

和田英太郎著作
(1967年～2013年)

学術論文

- 1) Miyake, Y. and Wada, E. (1967) The abundance ratio of $^{15}\text{N}/^{14}\text{N}$ in marine environments. *Records of Oceanographic Works in Japan* **9(1)**: 37-53.
- 2) Miyake, Y. and Wada, E. (1968) The nitrogen cycle in the sea. *Records of Oceanographic Works in Japan* **9(2)**: 197-208.
- 3) 和田英太郎, 辻 堯, 小池勲夫, 服部明彦 (1970) 浜名湖における窒素代謝. *水産土木* **6(2)**: 1-10.
- 4) Miyake, Y. and Wada, E. (1971) The isotope effect on the nitrogen in biochemical, oxidation-reduction reactions. *Records of Oceanographic Works in Japan* **11(1)**: 1-6.
- 5) Hattori, A. and Wada, E. (1971) Nitrite distribution and its regulating processes in the equatorial Pacific Ocean. *Deep-Sea Research* **18**: 557-568.
- 6) Wada, E. and Hattori, A. (1971) Spectrophotometric determination of traces of nitrite by concentration of azo dye on an anion-exchange resin, application to sea waters. *Analytica Chimica Acta* **56**: 233-240.
- 7) Wada, E. and Hattori, A. (1971) Nitrite metabolism in the euphotic layer of the central North Pacific Ocean. *Limnology and Oceanography* **16(5)**: 766-772.
- 8) Wada, E. and Hattori, A. (1972) Nitrite distribution and nitrate reduction in deep sea waters. *Deep-Sea Research* **19**: 123-132.
- 9) Koike, I., Wada, E., Tsuji, T., and Hattori, A. (1972) Studies on denitrification in a brakish lake. *Arch. Hydrobiol.* **69(4)**: 508-520.
- 10) Miyazaki, T., Wada, E., and Hattori, A. (1973) Capacities of shallow waters of Sagami Bay for oxidation and reduction of inorganic nitrogen. *Deep-Sea Research*. **20**: 571-577.
- 11) 和田英太郎 (1973) 海洋における無機窒素の代謝の研究. *日本海洋学会誌* **29**: 163-169.
- 12) Wada, E., Koike, I., and Hattori, A. (1973) Nitrate metabolism in abyssal waters. *Marine Biology* **29(4)**: 119-124.
- 13) Seki, H., Wada, E., Koike, I., and Hattori, A. (1974) Evidence of high organotrophic potentiality of bacteria in the deep ocean. *Marine Biology* **26(1)**: 1-4.
- 14) Miyazaki, T., Wada, E., and Hattori, A. (1975) Nitrite production from ammonia and nitrate in the euphotic layer of the western North Pacific Ocean. *Marine Science Communications* **1(6)**: 381-394.
- 15) Wada, E., Kadonaga, T., and Matsuo, S. (1975) ^{15}N abundance in nitrogen of naturally occurring substances and global assessment of denitrification from isotopic viewpoint. *Geochemical Journal* **9**: 139-148.
- 16) Wada, E. and Hattori, A. (1976) Natural abundance of ^{15}N in particulate organic matter in the North Pacific Ocean. *Geochimica et Cosmochimica Acta* **40**: 249-251.
- 17) Wada, E., Tsuji, T., Saino, T., and Hattori, A. (1977) A simple procedure for mass spectrometric microanalysis of ^{15}N in particulate organic matter with special reference to ^{15}N -tracer experiments. *Analytical Biochemistry* **80**: 312-318.
- 18) Wada, E. (1977) Nitrite and nitrate distribution in the surface water of oligotrophic areas of the East China Sea and Philippine Sea off Taiwan. *Marine Science Communications* **3(3)**: 279-286.

- 19) Wada, E. and Hattori, A. (1978) Nitrogen isotope effects in the assimilation of inorganic nitrogenous compounds by marine diatoms. *Geomicrobiology Journal* **1(1)**: 85-101.
- 20) 和田英太郎, 中村孝一 (1980) 土壌中の窒素・炭素同位体組成-有機物の続成過程に関連して. 地球化学 **14**: 7-15.
- 21) Miyazaki, T., Wada, E., and Hattori, A. (1980) Nitrogen-isotope fractionation in the nitrate respiration by the marine bacterium *Serratia marinorubra*. *Geomicrobiology Journal* **2(2)**: 115-126.
- 22) Wada, E., Shibata, R., and Torii, T. (1981) ¹⁵N abundance in Antarctica: origin of soil nitrogen and ecological implications. *Nature* **292**: 327-329.
- 23) Mizutani, H. and Wada, E. (1982) Material cycling and organic evolution. *Origins of life* **12**: 369-376.
- 24) Mizutani, H. and Wada, E. (1982) Effect of high atmospheric CO₂ concentration on δ¹³C of algae - a possible cause for the average depletion of ¹³C in Precambrian reduced carbon. *Origins of Life* **12**: 377-390.
- 25) Saino, T., Otohe, H., Wada, E., and Hattori, A. (1983) Subsurface ammonium maximum in the northern North Pacific and the Bering Sea in summer. *Deep-Sea Research* **30(11)**: 1157-1171.
- 26) 和田英太郎, 辻 堯, 南川雅男, 水谷広, 今泉励子, 柄沢亨子 (1983) 大槌川水系における有機物輸送の研究-生物地球化学的モデル場の確立. 大槌臨海研究センター報告(Otsuchi Mar. Res. Cent. Rep.) **9**: 17-34.
- 27) Wada, E., Imaizumi, R., and Takai, Y. (1984) Natural abundance of ¹⁵N in soil organic matter with special reference to paddy soils in Japan: biogeochemical implications on the nitrogen cycle. *Geochemical Journal* **18**: 109-123.
- 28) Yoshida, N., Hattori, A., Saino, T., Matsuo, S., and Wada, E. (1984) ¹⁵N/¹⁴N ratio of dissolved N₂O in the eastern tropical Pacific Ocean. *Nature* **307(5950)**: 442-444.
- 29) Minagawa, M. and Wada, E. (1984) Stepwise enrichment of ¹⁵N along food chains: further evidence and the relation between δ¹⁵N and animal age. *Geochimica et Cosmochimica Acta* **48(5)**: 1135-1140.
- 30) 中村孝一, 和田英太郎, 高井康雄 (1984) 水田生態系構成成分の質量分析計による炭素同位体比測定法. 日本土壌肥科学雑誌 **55(2)**: 151-159.
- 31) 和田英太郎, 水谷広, 柄沢亨子, 蒲谷裕子, 南川雅男, 米本昌平, 辻 堯(1984) 大槌水系における有機物の挙動-炭素・窒素同位体比からの評価-. 地球化学 **18(2)**: 89-98.
- 32) Mizutani, H. and Wada, E. (1985) Carbon dioxide and the biosphere: their historical relationship as inferred from carbon isotope records. *Viva Origino* **13(1)**: 25-49.
- 33) Mizutani, H. and Wada, E. (1985) Combustion of organic samples by infrared furnace for carbon isotope analysis. *Analytical Biochemistry* **146**: 90-95.
- 34) Mizutani, H. and Wada, E. (1985) High-performance liquid chromatographic determination of uric acid in soil. *Journal of chromatography* **331**: 359-369.
- 35) Mizutani, H., Kabaya, Y., and Wada, E. (1985) High-performance liquid chromatographic isolation of uric acid from soil for isotopic determination. *Journal of Chromatography* **331**: 371-381.
- 36) Mizutani, H. and Wada, E. (1985) Ammonia volatilization and high ¹⁵N/¹⁴N ratio in a penguin rookery in Antarctica. *Geochemical Journal* **19**: 323-327.
- 37) 南川雅男, 和田英太郎 (1985) 動植物におけるH, C, N, O同位体の分布とその生物地球化学的意味. 地球化学 **19**: 39-52.

