

Coccolithophore calcification: cellular mechanisms and constraints

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We are adopting a combined cell physiological and genomics approach to understand the cellular mechanisms of calcification in coccolithophores. This work is uncovering some unexpected pathways and mechanisms. In the longer term, our aim is to genetically manipulate specific components of the process to understand their function. An understanding of these mechanisms, and how they vary in different coccolithophore species, will hopefully improve our ability to predict how coccolithophore populations may be affected by, or adapt to, changing ocean chemistry in both the short and long term.