
PUBLICATIONS

Publications in FY 2010 (Articles in English published in refereed journals)

Adachi, T., M. Yamaoka, M. Yamamoto, Y. Otsuka, H. Liu, C.-C. Hsiao, A. B. Chen, and R.-R. Hsu, "Midnight latitude-altitude distribution of 630-nm airglow in the Asian sector measured with FORMOSAT-2/ISUAL," *J. Geophys. Res.*, vol.115, A09315, doi:10.1029/2009JA015147, 2010.

Adachi, T., Y. Otsuka, M. Yamaoka, M. Yamamoto, K. Shiokawa, A. B. Chen, and R.-R. Hsu, "First satellite-imaging observation of medium-scale traveling ionospheric disturbances by FORMOSAT-2/ISUAL," *Geophys. Res. Lett.*, vol.38, L04101, doi:10.1029/2010GL046268, 2011.

Adfa, M., T.Yoshimura, K. Komura, M. Koketsu, Antitermite activities of coumarin derivative and scopoletin from *Protium javanicum* Burm. f., *J. Chem. Ecol.*, 36, , 720-726, 2010

Aya Mikami, Takuya Kawabata, Shinsuke Satoh, Jun-Ichi Furumoto, Seiji Nagai, Yasuhiro Murayama and Toshitaka Tsuda, "Meso- γ -scale convective systems observed by a 443-MHz wind-profiling radar with RASS in the Okinawa subtropical region," *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.73, no.2011, pp.996-1009, 2010.

B. Anshari, Z.W. Guan, A. Kitamori, K. Jung, I. Hassel, K. Komatsu, Mechanical and moisture-dependent swelling properties of compressed Japanese cedar, *Construction and Building Materials*, 25, 1718-1725, 2011

B. Veenadhari, S. Alex, T. Kikuchi, A. Shinbori, R. Singh, and E. Chandrasekhar, "Penetration of magnetospheric electric fields to the equator and their effects on the low-latitude ionosphere during intense geomagnetic storms," *Journal of Geophysical Research A: Space Physics*, vol.115, no.A03305, pp.doi:10.1029/2009JA014562, 2010.

Baba, Y., T. Tanabe, N. Shirai, T. Watanabe, Y. Honda and T. Watanabe, "Pretreatment of Japanese cedar wood by white rot fungi and ethanolysis for bioethanol production," *Biomass & Bioenergy*, vol.35, no.1, pp.320-324, 2011.

Baba, Y., T. Tanabe, T. Watanabe, Y. Honda and T. Watanabe, "Enzymatic saccharification of Japanese cedar wood by combined pretreatments using white rot fungus and organosolvlysis with lactic acid", *J. Japan Soc. Material Cycles and Waste Management*, vol. 21, no.6, pp.219-225, 2010, (in Japanese).

Baki A.K.M., K. Hashimoto, N. Shinohara and T. Mitani, "Isosceles-Trapezoidal-Distribution Edge Tapered Array Antenna with Unequal Element Spacing for Solar Power Satellite," *IEICE Transactions (B)*, vol.E91-B, no.2, pp.527-535, .

Baki, A.K.M., N. Shinohara, H. Matsumoto, K. Hashimoto and T. Mitani, "Study of Isosceles Trapezoidal edge tapered phased array antenna for Solar Power Station/Satellite," *IEICE Transactions (B)*, vol.E90-B, no.4, pp.968-997, 2007.

Balan, N., K. Shiokawa, Y. Otsuka, T. Kikuchi, D. Vijaya Lekshmi, S. Kawamura, M. Yamamoto, and G. J. Bailey, "A physical mechanism of positive ionospheric storms at low latitudes and midlatitudes," *J. Geophys. Res.*, vol.115, A02304, doi:10.1029/2009JA014515, 2010.

Balan, N., M. Yamamoto, V. Sreeja, I. S. Batista, K. J. W. Lynn, M. A. Abdu, S. Ravindran, T. Kikuchi, Y. Otsuka, K. Shiokawa and S. Alex, "A statistical study of the response of dayside equatorial F2 layer to the main phase of intense geomagnetic storms," *J. Geophys. Res.*, vol.116, A03323, doi:10.1029/2010JA016001, 2011.

PUBLICATIONS

Bando, M. and Yamakawa, H., "Orbital Design for Multiple Flyby Mission," Transactions of Japan Society for Aeronautical and Space Sciences, Space Technology Japan, Vol. 8 (2010), No. 13, pp.9-13.

Chen, J. S. and J. Furumoto, "Measurement of atmospheric aspect sensitivity using coherent radar imaging," IEEE Transactions on Geoscience and Remote Sensing, vol.in press, 2010.

Chen, J. S., J. Furumoto, and T. Nakamura, "Effects of radar beamwidth and scatterer anisotropy on multiple-frequency range imaging using VHF atmospheric radar," Radio Sci, vol.45, no.RS5001, pp.doi:10.1029/2009RS004267, 2010.

Clair, B., Alm?ras, T., Pilate, G., Jullien, D., Sugiyama, J., Riekel, C., "Maturation stress generation in poplar tension wood studied by synchrotron radiation microdiffraction," Plant Physiol., vol.155, pp.562-570, 2010.