- 38) Mizutani, H., Hasegawa, H., and Wada, E. (1986) High nitrogen isotope ratio for soils of seabird rookeries. *Biogeochemistry* **2**: 221-247.
- 39) Wada, E., Imaizumi, R., Kabaya, Y., Yasuda, T., Kanamori, T., Saito, G., and Nishimune, A. (1986) Estimation of symbiotically fixed nitrogen in field grown soybeans: An application of natural ^{15}N abundance and a low level ^{15}N -tracer technique. *Plant and Soil* **93**: 269-286.
- 40) Minagawa, M. and Wada, E. (1986) Nitrogen isotope ratios of red tide organisms in the east china sea: a characterization of biological nitrogen fixation. *Marine chemistry* **19**: 245-259.
- 41) Wada, E., Terazaki, M., Kabaya, Y., and Nemoto, T. (1986) ^{15}N and ^{13}C abundances in the Antarctic Ocean with emphasis on the biogeochemical structure of the food web. *Deep-Sea Research* **34**: 829-841.
- 42) Yamazaki, T., Yoshida, N., Wada, E., and Matsuo, S. (1987) N_2O reduction by *Azotobacter vinelandii* with emphasis on kinetic nitrogen isotope effects. *Plant Cell Physiol.* **28(2)**: 263-271.
- 43) Wada, E. (1987) ^{15}N and ^{13}C abundances in marine environments with emphasis on biogeochemical structure of food web. *Isotopenpraxis* **23(9)**: 320-322.
- 44) Wada, E., Minagawa, M., Mizutani, H., Tsuji, T., Imaizumi, R., and Karasawa, K. (1987) Biogeochemical studies on the transport of organic matter along the Otsuchi River watershed, Japan. *Estuarine Coastal and Shelf Science* **25**: 321-336.
- 45) Mizutani, H. and Wada, E. (1988) Nitrogen and carbon isotope ratios in seabird rookeries and their ecological implications. *Ecology* **69(2)**: 340-349.
- 46) Yoshioka, T., Wada, E., and Saijo, Y. (1988) Analysis of lacustrine food web with natural carbon and nitrogen isotope ratios. *Verh. Internat. Verein. Limnol.* **23**: 573-578.
- 47) Yoshioka, T., Wada, E., and Saijo, Y. (1988) Isotopic characterization of Lake Kizaki and Lake Suwa. *The Japanese Journal of Limnology* **49(2)**: 119-128.
- 48) Yoshioka, T., Hayashi, H., and Wada, E. (1989) Seasonal variations of carbon and nitrogen isotope ratios of plankton and sinking particles in Lake Kizaki. *The Japanese Journal of Limnology* **50(4)**: 313-320.
- 49) Yoshida, N., Morimoto, N., Hirano, M., Koike, I., Matsuo, S., Wada, E., Saino, T., and Hattori, A. (1989) Nitrification rates and ^{15}N abundances of N_2O and NO_3^- in the western North Pacific. *Nature* **342(6252)**: 895-897.
- 50) Wada, E., Kabaya, Y., Tsuru, K., and Ishiwatari, R. (1990) ^{13}C and ^{15}N abundance of sedimentary organic matter in estuarine areas of Tokyo Bay, Japan. *Mass Spectroscopy* **38(6)**: 307-318.
- 51) Mizutani, H., Fukuda, M., Kabaya, Y., and Wada, E. (1990) Carbon isotope ratio of feathers reveals feeding behavior of cormorants. *The Auk* **107(2)**: 400-437.
- 52) Toda, H. and Wada, E. (1990) Use of $^{15}\text{N}/^{14}\text{N}$ ratios to evaluate the food source of the mysid, *Neomysis intermedia* Czerniawsky, in a eutrophic lake in Japan. *Hydrobiologia* **194**: 85-90.
- 53) Takahashi, K., Yoshioka, T., Wada, E. and Sakamoto, M. (1990) Temporal variations in carbon isotope ratio of phytoplankton in a eutrophic lake. *Journal of Plankton Research* **12(4)**: 799-808.
- 54) 片瀬隆雄, 和田英太郎 (1990) 炭素及び窒素安定同位体比測定のためのアオコ中クロロフィル a の単離と諏訪湖に置けるそれらの変動. *分析化学* **39**: 451-456.
- 55) Takahashi, K., Wada, E., and Sakamoto, M. (1990) Carbon isotope discrimination by phytoplankton and photosynthetic bacteria in

- monomictic Lake Fukami-ike. *Arch. Hydrobiol.* **120(2)**: 197-210.
- 56) Wada, E., Mizutani, H., and Minagawa, M. (1991) The use of stable isotopes for food web analysis. *Critical Review in Food Science and Nutrition* **30(3)**: 361-371.
- 57) Mizutani, H., Kabaya, Y., and Wada, E. (1991) Nitrogen and carbon isotope compositions relate linearly in cormorant tissues and its diet. *Isotopenpraxis* **27(4)**: 166-168.
- 58) Sugisaki, H., Terazaki, M., Wada, E., and Nemoto, T. (1991) Feeding habits of a pelagic amphipod, *Themisto japonica*. *Marine Biology* **109**: 241-244.
- 59) Mizutani, H., Kabaya, Y., and Wada, E. (1991) Linear correlation between latitude and soil ^{15}N : enrichment at seabird rookeries. *Naturwissenschaften* **78**: 34-36.
- 60) Wada, E., Lee, J.A., Kimura, M., Koike, I., Reeburgh, W.S., Tundisi, J.G., Yoshinari, T., Yoshioka, T., and Vuuren, M.M.I. (1991) Gas exchange in ecosystems: framework and case studies. *The Japanese Journal of Limnology* **52(4)**: 263-281.
- 61) Uzaki, M., Mizutani, H., and Wada, E. (1991) Carbon isotope composition of CH_4 from rice paddies in Japan. *Biogeochemistry* **13**: 159-175.
- 62) Takahashi, K., Wada, E., and Sakamoto, M. (1991) Relationship between carbon isotope discrimination and the specific growth rate of green alga *Chlamydomonas reinhardtii*. *The Japanese Journal of Limnology* **52(2)**: 105-112.
- 63) Sugimoto, A., Hong, X., and Wada, E. (1991) Rapid and simple measurement of carbon isotope ratio of bubble methane using GC/C/IRMS. *Mass Spectroscopy* **39(5)**: 261-266.
- 64) Ueda, S., Ogura, N., and Wada, E. (1991) Nitrogen stable isotope ratio of groundwater N_2O . *Geophysical Research Letters* **18(5)**: 1449-1453.
- 65) 上田真吾, Yoshinari, T., 和田英太郎, 小倉紀雄 (1991) 窒素安定同位体比から見た地下水中の N_2O の起源. *日本化学学会誌* **5**: 448-453.
- 66) Nakatsuka, T., Handa, N., Wada, E., and Wong, C.S. (1992) The dynamic changes of stable isotopic ratios of carbon and nitrogen in suspended and sedimented particulate organic matter during a phytoplankton bloom. *Journal of Marine Research* **50**: 267-296.
- 67) Takahashi, K., Wada, E., and Sakamoto, M. (1992) Carbon isotope ratio and photosynthetic activity of phytoplankton in the eutrophic Mikawa Bay, Japan. *Ecological Research* **7**: 355-361.
- 68) Ichikawa, T., Yoshioka, T., Wada, E., and Hayashi, H. (1992) Estimation of nitrogen uptake rate of small zooplankton using ^{15}N tracer. *The Japanese Journal of Limnology* **53(4)**: 273-280.
- 69) Sugimoto, A. and Wada, E. (1993) Carbon isotopic composition of bacterial methane in a soil incubation experiment: contribution of acetate and CO_2/H_2 . *Geochimica et Cosmochimica Acta* **57**: 4015-4027.
- 70) Wada, E., Kabaya, Y., and Kurihara, Y. (1993) Stable isotopic structure of aquatic ecosystems. *J. Biosci.* **18(4)**: 483-499.
- 71) Yoshioka, T., E. Wada, and H. Hayashi (1994) A stable isotope study on seasonal food web dynamics in a eutrophic lake. *Ecology* **75(3)**: 835-846.
- 72) Tayasu, I., Sugimoto, E., Wada, E., and Abe, T. (1994) Xylophagous termites depending on atmospheric nitrogen. *Naturwissenschaften* **81**: 229-231.
- 73) Matsuura Y. and E. Wada (1994) Carbon and nitrogen stable isotope ratios in marine organic matters of the coastal ecosystem in Ubatuba,

