

Shigenobu Takeda

【Journal publications】

1. Kikuchi, K., S. Takeda, H. Honda, M. Kiyono. Oxygen consumption and nitrogenous excretion of starved Japanese flounder *Paralichthys olivaceus*. Nippon Suisan Gakkaishi, 56(11), 1891 (1990).
2. Takeda, S., Y. Nimura, R. Hirano. Optical, biological, and chemical properties of aoshio, hypoxic milky blue-green water, observed at the head of Tokyo Bay. Journal of the Oceanographical Society of Japan, 47(4), 126–137 (1991).
3. Kikuchi, K., S. Takeda, H. Honda, M. Kiyono. Effect of feeding on nitrogen excretion of Japanese flounder *Paralichthys olivaceus*. Nippon Suisan Gakkaishi, 57(11), 2059–2064 (1991).
4. Kikuchi, K., S. Takeda, H. Honda, M. Kiyono. Nitrogenous excretion of juvenile and young Japanese flounder. Nippon Suisan Gakkaishi, 58(12), 2329–2333 (1992).
5. Honda, H., Y. Watanabe, K. Kikuchi, N. Iwata, S. Takeda, H. Uemoto, T. Furuta, M. Kiyono. High density rearing of Japanese flounder, *Paralichthys olivaceus* with a closed seawater recirculation system equipped with a denitrification unit. Suisanzoshoku, 41(1), 19–26 (1993).
6. Takeda, S., H. Obata. Response of equatorial Pacific phytoplankton to subnanomolar Fe enrichment. Marine Chemistry, 50(1-4), 219–227 (1995).
7. Takeda, S., A. Kamatani, K. Kawanobe. Effects of nitrogen and iron enrichments on phytoplankton communities in the northwestern Indian Ocean. Marine Chemistry, 50(1-4), 229–241 (1995).
8. 武田重信. 鉄による海洋炭素循環の制御. 化学と工業, 48, 1089 (1995).
9. 武田重信. 微量金属と植物プランクトン—その取り込みと利用—. 月刊海洋ノ号外, 10, 69–77 (1996).
10. Takeda, S. Influence of iron availability on nutrient consumption ratio of diatoms in oceanic waters. Nature, 393(6687), 774–777 (1998).
11. Harrison, P.J., P.W. Boyd, D.E. Varela, S. Takeda, A. Shiomoto, T. Odate. Comparison of factors controlling phytoplankton productivity in the NE and NW subarctic Pacific Gyres. Progress in Oceanography, 43(2-4), 205–234 (1999).
12. 武田重信. 地球温暖化現象解明—海洋の植物プランクトンを介した CO₂ の吸収機構—. 農業電化, 52, 14–18 (1999).
13. 菊池弘太郎, 武田重信. 循環濾過養魚における水質変化と物質収支. 養殖, 36, 42–47 (1999).
14. 武田重信. 青潮. 農業電化, 52, 20–21 (1999).
15. Nishioka, J., S. Takeda. Change in the concentrations of iron in different size fractions during growth of the oceanic diatom *Chaetoceros* sp.: Importance of small colloidal iron. Marine Biology, 137(2), 231–238 (2000).
16. 武田重信. 植物プランクトンの栄養物質吸収—多量栄養素と微量栄養素の関わり—. 月刊海洋ノ

