Plate 1a Nitrate and Conductivity Record, GISP2-H-Part I

Dreschhoff and Zeller
TER-DI-1 Proceedings, Volume 1, 1994.

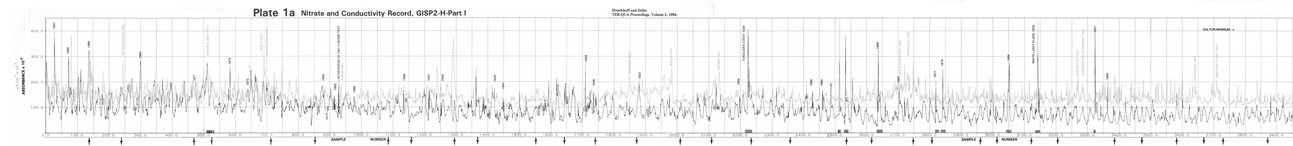
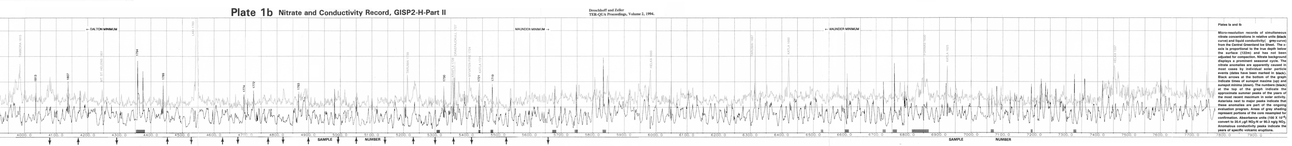


Plate 1b Nitrate and Conductivity Record, GISP2-H-Part II

Dreschhoff and Zeller
TER-DI-1 Proceedings, Volume 1, 1994.



Plates 1a and 1b

Micro-resolution records of simultaneously measured nitrate concentration (ng g⁻¹) and electrical conductivity (μS) of ice from the Central Greenland Ice Sheet. The ice core was drilled during 1990-1993 to a depth of the surface 3053m and has not been adjusted for compaction. Metals background and volcanic eruptions are not shown. Solar maximum events are apparently recorded by nitrate concentrations. Solar maximum events (dates have been marked in black) are found in the nitrate record. The Dalton minimum shows a lack of compact nitrate spikes (compact nitrate pikes). The numbers (dates) in the nitrate record are the solar maximum years of the sunspot cycle. Nitrate concentrations are in ng g⁻¹. Antarctic ice from the Vostok station (Russian) and Byrd station (USA) have been analyzed for nitrate and conductivity. Preliminary results of the Vostok ice core (Russian) are presented in the Annals of Glaciology 20, 1994. The Vostok ice core is 2083m deep and the Byrd station ice core is 2164m deep. Both ice cores represent portions of the core recovered by the International Greenland Ice Core Project (GISP2) drilled to 3053 m at 72°36'N, 38°30'W, elevation 3208 m above sea level. Nitrate concentrations are indicated by peaks of anomalously acidic ice.