

## summary

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## Summary

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## PUBLICATIONS

### (1) Journal

- Chikaya Sakai, Atok Subiakto, Hani Sitti Nuroniah, Naoto Kamata, Koji Nakamura, Mass propagation method from the cutting of three dipterocarp species, *J. Forest Res.*, 7(2), pp.73-80, 2002.
- Shimizu, N., Ogino, C., Kawanishi, T. and Hayashi, Y., Fractal Analysis of Daphnia Motion for Acute Toxicity Bioassay, *Environ. Toxicol.*, 17 (5), pp.441-448, 2002.
- Dadang, S., Kawanishi, T., Shimizu, N., Hayashi, Y., Nitrate Removal Rate in a Continuous Column Denitrification Reactor Using Hydrogen Generated by Electrolysis with Carbon Anodes and Stainless Cathodes, *Water Sci. Technol.* 46, No. pp.11-12, 39-44, 2002.
- Toda, H., Uemura, Y., Okino, T., Kawanishi, T. and Kawashima, H., Use of nitrogen stable isotope ratio of periphyton for monitoring nitrogen sources in a river system. *Water Sci. Technol.*, Vol. 46, No. 11-12, pp.431-435, 2002.
- Toda, H., Mochizuki, Y., Kawanishi, T. and Kawashima, H., Denitrification in shallow groundwater in a coastal agricultural area in Japan. *Nutrient Cycling in Agroecosystems* , 63, No. 2-3, pp.167-173, 2002.
- HIROSE Nozomu, KOIKE Toshio, ISHIDAIRA Hiroshi, Study on Spatially Averaged Evaporation under Soil Moisture Heterogeneity Affected by Permafrost Micro-topography, *Journal of the Meteorological Society of Japan*, vol.80, no.2, pp.191-203, 2002.
- Yang, K. and T. Koike, Estimating Surface Solar Radiation from Upper-Air Humidity, *Solar Energy*, vol.72, No.2, 177-186, 2002.
- Hayakawa, K., Tang, N., Akutsu, K., Murahashi T., Kakimoto, H., Kizu, R., Toriba, A., Comparison of Polycyclic Aromatic Hydrocarbons and Nitropolycyclic Aromatic Hydrocarbons in Airborne Particulates Collected in Downtown and Suburban Kanazawa, Japan. *Atmos. Environ.*, 36 (35), 5535-5541, 2002.
- Iwasaka, Y., G-Y. Shi, Z. Shen, Y.S.Kim, D. Trochkine, A. Matsuki, D. Zhang, T. Shibata, M. Nagatani, and H. Nakata, Number concentration and size distribution of aerosols in the free atmosphere over the desert areas in the Asian continent: Balloon-borne measurements in summer and fall, 2001 at Dunhuang, China, *J. Arid Land Studies*, 11, 347-353, 2002.
- Trochkine, D., Y. Iwasaka, A. Matsuki, D. Zhang, K. Osada, Aircraft-borne measurements of morphology, chemical elements, and number-size distributions of particles in the free troposphere in spring over Japan: Estimation of particle mass concentration, *J. Arid Land Studies*, 11, 327-335, 2002.
- Matsuki, A., Iwasaka, Y., D. Trochkine, D. Zhang, K. Osada, and T. Sakai, Horizontal mass flux of mineral dust over east asia in the spring: Aircraft-borne measurements over Japan, *J. Arid Land Studies*, 11, 337-345, 2002.