- 号外, 21, 102–106 (2000).
17. Nishioka, J., S. Takeda, C.S. Wong. Change in the concentrations of iron in different size fractions during a phytoplankton bloom in controlled ecosystem enclosures. *Journal of experimental Marine Biology and Ecology*, 258(2), 237–255 (2001).
 18. Nishioka, J., S. Takeda, C.S. Wong, W.K. Johnson. Size-fractionated iron concentrations in the northeast Pacific Ocean: distribution of soluble and small colloidal iron. *Marine Chemistry*, 74(2-3), 157–179 (2001).
 19. Hutchins, D.A., B.J. Campbell, M.T. Cottrell, S. Takeda, S.C. Cary. Response of marine bacterial community composition to iron additions in three iron-limited regimes. *Limnology and Oceanography*, 46(6), 1535–1545 (2001).
 20. Kikuchi, K., S. Takeda. Present status of research and production of Japanese flounder, *Paralichthys olivaceus*. *Journal of Applied Aquaculture*, 11(1/2), 165–175 (2001).
 21. 池谷透, 中谷誠治, 深堀芳雄, 西岡純, 武田重信, 川延京子, 高橋正征. 海洋深層水による亜熱帯表層水の肥沃化効果の屋外メソコスム実験による検証. *海洋深層水研究*, 2(1), 73–86 (2001).
 22. 武田重信, 西岡純. 海洋における鉄の存在状態. *月刊海洋* / 号外, 25, 83–89 (2001).
 23. 武田重信. 鉄供給による植物プランクトンの栄養塩利用の制御. *日本プランクトン学会報*, 49(1), 21–26 (2002).
 24. Kikuchi, K., A. Ueda, H. Sugita, S. Takeda. Effect of Dietary Inclusion of Blue Mussel Extracts on Growth and Body Composition of Japanese Flounder *Paralichthys olivaceus*. *Journal of World Aquaculture Society*, 33(1), 41–47 (2002).
 25. Takeda, S. Towards the enhancement of biological production in the oceans. *Fisheries Science*, 68 (suppl. I), 20–24 (2002).
 26. Takamaru, H., T. Yoshikawa, N. Ramaiah, S. Takeda, K. Furuya. Rapid evaluation of photosynthetic activity of phytoplankton by pulse amplitude modulated fluorescence method (PAM) fluorescence in coastal waters. *Fisheries Science*, 68 (suppl. I), 651–652 (2002).
 27. Takeda, S., K. Kikuchi. Carbon and nitrogen budget in closed recirculating fish-culture systems for Japanese flounder. *Fisheries Science*, 68 (suppl. I), 653–654. (2002).
 28. Kikuchi, K., N. Iwata, S. Takeda. Production of Japanese flounder in closed recirculating aquaculture system. *Fisheries Science*, 68 (suppl. I), 851–854. (2002).
 29. Suzuki, K., A. Tsuda, H. Kiyosawa, S. Takeda, J. Nishioka, T. Saino, M. Takahashi, C.S. Wong. Grazing impact of microzooplankton on bloom formation by small-sized diatoms in a mesocosm as estimated with pigment-specific dilution technique. *Journal of experimental Marine Biology and Ecology*, 271(1), 99–120. (2002).
 30. 武田重信. 北太平洋亜寒帯域における現場鉄添加実験: PICES-IFEP における国際共同研究計画. *月刊海洋*, 34, 191–195. (2002).
 31. Nishioka, J., S. Takeda, I. Kudo, D. Tsumune, T. Yoshimura, K. Kuma, A. Tsuda. Size-fractionated iron distributions and iron-limitation processes in the subarctic NW Pacific. *Geophysical Research Letters*, 30(14), 1730. doi:10.1029/2002 GLO16853. (2003).