Fujiwara, M., H. V?mel, F. Hasebe, M. Shiotani, S.-Y. Ogino, S. Iwasaki, N. Nishi, T. Shibata, K. Shimizu, E. Nishimoto, J. M. Valverde-Canossa, H. B. Selkirk, and S. J. Oltmans, "Seasonal to decadal variations of water vapor in the tropical lower stratosphere observed with balloon-borne cryogenic frostpoint hygrometers," J. Geophys. Res., vol.115, no.D18304, doi:10.1029/2010JD014179, 2010.

Furumoto, J., T. Shinoda, A. Matsugatani, and T. Tsuda, "Measurements of Detailed Temperature Profiles within the Radar Range Gate Using the Range Imaging Technique," J. Atmos. Ocean. Tech., vol.28, no.1, pp.22-36, 2010.

H. Kamitakahara, T.Funakoshi, S.Nakai, T.Takano, F. Nakatsubo, "Synthesis and structure/property relationships of regioselective 2-O-, 3-O- and 6-O-Ethyl Celluloses," Macromolecular Bioscience, vol.10, pp.638-647, 2010.

H. Yamauchi, K. Umemura, "Physical properties of particleboard made from wooden waste after outdoor exposure test," Mokuzai Gakkaishi, vol.56, no.6, pp.405-411, 2010, (in Japanese).

Harada, E., Hokura, A., Takada, S., Baba, K., Terada, Y., Nakai, I., Yazaki, K. , "Characterization of cadmium accumulation in willow as a woody metal accumulator using synchrotron radiation-based X-ray microanalyses," Plant and Cell Physiology , vol.51, pp.848-853, 2010.

Hayashi, H., Y. Koyama, T. Hori, Y. Tanaka, M. Kagitani, S. Abe, T. Kouno, D. Yoshida, S. UeNo, D. Yoshida, N. Kaneda, A. Shinbori and IUGONET project member, "Inter-university Upper atmosphere Global Observation NETwork (IUGONET)," Proceedings of CAWSES-II Kickoff Symposium in Japan, pp.60-62, 2010.

Hayashi, T., Kaida, R., Kaku, T., Baba, K., "Loosening xyloglucan prevents tensile stress in tree stem bending but accelerates the enzymatic degradation of cellulose," Russian Journal of Plant Physiology, vol.57, pp. 316-320, 2010.

Hori, T., Y. Koyama, Y. Tanaka, M. Kagitani, H. Hayashi, A. Shinbori, S. UeNo, D. Yoshida, S. Abe, T. Kouno, N. Kaneda, H. Tadokoro, and IUGONET project members, "Scientific perspectives powered by IUGONET metadata database and integrated analysis tool," Proceedings of CAWSES-II Kickoff Symposium in Japan, pp.63-66, 2010.

Horiguchi, M., T. Hayashi, H. Hashiguchi, Y. Ito, and H. Ueda, "Observations of coherent turbulence structures in the near-neutral atmospheric boundary layer," Bound.-Layer Meteor., vol.136, pp.25-44, doi:10.1007/s10546-010-9500-5, 2010.

Horikawa, Y., Imai, T., Takada R., Watanabe, T., Takabe, K., Kobayashi Y., Sugiyama, J., "Near-Infrared Chemometric Approach to Exhaustive Analysis of Rice Straw Pretreated for Bioethanol Conversion,"

PUBLICATIONS

Applied Biochemistry and Biotechnology, vol.164, no.2, pp.194-203, 2011.

Imhof, W. L., Anderson, R. R., Petrinc, S. M., Datlowe, D. W., Mobilia, J., Matsumoto, H., Hashimoto, K., "Observed X-rays associated with kilometric continuum," J. Geophys. Res., vol.112, no.A6, pp.A06238, 2007, (in Japanese).

Irie, K., Kitagawa, K., Nagura, H., Imai, T., Shimomura, T., Fujiyoshi, Y., "Comparative study of the gating motif and C-type inactivation in prokaryotic voltage-gated sodium channels," Journal of Biological Chemistry, vol.285, pp. 3685-3694, 2010.

J.-H. Xing, K. Takahashi, A. Yabushita, T. Kinugawa, T. Nakayama, Y. Matsumi, K. Tonokura, A. Takami, T. Imamura, K. Sato, M. Kawasaki, T. Hikida, and A. Shimono, "Characterization of aerosol particles in the Tokyo metropolitan area using two different particle mass spectrometers," Aerosol Science and Technology, vol.45, pp.315-326, 2011.

Jung Kiho, Kitamori Akihisa, Ivon Hassel, Komatsu Kohei, Evaluation for Shear Performance of Prefabricated Mud Wall, AIJ J. Technol. Des., Vol.16, No.34, 929-934, 2010 (in Japanese)

K. Abe, H. Yano, "Comparison of the characteristics of cellulose microfibril aggregates isolated from fiber and parenchyma cells of Moso bamboo (*Phyllostachys pubescens*)," Cellulose, vol.17, no.2, pp.271-277, 2010.

K. Umemura, A. Mihara, S. Kawai, "Development of new natural polymer-based wood adhesives III. Effects of glucose addition on properties of chitosan," J. Wood Sci., vol.56, no.5, pp.387-394, 2010.

K.Abe, "Formation of hydrogels from cellulose nanofibers," Carbohydrate Polymers, vol.85, no.4, pp.733-737, 2011.

K.Uetani, H. Yano, "Nanofibrillation of Wood Pulp Using a High-Speed Blender," Biomacromolecules, vol.in press, .

