

Publications in 2004
(Articles in English published in refereed journals)

- Kimura, S. and T. Itoh: Cellulose synthesizing terminal complexes in the ascidians, *Cellulose* 11, 377-383 (2004)
- Itoh, T., S. Kimura and R. Malcolm Brown, Jr.: Theoretical considerations of immunogold labeling of cellulose synthesizing terminal complexes, *Cellulose* 11, 385-394 (2004)
- Kanno Munetake, Jun Yokoyama, Yoshihisa Suyama, Motonari Ohyama, Takao Itoh, Mitsuo Suzuki (2004): Geographical distribution of two haplotypes of chloroplast DNA in four oak species (*Quercus*) in Japan, *J. Plant Res.* 117, 311-317.
- Nishikawa, T., T. Morita, J. Sugiyama and S. Kimura: Formation of gold nanomarticles in microreactor composed of helical peptide assembly in water, *J. Colloid Interface Sci.*, 280, 506-510(2004)
- Katouno, F., M. Taguchi, K. Sakurai, T. Uchiyama, N. Nikaidou, J. Sugiyama and T. Watanabe,: Improtance of exposed aromatic residues in chitinase B from *Serratia marcescens* 2170 in crystalline chitin hydrolysis, *J. Biochemistry*, 136, 163-168(2004)
- Fujimura, F., M. Fukuda, J. Sugiyama, T. Morita and S. Kimura: Spontaneous assembly formation of cyclic dimer of β -amino acid in water, *Chem. Lett.*, 33, 810-811(2004)
- Wada, M., L. Heux, and J. Sugiyama: Polymorphism of Cellulose I Family: Reinvestigation of cellulose IVI, *Biomacromolecules*, 5, 1385-1391(2004)
- Sturcova, A., I. His, D.C. Apperley, J. Sugiyama and M.C. Jarvis: Structural details of crystalline cellulose from higher plants, *Biomacromolecules*, 5, 1333-1339(2004)
- Park, Y. W., K. Baba, Y. Furuta, I. Iida, K. Sameshima, M. Arai, T. Hayashi: Enhancement of growth and cellulose accumulation by overexpression of xyloglucanase in poplar, *FEBS letters*, 564, 183-187(2004)
- Kamitsui, H., Y. Honda, T. Watanabe and M. Kuwahara: Production and induction of manganese peroxidase isozymes in a white-rot fungus *Pleurotus ostreatus*, *Appl. Microbiol. Biotechnol.*, 65, 287-294 (2004).
- Sato, S., Y. Honda, M. Kuwahara, H. Kishimoto, N. Yagi, K. Muraoka and T. Watanabe: Microbial scission of sulfide linkages in vulcanized natural rubber by a white rot basidiomycete, *Ceriporiopsis subvermispora*, *Biomacromolecules*, 5, 511-515 (2004).
- Khanongnuch, C., N. Wanprut, S. Lumyong and T. Watanabe: Thermotolerant wood rotting fungi isolated from northern Thailand and their potential uses in lignin degrading applications, *Fungal Diversity*, 15, 187-196 (2004).
- Chawachart, N., T. Watanabe, C. Khanongnuch and S. Lumyong: Rice bran as an efficient substrate for laccase production from thermotolerant basidiomycete *Coriolus versicolor* strain RC3, *Fungal Diversity*, 15, 23-32 (2004).
- Watanabe, T., Y. Murata, S. Oka, and H. Iwahashi.: A new approach to species determination for yeast strains: DNA microarray-based comparative genomic hybridization using a yeast DNA microarray with 6000 genes, *Yeast*, 21, 351-365 (2004).
- Watanabe, T., Y. Ohashi, N. Rahmawati, R. Amirta, T. Watanabe, Y. Honda and M.. Kuwahara: Control of the generation of active oxygen species for selective lignin biodegradation by *Ceriporiopsis subvermispora*, in "Biotechnology of lignocellulose degradation and biomass utilization", ed. by K. Ohmiya et al., Uni Publishers, Tokyo, 697-704 (2004).
- Muta, Y. S. Ohyama, T. Umezawa, M. Shimada and K. Inouye : Inhibitory effects of lignans on the activity of human matrix metalloproteinase (Matrilysin), *J. Agri. Food Chemistry*, 52, 5888-5894 (2004).
- Okunishi, T., N. Sakakibara, S. Suzuki, T. Umezawa and M. Shimada: Stereochemistry of matairesinol formation by of *Daphne secoisolariciresinol dehydrogenase*, *J. Wood Sci.*, 50, 77-81 (2004).
- Okunishi, T., T. Umezawa and M. Shimada: Semi-micro chiral HPLC analysis of lignans, *J. Wood Sci.*, 50, 93-96 (2004).
- Suzuki, S., M. Yamamura, M. Shimada and T. Umezawa: A heartwood norlignan, (E)-hinokiresinol, is formed from 4-coumaryl 4-coumarate by a *Cryptomeria japonica* enzyme preparation, *Chem. Commun.*, 2838 - 2839 (2004).

