Transport, storage, and processing of the EPICA - DML ice core

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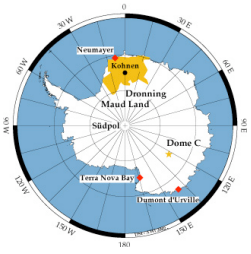
EPICA drill location: **Kohnen station**, Amundsenisen, DML



Long.: 00°04.06'E
Latit.: 75°00.10'S
Elevat.: 2892 m (WGS84)

Drill date: 2001-03
Core label: EDML
Core Ø: 98 mm
Depth: 112-1564 m

1 View of Kohnen station; in the front container with white PP ice-core boxes on top

2 View into the drill and science trench, where drilling, logging, DEP, cutting (1m long pieces) and packing takes place

3 Transport of the ice cores, packed in white PP-boxes (6 per box) by aircraft from Kohnen to Neumayer station at the coast

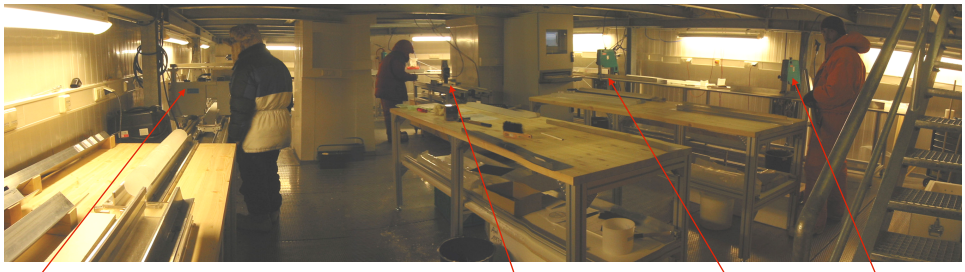
4 Transport from Antarctica to Europe (Bremerhaven, Germany) in deep-freeze containers by ship via Cape Town, South Africa

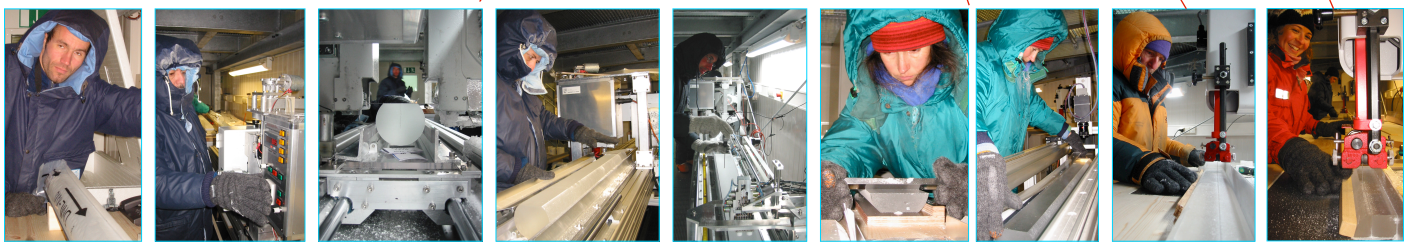
Cold-storage depot

At Bremerhaven port area; 3 rooms rented, 525m³ each; -28° C

Core processing by EPICA partners at AWI cold room facilities at Bremerhaven

Main cold room: 2 floors, ca. 12 x7m² each;temperature -20°C; equipped with 3 HEMA, 4 INKA and 1 horizontal saw





Unpacking | **Horizontal saw** | **ECM** | **Line scan** | **Cutting for SC, CFA, Be, isotopes**

The participating laboratories

AWI, Bremerhaven & CNRS, LGGE Grenoble

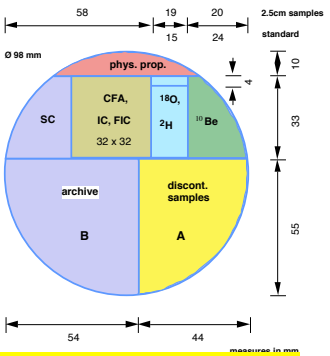
Universities of Firence, Milan, & Venice, Italy
Univers. Bern, Schweiz; AWI, Bremerhaven
British Antarctic Survey, Cambridge, UK
Copenhagen University, Denmark
Norsk Polar Institute, Norway
Stockholm University, Sweden

AWI Bremerhaven & Potsdam & GSF, Neuherberg, Germany
Copenhagen University
CNRS, Saclay
Universities Trieste & Parma, Italy

Germany, Switzerland, France

AWI Bremerhaven, Germany
Bern University, Switzerland
CNRS, LGGE Grenoble
IMAU, University Utrecht, The Netherlands

University College London (mechanical properties)



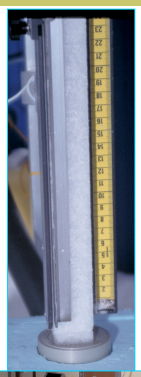
Discont. Samples: gases, dust, physic. prop, ^{14}C

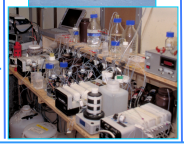
SC: piece reserved for Steering Committee

CFA: Continous flow analysis; **IC**: Ion chromotography; **FIC**: Fast IC

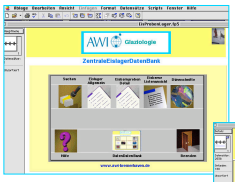
Cutting plan, authorized by EPICA Scientific Steering Committee. 40-45m of ice cores were processed per day in July 2003 (without CFA)

Continous flow analysis (CFA) & Fast IC measurements

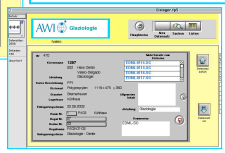




Database Management



Local database (File maker) to handle the storage of ice samples and metadata



Database within the EPICA project, accessible by national representatives for co-operation between the partners. Data base operated by IMAU, Utrecht University
http://www.phys.uu.nl/~wwwimau/research/ice_climate/epica/home.html

Final storage of published data within the database PANGAEA (www.pangaea.de) of the World Data Center for Marine Environmental Sciences (http://www.wdc-mare.org).
This database is operated by AWI and MARUM, Center for Marine Environmental Sciences at University of Bremen. It is accessible to the public via the internet.

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