

## MEXT (科研費)

1. 海産渦鞭毛藻由来の抗腫瘍性物質の探索と開発 (代表: 津田正史) 基盤研究(C), 平成21年度~23年度, 90千円.

## Any Other Funds (その他の研究経費)

### 【受託研究】

1. 瞬間的代謝反応を可視化する新規イメージング剤の事業化検討 (代表: 津田正史), 独立行政法人科学技術振興機構 知財活用支援事業, 220千円.
2. 瞬間的生体内反応を可視化する新規イメージング剤の開発 (代表: 津田正史), 独立行政法人科学技術振興機構 研究成果展開事業, 研究成果最適展開支援プログラム (A-STEP), 230千円.
3. 日本沿岸海域における熱帯・亜熱帯性魚毒による食中毒発生リスクの評価法の開発 (代表: 足立真佐雄), 内閣府 食品健康影響評価技術研究, 200千円.

### 【共同研究】

1. 海洋深層水大規模培養による海洋性アンフィジニウム属渦鞭毛藻由来の医薬リード化合物の探索と開発, 高知県 海洋深層水研究所 工業技術センター.

## Conference Presentations (学会・講演会発表)

### International:

1. Kumagai, K., Akakabe, M., Minamida, M., Tsuda, M., Konishi, Y., Tominaga, A., Amphirionin-2, a Novel Cytotoxic Polyketide from Dinoflagellate Amphidinium Species, NatPharma: Nature Aided Drug Discovery, Napoli (2011/6/5-8)
2. Akakabe, M., Kumagai, K., Tsuda, M., Konishi, Y., Tominaga, A., Isocaribenolide-1, a Cytotoxic 26-Membered Macrolide from Dinoflagellate Amphidinium Species, NatPharma: Nature Aided Drug Discovery, Napoli (2011/6/5-8)
3. Tsuda, M., Kumagai, K., Kiloliter-Scale Cultivation of Microalgae Producing Anticancer Drug Leads, 4th Congress of the International Society for Applied Phycology, Halifax (2011/6/21)
4. Kumagai, K., Akakabe, M., Minamida, M., Nishisaka, T., Tsuda, M., Konishi, Y., Tominaga, A., Caribenolide Revisited. Reisolation of Caribenolide-I Together with New Congeners, 27th International Symposium on The Chemistry of Natural Products and 7th International Conference on Biodiversity, Brisbane (2011/7/10-15)
5. Akakabe, M., Kumagai, K., Tsuda, M., Iriomoteolide-12a, a 12-Membered Macrolide from Dinoflagellate *Amphidinium* Species, 27th International Symposium on The Chemistry of Natural Products and 7th International Conference on Biodiversity, Brisbane

(2011/7/10-15)

6. Kumagai, K., Minamida, M., Akakabe, M., Tsuda, M., Konishi, Y., Tominaga, A., Neocaribenolide- I , a Cytotoxic 26-Membered Macrolide from Dinoflagellate *Amphidinium* Species, 27th International Symposium on The Chemistry of Natural Products and 7th International Conference on Biodiversity, Brisbane (2011/7/10-15)
7. Minamida, M., Kumagai, K., Tsuda, M., Amphirionin-3, a New Polyketide from the Dinoflagellate *Amphidinium* Species, 27th International Symposium on The Chemistry of Natural Products and 7th International Conference on Biodiversity, Brisbane (2011/7/10-15)
8. Tsuda, M., Kumagai, K., Kiloliter-Scale Cultivation of Microalgae Producing Anticancer Drug Leads, The 7th European Conference on Marine Natural Products, Strömstad (2011/8/14-18)
9. Kumagai, K., Akakabe, M., Minamida, M., Tsuda, M., Iriomoteolide-10a, a New 20-Membered Macrolide from Dinoflagellate *Amphidinium* Species, The 7th European Conference on Marine Natural Products, Strömstad (2011/8/14-18)
10. Kumagai, K., Minamida, M., Akakabe, M., Tsuda, M., Konishi, Y., Tsuda, M., Tominaga, A., Caribenolide Revisited. Reisolation of Caribenolide-I Together with New Congeners, The 4th International Symposium on Advances in Synthetic and Medicinal Chemistry, Saint Petersburg (2011/8/23-27)
11. Kumagai, K., Akakabe, M., Minamida, M., Nishisaka, T., Tsuda, M., Konishi, Y., Tsuda, M., Tominaga, A., Caribenolide Revisited. Reisolation of Caribenolide-I Together with New Congeners, 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, Antalya (2011/9/4-9)
12. Kumagai, K., Akakabe, M., Minamida, M., Tsuda, M., Iriomoteolide-12a, a 12-Membered Macrolide from Dinoflagellate *Amphidinium* Species, 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, Antalya (2011/9/4-9)
13. Tsuda, M., Kumagai, K., Two Dimensional TLC-MS Analysis To Search Natural Drug Leads, 16th European Conference on Analytical Chemistry, Beograd (2011/9/11-15)
14. Kumagai, K., Tsuda, M., Extraction and Separation of Anticancer Drug Leads from Microalgae by Using Supercritical Fluided Carbon Dioxide, 16th European Conference on Analytical Chemistry, Beograd (2011/9/11-15)
15. Tsuda, M., Kumagai, K., Highly Sensitive NMR System for Discovery and Structure Elucidation of Natural Drug Leads, 2nd World Conference on Physico-Chemical Methods in Drug Discovery and Development, Zadar (2011/9/18-22)
16. Kumagai, K., Tsuda, M., Supercritical CO<sub>2</sub> Extraction

