

業績レポート

都市環境・環境地理学講座

環境動態論学分野

【論文】

- Anodic electrode reaction of p-type silicon in 1-ethyl-3-methylimidazolium fluorohydrogenate room-temperature ionic liquid. [*Electrochimica Acta*, 53, (2008), 3650-3655] Tetsuya Tsuda, Toshiyuki Nohira, Koji Amezawa, Kan Hachiya, Rika Hagiwara, Yair Ein-Eli
- Anomalous transport property at surface and interface of metal/rare earth doped ceria. [*Solid State Ionics*, 179, (2008), 1343-1346] Haruo Kishimoto, Natsuko Sakai, Katsuhiko Yamaji, Teruhisa Horita, Manuel E. Brito, Harumi Yokokawa, Koji Amezawa, Yoshiharu Uchimoto
- Defect structure analysis of B-site doped perovskite-type proton conducting oxide BaCeO₃ Part 2: The electrical conductivity and diffusion coefficient of BaCe_{0.9}Y_{0.1}O_{3- δ} . [*Solid State Ionics*, 179(39), (2008), 2240-2247] Masatsugu Oishi, Satoshi Akoshima, Keiji Yashiro, Kazuhisa Sato, Junichiro Mizusaki, Tatsuya Kawada
- Determination of the Reaction Zone in Gadolinia-Doped Ceria Anode for Solid Oxide Fuel Cell. [*J. Electrochem. Soc.*, 155(12), (2008), B1244-B1250] Takashi Nakamura, Kaiji Yashiro, Atsushi Kaimai, Takanori Otake, Kazuhisa Sato, Tatsuya Kawada, Junichiro Mizusaki
- Electrochemical behaviors of mixed conducting oxide anodes for solid oxide fuel cell. [*J. Electrochem. Soc.*, 155(6), (2008), B563-B569] Takashi Nakamura, Tsuneyuki Kobayashi, Keiji Yashiro, Atsushi Kaimai, Takanori Otake, Kazuhisa Sato, Junichiro Mizusaki, Tatsuya Kawada
- Enhancement of oxygen surface exchange at the hetero-interface of (La,Sr)CoO₃/(La,Sr)₂CoO₄ with PLD-Layered films. [*J. Electrochem. Soc.*, 155(8), (2008), B793-B797] M. Sase, F. Hermes, K. Yashiro, K. Sato, J. Mizusaki, T. Kawada, N. Sakai, H. Yokokawa
- Hydrogen Permeability and Electrical Properties in Oxide Composites. [*Solid State Ionics*, 178, (2008), 1663-1667] Atsushi Unemoto, Atsushi Kaimai, Kazuhisa Sato, Keiji Yashiro, Hiroshige Matsumoto, Junichiro Mizusaki, Koji Amezawa, and Tatsuya Kawada
- Oxygen nonstoichiometry of the perovskite-type oxides BaCe_{0.9}M_{0.1}O_{3- δ} (M=Y, Yb, Sm, Tb, and Nd). [*Solid State Ionics*, 179 (15-16), (2008), 529-535] Masatsugu Oishi, Keiji Yashiro, Kazuhisa Sato, Junichiro Mizusaki, Naoto Kitamura, Koji Amezawa, Yoshiharu Uchimoto
- Slow relaxation kinetics of Sr(Zr,Y)O₃ in wet atmosphere. [*Solid State Ionics*, 179 (21-26), (2008), 51-854] Takao Kudo, Keiji Yashiro, Hiroshige Matsumoto, Kazuhisa Sato, Tatsuya Kawada, Junichiro Mizusaki
- Visualization of oxygen transport behavior at metal electrode/oxide electrolyte interface using secondary ion mass spectroscopy. [*Solid State Ionics*, 179 (40066), (2008), 347-354] Haruo

- Kishimoto, Natsuko Sakai, Katsuhiko Yamaji, Teruhisa Horita, Manuel E. Brito, Harumi Yokokawa, Koji Amezawa, Yoshiharu Uchimoto
- in situマイクロXAFS測定を用いたSOFCカソードにおける酸素還元反応機構の解明. [*Nanotechnology*, 2, (2008), 32-33] 雨澤浩史, 佐瀬摩耶, 渡邊秀貴, 宇根本篤, 川田達也, 折笠有基, 伊奈稔哲, 内本喜晴, 寺田靖子
- 【著書】
- 第1編 第14章 高温固体表面の動的挙動の計測によるnano-NRMCA効果の検証. [*ナノイオニクス 最新技術とその展望*, 156-166, (2008), シーエムシー出版] 川田達也
- 第1編 第15章 ヘテロ接触界面のイオン移動現象のその場観察. [*ナノイオニクス 最新技術とその展望*, 167-177, (2008), シーエムシー出版] 内本喜晴, 雨澤浩史, 酒井夏子
- 第1章 無機定性分析実験. [*基礎化学実験*, (2008), 共立出版] 京都大学大学院人間、環境学研究科化学部会

自然/人間環境地理学分野

【論文】

- 仙台の自然—広瀬川・杜の都・冷湿な風—. [*地図中心*, 433, (2008), 8-11] 境田清隆
- 武川県における農業経営及び農家増収の可能性. [平成17～19年度科学研究費補助金研究成果報告書, (2008), 53-60] 関根良平, 蘇德斯琴, 小金澤孝昭
- フフホト市近郊における生態移民の酪農経営. [平成17～19年度科学研究費補助金研究成果報告書, (2008), 33-41] 関根良平, 蘇德斯琴, 小金澤孝昭
- 「生態移民」による「移民村」の展開と「竜頭企業」～内蒙古自治区烏蘭察布市四子王旗における予察的検討～. [平成17～19年度科学研究費補助金研究成果報告書, (2008), 43-51] 関根良平, 蘇德斯琴, 小金澤孝昭
- 東北大学所蔵の外邦図について. [*地図中心*, 433, (2008), 17-19] 村山良之, 関根良平
- 外邦図デジタルアーカイブの構築と公開・運用上の諸問題. [*地図*, 46 (3), (2008), 1-12] 宮澤仁, 照内弘通, 山本健太, 関根良平, 小林茂, 村山良之
- 【著書】
- 第6章 日本の気候. [*自然地理学概論*, (2008), 53-63, 朝倉書店] 境田清隆
- 第7章 気候の変化・変動. [*自然地理学概論*, (2008), 64-74, 朝倉書店] 境田清隆
- 第2章第3項自然環境. [*日本の地誌4東北*, (2008), 28-35, 朝倉書店] 境田清隆
- 第2章第3項自然環境. [*日本の地誌4東北*, (2008), 39-43, 朝倉書店] 境田清隆
- 生態保育と資源可持察利用. [干早区生態保育と可持察発展 論文集, (2008), 82-88, 内蒙古友展研究中心] 関根良平, 蘇德斯琴, 小金澤孝昭, 佐々木達
- 福島県 2.地域誌 中心都市 福島の変容. [*日本の地誌4 東北*, (2008), 15-19, 朝倉書店] 関根良平
- 福島県 2.地域誌 果樹・農業. [*日本の地誌4 東北*, (2008),

19-23, 朝倉書店] 関根良平
●福島県 2.地域誌 白河. [日本の地誌4 東北, (2008), 33-35, 朝倉書店] 関根良平
●福島県 2.地域誌 林業地域の担い手と生産構造—奥久慈—. [日本の地誌4 東北, (2008), 41-42, 朝倉書店] 関根良平
●福島県 2.地域誌 会津盆地の農業. [日本の地誌4 東北, (2008), 61-63, 朝倉書店] 関根良平
●東・南部アフリカにおける参加型自然資源管理と住民組織. [アフリカ農村の住民組織と「市民社会」, (2008), 60-95, アジア経済研究所] 上田元
●東アフリカの地域社会生態史—集約的農耕の集落群システム. [世界地理講座12 アフリカⅡ, (2008), 469-481, 朝倉書店] 上田元
●行商人. [世界地理講座12 アフリカⅡ, (2008), 482, 朝倉書店] 上田元

流域環境研究分野

【論文】
●Estimating snow distribution over a large area and its application for water resources. [Hydrological Processes, 22 (13), (2008), 2315-2324] So Kazama, Hirokazu Izumi, Priyantha Ranjan Sarukkalige, Takayuki Nasu, Masaki Sawamoto
●Evaluation of predictive uncertainty in distributed rainfall-runoff models. [水工学論文集, 52, (2008), 73-78] Freddy Soria, So KAZAMA and Masaki Sawamoto
●The thermal effect of groundwater flow on temperature distribution in Sendai Plain. [From Headwaters to the Ocean, (2008), 329-336, CRC press] HGLN Gunawardhana, So Kazama, Masaki Sawamoto
●Seasonal change of groundwater flow and its effect on temperature distribution in Sendai plain. [Proceedings of 16th IAHR-APD Congress, (2008), 193-198] Luminda Gunawardhana, So Kazama, Masaki Sawamoto
●Sensitivity Analysis of Distributed Rainfall-Runoff Models. [Proceedings of 16th IAHR-APD Congress, (2008), 24-28] Freddy Soria, So Kazama, Masaki Sawamoto
●Sensitibity analysis to evaluate the effect of land use change on discharge rate. [From Headwaters to the Ocean, (2008), 203-208, CRC press] F.A. Soria, M. Sawamoto, So Kazama
●Slope hazard risk due to rainfall condition in future. [Proceedings of 16th IAHR-APD Congress, (2008), 1108-1117] Seiki Kawagoe, So Kazama, Masaki Sawamoto
●東日本の3水系に生息するヒゲナガカワトビケラの遺伝的多様性の空間階層構造. [水環境学会誌, 31 (1), (2008), 31-37] 渡辺幸三, 菊池祐二, 風間聡, 大村達夫
●宮城県中南部に生息する河川底生動物群集の種多様性の空間階層構造. [水工学論文集, 52, (2008), 1171-1176] 浜本洋, 風間聡, 渡辺幸三, 沢本正樹, 大村達夫
●土砂崩壊によるダム貯水池の影響評価. [水工学論文集, 52, (2008), 571-576] 秋本嗣美, 川越清樹, 風間聡, 沢本正樹
●日本列島を対象にした融雪に伴う土砂災害のリスク評価. [

水工学論文集, 52, (2008), 468-473] 川越清樹, 風間聡, 沢本正樹
●降雨極値データを利用した気候変動に伴う全国浸水被害額評価. [水工学論文集, 52, (2008), 438-443] 佐藤歩, 川越清樹, 風間聡, 沢本正樹
●数値地図情報と降雨極値データを利用した土砂災害発生確率モデルの構築. [自然災害科学, 27 (1), (2008), 69-83] 川越清樹, 風間聡, 沢本正樹
●将来気候モデルを用いた土砂崩壊リスク評価. [地球環境研究論文集, 16, (2008), 27-35] 川越清樹, 風間聡, 沢本正樹
●気候変動による主要河川の水質の影響. [環境工学研究論文集, 45, (2008), 467-474] 川越清樹, 菊地裕, 風間聡, 滝沢智

国際環境・地域環境学講座

国際経済環境研究分野

【論文】
●自由貿易と環境保護—GATT20条をめぐる貿易紛争の経済分析—. [貿易・開発と環境問題, (2008), 88-104, 文眞堂] 佐竹正夫
【著書】
●産業内貿易の経済学 (D.グリーンウエイ, C.ミルナー著). [(2008), 文眞堂] 佐竹正夫, 小柴徹修, 栗山規矩 (共訳)

東アジア社会動態研究分野

【論文】
●地球温暖化とバーム油—東南アジアの新たな課題. [アジ研ワールドトレンド, 14 (2), (2008), 6-9] 藤崎成昭

東アジア思想論分野

【論文】
●上博楚簡『姑成家父』における百豫. [竹簡が語る古代中国思想 (二) —上博楚簡研究, (2008), 3-45, 汲古書院] 浅野裕一
●上博楚簡『東大王泊早』の災異思想. [集刊東洋学, 100, (2008), 2-22] 浅野裕一
【著書】
●孔子神話. [(2008), 大學社 (ソウル)] 浅野裕一
●竹簡が語る古代中国思想 (二) —上博楚簡研究 (編著). [(2008), 汲古書院] 浅野裕一
●上博楚簡與先秦思想. [(2008), 萬卷楼 (台北)] 浅野裕一
【その他】
●殺し屋の弱点 (フロイト全集月報7). [フロイト全集8, (2008), 7-10, 岩波書店] 浅野裕一
●新出土資料から見た書籍の流通. [東アジアの出版と地域文化, (2008), 51-79, 汲古書院] 浅野裕一
●中国古代思想史の新展開. [アジア流域文化論研究, 4, (2008), 166-174] 浅野裕一