Kajimura, Y., Ueno, K., Funaki, I., Usui, H., Nunami, M., Shinohara, I., Namakura, M., Yamakawa, H., "3D Hybrid Simulation of Pure Magnetic Sail including Ion-Neutral Collision Effect in Laboratory," Transactions of Japan Society for Aeronautical and Space Sciences, Aerospace TechnologyJapan, Vol. 8 (2010), No. ists27, pp.Pb_19-Pb_25.

Kasaba, Y., A. Kumamoto, K. Ishisaka, H. Kojima, K. Higuchi, A. Watanabe, and K. Watanabe, Development of stiff and extendible electromagnetic sensors for space missions, Advances in Geophysics, 21, 447-460, 2010.

Kei Tanaka, Risa Tenkumo, Yuji Noguchi, Takuro Mori, Masafumi Inoue :Proposal of Calculating Method for Ultimate Pull-out Strength of Glued-in rod Connector Embedded in Perpendicular to the Grain in Glulam, Journal of Structural Engineering, Vol.57B, 373-378, 2011.(in Japanese)

Kiho Jung, Akihisa Kitamori and Kohei Komatsu, Development of Joint System using Compressed Wooden Fastener 2, Evaluation of rotation performance for column and beam joint, J.of wood science, 56(2), 118-126, 2010

Kiho Jung, Satoru Murakami, Akihisa Kitamori, Wen Shao Chang and Kohei Komatsu, Improvement of Glued-in-Rod (GIR) joint system using compressed wood (CW) dowel, Holzforschung, Vol. 64, No. 6, 799-804, 2010

Kijima,M., T. Hirukawa, F. Hanawa and T. Hata, Thermal conversion of alkaline lignin and its structured derivatives to porous carbonized materials, Bioresource Technology, 102, , 6279-6285, 2011

PUBLICATIONS

Kikuchi, K., T. Nishibori, S. Ochiai, H. Ozeki, Y. Irimajiri, Y. Kasai, M. Koike, T. Manabe, K. Mizukoshi, Y. Murayama, T. Nagahama, T. Sano, R. Sato, M. Seta, C. Takahashi, M. Takayanagi, H. Masuko, J. Inatani, M. Suzuki, and M. Shiotani, "Overview and early results of the Superconducting Submillimeter-Wave Limb-Emission Sounder(SMILES)," *J. Geophys. Res.*, vol.115, no.D23306, doi:10.1029/2010JD014379, 2010.

Kikuchi, K., T. Nishibori, S. Ochiai, T. Manabe, H. Ozeki, R. Sato, T. Sano, Y. Irimajiri and M. Shiotani, "Instrument overview and operation of JEM/SMILES," *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol.38, no.8, pp.100-103, 2010.

Kishi-Kaboshi, M., K. Okada, L. Kurimoto, S. Murakami, T. Umezawa, N. Shibuya, H. Yamane, A. Miyao, H. Takatsuji, A. Takahashi, H. Hirochika, "A rice fungal MAMP-responsive MAPK cascade regulates metabolic flow to antimicrobial metabolite synthesis," *Plant Journal*, vol.63, pp.599-612, 2010.

Kitamura, N., Nishimura, Y., Ono, T., Ebihara, Y., Terada, N., Shinbori, A., Kumamoto, A., Shinbori, A., Yau, A.W., "Observations of very-low-energy (<10 eV) ion outflows dominated by O⁺ ions in the region of enhanced electron density in the polar cap magnetosphere during geomagnetic storms," *Journal of Geophysical Research A: Space Physics*, vol.115, no.A00J06, pp.doi:10.1029/2010JA015601, 2010.

Koeduka, T., Shitan, N., Kumano, T., Sasaki, K., Sugiyama, A., Linley, P., Kawasaki, T., Ezura, H., Kuzuyama, T., Yazaki, K., "Production of prenylated flavonoids in tomato fruits expressing a prenyltransferase gene from *Streptomyces coelicolor* A3(2)" *Plant Biol.*, vol.13, no.2, pp.411-415, 2011.

Kohei Komatsu : Analyses on Though-Bolts Type Wooden Beam-Column Joints Subjected to Rotational Moment, *WOOD RESEARCH Journal-Journal of Indonesian Wood Research Society*, Volume 1, Number 1, 13-22, April 2010

Kojima, H., H. Fukuhara, Y. Mizuochi, S. Yagitani, H. Ikeda, Y. Miyake, H. Usui, H. Iwai, Y. Takizawa, YH. Ueda and H. Yamakawa, Miniaturization of plasma wave receivers onboard scientific satellites and its application to the sensor network system for monitoring the electromagnetic environments in space, *Advances in Geosciences*, 21, 461-481, 2010.

Koyama, Y., Y. Tanaka, T. Kouno, H. Hayashi, T. Hori, M. Kagitani, D. Yoshida, S. UeNo, S. Abe, A. Shinbori, and N. Kaneda, "Development metadata database for upper atmosphere," *Proceedings of CAWSES-II Kickoff Symposium in Japan*, pp.122-123, 2010.

L. Suryanegara, A. N. Nakagaito, H. Yano, "Thermo-mechanical properties of microfibrillated cellulose-reinforced partially crystallized PLA composites," *Cellulose*, vol.17, pp.771-778, 2010.

L. Suryanegara, H. Okumura, A. N. Nakagaito, H. Yano, "Acceleration of the injection molding cycle of PLA by cellulose nanofiber reinforcement," *Cellulose*, vol.18, no.3, pp.689-698, 2011.