- Mikami, M., O. Abe, M. Du, O. Chiba, K. Fujita, M. Hayashi, Y. Iwasaka, K. Kai, K. Masuda, T. Nagai, T. Ootomo, J. Suzuki, A. Uchiyama, S. Yabuki, Y. Yamada, M. Yasui, G. Shi, X. Zhang, Z. Chen, W. Wei, J. Zhou, The impact of Aeolian dust on climate: Sino-Japanese cooperative project ADEC, *J. Arid Land Studies*, 11, 211-222, 2002.
- Kawanishi, T., Amano, H., Masani, E., Hayashi, Y., Kamata, N., Kubo, M., Fujita, M., Muramoto, K., Estimation of soil degradation rate constants from vertical distribution of soil carbon content, *Journal of Chemical Engineering of Japan*, vol.36, no.4, pp.428-434, 2003.
- Talukder, M. M. R., Takeyama, T., Hayashi, Y., Wu, J. C., Kawanishi, T., Shimizu, N., Ogino, C., Improvement in enzyme activity and stability by addition of low molecular weight polyethylene glycol to sodium bis (2-ethyl-1-hexyl) sulfosuccinate/isooctane reversemicellar system, *Applied Biochemistry and Biotechnology - Part A Enzyme Engineering and Biotechnology*, 110(2), pp.101-112, 2003.
- Hayashi, Y., Talukder, M. M. R., Takeyama, T., Wu, J. C., Kawanishi, T., Shimizu, N., A kinetic model for enzymatic reaction in reverse micellar system, involving water-insoluble substrates and enzyme activators, *J. Chem. Technol. Biotechnol., Journal of Chemical Technology and Biotechnology* 78 (8), pp.860-864, 2003.
- Talukder, M. M. R., Hayashi, Y., Takeyama, T., Zaman, M. M., Wu, J. C., Kawanishi, T., Shimizu, N., Activity and stability of *Chromobacterium viscosum* lipase in modified AOT reverse micelles, *J. Mol. Catal. B: Enzymatic*, 22, No. 3-4, pp.203-209, 2003.
- PATHMATHEVAN Mahadevan, KOIKE Toshio, LI Xin, A New Satellite-Based Data Assimilation Algorithm to Determine Spatial and Temporal Variations of Soil Moisture and Temperature Profiles, *Journal of the Meteorological Society of Japan*, vol.81, no.5, pp.1111-1135, 2003.
- MA Yaoming, ISHIKAWA Hirohiko, TSUKAMOTO Osamu, MENENTI Massimo, SU Zhongbo, YAO Tandong, KOIKE Toshio, YASUNARI Tetsuzo, Regionalization of Surface Fluxes over Heterogeneous Landscape of the Tibetan Plateau by Using Satellite Remote Sensing Data, *Journal of the Meteorological Society of Japan*, vol.81, no.2, pp.277-293, 2003.
- Trochkin, D., Y. Iwasaka, A. Matsuki, M. Yamada, Y.-S. Kim, D. Zhang, G.-Y. Shi, Z. Chen and G. Li, Comparison of the chemical composition of mineral particles collected in Dunhuang, China and those collected in the free troposphere over Japan: Possible chemical modification during long-range transport, *Water, Air and Soil Pollution, Focus* 3, 161-172, 2003.
- Y.-S. Kim, Iwasaka, Y., G.-Y. Shi, Z. Chen, D. Trochkin, A. Matsuki, T. Shbata, M. Nagatani and H. Nakata, Features in number concentration-size distributions of aerosols in the free troposphere over the desert areas in the Asian continent: Balloon-borne measurements at Dunhuang, China, *Water, Air and Soil Pollution, Focus* 3, 147-159, 2003.
- Iwasaka, Y., G.-Y. Shi, Z. Chen, Y.-S. Kim, D. Trochkin, A. Matsuki, D. Zhang, T. Shbata, M. Nagatani and H. Nakata, Nature of atmospheric aerosols over the desert areas in the Asian