and Large-Scale Separation of Natural Drug Leads, 2nd World Conference on Physico-Chemical Methods in Drug Discovery and Development, Zadar (2011/9/18-22)

17. Tsuda, M., Kumagai, K., Biologically Active Substances from Marine Dinoflagellates Amphidinium Species, VII th U.S.-Japan Seminar on Marine Natural Products: Cross-Disciplinary Expansions in Marine Bioorganic Chemistry, Okinawa (2011/12/12-15)

### **Domestic:**

1. 赤壁麻依, 熊谷慶子, 津田正史, 海洋性渦鞭毛藻 Amphidinium sp. から新規 12 員環マクロリド Iriomoteolide-12a の構造, 第 14 回マリンバイオテクノロジー学会大会, 静岡 (2011/5/28-29)
2. 南田美佳, 熊谷慶子, 津田正史, 海洋性渦鞭毛藻 Amphidinium sp. からの新規ポリケチド化合物 Amphirionin-3 の構造, 第 14 回マリンバイオテクノロジー学会大会, 静岡 (2011/5/28-29)
3. 津田正史, 海洋微細藻由来の生物活性天然分子, 国際バイオ EXPO バイオ アカデミック フォーラム, 東京 (2011/6/29-7/1)
4. 熊谷慶子, 赤壁麻依, 南田美佳, 西坂太樹, 津田正史, 小西裕子, 富永明, 渦鞭毛藻由来マクロリド Calibenolide I の構造研究, 第 53 回天然物有機化合物討論会, 大阪 (2011/9/28-30)

### **Important Details (特筆すべき事項)**

1. 文部科学省 特別経費, 津田正史, 統合的バイオイメージング研究者育成事業, 12,903 千円.

**MEXT (科研費)**

1. コロンビアからロディニアへ:インドプレート東部の原生代地史 (代表: M. SANTOSH) 基盤研究(B), 平成23年度, 3120千円.
2. 下部地殻における流体の起源と挙動に関する総合的研究 (代表: 角替敏昭) 基盤研究(B), 平成20年度~平成23年度, 300千円.