L.C. Chang, W.E. Ward, S.E. Palo, J. Du, D.-Y. Wang, H.-L. Liu, M.E. Hagan, Y. Portnyagin, J. Oberheide, L.P. Goncharenko, T. Nakamura, P. Hoffmann, W. Singer, P. Batista, B. Clemesha, A.H. Manson, D.M. Riggan, C.-Y. She, T. Tsuda and T. Yuan, "Comparison of diurnal tide in models and ground-based observations during the 2005 equinox CAWSES tidal campaign," *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.in press, 2010.

Lenz, M., C.-Y. Lee, M. J. Lagey, T. Yoshimura, K. Tsunoda, The potential and limits of termites (Isoptera) as decomposers of waste paper products, *J. Econ. Entomol.*, 104, 1, 232-242, 2011

Li, S. Y., Y. Omura, B. Lembege, X. H. Deng, H. Kojima, Y. Saito, and T. Nagai, Analysis of ESWs associated with magnetic reconnection and slow-shock in the near-earth magnetotail: Geotail observations,

PUBLICATIONS

Submitted to *J. Geophys. Res.*, 2010.

Liu, H., S. V. Thampi, and M. Yamamoto, "Phase reversal of the diurnal cycle in the mid-latitude ionosphere," *J. Geophys. Res.*, vol.115, A01305, doi:10.1029/2009JA014689, 2010.

Liu, J., R. Takada, S. Karita, T. Watanabe, Y. Honda, T. Watanabe, "Microwave-assisted pretreatment of recalcitrant softwood in aqueous glycerol," *Biores. Technol.*, vol.101, no.23, pp.9355-9360, 2010.

Luce, H., T. Nakamura, Yamamoto, M. K., Yamamoto, M. Yamamoto, and S. Fukao, "MU radar and lidar observations of clear-air turbulence underneath cirrus," *Mon. Wea. Rev.*, vol.138, no.2, pp.438-452, doi:10.1175/2009MWR2927.1, 2010.

M. Bando, H. Yamakawa, "A New Lambert Algorithm Using the Hamilton-Jacobi-Bellman Equations," *Journal of Guidance, Control, and Dynamics*, Vol. 33, No. 3, 2010, pp. 1,000-1,008.

M. Matsuo, M. Yokoyama, K. Umemura, J. Sugiyama, S. Kawai, J. Gril, S. Kubodera, T. Mitsutani, H. Ozaki, M. Sakamoto, M. Imamura, "Aging of wood - Analysis of color changes during natural aging and heat treatment-," *Holzforschung*, vol.65, no.3, pp.361-368, 2011.

M. Nogi, F. Kurosaki, H. Yano, M. Takano, "Preparation of nanofibrillar carbon from chitin nanofibers," *Carbohydrate Polymer*, vol.81, no.4, pp.9190924, 2010.

M.I. Shams, S. Ifuku, M. Nogi, T. Oku, H. Yano, "Fabrication of optically transparent chitin nanocomposites," *Applied Physics A: Material and processing*, vol.102, no.2, pp.325-331, 2011.

Maryoko HADI, Satoru MURAKAMI, Akihisa KITAMORI, Wen-Shao CHANG, Kohei KOMATSU, Performance of Shear Wall Composed of LVL and Cement Fiber Board Sheathing, *Journal of Asian Architecture and Building Engineering*, vol.9, No.2, 463-469, 2010

Marzuki, T. Kozu, T. Shimomai, H. Hashiguchi, W. L. Randeu, and M. Vonnisa, "Raindrop size distributions of convective rain over equatorial Indonesia during the first CPEA campaign," *Atmospheric Research*, vol.96, pp.645-655, doi:10.1016/j.atmosres.2010.03.002, 2010.

Matsumi, Y., F. Taketani, K. Takahashi, T. Nakayama, M. kawai, and Y. Miyao, "Fluorescence detection of atmospheric nitrogen dioxide using a blue light-emitting diode as an excitation source," *Applied Optics*, vol.49, pp.3762-3767, 2010.

Mega, T., M. K. Yamamoto, H. Luce, Y. Tabata, H. Hashiguchi, M. Yamamoto, M. D. Yamanaka, and S. Fukao, "Turbulence generation by Kelvin-Helmholtz instability in the tropical tropopause layer observed with a 47 MHz range imaging radar," *J. Geophys. Res.*, vol.115, D18115, doi:10.1029/2010JD013864, 2010.

Mitani, T., N. Shinohara, H. Matsumoto, M. Aiga, N. Kuwahara, and T. Ishii, "Experimental Study on Axial Dependence of Anode Current Distribution in an Oven Magnetron", *IEEE Trans. ED*, vol.57, no.5, pp.1167- 1172, 2010

Mizuno S, Sugiyama J, "Synchrotron X-ray microtomography - wood identification for national heritages-," *Archaeology and Natural Science*, vol.63, pp.1-11, 2011, (in Japanese).

Mizuno S, Sugiyama J, "Wood identification of building components of the tea room Hasso-seki of Konchi-In temple designated as an important cultural property," *Mokuzai Gakkaishi.*, vol.57, no.1, pp.14-19, 2011, (in Japanese).

Mizuno S, Sugiyama J, "Wood identification of Maruoka castle in Fukui prefecture," *Journal of the Society*

PUBLICATIONS

of Architectural Historians of Japan, vol.55, pp.63-71., 2010, (in Japanese).

Mizuno S, Sugiyama J, "Wood identification of tea room "Housyusya" in Houkoku shrine in Kyoto," Japanese Society for Studies of Chanoyu, vol.18, pp.1-9, 2011, (in Japanese).

