



A gas ‘slug’ model for large ‘worm tubes’ in sediments above methane hydrates

P.-Y. Robin, U. Wortmann

Department of Geology, University of Toronto, Toronto, Ontario, Canada M5S 3B1
(py.robin@utoronto.ca / Phone: +1-416-978-5080)

We propose that subvertical ‘worm tubes’ that have been observed in sediments lying above gas hydrates off the coast of British Columbia, Canada, are in fact produced by gas ‘slug’-shaped bubbles of mostly methane rising diapirically through the sediment. Flow through these tubes bypass the slower diffusion process through the sedimentary column and should thus play a significant role in vertical transport of water, CH₄, CO₂, H₂S and other solutes in that column.