

Interactive comment on “Formation and maintenance of high-nitrate, low pH layers in the Eastern Indian Ocean and the role of nitrogen fixation” by A. M. Waite et al.

Anonymous Referee #1

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Abstract: Line 1. "We investigated...." Line 2. What are interleaving regional water masses? Line 6. Define LODHN in the abstract Pages aren't numbered! In Materials and Methods state when the Primary Cruise took place In next page. You measured "particles" with the transmissometer. Could the transmissometer have measured inorganic as well as organic particles and also CDOM? You are assuming it is only measuring POM, but that may not be a valid assumption. In page describing the early Transit Voyage the location of the Trichodesmium bloom is only vaguely described. I think that a figure showing the area of the bloom as well as where you saw the LODHN layers would be helpful. Figure 1 is pretty tiny. I suggest a larger and clearer figure. In discussion section 4.1, you talk about a "hot spot" for remineralization. Please be more

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specific about what you mean by remineralization.....of what? Section 4.2 Be more specific about what these "particles" are. Could they be inorganic as well as organic?

The manuscript would be a lot better if the authors could be more specific.

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