Mizuno S, Sugiyama J, "重要文化財知恩院集會堂における建築用材の樹種識別調査," Journal of the Society of Architectural Historians of Japan, vol.56, pp.124-136, 2011, (in Japanese).

Mizuno S, Torizu R, Sugiyama J, " Wood identification of wooden mask using a synchrotron X-ray microtomography," Journal of Archaeological Science, vol.37, pp. 2842-2845, 2010.

Mori, S., Hamada J.-I., N. Sakurai, H. Fudeyasu, M. Kawashima, H. Hashiguchi, F. Syamsudin, A.A. Arbain, R. Sulistyowati, J. Matsumoto, and M.D. Yamanaka, "Convective systems developed along the coastline of Sumatera Island, Indonesia, observed with an X-band Doppler radar during the HARIMAU2006 Campaign," J. Meteor. Soc. Japan, vol.89A, pp.23-43, 2011.

N. Kitamura, Y. Nishimura, T. Ono, A. Kumamoto, A. Shinbori, M. Iizima, A. Matsuoka, and M. R. Hairston, "Temporal variations and spatial extent of the electron density enhancements in the polar magnetosphere during geomagnetic storms," Journal of Geophysical Research A: Space Physics, vol.115, no.A00J02, pp.doi:10.1029/2009JA014499, 2010.

N. Nakamiya, H. Yamakawa, D. J. Scheeres, and M.Yoshikawa, "Interplanetary Transfers Between Halo Orbits: Connectivity Between Escape and Capture Trajectories," Journal of Guidance, Control, and Dynamics, Vol. 33, No. 3, 2010, pp. 803-813.

Nagura, H., Irie, K., Imai, T., Shimomura, T., Hige, T., Fujiyoshi, Y. "Evidence for lateral mobility of voltage sensors in prokaryotic voltage-gated sodium channels.," Biochem.Biophys.Res.Commun. , vol.399, pp.341-346, 2010.

Nakagawa, T., Kaku, H, Shimada, Y., Sugiyama, A., Shimomura, M., Takanashi, K., Yazaki, K., Aoki, T., Naoto, S., Kouchi, H., "From defense to symbiosis: Limited alterations in the kinase domain of LysM receptor-like kinases are crucial for evolution of legume-Rhizobium symbiosis" Plant J., vol.13, no.2, pp.411-415, 2011.

Nakamura, I., Horikawa, Y., Makino, A., Sugiyama, J., Kimura, S., "Enzymatic polymerization catalyzed by immobilized endoglucanase on gold," Biomacromolecules, vol.12, no.3, pp.785-790, 2011.

Nakashima, K., Nishino, A., Horikawa, Y., Hirose, E., Sugiyama, J., Satoh, N, "The crystalline phase of cellulose changes under developmental control in a marine chordate" Cellular and Molecular Life Sciences, vol.68, no.9, pp.1623-1631, 2011.

Naoki Shinohara, Blagovest Shishkov, Hiroshi Matsumoto, Kozo Hashimoto, and A.K.M. Baki, "New Stochastic Algorithm for Optimization of Both Side Lobes and Grating Lobes in Large Antenna Arrays for MPT," IEICE Trans. Communications, vol.E91-B, no.1, pp.286-296, 2008.

Nge, T.T., Nogi, M., Yano, H., Sugiyama, J. , "Microstructure and mechanical properties of bacterial cellulose/chitosan porous scaffold," Cellulose, vol.17, pp.349-363, 2010.

Nishi, N., E. Nishimoto, H. Hayashi, M. Shiotani, H. Takashima, and T. Tsuda, "Quasi-stationary temperature structure in the upper troposphere over the tropical Indian Ocean inferred from radio occultation data," J. Geophys. Res., vol.115, no.D14112, doi:10.1029/2009JD012857, 2010.

Nishimura, Y., Kikuchi, T., Shinbori, A., Wygant, J., Tsuji, Y., Hori, T., Ono, T., Shinbori, A., Tanaka, T, "Direct measurements of the Poynting flux associated with convection electric fields in the

PUBLICATIONS

magnetosphere," *Journal of Geophysical Research A: Space Physics*, vol.115, no.A12212, pp.doi:10.1029/2010JA015491, 2010.

Ohara, K., Matsunaga, E., Nanto, K., Yamamoto, K., Sasaki, K., Ebinuma, H., Yazaki, K., "Monoterpene engineering in a woody plant *Eucalyptus camaldulensis* using a limonene synthase cDNA," *Plant Biotech. J.*, vol.8, no.1, pp.28-37, 2010.

Ohara, K., Sasaki, K., Yazaki, K., "Two solanesyl diphosphate synthases with different subcellular localizations and their respective physiological roles in *Oryza sativa*" *J. Exp. Bot.*, vol.61, no.10, pp.2683-2692, 2010.

Ohashi, Y., Y. Uno, R. Amirta, T. Watanabe, Y. Honda and T. Watanabe, "Alkoxy and carbon-centered radicals are primary agents to degrade non-phenolic lignin substructure model compounds," *Org. Biomol. Chem.*, vol.9, no.7, pp.2481-2491, 2011.

Ono, E., H.J. Kim, J. Murata, K. Morimoto, A. Okazawa, A. Kobayashi, T. Umezawa, H. Satake, "Molecular and functional characterization of novel furofuran-class lignan glucosyltransferases from *Forsythia*," *Plant Biotechnology*, vol.27, pp.317-324, 2010.