32. Tsuda, A., S. Takeda, H. Saito, J. Nishioka, Y. Nojiri, I. Kudo, H. Kiyosawa, A. Shiimoto, K. Imai, T. Ono, A. Shimamoto, D. Tsumune, T. Yoshimura, T. Aono, A. Hinuma, M. Kinugasa, K. Suzuki, Y. Sohrin, Y. Noiri, H. Tani, Y. Deguchi, N. Tsurushima, H. Ogawa, K. Fukami, K. Kuma, T. Saino. A mesoscale iron enrichment in the western Subarctic Pacific induces a large centric diatom bloom. *Science*, 300, 958–961 (2003).
33. Boyd, P.W., C.S. Law, C.S. Wong, Y. Nojiri, A. Tsuda, M. Levasseur, S. Takeda, R. Rivkin, P.J. Harrison, R. Strzepek, J. Gower, R.M. McKay, E. Abraham, M. Arychuk, J. Barwell-Clarke, W. Crawford, D. Crawford, M. Hale, K. Harada, K. Johnson, H. Kiyosawa, I. Kudo, A. Marchetti, W. Miller, J. Needoba, J. Nishioka, H. Ogawa, J. Page, M. Robert, H. Saito, A. Sastri, N. Sherry, T. Soutar, N. Sutherland, Y. Taira, F. Whitney, S.-K.E. Wong, T. Yoshimura. The decline and fate of an iron-induced subarctic phytoplankton bloom. *Nature*, 428, 549–553 (2004).
34. De Baar, H.J.W., P.W. Boyd, K.H. Coale, M.R. Landry, A. Tsuda, P. Assmy, D.C.E. Bakker, Y. Bozec, R.T. Barber, M.A. Brzezinski, K.O. Buesseler, M. Boyé, P.L. Croot, F. Gervais, M.Y. Gorbunov, P.J. Harrison, W.T. Hiscock, P. Laan, C. Lancelot, C.S. Law, M. Levasseur, A. Marchetti, F.J. Millero, J. Nishioka, Y. Nojiri, T. van Oijen, U. Riebesell, M.J.A. Rijkenberg, H. Saito, S. Takeda, K.R. Timmermans, M.J.W. Veldhuis, A.M. Waite, C.S. Wong. Synthesis of iron fertilization experiments: From the Iron Age in the Age of Enlightenment. *Journal of Geophysical Research*, 110, C09S16. doi:10.1029/2004JC002601 (2005).
35. 井上雄介, 武田重信, 岡本研, 古谷研. 浜名湖本湖における河川からの栄養塩負荷量と湖北部底層水の水質の長期的変化. *沿岸海洋研究*, 42, 141–150 (2005).
36. Nishioka, J., S. Takeda, H.J.W. de Baar, P.L. Croot, M. Boyé, P. Laanc, K.R. Timmermans. Changes in the concentration of iron in different size fractions during an iron enrichment experiment in the open Southern Ocean. *Marine Chemistry*, 95, 51–63 (2005).
37. Gómez, F., K. Furuya, S. Takeda. Distribution of the cyanobacterium *Richelia intracellularis* as an epiphyte of the diatom *Chaetoceros compressus* in the western Pacific Ocean. *Journal of Plankton Research*, 27, 323–330 (2005).
38. Takeda, S., A. Tsuda. An in situ iron-enrichment experiment in the western subarctic Pacific (SEEDS): Introduction and summary. *Progress in Oceanography*, 64, 95–109 (2005).
39. Tsumune, D., J. Nishioka, A. Shimamoto, S. Takeda, A. Tsuda. Physical behavior of the SEEDS iron-fertilized patch by sulphur hexafluoride tracer release. *Progress in Oceanography*, 64, 111–127 (2005).
40. Kinugasa, M., T. Ishita, Y. Sohrin, K. Okamura, S. Takeda, J. Nishioka, A. Tsuda. Dynamics of trace metals during the subarctic Pacific iron experiment for ecosystem dynamics study (SEEDS2001). *Progress in Oceanography*, 64, 129–147 (2005).
41. Ramaiah, N., S. Takeda, K. Furuya, T. Yoshimura, J. Nishioka, T. Aono, Y. Nojiri, K. Imai, I. Kudo, H. Saito, A. Tsuda. Effect of iron enrichment on the dynamics of transparent exopolymer particles in the western subarctic Pacific. *Progress in Oceanography*, 64, 253–261 (2005).
42. Boyd, P.W., R. Strzepek, S. Takeda, G. Jackson, C.S. Wong, R.M. McKay, C. Law, H. Kiyosawa, H. Saito, N. Sherry, K. Johnson, J. Gower, N. Ramaiah. The evolution and termination of an iron-induced mesoscale bloom in the northeast subarctic Pacific. *Limnology and Oceanography*, 50, 1872–1886 (2005).