- southern Brazil. *Ciencia e Culture (Journal of the Brazilian Association for the Advancement of Science)* **46(3)**: 141-146.
- 74) Terazaki, M., Yoshimura, M., Kabaya, Y., and Wada, E. (1994) ^{15}N abundance in micronekton in Sagami Bay, Central Japan. *Journal of Plankton Research* **16(11)**: 1589-1593.
- 75) 木庭啓介, 徳地直子, 岩坪五郎, 和田英太郎 (1994) 自然安定同位体比を用いた森林生態系における脱窒過程の検討. 京大演法 **66**: 37-47.
- 76) Sugimoto, A., Inoue, T., Tayasu, I., Wada, E., and Abe, T. (1995) Methane emissions from different castes of termites in Narathiwat, Thailand. *Tropics* **4(2/3)**: 253-257.
- 77) Sugimoto, A. and Wada, E. (1995) Hydrogen isotopic composition of bacterial methane: CO_2/H_2 reduction and acetate fermentation. *Geochimica et Cosmochimica Acta* **59(7)**: 1329-1337.
- 78) Miyajima, T., Yamada, Y., Hanba, T. Y., Yoshii, K., Koitabashi, T., and Wada, E. (1995) Determining the stable isotope ratio of total dissolved inorganic carbon in lake water by GC/C/IRMS. *Limnology and Oceanography* **40(5)**: 994-1000.
- 79) Jedrysek, M. O., Skrzypek, G., Wada, E., Doroszko, B., Kral, T., Pazdur, A., Vijarnsorn, P., and Takai, Y. (1995) Analiza $\delta^{13}\text{C}$ i $\delta^{34}\text{S}$ w profilach torfowych a zmiany globalne. *Przegląd Geologiczny* **43(12)**: 1004-1010.
- 80) Nakatsuka, T., Watanabe, K., Handa, N., Matsumoto, E., and Wada, E. (1995) Glacial to interglacial surface nutrient variations of Bering deep basins recorded by $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ of sedimentary organic matter. *Paleoceanography* **10(6)**: 1047-1061.
- 81) Yamada, Y., Ueda, T., and Wada, E. (1996) Distribution of carbon and nitrogen isotope ratios in the Yodo River watershed. *The Japanese Journal of Limnology* **57**: 467-477.
- 82) Wada, E. and Yoshioka, T. (1996) Isotope biogeochemistry of several aquatic ecosystems. *Geochemistry International* **33(5)**: 129-149.
- 83) Wada, E., Yoshida, N., Yoshioka, T., Yoh, M., and Kabaya, Y. (1996) The abundance of ^{15}N in N_2O in aquatic ecosystems with emphasis on denitrification. *Mitt. Internat. Verein. Limnol.* **25**: 115-123.
- 84) Hanba, Y. T., Wada, E., Osaki, M., and Nakamura, T. (1996) Growth and $\delta^{13}\text{C}$ responses to increasing atmospheric carbon dioxide concentrations for several crop species. *Isotopes Environ. Health Stud.* **32**: 41-54.
- 85) Hanba, Y. T., Matsui, K., and Wada, E. (1996) Solar radiation affects modern tree-ring $\delta^{13}\text{C}$: observations at a cool-temperate forest in Japan. *Isotopes Environ. Health Stud.* **32**: 55-62.
- 86) Minoda, T., Kimura, M., and Wada, E. (1996) Photosynthates as dominant source of CH_4 and CO_2 in soil water and CH_4 emitted to the atmosphere from paddy fields. *Journal of Geophysical Research* **101(D15)**: 21,091-21,097.
- 87) Yamada, Y., Ueda, T., and Wada, E. (1996) Distribution of carbon and nitrogen isotope ratios in the Yodo River watershed. *The Japanese Journal of Limnology* **57**, **4(2)**: 467-477.
- 88) Kikuchi, E. and Wada, E. (1996) Carbon and nitrogen stable isotope ratios of deposit-feeding polychaetes in the Nanakita River Estuary, Japan. *Hydrobiologia* **321**: 69-75.
- 89) Miyajima, T., Yamada, Y., Wada, E., Nakajima, T., Koitabashi, T., Hanba, Y.T., and Yoshii, K. (1997) Distribution of greenhouse gases, nitrite, and $\delta^{13}\text{C}$ of dissolved inorganic carbon in Lake Biwa: implications for hypolimnetic metabolism. *Biogeochemistry* **36**: 205-221.
- 90) Hanba, Y. T., Mori, S., Lei, T. T., Koike, T., and Wada, E. (1997) Variations in leaf $\delta^{13}\text{C}$ along a vertical profile of irradiance in a temperate Japanese forest. *Oecologia* **110**: 253-261.
- 91) Jedrysek, M. O., Halas, S., Wada, E., Boonprakup, S., Ueda, S., Vijarnsorn, P., and Takai, Y. (1997) Early-diagenetic methane from various

- tropical freshwater sediments: molecular and carbon isotope variations in one dial cycle. *Annales Societatis Geologorum Poloniae* **67**: 93-101.
- 92) Yoshii, K., Wada, E., Takamatsu, N., Karabanov, E. B., and Kawai, T. (1997) ^{13}C and ^{15}N abundances in the sediment core (ver 92/1-St-10-GC2) from northern Lake Baikal. *Isotopes Environ. Health Stud.* **33**: 277-286.
- 93) Miyajima, T., Wada, E., Hanba, Y. T., and Vijarnsorn, P. (1997) Anaerobic mineralization of indigenous organic matters and methanogenesis in tropical wetland soils. *Geochimica et Cosmochimica Acta* **61(17)**: 3739-3751.
- 94) Nakamura, T., Osaki, M., Koike, T., Hanba, Y. T., Wada, E., and Tadano, T. (1997) Effect of CO_2 enrichment on carbon and nitrogen interaction in wheat and soybean. *Soil Sci. Plant Nutr.* **43(4)**: 789-798.
- 95) Koba, K., Tokuchi, N., Wada, E., Nakajima, T., and Iwatsubo, G. (1997) Intermittent denitrification: the application of a ^{15}N natural abundance method to a forested ecosystem. *Geochimica et Cosmochimica Acta* **61(23)**: 5043-5050.
- 96) Minoura, K., Hoshino, K., Nakamura, T., and Wada, E. (1997) Late Pleistocene-Holocene paleoproductivity circulation in the Japan Sea: sea-level control on $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ records of sediment organic material. *Palaeogeography, Palaeoclimatology, Palaeoecology* **135**: 41-50.
- 97) Ohkouchi, N., Kawamura, K., Wada, E., and Taira, A. (1997) High abundances of hopanols and hopanoic acids in Cretaceous black shales. *Ancient Biomolecules* **1**: 183-192.
- 98) Yamada, Y., Ueda, T., Koitabashi, T., and Wada, E. (1998) Horizontal and vertical isotopic model of Lake Biwa ecosystem. *The Japanese Journal of Limnology* **59(4)**: 409-427.
- 99) Miyajima, T. and Wada, E. (1998) Sulfate-induced isotopic variation in biogenic methane from a tropical swamp without anaerobic methane oxidation. *Hydrobiologia* **382**: 113-118.
- 100) Yoshii, K., Melnik, N. G., Timoshkin, O. A., Bondarenko, N. A., Anoshko, P. N., Yoshioka, T., and Wada, E. (1999) Stable isotope analyses of the pelagic food web in Lake Baikal. *Limnology and Oceanography* **44(3)**: 502-511.
- 101) Ohkouchi, N., Kawamura, K., Kajiwara, Y., Wada, E., Okada, M., Kanamatsu, T., and Taira, A. (1999) Sulfur isotope records around Livello Bonarelli (northern Apennines, Italy) black shale at the Cenomanian-Turonian boundary. *Geology* **27(6)**: 535-538.
- 102) Jędrysek, M. O., Skrzypek, G., Halas, S., Kral, T., Pazdur, A., Wada, E., Takai, Y., Vijarnsorn, P., Doroszko, B., Kaluzny, A., Weber-Weller, A., and Wójcik, A. (1999) Seawater/freshwater records in stable isotope composition of sediments: marine muds from Baltic's gotland deep and mangrove peat profile from Thailand. *Quaternary Studies in Poland* Special issue: 127-133.
- 103) Kohzu, A., Yoshioka, T., Ando, T., Takahashi, M., Koba, K., and Wada, E. (1999) Natural ^{13}C and ^{15}N abundance of field-collected fungi and their ecological implications. *New Phytol.* **144**: 323-330.
- 104) Ueda, S., Go, C., Yoshioka, T., Yoshida, N., Wada, E., Miyajima, T., Sugimoto, A., Boontanon, N., Vijarnsorn, P., and Boonrakub, S. (2000) Dynamics of dissolved O_2 , CO_2 , CH_4 and N_2O in a tropical coastal swamp in southern Thailand. *Biogeochemistry* **49**: 191-215.
- 105) Dziuba, E.V., Smirnova, N.S., Melnik, N.G., Ogawa, N., and Wada, E. (1999) Analysis of proportions of carbon and nitrogen isotopes in the Baikalian omul *Coregonus autumnalis migratorius* (Georgi) in the Barguzin gulf of Lake Baikal. *Siberian Ecological Journal* **6**: 659-662.
- 106) Boontanon, N., Ueda, S., Kanatharana, P., and Wada, E. (2000) Intramolecular stable isotope ratios of N_2O in the tropical swamp forest in Thailand. *Naturwissenschaften* **87**: 188-192.
- 107) Kohzu, A., Tateishi, T., Yamada, A., Koba, K., and Wada, E. (2000) Nitrogen isotope fractionation during nitrogen transport from

ectomcorrhizal fungi, *Suillus granulatus*, to the Host Plant, *Pinus deniflora*. *Soil Sci. Plant Nutr.* **46(3)**: 733-739.

