

The impact of climate change on the marine biogeochemical cycling: Detecting change with biogeochemical tracers

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Model simulations project significant alterations in the ocean circulation with climate change, like reduced thermohaline circulation and increased density stratification in the upper ocean. Recent observations suggest that these changes may already be occurring. How will these circulation changes impact marine biogeochemical cycling?

In this talk, I first review the simulated impact of climate change on marine biogeochemical cycling.

Second, I discuss the present limitations in the marine biogeochemical formulations used in these model simulations.

Third, I explore the potential of using biogeochemical tracers to detect climate change and validate climate change simulations.