- continent: Chemical state and number concentration of particles measured at Dunhuang, China, *Water, Air and Soil Pollution, Focus 3*, 129-145, 2003.
- Talukder, M.M.R., Zaman, M.M., Hayashi, Y., Wu, J.C., Kawanishi, T., Ogino, C., Shimizu, N., Enzymatic kinetics for lipase-catalyzed hydrolysis of water-insoluble substrate in AOT reverse micelles, involving native and activated lipases, *Journal of Chemical Technology and Biotechnology* 79 (3), pp.273-276, 2004.
- ANG Kun, KOIKE Toshio, FUJII Hideyuki, TAMURA Toru, XU Xiangde, BIAN Lingen, ZHOU Mingyu, The Daytime Evolution of the Atmospheric Boundary Layer and Convection over the Tibetan Plateau : Observations and Simulations, *Journal of the Meteorological Society of Japan*, vol.82, no.6, pp.1777-1792, 2004.
- Tang, N., Taga, R., Hattori, T., Tamura, K., Toriba, A., Kizu, R., Hayakawa, K., Determination of Atmospheric Nitrobenzanthrones by High-Performance Liquid Chromatography with Chemiluminescence Detection. *Anal. Sci.*, 20 (1), 119-123, 2004.
- Tang, N., Toriba, A., Kizu, R., Hayakawa, K., Improvement of an Automatic HPLC System for Nitropolycyclic Aromatic Hydrocarbons: Removal of an Interfering Peak and Increase in the Number of Analytes. *Anal. Sci.*, 19 (2), 249-253, 2003.
- Iwasaka, Y., G.-Y. Shi, Y. S. Kim, A. Matsuki, D. Trochkin, D. Zhang, M. Yamada, T. Nagtani, M. Nagatani, Z. Shen, T. Hibata and H. Nakata, Pool of dust particles over the Asian continent: Balloon-borne optical particle counter and ground-based lidar measurements at Dunhuang, China, *Environmental Monitoring and Assessment*, 92, 5-4, 2004.
- C. S. Hong, K. H. Lee, Y. J. Kim, Y. Iwasaka, Lidar measurements of the vertical aerosol profile and optical depth during the ACE-Asia 2001 IOP, at Gosan, Jeju island, Korea, *Environmental Monitoring and Assessment*, 92, 5-4, 2004.
- Talukder, M.M.R., Zaman, M.M., Hayashi, Y., Wu, J.C., Kawanishi, T., Pretreatment of *Chromobacterium viscosum* lipase with acetone increases its activity in sodium bis-(2-ethylhexyl) sulfosuccinate (AOT) reverse micelles, *Journal of Chemical Technology and Biotechnology*, 80 (10), pp.1166-1169, 2005.
- Zaman, M. M., Hayashi, Y., Talukder, M. M. R., Kawanishi, T., Enhanced activity and stability of *Chromobacterium viscosum* lipase in AOT reverse micellar systems by pretreatment with acetone, *Journal of Molecular Catalysis B: Enzymatic* 32 (4), pp.149-155, 2005.
- FURUMOTO Junichi, IWAI Satoshi, FUJII Hideyuki, TSUDA Toshitaka, XIN Wang, KOIKE Toshio, BIAN Lingen, Estimation of Humidity Profiles with the L-Band Boundary Layer Radar-RASS Measurements, *Journal of the Meteorological Society of Japan*, vol.83, no.5, 895-908, 2005.
- Tang, N., Hattori, T., Taga, R., Tamura, K., Kakimoto, H., Mishukov, V., Toriba, A., Kizu, R. and Hayakawa, K., Polycyclic aromatic hydrocarbons and nitropolycyclic aromatic hydrocarbons in

- urban air particulates and their relationship to emission sources in the Pan-Japan Sea countries, *Atmos. Environ.*, 39, 5817-5826, 2005.
- M. Yamada, Y. Iwasaka, A. Matsuki, D. Trochkin, Y. S. Kim, D. Zhang, T. Nagatani, G.-Y. Shi, M. Nagatani, H. Nakata, Z. Shen, B. Chen, and G. Li, Feature of dust particles in the spring free troposphere over Dunhuang in northwestern China: Electron microscopic experiments on individual particles collected with a balloon-borne impactor, *Water, Air, and Soil Pollution, Focus*, 5, 231-250, 2005.
- M. Yamada, Y. Iwasaka, G.-Y. Shi, A. Matsuki, D. Trochkin, D. Zhang, M. Nagatani, Y. S. Kim, T. Nagatani, H. Nakada, Z. Shen, B. Chen, Classification of submicron particles and the change in their number fractions in the free troposphere over Dunhuang, China, *J. Ecotech. Res.*, 11, 117-124, 2005.
- Kawanishi, T., Kumada, S., Hayashi, Y., Ogomori, K., Kobayashi, Y., Takahashi, N., Saito, M., Hamano, H., Kojima T. and Yamada, K., Litter and Soil Carbon Dynamics Model in Arid Forest Ecosystems: Application to Sturt Meadows Experiments in Western Australia, *Journal of Ecotechnology Research*, 12, (in press) .
- Hayakawa, K., Nomura, M., Nakagawa, T., Oguri, S., Kawanishi, T., Toriba, A., Kizu, R., Sakaguchi, T., Tamiya, E., Damage to and recovery of coastlines polluted with C-heavy oil spilled from the Nakhodka, *Water Research*, 40(5), pp.981-989, 2006.
- D. Zhang, Y. Iwasaka, A. Matsuki, K. Ueno, T. Matsuzaki, Coarse and accumulation mode particles associated with Asian dust in southwestern Japan, *Atmos. Environ.*, 40, 1205-1215, 2006.
- Y. Inomata, Y. Iwasaka, K. Osada, M. Hayashi, I. Mori, M. Kido, K. Hara, and T. Sakai, Vertical distributions of particles and sulfate gases (volatile sulfur compounds and SO<sub>2</sub>) over East Asia: Comparison with two aircraft-borne measurements under the Asian continental outflow in spring and winter, *Atmos. Environ.*, 40, 430-444, 2006.