43. 津田敦, 武田重信. 北太平洋における鉄散布実験—プロジェクトの立ち上げと成果—. 日本生態学会誌, 55, 514–519 (2005).
44. Wong, C.S., W.K. Johnson, N. Sutherland, J. Nishioka, D.A. Timothy, M. Robert, S. Takeda. Iron speciation and dynamics during SERIES, a mesoscale iron enrichment experiment in the NE Pacific. *Deep-Sea Research II*, 53, 2075–2094 (2006).
45. Saito, H., A. Tsuda, Y. Nojiri, J. Nishioka, S. Takeda, H. Kiyosawa, I. Kudo, Y. Noiri, T. Ono, Y. Taira, K. Suzuki, T. Yoshimura, P.W. Boyd. Nutrient and phytoplankton dynamics during the stationary and declining phases of a phytoplankton bloom induced by iron-enrichment in the eastern subarctic Pacific. *Deep-Sea Research II*, 53, 2168–2181 (2006).
46. Takeda, S., N. Yoshie, P.W. Boyd, Y. Yamanaka. Modeling studies investigating the causes of preferential depletion of silicic acid relative to nitrate during SERIES, a mesoscale iron enrichment in the NE subarctic Pacific. *Deep-Sea Research II*, 53, 2297–2326 (2006).
47. Sato, M., S. Takeda, K. Furuya. Effects of long-term sample preservation on flow cytometric analysis of natural populations of pico- and nanophytoplankton. *Journal of Oceanography*, 62, 903–908 (2006).
48. 武田重信. 自然の現象をどのように捉えるか. 学術月報, 59, 344–345 (2006).
49. 武田重信. 海洋に鉄を撒く—植物プランクトンを介した海洋の CO₂ 吸収は促進されるか. 学術の動向, 11, 42–47 (2006).
50. Boyd, P.W., T. Jickells, C.S. Law, S. Blain, E.A. Boyle, K.O. Buesseler, K.H. Coale, J.J. Cullen, H.J.W. de Baar, M. Follows, M. Harvey, C. Lancelot, M. Levasseur, R. Pollard, R.B. Rivkin, J. Sarmiento, V. Schoemann, V. Smetacek, S. Takeda, A. Tsuda, S. Turner, A.J. Watson. Mesoscale iron-enrichment experiments 1993-2005: synthesis and future directions. *Science*, 315, 612–617. (2007).
51. Yoshimura, T., J. Nishioka, H. Saito, S. Takeda, A. Tsuda, M.L. Wells. Distributions of particulate and dissolved organic and inorganic phosphorus in North Pacific surface waters. *Marine Chemistry*, 103, 112–121 (2007).
52. Kondo, Y., S. Takeda, K. Furuya. Distribution and speciation of dissolved iron in the Sulu Sea and its adjacent waters. *Deep-Sea Research II*, 54, 60–80 (2007).
53. Takeda, S., N. Ramaiah, M. Miki, Y. Kondo, Y. Yamaguchi, Y. Ariei, F. Gomez, K. Furuya, W. Takahashi. Biological and chemical characteristics of high-chlorophyll, low-temperature water observed near the Sulu Archipelago. *Deep-Sea Research II*, 54, 81–102 (2007).
54. Nishioka, J., T. Ono, H. Saito, T. Nakatsuka, S. Takeda, T. Yoshimura, K. Suzuki, K. Kuma, S. Nakabayashi, D. Tsumune, H. Mitsudera, W.K. Johnson, A. Tsuda. Iron supply to the western subarctic Pacific: Importance of iron export from the Sea of Okhotsk. *Journal of Geophysical Research*, 112, C10012, doi:10.1029/2006JC004055 (2007).
55. 鎌谷明善, 武田重信. 生物ケイ酸の溶解度と溶解速度について. 海の研究, 16(6), 471–512 (2007).
56. Sato, M., T. Yoshikawa, S. Takeda, K. Furuya. Application of the size-fractionation method to simultaneous estimation of clearance rates by heterotrophic flagellates and ciliates of pico- and nanophytoplankton. *Journal of Experimental Marine Biology and Ecology*, 349, 334–343 (2007).

