

CONTENTS

Short biography of DR. KEN SUGAWARA

1. E. GORHAM and J. SANGER: Chlorophyll derivatives in woodland, swamp, and pond soils of Ceder Creek natural history area, Minnesota, U.S.A. 1
2. S. ICHIMURA and Y. ARUGA: Photosynthetic natures of natural algal communities in Japanese waters. 13
3. J. H. BELCHER and G. E. FOGG: Chlorophyll derivatives and carotenoids in the sediments of two English lakes. 39
4. Y. SUGIURA: Some chemico-oceanographical properties of the Kuroshio and its adjacent regions. 49
5. F. A. RICHARDS and R. A. KLETSCH: The spectrophotometric determination of ammonia and labile amino compounds in fresh and sea water by oxidation to nitrite. 65
6. C. E. ZOBELL: Hydrostatic pressure as a factor affecting the activities of marine microbes. 83
7. E. D. GOLDBERG, M. KOIDE, and J. J. GRIFFIN: Ionium/Thorium geochronology on Miami core A 254-BR-C. 117
8. Y. MIYAKE, K. SARUHASHI, Y. KATSURAGI, T. KANAZAWA, and Y. SUGIMURA: Uranium, radium, thorium, ionium, strontium 90 and cesium 137 in coastal waters of Japan. 127
9. T. KOYAMA: Biogeochemical studies on lake sediments and paddy soils and the production of atmospheric methane and hydrogen. 143
10. T. J. CHOW and M. TATSUMOTO: Isotopic composition of lead in the sediments near Japan trench. 179
11. W. H. SMITH, Jr. and D. W. HOOD: pH measurement in the ocean: A sea water secondary buffer system. 185
12. W. S. WOOSTER: International oceanography. 203

13. G. W. HODGSON, B. HITCHON, and K. TAGUCHI: The water and hydrocarbon cycles in the formation of oil accumulations. 217
14. N. W. RAKESTRAW: Some observations on silicate and oxygen in the Indian Ocean. 243
15. C. C. PATTERSON: Preliminary report on the isotopic composition of leads in lavas from the Hawaiian Islands. 257
16. E. Ingerson and F. J. Pearson, Jr.: Estimation of age and rate of motion of ground-water by the ^{14}C -method. 263
17. M. TANAKA: Manganese dioxide particulates in lake water. 285
18. Y. SAIJO and M. SAKAMOTO: Photosynthetic production of phytoplankton in some ice covered lakes in the Central Japan. 289
19. Y. KITANO: On factors influencing the polymorphic crystallization of calcium carbonate found in marine biological systems. 305
20. T. TORII and S. MURATA: Distribution of Uranium in the Indian and the Southern Ocean waters. 321
21. T. HANYA, T. ARAKI, and K. NAKA: Behavior of strontium-90 in Lake Haruna, Japan. 335
22. M. UDA: Dissolved oxygen in the Pacific Ocean and adjacent seas as an important element to study the circulation and structure in the changing marine environment. 349
23. I. IWASAKI, S. UTSUMI, T. OZAWA, T. TARUTANI, H. FUKUTOMI, T. OHMORI, and M. KAMADA: Variations of chemical composition in a rainfall. 357
24. P. K. KURODA: Nuclear fission in the early history of the solar system and xenon isotopes in the earth's atmosphere. 365
25. H. A. LOWENSTAM: Coexisting calcites and aragonites from skeletal carbonates of marine organisms and their strontium and magnesium contents. 373