**Journal Publications (論文)**

1. SANTOSH, M., Kusky, T., Wang, L., Supercontinent cycles, extreme metamorphic processes, and changing fluid regimes, *International Geology Review* 53, 1403-1423 (2011).
2. SANTOSH, M., Xiao, W. J., Tsunogae, T., Chetty, T. R. K., Yellappa, T., The Neoproterozoic subduction complex in southern India: SIMS zircon U-Pb ages and implications for Gondwana assembly, *Precambrian Research*, 192-195(3), 190-208 (2011).
3. Chetty, T.R.K., SANTOSH, M., Tsunogae, T., Suture zones and geodynamic processes, *Journal of Asian Earth Sciences* 42, 155-157 (2011).
4. Chetty, T.R.K., Yellappa, T., Nagesh, P., Mohanty, D.P., Venkatasivappa, V., SANTOSH, M., Tsunogae, T., Structural anatomy of a dismembered ophiolite suite from Gondwana: The Manamedu complex, Cauvery suture zone, southern India, *Journal of Asian Earth Sciences* 42, 176-190 (2011).
5. Dai, J., Wang, C., Hebert, R., SANTOSH, M., Li, Y., Xu, J., Petrology and geochemistry of peridotites in the Zhongba ophiolite, Yarlung Zangbo Suture Zone: Implications for the Early Cretaceous intra-oceanic subduction zone within the Neo-Tethys, *Chemical Geology* 288, 133-148 (2011).
6. Dharma Rao, C.V., SANTOSH, M., Wu, Y-B., Mesoproterozoic ophiolitic mélange from the SE periphery of the Indian plate: U-Pb zircon ages and tectonic implications, *Gondwana Research* 19, 384-401 (2011).
7. Dharma Rao, C.V., SANTOSH, M., Continental arc magmatism in a Mesoproterozoic convergent margin: Petrological and geochemical constraints from the magmatic suite of Kondapalle along the eastern margin of the Indian plate, *Tectonophysics* 510, 151-171 (2011).
8. Dharma Rao, C.V., SANTOSH, M., Purohit, R., Wang, J. Xinghu, J., Kusky, T., LA-ICPMS U-Pb zircon age constraints on the Paleoproterozoic and Neoproterozoic history of the Sandmata Complex in Rajasthan within the NW Indian Plate, *Journal of Asian Earth Sciences* 42, 286-305 (2011).
9. Dong, X., Zhang, Z., SANTOSH, M., Wang, W., Yu, F., Liu, F., Late Neoproterozoic thermal events in the northern Lhasa terrane, south Tibet: Zircon chronology and tectonic implications, *Journal of Geodynamics*, 52(5), 389-405 (2011).
10. Dong, Y., Liu, X., SANTOSH, M., Zhang, X., Chen, Q., Yang, C., Yang, Z., Neoproterozoic subduction tectonics of the northwestern Yangtze Block in South China: constraints from zircon U-Pb geochronology and geochemistry of mafic intrusions in the Hannan Massif, *Precambrian Research*, 189(1-2), 66-90, (2011).
11. Eyuboglu, Y., Chung, S.L., SANTOSH, M., Dudas, F.O., Akaryali, E., Transition from shoshonitic to adakitic magmatism in the Eastern Pontides, NE Turkey: Implications for slab window melting, *Gondwana Research* 19, 413-429 (2011).
12. Eyuboglu, Y., SANTOSH, M., Bektas, O., Ayhan, S., Arc magmatism as a window to plate kinematics and subduction polarity: Example from the eastern Pontides belt, NE Turkey, *Geoscience Frontiers* 2, 49-56 (2011).
13. Eyuboglu, Y., SANTOSH, M., Bektas, O., Chung, S.-L., Triassic subduction-related ultramafic-mafic magmatism in the Amasya region (eastern Pontides, N. Turkey): Implications for the ophiolite conundrum, *Journal of Asian Earth Sciences* 42, 234-257 (2011).
14. Eyuboglu, Y., SANTOSH, M., Chung, S.L., Crystal fractionation of adakitic magmas in the crust-mantle transition zone: Petrology, geochemistry and U-Pb zircon chronology of the Seme adakites, Eastern Pontides, NE Turkey, *Lithos* 121, 151-166 (2011).
15. Eyuboglu, Y., SANTOSH, M., Chung, S.-L., Petrochemistry and U-Pb zircon ages of adakitic intrusions from the Pular Massif (Eastern Pontides, NE Turkey): Implications for slab rollback and ridge subduction associated with Cenozoic convergent tectonics in the Eastern Mediterranean, *Journal of Geology* 119, 394-417 (2011).
16. Eyuboglu, Y., SANTOSH, M., Dudas, F.O., Chung, S.-L., Akaryali, E., Migrating magmatism in a continental arc: Geodynamics of the Eastern Mediterranean revisited, *Journal of Geodynamics* 52, 2-15 (2011).
17. Kim, S.W., Kwon, S., Koh, H.J., Yi, K., Jeong, Y.-J., SANTOSH, M., Geotectonic framework of Permo-Triassic magmatism within the Korean Peninsula, *Gondwana Research* 20(4), 865-889 (2011).
18. Kim, S.W., Kwon, S., SANTOSH, M., Williams, I.S., Yi, K., A Paleozoic subduction complex in Korea: SHRIMP zircon U-Pb ages and tectonic implications, *Gondwana Research* 20(4), 890-903 (2011).
19. Kim, S.W., SANTOSH, M., Park, N., Kwon, S., Forearc serpentinite mélange from Hongseong suture, South Korea, *Gondwana Research* 20(4), 852-864 (2011).
20. Lan, T-G, Fan, H.-F., SANTOSH, M., Hu, F.-F., Yang, K.-F., Yang, Y.-H., Liu, Y., Geochemistry and Sr-Nd-Pb-Hf isotopes of the Mesozoic Dadian alkaline intrusive complex in the Sulu orogenic belt, eastern China: Implications for crust-mantle interaction, *Chemical Geology* 285, 97-114 (2011).
21. Li, N., Chen, Y.J., SANTOSH, M., Yao, J.M., Li, S.J., The 1.85 Ga Mo mineralization in the Xiong'er Terrane, China: Implications for metallogeny associated with assembly of the Columbia supercontinent, *Precambrian Research* 186, 220-232 (2011).
22. Li, S.Z., Zhao, G.C., Dai, L., Liu, X., Zhou, L., SANTOSH, M., Suo, Y., Mesozoic basins in eastern China and their bearing on the destruction of the North China Craton, *Journal of Asian Earth Sciences*, 47, 64-79 (2012).
23. Li, S.Z., Zhao, G.C., Dai, L., Zhou, L., Liu, X., Suo, Y., SANTOSH, M., Cenozoic faulting of the Bohai Bay Basin and its bearing on the destruction of the eastern North China Craton, *Journal of Asian Earth Sciences*, 47, 80-93 (2012).
24. Li, S.Z., Zhao, G.C., SANTOSH, M., Liu, X., Dai, L.M., Paleoproterozoic tectonothermal evolution and deep crustal processes in the Jiao-Liao-Ji Belt, North China Craton: a review, *Geological Journal* 46(6), 525-543 (2011).
25. Liu, S., Bai, X., Li, J., SANTOSH, M., Retrograde metamorphism of ultrahigh-temperature granulites from the khondalite belt in Inner Mongolia, North China Craton: evidence from aluminous orthopyroxenes, *Geological Journal* 46, 263-275 (2011).
26. Liu, S., SANTOSH, M., Wang, W., Bai, X., Yang, P., Zircon U-Pb chronology of the Jianping Complex:

- Implications for the Precambrian crustal evolution history of the northern margin of North China Craton, *Gondwana Research* 20, 48-63 (2011).
27. Liu, X., Li, S.Z., Suo, Y.H., Liu, D.C., Dai, L.M., SANTOSH, M., Structural anatomy of the exhumation of high-pressure rocks: constraints from the Tongbai Collisional Orogen and surrounding units, *Geological Journal* 46, 156-172 (2011).
  28. Liu, X., Li, S., Suo, Y., Liu, X., Dai, L., SANTOSH, M., Structural analysis of the northern Tongbai metamorphic terranes, central china: Implications for Paleozoic accretionary process on the southern margin of the north china craton, *Journal of Asian Earth Sciences* (2011).
  29. Liu, Y., SANTOSH, M., Zhao, Z.B., Niu, W.C., Wang, G.H., Evidence for palaeo-Tethyan oceanic subduction within central Qinagtang, northern Tibet, *Lithos* 127(1-2), 39-53 (2011).
  30. Lopez-Carmona, A., Kusky, T.M., SANTOSH, M., Abati, J., P-T and structural constraints of lawsonite and epidote blueschists from Liberty Creek and Seldovia: Tectonic implications of early stages of subduction along the southern Alaska convergent margin, *Lithos* 121, 100-116 (2011).
  31. Naganjaneyulu, K., SANTOSH, M., Crustal architecture beneath Madurai Block, southern India deduced from magnetotelluric studies: Implications for subduction-accretion tectonics associated with Gondwana assembly, *Journal of Asian Earth Sciences* 40, 132-143 (2011).
  32. Naganjaneyulu, K., SANTOSH, M., Geophysical signatures of fluids in a reactivated Precambrian collisional suture in central India, *Geoscience Frontiers* 2(3), 289-301 (2011).
  33. Naganjaneyulu, K., SANTOSH, M., Tracing the Proterozoic continental collision in NW India: a geophysical approach, *Geological Journal*, 47(2-3), 114-129 (2012).
  34. Nakagawa, M., SANTOSH, M., Maruyama, S., Manganese formations in the accretionary belts of Japan: Implications for subduction-accretion process in an active convergent margin, *Journal of Asian Earth Sciences* 42, 208-222 (2011).
  35. Rajesh, H. M, SANTOSH, M., Yoshikura, S., The Nagercoil Charnockite: a magnesian, calcic to calc-alkalic granulite dehydrated during a granulite-facies metamorphic event, *Journal of Petrology*, 52, 375-400 (2011).
  36. Saitoh, Y., Tsunogae, T., SANTOSH, M., Chetty, T.R.K., Horie, K., Neoproterozoic high-pressure metamorphism from the northern margin of the Palghat-Cauvery Suture Zone, southern India, *Journal of Asian Earth Sciences* 42, 268-285 (2011).
  37. Sato, K., SANTOSH, M., Tsunogae, T., Chetty, T.R.K., Hirata, T., Subduction-accretion-collision history of the Gondwana suture in southern India: A laser ablation ICP-MS study of zircon chronology, *Journal of Asian Earth Sciences*, 40, 162-171 (2011).
  38. Sato, K., SANTOSH, M., Tsunogae, T., Chetty, T.R.K., Hirata, T., Laser ablation ICP mass spectrometry for zircon U-Pb geochronology of metamorphosed granite from the Salem Block: Implication for Neoproterozoic crustal evolution in southern India, *Journal of Mineralogical and Petrological Sciences* 106, 1-12 (2011).
  39. Teale, W., Collins, A.S., Foden, J., Payne, J., Plavsa, D., Chetty, T.R.K., SANTOSH, M., Fanning, M., Cryogenian (~830 Ma) mafic magmatism and metamorphism in the northern Madurai Block, southern India: A magmatic link between Sri Lanka and Madagascar, *Journal of Asian Earth Sciences* 42, 223-233 (2011).