Park, Y.W., Baba, K., Furuta, Y., Kojiro, K., Yoshida, M., Hayashi, T., "Characterization of poplar overexpressing xylanase," *Indonesian Wood Res. J.*, vol.1, pp.50-55, 2010.

Rogal, M., M. H. Hitchman, M. L. Buker, G. J. Tripoli, I. Stajner, and H. Hayashi, "Modeling the effects of Southeast Asian monsoon outflow on subtropical anticyclones and midlatitude ozone over the Southern Indian Ocean," *J. Geophys. Res.*, vol.115, no.D20101, pp.doi:10.1029/2009JD012979, 2010.

S. Ifuku, M. Nogi, M. Yoshioka, M. Morimoto, H. Saimoto, H. Yano, "Simple preparation method of chitin nanofibers with a uniform width of 10 to 20 nm from prawn shell under the neutral conditions," *Carbohydrate Polymers*, vol.84, no.2, pp.762-764, 2011.

S. Ifuku, M. Nogi, M. Yoshioka, M. Morimoto, H. Yano, H. Saimoto, "Fibrillation of dried chitin into 10-20 nm nanofibers by a simple method under acidic conditions," *Carbohydrate Polymers*, vol.81, pp.134-139, 2010.

Sakamoto T., H. Kitaura, M. Minami, Y. Honda, T. Watanabe, A. Ueda, K. Suzuki, T. Irie, "Transcriptional effect of a calmodulin inhibitor, W-7, on the ligninolytic enzyme genes in *Phanerochaete chrysosporium*," *Current Genetics*, vol.56, no.5, pp.401-410, 2010.

Sakazaki, T., M. Fujiwara, and H. Hashiguchi, "Diurnal variations of upper tropospheric and lower stratospheric winds over Japan as revealed with middle and upper atmosphere radar (34.85N, 136.10E) and five reanalysis data sets," *J. Geophys. Res.*, vol.115, D24104, doi:10.1029/2010JD014550, 2010.

Shalimov, S., and M. Yamamoto, "Influence of midlatitude sporadic E layer patches upon the F region plasma density," *J. Geophys. Res.*, vol.115, A05309, doi:10.1029/2009JA014964, 2010.

Shimomura, T., Irie, K., Nagura, H., Imai, T. and Fujiyoshi, Y., "Arrangement and Mobility of the Voltage Sensor Domain in Prokaryotic Voltage-gated Sodium Channels," *Journal of Biological Chemistry*, vol.286, no.9, pp.7409-7417, 2011.

Shinbori, A., Y. Nishimura, Y. Tsuji, T. Kikuchi, T. Araki, A. Ikeda, T. Uozumi, R. E. S. Otadoy, H. Utada, J. Ishitsuka, N. B. Trivedi, S. L. G. Dutra, N. J. Schuch, S. Watari, T. Nagatsuma, and K. Yumoto, "Anomalous occurrence features of the preliminary impulse of geomagnetic sudden commencement in the South Atlantic Anomaly region," *Journal of Geophysical Research A: Space Physics*, vol.115, no.A08309, pp.doi:10.1029/2009JA015035., 2010.

PUBLICATIONS

- Shitan, N., Kamimoto, Y., Minami, S., Kubo, M., Ito, K., Moriyasu, M., Yazaki, K., "A Tolerance gene for prenylated flavonoid encodes 26S proteasome regulatory subunit in *Sophora flavescens*" *Biosci. Biotech. Biochem.*, vol.75, no.5, pp.982-984, 2011.
- Sonobe, T., T. Mitani, K Hachiya, N. Shinohara, and H. Ohgaki, "Zinc Plasma Emission from Zinc Oxide Ceramics under a Microwave Electric Field", *Japanese Journal of Applied Physics (JJAP)*, Vol. 49, 2010, pp.080219-1 – 080219-3, 2010
- Sridharan, S., T. Tsuda, and S. Gurubaran, "Long-term tendencies in the mesosphere/lower thermosphere mean winds and tides as observed by medium-frequency radar at Tirunelveli (8.7°N, 77.8°E)," *J. Geophys. Res.*, vol.115, no.D08109, pp.doi:10.1029/2008JD011609, 2010.
- Suzuki, J., M. Shiotani, and N. Nishi, "Lifetime and longitudinal variability of equatorial Kelvin waves around the tropical tropopause region," *J. Geophys. Res.*, vol.115, no.D03103, doi:10.1029/2009JD012261, 2010.
- Suzuki, M., C. Mitsuda, C. Takahashi, T. Iwata, N. Manago, T. Sano, K. Kikuchi S. Ochiai, K. Imai, E. Nishimoto, Y. Naito, H. Hayashi, and M. Shiotani, "Early resultus from 4K-Cooled superconducting submmwave Limb Emission Sounder Smiles onboard ISS/JEM.," *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol.38, no.8, pp.104-109, 2010.
- Suzuki, S., K. Suda, N. Sakurai, Y. Ogata, T. Hattori, H. Suzuki, D. Shibata, T. Umezawa, "Analysis of expressed sequence tags in developing secondary xylem and shoot of *Acacia mangium*," *Journal of Wood Science*, vol.57, pp.40-46, 2011.
- T.V. Chandrasekhar Sarma, Yasu-Masa Kodamab and Toshitaka Tsuda, "Characteristics of atmospheric waves in the upper troposphere observed with the Gadanki MST Radar-RASS," *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.73, no.2011, pp.1020-1030, 2010.
- Tabata, Y., H. Hashiguchi, M. K. Yamamoto, M. Yamamoto, M. D. Yamanaka, S. Mori, Fadli Syamsudin, and Timbul Manik, "Lower tropospheric horizontal wind over Indonesia: A comparison of wind-profiler network observations with global reanalyses," *J. Atmos. Solar-Terr. Phys.*, vol.73, no. 9, doi:10.1016/j.jastp.2010.09.016, pp.986-995, 2011.
- Tabata, Y., H. Hashiguchi, M. K. Yamamoto, M. Yamamoto, M. D. Yamanaka, S. Mori, Fadli Syamsudin, and Timbul Manik, "Observational study on diurnal precipitation cycle in equatorial Indonesia using 1.3-GHz wind profiling radar network and TRMM precipitation radar," *J. Atmos. Solar-Terr. Phys.*, vol.73, no.9, pp.1031-1042, doi:10.1016/j.jastp.2010.10.003, 2011.
- Takahashi, K., J.-H. Xing, M. D. Hurley, and T. J. Wallington, "Kinetics and mechanism of chlorine-atom-initiated oxidation of allyl alcohol, 3-buten-2-ol, and 2-methyl-3-buten-2-ol", *J. Phys. Chem.*, vol.A114, pp.4224-4231, 2010.
- Takahashi, K., M. D. Hurley, and T. J. Wallington, "OH-initiated oxidation of small unsaturated alcohols," *Int. J. Chem. Kinet.*, vol.42, pp.151-158, 2010.
- Takanashi, K., Sugiyama, A., Yazaki, K., "Involvement of auxin distribution in root nodule development of *Lotus japonicus*" *Planta*, vol. 234, no. 1, pp.73-81, 2011.
- Takuro Mori, Akihiro Kosoku, Yoshiyuki Yanase, Kohei Komatsu :Relationships between Strength Properties and Density or Ultrasonic Velocity of Timber Attacked by Termite, *Journal of the Society of Materials Science Japan*, Vol.59, No.4, pp.297-302, Apr.2010