(2) International Conference

- Komura, R., Kubo, M., Muramoto, K., Represent of tree crown by multiple circles using aerial image, *Proc. IEEE Int. Conf. Geosci. Remote Sensing*, pp.3411-3413, 2002.
- Kamata, N., Esaki, K., Kubo, M., Igeta, Y., Kato, K., Komura, R., Spreading pattern of oak wilt-disease caused by ambrosia fungus *Raffaelea quercivori* carried by ambrosia beetle *Platypus quercivorus* in Japan, *Proc. VIII International Congress of Ecology*, pp.106, 2002.
- Komura, R., Kubo, M., Muramoto, K., Analysis of seasonal change of tree crown using aerial image processing, *Proc. VIII International Congress of Ecology*, pp.143, 2002.
- Komura, R., Kubo, M., Muramoto, K., Analysis of spread of branch using the image processing based on color information, *Proc. VIII International Congress of Ecology*, pp.143, 2002.
- Kawanishi, T., Matusi, Y., Hanaki, K., Hayashi, Y., Low Permeability Layer Oxygen Barrier for

- nitrogen removal in soil infiltration water treatments, Direct removal of nitrate from soil percolate, Proc. 5th Specialised Conf. on Water and Wastewater Treatment Systems. Sept. 24-26, 2002.
- Kawanishi, T., Matsui, Y., Hanaki K. and Hayashi Y., Nitrate removal from soil percolate: Low Permeability Layer Oxygen Barrier Method, American Geophysical Union 2003 Fall Meeting, 2002.
- Kubo, M., Kanda, F., Muramoto, K., Textural Feature Extraction of Tree Using Co-occurrence Matrix from Aerial Images, Proc. SICE Annual Conference, pp.1790-1795, 2003.
- Komura, R., Kubo, M., Kamata, N., Muramoto, K., Analysis of Size of Tree Crown on Aerial Image Using Circle Unification, Proc. SICE Annual Conference, pp.1962-1966, 2003.
- Komura, R., Kubo, M., Kamata, N., Muramoto, K., Analysis of Forest Damage by Harmful Insects on Mt. Kariyasu, Proc. SICE Annual Conference, pp.1971-1974, 2003.
- Kimura, K., Hayashi, Y., Kawanishi, T., Ogino, C., Shimizu, N. and Sato, K.. Bioassay Using Daphnia Trajectories, , 1st International Symposium of the Kanazawa University 21st-century COE Program, March 17-18, 2003.
- Kawanishi, T. and Hayashi, Y., How heterogeneity matters in water-soil environmental research, 1st International Symposium of the Kanazawa University 21st-century COE Program, March 17-18, 2003.
- Kawanishi, T., Kawakami, T. and Hayashi Y., Low Permeability Layer Oxygen Barrier Method to remove nitrate from soil percolate: Effect of temperature, American Geophysical Union 2003 Fall Meeting, H32A-0503, 2003.
- Hayakawa, K., Tang, N., Kizu, R., Toriba, A., Determination of atmospheric carcinogenic/endocrine disrupting chemicals in East Asia: polycyclic aromatic hydrocarbons and nitropolycyclic aromatic hydrocarbons, The 10th International Beijing Conference and Exhibition on Instrumental Analysis (BCEIA 2003), 2003.
- Kanaoka, C., Hayakawa, K., Komura, S., Kimura, T., Ibusuki, R., Kizu, R., Sato, T., Furuuchi, M., Atmospheric Environment, Radioactivity and Organic Pollutants in Pan-Japan Sea Area, 2<sup>nd</sup> International Workshop on Snadstorms and Associated Dustfall, 2003.
- Kanda, F., Kubo, M., Muramoto, K., Watershed segmentation and classification of tree species using high resolution forest imagery, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.3822-3825 2004.
- Komura, R., Kubo, M., Muramoto, K., Delineation of tree crown in high resolution satellite image using circle expression and watershed algorithm, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.3, pp.1577-1580, 2004.
- Chun, J.H., Lim, J.H., Shin, J.H., Land cover classification and forest area change detection for DMZ using remotely sensed images, Proc. 1st EAFES Int. Congress, pp.59, 2004.

