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Ed Brook

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RESEARCH GROUP WEB SITE [OSU Ice Core and Quaternary Geochemistry Lab](#)

Research Collaborations: [Paleovar](#), [WAIS Divide Ice Core](#), [IPICS](#), [NEEM](#)

Selected Recent Publications: Ahn, J. and E. Brook, 2008, Atmospheric CO₂ and Climate on Millennial Time Scales During the Last Glacial Period, *Science* 322, doi: 10.1126/science.1160832.

Brook, E.J., 2008, Windows on the greenhouse, *Nature* 453, 291-292.

Petrenko, V.V., J.P. Severinghaus, E.J. Brook, J. Mühle, M. Headly, C.M. Harth, H. Schaefer, N. Reeh, R.F. Weiss, D. Lowe, and A.M. Smith, 2008. A novel method for obtaining very large ancient air samples for analyses of methane radiocarbon, *Journal of Glaciology*, 54, 185, 233-244.

Goehring, B., E.J. Brook, H. Linge, G.M. Raisbeck and F. Yiou, 2008. Beryllium-10 exposure ages of erratic boulders in southern Norway and implications for the history of the Fennoscandian Ice Sheet, *Quaternary Science Reviews* 27, 320-336.

Grachev, A., E. Brook and J. Severinghaus, 2007. Abrupt changes in atmospheric methane at the MIS 5b-5a transition, *Geophysical Research Letters*, 34, L20703, doi: 10.1029/2007GL029799.

Carlson, A., P.U. Clark, G. Raisbeck and E. Brook, 2007, Rapid Holocene deglaciation of the Labrador Sector of the Laurentide Ice Sheet, *Journal of Climate* 20, 5126-5133.

Schmittner, A., E. Brook and J. Ahn, 2007, Impact of the ocean's overturning circulation on atmospheric CO₂, in Schmittner et al. (eds.), *Ocean Circulation: Mechanisms and Impacts*, *Geophysical Monograph Series 173*, American Geophysical Union, Washington D.C.



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Ahn, J. and E. Brook, 2007, Atmospheric CO₂ and climate from 65 to 30 ka B.P., *Geophysical Research Letters* 34, L10703, doi: 10.1029/2007GL029551.

Kobashi, T., J. Severinghaus, E. Brook, J.M. Barnola and A. Grachev, 2007, Precise timing and characterization of abrupt climate change at 8.2k B.P. from air trapped in polar ice *Quaternary Science Reviews* 26, 1212-1222.

Harder, S., D.T. Schindell, G.A. Schmidt and E. Brook, 2007, A GCM study of CH₄ emissions during the Holocene and glacial-interglacial transitions constrained by ice core data, *Global Biogeochemical Cycles* 21, GB1011, doi: 10.1029/2005GB002680, 2007.

Rinterknecht, V.R., P.U. Clark, G.M. Raisbeck, F. Yiou, A. Bitinas, E.J. Brook, L. Marks, V. Zelic, J.-P. Lunkka, I.E. Pavlovskaya, J.A. Piotrowski and A. Raukas, 2006, The Last Deglaciation of the Southeastern Sector of the Scandinavian Ice Sheet, *Science* 311, 1449-1452.

Petrenko, V.J. Severinghaus, E. Brook, N. Reeh and H. Schaefer, 2006, Gas records from the west Greenland ice margin covering the last glacial termination: a horizontal ice core, *Quaternary Science Reviews* 25, 865-875.

Schaefer, H., M. Whiticar, E. Brook, V. Petrenko, D. Ferretti and J. Severinghaus, 2006, Ice record of δ¹³C for atmospheric methane across the Younger Dryas-Pre Boreal Transition, *Science* 313, 1109-1112.

Brook, E., 2005, Tiny Bubbles Tell All, *Science* 310, 1285-1287.

Brook, E., J.W.C. White, A. Schilla, M. Bender, B.A. Barnett, J. Severinghaus, K.C. Taylor, R.B. Alley and E.J. Steig, 2005, Timing of millennial-scale climate change at Siple Dome, West Antarctica, during the last glacial period, *Quaternary Science Reviews* 24, 1333-1343.

Waddington, E., H. Conway, E. Steig, R. Alley, E. Brook and J. White, 2005, Decoding the dipstick, thickness of Siple Dome, West Antarctica, at the last glacial maximum, *Geology* 33, 281-284.

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