57. Yoshikawa, T., M. Miki, S. Takeda, K. Furuya. Spatial heterogeneity in photosynthesis-irradiance parameters of phytoplankton across a cyclonic eddy in the Antarctic Divergence zone along 140°E. *Geophysical Research Letters*, 34, L18605, doi:10.1029/2007GL030736 (2007).
58. Tsuda, A., S. Takeda, H. Saito, J. Nishioka, I. Kudo, Y. Nojiri, K. Suzuki, M. Uematsu, M.L. Wells, D. Tsumune, T. Yoshimura, T. Aono, T. Aramaki, W.P. Cochlan, M. Hayakawa, K. Imai, T. Isada, Y. Iwamoto, W.K. Johnson, S. Kameyama, S. Kato, H. Kiyosawa, Y. Kondo, M. Lévassieur, R.J. Machida, I. Nagao, F. Nakagawa, T. Nakanishi, S. Nakatsuka, A. Narita, Y. Noiri, H. Obata, H. Ogawa, K. Oguma, T. Ono, T. Sakuragi, M. Sasakawa, M. Sato, A. Shimamoto, H. Takata, C.G. Trick, Y.W. Watanabe, C.S. Wong, N. Yoshie. Evidence for the grazing hypothesis: Grazing reduces phytoplankton responses of the HNLC ecosystem to iron enrichment in the western subarctic Pacific (SEEDS II). *Journal of Oceanography*, 63, 983–994 (2007).
59. Sato, M., S. Takeda, K. Furuya. Iron regeneration and organic iron(III)-binding ligand production during in situ zooplankton grazing experiment. *Marine Chemistry*, 106, 471–488 (2007).
60. 武田重信. 鉄による海洋一次生産の制御機構. *日本水産学会誌*, 73, 429–432. (2007).
61. Buesseler, K.O., S.C. Doney, D.M. Karl, P.W. Boyd, K. Caldeira, F. Chai, K. Coale, H.J.W. de Baar, P.G. Falkowski, K.S. Johnson, R.S. Lampitt, A.F. Michaels, S.W.A. Naqvi, V. Smetacek, S. Takeda, A.J. Watson. Ocean iron fertilization: moving forward in a sea of uncertainty. *Science*, 319, 162 (2008).
62. Kondo, Y., S. Takeda, J. Nishioka, H. Obata, K. Furuya, W.K. Johnson, C.S. Wong. Organic iron (III) complexing ligands during an iron enrichment experiment in the western subarctic North Pacific. *Geophysical Research Letters*, 35, L12601, doi:10.1029/2008GL033354 (2008).
63. M. Miki, N. Ramaiah, S. Takeda, K. Furuya. Phytoplankton dynamics associated with the monsoon in the Sulu Sea as revealed by pigment signature. *Journal of Oceanography*, 64, 663–673 (2008).
64. Hashihama, F., K. Furuya, S. Kitajima, S. Takeda, T. Takemura, J. Kanda. Macro-scale exhaustion of surface phosphate by dinitrogen fixation in the western North Pacific. *Geophysical Research Letters*, 36, L03610, doi:10.1029/2008GL036866 (2009).
65. Kitajima, S., K. Furuya, F. Hashihama, S. Takeda, J. Kanda. Latitudinal distribution of diazotrophs and their nitrogen fixation in the tropical and subtropical western North Pacific. *Limnology and Oceanography*, 54, 537–547 (2009).
66. Vijayan A.K., T. Yoshikawa, S. Watanabe, H. Sasaki, K. Matsumoto, S. Saito, S. Takeda, K. Furuya. Influence of non-photosynthetic pigments on light absorption and quantum yield of photosynthesis in the western equatorial Pacific and the subarctic North Pacific. *Journal of Oceanography*, 65, 245–258 (2009).
67. Shiozaki, T., T. Kodama, S. Takeda, K. Furuya. Contribution of N₂ fixation to new production in the western North Pacific along 155°E. *Marine Ecology Progress Series*, 377, 19–32 (2009).
68. Tsumune, D., J. Nishioka, A. Shimamoto, Y.W. Watanabe, T. Aramaki, Y. Nojiri, S. Takeda, A. Tsuda, T. Tsubono. Physical behaviors of the iron fertilized patch in SEEDS II. *Deep-Sea Research II*, 56(26), 2948–2957. (2009).