- Kim, S.H., Shin, S.H., Jang, K.C., Lee, K.S., Lee S.H., Use of time series MODIS leaf area index data to monitor temperate forest., Proc. 1st EAFES Int. Congress, pp.122, 2004.
- Kim, T.K., Lee, K.S., Lee, S.H., Effectiveness of various vegetation indices for the estimation of forest canopy structure, Proc. 1st EAFES Int. Congress, pp.124, 2004.
- Komura, R., Igeta, Y., Liebhold, A.M., Esaki, K., Muramoto, K., Kamata, N., Incidence of Japanese oak wilt in relation to topography and sunshine, Proc. 1st EAFES Int. Congress, pp.129, 2004.
- Komura, R., Liebhold, A.M., Esaki, K., Muramoto, K., Kamata, N., Japanese Oak Wilt Spread analyzed with GIS and Multi-spatial-scale Data, Proc. 1st EAFES Int. Congress, 2004.
- Liu, L., Shao, Q., Study on land-use/land-cover change and terrestrial carbon cycle in China, Proc. 1st EAFES Int. Congress, pp.154, 2004.
- Liu, R., Chen, J.M., Liu, J., Zhuang, D., Mapping leaf area index using MODIS data in China, Proc. 1st EAFES Int. Congress, pp.154, 2004.
- Zhuang, D., Liu, J., Ecological research and monitoring in environmental changes in China, Proc. 1st EAFES Int. Congress, pp.223, 2004.
- Lim, J.H., Shin, J.H., Relationship between leafing time and air temperature in two oak forests of Korea, Proc. 1st EAFES Int. Congress, pp.151, 2004.
- Lim, J.H., Kang, H.S., Lee, L.K., Chun, J.H., Jang, Y.H., Shin, J.H., Kang, Y.J., Stand structure and species composition at the long-term ecological research site in Mt.Halla, Jeju island, Proc. 1st EAFES Int Congress, pp.152, 2004.
- Lim, J.H., Chun, J.H., Lee, L.K., Jin, G.Z., Kim, Y.K., Long-term monitoring of forest ecosystem changes in Gwangneung permanent plot, Korea, Proc. 1st EAFES Int Congress, pp.152, 2004.
- Yutaka IGETA, Kojiro ESAKI, Naoto KAMATA, Relative influence of wind and light condition on the movement of a flying ambrosia beetle *Platypus quercivorus* (Coleoptera: Platypodidae) at the stand level, Abstracts of Conference of IUFRO D7/D8, pp.67, 2004.
- Marek TURCANI, Naoto KAMATA, The effect of treatment of bark by gallic and ellagic acids to *Platypus quercivorus* (Murayama) attack in manipulated two way choice experiments, Abstracts of Conference of IUFRO D7/D8", pp.79, 2004.
- Kawanishi, T., Sakami, A., and Hayashi Y., Shape of gas flow paths causes power law tailing, American Geophysical Union 2004 Fall Meeting, H31D-0426, 2004.
- Sun-Hwa Kim, Ji-Hoon Park, Choong-Sik Woo, Kyu-Sung Lee, Analysis of temporal variability of MODIS leaf area index (LAI) product over temperate forest in Korea, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.4343-4346, 2005.
- Kyu-Sung Lee, Sun-Hwa Kim, Jeong-Rim Ma, Min-Jung Kook, Jung-Il Shin Inha, Yang-Dam Eo, Yong-Woong Lee. Spectral variation of vegetative areas in leaf-off season observed by hyperspectral data, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.4347-4350, 2005.
- Komura, R., Kamata, N., Kubo, M., Muramoto, K., Identification of dead tree of Japanese oak



