

CONTENTS

Preface -----	1
Mamoru Adachi	
(1) Proceedings of the 12th Symposium on Researches using the Tandetron AMS System at Nagoya University in 1999	
"Achievements in Researches Using the Tandetron-I AMS System at Nagoya University and Plans on Applications of the Tandetron-I and -II AMS Systems"	
1. Motivations for opening the Symposium -----	2
Toshio Nakamura	
2. Old water in the ocean : The Antarctic radiocarbon reservoir -----	5
Paul Arthur Berkman, A. J. T. Jull and Toshio Nakamura	
3. AMS radiocarbon dates from bogs and outcrops around Lake Baikal -----	10
Hikaru Takahara, Norio Miyoshi, Yoshitaka Hase, Kimiyasu Kawamuro and Toshio Nakamura	
4. On the origin of pottery in the Far East -----	17
Yasuhiro Taniguchi	
5. The ¹⁴ C AMS facility of the Nagoya University: achievements and-----	38
present status of the Tandetron-I Toshio Nakamura, Hirotaka Oda, Akiko IKeda, Etsuko Niu, Masayo Minami, Shigeo Yoshioka, Tomoko Ohta, Hiroshi Takahashi and Mamoru Adachi	
6. Current status of Tandetron II in DMRC -----	51
Etsuko Niu	
7. 東濃地科学センターにおけるタンデム型加速器の現状-----	63
伊藤 茂・徐 勝・阿部雅人・渡辺雅人・有我真希・岩槻輝希	
8. Meaning of ¹⁴ C age dating of Late Pleistocene deer in the Ryukyu Islands -----	67
Hiroyuki Otsuka and Yukihide Matsumoto	
9. The environmental changes presumed by AMS ¹⁴ C ages of algal sediments -----	74
in antarctic lakes, near the Showa Station Tomomi Iwasa, Tadashi Bando, Toshio Nakamura and Satoshi Imura	
10. 5.2ka BP paleo-environment of southern slope of Mt. Raizan, -----	81
northern Kyshu, Japan (A preliminary report) Mitsuru Okuno, Shinji Nagaoka, Yoshitaka Hase, Yuichi Mori, Masahiko Konomatsu, Toshihiko Takahashi, Toshio Nakamura and Tamio Nishida	

11. Contributions of anthropogenic and biogenic CO ₂ to the atmosphere -----	88
at an urban forest in winter season and their diurnal variation of vertical profiles	
Hiroshi A. Takahashi, Eiichi Konohira, Tetsuya Hiyama, Masayo Minami,	
Atsuhiko Takahashi, Hideyuki Oguri and Toshio Nakamura	
12. An attempt to measure carbon-14 terrestrial ages of Antartic meteorites -----	100
with a Tandetron AMS at Nagoya University	
Masayo Minami and Toshio Nakamura	
13. Ivory sourcing using $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ measurements -----	113
Hiroshi Ishibashi, Takayuki Takeuchi and Hiroko Koike	
List of participants -----	122
(2) Summaries of Researches Using AMS	
14. AMS radiocarbon dating of ancient Japanese documents and sutras -----	123
Hirotaka Oda, Takashi Masuda, Yasukazu Yoshizawa,	
Toshio Nakamura and Michiaki Furukawa	
15. AMS radiocarbon dating of uppermost sediments in the Kumozu river lowland, -----	146
central Japan	
Kumiko Kawase	
16. AMS radiocarbon datings of the Holocene peat layers -----	154
obtained from Dayang River Lowland in Liao Dong Peninsula	
Jing Fang	
17. AMS radiocarbon ages of Jomon pottery (4) -----	160
Naoto Yamamoto and Hirotaka Oda	
18. AMS radiocarbon ages of Yayoi pottery (1) -----	162
Naoto Yamamoto and Hirotaka Oda	
19. The examination of atmospheric ¹⁴ CO measurement techniques (II) -----	164
Akihiko Goto, Jun Moriizumi and Takao Iida	
20. The application of radiocarbon to estimating the sedimentation rate -----	170
Taijiro Fukuyama	
21. Benthic mass pillars (Koke Bouzu) in Antarctic lakes -----	176
— Analysis of colonization and growth by ¹⁴ C dating —	
Satoshi Imura, Hiroshi A. Takahashi and Toshio Nakamura	

22. The stable carbon isotopic composition of annual rings of Japanese cypress -----	184
grown in the southern coastal region of Lake Biwa and its correlation with climatic factors	
Kenjiro Sho, Hiroshi A. Takahashi and Toshio Nakamura	
23. Radiocarbon dating of a buried stem from the Otsukigawa debris flow deposit -----	195
in the Yatsugatake Volcanic Chain	
Yousuke Okuda, Shin-ichi Kawakami, Toshio Nakamura,	
Hiroataka Oda and Akiko Ikeda	
24. Holocene paleoenvironment in the Japan Sea -----	200
Tomohiro Takei, Kouji Minoura, Shinji Tsukawaki and Toshio Nakamura	
25. ¹⁴ C age measurement of carbonate samples recovered from the Iseki Point off -----	210
Yonaguni-jima and the sea-floor off Okinawa-jima	
Masaaki Kimura, Toshio Nakamura and Yoshiko Ishikawa	
26. Carbon and nitrogen isotope fractionations of collagen by chemical treatments -----	231
— mainly by XAD-2 treatment —	
Masayo Minami	
27. A simple preparation of collagen containing samples (4) -----	239
Akiko Ikeda and Toshio Nakamura	
(3) List of Theses for Graduation, Prepared Using ¹⁴C Dates with -----	243
 the Tandetron AMS System at Nagoya University in 1999	