Science & Technology

Mummified Leaves Hold Clues to Ancient Climate Mysteries

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Tammo Reichgelt

This twenty-three-million-year-old leaf, one of hundreds that geologist Tammo Reichgelt has retrieved from a lakebed in New Zealand, is shedding light on our planet's climate history. Reichgelt, a postdoctoral researcher at Columbia's Lamont-Doherty Earth Observatory, has found that the leaves possess relatively few stomata, or pores, for inhaling carbon dioxide — evidence that the earth's atmosphere was unusually carbon-rich at the time the leaves were alive. Reichgelt says that his findings add to a growing body of evidence that CO_2 levels spiked at the beginning of the Miocene epoch, causing global temperatures to increase, ice sheets at the earth's poles to melt, and sea levels to rise.

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