- wilt(JOW) using high spatial resolution satellite imagery, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.4351-4354, 2005.
- Ronggao Liu, Jiyuan Liu, Lv, X., Hou Yan, Mapping forest burned area using MODIS data in China, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.4355-4357, 2005.
- Ronggao Liu, Shunlin Liang, Jiyuan Liu, Lv, X., A new composite method for multi-temporal remote sensing data, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.3979-3981, 2005.
- Kubo, M., Muramoto, K., Tree crown detection and classification using forest imagery by IKONOS, Proc. IEEE Int. Conf. Geosci. Remote Sensing, vol.6, pp.4358-4361, 2005.
- Shinmura, Y., Kubo, M., Muramoto, K., Spatio-temporal analysis of vegetation using NOAA/AVHRR daily data, Proc. SICE Annual Conference, pp.1554-1557, 2005.
- Shikama, T., Kubo, M., Muramoto, K., Mapping Tree Density for Forest Management Using Geostatistical Methods and IKONOS Images, Proc. SICE Annual Conference. pp.2773-2778, 2005.
- Ronggao Liu, Shunlin Liang, Tao Zheng, Jiyuan Liu, Mapping Photosynthetically active radiation from MODIS data in China, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.169-171, 2005.
- Ronggao Liu, Jiyuan Liu, Shunlin Liang, Jing M. Chen, Dafang Zhuang, Mapping China using MODIS data: method, software and data products, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.264-266, 2005.
- Kyu-Sung Lee, Min-Jung Kook, Jung-Il Shin, Monitoring of drought stress in temperate forest by hyperspectral data, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.764-766, 2005.
- Komura, R., Kamata, N., Kubo, M., Muramoto, K., Detection and Delineation of Killed Tree Crowns of Japanese Oak Wilt (JOW) using IKONOS Imagery, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.577-579, 2005.
- Komura, R., Kamata, N., Kubo, M., Muramoto, K., Semi-automatic Tree Crown Detection based on Segmentation using High Spatial Resolution Imagery, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.517-519, 2005.
- Kubo, M., Muramoto, K., Individual Tree Crown Recognition in High Spatial Resolution Remote Sensing Imagery, Proc. 9th Int. Symp. Physical Measurements and Signature in Remote Sensing, pp.574-576, 2005.
- Naoto Kamata, Koujiro Esaki, Kenryu Kato, Yutaka Igeta, Tree composition change in cool-temperate deciduous forests caused by Japanese oak wilt, a newly emerged forest pest in Japan, Proceedings of the 22nd World Congress of IUFRO, 2005.
- Kawanishi, T., Sakami, A., Ninagawa, K. and Hayashi Y., Power law tailing in air-sparging in laboratory scale column experiments, American Geophysical Union 2005 Fall Meeting,