PUBLICATIONS

- Shimada, M., T. Hattori, E. Munir, J. J. Yoon, T. Nishide, T. Watanabe and S. Sakai: A novel physiological aspect of wood-destroying Basidiomycetes, Proceedings of The 4th Regional Coordination of Wood Science (RCCWS) International Symposium, pp.467-468, October 13-16 (2004), St.Petersburg, Russia.
- Watanabe, T., T. Hattori, T. Sabrina, and M. Shimada: Purification and characterization of NAD-dependent formate dehydrogenase from the white-rot fungus Ceriporiopsis subvermispora and a possible role of the enzyme in oxalate metabolism, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 380, September 17-19, 2004, Kyoto, Japan.
- Sakai, S., T. Nishide, E. Munir, T. Hattori, k. Baba, H. Inui, Y. Nakano and M. Shimada: Subcellular localization of isocitrate lyase in the wood-destroying basidiomycete Fomitopsis palustris, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 381, September 17-19, 2004, Kyoto, Japan.
- Hattori, T., M. Itaya, A. Ohta, A. Kuwabara, J. Tahshin and M. Shimada: The enzymatic study for utilization of fatty acids and lipid as a carbon source for mycelial growth of ectomycorrhizal fungi, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 382, September 17-19, 2004, Kyoto, Japan.
- Nakatsubo, T., N. Sakakibara, T. Hattori, L. Li, V. L. Chang, M. Shimada and T. Umezawa: The functions of *Carthamus tinctorius* CoAOMT and AldOMT, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 386, September 17-19, 2004, Kyoto, Japan.
- Munir, E., T. Hattori, and M. Shimada: Profile of enzyme activity and growth of wood-rotting fungi in metal ion containing media, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 281-286, September 17-19, 2004, Kyoto, Japan.
- Suzuki, S., Yamamura, M., Shimada, M., Umezawa, T.: (E)-Hinokiresinol Synthase, Sustainable production and effective utilization of tropical forest resources, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 387, September 17-19, 2004, Kyoto, Japan.
- Sakakibara, N., Suzuki, S., Nakatsubo, T., Shimada, M., Shibata, D., Umezawa, T.: Analysis of the Cinnamate/Monolignol Pathway by Means of the Metabolic Profiling, Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 388, September 17-19, 2004, Kyoto, Japan.
- Shiraiwa, N., Sakakibara, N., Nakatsubo, T., Li, L., Chiang, V.L., Shimada, M., Umezawa, T.: Characterization of *Carthamus tinctorius* Cinnamyl Alcohol Dehydrogenase: Proceedings of the 5th International wood science symposium JSPS-LIPI core university program in the field of wood science, pp. 389, September 17-19, 2004, Kyoto, Japan.
- Suzuki, S., M. Yamamura, T. Hattori, T. Nakatsubo, M. Shimada and T. Umezawa: Biosynthesis of heartwood norlignans, Proceedings of the 9th international conference on biotechnology in the pulp and paper industry, pp. 149, October 10-14 (2004), Durban, South Africa.
- Yazaki, K.: Natural Products and Metabolites, Handbook on Plant Biotechnology Vol. 2 (John Wiley & Sons), 811-857 (2004)
- Ohara, K., Kokado, Y., Yamamoto, H., Sato, F., and Yazaki, K.: Engineering of ubiquinone biosynthesis using the yeast coq2 gene confers oxidative stress tolerance in transgenic tobacco, *Plant J.*, 40, 734-743 (2004)
- Okada, K., Ohara, K., Yazaki, K., Nozaki, K., Uchida, N., Kawamukai, M., Nojiri, H., and Yamane, H.: The AtPPT1 gene encoding 4-hydroxybenzoate polyprenyl diphosphate transferase in ubiquinone biosynthesis is required for embryo development in *Arabidopsis thaliana*, *Plant Mol. Biol.*, 55, 567-577 (2004)