  40. Tsunogae, T., Liu, S.J., SANTOSH, M., Shimizu, H., Li, J.H., Ultrahigh-temperature metamorphism in Daqingshan, Inner Mongolia Suture Zone, North China Craton, *Gondwana Research* 20, 36-47 (2011).
  41. Tsunogae, T., SANTOSH, M., Sapphirine + quartz assemblage from the Southern Granulite Terrane, India: diagnostic evidence for ultrahigh-temperature metamorphism within the Gondwana collisional orogeny, *Geological Journal* 46, 183-197 (2011).
  42. Tsunogae, T., SANTOSH, M., Fluids in high- to ultrahigh-temperature metamorphism along collisional sutures: Record from fluid inclusions, *Journal of Asian Earth Sciences* 42(3), 330-340 (2011).
  43. Yan, Y., Hu, X.-q., Lin, G., SANTOSH, M., chan, L.-S., Sedimentary provenance of the Hengyang and Mayang basins, SE China, and implications for the Mesozoic topographic change in South China Craton: Evidence from detrital zircon geochronology, *Journal of Asian Earth Sciences* 41, 494-503 (2011).
  44. Yang, K.-F., Fan, H.-R., SANTOSH, M., Hu, F.-F., Wang, K.-Y., Mesoproterozoic carbonatitic magmatism in the Bayan Obo deposit, Inner Mongolia, North China: Constraints for the mechanism of super accumulation of rare earth elements, *Ore Geology Reviews* 40, 122-131 (2011).
  45. Yang, K.-F., Fan, H.-R., Santosh, M., Hu, F.-F., Wang, K.-Y., Mesoproterozoic mafic and carbonatitic dykes from the northern margin of the North China Craton: Implications for the final breakup of Columbia supercontinent, *Tectonophysics* 498, 1-10 (2011).
  46. Yao, J., Shu, L., SANTOSH, M., Detrital zircon U-Pb geochronology, Hf-isotopes and geochemistry – New clues for the Precambrian crustal evolution of Cathaysia Block, South China, *Gondwana Research* 20, 553-567 (2011).
  47. Yao, J., Shu, L., SANTOSH, M., Detrital zircon U-Pb geochronology, Hf-isotopes and geochemistry – New clues for the Precambrian crustal evolution of Cathaysia Block, South China, *Gondwana Research*, 20(2-3), 553-567 (2011).
  48. Yoshida, M., SANTOSH, M., Supercontinents, mantle dynamics and plate tectonics: A perspective based on conceptual versus numerical models, *Earth-Science Reviews* 105, 1-24 (2011).
  49. Yoshida, M., SANTOSH, M., Future supercontinent assembled in the northern hemisphere, *Terra Nova* 23, 333-338 (2011).
  50. Zhai, M.G., SANTOSH, M., The Early Precambrian odyssey of the North China Craton: A synoptic overview, *Gondwana Research* 20, 6-25 (2011).
  51. Zhai, M.G., SANTOSH, M., Precambrian geology and tectonic evolution of the North China Craton, *Gondwana Research* 20, 1-5 (2011).
  52. Zhang, H.-F., Ying, J.-F., SANTOSH, M., Zhao, G.-C., Episodic growth of Precambrian lower crust beneath the North China Craton: A synthesis, *Precambrian Research*, in press, doi:10.1016/j.precamres.2011.04.006.
  53. Zhang, H.-F., Ying, J.-F., Tang, Y.-J., Li, X.-H., Feng, C., SANTOSH, M., Phanerozoic reactivation of the Archean North China Craton through episodic magmatism: Evidence from zircon U-Pb geochronology and Hf isotopes from the Liadong Peninsula, *Gondwana Research* 19, 446-459 (2011).
  54. Zhang, H.F., Zhao, M.-G., SANTOSH, M., Diwu, C.-R., Li, S.-R., Geochronology and petrogenesis of Neoproterozoic potassic meta-granites from Huai'an Complex: Implications for the evolution of the North China Craton, *Gondwana Research* 20, 82-105 (2011).
  55. Zhang, Z., Shen, K., SANTOSH, M., Dong, X., High density carbonic fluids in a slab window: Evidence from the Gangdese charnockites, Lhasa terrane, southern Tibet, *Journal of Asian Earth Sciences* 42(3), 515-524 (2011).