- 108) 松原健司, 上田真吾, Boontanon Narin, Kanatharana Proespichaya, 和田英太郎 (2000) ナラチワ州 (タイ南部) における生態系と地域住民の食生活 -安定同位体による解析-. 淑徳大学国際コミュニケーション学部学会機関誌, 国際コミュニケーション学
界 国際経営・文化研究 **14(1)**: 81-94.
- 109) Matsubara, T., Boontanon, N., Ueda, S., Kanatharana, P., and Wada, E. (2000) Nitrogen and carbon cycles of peat swamp forests and surrounding areas in Narathiwat, Thailand, inferred from $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ analyses. *Proceedings of the International Symposium on TOROPICAL PEAT LANDS* pp. 245-253.
- 110) Tateishi, T., Kohzu, A., Yukutake, H., and Wada, E. (2001) Effects of seed size of Japanese red pine *Pinus densiflora* on colonization of pine seedlings by ectomycorrhizal Basidiomycete *Suillus granulatus* and initial growth of seedlings. *Soil Microorganisms* **55(1)**: 45-53.
- 111) Kiyashko, S.I., Narita, T., and Wada, E. (2001) Contribution of methanotrophs to freshwater macroinvertebrates: evidence from stable isotope ratios. *Aquatic Microbial Ecology* **24**: 203-207.
- 112) Zemskaya, T.I., Namsaraev, B.B., Dul'tseva, N.M., Khanaeva, T.A., Golobokova, L.P., Dubunina, G.A., Dulov, L.E. and Wada E. (2001) Ecophysiological characteristics of the mat-forming bacterium *Thioploca* in bottom sediments of the Frolikha Bay, Northern Baikal. *Microbiologia* **70(3)**: 391-397.
- 113) Ogawa, O.N., Koitabasshi, T., Oda, H., Nakamura, T., Ohkouchi, N. and Wada, E. (2001) Fluctuations of nitrogen isotope ratio of gobiid fish (Isaza) specimens and sediments in Lake Biwa, Japan, during the 20th century. *Limnology and Oceanography* **46(5)**: 1228-1236.
- 114) Yamada, Y., Koitabashi, T., Ueda, T. and Wada, E. (2001) Distribution of CH₄ in the north basin of Lake Biwa and tributary rivers. *Limnology* **2**: 193-197.
- 115) Yoshioka, T., Ueda, S., Miyajima, T., Wada, E., Yoshida, N., Sugimoto, A., Vijarnsorn, P. and Boonprakub, S. (2002) Biogeochemical properties of a tropical swamp forest ecosystem in southern Thailand. *Limnology* **3**: 51-59.
- 116) F. Nakagawa, N. Yoshida, A. Sugimoto, E. Wada, T. Yoshioka, S. Ueda and P. Vijarnsorn (2002) Stable isotope and radiocarbon compositions of methane emitted from tropical rice paddies and swamps in southern Thailand. *Biogeochemistry* **61**: 1-19.
- 117) Kohzu, a., Kato, C., Iwata, T., Kishi, D., Murakami, M., Nakano, S. Wada, E. (2004) Stream food web fueled by methane-derived carbon. *Aquat. Microb. Ecol.* **36**: 189-194.
- 118) Kato, K., Iwata, T., and Wada, E. (2004) Prey use by web-building spiders: stable isotope analyses of trophic flow at a forest-stream ecotone. *Ecol. Res.* **19**: 633-643.
- 119) Timoshkin, O.A., Coulter, G., Wada, E., Suturin, A.N., Yuma, M., Bondarenko, N.A., Melnik, N.G., Kravtsova, L.S., Obolkina, L.A., and Karabanov, E.B. (2004) Is the concept of a universal monitoring system realistic? Landscape- Ecological investigations on Lake Baikal (East Siberia) as a possible Model. *Verh. Internat. Verein. Limnol.* **29**.
- 120) Kiyashko, S.I., Imbs, A.B., Narita, T., Svetashev, V.I., Wada, E. (2004) Fatty acid composition of aquatic insect larvae *Stictochironomus Piculus* (Diptera:Chironomidae): evidence of feeding upon methanotrophic bacteria. *Comparative Biochem. Physiol. Part B* **139**: 705-771.
- 121) Takanori Nakano, Ichiro Tayasu, Eitaro Wada, Akitake Igeta, Fujio Hyoudo, and Yuuta Miura. (2005) Sulfur and strontium isotope geochemistry of tributary rivers of Lake Biwa ;implications for human impact on the decadal change of lake water quality. *Science of The Total Environment*, **345**: 1-12.
- 122) Khzu Ayato, Toshihiro Miyajima, Takehiro Tateishi, Takashi Watanabe, Munezoh Takahashi, Eitaro Wada. (2005) Dynamics of ¹³C natural

- abundance in wood decomposing fungi and their eco-physiological implications. *Soil Biology and Biochemistry* **37**: 1598-1607.
- 123) Hitoshi Miyasaka, Yelena V. Dzyuba, Motomi Genkai-Kato, Sayaka Ito, Ayato Kohzu, Pavel N. Anoshko, Igor V. Khanayev, Sergey G. Shubenkov, Natalia G. Melnik, Oleg A. Timoshkin, and Eitaro Wada. (2006) Feeding ecology of two planktonic sculpins, *Comephorus baicalensis* and *Comephorus dybowskii* (Comephoridae), in Lake Baikal. 日本魚類学会英文誌 *Ichthyological Research* **53(4)**: 419-422.
- 124) Hyoudo F., Tayasu I. and E. Wada (2006) Estimation of the longevity of C in terrestrial detrital Food webs using radiocarbon (¹⁴C) : how old are diets in termites? *Functional Ecology* **20**: 385-393.
- 125) 山田佳裕・井桁明丈・中島沙知・三戸勇吾・小笠原貴子・大野智彦・上田篤史・兵頭不二夫・今田美穂・谷内茂雄・陀安一郎・福原昭一・田中拓弥・和田英太郎 (2006) しろかき期の強制落水による懸濁物、窒素とリンの流出—圃場における流出実験—
陸水学雑誌 *Japanese Journal of Limnology*, **67(2)**: 105-112.
- 126) Timoshkin, O.A., Grygier, MJ, Nishino, M, Wada, E and et.al. (2006) BIODIVERSITY OF LAKE BIWA: NEW DISCOVERIES AND FUTURE POTENTIAL. *Journal [Berliner Palaobiologische Abhandlungen]* vol.9, p.61 Eds. Annette Kossler, Rolf Kohring & Frank Riedel, Berlin.
- 127) 谷内茂雄、田中拓也、中野孝教、陀安一郎、脇田健一、原雄一、和田英太郎 (2006) 総合地球環境研究所の琵琶湖—淀川水系への取り組み：農業濁水問題を事例として環境科学会誌 **20(3)**: 207-214.
- 128) Nakano, T., Tayasu, I., Yamada, Y., Hosono, T., Igeta, A., Hyoudo, F., Ando, A., Saitoh, Y., Tanaka, T., Wada, E., and Yachi S. (2007) Effect of Agriculture on water quality of Lake Biwa Tributaries, Japan. *Sci. Total Environ.* **389**: 132-148.
- 129) Narin Boontanon, Shingo Ueda and Eitaro Wada (2008) Estimation of pathways of the production of greenhouse gases in the tropical swamp forest in Thailand by stable isotope investigation. *Isotopes in Environmental and Health Studies*, **44**: 253-265.
- 130) Kohzu, A., Miyajima, T., Tayasu, I., Yoshimizu, C., Hyoudou, F., Matsui, K., Nakano, K., Wada, E., Fujita, N., and Nagata, T. (2008) Use of Stable Nitrogen Isotope Signatures of Riparian Macrophytes As an Indicator of Anthropogenic N Inputs to River Ecosystems. *Environ. Sci. Technol.* **42**: 7837-7841.
- 131) Nishikawa; Kohzu; Boontanon; Iwata; Tanaka; Ogawa; Ishii; Wada (in press) GIEH Isotopes in Environmental and Health Studies. Manuscript ID: 331171.
- 132) Kohzu, Ayato; Miyajima, Toshihiro; Tayasu, Ichiro; Yoshimizu, Chikage; Hyodo, Fujio; Matsui, Kiyoshi; Nakano, Takanori; Wada, Eitaro; Fujita, Noboru; Nagata, Toshi、(Accepted) "Use of stable nitrogen isotope signatures of riparian macrophytes as an indicator of anthropogenic N inputs to river ecosystems" *Environmental Science & Technology*. Manuscript ID: es-2008-01113k.R1.
- 133) Kohzu A, Miyajima T, Tayasu I, Yoshimizu C, Hyodo F, Matsui K, Nakano T, Wada E, Fujita N, Nagata T (2009) Use of stable nitrogen isotope signatures of riparian macrophytes as an indicator of anthropogenic N inputs to river ecosystems. *Environment Sci Technol* **42**: 7837-7841.
- 134) Kohzu A, T. Iwata, M. Katoc, J. Nishikawa, Eitaro Wada, N. Amartuvshin, B. Namkhaidorj and N. Fujita (2009) Food webs in Mongolian grasslands: The analysis of ¹³C and ¹⁵N natural abundances. *Isotopes in Environmental and Health Studies* Vol. **45**, No. 3, September 2009, 208-219.
- 135) Tomomichi Kato, Ph. D; Mitsuru Hirota, Ph. D; Yahong Tang, Ph. D; Eitaro Wada (2011) Spatial variability of CH₄ and N₂O fluxes in alpine ecosystems on the Qinghai-Tibetan Plateau. *Atmospheric Environment* **45(31)**: 5632-5639.
- 136) Yamada Y, Mito Y, Igeta A, Eitaro Wada (2011) The dissolved oxygen concentration in river sediment of the Lake Biwa tributaries,

