Geophysical Research Abstracts, Vol. 7, 06043, 2005 SRef-ID: 1607-7962/gra/EGU05-A-06043 © European Geosciences Union 2005



Did methyl halides play a role in the Permian-Triassic extinctions?

K. Kourtidis(1)

(1)Department of Environmental Engineering, Demokritus University of Thrace, GR-67100 Xanthi, Greece

Several events at or near the Permian-Triassic Boundary (PTB) have been identified that might have played a role in the series of extinctions recorded at the PTB. Here, it is commented on the previously unaccounted emission to the atmosphere of methyl bromide (CH_3Br) and methyl chloride (CH_3Cl) from the Deccan traps eruptions, frequent continental flooding with seawater, and extensive fungal action. All of these processes have the potential to contribute with substantial CH3Cl and CH3Br amounts to the atmosphere, which could subsequently enter the stratosphere and cause ozone depletion. An attempt is made to quantify these emissions based on available data.