## Reviews (総説)

1. SANTOSH, M., Preface: Extreme metamorphism and continental dynamics, Geological Journal 46, 111-113 (2011).

## Reports & Others (報告書)

1. Prepared and submitted scholarly peer reviews for 22 research papers to international journals.
2. Reviewed and submitted reports as referee on two research proposals from foreign funding agencies.
3. Carried out scientific editing of 200 research papers for international journals.

## Conference Presentations (学会・講演会発表)

### International:

1. M. Santosh (Keynote Talk), Growth and destruction of continents, supercontinents and cratons., Beijing, China (2011/4/27)
2. M. Santosh (Keynote Talk), Making and breaking of continents and supercontinents, Hyderabad, India (2011/8/27)
3. M. Santosh (Keynote Talk), The Evolving Earth. Salem, India (2011/12/26)

## Any Other Details (その他)

1. Carried out collaborative international research with counterparts at: (1) (3) National Geophysical Research Institute, India (4) Peking University, Nanjing University, China University of Geosciences, Chinese Academy of Sciences, Chinese Academy of Geological Sciences, China; (5) Yonsei University, South Korea (6) Gumushane University, Turkey; (7) Adelaide University, Australia; (8) Johannesburg University, South Africa;
2. Gave an invited lecture on Earth evolution as Visiting Professor at the Peking University, Beijing, China during September 2011.
3. Gave an invited lecture series on Continents and supercontinents at the Nanjing University, China in September 2011.
4. Served as the Editor-in-Chief of the international geosciences journal, 「Gondwana Research」 published by Elsevier
5. Served as the Executive Vice Editor-in-Chief of the international journal 「Geoscience Frontiers」 published by Elsevier.
6. Served as Editor/Editorial Board Member of various scientific journals including Journal of Asian Earth Sciences, Geological Journal etc.
7. Served as organizing committee member of the International Symposium on Gondwana to Asia (Hyderabad, India).
8. Selected for 「2012 Research Front」 award of Thomson Reuters for the impact of my research on global science.

## ■ OKAMURA Kei 岡村 慶

### MEXT (科研費)

1. 海洋に流れ込む大河の生物地球化学的影響 (代表: 砂村倫成) 新学術領域研究(領域提案), 平成20年度~25年度, 3,100千円.
2. 現場型分析計を用いた観測が解く海洋における鉄還元化学種の動態 (代表: 小畑元) 基盤研究(B), 平成21年度~23年度, 900千円.

### Any Other Funds (その他の研究経費)

#### [受託研究]

1. 海底熱水鉱床探査の為に化学・生物モニタリングツールの開発 (代表: 岡村慶) 文部科学省受託研究, 平成20年度~24年度, 37,750千円.

#### [共同研究]

1. 現場型化学分析センサーシステムの開発 (代表: 岡村慶), (株)環境総合テクノス, 200千円.

#### [学内競争的経費]

1. 掘削コア科学による地球環境システム変動研究拠点 (代表: 池原実), 学長裁量経費, 900千円.