- Japan. *Limnology* **13**(1): 149-154.
- 137) Hyodo F; Nishikawa J, Kohzu A, Fujita N, Saizen I, Tsogtbaatar J, Javzan C, Enkhtuya, M., Gantomor D, Amartuvshin N, Ishii R, Wada E. (2011) Variation in nitrogen isotopic composition in the Selenga river watershed, Mongolia. *Limnology* **13**(1): 155-161.
- 138) Minamoto T, Wada E, and Shimizu I (2011) A new method for random mutagenesis by error-prone PCR using heavy water. Submitted to *Journal of Biotechnology* as a short communication.
- 139) Aita, M.N., Tadokoro, K., Ogawa, N.O., Hyodo, F., Ishii, R., Smith, S.L., Saino, T., Kishi, M.J., Saitoh, S. and Wada, E. (2011) Linear relationship between carbon and nitrogen isotope ratios along simple food chains in marine environments, *J. Plankton Res.* **33**(11): 1629-1642. doi:10.1093/plankt/fbr070.
- 140) Minamoto T, Wada E, Shimizu I (2012) A new method for random mutagenesis by error-prone polymerase chain reaction using heavy water. *J Biotech* **157**(1): 71-74.
- 141) Hyodo F, Nishikawa J, Kohzu A, Fujita N, Saizen I, Tsogtbaatar J, Javzan C, Enkhtuya M, Gantomor D, Amartuvshin N, Ishii R, Wada E (2012) Variation in nitrogen isotopic composition in the Selenga river watershed, Mongolia. *Limnology* **13**: 155-161. DOI :10.1007/s10201-011-0351-7.
- 142) Wada E, Hyodo F, Ishii R (2012) What is sustainability of an ecosystem? Case study on Stable Isotope Structure of the Selenga River- L. Baikal Watershed. In: Batjargal Z, Fujita N, Yamamura N (eds) *Pastoralism and ecosystem network in Mongolia*. Admon Printing LLC, Ulan Bator, pp 528-547.
- 143) Yamada Y, Mito Y, Igeta A, Eitaro Wada (2012) Dissolved oxygen concentration in river sediment of the Lake Biwa tributaries, Japan. *Limnology* **13**: 149-154.
- 144) Wada E, Ohki K, Yoshikawa S, Parker PL, Baalen CV, Matsumoto GI, Aita MN, Saino T (2012) Ecological aspects of carbon and nitrogen isotope ratios of cyanobacteria. *Plank Bent Res* **7**(3): 135-145.
- 145) Sitnikova T, Kiyashko SI, Maximova N, Roepstorf P, Wada E, Michel E (2012) Resource partitioning in endemic species of Baikal gastropods indicated by gut contents, stable isotopes and radular morphology. *Hydrobiologia* **682**: 75-90.
- 146) Wada E, Ishii R, Aita MN, Ogawa NO, Kohzu A, Hyodo F, Yamada Y. (2013) Possible ideas on carbon and nitrogen trophic fractionation of food chains: a new aspect of food-chain stable isotope analysis in Lake Biwa, Lake Baikal, and the Mongolian grasslands. *Ecol. Res.* in press. DOI :10.1007/s11284-012-1024-7.

総説・解説・報告書等

- 1) 和田英太郎 (1969) 海洋水中における窒素サイクル. うみ(日仏海洋学会誌) **7**(1): 74-84.
- 2) Hattori, A. and Wada, E. (1970) A note on denitrification in the Central Pacific Ocean. In: *Proceedings of the second symposium on nitrogen fixation and nitrogen cycle*. Record of activities of JIBP/PP - Nitrogen (ed. H. Takahashi). pp. 127-130.
- 3) Hattori, A., Wada, E., and Koike, I. (1970) Denitrification in a brackish lake. In: *Proceedings of the second symposium on nitrogen fixation and nitrogen cycle*. pp. 121-126.
- 4) Hattori, A. and Wada, E. (1972) Assimilation of inorganic nitrogen in the euphotic layer of the North Pacific Ocean. In: *Biological Oceanography of the North Pacific Ocean* (ed. Takenouchi, Y.). Idemitsu Shoten, Tokyo. pp. 279-287.

- 5) Hattori, A. and Wada, E. (1973) Biogeochemical cycle of inorganic nitrogen in marine environments with special reference to nitrite metabolism. *Proceedings of 1970 IAGG Symposium on Hydrogeochemistry and Biogeochemistry*. **2**: 28-39.
- 6) 和田英太郎 (1973) 海洋での無機窒素代謝. *海洋科学* **5**: 665-671.
- 7) Hattori, A. and Wada, E. (1974) Assimilation and oxidation-reduction of inorganic nitrogen in the North Pacific Ocean. In: *Oceanography of the Bering Sea* (eds) Hood, D.W. and Kelley, E.J. University of Alaska, Fairbanks. pp. 149-162.
- 8) Hattori, A. and Wada, E. (1975) Inorganic nitrogen metabolism in coastal and oceanic waters of the Pacific. In: *JIBP Synthesis. Vol. 12: Nitrogen fixation and nitrogen cycle* (ed. Takahashi, H.). University of Tokyo Press. pp. 155-161.
- 9) 和田英太郎 (1976) 安定同位元素のトレーサー利用(V): 質量分析法による ^{15}N の測定と利用(I). *Radioisotopes* **25(10)**: 80-89.
- 10) 和田英太郎 (1976) 安定同位元素のトレーサー利用(VI): 質量分析法による ^{15}N の測定と利用(II)―各種窒素化合物中の ^{15}N 測定と応用例を中心として―. *Radioisotopes* **25(11)**: 68-79.
- 11) 和田英太郎, 上原洋一 (1977) 自然界における脱窒過程. *化学と生物* **15(2)**: 98-110.
- 12) 和田英太郎 (1977) 岩圏, 水圏, 生物圏における窒素酸化合物の分布. In: *窒素酸化合物* **35**: 64-55, 68.
- 13) 和田英太郎 (1981) 窒素同位体比よりみた東部熱帯太平洋における窒素代謝の特性. *海洋科学* **13(8)**: 522-529.
- 14) Wada, E., Tsuji, T. Mingawa, M., Ogi, M., and Shibata, R. (1981) Nutrient dynamics (inorganic nitrogen and phosphate) in a paddy water. *Verh. Internat. Verein. Limnol.* **21**: 1195.
- 15) 木島宣明, 和田英太郎, 垣内信子 (1982) 質量分析法による安定同位体自然存在比の測定とその利用. *Radioisotopes* **31**: 58-67.
- 16) 中谷周, 鳥居鉄也, 長連英, 和田英太郎, 松本源喜 (1982) 1980-1981 年ドライバレー地域調査報告. *南極資料* **74**: 324-329.
- 17) 和田英太郎 (1982) 植物の炭素同位体分別. *Radioisotopes* **31(12)**: 89-90.
- 18) Wada, E. (1983) Use of stable isotopes in environmental biology and agricultural sciences with emphasis on current method of ^{15}N analysis in Japan. In: *Proceedings of JAIF (Japan) - GKAE (USSR) Seminar on Isotopes and Radiation*.
- 19) 和田英太郎, 南川雅男 (1983) 海洋の食物連鎖と窒素同位体分別. *Tracer* **8**: 2-12.
- 20) 和田英太郎 (1983) 生物地球科学の立場から. *環境情報科学* **12(2)**: 48.
- 21) 木島宣明, 和田英太郎, 垣内信子 (1983) ライフサイエンスのための安定同位体利用技術. In: 質量分析法による安定同位体自然存在比の測定とその利用 pp. 13-22.
- 22) 金森哲夫, 斉藤元也, 西宗昭, 和田英太郎, 安田環 (1983) 圃場条件におけるダイズの窒素固定量推定法の検討. 農林水産技術会議, グリーンエネルギー計画成果シリーズ **II(1)**: 63-80.
- 23) Wada, E., Imaizumi, R., Nakaya, S., and Torii, T. (1984) ^{15}N abundance in the dry valley area, South Victoria Land, antarctica: eco-physiological implications of microorganisms. *Memories of National Institute of Polar Research Special Issue* **32**: 130-139.
- 24) 和田英太郎 (1984) 生物による窒素・炭素同位体比の変動―有機地球化学への応用―. *Res. Org. Geochem.* **4**: 47-51.
- 25) 和田英太郎 (1984) 暖水塊における硝酸・亜硝酸の分布構造と動態. *海洋科学* **16(8)**: 451-456.
- 26) 和田英太郎 (1984) 生物による炭素・窒素同位体比の変動―海洋への応用―. *海洋科学* **16(2)**: 117-123.
- 27) 和田英太郎 (1985) 生物地球化学から地球生命科学へ. 蛋白質 核酸 酵素 **30(7)**: 910-915.
- 28) 安藤喬志, 和田英太郎 (1985) 沈黙の同位体は何を語るか. *化学* **40(10)**: 633-639.
- 29) Wada, E., Terazaki, M., Kabaya, Y. and Nemoto, T. (1986) ^{15}N and ^{13}C abundances in the Antarctic Ocean with emphasis on biogeochemical structure of food web. *Memories of National Institute of Polar Research Special Issue* **40**: 400-402.