69. Nishioka, J., S. Takeda, Y. Kondo, H. Obata, T. Doi, D. Tsumune, C.S. Wong, W. K. Johnson, N. Sutherland, A. Tsuda. Changes in iron concentrations and bio-availability during an open-ocean mesoscale iron enrichment in the western subarctic Pacific, SEEDS II. *Deep-Sea Research II*, 56(26), 2796-2809. (2009).
70. Saito, H., A. Tsuda, Y. Nojiri, T. Aramaki, H. Ogawa, T. Yoshimura, K. Imai, I. Kudo, J. Nishioka, T. Ono, K. Suzuki, S. Takeda. Biogeochemical cycling of N and Si during the meso-scale iron-enrichment experiment in the western sub-arctic Pacific (SEEDS-II). *Deep-Sea Research II*, 56(26), 2852- 2862. (2009).
71. Sato, M., S. Takeda, K. Furuya. Responses of pico- and nanophytoplankton to artificial iron infusions observed during the second iron enrichment experiment in the western subarctic Pacific (SEEDS II). *Deep-Sea Research II*, 56(26), 2745- 2754. (2009).
72. Nakatsuka, S., K. Okamura, S. Takeda, J. Nishioka., M.L. Firdaus, K. Norisuye, Y. Sohrin. Behaviors of dissolved and particulate Co, Ni, Cu, Zn, Cd and Pb during a meso-scale Fe-enrichment (SEEDS II) in the western North Pacific. *Deep-Sea Research II*, 56(26), 2822-2838. (2009).
73. Hara, Y., H. Obata, T. Doi, Y. Hongo, T. Gamo, S. Takeda, A. Tsuda. Rare earth elements in seawater during an iron-induced phytoplankton bloom of the western subarctic Pacific (SEEDS-II). *Deep-Sea Research II*, 56(26), 2839- 2851. (2009).
74. Kameyama, S., H. Tanimoto, S. Inomata, U. Tsunogai, A. Ooki, Y. Yokouchi, S. Takeda, H. Obata, M. Uematsu. Equilibrator inlet-proton transfer reaction-mass spectrometry (EI-PTR-MS) for sensitive, high-resolution measurement of dimethyl sulfide dissolved in seawater. *Analytical Chemistry*, 81(21), 9021-9026. (2009).
75. 塩崎拓平, 武田重信, 古谷研. 熱帯・亜熱帯貧栄養海域における新生産の評価. *海の研究*, 18(3), 213–242 (2009).
76. 塩崎拓平, 岡添巨一, 児玉武稔, 武田重信, 古谷研. ^{13}C , ^{15}N トレーサー法を用いた生物生産測定. *月刊海洋*, 41, 213–220 (2009).
77. 西岡純, 武田重信 :鉄の海洋内循環におけるコロイド態画分の重要性, *月刊海洋*, 42(1), 14-19. (2010).
78. Hashihama, F., M. Sato, S. Takeda, J. Kanda, K. Furuya: Mesoscale decrease of surface phosphate and associated phytoplankton. *Deep-Sea Research I*, 57(3), 338- 350. (2010).
79. T. Shiozaki, K. Furuya, T. Kodama, S. Kitajima, S. Takeda, T. Takemura, J. Kanda: New estimation of N_2 fixation in the western and central Pacific Ocean and its marginal seas. *Global Biogeochemical Cycles*, 24, GB1015, doi:10.1029/2009GB003620. (2010).
80. Kameyama, S., H. Tanimoto, S. Inomata, U. Tsunogai, A. Ooki, Y. Yokouchi, S. Takeda, H. Obata, M. Uematsu. High-resolution measurement of multiple volatile organic compounds dissolved in seawater using equilibrator inlet-proton transfer reaction-mass spectrometry (EI-PTR-MS). *Marine Chemistry*, 122(1-4), 59-73. (2010).
81. Sato, M., F. Hashihama, S. Kitajima, S. Takeda, K. Furuya. Distribution of nano-sized cyanobacteria in the western and central Pacific Ocean. *Aquatic Microbial Ecology*, 59(3), 273-282. (2010).