### Journal Publications (論文)

1. 野口拓郎, 岡村慶, 八田万有美, 紀本英志, 鈴江崇彦, 石橋純一郎, 山中寿朗, 藤井輝夫, 現場型マンガ分析装置の小型軽量化と設置連続観測の実例, 物理探査, 54, 291-297 (2011)
2. Fujimori, K., Tsujimoto, K., Moriuchi - Kawakami, T., Shibutani, Y., Ueda, M., Suzue, T., Kimoto, H., Okamura, K., Determination of sulfide with acidic permanganate chemiluminescence for development of deep-sea in-situ analyzers, Analytical Sciences, 27, 183-186 (2011)
3. Provin, C., Fukuba, T., Okamura, K., Fujii, T., Detection of new hydrothermal sources using an in situ integrated analyzer for manganese (IISA-Mn), IEEE Symposium on Underwater Technology and Workshop on Scientific Use of Submarine Cables and Related Technologies, 1-5 (2011)
4. 岡村千恵子, 岡村慶, ミドル・レベル教育を中心に据えたアメリカの初等・中等教育改革に関する一考察, 高知大学学術研究報告, 60, 1-14 (2011)
5. Onodera, J., Okazaki, Y., Takahashi, K., Okamura, K., Murayama, M., Distribution of polycystine radiolaria, phaeodaria and acantharia in the kuroshio current off shikoku and tosa bay during cruise KT07-19 in august 2007, Memoirs of the Faculty of Science, Kyushu University. Series D, Earth and Planetary Sciences, 32, 39-61 (2011)

### Conference Presentations (学会・講演会発表)

#### International:

1. Kawaguchi, S., Noguchi, T., Yoshida, Y., Honda, M., Uchida, H., Ishibashi, H., Nakagawa, F., Tsunogai, U., Okamura, K., Hara, T., Takahata, N., Sano, Y., Takai, Y., Nunoura, T., Lin, W., Kitazato, H., Takai, K., Anomalous changes of deep-sea chemical environments and microbial communities induced by the M9.0 Tohoku Earthquake., American Geophysical Union 2011 fall meeting, San Francisco (2011/12/5)
2. Sagawa, T., Kuwae, M., Uchida, M., Ikehara, K., Murayama, M., Okamura, K., Millennial-scale surface water property change in the Japan Sea during the Marine Isotope Stage 3, 2nd Annual Symposium of IGCP-581, Sapporo (2011/6/11)
3. Okamura, K., Kimoto, H., Noguchi, T., Hatta, M., Suzue, T., Nakaoka, A., Kimoto, T., Potentiometric open-cell titration of seawater for Alkalinity measurement using hydrochloric acid without addition of sodium chloride and direct calculation by non-linear least squares method, GEOTRACES Japan ICAS2011 Post Symposium, Uji (2011/5/27)
4. Sagawa, T., Tsuruoka, K., Kuwae, M., Takeoka, H., Murayama, M., Okamura, K., Holocene millennial-scale variability in the East Asian winter monsoon deduced from the subarctic western North Pacific SST, 2011 Kochi International symposium on Paleoceanography and Paleoenvironment in East Asia, Kochi (2011/3/2)
5. Noguchi, T., Tanikawa, W., Hirose, T., Lin, W., Kitazato, H., Okamura, K., Turbidity anomaly and probability of slope failure following the 2011 Great Tohoku Earthquake, American Geophysical Union 2011 fall meeting, San Francisco (2011/12/5)

#### Domestic:

1. 佐川拓也, 鶴岡賢太郎, 村山雅史, 岡村慶, 加三千宣, 武岡英隆, 下北半島沖の完新世における数百~千年スケール海洋表層水温変動, 2010年度古海洋シンポジウム, 東京 (2011/1/7)
2. 牧田寛子, 菊池早希子, 高木善弘, 阿部真理子, 宮崎征行, 山本正浩, 布浦拓郎, 川口慎介, 土田真二, 中村謙太郎, 宮崎淳一, 稲垣史生, 高井研, 長塩皓美, 西尾竜, 山中寿朗, 多和田美紀, 土岐知弘, 野口拓郎, 岡村慶, 岡部宣章, 井尻暁, 砂村倫成, 加藤真悟, 中村光一, 中川聡, 中川太郎, YK10-10 航海乗船者一同, NT10-06Leg2 航海乗船者一同, NT10-13Leg2 航海乗船者一同, 各地の深海底に存在する褐色変色域での微生物調査, ブルーアース'11, 東京 (2011/3/8)
3. Provin, C., Fukuba, T., Okamura, K., Fujii, Teruo, Detection of new hydrothermal sources thanks to in situ manganese analysis, ブルーアース'11, 東京 (2011/3/7)
4. 福場辰洋, 藤井輝夫, Provin, C., 木下晴之, Thornton, B., 楠智行, 島田龍平, 正村達也, 堀井幸子, 鳴澤良友, 許正憲, 岡村慶, 下島公紀, 藤井武史, 現場化学センサ・分析装置を用いた北東伊豆名海域における新規熱水活動の探査: NT10-16 調査航海概要, ブルーアース'11, 東京 (2011/3/7)
5. 西尾嘉朗, 西本真琴, 野口拓郎, 岡村慶, 1995年神戸地震以降の須磨断層付近の湧水のLi同位体変動, 2011年地球惑星科学関連学会合同大会, 東京 (2011/5/25)