太陽地球システム・エネルギー学講座

地球物質・エネルギー学分野

【論文】
●Cu-doped ZnS hollow particle with high activity for hydrogen generation from alkaline sulfide solution under visible light. [CHEMISTRY OF MATERIALS, 20 (5), (2008), 1997-2000] Takeo Arai, Shin-ichiro Senda, Yoshinori Sato, Hideyuki Takahashi, Kozo Shinoda, Balachandran Jeyadevan, Kazuyuki Tohji
●Determination of aperture structure and fluid flow in a rock fracture by high-resolution numerical modeling on the basis of a flow-through experiment under confining pressure. [Water Resource Research, 44, (2008), 1-11] Noriaki Watanabe, Nobuo Hirano and Noriyoshi Tsuchiya
●Effect of lithology on calcite-vein formation in the Sanbagawa metamorphic rocks. [AIP Conference Proceedings, 987, (2008), 119-122] K. Morohashim A. Okamoto and N. Tsuchiya
●Effective Hydrogen Generation from the Hydrogen Sulfide Solution by using Stratified Type Photocatalyst. [Proceedings of 5rd Inthenational Workshop on Water Dynamics, (2008), 17-21] Hideyuki Takahashi, Shun Yokoyama, Yohei Baba, Tsugumi Hayashi, and Kazuyuki Tohji
●Experimental and numerical analysis of flow path change in rock fracture under hydrothermal condition. [AIP Conference Proceedings, 987, (2008), 133-136] N. Watanabe, H. Iijima, N. Hirano and N. Tsuchiya
●Experimental study on initial behavior of water-rock interaction in CO₂-added hydrothermal system. [AIP Conference Proceedings, 987, (2008), 66-69] Y. Suto, H. Takahashi and N. Tsuchiya
●Experimental estimation of molecular structure of the water-rock interface inferred from in situ IR-Raman spectroscopy up to 400C, 50MPa. [AIP Conference Proceedings, 987, (2008), 108-112] J. Abe, N. Hirano and N. Tsuchiya
●Evaluation of fluid flow field in singl rock fracture during friction sliding. [AIP Conference Proceedings, 987, (2008), 123-128] K.Nemoto, N. Watanabe and N. Tsuchiya
●Liquid-phase reductive deposition as a novel nanoparticle synthesis method and its application to supported noble metal catalyst preparation. [Catalysis Today, 132, (2008), 81-87] Yoji Sunagawa, Katsutoshi Yamamoto, Hideyuki Takahashi, Atsushi Muramatsu
●Magnitude of σ_1, σ_2 , and σ_3 at mid-crustal levels in an orogenic belt: Microboudin method applied to an impure metachert from Turkey. [Tectonophysics, 460, (2008), 230-236] Masuda, T., Nakayama, S., Kimura, N., Okamoto A.
●Mineral distribution within polymineralic veins in the Sanbagawa belt, Japan: implications for mass transfer during vein formation. [Contributions to Mineralogy and Petrology, 156, (2008), 323-336] Okamoto, A., Kikuchi, T., Tsuchiya, N.
●Mineral distribution within polymineralic veins in the

Sanbagawa belt, Japan: implications for mass transfer during vein formation. [Contributions to Mineralogy and Petrology, (2008), 1-14] A. Okamoto, T. Kikuchi and N. Tsuchiya
●Neutron Holography Measurement Using Multi Array Detedtor. [Japanese Journal of Applied Physics, 47 (4), (2008), 2291-2293] Kouichi Hayashi, Kenji Ohoyama, Shinichi Orimo, Yuko Nakamori, Hideyuki Takahashi, Kaoru Shibata
●Precipitation of Silica Minerals by Hydrothermal Flow-Through Experiments at 200-430°C and 30 MPa. [Transactions of Geothermal Resources Council, 32, (2008), 389-392] Atsushi Okamoto, Hanae Saishu, Nobuo Hirano, Hanae Saishu, Nobuo Hirano,
●Relationship between Rate of Aperture Reduction and Contact Pressure of Fracture in Granite under Hydrothermal Condition. [Transactions of Geothermal Resources Council, 32, (2008), 487-492] Noriaki Watanabe, Hiroshi Iijima, Nobuo Hirano, and Noriyoshi Tsuchiya
●Sustanable hydrogen production system with sulfur-water-organic materials by hydrothermal reaction. [Journal of Material Science, 43 (7), (2008), 2115-2122] Noriyoshi Tsuchiya, Yuko Suto, Tomoyuki Kabuta, Shun Morikawa and Shigeo Yokoyama
●Synthesis of silver sulfide stratified photocatalyst. [Proceedings of 5rd Inthenational Workshop on Water Dynamics, (2008), 155-158] Yohei Baba, Shun Yokoyama, Hideyuki Takahashi, Kazuyuki Tohji
●System development of geosphere environmental informatics and its application. [AIP Conference Proceedings, 987, (2008), 159-162] S. Kano, N. Tsuchiya, C. Inoue, T. Komai, T. Shiratori and H. Jingu
●The influence of grain sizes and chemical weathering level on extractability of elements from sedimentary rocks. [AIP Conference Proceedings, 987, (2008), 129-132] Y. Ogawa, S. Yamasaki and N. Tsuchiya
●Variations in stable isotope compositions (d13C,d18O) of calcite within exhumation-related veins from the Sanbagawa metamorphic belt. [Journal of Mineralogical and Petrological Sciences, 103, (2008), 361-364] Keisuke Morahashi, Atsushi Okamoto, M. Satish-Kumar and Noriyoshi Tsuchiya
●地圏環境インフォマティクスのデータベース構築とその応用例. [Journal of MMIJ, 124 (2), (2008), 148-153] 狩野真吾, 土屋範芳, 井上千弘, 原淳子, 駒井武, 白鳥寿一, 神宮宏
●先進エネルギーとセラミックス. [CERAMICS JAPAN, 4 (10), (2008), 845-853] 高橋英志, 横山俊, 林亜実, 馬場洋平, 田路和幸
【特許】
●ロジウム-テルル金属間化合物粒子及びその製造方法、並びにその利用. [特開2008-105931, 2008/5/8] 村松淳司, 高橋英志, 大野博信, 高橋和成

太陽地球計測学分野

【論文】

- An estimation technique of Rayleigh wave phase velocities using arrays with arbitrary geometry. [Eos Trans. AGU, 89 (53), (2008), S53A-1869-] H.Shiraiishi, H. Asanuma
- Spectral Matrix Analysis Method for the Detection of Polarized Wave Arrivals Using Confidence Levels. [Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract, S12B-01] H. Moriya
- Characterization of microseismic events with larger magnitude collected at Basel, Switzerland in 2006. [Geothermal Resources Council Transactions, 32, (2008), 87-93] Y. Mukuhira, H. Asanuma, H. Niitsuma, U. Schanz, M. Haring
- Current status of microseismic monitoring techniques of the stimulation of HDR/HFR reservoirs. [Proc. 2008 Australian Geothermal Energy Conference, (2008), 29-36] H. Asanuma, Y. Kumano, H. Niitsuma, D. Wyborn, U. Schanz, M. Haring
- Identification of microseismic multiplets in the frequency domain and interpretation of reservoir structure at Basel, Switzerland. [SEG Expanded Abstracts, (2008), 1451-1455] H. Asanuma, Y. Kumano, H. Moriya, H. Niitsuma, U. Schanz, M. Haring
- Interpretation of reservoir structure from super-resolution mapping of microseismic multiplets from stimulation at Basel, Switzerland in 2006. [Transaction on Geothermal Resources Council, 32, (2008), 65-70] H. Asanuma, Y. Kumano, H. Niitsuma, U. Schanz, M. Haring
- Interpretation of reservoir structure from super-resolution mapping of microseismic multiplets from stimulation at Basel, Switzerland in 2006. [Geothermal Resources Council Transactions, 32, (2008), 65-70] H. Asanuma, Y. Kumano, H. Niitsuma, U. Schanz, M. Haring
- Identification of AE multiplets in the time and frequency domains. [Progress in Acoustic Emission XIV, (2008), 385-390] H. Asanuma, Y. Kumano, H. Niitsuma, D. Wyborn, U. Schanz, M. Haring
- Estimation of crustal structure in Horonobe area, Hokkaido, Japan, by using Multiplet-clustering analysis.[Progress in Acoustic Emission XIV, (2008), 415-422] H. Moriya, K. Asamori, I. Kitamura, H. Hotta, H. Ohara and T. Niizato
- Mechanical and hydraulic coupling of injection-induced slip along pre-existing fractures. [Geothermics, 37, (2008), 157-172] K. Nemoto, H. Moriya, H. Niitsuma and N. Tsuchiya
- Spatio-temporal analysis of multiplets in the aftershocks of the 2005 West Off Fukuoka earthquake. [Eos Trans. AGU, 89 (53), (2008), S53A-1820-] H. Asanuma, A. Hotta, H. Niitsuma
- Precise arrival-time detection of polarized seismic waves using the spectral matrix. [Geophysical Prospecting, 56, (2008), 1-10] H. Moriya
- 再生可能エネルギー複合利用システムシミュレータのための地中熱ヒートポンプシステムモデルの開発. [日本地熱学会誌, 30 (3), (2008), 215-226] 駒庭義人, 森谷祐一, 浅沼宏, 新

妻弘明

- 高温岩体発電技術の海外の現状. [日本エネルギー学会誌, 87 (10), (2008), 834-839] 海江田秀志, 浅沼宏
- エネルギー貯蔵システムとしての農耕馬の役割とその効果ー福島県天栄村湯本地区での事例調査ー. [第27回エネルギー・資源学会研究発表会論文集, (2008), CD-ROM] 池上真紀, 新妻弘明
- 福島県天栄村湯本地区における持続可能な木質バイオマス利用と雇用創出. [エネルギー・資源, 29(5), (2008), 22-28 (電子ジャーナル)] 池上真紀, 新妻弘明
- 【著書】
- 第5章. [Nano-Mega Scale Flow Dynamics in Energy Systems, 136-162, (2008), Tohoku University Press] Hiroshi Asanuma, Hiroaki Niitsuma
- 【総説・解説】
- 海外の高温岩体(EGS)開発状況. [地熱技術, 33, (2008), 9-16, 地熱技術開発] 浅沼宏
- 【特許】
- 多成分AE波形の初動検出法. [特許4065946, 2008/1/18] 相馬宣和, 竹原孝, 新妻弘明, 浅沼宏
- 物理量検出器及び物理量検出器の製造方法. [特許4138372, 2008/6/13] 新妻弘明, 江刺正喜, 西澤充智, 浅沼宏, 森谷祐一, 鹿熊英昭, 高木義彦, 吉田勇作, 川添勝
- 光干渉型振動センサとその製造方法. [特許4153464, 2008/7/11] 新妻弘明, 西澤充智

地殻システム情報学分野

【論文】

- A quadratic element method for evaluating groundwater flow by the inversion of surface tilt with application to the Tono Area, Japan. [Journal of Hydrology, 360 (39817), (2008), 217-229] Koji Matsuki, Katsuya Nakatani, Takashi Arai, Kazuo Ohmura, Ryuji Takeuchi, Yasushi Arai, Shinji Takeuchi
- Asperity height and aperture of an artificial tensile fracture of metric size. [Rock Mechanics and Rock Engineering, 41 (2), (2008), 325-341] K. Sakaguchi, J. Tomono, K. Okumura, Y. Ogawa, K. Matsuki
- Anelastic strain recovery compliance of rocks and its application to in situ stress measurement. [Int. J. Rock Mech. Min. Sci., 45 (6), (2008), 952-965] K. Matsuki
- Estimation of closure of a fracture under normal stress based on aperture data. [Int. J. Rock Mech. Min. Sci., 45 (2), (2008), 194-209] K. Matsuki, E.Q. Wang, A. A. Giwelli, K. Sakaguchi
- Possibility of shear fracture in viscoelastic material under confining pressure. [Water Dynamics: 5th International Workshop on Water Dynamics, 987, (2008), 79-82] H. Yamaguchi, K. Sakaguchi, K. Sato, K. Matsuki, T. Hashida
- Scale effect on closure of a tensile fracture under normal stress. [Water Dynamics: 5th International Workshop on Water Dynamics, 987, (2008), 39-45] A. Giwelli, K. Sakaguchi, K. Matsuki
- 地表傾斜データを用いた水理地質構造の推定手法の有効

- 性について. [第37回岩盤力学に関するシンポジウム講演集, (2008), 245-250] 大山卓也, 竹内竜史, 三枝博光, 尾上博則, 松木浩二
- 地表面傾斜量に及ぼす岩体の不均一性と地表面形状の影響に関する有限要素解析. [第12回岩の力学国内シンポジウム&第29回西日本岩盤工学シンポジウム講演論文集, (2008), 787-794] 木村かおり, 松木浩二
- 高圧水中下におけるカッティングス循環型ウォータージェットシステム. [噴流工学, 25 (1), (2008), 4-13] 木崎彰久, 飯野瑞輝, 坂口清敏, 松木浩二
- せん断変位を伴うき裂透水性の不均一性に関する実験的研究. [Journal of MMIJ, 124 (12), (2008), 748-755] 坂口清敏, 後藤匡雄, 高西哲郎, 松木浩二, 木崎彰久