PUBLICATIONS

Tascioglu, C., K. Tsunoda , Biological performance of copper azole-treated wood and wood-based composites, *Holzforschung* , 64, , 399-406, 2010

Tascioglu, C., K. Tsunoda , Laboratory evaluation of wood-based composites treated with alkaline copper quat against fungal and termite attacks, *Int. Biodeter. Biodegr.*, 64, , 683-687, 2010

Terzi, E., C.Tascioglu, S. N. Kartal, T. Yoshimura, Termite resistance of solid wood and plywood treated with quaternary ammonium compounds and common fire retardants, *Int. Biodeter. Biodegr.*, 65, , 565-568, 2011

Thampi, S. V., and M. Yamamoto, "First results from the ionospheric tomography experiment using beacon TEC data obtained using a network along 136°E longitude over Japan," *Earth, Planets and Space*, vol.62, pp.359-364, 2010.

Thampi, S. V., M. Yamamoto, H. Liu, S. Saito, Y. Otsuka, and A. K. Patra, "Nighttime-like quasi periodic echoes induced by a partial solar eclipse," *Geophys. Res. Lett.*, vol.37, L09107, doi:10.1029/2010GL042855, 2010.

Thampi, S. V., N. Balan, C.-H. Lin, H. Liu, and M. Yamamoto, "Mid-latitude Summer Night time Anomaly (MSNA) Observations and Model Simulations," *Ann. Geophys.*, vol.29, pp.157-165, 2011.

Tobimatsu Y., T.Takano, H.Kamitakahara, F. Nakatsubo, "Reactivity of syringlyl quinone methide intermediates in dehydrogenative polymerization Part 2 : pH effect in horseradish peroxidase-catalyzed polymerization of synapyl alcohol," *Holzforschung* , vol.64, no.2, pp.183-192, 2010.

Tomonori Shinoda, Jun-ichi Furumoto, Shinsuke Satoh, Seiji Nagai, Yasuhiro Murayama and Toshitaka Tsuda, "Observations of temperature profiles by 443 MHz wind profiling radar using a radio acoustic sounding system in Okinawa," *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.73, no.9, pp.1010-1019, 2011.

Tsunoda, K., G. Rosenblat, K. Dohi , Laboratory evaluation of the resistance of plastics to subterranean termite *Coptotermes formosanus* (Blattodea: Rhinotermitidae). , *Int. Biodeter. Biodegr.*, 64, , 232-237., 2010

Tsunoda, R. T., D. M. Bubenik, S. V. Thampi, and M. Yamamoto, "On large-scale wave structure and equatorial spread F without a post-sunset rise of the F layer," *Geophys. Res. Lett.*, vol.37, L07105, doi:10.1029/2009GL042357, 2010.

Tsurumaru, Y., Sasaki, K., Miyawaki, T., Momma, T., Umemoto, N., Yazaki, K., "An aromatic prenyltransferase-like gene HIPT-1 preferentially expressed in lupulin glands of hop," *Plant Biotech.*, vol.27, no.2, pp.199-204, 2010.

Ueda, M., Makino, A., Imai, T., Sugiyama, J., Kimura, S., "Rational design of peptide nanotubes for varying diameters and lengths," *Journal of Peptide Science* , vol.17, no.2, pp.94-99 , 2011.