6. 石橋純一郎, 山中寿朗, 野口拓郎, 岡村慶, 内海真生, 藤井輝夫, NT10-05Leg2 航海乗船研究者, 鹿児島湾若尊火口底熱水域における熱水化学反応の解明—NT10-05Leg2 航海報告その2—, ブルーアース'11, 東京 (2011/3/7)
7. 西尾康三郎, 八田万有美, 野口拓郎, 岡村慶, 北條正司, 海水・淡水中の電極による pH 計測の為の参照電極の検討, 日本分析化学会第 60 年会, 名古屋 (2011/9/15)
8. 佐川拓也, 加三千宣, 内田昌男, 池原研, 村山雅史, 岡村慶, 多田隆治, 海洋酸素同位体ステージ3 後期における千年スケール日本海表層水変動, 日本古生物学会第 160 回例会, 高知 (2011/1/29)
9. 山中寿朗, 長塩皓美, 西内隆人, 布浦拓郎, 牧田寛子, 川口慎介, 岡村慶, 野口拓郎, 砂村倫成, 井尻暁, 土岐知弘, NT10-06Leg2 および NT09-10Leg2 乗船者一同, 南部沖縄トラフ多良間海丘における熱水活動の特徴: NT10-06Leg.2 航海概要報告, ブルーアース'11, 東京 (2011/3/7)
10. 高井研, 川口慎介, 吉田ゆかり, 布浦拓郎, 野口拓郎, 岡村慶, 石橋秀規, 角皆潤, 原隆弘, 佐野有司, 林為人, 北里洋, 中川書子, 高畑直人, 本多牧生, 東北大地震が日本海溝深海域に及ぼした化学・微生物学的影響, 第 27 回日本微生物生態学会, 京都 (2011/10/8)

## Important Details (特筆すべき事項)

### **【学会賞】**

1. 海洋調査技術学会技術賞, 小牧加奈絵, 浦環, 岡村慶, 小山寿史, 永橋賢司, 柴崎洋志, 細井義孝, ADCP 曳航と AUV 潜航で観測された伊是名海穴における底層流と高反射強度アノマリ, 東京 (2011/11/1)

## Other Details (その他)

### **【講演】**

1. 海底熱水鉱床探査の為の化学・生物モニタリングツールの開発, 高知大学同窓会島根支部総会, サンラボ一むらくも (2011/10/22)

### **【学外委員】**

1. NEDO, pH 国際標準化委員会委員
2. NEDO, イノベーション推進事業平成 22 年度終了者事後評価
3. 東京大学生産技術研究所研究員

### **【部門選出の全学委員】**

1. 総合情報センター選書委員会

### **【現地調査】**

1. 伊豆小笠原海域における海底熱水活動探査, 海洋研究開発機構「白鳳丸」KH11-05 航海 (2011/6/7-6/21)
2. 伊豆小笠原海域における海底熱水活動探査, 海洋研究開発機構「なつしま」NT11-10 航海 (2011/6/25-7/2)
3. 沖縄トラフにおける海底熱水活動探査, 海洋研究開発機構「なつしま」NT11-17 航海 (2011/9/2-9/7)
4. 伊豆小笠原海域における海底熱水活動探査, 海洋研究開発機構「よこすか」YK11-07 航海 (2011/9/16-10/2)
5. 沖縄トラフにおける海底熱水活動探査, 海洋研究開発機構「よこすか」YK11-10 (2011/15-12/6)

### **【その他】**

1. 過去 5 年間で被引用回数が多い論文, Nakatsuka, S., Okamura, K., Norisuye, K., Sohrin, Y. Simultaneous determination of suspended particulate trace metals (Co, Ni, Cu, Zn, Cd and Pb) in seawater with small volume filtration assisted by microwave digestion and flow injection inductively coupled plasma mass spectrometer., Analytica chimica Acta, 594, 52-60 (2007). (16 回)