地球開発環境学分野

【論文】

- Concept of a Wheel for Micro Lunar Rover. [Proc. of the 16th Int. Conference of ISTVS, 1, (2008), 156-161] H.Nakashima, H.Takahashi, K.Tateyama, R.Fukagawa, T.Kobayashi, H.Kanamori, S.Aoki and K.Matsui
- DEM Simulation of Boulders by Mobile Crusher. [Proc. of Int. Symposium on Earth Science and Technology 2008, 1, (2008), 299-306] Hiroshi TAKAHASHI and Masakazu ANDO
- Development of Three-Layer Model and Numerical Simulation for Cuttings Transport in Horizontal Foam Drilling. [混相流, 22 (4), (2008), 374-384] GUMATI Amna, TAKAHASHI Hiroshi and SUTO Yuko
- Experimental Study on Initial Behavior of Water-rock Interaction in CO₂-added Hydrothermal System. [Water Dynamics, AIP Conference Proceedings, 987, (2008), 66-69] Y.Suto, H.Takahashi, N.Tsuchiya
- Laboratory experiments and thermal calculations for the development of a next-generation glacier-ice exploration system: Development of an electro-thermal drilling device. [Polar Science, 2 (1), (2008), 15-26] Yuko Suto, Sosuke Saito, Ken-ichi Osada, Hiroshi Takahashi, Hideaki Motoyama, Yoshiyuki Fujii, Yoichi Tanaka
- Study on Effect of Soil Properties on the Performance of Paddle-Type Soil-Recycling Machine. [Proc. of the 16th Int. Conference of ISTVS, 1, (2008), 245-249] H.Takahashi and M.Ando
- Study on Producing Lightweight Aggregate from Dehydration Cake with Waste Materials. [Proc. of Int. Symposium on Earth Science and Technology 2008, 1, (2008), 195-200] Yuko SUTO and Hiroshi TAKAHASHI
- Study on Soil Improvement by using Wasted Gypsum Board -- Restraint Technology of Hydrogen Sulfide and Strength Characteristics of Improved Soils --. [Proc. of Int. Symposium on Earth Science and Technology 2008, 1, (2008), 207-214] Hiroshi TAKAHASHI, Hirokazu KANAHAMA, Yuto MORI, Masato MORI and Hiroyuki NISHIMURA
- Temperature Memory Gauge Survey and Estimation of

- Formation Temperature of the USDP-4 Conduit Hole at Unzen Volcano, Japan. [Journal of Volcanology and Geothermal Research, 175, (2008), 20-27] Y.Suto, S.Sakuma, H.Takahashi, N.Hatakeyama and Joseph Henfling
- 土壌物理特性の観点から見た緑化基盤材の生成に関する実験的研究. [Journal of MMIJ, 124 (12), (2008), 809-817] 山崎淳, 高橋弘, 金成英夫, 森雅人
- 自走式土質改良機における攪拌トルクと処理量に及ぼす土質の影響. [Journal of MMIJ, 124 (12), (2008), 818-823] 高橋弘, 安藤真和
- 繊維質固化処理土の動的強度に関する実験的研究. [第4回土砂災害に関するシンポジウム論文集, 1, (2008), 1-5] 高橋弘, 高橋研太, 森雅人
- 繊維質固化処理土の強度特性に及ぼす攪拌混合時間の影響. [建設機械, 44 (6), (2008), 52-56] 高橋弘, 金濱弘和
- 繊維質固化処理土の強度特性および降雨耐久性と環境保全への応用に関する研究. [混相流, 22 (4), (2008), 322-329] 高橋弘, 中村浩之, 森雅人
- パドル混合式土質改良機の処理能力に及ぼす土質の影響. [建設機械, 44 (5), (2008), 37-41] 高橋弘, 安藤真和
- ボンテラン工法の技術開発と施工事例について. [建設マネジメント技術, (363), (2008), 27-35] 高橋弘

自然共生システム学講座

環境修復生態学分野

【論文】

- Bioleaching of Chalcopyrite with Thermophiles: Temperature-pH-ORP Dependence. [Proceedings of XXIV International Mineral Processing Congress, (2008), 2779-2788] J. Vilcaez, K. Suto and C. Inoue
- Bioleaching of Chalcopyrite with Thermophiles: Temperature-pH-ORP Dependence. [International Journal of Mineral Processing, 88 (1-2), (2008), 37-44] J. Vilcaez, K. Suto, C. Inoue
- Characterization of a putative phosphate transporter involved in arsenate transport from hyperaccumulating plant (*Pteris vittata*) leaves. [Plant Biology 2008 Abstracts, (2008), 116-116] Masayoshi Hatayama, Chihiro Inoue
- Does *Desulfotomaculum guttoideum* really have sulfate-reducing ability? [Proceedings of 12th International Symposium on Microbial Ecology, ISME 12, CD-ROM, (2008), 170-170] Yui Takahashi, Koichi Suto and Chihiro Inoue
- Effect of pore size on colloidal transport phenomena in porous media. [Proceedings of 5th International Conference on Interfaces Against Pollution 2008, (2008), 176-176] K. Suto, Y. Yoshino and C. Inoue
- Fundamental study on an arsenic hyperaccumulator plant using submilli-PIXE camera. [X-Ray Spectrometry, 37 (2), (2008), 184-187] H. Yamazaki, K. Ishii, S. Matsuyama, Y. Kikuchi, Y. Takahashi, Y. Kawamura, R. Watanabe, K. Tashiro, C. Inoue

●Mathematical modelling of thermophilic bioleaching of chalcopyrite. [Proceedings of Computational Modelling '08, CD-ROM, (2008)] J. Vilcaez, C. Inoue

●Modeling the auto-thermal performance of a thermophilic bioleaching heap employing mesophilic and thermophilic microbes. [Hydrometallurgy, 94, (2008), 82-92] J. Vilcaez, K. Suto, C. Inoue

●Polysulfide reduction using sulfate-reducing bacteria in a photocatalytic hydrogen generation. [Journal of Bioscience and Bioengineering, 106 (3), (2008), 219-225] Y. Takahashi, K. Suto, C. Inoue, T. Chida

●Response of thermophiles to the simultaneous addition of sulfur and ferric ion to enhance the bioleaching of chalcopyrite. [Minerals engineering, 21, (2008), 1063-1074] J. Vilcaez, K. Suto, C. Inoue

●System development of geosphere environmental informatics and its application. [Water Dynamics, 5th International Workshop on Water Dynamics, AIP Conference Proceedings, 987, (2008), 159-162] S. Kano, N. Tsuchiya, C. Inoue, T. Komai, T. Shiratori and H. Jingu

●Trichlororhylene Transformation by Natural Mineral Pyrite : The Deciding Role of Oxygen. [Environmental Science & Technology, 42, (2008), 7470-7475] Pham Thi Hoa, Masashi Kitsuneduka, Junko Hara, Koichi Suto, Chihiro Inoue

●Transformation of Chlorobenzene by Pyrite under Aerobic Conditions. [Proceedings of the Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, CD-ROM, (2008)] P. T. Hoa, K. Suto, C. Inoue and J. Hara

●地圏インフォマティクスのデータベース構築とその応用例. [Journal of MMIJ, 124 (2), (2008), 148-153] 狩野真吾, 土屋範芳, 井上千弘, 原淳子, 駒井武, 白鳥寿一, 神宮宏

【著書】

●VII環境と微生物 6環境浄化・修復に関わる微生物 バイオリーチング. [微生物の事典, 598-600, (2008), 朝倉書店] 渡邊信, 西村和子, 内山裕夫, 奥田徹, 加来久敏, 広木幹也, 井上千弘, 他

環境分析化学分野

●Determination of boron in water samples at nanograms per cubic decimeter levels by reversed-phase partition high-performance liquid chromatography with precolumn complexation reaction using salicylaldehyde and 1-amino-8-naphthol-3,6-disulfonate. [Analytical and Bioanalytical Chemistry, 391 (3), (2008), 1101-1106] Toru Takahashi, Satoshi Yawata, Hitoshi Hoshino

●Exceptionally Long-Lived Luminescence Emitted from Tb^{III} Ion Caged in an Ag^I-Tb^{III}-Thiacalix[4]arene Supramolecular Complex in Water. [Chem. Asian J., 3, (2008), 849-853] Nobuhiko Iki, Munehiro Ohta, Takayuki Horiuchi, Hitoshi Hoshino

●Hydrophobic and metal coordination interacted architecture based on p-tert-butylthiacalix[4]arene-potassium complex and its vapor absorption capability. [Tetrahedron Lett., 49 (24), (2008),

3906-3911] Manabu Yamada, Yoshihiko Kondo, Nobuhiko Iki, Chizuko Kabuto, and Fumio Hamada

●Highly Luminescent Superparamagnetic Diterbium(III) Complex Based on the Bifunctionality of p-tert-Butylsulfonylcalix[4]arene. [Eur. J. Inorg. Chem., 2008 (36), (2008), 5565-5568] Takashi Kajiwara, Miki Hasegawa, Ayumi Ishii, Kensuke Katagiri, Munkhtsetseg Baatar, Shinya Takaishi, Nobuhiko Iki, Masahiro Yamashita

●水溶液中におけるテトラヒドロルクミンの酸化安定性と酸解離特性の評価. [分析化学, 57 (4), (2008), 257-263] 佐藤きよ子, 壹岐伸彦, 高橋透, 星野仁

【特許】

●環状フェノール硫化物のスルホン酸化合物及びその製造方法. [特許4180238, 2008/9/5] 宮野壮太郎, 壹岐伸彦, 藤本豊久, 濱田文男, 加藤真吾, 平石佳之, 熊谷仁志, 長谷川実治, 宮成節子, 栖川能裕, 石塚昌宏

環境生命機能学分野

【論文】

●An addressable microelectrode array for electrochemical detection. [Anal.Chem., 80, (2008), 6830-6833] Z.Y.Lin, Y.Takahashi, Y.Kitagawa, T.Umemura, H.Shiku, T.Matsue

●Cell-based electrochemical assay for endotoxin using a secreted alkaline phosphatase reporter system. [Electrochemistry, 78 (8), (2008), 525-528] K. Y. Inoue, T. Yasukawa, H. Shiku, T. Matsue

●Cell culture arrays using magnetic force-based cell patterning for dynamic single cell analysis. [Lab on a Chip, 8 (1), (2008), 134-142] Kosuke Ino, Mina Okochi, Nao Konishi, Rentaro Imai, Mitsuhiro Shikida, Akira Ito, Hiroyuki Honda

●Electrochemical characterization of enzymatic activity of yeast cells entrapped in a poly(dimethylsiloxane) microwell on the basis of limited diffusion system. [Analyst, 134 (2008), 182-187] H. Shiku, S. Goto, S. Jung, K. Nagamine, M. Koide, T. Itayama, T. Yasukawa, T. Matsue

●Electrophoretic cell manipulation and electrochemical gene-function analysis based on a yeast two-hybrid system in a microfluidic device. [Analytical Chemistry, 80 (10), (2008), 3722-3727] Tomoyuki Yasukawa, Kuniaki Nagamine, Yoshiko Horiguchi, Hitoshi Shiku, Masahiro Koide, Tomoaki Itayama, Fujio Shiraishi, Tomokazu Matsue

●Fabrication of a shear force-based ion-selective capillary probe for scanning electrochemical microphoresis. [Chem.Lett., 37, (2008), 392-393] H.Yamada, Y.Itaya Y, T.Koike, T.Matsue

●Negative dielectrophoretic patterning with different cell types. [Biosens.Bioelectron., 24, (2008), 1049-1053] M Suzuki, T.Yasukawa, H.Shiku, T.Matsue

●Patterning of gold surfaces with hexadecanethiol by shear force-based scanning capillary microscopy. [Chem.Lett., 37, (2008), 412-413] H.Yamada, K.Isaka, T.Koike, T.Matsue

●Plasmid DNA transfection using magnetite cationic liposomes for construction of multilayered gene-engineered cell sheet. [

Biotechnology and Bioengineering, 100 (1), (2008), 168-176] Kosuke Ino, Tamayo Kawasumi, Akira Ito, Hiroyuki Honda

●Rapid fabrication of nanoparticles array on polycarbonate membrane based on positive dielectrophoresis. [Sensors & Actuators B, (131), (2008), 424-431] Hyung Jung Lee, Tomoyuki Yasukawa, Masato Suzuki, Yusuke Taki, Akira Tanaka, Masaomi Kameyama, Hitoshi Shiku, Tomokazu Matsue

●Rapid and separation-free sandwich immunosensing based on accumulation of microbeads by negative dielectrophoresis. [Sensors and Actuators B, 131, (2008), 421-431] H.L.Lee, T.Yasukawa, H.Shiku, T. Matsue

●バイオチップの走査型電気化学顕微鏡解析. [表面技術, 59 (12), (2008), 818-824] 安川智之, 珠玖仁, 水谷文雄, 末永智一

【著書】

●Handbook of Bioelectrochemistry. [Whole - Cell Biosensors, (2008), 249-266, John Wiley] H.Shiku, K.Nagamine, T.Kaya, T.Yasukawa, T.Matsue

●Whole-cell biosensors (Chapter 7). [Bioelectrochemistry: fundamentals, experimental techniques, and applications (Eds. P.N. Bartlett), (2008), 249-266, John Wiley & Sons Ltd., West Sussex, UK.] H. Shiku, K. Nagamine, T. Kaya, T. Yasukawa, T. Matsue

