

Interactive comment on "Mechanisms of microbial carbon sequestration in the ocean – future research directions" by N. Jiao et al.

Anonymous Referee #1

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The paper reviews the current state of microbial carbon sequestration in the ocean and highlight some research directions. Overall, the paper is written in a clear way and is richly referenced. I have only a few minor comments listed below. page numbering is missing, hence I start with title page as 'page 1' in my comments below. Minor comments: Abstract line 5: 'relative concept' what do you mean here?? I guess best would be to delete 'relative' here

Introduction: page 3, line 2: you state that the ocean absorbs about 0ne third of the CO2 produced by fossil fuel burning. According to the IPCC report it is about one forth. p.17, line 25: Due to high terrigenous.... p.20, line 22-23: what is the rationale behind that? Why should the members of the rare biosphere be responsible for generating RDOC p.20, line 31: Swan et al where dealing with mesopelagic waters not with sur-

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face waters. Hence as it is phrased now, the sentence is misleading. p.21, line 3: rephrase sentence: Microbial oceanographers face several challenges using.... p.21, line 6: 'not be very similar' awkwardly phrased sentence p.22, line 12: 'deployment' I guess development would be a more appropriate word here Fig.2: All the abbreviations used in the figure should be explained in the legend.

Interactive comment on Biogeosciences Discuss., 11, 7931, 2014.