- 30) Wada, E., Mitamura, O., Kabaya, Y., Saijo, Y. and Tundisi, J.G. (1986) ^{15}N and ^{13}C abundances in Rio Doce Valley Lake System, Brazil. *Proceedings of the Fifth Japan-Brazil Symposium on Science and Technology* pp. 197-201.
- 31) 和田英太郎 (1986) 生物関連分野における同位体効果—生物界における安定同位体分布の変動—. *Radioisotopes* **35(3)**: 136-146.
- 32) Wada, E. (1986) ^{15}N and ^{13}C abundances in marine environments with emphasis on biogeochemical structure of food web. In: *Proceedings of 4th Working Meeting on Isotopes in Nature, Leipzig*. pp. 639-646.
- 33) 和田英太郎 (1987) 生物界における安定同位体の分布. 第 18 回日本アイソトープ放射線総合会議報文集 pp. 603-609.
- 34) 和田英太郎 (1988) 黒潮周辺海域における窒素の動態. 水産海洋研究会報 **52(2)**: 133-137.
- 35) 和田英太郎 (1988) 環境保全の長期的課題, 生物地球科学の立場から. 環境情報科学 pp. 48.
- 36) 和田英太郎 (1989) 海洋の物質循環と海洋汚染. 化学技術誌 MOL **5**: 40-45.
- 37) Kimura, T., Ando, T. and Wada, E. (1990) A novel method for determining carbon-13 kinetic isotope effects from isotope ratio of whole molecules. *Bulletin of Shiga University of Medical Science* **1**: 12-16.
- 38) 和田英太郎 (1990) 酸素のサイクル. 化学総説 **7**: 233-240.
- 39) 吉田尚弘, 和田英太郎 (1990) 大気主成分. 化学総説 **10**: 46-61.
- 40) Wada, E. and Nakamura, K. (1991) Carbon isotopic studies on global methane production with emphasis on paddy fields. In: *Proceeding of 5th Working Meeting on Isotopes in Nature Leipzig* pp. 593-401.
- 41) Wada, E. (1991) Use of $\delta^{15}\text{N}$ as a source indicator of N_2O during oxidation-reduction processes. In: *Proceeding of 5th Working Meeting on Isotopes in Nature Leipzig* pp. 679-680.
- 42) 和田英太郎 (1991) 生物起源物質の窒素・炭素同位体組成について. 第 20 回日本アイソトープ・放射線総会会議報告集.
- 43) 和田英太郎 (1991) 環境科学における SI の利用. *Radioisotopes* **40(11)**: 82A.
- 44) 和田英太郎 (1991) 外洋域における物質循環. 月刊海洋 **23(12)**: 808-814.
- 45) 落合正宏, 和田英太郎 (1991) 陸水中の気体成分と生体起源有機物の分析. ぶんせき **3**: 198-204.
- 46) Wada, E., Sugimoto, A., Takai, Y. (1992) Greenhouse gas emission from wetland ecosystems with special reference to bubble methane. In: *Coastal Swamp Land in Southern Thailand and Malaysia* (eds) Kyuma, K., Vijarnsorn, P. and Zakaria, A. pp. 405-416. Nodai Center International Programs, Tokyo Univ. of Agriculture.
- 47) Katase, T., Hirota, S., Naoi, M., Yamamoto, K., Sumida, H., Wada, E., Khanif, Y.M., and Vijarnsorn, P. (1992) A comparison of phenolic constituents in peat soils between subfrigid area, Japan and tropical areas of Peninsula Malaysia and Thailand. In: *Proceedings of the International Symposium on Tropical Peatland, 6-8th May 1991, Kuching*. pp. 57-65.
- 48) 和田英太郎 (1992) 自然と生命の二重らせん: 生物地球化学から見た物質循環. *Illume* **4(1)**: 4-23.
- 49) 和田英太郎 (1992) 自然と生命の二重らせん. 21 世紀 — 新しいライフサイエンスの展開. 三菱化成生命科学研究所 20 周年記録集 pp. 127-137.
- 50) 和田英太郎 (1992) 生命科学の進歩と社会. 化学と工業 **45(8)**: 1393-1394.
- 51) 和田英太郎 (1992) 生物起源物質の窒素, 炭素同位体組成について. In: 第 20 回日本アイソトープ放射線総合会議報文集 pp. 536-545.
- 52) 杉本敦子, 和田英太郎 (1992) 生物圏における安定同位体分布と地球環境. *Radioisotopes* **41**: 366-376.
- 53) Wada, E. (1993) Possible impacts of acid rain on aquatic ecosystems from stable isotopic viewpoints. In: *Proceedings of the International*

- Workshop on Development and Application of Biogeochemical Methods in Acid Rain Research*. National Inst. for Environ. Studies, Japan. pp. 117-126.
- 54) Ueda, S., Ogura, N., Wada, E., and Yoshinari, T. (1993) Nitrogen and oxygen isotopic Characterization of N₂O in groundwater and some other sources. In: *Proceedings of 5th International Workshop on Nitrous Oxide Emissions*.
- 55) 和田英太郎 (1993) 生物界の安定同位体に関する国際シンポジウム印象記. *Isotope News* **2**: 31-33.
- 56) 和田英太郎, 藤井靖彦他 (1993) 広がる安定同位体の利用. 日本原子力学会誌 **35(11)**: 952-977.
- 57) 和田英太郎 (1993) 安定同位体は何を語るか. 遺伝 **47 (5)**: 10-14.
- 58) 和田英太郎 (1993) 現在の地球大気の組成を決めた要素 : 生物の活動. 気象研究ノート **181**: 13-36.
- 59) Wada, E. (1994) What is going on in Lake Baikal? Hot spots on global environmental problems: paleoclimate changes and biodiversity. *Japan Into MAB* **15**: 10-11.
- 60) Yamada, Y., Ueda, T., and Wada, E. (1994) Biogeochemical framework of Lake Biwa from stable isotopic viewpoints. In: *SHORT PAPERS of BITEX Symposium/Workshop* pp. 112- 115.
- 61) Wada, E. (1994) Methane emission from wetland ecosystems: isotope evidence. In: *Proceedings of Isotope Workshop II* (ed. Jedrysek, M. O.). Int'l Isotope Society, University of Wroclaw. pp. 179-178.
- 62) Wada, E. (1994) $\delta^{15}\text{N}$ - $\delta^{13}\text{C}$ maps of several aquatic ecosystems. In: *Proceedings of Isotope Workshop II* (ed. Jedrysek, M.O.) International Isotope Society, Univ. of Wroclaw. pp. 179-182.
- 63) Wada, E. (1994) Gas emission from tropical forest with emphasis on stable isotopic composition. *Global Environ. Forum III*. The United Nations Univ. pp.91-104.
- 64) Sugimoto A., Yoshida N., Wada, E., and Abe, T. (1994) Effect of land use methane emission from tropical swamp ecosystems in southern Thailand. *MAB Report, Ed. Japanese Coordinating Committee for MAB*. pp. 9-14.
- 65) Miyajima, T., Sugimoto, A., Hanba, T. Y., and Wada, E. (1994) Methane production from peat of tropical swamp forest in Narathiwat, Thailand. *MAB Report, Ed. Japanese Coordinating Committee for MAB*. pp. 21-24.
- 66) 和田英太郎, 半場祐子 (1994) 生元素安定同位体比自然存在比—その研究の現状と展望. 生化学 **66(1)**: 15-28.
- 67) 和田英太郎, 山田佳裕 (1994) 沈黙の同位体で探る湖の生態系. 化学 **49**: 719-723.
- 68) Wada, E., Yoshii, K., Kawai, T., Ueda, S., Ueda, T., Timoshkin, O.A., Melnik, N.G., Gorbunova, L.A., and Guselnikova, N.E. (1995) Hydrobiogeochemistry of Lake Baikal: its scope and preliminary survey. *Publ. Itako Hydrobiol. Stn.* **8**: 7-26.
- 69) Wada, E., Vijarnsorn, P., Yoshida, N., Yoshioka, T., Sugimoto A., Ueda, S., Katase, T., Boonprakub, S., Miyajima, T., Kimura, M., and Jedrysek, M. O. (1995) Radiatively active gases in tropical swamp forest and wetland soils I: an overview. In: *A tropical swamp forest ecosystem and its greenhouse gas emission* (eds) Vijarnsorn, P., Suzuki, K., Kyuma, K., Wada, E., Nagao T, and Takai, Y. *Reports of a new program for creative basic research, Studies of global environmental change with special reference to Asia and Pacific regions Vol. II-1*. Nodai Research Institute, Tokyo University of Agriculture, pp. 79-88.
- 70) Yoshida, N., Vijarnsorn, P., Ueda, S., Sugimoto, A., Yoshioka, T., and Wada, E. (1995) Radiatively active gases in tropical swamp forest and setland soils II: dynamics and framework with emphasis on swamp forest in Narathiwat, Thailand. *ditto*, pp. 89-97.
- 71) Vijarnsorn, P., Boonprakub, S., Ueda, S., Yoshioka, T., Miyajima, T., Sugimoto, A., Yoshida, N., and Wada, E. (1995) Radiatively active gases in tropical swamp forest and wetland soils III : seasonal variation in Narathiwat, Thailand in 1993 and 1994. *ditto*, pp. 99-107.

