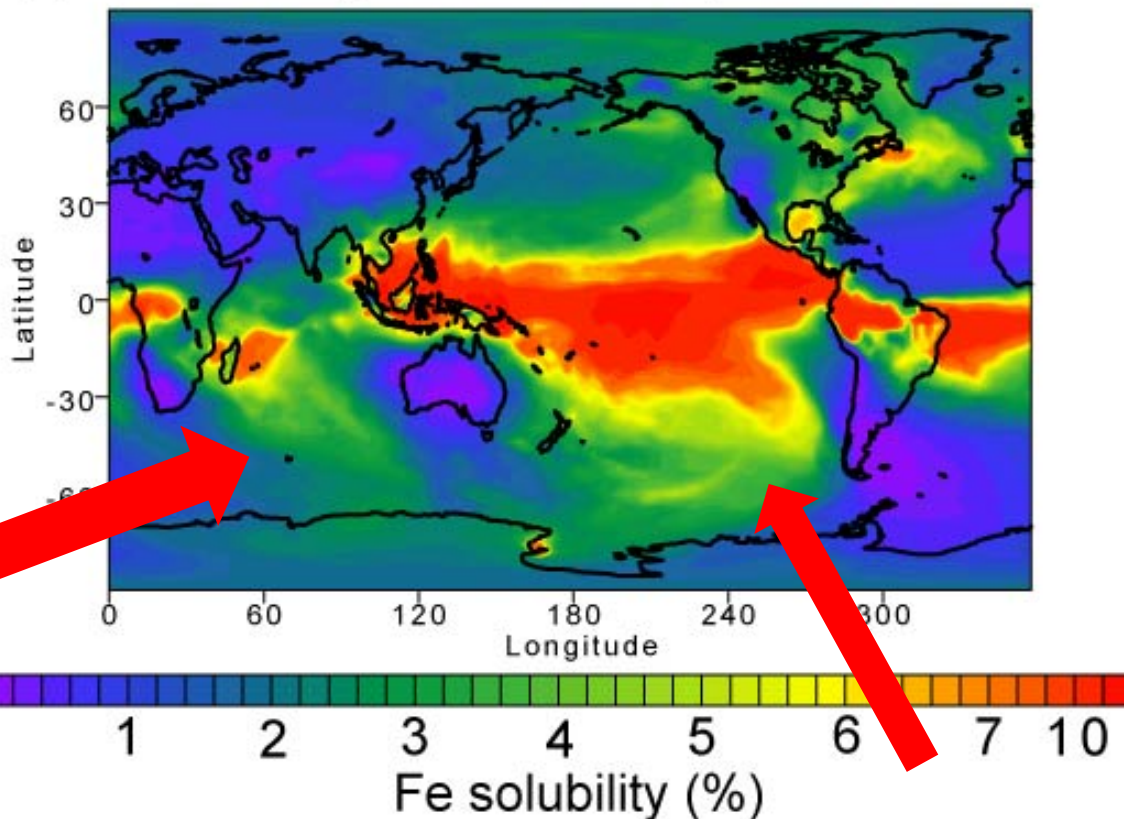


UNIVERSITY OF  
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# Southern Ocean atmospheric Fe supply

Dr. Zongbo Shi

(e) Fe solubility from sensitivity case



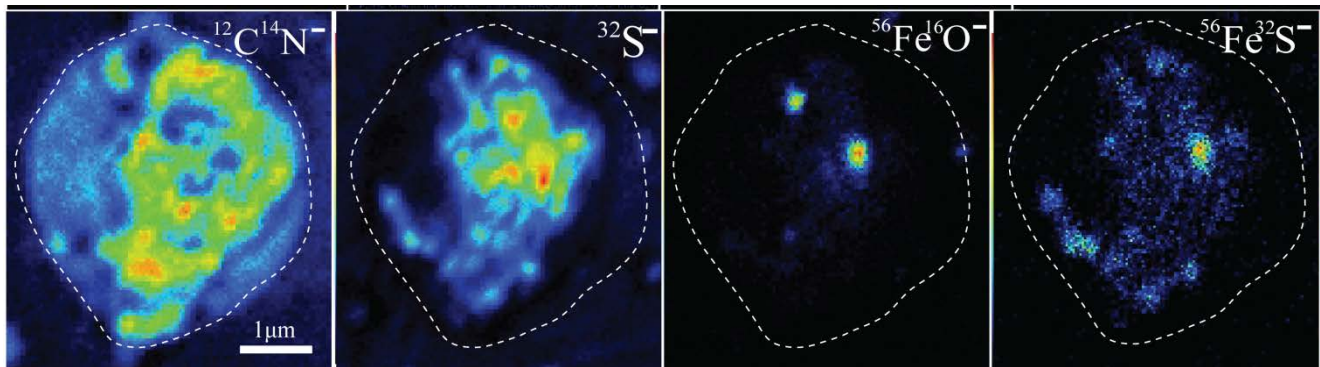
**1%–4% (model) vs.  
82% (measured)**

Ito and Shi, 2016, ACP

**1.2% ± 2.0% (model) vs. 2.1% in aerosols  
3.6% (model) vs. 10.4% in rain water**

# Research Gaps

- Unknown iron solubilisation process
- Unknown initial Fe solubility
- No quantitative knowledge on soluble Fe sources



Li et al., 2016, Sci  
Adv, under review

NanoSIMS maps of secondary  
ions in individual aerosol particles