82. Boye, M., J. Nishioka, P. Croot, P. Laan, K.R. Timmermans, V.H. Strass, S. Takeda, H.J.W. de Baar. Significant portion of dissolved organic Fe complexes in fact is Fe colloids. *Marine Chemistry*, 122 (1-4), 20-27. (2010).
83. Ooki, A., A. Tsuda, S. Kameyama, S. Takeda, S. Itoh, T. Suga, H. Tazoe, A. Okubo, Y. Yokouchi. Methyl halides in surface seawater and marine boundary layer of the Northwest Pacific. *Journal of Geophysical Research*, 115, C10013, doi:10.1029/2009JC005703. (2010).
84. Tsuda, A., K. Fukami, H. Kiyosawa, K. Suzuki, S. Takeda, J. Nishioka, M. Takahashi, K. Johnson, C.S. Wong. Response of lower trophic organisms to nutrient input and effects on carbon budget: a mesocosm experiment. *Plankton & Benthos Research*, 5(4), 144-155. (2010).
85. Masuda, T., K. Furuya, N. Kohashi, M. Sato, S. Takeda, M. Uchiyama, N. Horimoto, T. Ishimaru. Lagrangian observation of phytoplankton dynamics at an artificially enriched subsurface water in Sagami Bay, Japan. *Journal of Oceanography*, 66(6), 801-813. (2010).
86. Romero, M.L.J., Y. Kotaki, N. Lundholm, H. Thoha, H. Ogawa, J.R. Relox, R. Terada, S. Takeda, Y. Takata, K. Haraguchi, T. Endo, P.-T. Lim, M. Kodama, Y. Fukuyo. Unique amnesic shellfish toxin composition found in the South East Asian diatom *Nitzschia navis-varingica*. *Harmful Algae*, 10, 456-462. (2011).
87. Kodama, T., K. Furuya, F. Hashihama, S. Takeda, J. Kanda. Occurrence of rain-origin nitrate patches at the nutrient-depleted surface in the East China Sea and the Philippine Sea during summer. *Journal of Geophysical Research*, 116, C08003, doi:10.1029/2010JC006814. (2011).
88. Shiozaki, T., K. Furuya, H. Kurotori, T. Kodama, S. Takeda, T. Endoh, Y. Yoshikawa, J. Ishizaka, T. Matsuno. Imbalance between vertical nitrate flux and nitrate assimilation on a continental shelf: Implications of nitrification. *Journal of Geophysical Research*, doi:10.1029/2010JC006934. in press.

[Proceedings and books]

1. Takeda, S., A. Kamatani. Photoreduction of Fe(III)-EDTA complex and its availability to the coastal diatom *Thalassiosira weissflogii*. *Red Tides: Biology, Environmental Science, and Toxicology* (Okaichi, Anderson, and Nemoto, Eds.), 349–352 (1989).
2. Takeda, S., M. Kiyono. The characterization of yellow substances accumulated in a closed recirculating system for fish culture. *The Second Asian Fisheries Forum* (R. Hirano and I. Hanyu, Eds.), 129–132 (1990).
3. Okuyama, H., K. Kogame, S. Takeda. Phylogenetic significance of the limited distribution of octadecapentaenoic acid in prymnesiophytes and photosynthetic dinoflagellates. *Proceedings of the NIPR Symposium on Polar Biology*, 6, 21–26 (1993).
4. Takeda, S., I. Sakaguchi, K. Shinshima, M. Kiyono, K. Watanabe, H. Numanami. Effects of temperature on photosynthetic rates in diatoms isolated from the Southern Ocean. *Proceedings of the NIPR Symposium on Polar Biology*, 7, 297 (1994).
5. Takeda, S., K. Watanabe. Growth response of Antarctic phytoplankton to iron enrichment. *Proceedings of the NIPR Symposium on Polar Biology*, 10, 14-24 (1997).

6. Takeda, S., J. Nishioka, C.S. Wong, F.A. Whitney, W.K. Johnson, T.J. Soutar. Application of open-ocean enclosures to study the control of biological CO₂ pump in the subarctic North Pacific Ocean. Proceedings of the 2nd International Symposium CO₂ in the Oceans, CGER-I037-'99, 583–586 (1999).
7. 武田重信(分担共著). 「海の生き物100不思議 (東京大学海洋研究所編)」, 東京書籍, 東京 pp.227 (2003).
8. Nakatsuka, S., Y. Sohrin, K. Norisuye, K. Okamura, S. Takeda, J. Nishioka. Physicochemical speciation of trace metals during the mesoscale iron enrichment (SEEDS II) in the western North Pacific. *Geochimica et Cosmochimica Acta*, 71 (15, Suppl. 1), A704-A704 (2007).