- 72) Ueda, S., Yoshioka, T., Yoshida, N., Sugimoto, A., Miyajima, T., Wada, E., Vijarnsorn, P., and Boonprakub, S. (1995) Distribution of dissolved carbon dioxide, methane and nitrous oxide in a tropical swamp ecosystem in Southern Thailand. *ditto*, pp. 109-116.
- 73) Sugimoto, A., Vijarnsorn, P., Boonprakub, S., Yoshida, N., and Wada, E. (1995) Stable isotopic compositions and flux of methane depend on the decomposition pathways of organic matter –incubation experiments and field observations at Narathiwat, Thailand. *ditto*, pp. 121-125.
- 74) Miyajima, T. and Wada E. (1995) Methane production from tropical peat under experimental conditions. *ditto*, pp. 127-130.
- 75) Kanatharana, P., Pongthumrong, V., Boontanon, N., Ueda, S., and Wada, E. (1995) Distribution of nitrous oxide (N₂O) in the peat swamp and its surrounding areas. *ditto*, pp. 147-151.
- 76) Jedrysek, M. O., Wada, E., and Vijarnsorn, P. (1995) Carbon and organic sulphur isotope ratios and organic sulphur concentration in core profiles of peat from Thailand. *ditto*, pp. 153-156.
- 77) Jedrysek, M. O., Boonprakub, S., Wada, E., and Vijarnsorn, P. (1995) Short communication: carbon isotopic composition of bubble methane –diurnal variation in artificial ponds and a canal and vertical variations in To Daeng forest –. *ditto*, pp. 157-158.
- 78) 山田佳裕, 和田英太郎 (1995) GC/C/IRMS による地球化学試料の同位体分析. *ぶんせき* **8**: 43-47.
- 79) 半場祐子, 和田英太郎 (1995) 植物の炭素同位体比を支配する要因について. *月刊海洋* **27(9)**: 512-516.
- 80) 宮島利宏, 和田英太郎, 半場祐子, Vijarnsorn, P. (1996) 熱帯湿地林の泥炭土壌における嫌気分解・メタン生成系の特性. In: 日本陸水学会第 60 回シンポジウム・課題講演報告 4. 湿地生態系における物質循環 *The Japanese Journal of Limnology* **57(1)**: 87-88.
- 81) 大河内直彦, 和田英太郎, 河村公隆, 平朝彦 (1996) アルケノン生産量と窒素同位体比の関係. *月刊海洋* **28(8)**: 493-497.
- 82) Kikuchi, E. and Wada, E. (1996) Carbon and nitrogen stable isotope ratios of deposit-feeding polychaetes in the Nanakita River Estuary and Eutrophic Gamo Lagoon. *Researches Related to the UNESCO's Man and the Biosphere Programme in Japan 1996-1997, Coordinating Committee on MAB Programme*. pp.75-78.
- 83) 和田英太郎 (1997) 生物多様性関連. *環境と公害* **26(3)**: 68.
- 84) 和田英太郎 (1997) 窒素安定同位体による生物地球化学的研究. *地球化学* **31(1)**: 17-25.
- 85) Yumoto, T., Inoue, T., Nakashizuka, T. and Wada, E. (1997) DIWPA (The International Network for DIVERSITAS in Western Pacific and Asia) Activities in 1993-1996. *Researches Related to the UNESCO's Man and the Biosphere Programme in Japan 1996-1997, Coordinating Committee on MAB Programme* pp. 67-70.
- 86) 和田英太郎 (1997) 水環境研究における安定同位体利用の薦め. *水環境学会誌* **20(5)**: 285.
- 87) Wada, E. (1997) Stable Isotopes in the Environment. *Proceedings of the Trans-disciplinary Forum on Science and Technology for the Global Environment –Environmental Measurement and Analysis–* Japan Science and Technology Corporation, pp. 111-115.
- 88) 和田英太郎 (1997) 同位体比法は生態学で何をめざすのか. *月刊海洋* **29(7)**: 436-442.
- 89) Jedrysek, M.O., Halas, S., Wada, E., Sokolowski, K., Filus, M. S., Takai, Y., and Radwan, S. (1997) Carbon isotope evidence for seasonal and spatial variations of methanogenesis during early diagenesis in freshwater lake sediments. *Acta Universitatis Wratislaviensis, No. 1917, Prace Geologiczno-Mineralogiczne LV*, pp. 209-222.
- 90) 小川奈々子, 木庭啓介, 高津文人, 和田英太郎 (1997) 自然生態系における炭素・窒素安定同位体存在比. *Radioisotopes* **46(9)**: 632-644.

- 91) 和田英太郎 (1997) 安定同位体と生態システム. *The TRC News* **61**: 1-12.
- 92) Ohkouchi, N. and Wada, E. (1997) Secular variations in sedimentary organic $\delta^{13}\text{C}$ during the last 35 M.Y. in the tropical Atlantic, site 925. *Proceedings of the Ocean Drilling Program Scientific Results* **154**: 501-505.
- 93) 和田英太郎 (1997) 安定同位体比精密測定法による陸上生態系の解析. 日本生態学会誌 **47**: 333-336.
- 94) 和田英太郎 (1998) 水系：その学際的研究の意味するもの. 水文・水資源学会誌 **11(3)**: 199-200.
- 95) 荻野晃也, 河合雅雄, 武部啓, 槌田劭, 宮越順二, 和田英太郎 (1998) 暴走する文明の果てに. 創造の世界 **108**: 58-75.
- 96) 和田英太郎 (1999) 生態系, その高次機能性複合システムの解析. 科学 **69(6)**: 494-495.
- 97) 高津文人, 西澤尚子, Narin Boontanon, 和田英太郎 (1999) 安定同位体自然存在比から環境ストレスを読む. 生物資源科学 **2(2)**: 1-10.
- 98) 和田英太郎 (2000) 琵琶湖の変化をときほぐす. 高等研<親子>サイエンススクール'99, 君の不思議を探そう ー楽しくて大切な琵琶湖ー. 国際高等研究所. pp. 6-14.
- 99) 和田英太郎 (2000) H_2O , 水循環, 水資源ーそれぞれの遺産. 水文・水資源学会誌 **13(3)**: 183-185.
- 100) 和田英太郎 (2000) 時間に挑戦する科学. 科学 **71(1)**: 1.
- 101) 和田英太郎 (2000) 地球環境と水系, 地域研究論集 **3(1)**: 95-117.
- 102) 和田英太郎 (2001) 野外調査研究のはざまから. 科学 **71(4)(5)**: 450-452.
- 103) 和田英太郎, 西川絢子, 高津文人 (2001) 安定同位対比の利用 (1) 環境科学ー特に水系について. *Radioisotopes* **50**: 158S-165S.
- 104) Narin Boontanon, 高津文人, 和田英太郎 (2001) 安定同位体比からみた琵琶湖における N_2O の生成構造. 月刊海洋 **33(7)**: 511-517.
- 105) Fujita, N., Amartuvshin, N., Uchida, T. and Wada, E. (2002) Biodiversity and sustainability of Mongolian herbaceous plants subjected to nomadic grazing. In: *New Scope on Sustainable Watersheds in East Asia* (eds) Fujita, N., Timoshkin, O.A., Urabe, J., and Wada, E. DIWPA Series Volume 3. 101-107.
- 106) Boontanon, N., Wada, E., Ueda S., and Kanatharana, P. (2002) Intramolecular stable isotope ratios of N_2O : Implication on its origin in the tropical swamp forest. In: *New Scope on Sustainable Watersheds in East Asia* (eds) Fujita, N., Timoshkin, O.A., Urabe, J., and Wada, E. DIWPA Series Volume 3. 109-114.
- 107) Nakanishi, M. and Wada, E. (2002) Summary on the matter cycle in lake Biwa-Yodo River System. . In: *New Scope on Sustainable Watersheds in East Asia* (eds) Fujita, N., Timoshkin, O.A., Urabe, J., and Wada, E. DIWPA Series Volume 3. 115-116.
- 108) 和田英太郎, 小川奈々子, 宮坂仁 (2002) バイカル湖: 安定同位体比から見た自然の実験室. 会誌「地球環境」. **7(1)**: 77-85.
- 109) Ogawa, N.O. and Wada, E. (2002) Nitrogen isotope ratio of fish specimens and sediments and a tool for evaluating recent changes in lacustrine environments. *Frontier Research on Earth Evolution Vol. 1, IFREE Report for 2001-2002*. Japan Marine Science and Technology Cebter **1**: 263-266.
- 110) 和田英太郎, 陀安一郎, 兵藤不二夫 (2003) 物質循環と水資源ー水系を中心として. エネルギー・資源 **24(1)**: 27-33.
- 111) 和田英太郎 (2003) モンゴルの遊牧とその持続性の実体ー物質循環からみたモンゴル高原. 科学 **73(5)**: 545-548.
- 112) Wada, E. (2003) Isotope ecology in Lake Baikal. In: *Lectures by Honorary Professors of Siberian Branch of RAS*. Publishing House of Siberian Branch of the Russian Academy of Science, Nobosibirsk. pp. 99-111.
- 113) 和田英太郎 (2003) 地球生態系からみた生物と環境ー酸化還元境界層を中心として. In: 第17回「大学と科学」公開シンポジウ

ム講演収録集 生物多様性の世界. 139-147pp.

- 114) 和田英太郎 (2004) 自然界の物質循環を探る—安定同位体が語る生物と地球環境. 現代化学, 3月号, 14-19.
- 115) 和田英太郎, 宮坂仁, 小川奈々子 (2006) 炭素・窒素同位体比から見た水界の藻類—北西太平洋とバイカル湖を例として. 月刊海洋, 38巻, No.6, 441-452.
- 116) 和田英太郎 (2006) 地球生態系研究の現状とこれから. FINIPED (Foundation for International Information Processing Education) 情報処理教育研修助成財団 機関誌 September, 3-12.
- 117) 和田英太郎 (2008) 流域の健康診断: 最近の動向と琵琶湖—淀川水系. 環境と健康, 13-23, Vol.21 No.1 Environment and Health 健康財団グループ
- 118) 石井励一郎, 和田英太郎 (2008) モデルとシミュレーションと検証と—新しい生態系の変動予測から. 岩波「科学」Oct.2008, 1142-1147.
- 119) 和田英太郎 (2012) 地球における水循環と環境. エネルギー・資源 **33**: 231-236.