●第2章 誘電泳動による微粒子および細胞配列. [細胞分離・操作技術の最前線, (2008), 177-186, シーエムシー出版] 安川智之, 鈴木雅登, 末永智一

●第2章, 第1節. [細胞機能を利用するマイクロバイオセンサ in 先進化学センサ (第2章, 第1節), (2008), 243-252, 株式会社ティー・アイ・シー出版] 井上 (安田) 久美, 珠玖仁, 末永智一

【総説・解説】

●細胞機能を利用するマイクロバイオセンサ. [マテリアルインテグレーション, 21, (2008), 232-241, TIC] 井上 (安田) 久美, 珠玖仁, 末永智一

●走査型電気化学顕微鏡による体外培養胚のクオリティ評価. [バイオサイエンスとインダストリー, 66 (6), (2008), 298-299, 財バイオインダストリー協会] 伊達安基, 阿部宏之, 珠玖仁, 末永智一

【特許】

●液体混合デバイス、液体混合方法及び微量検体測定方法. [特開2008-014791, 2008/1/24] 安川智之, 井上久美, 珠玖仁, 末永智一, 吉田博, 末竹寿紀

●検体セルおよび電気化学的分析装置及び電気化学的分析方法. [特許4097492, 2008/3/21] 珠玖仁, 白石卓夫, 末永智一, 阿部宏之, 星宏良, 青柳重夫, 松平昌昭, 内海陽介

●細胞の形質転換方法及び形質導入方法. [特開2008-206397, 2008/9/11] 長峯邦明, 小野寺志穂, 鳥澤勇介, 末永智一, 珠玖仁, 安川智之

●細胞または組織の培養制御装置とその方法. [特許4204913, 2008/10/24] 西澤松彦, 梶弘和, 末永智一

●電極反応特性試験装置及び電極反応特性試験方法. [特開2008-292224, 2008/12/4] 長谷川正樹, 朝岡賢彦, 末永智一, 珠玖仁, 安川智之

環境共生機能学分野

【論文】

●Acid catalytic hydrothermal conversion of carbohydrate biomass into useful substances. [Journal of Materials Science, 43, (2008), 2472-2475] Y. Takeuchi, F. M. Jin, K. Tohji, H. Enomoto

●Composition controlled synthesis of fcc-FePt nanoparticles using a modified polyol process. [Journal of Materials Science, 43, (2008), 2402-2406] R. J. Joseyphus, K. Shinoda, Y. Sato, K. Tohji, B. Jeyadevan

●Cu-doped ZnS hollow particle with high activity for hydrogen generation from alkaline sulfide solution under visible light. [Chemistry of Materials, 20, (2008), 1997-2000] Takeo Arai, Shin-ichiro Senda, Yoshinori Sato, Hideyuki Takahashi, Kozo Shinoda, Balachandran Jeyadevan, Kazuyuki Tohji

●Damage-free surface treatment of carbon nanotubes and self-assembled monolayer devices using a neutral beam process for fusing top-down and bottom-up processes. [Journal of Physics D: Applied Physics, 41, (2008), 24006(1)- 24006(6)] Seiji Samukawa, Yasushi Ishikawa, Keiji Okumura, Yoshinori Sato, Kazuyuki Tohji, Takao Ishida

●Effective Hydrogen Generation from the Hydrogen Sulfide Solution by using Stratified Type Photocatalyst. [Proceedings of 5th Inthenational Workshop on Water Dynamics, (2008), 17-21] Hideyuki Takahashi, Shun Yokoyama, Yohei Baba, Tsugumi Hayashi, Kazuyuki Tohji

●Formation of p-n junctions in double-walled carbon nanotubes by a plasma ion-irradiation method. [2008 8th IEEE Conference on Nanotechnology (NANO), (2008), 243-246] Y. F. Li, R. Hatakeyama, T. Kaneko, K. Tohji

●Hydrothermal conversion of carbohydrate biomass into formic acid at mild temperatures. [Green Chemistry, 10, (2008), 612-615] F. M. Jin, J. Yun, G. M. Li, A. Kishita, K. Tohji, H. Enomoto

●Hydrothermal processing of metal based compounds and carbon dioxide for the synthesis of organic compounds. [Journal of Materials Science, 43, (2008), 2487-2491] H. Takahashi, T. Kori, T. Onoki, K. Tohji, N. Yamasaki

●In vivo rat subcutaneous tissue response of binder-free multi-walled carbon nanotube blocks cross-linked by de-fluorination. [Carbon, 46, (2008), 1927-1934] Yoshinori Sato, Atsuro Yokoyama, Takao Kasai, Shinji Hashiguchi, Makoto Ootsubo, Shin-ichi Ogino, Naoki Sashida, Masaru Namura, Kenichi Motomiya, Balachandran Jeyadevan, and Kazuyuki Tohji

●Modification of electrical transport properties of single-walled carbon nanotubes realized by negative-ion irradiation with electron-free pure alkali-halogen plasma. [Japanese Journal of Applied Physics, 47, (2008), 2044-2047] J. Shishido, T. Kato, W. Oohara, R. Hatakeyama, K. Tohji

●Reinforcement of rubber using radial single-walled carbon nanotube soot and its shock dampening properties. [Carbon, 46, (2008), 1509-1512] Yoshinori Sato, Kenji Hasegawa, Yoshinobu Nodasaka, Kenichi Motomiya, Masaru Namura, Nobuyuki Ito,

Balachandran Jeyadevan, Kazuyuki Tohji
● Synthesis of silver sulfide stratified photocatalyst. [Proceedings of 5th International Workshop on Water Dynamics, (2008), 155-158] Yohei Baba, Shun Yokoyama, Hideyuki Takahashi, Kazuyuki Tohji
● Super-robust, lightweight, conducting carbon nanotube blocks cross-linked by de-fluorination. [ACS Nano, 2, (2008), 348-356] Yoshinori Sato, Makoto Ootsubo, Go Yamamoto, Gregory Van Lier, Mauricio Terrones, Shinji Hashiguchi, Hisamichi Kimura, Akira Okubo, Kenichi Motomiya, Balachandran Jeyadevan, Toshiyuki Hashida, Kazuyuki Tohji
【総説・解説】
●カーボンナノチューブの表面改質に関わる細胞毒性。 [Material Stage, 7, (2008), 98-105, 技術情報協会] 佐藤義倫
●先進エネルギーとセラミックス。 [Ceramics Japan, 43, (2008), 845-853, 日本セラミックス協会] 高橋 英志、横山 俊、林 亜美、馬場 洋平、田路 和幸
【書籍】
●Role of Water in the Research on Energy and Environment. [The 21st Century COE Program International COE of Flow Dynamics Lecture Series, Vol. 13, Tohoku University Press,(2008)] Edited by Shigenao Maruyama and Kazuyuki Tohji
●カーボンナノチューブの切断と長さ制御。 [最新ファイナ技術全集, (2008), 95-107, 技術情報協会] 田路和幸
【特許】
●磁性粉およびその製造方法。 [特許第4157936, 2008/7/25] 田路和幸, 佐藤王高
●単結晶コバルトフェライト微粒子粉末の製造方法。 [特許第4138344, 2008/6/13] 田路和幸, 佐々木勇一, 水野幹久
●液中分散性および耐食性に優れた銅粉並びにその製造法。 [特許公開2008-169474, 2008/7/24] 田路和幸, バラチャンドラン・ジャヤデワン, 久枝穰
●磁気記録用金属磁性粉およびその製造法。 [特許公開2008-270300, 2008/11/6] 田路和幸, 吉田貴行, 後藤崇, 中山昌俊
●バイオマスの湿式酸化によるギ酸の製造方法。 [特許公開2008-273915, 2008/11/13] 田路和幸, 榎本兵治, 木下睦, 金放鳴, 守谷武彦, 岸田央範
●有機物質で被覆された銀微粉の製法および銀微粉。 [特許公開2008-297580, 2008/12/11] 佐藤王高, バラチャンドラン・ジャヤデワン, 田路和幸

資源循環プロセス学講座

リサイクル化学分野

【論文】
●Ball mill-assisted dechlorination of flexible and rigid poly(vinyl chloride) in NaOH/EG solution. [Industrial & Engineering Chemistry Research,47,(2008), 8619-8624] Tomohito Kameda, Masahiko Ono, Guido Grause, Tadaaki Mizoguchi, Toshiaki Yoshioka

●Dechlorination of poly(vinyl chloride) using NaOH in ethylene glycol under atmospheric pressure. [Polymer Degradation and Stability, 93, (2008), 1138-1141] Toshiaki Yoshioka, Tomohito Kameda, Shogo Imai, Akitsugu Okuwaki
●Dechlorination of Poly(Vinylidene Chloride) in NaOH/Ethylene Glycol as a Function of NaOH Concentration, Temperature, and Solvent. [Polymer Degradation and Stability, 93 ,(2008), 1979-1984] Toshiaki Yoshioka, Tomohito Kameda, Shogo Imai, Masahiko Noritsune, Akitsugu Okuwaki
●Dechlorination Behavior of Flexible Poly(Vinyl Chloride) in NaOH/EG Solution. [Polymer Degradation and Stability, 93 ,(2008), 1822-1825] Toshiaki Yoshioka, Tomohito Kameda, Masashi Ieshige, Akitsugu Okuwaki
●Dehydrochlorination Behavior of Polychloroprene During Thermal Degradation. [Thermochimica Acta, 476, (2008), 28-32] Tomohito Kameda, Yousuke Watanabe, Guido Grause, Toshiaki Yoshioka
●Effects of pH and Concentration on the Ability of Cl⁻ and NO₃⁻ to Intercalate into a Hydrotalcite-Like Compound During Its Synthesis. [Bulletin of Materials Science, 31, (2008), 625-629] Tomohito Kameda, Toshiaki Yoshioka, Fumiko Yabuuchi, Miho Uchida, Akitsugu Okuwaki
●Preparation and characterization of Mg-Al layered double hydroxides intercalated with benzenesulfonate and benzenedisulfonate. [Microporous and Mesoporous Materials, 114, (2008), 410-415] Tomohito Kameda, Takashi Yamazaki, Toshiaki Yoshioka
●Removal of Hydrogen Chloride from Gaseous Streams Using Magnesium-Aluminum Oxide. [Chemosphere, 73, (2008), 844-847] Tomohito Kameda, Naoya Uchiyama, Kye-Sung Park, Guido Grause, Toshiaki Yoshioka
●The Effects of KI/Se(VI) Molar Ratio and Initial Concentration of Se(VI) on the Reduction of Se(VI) to Se(IV) by KI. [Environmental Chemistry Letters, 6, (2008), 247-249] Tomohito Kameda, Yuuna Ishiyama, Toshiaki Yoshioka
●Uptake of heavy metal ions from aqueous solution using Mg-Al layered double hydroxides intercalated with citrate, malate, and tartrate. [Separation and Purification Technology, 62, (2008), 330-336] Tomohito Kameda, Hidenori Takeuchi, Toshiaki Yoshioka
●Pyrolysis of Tetrabromobisphenol-A containing paper laminated printed circuit boards. [Chemosphere, 71, (2008), 872-878] Guido Grause, Furusawa Masaaki, Okuwaki Akitsugu, Toshiaki Yoshioka
●廃プラスチックの地域循環型リサイクルシステム。 [機械の研究, 60, (2008), 821-825] 吉岡敏明
【総説・解説】
●特集 ケミカルリサイクル。 [月刊 ファインケミカル, 37, (2008), 5-36, シーエムシー出版] 吉岡敏明 (編集)

循環社会開発学分野

【論文】
●Acid catalytic hydrothermal conversion of carbohydrate biomass into useful substances. [Journal of Materials Science, 43 (7), (2008), 2472-2475] Yusuke Takeuchi, Fangming Jin, Kazuyuki Tohji, Heiji Enomoto

環境グリーンプロセス学分野

【論文】
●Binary hydrogen-tetrahydrofuran clathrate hydrate formation kinetics and models. [AIChE Journal, 54, (2008), 3007-3016] Nagai, Y., Yoshioka, H., Ota, M., Sato, Y., Inomata, H., Smith Jr., R.L., Peters, C.J.
●Catalytic dehydration of fructose into 5-hydroxymethylfurfural by ion-exchange resin in mixed-aqueous system by microwave heating. [Green Chemistry, 10, (2008), 799-805] Qi, X., Watanabe, M., Aida, T.M., Smith Jr., R.L.
●Catalytical conversion of fructose and glucose into 5-hydroxymethylfurfural in hot compressed water by microwave heating. [Catalysis Communications, 9, (2008), 2244-2249] Qi, X., Watanabe, M., Aida, T.M., Smith Jr., R.L.
●Formation mechanism and luminescence appearance of Mn-doped zinc silicate particles synthesized in supercritical water. [Journal of Solid State Chemistry, 181, (2008), 1307-1313] Takesue, M., Suino, A., Hakuta, Y., Hayashi, H., Smith Jr., R.L.
●Formation of α - and β -phase Mn-doped zinc silicate in supercritical water and its luminescence properties at Si/(Zn+Mn) ratios from 0.25 to 1.25. [Journal of Crystal Growth, 310, (2008), 4185-4189] Takesue, M., Suino, A., Shimoyama, K., Hakuta, Y., Hayashi, H., Smith Jr., R.L.
●Measurement and correlation of infinite dilution partition coefficients of aromatic compounds in the ionic liquid 1-butyl-3-methyl-imidazolium hexafluorophosphate ([bmim][PF₆])-CO₂ system at temperatures from 313 to 353 K and at pressures up to 16 MPa. [Journal of Supercritical Fluids, 43, (2008), 430-437] Machida, H., Sato, Y., Smith Jr., R.L.
●Pressure-volume-temperature (PVT) measurements of ionic liquids ([bmim+][PF₆-], [bmim+][BF₄-], [bmim+][O₂SO₄-]) and analysis with the Sanchez-Lacombe equation of state. [Fluid Phase Equilibria, 264, (2008), 147-155] Machida, H., Sato, Y., Smith Jr., R.L.
●Reaction of cellulose-starch gel mixtures in water at high-temperatures and pressures for developing continuous batch microreactor systems. [Bioresource Technology, 99, (2008), 4338-4345] Ogihara, Y., Smith Jr., R.L., Inomata, H., Arai, K.
●Reaction chemistry and phase behavior of lignin in high-temperature and supercritical water. [International Journal of Hydrogen Energy 33, (2008), 981-990] Zhen Fang, Takafumi Sato, Richard L. Smith Jr., Hiroshi Inomata, Kunio Arai, Janusz A. Kozinski.