- H13I-1418, 2005.
- Honoki, H., Watanabe, K., Iida, H., Kawada, K., Hayakawa, K., Behaviors of the Asian Continent and domestic origin acid rain constituents along the northwest winter monsoon in Hokuriku districts. Japan. Acid Rain 2005, 2005.
- Ken-ichiro MURAMOTO, Naoto KAMATA, Mamoru KUBO, Takuya KAWANISHI, Masyuki MIKAGE and Ryotaro KOMURA, Activities of the EMEA Project During 1999-2005, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.12-13, 2005.
- Jiyuan Liu, Monitoring and Assessment of Ecosystems in China, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.14, 2005.
- Joon Hwan Shin , Ecosystem Management and Ecosystem Classification of Korea, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.15, 2005.
- Hiroshi Koizumi , Perspective of “Satellite Ecology” in the 21st Century COE Program at Gifu University, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.16-19, 2005.
- Y. Iwasaka, G.-Y. Shi, D. Trochkin, A. Matsuki, Y. S. Kim, M. Yamada, and T. Nagatani , Processes of Background KOSA outbreak: Lidar and Balloon-borne Measurements, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.20-36, 2005.
- Naoto Kamata, Hideaki Goto, Ryotaro Komura, Mamoru Kubo, Masayuki Mikage, Satoshi Tsuyuki and Ken-ichiro Muramoto, Field research in China and Korea by the EMEA group and some implications for Japanese Oak Wilt, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.37-43, 2005.
- LIM, J.H., J.H. CHUN, S.Y. WOO, M.J. KWON and Y.K. KIM , Monitoring the Decline of *Abies koreana* Forest in Mt. Halla, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.44-55, 2005.
- Kyu-Sung Lee, Min-Jung Kook, and Jung-Il Shin , Comparison of Spectral Characteristics of Drought-Stressed Vegetation Observed by *In-Situ* Measurements and Satellite Remote Sensing, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.56-64, 2005.
- Ryotaro KOMURA, Naoto KAMATA, Mamoru KUBO and Ken-ichiro MURAMOTO, Analysis of Forest Declination using High Spatial Resolution Satellite Image, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.65-70, 2005.
- Seung Ho Lee and Hyun Kook Cho, Detection of the pine trees damaged by pine wilt disease using multiplatform and multitemporal remote sensing data, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.71-85, 2005.
- Mamoru Kubo and Ken-ichiro Muramoto, Detection of Individual Tree Crowns in High Spatial Resolution Remote Sensing Imagery, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.86-93, 2005.
- Ronggao Liu, Jiyuan Liu, Dafang Zhuang, MODISoft Development and Sample Products, Proc. Int.

- Symp. Environmental Monitoring in East Asia, pp.94-104, 2005.
- SHAO Quanqin, LIU Gaohuan, Monitoring Delta Changes of Yellow River by Using Remote Sensing Techniques, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.105-112, 2005.
- Ji-Hoon Park, Tae-Geun Kim, Kyu-Sung Lee, Seung-Ho Lee, Jong-Hwan Lim, Applicability of the Global Scale NPP Estimation Model for Regional Uses, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.113-122, 2005.
- Takuya KAWANISHI, Yasuyuki EGASHIRA, Yukio ABE, Toshinori KOJIMA and Koichi YAMADA, Modeling Carbon Dynamics in an Arid Forest Ecosystem, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.123-128, 2005.
- Kazuichi Hayakawa, Introduction to “Long- and Short Term Dynamics of Pan-Japan Sea Area: Construction of Monitoring Network and Assessment of Human Effects” in the 21st-Century COE Program at Kanazawa University, Proc. Int. Symp. Environmental Monitoring in East Asia, 2005.
- Takeshi SHIKAMA, Mamoru KUBO, Ken-ichiro MURAMOTO, Geostatistical Modeling for Forest Management Using IKONOS Imagery, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.129-140, 2005
- Yusuke SHINMURA, Mamoru KUBO and Ken-ichiro MURAMOTO, Harmonic Analysis of Time Series NDVI Using NOAA/AVHRR Data, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.141-149, 2005.
- Kenji Suzuki, Masaru Hoshino, Mamoru Kubo and Ken-ichiro Muramoto, Precipitation Monitoring Using Multi-instrument Observation System at Various Spatiotemporal Scales, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.150-158, 2005.
- Kumiko TAKIZAWA, Mamoru KUBO, Ken-ichiro MURAMOTO, Nobuhiro NAGUMO and Yasushi FUJIYOSHI, 3D Reconstruction and Analysis of Snowflakes by Using Image Data, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.159-165, 2005.
- Dieu Anh VAN, Yoko SANO, Yoshishige HAYASHI, Takuya KAWANISHI, Monitoring of Polycyclic Aromatic Hydrocarbons (PAHs) in Water and Sediment of the Rivers in Kanazawa, Japan, Proc. Int. Symp. Environmental Monitoring in East Asia, pp.166-174, 2005.
- Naoto Kamata, Hideaki Goto, Ryotaro Komura, Mamoru Kubo, Ken-ichiro Muramoto, Some implications to the Japanese Oak Wilt: Newly emerged forest pest in Japan, Abstracts EAFES,2, 2006.