

Core no. 12379-1 K.C. N 23° 08.10' W 17° 44.70': 2066 m b.s.l.
12379-3 P.C. 2136 m b.s.l.

Age control:

Date: 1992, modified 11/2000

- *C. wuellerstorfi* and *U. peregrina* group ¹⁸O records in core -3 (Zahn-Knoll, 1986, Winn et al., 1991).
- *G. bulloides* data of core (-3) from Koopmann (1979).
- ¹⁴C ages of total organic carbon (Geyh, 1979) (ignored).
- ¹⁴C ages of the carbonate coarse fraction (Erlenkeuser, unpubl. data) (ignored).
- AMS ¹⁴C dating on *G. bulloides* and *G. inflata* in core -1 (Trauth, 1995).

Core fit : (assuming a telescoped sediment section near the top of P.C. -3)

- 36.25 cm in 12379-1 = 20 cm in 12379-3, based on ¹⁸O *G. ruber* (w) and AMS ¹⁴C dating.
- 76.25 cm in 12379-1 = 45 cm in 12379-3, based on ¹⁸O *G. ruber* (w) and AMS ¹⁴C dating.
- 106.25 cm in 12379-1 = 60 cm in 12379-3, based on ¹⁸O *C. wuellerstorfi* and AMS ¹⁴C dating.
- 166.25 cm in 12379-1 = 80 cm in 12379-3, based on ¹⁸O *G. ruber* (w) and AMS ¹⁴C dating.
- 181.25 cm in 12379-1 = 95 cm in 12379-3, based on ¹⁸O *C. wuellerstorfi* and AMS ¹⁴C dating.
- 211.25 cm in 12379-1 = 111.25 cm in 12379-3, based on ¹⁸O *C. wuellerstorfi* and AMS ¹⁴C dating.

Surface sediment age :

- 0.5 ka, assuming 5 cm sediment loss at top of K.C. -1.

Age/depth correlation :

Comp. depth	¹⁴ C age	Error ±	Calendar years		Sed.rate	Original interval/ material/ δ ¹⁸ O stratigraphy	Core no.	Remarks
[cm]	[ky BP]		[ka]		[cm/ky]			
1.25	0.65	60	0.62	a)	- . -	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
1.25	1.82	80	1.81	a)	- . -	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
6.25	2.26	60	2.33	a)	2.9	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
6.25	2.55	60	2.73	a)	5.4	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
11.25	2.93	70	3.17	a)	6.0	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
11.25	3.3	60	3.6	a)	5.7	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
18.75	3.74	60	4.19	a)	7.4	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
18.75	3.91	60	4.41	a)	9.3	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
26.25	4.35	80	4.97	a)	13.4	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
36.25	6.19	80	7.09	a)	7.1	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
46.25	7.23	100	8.03	a)	10.6	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
56.25	7.3	90	8.11	a)	9.6	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
66.25	7.03	80	7.86	a)	- . -	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
72.5	10.07	250				convent. ¹⁴ C dated	- 1	carb. >63µm
76.25	9.81	90	11.06	a)	9.9	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
76.25	9.46	80	10.75	a)	7.6	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
86.25	10.15	90	11.84	a)	9.2	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
106.25	10.99	110	12.91	a)	18.7	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
116.25	11.18	90	13.09	a)	19.7	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
136.25	11.83	100	13.79	a)	34.1	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
156.25	12.67	110	14.91	a)	22.0	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
156.25	12.51	120	14.66	a)	23.0	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
166.25	13.07	130	15.55	a)	11.2	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
181.25	13.56	140	16.24	a)	18.8	AMS ¹⁴ C dated	- 1	<i>G. bulloides</i>
211.25	15.19	140	18.11	a)	17.6	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
241.25	17.05	130	20.18	a)	14.5	AMS ¹⁴ C dated	- 1	<i>G. inflata</i>
427	> 32.9					convent. ¹⁴ C dated	- 3	carb. >63µm
547.5	>40.3					convent. ¹⁴ C dated	- 3	carb. >63µm

a) corrected after Stuiver & Brazuinas (1993) and Bard et al. (1993).

Remarks :

- C_{org}, CO₂/Alk, N_{total} data in core -1 (Hartmann et al., 1976), supplemented with CO₂-data from Koopmann (1979).
- Additional organic carbon measurements (K. Winn, unpublished).
- ¹⁴C ages on organic carbon/CaCO₃ were probably biased due to contamination.

Original references:

- Trauth, M. (1995): Bioturbate Signalverzerrung hochauflösender paläozeanographischer Zeitreihen. - Ber.-Rep. Geol. Paläont. Inst. Univ. Kiel, 74, 167pp.
- Sarnthein, M., Winn, K., Jung, S.J.A., Duplessy, J.-A., Labeyrie, L., Erlenkeuser, H. & Ganssen, G. (1994): Changes in east Atlantic deepwater circulation over the last 30,000 years: Eight time slice reconstructions.- *Paleoceanography*, 9, 209-267.
- Winn, K., Sarnthein, M. & Erlenkeuser, H. (1991): ^{18}O stratigraphy and chronology of Kiel sediment cores from the East Atlantic.- Ber.-Rep. Geol. Paläont. Inst. Univ. Kiel, 45, 99 pp.
- Zahn-Knoll, R. (1986): Spätquartäre Entwicklung von Küstenauftrieb und Tiefenwasserzirkulation im Nordost-Atlantik. Rekonstruktion anhand stabiler Isotope kalkschaliger Foraminiferen.- Diss. Univ Kiel, 111 pp.
- Geyh, M.A. (1979): ^{14}C routine dating of marine sediments. In: A. Berger & H.E. Suess (eds.), *Radiocarbon dating: Proceedings, 9th International conference, Los Angeles (La Jolla), 1976*.- Univ. California Press, Berkeley, 470-491.
- Koopmann, B. (1979): Saharastaub in den Sedimenten des subtropisch-tropischen Nordatlantik während der letzten 20.000 Jahre.- Diss.Univ.Kiel, 107pp.

LGM time slice:

- GLAMAP: 214-260 cm comp. depth = 214-260 cm orig. depth in core (-1)
- EPILOG: 224-275 cm comp. depth = 224-275 cm orig. depth in core (-1)

LGM foraminifera counts: Thiede (JT)

- GLAMAP: (in core -1) 232.5, 242.5, 252.5 cm orig. depth.
- EPILOG: (in core -1) 232.5, 242.5, 252.5, 263.5, 272.5 cm orig. depth.

References for faunal analysis:

- Thiede, J. (1977): Appendix to: The North Atlantic eastern boundary current system during Glacials and Interglacials (last 150,000 years). Aspects of the variability of the Glacial and Interglacial North Atlantic eastern boundary current (last 150,000 years).- "Meteor" Forsch. Ergebn. C, 28, 1-36.

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