●Reaction chemistry and phase behavior of lignin in high-temperature and supercritical water. [Bioresource Technology, 99, (2008), 3424-3430] Fang, Z., Sato, T., Smith Jr., R.L., Inomata, H., Arai, K., Kozinski, J.A.
●Selective Conversion of D-Fructose to 5-Hydroxymethylfurfural by Ion-Exchange Resin in Acetone/Dimethyl sulfoxide Solvent Mixtures. [Industrial & Engineering Chemistry Research, 47, (2008), 9234-9239] Xinhua Qi, Masaru Watanabe, Taku M. Aida, and Richard Lee Smith Jr.
●高温高圧水中部分酸化によるグルコースからの水素製造技術(第2報) : 反応機構およびギ酸の分解速度。 [日本エネルギー学会誌 87,(2008),713-718.] 高橋 麻耶子, 大田 昌樹, 保科 貴亮, 渡邊 賢, 佐藤 善之, 猪股 宏
●高温高圧水中部分酸化によるグルコースからの水素製造技術(第1報) : 触媒の選定およびZnOの効果について。 [日本エネルギー学会誌 87, (2008), 706-712.]高橋 麻耶子, 相澤 雄一, 大田 昌樹, 保科 貴亮, 渡邊 賢, 佐藤 善之, 猪股 宏
●高温高圧水中部分酸化によるグルコースからの水素製造反応のメカニズム解明に関する研究。 [バイオマス科学会議発表論文集, (2008),78-79.]渡邊 賢, 高橋 麻耶子, 猪股 宏
●高温高圧水中でのセロビオースの加水分解反応におよぼす濃度の影響 [バイオマス科学会議発表論文集, (2008),26-27] 渡邊 賢, 佐藤 雄亮, SMITH Jr. Richard Lee.

【特許】
●超臨界水バイオマス燃焼ボイラー。 [特開2008-292018 , 2008/12/4] 新井邦夫, 猪股宏, スミス・リチャード・リー, 渡邊賢, 小野實信, 鈴木明, 川崎慎一郎, 畑田清隆, 服部秀雄, 野中利之, 田嶋聖彦

循環材料プロセス学分野

【論文】
●Carbo-thermal Reduction of NiO and Cr₂O₃ by Microwave Heating for Recycling Metals from Pickling Sludge. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Noboru Yoshikawa, Ken-ichi Mashiko, Etsuko Ishizuka, Shoji Taniguchi
●Control of Non-metallic Particles in Liquid Metal with Electromagnetic Force. [The 3rd Asian Workshop and Summer School on Electromagnetic Processing of Materials, Proceedings, (2008), 176-178] Shin-ichi Shimasaki and Shoji Taniguchi
●Dependence of microwave heating behavior on the thickness of metal thin films. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Ziping Cao, Noboru Yoshikawa, Shoji Taniguchi
●Effects of Double-Axis Electromagnetic Stirring in Continuous Casting. [IEEE Transactions on Magnetics, (2008)] R. Otake, T. Yamada, R. Hirayama, K. Fujisaki, S. Shimasaki and S. Taniguchi
●Effects of Double-Axis Electromagnetic Stirring in Continuous Casting Model with Liquid Gallium. [The 3rd Asian Workshop and Summer School on Electromagnetic Processing of Materials, Proceedings, (2008), 15-18] Ryo Otake, Takahiro Yamada,

Ryu Hirayama, Keisuke Fujisaki1, Shin-ichi Shimasaki, Shoji Taniguchi

●Fundamental Study on Metal Recovery from Stainless Steel Pickling Sludge by Microwave Heating. [Proceedings of the 4th International Congress on the Science and Technology of Steel Making, (2008), 646-649] N.Yoshikawa, K.Mashiko, E.Ishizuka and S.Taniguchi

●Heating behavior of metal powders in a multimode and single mode microwave applicator. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Song Li, Guoqiang Xie, Dmitri.V.Louzguine-Luzgin, V.Buchelnikov, Ziping Cao, Noboru Yoshikawa, Motoyasu Sato, Akihisa Inoue

●Heating of metallic powders by microwaves: Experiment and theory. [J. Apply. Phys., 104, (2008), 113505-1-10] V. D. Buchelnikov, D. V. Louzguine-Luzgin, G. Xie, S. Li, N. Yoshikawa, M. Sato, A. P. Anzulevich, I. V. Bychkov, and A. Inoue

●Low temperature growth of ferroelectric lead zirconium titanate thin films using the magnetic field of low power 2.45GHz microwave irradiation. [Applied Physics Letters, 92, (2008), 222905-1-222905-3] Z.J.Wang, Z.P.Cao, Y.Otsuka, N.Yoshikawa, H.Kokawa and S.Taniguchi

●Low-temperature processing of PZT thin films by 2.45 GHz microwave irradiation in magnetic field. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Zhan Jie Wang, Ziping Cao, Yuka Otsuka, Noboru Yoshikawa, Hiroyuki Kokawa

●Manufacturing of Spherical Silicon for Solar Cell by Electromagnetic Pinch Force. [The 3rd Asian Workshop and Summer School on Electromagnetic Processing of Materials, Proceedings, (2008), 211-214] Kentaro Imanishi, Shin-ich Shimasaki, Shoji Taniguchi, Valdis Bojarevics

●Microwave Carbo-thermal Reduction for Recycling of Cr from Cr-containing Steel Making Wastes. [ISIJ International, 48 (5), (2008), 697-702] Noboru Yoshikawa, Ken-ichi Mashiko, You Sasaki, Shoji Taniguchi and Hidekazu Todoroki

●Microwave heating of Soda-Lime Glass by Addition of Iron Powder. [Journal of Materials Research, 23 (6), (2008), 1564-1569] Noboru Yoshikawa, Haichuan Wang, Ken-ich Mashiko and Shoji Taniguchi

●Microwave heating characteristic of multilayered structures in separated H and E fields. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Ziping Cao, Noboru Yoshikawa, Zhanjie Wang, Shoji Taniguchi

●Microwave heating of metal powder/soda-lime glass mixture. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] N.Yoshikawa, H.Wang, K.Mashiko and S.Taniguchi

●Microwave Heating Origination and Rapid Crystallization of PZT Thin Film in Separated H Field. [Journal of Physics D, 41 (9), (2008), 92003-92006] Ziping Cao, Zhanjie Wang, Noboru

Yoshikawa and Shoji Taniguchi

●Microwave Treatment of Slags: Case Studies of Cr-bearing Steel Making Slag and Ti-bearing Blast Furnace Slag. [Proceedings of the 4th International Congress on the Science and Technology of Steel Making, (2008), 650-653] N.Yoshikawa, Y.Chen, K.Mashiko, E.Ishizuka and S.Taniguchi

●Modeling of microwave heating of metallic powders. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] V. D. Buchelnikov, D. V. Louzguine-Luzgin, N. Yoshikawa, M. Sato, A. P. Anzulevich, I. V. Bychkov, A. Inoue

●Modeling of microwave heating of metallic powders. [Physica B, 403 (8), (2008), 4053-4058] V.D. Buchelnikov, D.V. Louzguine-Luzgin, A.P. Anzulevich, I.V. Bychkov, N. Yoshikawa, M. Sato, A. Inoue

●New Horizons of EPM – Environmental Technology. [The 3rd Asian Workshop and Summer School on Electromagnetic Processing of Materials, Proceedings, (2008), 5-10] Shoji Taniguchi, Shin-ichi Shimasaki, Senshin Umeki and Jong-Soo Park

●Ni-based metallic glassy matrix composites fabricated by microwave-induced sintering. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Guoqiang Xie, Song Li, Dmitri V Louzguine-Luzgin, Ziping Cao, Noboru Yoshikawa, Motoyasu Sato, Akihisa Inoue

●On Microwave Selective Heating of Multi Phase Materials. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Noboru Yoshikawa, Yoshio Tokuyama, Yan Chen, Shoji Taniguchi

●Penetration of microwave radiation through metallic powders. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] V. D. Buchelnikov, D. V. Louzguine-Luzgin, G. Xie, S. Li, N. Yoshikawa, M. Sato, A. P. Anzulevich, I. V. Bychkov, A. Inoue

●Phase transformation of microwave heated crystalline metallic-metalloid powders. [Proceedings of Global Congress on Microwave Energy Applications (GCMEA2008), CD, (2008)] Song Li, Guoqiang Xie, Dmitri.V.Louzguine-Luzgin, Ziping Cao, Noboru Yoshikawa, Motoyasu Sato, Akihisa Inoue

●Rapid Crystallization of Sol-Gel-Deposited Lead Zirconate Titanate Thin Films by 2.45GHz Microwave Irradiation. [Japanese journal of Applied Physics, 47 (9), (2008), 7519-7522] Z.J.Wang, Y.Otsuka, Z.Cao, N.Yoshikawa and H.Kokawa

●Recent Activities on EPM Application to Environmental Technology. [The Second japan-Australia-China Workshop for Iron and Steelmaking, Proceedings, CD-ROM, (2008), 1-6] S. Taniguchi, S. Shimasaki, S. Umeki, J.-S. Park, K. Ueno

●Vitrification of asbestos-containing wastes (ACWs) by induction heating. [The 1st International Conference on “Hazardous Waste Management” Special issues: Asbestos Waste, CD, (2008)] J.-S. Park, S. Taniguchi

【著書】

●薦める本と紹介したい本. [金属, 78 (7), (2008) ,74, アグネ

技術センター]吉川昇

【総説・解説】

●材料電磁プロセッシングへの超電導応用. [低温工学, 43 (1), (2008), 2-6, 出版社]笠原奉文, 谷口尚司

●マイクロ波による金属の加熱と応用. [材料の科学と工学, 45 (3), (2008), 78-82, 裳華房]吉川昇

【特許】

●Al基複合材製ネジおよびその製造方法. [特開2008-106848, 2008/5/8] 谷口尚司, 小林敬幸, 加藤洋史, 石本健司, 高橋平四郎, 佐々木伸一, 井口真仁

●電磁攪拌装置及び電磁攪拌方法. [特許4134310, 2008/6/13] 谷口尚司, 上野和之, 大久保光浩, 安藤努, 舞嶽孝二

●Crを含有する有価金属含有副産物のマイクロ波加熱炭素還元法. [特開2008-231465, 2008/10/2] 轟秀和, 吉川昇, 谷口尚司

●高周波誘導炉および固体溶解方法. [特開2008-267733, 2008/11/6] 谷口尚司, 朴鐘守, 綿貫攝, 別森敬一, 森野弘樹, 山田真一

循環生態系計画学分野

【論文】

●A novel chip device based on wired capillary packed with high performance polymer-based monolith for HPLC: Reproducibility in preparation processes to obtain long column. [Anal. Sci., 24 (1), (2008), 149-154] K. Hosoya, M. Sakamoto, K. Akai, T. Mori, T. Kubo, K. Kaya, K. Okada, N. Tsujioka, and N. Tanaka

●Effective determination method for a cyanobacterial neurotoxin, beta-N-methylamino-L-alanine. [Toxicol., 57, (2008), 1264-1268] T. Kubo, N. Kato, K. Hosoya, and K. Kaya

●High throughput on-line preconcentration using “Spongy-monolith” prepared by pore template. [Chem. Lett., 37 (9), (2008), 950-951] T. Kubo, F. Watanabe, K. Kaya, and K. Hosoya