著書(含共著)

- 1) 和田英太郎 (1973) 圧力・温度が生物活動におよぼす影響. In: 海洋生化学(海洋科学基礎講座 11) 東海大学出版会. pp. 267-284.
- 2) 和田英太郎 (1973) 無機化の過程 In: 海洋生化学(海洋学講座 7, 5章) 東京大学出版会. pp.141-173.
- 3) 和田英太郎 (1979) 微量重窒素含量の測定. In: 重窒素利用研究法. 学会出版センター. pp. 65-76.
- 4) Wada, E. (1980) Nitrogen isotope fractionation and its significance in biogeochemical processes occurring in marine environments. In: *Isotope Marine Chemistry* pp.211-234.
- 5) 和田英太郎, 海のはなし編集グループ編 (1984) 海のはなし(全5巻). 技報堂出版.
- 6) 和田英太郎 (1985) 微生物による窒素・炭素同位体分別. 微生物の生態 13. 学会出版センター. pp. 57-77.
- 7) 和田英太郎 (1986) 自然界における藻類の窒素代謝. In: 藻類の生態. 秋山優 (編) 内田老鶴圃. pp. 177-208.
- 8) 和田英太郎 (1988) 生物地球化学. In: 地球化学. 半谷高久 (編) 丸善株式会社. pp. 121-159.
- 9) 和田英太郎 (1988) 河口と海浜の環境特性—化学環境. In: 河口—沿岸域の生態学とエコテクノロジー. 栗原康 (編) 東海大出版会. pp. 126-131.
- 10) 和田英太郎 (1988) 化学構造から見た食物連鎖. In: 河口—沿岸域の生態学とエコテクノロジー. 栗原康 (編) 東海大出版会. pp. 77-84.
- 11) 和田英太郎 (1989) 生物活動と物質循環. In: 地球化学. 松尾禎士(編) 講談社サイエンティフィック. pp. 129-136.
- 12) Takai, Y. and Wada, E. (1990) Methane formation in waterlogged paddy soils and its controlling factors. In: *Soils on a Warmer Earth* (eds Scharpenseel, H.W., Schomaker, M., and Ayoub, A.) Elsevier, Amsterdam. pp. 101-107.
- 13) Nakamura, K., Takai, Y., and Wada, E. (1990) Carbon isotopes of soil gases and related organic matter in an agroecosystem with special reference to paddy field. In: *Geochemistry of Gaseous Elements and Compounds* (eds Durrance, E.M., Galimov, E.M., Hinkle, M.E., Reimer G.M., Sugisaki, R., and Augustithis, S.S.) Theophrastus Publications, S.A., Athen, Greece. pp. 445-484.
- 14) Wada, E. and Hattori, A. (1991) Nitrogen in the sea: forms, abundances & rate processes. CRC Press, Florida, U.S.A. 208pp.
- 15) 和田英太郎 (1991) 安定同位体は海の指紋. In: 海と地球環境. 日本海洋学会(編) 東京大学出版会. pp. 198-204.

- 16) Watanabe, I. and Wada, E. (1992) Nitrogen fixation in flooded rice soils and aquatic and sediment systems. In: *Nitrogen Isotope Technique*. (eds Knowles, R. and Blackburn, T.H.). Academic Press, NY. pp. 157-178.
- 17) 和田英太郎, 杉本敦子, 吉岡崇仁 (1993) 水と生物「水の惑星・地球」. In: 地球環境セミナー4. 寺本俊彦 (編) オーム社. pp. 97-124.
- 18) 林秀剛, 和田英太郎 他 (1993) ワカサギ投入の生物群集への影響. In: メソコス湖沼生態系の解析. 西条八東, 坂本充 (編) 名大出版会. pp. 237-256.
- 19) 吉岡崇仁, 和田英太郎, 林秀剛, 竹内勝巳, 高橋和志 (1993) 炭素, 窒素安定同位体比からみた物質循環と食物網. In: メソコス湖沼生態系の解析. 西条八東, 坂本充 (編) 名大出版会. pp. 271-296.
- 20) 和田英太郎 (1994) 安定同位体比を利用した物質循環の解明. In: バイカル湖古代湖のフィールドサイエンス. 森野浩, 宮崎信之 (編) 東京大学出版会. pp. 227-245.
- 21) Wada, E., Ando, T., and Kumazawa, K. (1995) Biodiversity of stable isotope ratios. In: *Stable Isotopes in the Biosphere* (eds Wada, E., Yoneyama, T., Minagawa, M., Ando, T., and Fry, B.D.). Kyoto University Press. pp. 7-14.
- 22) 和田英太郎 (1995) 微生物のガス代謝と地球環境. In: 微生物の生態 20. 松本 聰 (編) 学会出版センター pp. 1-21.
- 23) Wada, E. and Ueda, S. (1996) Carbon, nitrogen, and oxygen isotope ratios of CH₄ and N₂O in soil ecosystems. In: *Mass Spectrometry of Soils* (eds Boutton, T. W. and Yamasaki, S.). Marcel Dekker, Inc. pp. 177-204.
- 24) 和田英太郎, 大河内直彦 (1996) 生態システム. In: 岩波講座・地球惑星科学2 地球システム科学. pp.145-184.
- 25) 和田英太郎 (1997) 有機物: 粒子の炭素・窒素同位体比. In: 地球化学の発展と展望. 藤原鎮男 (編) 東海大学出版会. pp. 231-237.
- 26) Wada, E. (1997) Stable isotope ratios in ecosystems -possible parameters assessing ecological function and structure. In: *Conserving Biodiversity for Sustainable Development* (eds). Indian National Science Academy. pp. 53-60.
- 27) Wada, E, Timoshkin, O.A., Fujita, N., and Tanida, K. (eds) (1997) New Scope on Boreal Ecosystems in East Siberia. DIWPA Series Volume 2. 179pp.
- 28) Wada, E., Tayasu, I., Koba, K., Matsubara, T., Ogawa, N. O., Yamada, Y., Yoshii, K., and Sugimoto, A. (1998) The use of stable isotopes for ecological studies. In: *Ecology Today: an anthology of contemporary ecological research*. (eds) Gopal, B., Pathak, P. S., and Saxena, K. G., International Scientific Publications, New Delhi. pp. 407-430.
- 29) 吉田尚弘, 和田英太郎 (1998) アイソトポマーの計測と解析. In: 環境計測の最先端. 小泉英明 (編) 三田出版会 pp. 325-336.
- 30) 井上民二, 和田英太郎 (1998) 生物多様性-その意義と現状. In: 岩波講座「地球環境学」第5巻「生物多様性とその保全」. 井上民二, 和田英太郎 (編) 岩波書店 pp. 1-23.
- 31) 和田英太郎 (1998) 生物多様性研究の将来. In: 岩波講座「地球環境学」第5巻「生物多様性とその保全」. 井上民二, 和田英太郎 (編) 岩波書店 pp. 231-248.
- 32) 吉井浩一, 和田英太郎 (1998) 炭素・窒素の安定同位体比による物質循環の解明と古環境の復元. In: 地球環境変動の科学. 井上源喜, 柏谷健二, 箕浦幸治 (編) 古今書院 pp. 175-183.
- 33) 和田英太郎 (1999) 環境調和型の水・物質循環と時間. In: 岩波講座「地球環境学」第4巻「水・物質循環系の変化」. 和田英太郎, 安成哲三 (編) 岩波書店 pp. 327-343.
- 34) 和田英太郎 (1999) エコシステム認識の現代像. In: 岩波講座「科学／技術と人間」第5巻「科学／技術のニュー・フロンティア(2)」. 岩波書店 pp. 127-157.

- 35) 和田英太郎 (1999) 自然の価値. In: 地球の限界. 水谷広 (編) 日科技連出版社, 東京. pp. 11-26.
- 36) Ogawa, N., Yoshii, K., Melnik, N.G., Bondarenko, N.A., Timoshkin, O.A., Smirnova-Zalumi, N.S., Smirnov, V.V., and Wada, E. (2000) Carbon and nitrogen isotope studies of pelagic ecosystems and environmental fluctuations of Lake Baikal. In: *Lake Baikal* (ed. Minoura, K.). Elsevier Science B.V. The Netherlands. pp. 262-272.
- 37) 和田英太郎 (2002) 環境学入門 3 「地球生態学」. 岩波書店. 171pp.
- 38) Fujita, N., Timoshkin, O.A., Urabe, J., and Wada, E. (eds) (2002) New scope on sustainable watersheds in East Asia. DIWPA Series Volume 3. 151pp.
- 39) 和田英太郎 (2005) 流域圏をどのように診るか ―物質循環の立場から―, 自然と共生した流域圏・都市の再生 177-186. 山海堂ワークショップ実行委員会編.
- 40) 和田英太郎 (2005) 琵琶湖・淀川水系の診断法, 流域圏プランニングの時代 ―自然共生型・都市の再生― 石川幹子・岸由二・吉川勝秀編, 技報堂出版 149-171.
- 41) 和田英太郎 (2006) 生態系の物質動態プロセスとその時空間スケール 254-267, 陸水生態系の科学, 地球環境と生態系, 武田, 占部編, 共立出版 282pp.
- 42) Kohyama T., Urabe, J., Hikosaka, K., Shibata, H., Yoshioka, T., Konohira, E., Murase, J. and Wada, E. (2006) Terrestrial ecosystems in monsoon Asia: scaling up from shoot module to watershed. In: Canadell J, Pataki D, Pitelka L (eds), *Terrestrial Ecosystems in a Changing World*, pp. 285-296. The IGBP Series, Springer, Berlin.
- 43) 和田英太郎 (2008) 次世代の環境科学と安定同位体精密測定法. 流域環境評価と安定同位体, 永田, 宮島編, 1-9, 京大出版会.
- 44) 和田英太郎 監修, 谷内茂雄・脇田健一・原雄一・中野孝教・陀安一郎・田中拓弥 (編) 流域環境学 京大出版会 (2009) 564pp.
- 45) 和田英太郎, 神松 編 (2010) 安定同位体というメガネ―人と環境のつながりを診る. 地球研叢書, 昭和堂.