Ueda, M., Makino, A., Imai, T., Sugiyama, J., Kimura, S., "Transformation of peptide nanotubes into a vesicle via fusion driven by stereo-complex formation," *Chemical communications*, vol.47, no.11, pp.3204-3206, 2011.

Venkateswara Rao, N., T. Tsuda, S. Gurubaran, Y. Miyoshi, and H. Fujiwara, "On the occurrence and variability of the terdiurnal tide in the equatorial Mesosphere and Lower Thermosphere and its comparison with the Kyushu-GCM," *J. Geophys. Res.*, vol.116, no.D02117, pp.doi:10.1029/2010JD014529, 2011.

Verma, P., T. Watanabe, Y. Honda and T. Watanabe, "Microwave-assisted pretreatment of woody biomass

PUBLICATIONS

with ammonium molybdate activated by H₂O₂," *Biores. Technol.*, vol.102, no.4, pp.3941-3945, 2011.

Wang, Y., Gril, J., Clair, B., Minato, K., Sugiyama, J. , "Wood properties and chemical composition of the eccentric growth branch of *Viburnum odoratissimum* var. *awabuki*," *Trees - Structure and Function*, vol.24, pp.541-549, 2010.

Watanabe, T., N. Shitan, S. Suzuki, T. Umezawa, M. Shimada, K. Yazaki, and T. Hattori, "An oxalate efflux transporter from the brown-rot fungus *Fomitopsis palustris*," *Applied and Environmental Microbiology*, vol.76, pp.7683-7690, 2010.

Watanabe, T., Shitan, N., Suzuki, S., Umezawa, T., Shimada, M., Yazaki, K., Hattori, T., "Oxalate efflux transporter from the brown rot fungus *Fomitopsis palustris*" *Appl. Environ. Microbiol.*, vol.76, no.23, pp.7683-7690, 2010.

Y. Tobimatsu, T.Takano, H.Kamitakahara, F. Nakatsubo, " Studies on the dehydrogenative polymerization of monolignol β -glycosides: part 6. Monitoring of horseradish peroxidase-catalyzed polymerization of monolignol by GPC-PDA," *Holzforschung*, , vol.64, no.2, pp.173-181, 2010.

Y. Tobimatsu, T.Takano, H.Kamitakahara, F. Nakatsubo, "Reactivity of syringly quinone methide intermediates in dehydrogenative polymerization I :high-yield production of synthetic lignins (DHPs) in horseradish peroxidase-catalyzed polymerization of synapyl alcohol in the presence of nucleophilic reagents," *J. Wood Sci.*, vol.56, no.3, pp.69-83, 2010.

Yahya, R., Sugiyama, J., Silsia, D., Gril, J. , "Some anatomical features of an *Acacia* hybrid, *A. mangium* and *A. auriculiformis* grown in indonesia with regard to pulp yield and paper strength," *J.Trop.For.Sci.*, vol.22, pp.343-351, 2010.

Yamamoto, M., Saito, T., Isogai, A., Kurita, M., Kondo T., Taniguchi, T., Kaida, R., Baba, K., Hayashi, T., "Enlargement of individual cellulose microfibrils in transgenic poplars overexpressing xyloglucanase ," *J. Wood Sci.*, vol.57, pp.71-75, 2011.

Yamamura, M., S. Wada, N. Sakakibara, T. Nakatsubo, S. Suzuki, T. Hattori, M. Takeda, N. Sakurai, H. Suzuki, D. Shibata, T. Umezawa, "Occurrence of guaiacyl/p-hydroxyphenyl lignin in *Arabidopsis thaliana* T87 cells," *Plant Biotechnology*, vol.28, pp.1-8, 2011.

Yamamura, M., T. Hattori, S. Suzuki, D. Shibata, and T. Umezawa, "Microscale alkaline nitrobenzene oxidation method for high-throughput determination of lignin aromatic components.," *Plant Biotechnology*, vol.27, pp.305-310, 2010.

Yanagawa, A., N. Fujiwara-Tsuji, T. Akino, T. Yoshimura, T. Yanagawa, S. Shimizu, Behavioral changes in the termite, *Coptotermes formosanus* (Isoptera), inoculated with six fungal isolates, *J. Invert. Pathol.*, 107, , 100-106, 2011

Yanagawa, A., T. Yoshimura, T. Yanagawa, F. Yokohari, Detection of a humidity difference by antennae in the termite *Coptotermes formosanus* (Isoptera: Rhinotermitidae), *Sociobiology*, 56, 1, 255-269, 2010

Yasuo KATAOKA, Akihisa KITAMORI, Hiroyuki OCHI, Kohei KOMATSU, Takehiro WAKITA, Traditional wooden buildings of Chinese minority, Dong people, part2 "NUKI" construction system and allotment of timber, *Transactions of AIJ. Journal of structural and construction engineering*, 76(664), 1101-1108, 2011 (in Japanese)

Yoshikatsu Ueda, Alexander I. Kolesnikov, and Hideki Koyanaka, Sensing hydrogen gas concentration using electrolyte made of proton conductive manganese dioxide, *Sensors & Actuators: B. Chemical*, Elsevier, 155, pp.893-896, 2011

PUBLICATIONS

Yomei Tokuda, Satoshi Oku, Teppei Yamada, Masahide Takahashi, Toshinobu Yoko, Hiroshi Kitagawa and Yoshikatsu Ueda, Structure manufacturing of proton-conducting organic-inorganic hybrid silicophosphilite membranes by solventless synthesis, *Journal of Materials Research*, 26, 796-803 (2011)