●New values of molecular extinction coefficient and specific rotation for cyanobacterial toxin cylindrospermopsin. [Toxicol., 51, (2008), 717-719] T. Sano, S. Kikuchi, T. Kubo, H. Takagi, K. Hosoya, and K. Kaya

●Poly(glycerin 1,3-dimethacrylate) Based Monolith With a Bicontinuous Structure Tailored As HPLC Column by Photoinitiated in Situ Radical Polymerization via Viscoelastic Phase Separation. [J. Polym. Sci., Part A, Polymer Chemistry, 46, (2008), 4651-4673] H. Aoki, N. Tanaka, T. Kubo and K. Hosoya

●Properties of flaky affinity resin with co-continuous structure. [Bioorg. Med. Chem., 16, (2008), 1983-1991] T. Mori, A. Tanaka, T. Kubo, K. Kaya, M. Sakamoto and K. Hosoya,

●Selective Adsorption of Water-soluble Ionic Compounds by an Interval. [Anal. Sci., 24, (2008), 1633-1636] T. Kubo, F. Watanabe, K. Kaya, K. Hosoya

●Well-Controlled 3D Skeletal Epoxy-Based Monoliths Obtained by Polymerization Induced Phase Separation. [J. Polym. Sci., Part A, Polymer Chemistry, 46, (2008), 3272-3281] N. Tsujioka, N. Ishizuka, N. Tanaka, T. Kubo, and K. Hosoya

【著書】

●第0章. [ベーシック機器分析化学, (2008), 18-27, 化学同人] 渡部悦幸, 細矢憲, 久保拓也

【総説・解説】

●Development and Applications of Fragment Imprinting Technique. [Chromatography, 29 (1), (2008), 9-17, クロマトグラフィー学会] T. Kubo

●環境分析に寄与する新規分離媒体. [産業と環境, (2008), 27-30, 株式会社 産業と環境] 久保拓也

【特許】

●エポキシ樹脂硬化物多孔体と繊維を含んでなる複合材料. [特開2008-013672, 2008/1/24] 辻岡則夫, 細矢憲, 坂本明信

●水質保持材及びその製造方法. [特開2008-013625, 2008/1/24] 辻岡則夫, 細矢憲

●マイクロ流体システム用支持ユニットの製造方法. [特開2008-281368, 2008/11/20] 赤井邦彦, 河添宏, 細矢憲

●マイクロ流体システム用支持ユニット. [特開2008-281366, 2008/11/20] 赤井邦彦, 河添宏, 細矢憲

環境創成計画学講座

環境分子化学分野

●Sulfur-bridged Oligo(benzoic acid)s as a Novel Family of Metal Extractants. [Chem. Lett., 37 (12), (2008), 1228-1229] Naoya Morohashi, Kazutoshi Nagata, Shinya Tanaka, Yoshihiro Ohba, and Tetsutaro Hattori

●Synthesis of a Sulfur-bridged Diphosphine Ligand and Its Unique Complexation Properties toward Palladium(II) Ion. [Chem. Lett., 37 (4), (2008), 418-419] Naoya Morohashi, Yuki Akahira, Shinya Tanaka, Kensuke Nishiyama, Takashi Kajiwara, and Tetsutaro Hattori

●Synthesis of Dinuclear Boron Complexes of Sulfinylcalix[4]arenes: Syn/Anti Stereocontrol by the Arrangement of the Sulfinyl Functions. [Org. Lett., 10 (13), (2008), 2845-2848] Naoya Morohashi, Tsuyoshi Kitahara, Tomoko Arima, Shinya Tanaka, Yoshihiro Ohba, and Tetsutaro Hattori

●Resolution of inherently chiral anti-O,O'-dialkylthiacalix[4]arenes and determination of their absolute stereochemistries. [Tetrahedron: Asymmetry, 19 (12), (2008), 1470-1475] Fumitaka Narumi, Nobuji Matsumura, Nariaki Sasagawa, Koichi Natori, Takashi Kajiwara, Tetsutaro Hattori

●Mercury(II) sensors based on calix[4]arene derivatives as receptor molecules. [Sens. Actuators B, 130, (2008), 290-294] Rakesh Kumar Mahajan, Ravneet Kaur, Vandana Bhalla, Manoj Kumar, Tetsutaro Hattori, and Sotaro Miyano

●Nitrogen-directed ortho-arylation and -heteroarylation of aromatic rings catalyzed by ruthenium complexes. [Tetrahedron, 64 (26), (2008), 6051-6059] Shuichi Oi, Raito Funayama, Tetsutaro Hattori, Yoshio Inoue

● α -アミノニトリルジアステレオマーの配座解析. [日本コ

ンピュータ化学会論文誌, 7 (4), (2008), 117-124] 櫻井ルミ子, 内田朗, 服部徹太郎, 山浦政則

ライフサイクル評価学分野

【論文】

●A Hybrid Input-Output Approach to Metal Production and Its Application to the Introduction of Lead-Free Solders. [Environmental Science and Technology, 42 (10), (2008), 3843-3848] Shinichiro Nakamura, Shinsuke Murakami, Kenichi Nakajima and Tetsuya Nagasaka

●Carbonization Behaviour of Woody Biomass and Resulting Metallurgical Coke Properties. [ISIJ International, 48 (5), (2008), 572-577] T. Matsumura, M. Ichida, T. Nagasaka and K. Kato

●Desulfurization Technology in the Blast Furnace Raceway by MgO-SiO₂ Flux Injection. [ISIJ International, 48 (2), (2008), 141-146] T. Orimoto, T. Noda, M. Ichida and T. Nagasaka

●New EAF Dust Treatment Process with the Aid of Strong Magnetic Field. [ISIJ International, 48 (10), (2008), 1339-1344] Satoshi Itoh, Akira Tsubone, Kazuyo Matsubae-Yokoyama, Kenichi Nakajima and Tetsuya Nagasaka

●Substance Flow Analysis of Manganese Associated with the Iron and Steel Cycle in Japan. [ISIJ International, 48 (4), (2008), 554-558] NAKAJIMA Kenichi, YOKOYAMA Kazuyo and NAGASAKA Tetsuya

●Substance Flow Analysis of Manganese Associated with Iron and Steel Flow in Japan. [ISIJ International, 48 (4), (2008), 554-558] K. Nakajima, K. Yokoyama and T. Nagasaka

●The Application of Material Stock and Flow Accounting to Phosphorus in Japan. [Journal of Environmental Engineering and Management, 18 (1), (2008), 47-53] KUBO Hironari, YOKOYAMA Kazuyo, NAKAJIMA Kenichi, HASHIMOTO Seiji, YAMAGUCHI Kazuyoshi, NAGASAKA Tetsuya

●アルミドロスのマテリアルフロー分析および再利用技術の環境負荷評価. [日本金属学会誌, 72 (1), (2008), 1-7] 中島謙一, 大菅広岳, 横山一代, 長坂徹也

●家電製品の廃棄に伴うレアメタルの潜在的拡散量評価. [日本金属学会誌, 72 (8), (2008), 587-592] 山末英嗣, 中島謙一, 醍醐市朗, 松八重(横山)一代, 橋本征二, 奥村英之, 石原慶一

●国際コンピテンシー人材育成教育プログラム. [工学教育, 56 (3), (2008), 118-122] 岡田益男, 橋爪秀利, 長坂徹也, 中島美樹子

●随伴元素成分を考慮した鉄鋼リサイクルフロー分析. [日本エネルギー学会誌, 87 (4), (2008), 243-249] 横山一代, 中島謙一, 中村慎一郎, 長坂徹也

●日本におけるフラットパネルディスプレイ用途のインジウムの物質フロー分析. [日本金属学会誌, 72 (2), (2008), 99-104] 中島謙一, 横山一代, 中野加都子, 長坂徹也

●廃棄物からの人工リン資源回収. [社会技術研究論文集, 5, (2008), 106-113] 横山一代, 久保裕也, 大竹久夫, 長坂徹也

●WIO-MFAおよびSFAによる我が国の鉄資源循環とマンガンのフロー分析. [鑄造工学, 80 (6), (2008), 330-336] 松八重 (横山) 一代, 中島謙一, 小野恭平, 中村慎一郎, 長坂徹也

【総説・解説】

●随伴元素成分を考慮した鉄鋼リサイクルフロー分析. [日本エネルギー学会誌, 87 (4), (2008), 243-249, 日本エネルギー学会] 横山一代, 中島謙一, 中村慎一郎, 長坂徹也

環境調和素材学分野

【論文】

●Application of Newly Developed Globular-Shaped Granules of Beta-Tricalcium Phosphate for Bone Substitute. [Key Eng. Mater., 361-363, (2008), 1013-1016] Y. Gonda, K. Ioku, T. Okuda, G. Kawachi, I. Yonezawa, H. Kurosawa, T. Ikeda

●Biomimetic deposition of hydroxyapatite on a synthetic polypeptide with β sheet structure in a solution mimicking body fluid. [J. Mater. Sci.: Mater. Med., 19, (2008), 387-393] Akari Takeuchi, Chikara Ohtsuki, Masanobu Kamitakahara, Shin-ichi Ogata, Toshiki Miyazaki, Masao Tanihara

●Determination of aperture structure and fluid flow in a rock fracture by a high-resolution numerical modeling on the basis of a flow-through experiment under confining pressure. [Water Resources Research, 44, (2008), 1-11] N.Watanabe, N. Hirano, N. Tsuchiya

●Development of measurement and assessment technology for evaluation of bone regeneration. [Key Eng. Mater., 361-363, (2008), 997-1000] N. Kotobuki, M. Hirose, K. Ioku, A. Sakaguchi, A. Iwama, M. Harada, H. Yamamoto, H. Ohgushi

●Evaluation of fluid flow field in single rock fracture during frictional sliding. [WATER DYNAMICS: 5th International Workshop on Water Dynamics (AIP Conference Proceedings), 987, (2008), 123-128] K. Nemoto, N. Watanabe, N. Tsuchiya

●Experimental and numerical analysis of flow path change in rock fracture under hydrothermal condition. [WATER DYNAMICS: 5th International Workshop on Water Dynamics (AIP Conference Proceedings), 987, (2008), 133-136] N. Watanabe, N. Hirano, N. Tsuchiya

●Formation of bone-like apatite on tricalcium phosphate ceramics in a solution mimicking body fluid. [Ceramic Engineering and Science Proceedings, 29 (7), (2008), 187-198] Chikara Ohtsuki, Kohei Yamaguchi, Tomohiro Uchino, Giichiro Kawachi, Koichi Kikuta, Masanobu Kamitakahara

●Formation of FGF-2-apatite composite layer on ethylene-vinyl alcohol copolymer. [Key Eng. Mater., 361-363, (2008), 455-458] K. Sasaki, A. Oyane, K. Hyodo, A. Ito, Y. Sogo, M. Kamitakahara, K. Ioku

●Formation of hydroxyapatite on ceramics consisting of tricalcium phosphate in a simulated body fluid. [J. Ceram. Soc. Japan, 116 (1), (2008), 96-99] Tomohiro UCHINO, Kohei YAMAGUCHI, Giichiro KAWACHI, Koichi KIKUTA, Masanobu KAMITAKAHARA, Chikara OHTSUKI

●Hydrothermal synthesis of magnetite/hydroxyapatite composite material for hyperthermia therapy for bone cancer. [J. Ceram. Soc. Japan, 116 (9), (2008), 950-954] Setsuaki MURAKAMI, Toshiaki HOSONO, Balachandran JEYADEVAN, Masanobu

KAMITAKAHARA, Koji IOKU

●Hydrothermal synthesis of tobermorite/hydroxyapatite composites. [Materials Letters, 62, (2008), 3291-3293] Hiroataka Maeda, Koji Ioku, Emile H. Ishida

●Hydrothermal treatment of alpha tricalcium phosphate porous ceramics in various aqueous solution. [Ceramic Engineering and Science Proceedings, 29 (7), (2008), 101-110] Masanobu Kamitakahara, Koji Ioku, Giichiro Kawachi, Chikara Ohtsuki

●Microstructure Designing of Porous β -Tricalcium Phosphate for Control of Reactions in the Bone. [Key Eng. Mater., 361-363, (2008), 989-992] K. Ioku, M. Kamitakahara, G. Kawachi, Y. Gonda, T. Okuda, I. Yonezawa, H. Kurosawa, T. Ikeda

●Precipitation of silica minerals by hydorythermal flow-through experiment at 200-430°C and 30 MPa. [Geothermal Resources Council Transactions, 32, (2008), 389-392] A. Okamoto, H. Saishu, N. Hirano, N. Watanabe, N. Tsuchiya

●Preparation of bioactive microspheres of organic modified calcium silicates through sol-gel processing. [J. Sol-Gel. Sci. Technol., 45, (2008), 43-49] Ill Yong Kim, Chikara Ohtsuki, Giichiro Kawachi, Masanobu Kamitakahara, Sung-Baek Cho

●Preparation of Core-shell SiO₂/Fe₃O₄ Nanocomposite Particles via Sol-gel Approach. [J. Inorg. Mater., 23 (1), (2008), 33-38] Bing Liu, Deping Wang, Wenhui Huang, Aihua Yao, Koji Ioku

