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Developing methods for measureing clumped oxygen

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Oxygen trapped in ice cores provides information about past climate. This research has largely been concerned with single substituded oxygen, where one of the two oxygen atoms is substituted for an either O-17 or O-18. Much rarer and harder to measure is clumped oxygen, where both atoms are of rare isotopes. Clumped oxygen has the potential to provide information about the upper atmosphere in Earth's past.
As part of the Green2Ice project, two new mass spectrometers have been acquired. One of these is set to become the third in the world capable of measuring clumped oxygen from ice cores. As long as isobaric interference is taken care of, we observed very stable measurements under most conditions boding well for ice core measurements to follow.

Field of study

Earth & Climate Physics

Supervisor

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Session Classification: Poster session: Enjoy the posters!