[Research reports]

1. 渡部良朋, 菊池弘太郎, 植本弘明, 武田重信, 清野通康. 高能率魚類生産のための水質浄化技術の開発 3. 脱窒型から見た有用海洋性脱窒菌株の選抜. 電力中央研究所研究報告, U89035, 1–16 (1989).
2. 菊池弘太郎, 武田重信, 本田晴朗, 清野通康. 高能率魚類生産のための水質浄化技術の開発 4. ヒラメの窒素排泄量について. 電力中央研究所研究報告, U90016, 1–21 (1990).
3. 岩田仲弘, 菊池弘太郎, 武田重信, 清野通康. 高能率魚類生産システムにおける高品質魚生産 1. 循環濾過方式により飼育したヒラメの肉質評価. 電力中央研究所研究報告, U90018, 1–19 (1990).
4. 武田重信, 本田晴朗, 菊池弘太郎, 岩田仲弘, 清野通康. 高能率魚類生産のための水質浄化技術の開発 5. ヒラメの長期飼育時における水質変化. 電力中央研究所研究報告, U90042, 1–25 (1990).
5. 渡部良朋, 菊池弘太郎, 武田重信, 清野通康. 高能率魚類生産のための水質浄化技術の開発 7. 脱窒菌による飼育水中硝酸の分解除去法とその主要な条件. 電力中央研究所研究報告, U91002, 1–21 (1991).
6. 本田晴朗, 菊池弘太郎, 岩田仲弘, 武田重信, 渡部良朋, 植本弘明, 清野通康. ヒラメの高密度飼育技術の開発. 電力中央研究所研究報告, U91013, 1–25 (1991).
7. 武田重信, 坂口勇, 新島恭二, 清野通康. 海洋性植物プランクトンを用いた CO₂ の固定 (1) 鉄など微量栄養塩の散布効果の予備的評価. 電力中央研究所研究報告, U91049, 1–55 (1992).
8. 武田重信, 菊池弘太郎. 高能率魚類生産のための水質浄化技術の開発 11. 養魚システムの物質収支と物理化学的浄化法の評価. 電力中央研究所研究報告, U93056, 1–23 (1994).
9. 本田晴朗, 菊池弘太郎, 渡部良朋, 岩田仲弘, 武田重信, 植本弘明, 古田岳志, 清野通康. ヒラメ用循環濾過養魚システムの設計と運用. 電力中央研究所研究報告, U94018, 1–29 (1994).
10. 武田重信, 坂口勇, 新島恭二, 清野通康. 海洋性植物プランクトンを用いた CO₂ の固定 (2) 太平洋赤道域の植物プランクトン生産における鉄の役割. 電力中央研究所研究報告, U94019, 1–32 (1994).
11. 西岡純, 武田重信. 外洋生態系の炭素循環に果たす鉄の役割に関する文献調査. 電力中央研究所調査報告, U96020, 1–25 (1996).

12. 西岡純, 武田重信. 海水中における鉄のサイズ分画測定法の検討と植物プランクトンによるサイズ別鉄の利用能. 電力中央研究所研究報告, U97087, 1-24 (1998).
13. 西岡純, 武田重信. 東部北太平洋亜寒帯域における生物学的な炭素移送量評価のための海洋プランクトン生態系モデルの構築. 電力中央研究所研究報告, U00010, 1-10 (2000).
14. 西岡純, 津旨大輔, 芳村毅, 武田重信, 津田敦. 海洋への鉄散布による生物学的CO₂固定-鉄散布手法および観測手法と海洋プランクトン生態系の応答-. 電力中央研究所研究報告, U02017, 1-15 (2003).

[Patent]

1. 本田晴朗、菊池弘太郎、岩田仲弘、植本弘明、渡部良朋、武田重信、清野通康. 循環ろ過養殖システム. 国内特許, 特願平 3-273408 (1991).