●Preparation of Calcium Phosphate Porous Materials with Unique Microstructures. [Archives of Bio Ceramics Research, 8, (2008), 28-31] K. Ioku, M. Kamitakahara, N. Watanabe, T. Takahashi, S. Murakami, T. Ikeda

●Preparation of bioactive spherical particles in the CaO-SiO₂ system through sol-gel processing under coexistence of poly(ethylene glycol). [J. Eur. Ceram. Soc., 28, (2008), 1595-1602] Ill Yong Kim, Giichiro Kawachi, Koichi Kikuta, Sung-Baek Cho, Masanobu Kamitakahara, Chikara Ohtsuki

●Preparation of hydroxyapatite porous ceramics with different porous structures using a hydrothermal treatment with different aqueous solutions. [J. Ceram. Soc. Japan, 116 (1), (2008), 6-9] Masanobu KAMITAKAHARA, Chikara OHTSUKI, Giichiro KAWACHI, Deping WANG, Koji IOKU

●Preparation of Spherical Porous Granules Composed of Rod-shaped Hydroxyapatite and Evaluation of their Protein Adsorption Properties. [Key Eng. Mater., 361-363, (2008), 83-86] T. Takahashi, M. Kamitakahara, G. Kawachi, K. Ioku

●Relationship between rate of aperture reduction and contact pressure of fracture in granite under hydrothermal condition. [Geothermal Resources Council Transactions, 32, (2008), 487-492] N. Watanabe, H. Iijima, N. Hirano, N. Tsuchiya

●Synthesis of ceramics in MO_n/2-SiO₂ systems through sol-gel processing under coexistence of polyethylene glycol and in vitro evaluation of their bioactivity. [J. Ceram. Soc. Japan, 116 (1), (2008), 56-62] Ill-Yong KIM, Masanobu KAMITAKAHARA, Giichiro KAWACHI, Koichi KIKUTA, Sung-Baek CHO, Chikara OHTSUKI

●Synthesis of octacalcium phosphate intercalated with dicarboxylate ions from calcium carbonate and phosphoric acid.

[J. Ceram. Soc. Japan, 116 (3), (2008), 481-485] Masanobu KAMITAKAHARA, Hiroaki OKANO, Masao TANIHARA, Chikara OHTSUKI

●Synthesis of Si-containing Tricalcium Phosphate and Its Sintering Behavior. [Key Eng. Mater., 361-363, (2008), 59-62] M. Kamitakahara, T. Kurauchi, M. Tanihara, K. Ioku, C. Ohtsuki

●Synthesis of spherical granules composed of rod-shaped hydroxyapatite particles utilizing a hydrothermal process. [Proceedings of The 4th International Symposium on Apatites and Correlative Biomaterials (ISACB2008), (2008), 26-28] Masanobu Kamitakahara, Toshiharu Takahashi, Giichiro Kawachi, Noriaki Watanabe, Koji Ioku

●The biodegradability of poly(Pro-Hyp-Gly) synthetic polypeptide and the promotion of a dermal wound epithelialization using a poly(Pro-Hyp-Gly) sponge. [J. Biomed. Mater. Res., 85A, (2008), 133-139] Masao Tanihara, Kazumi Kajiwara, Keiko Ida, Yoshihisa Suzuki, Masanobu Kamitakahara, Shin-Ichi Ogata

●The slow resorption with replacement by bone of a hydrothermally synthesized pure calcium-deficient hydroxyapatite. [Biomaterials, 29, (2008), 2719-2728] Takatoshi Okuda, Koji Ioku, Ikuho Yonezawa, Hideyuki Minagi, Yoshinori Gonda, Giichiro Kawachi, Masanobu Kamitakahara, Yasuaki Shibata, Hisashi Murayama, Hisashi Kurosawa, Tohru Ikeda

●Soft-hydrothermal processing of red cedar bedding reduces its induction of cytochrome P450 in mouse liver. [Lab Anim, published online on 30 December 2008, doi: 10.1258/la.2008.007146] Z Li, S Okano, K Yoshinari, T Miyamoto, Y Yamazoe, K Shinya, K Ioku, and N Kasai

【著書】

●Chapter 11 (Design of Bioactive Nano-hybrids for Bone Tissue Regeneration). [Bio-inorganic Hybrid Nanomaterials, (2008), 339-366, WILEY-VCH Verlag GmbH & Co. KGaA] Masanobu Kamitakahara, Toshiki Miyazaki, Chikara Ohtsuki

●第22章 (スキャホールドとしての多孔質リン酸カルシウム) . [多孔体の精密制御と機能・物性評価, (2008), 176-180, サイエンス&テクノロジー株式会社] 井奥洪二, 池田通

●解説編: 温度センサ. [無機材料必須300 原理・物性・応用, (2008), 43-45, 三共出版] 川越大輔, 井奥洪二

●解説編: 酸素センサ. [無機材料必須300 原理・物性・応用, (2008), 128-129, 三共出版] 川越大輔, 井奥洪二

●解説編: バイオセンサ. [無機材料必須300 原理・物性・応用, (2008), 271-272, 三共出版] 川越大輔, 井奥洪二

●総論・第3章生体材料の三大要素. [環境調和型新材料シリーズ・生体材料, (2008), 21-28, 日本セラミックス協会編: 日刊工業新聞社] 井奥洪二

【総説・解説】

●Review paper: behavior of ceramic biomaterials derived from tricalcium phosphate in physiological condition. [J. Biomater. Appl., 23 (3), (2008), 197-212] Masanobu Kamitakahara, Chikara Ohtsuki, Toshiki Miyazaki

● β -TCPの粒子構造と生体反応. [セラミックス, 43 (4), (2008), 294-297] 池田通, 井奥洪二

●組織再生支援のためのリン酸カルシウム系材料. [バイオマテリアル, 26 (5), (2008), 360-361] 井奥洪二
●抗菌薬を必要最小限に抑えた環境低負荷医療の実現を目指すセラミック技術. [セラミックス, 43 (10), (2008), 836-839] 伊藤敦夫, 大矢根綾子, 七崎裕高, 十河友, 上高原理暢, 井奥洪二
【特許】
●ケイ素を含有するリン酸三カルシウムの製造方法及びケイ素含有リン酸三カルシウム. [特開2008-214111, 2008/9/18] 上高原理暢, 大槻主税, 谷原正夫

環境創成機能素材分野

【論文】

●Control of silicon species released from poly(lactic acid)-polysiloxane hybrid membrane. [Journal of Biomedical Materials Research Part A, 85A (3), (2008), 742-746] Hirota Maeda, Toshihiro Kasuga
●Hydrothermal synthesis of tobermorite/hydroxyapatite composites. [Science Direct material letters, 62, (2008), 3291-3293] Hirota Maeda, Koji Ioku, Emile H. Ishida
●Influence of tobermorite formation on mechanical properties of hydrothermally solidified blast furnace slag. [J. Mater. Sci., (43), (2008), 2356-2361] Z. Jing, F. Jin, T. Hashida, N. Yamasaki, Emile H. Ishida
●Influence of additions of coal fly ash and quartz on hydrothermal solidification of blast furnace slag. [Cement and Concrete Research, 38, (2008), 976-982] Z. Jing, F. Jin, T. Hashida, N. Yamasaki, Emile H. Ishida
●Plastic deformation of ductile ceramics in the Al₂TiO₅-MgTi₂O₅ system. [Material Science and Engineering, 487, (2008), 340-346] T. Shimaz, M. Miura, N. Isu, T. Ogawa, K. Ota, H. Maeda, E. H. Ishida
●Synthesis on Novel High Damping Ceramic -Polymer Composites and its Application as Ceramic Musical Instruments. [Key Engineerin Materials, 319, (2008), 173-180] T.Shimazu, M.Miura, N.Isu, T.Ogawa and E.H.Ishida

【総説・解説】

●Nature Technology 1 ビジネスの中での環境問題. [環境ビジネス, 67, (2008), 56-57, 日本ビジネス出版] 石田秀輝
●Nature Technology 2 シロアリ塚を活かした無電源エアコン. [環境ビジネス, 68, (2008), 54-55, 日本ビジネス出版] 石田秀輝
●Nature Technology 3 カタツムリやハスに学ぶ新技術. [環境ビジネス, 69, (2008), 48-49, 日本ビジネス出版] 石田秀輝
●Nature Technology 4 色をつくる、色ではかる. [環境ビジネス, 70, (2008), 48-49, 日本ビジネス出版] 石田秀輝
●Nature Technology 5 認知的不協和. [環境ビジネス, 71, (2008), 52-53, 日本ビジネス出版] 石田秀輝
●Nature Technology 6 くつつく、はなれる. [環境ビジネス, 72, (2008), 36-37, 日本ビジネス出版] 石田秀輝
●Nature Technology 7 つよい、かるい、しなやか. [環境ビジネス, 73, (2008), 62-63, 日本ビジネス出版] 石田秀輝
●Nature Technology 8 自然の中で癒される. [環境ビジネス,

74, (2008), 48-49, 日本ビジネス出版] 石田秀輝
●Nature Technology 9 自然が病気を治してくれる. [環境ビジネス, 75, (2008), 116-117, 日本ビジネス出版] 石田秀輝
●Nature Technology 10 衣. [環境ビジネス, 76, (2008), 48-49, 日本ビジネス出版] 石田秀輝
●Nature Technology 11 耐える. [環境ビジネス, 77, (2008), 114-115, 日本ビジネス出版] 石田秀輝
●Nature Technology 12 自ら淘汰を起こす. [環境ビジネス, 78, (2008), 58-59, 日本ビジネス出版] 石田秀輝
●粋なテクノロジー. [アドバタイジング, 17, (2008), 90-93, 電通] 石田秀輝
●エコデザインとは何か? [セラミックデータブック, 36 (90), (2008), 23-26, 工業製品技術協会] 石田秀輝
●サステナブルテクノロジーのかたち. [機械の研究, 60 (6), (2008), 619-625, 養賢堂] 石田秀輝, 古川柳蔵, 前田浩孝
●自然に学ぶものづくり ネイチャー・テクノロジー. [経済Trend, 3, (2008), 38-34, 日本経済団体連合会] 石田秀輝
●日本型ものづくりの新しいかたちを考える. [Ceramics Japan, 43 (10), (2008), 822-823, 日本セラミックス協会] 石田秀輝, 古川柳蔵, 前田浩孝
●粘土鉱物を用いたメソ多孔体の水熱合成. [化学工業, 59 (5), (2008), 66-71, 化学工業社] 前田浩孝, 石田秀輝
●欲の構造とものづくり. [LCA日本フォーラムニュース, 44, (2008), 1-3, 日本LCA学会] 石田秀輝

環境調和材料強度学分野

【論文】

●Effect of Microstructure on Creep Deformation of 45XD TiAl Alloy at Low and High Stresses. [Materials Science and Engineering A, 483 (484), (2008), 533-536] Hangliang Zhu, D.Y.Seo, K.Maruyama, P.Au
●Importance of Microstructural Stability in Creep Resistance of Lamellar TiAl Alloys. [Materials Science and Engineering A, 483 (484), (2008), 517-520] Masahiro Yamaguchi, Hanliang Zhu, Mayumi Suzuki, Kouichi Maruyama, Fritz Appel
●Microalloying Effects of Ca and Ni on High-Temperature Creep Behavior in Mg-Y-Zn Alloys. [Mater. Trans., 49 (5), (2008), 918-923] Mayumi Suzuki, Kayo Tsuchida, Kouichi Maruyama
●Microstructure and Mechanical Properties of Mg-Al-Ca-Nd Alloys Fabricated by Gravity Casting and Extrusion Process. [Mater. Trans., 49(5), (2008), 1025-1031] Hyeon-Taek Son, Jae-Seol Lee, Ik-Hyun Oh, Dae-Guen Kim, Kyosuke Yoshimi and Kouichi Maruyama
●Prevention of the overestimation of long term creep rupture life by multiregion analysis in strength enhanced high Cr ferritic steels. [Materials Science and Engineering A, 490, (2008), 66-71] Hassan Ghassemi Armaki, Kouichi Maruyama, Mitsuru Yoshizawa and Masaaki Igarashi
●Self-assembling behavior of supersaturated thermal vacancies in FeAl single-crystal. [Acta Materialia, 56, (2008), 3162-3168] Masafumi Tsunekane, Kyosuke Yoshimi, Kouichi Maruyama

●Strengthening of Lamellar TiAl Alloys by Precipitation of Beta Phase during Long-Term Creep. [Structural Aluminides for Elevated temperatures-Gamma Titanium and Other Metallic Aluminides, (2008), 69-74] Hanliang Zhu, D.Y. Seo, Kouichi Maruyama
●The Effects of Yttrium Element on Microstructure and Mechanical Properties of Mg-5 mass%Al-3 mass%Ca Based Alloys Fabricated by Gravity Casting and Extrusion Process. [Mater. Trans., 49(5), (2008), 945-951] Hyeon-Taek Son, Jae-Seol Lee, Chang-Seog Kang, Jung-Chan Bae, Kyosuke Yoshimi and Kouichi Maruyama
●クリープ破断時間予測の現状と課題. [ふえらむ, 13 (12), (2008), 768-774] 丸山公一
●フラーレンを使ったプラズマ溶射法による純鉄基板の表面改質. [日本学術振興会耐熱金属材料第123委員会研究報告, 49 (1), (2008), 99-107] 大場建穂, 吉見享祐, 丸山公一
●Mo₅SiB₂/Mo基in-situ複合材の高靱化に及ぼすMo粒子径の効果. [日本学術振興会耐熱金属材料第123委員会研究報告, 49 (2), (2008), 215-225] 吉見享祐, 近藤祐介, 丸山公一

【著書】

●Chapter 8.Fundamental aspect of creep deformation and deformation mechanism map. [Creep resistant steels, (2008), 265-278, Woodhead Publishing] K.Maruyama
●Chapter 12. Fracture mechanism map and fundamental aspects of creep fracture. [Creep resistant steels, (2008), 350-364, Woodhead Publishing] K.Maruyama
【特許】
●摩擦攪拌接合用ツール及び摩擦攪拌接合装置. [特開2008-114258, 2008/5/22] 朴勝煥, 平野聡, 佐藤裕, 吉見享祐, 粉川博之
●摩擦攪拌接合用攪拌工具. [特開2008-246553, 2008/10/16] 佐藤裕, 吉見享祐, 粉川博之

環境物質制御学講座

環境物質制御学分野

【論文】

●Reinforcement of rubber using radial single-walled carbon nanotube soot and its shock dampening properties. [Carbon, 46, (2008), 1506-1517] Y. Sato, K. Hasegawa, Y. Nadasaka, K. Motomiya, M. Namura, N. Ito, B. Jeyadevan, and K. Tohji
●Hydrothermal synthesis of magnetite/hydroxyapatite composite material for hyperthermia therapy for bone cancer. [Journal of the Ceramic Society of Japan, 116 (9), (2008), 950-954] S. Murakami, T. Hosono, B. Jeyadevan, M. Kamitakahara and K. Ioku
●Composition controlled synthesis of fcc-FePt using a modified polyol process. [Journal of Materials Science, 43 (7), (2008), 2402-2406] R. J. Joseyphus, B. Jeyadevan, K. Shinoda, Y. Sato and K. Tohji

●Cu-doped ZnS hollow particle with high activity for hydrogen generation from alkaline sulfide solution under visible light. [Chemistry of Materials, 20 (5), (2008), 1997-2000] T. Arai, S. Senda, Y. Sato, H. Takahashi, K. Shinoda, B. Jeyadevan and K. Tohji
●Super-robust, lightweight, conducting carbon nanotube blocks cross-linked by de-fluorination. [ACS NANO, 2 (2), (2008), 348-356] Y. Sato, M.Ootsubo, G. Yamamoto, G. Van Lier, M. Terrones, S. Hashiguchi, H. Kimura, A. Okubo, K. Motomiya, B. Jeyadevan, T. Hashida and K. Tohji
●Studies on the exchange in Nd₂Fe₁₄B/ α -Fe. [International Journal of Materials Research, 99 (1), (2008), 70-74] R. J. Joseyphus, A. Narayanasamy, L. K. Varga and B. Jeyadevan,
●Dielectric relaxation behaviour of nanostructured Mn-Zn ferrite. [Journal of Physics D: Applied Physics, 41, (2008), 245001/1-5] N. Sivakumar, A. Narayanasamy, B. Jeyadevan, R. J. Joseyphus and C. Venkateswaran
【著書】
●高保磁力酸化物・合金磁性ナノ粒子の合成と物性. [ナノ粒子の創製と応用展開, (2008), 63-72, フロンティア出版] B. Jeyadevan
【特許】
●液中分散性および耐食性に優れた銅粉並びにその製造法. [特開2008-169474, 2008/7/24] 田路和幸, バラチャンドラン・ジャヤデワン, 久枝穰
●有機物質で被覆された銀微粉の製法および銀微粉. [特開2008-297580, 2008/12/11] 佐藤王高, バラチャンドラン・ジャヤデワン, 田路和幸

地圏環境学分野

【論文】

●Bioleaching of Chalcopyrite with Thermophiles: Temperature-pH-ORP Dependence. [Proceedings of XXIV International Mineral Processing Congress, (2008), 2779-2788] J. Vilcaez, K. Suto and C. Inoue
●Bioleaching of Chalcopyriye with Thermophiles: Temperature-pH-ORP Dependence. [International Journal of Mineral Processing, 88(1-2), (2008), 37-44] J. Vilcaez, K. Suto, C. Inoue
●Dose Desulfotomaculum guttoideum really have sulfate-reducing ability? [Proceedings of 12th International Symposium on Microbial Ecology, ISME 12, CD-ROM, (2008), 170-170] Yui Takahashi, Koichi Suto and Chihiro Inoue
●Effect of pore size on colloidal transport phenomena in porous media. [Proceedings of 5th International Conference on Interfaces Against Pollution 2008, (2008), 176-176] K. Suto, Y. Yoshino and C. Inoue
●Investigation of recycling system of Japanese WEEE. [EARTH2007, G7-1, (2008), 415-416] Toshikazu Shiratori, Takashi Nakamura
●Modeling the auto-thermal performance of a thermophilic bioleaching heap employing mesophilic and thermophilic microbes. [Hydrometallurgy, in press, (2008), 82-92] J. Vilcaez, K.

Suto, C. Inoue

●Polysulfide reduction using sulfate-reducing bacteria in a photocatalytic hydrogen generation. [Journal of Bioscience and Bioengineering, 106 (3), (2008), 219-225] Yui Takahashi, Koichi Suto, Chihiro Inoue and Tadashi Chida

●Response of thermophiles to the simultaneous addition of sulfur and ferric ion to enhance the bioleaching of chalcopyrite. [Minerals engineering, 21, (2008), 1063-1074] J. Vilcaez, K. Suto, C. Inoue

●System development of geosphere environmental informatics and its application. [Water Dynamics, 5th International Workshop on Water Dynamics, AIP Conference Proceedings, 987, (2008), 159-162] S. Kano, N. Tsuchiya, C. Inoue, T. Komai, T. Shiratori and H. Jingu

●Trichloroethylene Transformation by Natural Mineral Pyrite : The deciding Role of Oxygen. [Environmental Science & Technology, 42, (2008), 7470-7475] Pham Thi Hoa, Masashi Kitsunoduka, Junko Hara, Koichi Suto, Chihiro Inoue

●Transformation of Chlorobenzene by Pyrite under Arobic Conditions. [Proceedings of the Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, CD-ROM, (2008)] P. T. Hoa, K. Suto, C. Inoue and J. Hara

●地圏インフォマティックスのデータベース構築とその応用例. [資源素材学会誌, 124, (2008), 148-153] 狩野真吾, 土屋範芳, 井上千弘, 原淳子, 駒井武, 白鳥寿一

【特許】

●土壌の無害化処理方法. [特許4069174, 2008/1/25] 木村利宗, 白鳥寿一, 川上智, 伊藤裕行, 友口勝, 覺正伴徳

●金属資源回収方法及び金属資源回収装置、並びに金属資源の備蓄方法. [特開2008-97547, 2008/4/24] 白鳥寿一, 西山徹

環境機能材料学分野

【特許】

●脱酸素剤用鉄粉の製造方法. [特許4074897, 2008/2/8] 久野誠一, 手塚和正, 妹尾和浩, 伊藤和人, 前田正博, 松田行弘, 長崎武明

●塗布型磁気記録媒体の下層用粉末. [特許4139873, 2008/6/20] 久野誠一, 斉藤和久, 佐野和司, 紺野慎一, 堀川義史, 栗飯原靖彦

●強磁性粉末. [特許4182232, 2008/9/12] 久野誠一, 斉藤和久, 佐野和司, 沢辺明朗, 井上明人, 井上健一

●樹脂成形方法. [特許4195704, 2008/10/3] 菅沼洋次, 加賀谷進, 久野誠一

●重層構造の塗布型磁気記録媒体. [特許4203560, 2008/10/24] 久野誠一, 斉藤和久, 佐野和司, 紺野慎一, 堀川義史, 栗飯原靖彦

エネルギー・セキュリティ学講座

【論文】

●Hydrothermal conversion of carbohydrate biomass into formic acid at mild temperatures. [Green Chemistry, 10, (2008), 612-615]

F. M. Jin, J. Yun, G. M. Li, A. Kishita, K. Tohji, H. Enomoto

【特許】

●水素の製造方法. [特開2008-074685, 2008/4/3] 榎本兵治, 金放鳴, 木下睦, 守谷武彦, 岸田央範

●バイオマスの湿式酸化によるギ酸の製造方法. [特開2008-273915, 2008/11/13] 田路和幸, 榎本兵治, 木下睦, 金放鳴, 守谷武彦, 岸田央範

高度環境政策・技術マネジメント人材養成ユニット

【論文】

●Methodology to create sustainable technologies learning from nature. [IUMRS-ICA 2008 Abstract, (2008), 151] Ryuzo Furukawa, Emile H. Ishida

●ネイチャー・テクノロジー創出システム. [第52回粘土科学討論会講演要旨集2008, (2008), 146-147] 古川柳蔵, 石田秀輝

●日本型のものづくりの新しいかたちを考える. [セラミックス, 43 (10), (2008), 822-823] 石田秀輝, 古川柳蔵, 前田浩孝

●2030年の環境制約を考慮したサステナブル・テクノロジー創出システム. [研究・技術計画学会第23回年次学術大会講演要旨集, (2008), 30-33] 森田圭祐, 古川柳蔵, 石田秀輝

【総説・解説】

●サステナブルテクノロジーのかたち—ネイチャーテクノロジー—. [機械の研究, 60 (6), (2008), 619-626, 養賢堂] 石田秀輝, 古川柳蔵, 前田浩孝

環境フロンティア国際プログラム

【著書】

●第1章. [経済発展の政治経済学：地域、制度、歴史からのアプローチ (R.グラボウスキー, S.セルフ, M.P.シールズ 著), (2008), 1-30, 日本評論社] 山本一巳, 坂井秀吉, 堀兼由美, 粕屋裕子 (共訳)

●第3章. [経済発展の政治経済学：地域、制度、歴史からのアプローチ (R.グラボウスキー, S.セルフ, M.P.シールズ 著), (2008), 65-103, 日本評論社] 山本一巳, 坂井秀吉, 堀兼由美, 粕屋裕子 (共訳)

●第7章. [経済発展の政治経済学：地域、制度、歴史からのアプローチ (R.グラボウスキー, S.セルフ, M.P.シールズ 著), (2008), 221-236, 日本評論社] 山本一巳, 坂井秀吉, 堀兼由美, 粕屋裕子 (共訳)

分子鑄型プロジェクト

【論文】

●A nobel chip device based on wired capillary packed with high performance polymer-based monolith for HPLC: Reproducibility in preparation processed to obtain long columns. [Analytical Science, 24, (2008), 149-154] Hosoya, K., Sakamoto, M., akai, K., Mori, R., Kubo, T., Kaya, K., Okada, K., Tsujioka, N. and Tanaka, N.

●Effective determination method for a cyanobacterial neurotoxin, beta-methyl amino alanine. [TOXICON, 51, (2008), 1264-1268] Kubo, T., Kato, N., Hosoya, K. and Kaya, K.

●High throughput on-line preconcentration using sponge-monolith" prepared by pore templates". [Chem. Lett, 37, (2008), 950-951] Kubo, T., Watanabe, F., Kaya, K. and Hosoya, K.

●New values of molecular extinction coefficient and specific rotation for cyanobacterial toxin cylindrospermopsin. [TOXICON, 51, (2008), 717-719] Sano, T., Kikuchi, S., Kubo, T., Takagi, H., Hosoya, K. and Kaya, K.

●NIES certificated reference material for microcystins, hepatotoxic cyclic peptide toxins from cyanobacterial blooms in eutrophic water bodies. [Anal. Bioanal. Chem., 391, (2008), 2005-2010] Sano, T., Takagi, H., Nishikawa, T. and Kaya, K.

●Propaties of flsky affinity resin with co-continuous structure. [Bioorganic & Medical Chemistry, 16, (2008), 1983-1991] Mori, T., Tanaka, A., Kubo, T., Kaya, K., Sakamoto, M. and Hosoya, K.

●Selective adsorption of water- soluble compounds by an interval immobilization technique based on molecular imprinting. [Anal. Sci., 37, (2008), 950-951] Kubo, T., Watanabe, F., Kaya, K. and Hosoya K.

【著書】

●我輩はヘッピーリムシである. [(2008), 東京図書出版] 彼谷邦光

●新しいくらしと水. [新しいくらしかたのか・た・ち, (2008), 70-85, 芸立出版] 高橋由貴彦, 安田喜憲, 田路和幸, 彼谷邦光, 井奥洪二, 石田秀輝

【特許】

●藍藻由来界面活性物質とその合成法. [特開2008-024616, 2008/2/7] 彼谷邦光, ルイス・モリソン, ジェフリー・コッド