PUBLICATIONS

- Y. W. Park, K. Baba, Y. Furuta, I. Iida, K. Sameshima, M. Arai, and T. Hayashi: Enhancement of growth and cellulose accumulation by overexpression of xyloglucanase in poplar, FEBS Letters, 564, 183-187 (2004).
- T. Konishi, Y. Ohmiya, and T. Hayashi: Evidence that sucrose loaded into the phloem of a poplar leaf is used directly by sucrose synthase associated with various β -glucan synthases in the stem, Plant Physiology, 134, 1146-1152 (2004).
- T. Nomura and T. Hayashi: Method for producing palm wood material, FPO4-001-MY (Patent in Malaysia) (2004).
- T. Hayashi, Y.W. Park, T. Takeda, S. Nakamura and Y. Ohmiya (2004) Involvement of cellulose in cellulose biosynthesis. In Biotechnology of Lignocellulose Degradation and Biomass Utilization, ed. K. Ohmiya, pp. 869-873, Uni Publishers, Tokyo.
- E. Sudarmonowati, S. Hartati, R. Hartati, Y.W. Park and T. Hayashi (2004) Production of transgenic Acacia mangium expressing cellulase gene to enhance growth. In Sustainable Production and Effective Utilization of Tropical Forest Resources, eds. T Umezawa et al., pp. 270-275, JSPS, Kyoto.
- H. Kuroda, K. Yazaki and M. Shiotani (2004), Molecular diagnosis of forest trees, the case studies on pine trees. In Sustainable Production and Effective Utilization of Tropical Forest Resources, eds. T Umezawa et al., p. 390, JSPS, Kyoto.
- Tsai, H.-F., T. Tsuda, Y. Aoyama, G. A. Hajj, and J. Wickert: Equatorial Kelvin Waves Observed with GPS Occultation Measurements (CHAMP and SAC-C). J. Meteorol. Soc.,Japan, 82, (1B), 397-406 (2004)
- de la Torre., A., T. Tsuda, G. A. Hajj, and J. Wickert: A Global Distribution of the Stratospheric Gravity Wave Activity from GPS Occultation Profiles with SAC-C and CHAMP. J. Meteorol. Soc. Japan, 82, (1B), 407-417 (2004)
- Mousa., A., and T. Tsuda: Inversion Algorithms for GPS Downward Looking Occultation Data: Simulation Analysis. J. Meteorol. Soc. Japan, 82, (1B), 427-432, (2004)
- Aoyama, Y., Y. Shoji, A. Mousa, T. Tsuda, and H. Nakamura: Temperature and Water Vapor Profiles Derived from Downward-Looking GPS Occultation Data. J. Meteorol. Soc. Japan, 82, (1B), 433-440 (2004)
- Noguchi, W., T. Yoshihara, T. Tsuda, and K. Hirahara: Time-Height Distribution of Water Vapor Derived by Moving Cell Tomography During Tsukuba GPS Campaigns. J. Meteorol. Soc. Japan, 82, (1B), 561-568 (2004)
- Tsuda, T., and K. Hocke: Application of GPS Radio Occultation Data for Studies Atmospheric Waves in the Middle Atmosphere and Ionosphere. J. Meteorol. Soc. Japan, 82, (1B), 419-426 (2004)
- Fukao, S., T. Tsuda, M. Yamamoto, T. Nakamura, H. Hashiguchi, and M. D. Yamanaka: Middle Atmosphere Response to forcing from Above and Below. Advances in Solar-Terrestrial Physics, 213-267, TERRAPUB, Tokyo (2004)
- Isoda F., T. Tsuda, T. Nakamura, R.A.Vincent, I.M.Reid, E. Achmad, A. Sadewo, and A. Nuryanto: Intraseasonal oscillations of the zonal wind near the mesopause observed with medium-frequency and meteor radars in the tropics. J. Geophys. Res, 109, D21108, doi:10.1029/2003JD003378 (2004)
- Tsurutani., B., A. Mannucci, B. Iijima, M. A. Abdu, J. H. A. Sobral, W. Gonzalez, F. Guarnieri, T. Tsuda, A. Saito, K. Yumoto, B.Fejer, T. J. Fuller-Rowell, J. Kozyra, J. C. Foster, A. Coster, and V. M. Vasiliunas: Global dayside ionospheric uplift and enhancement associated with interplanetary electric fields. J. Geophys. Res, 109, 08302, doi:10.1029/2003JA010342 (2004)
- Ratnam., M. V., T. Tsuda, C. Jacobi, and Y. Aoyama: Enhancement of gravity wave activity observed during a major Southern Hemisphere stratospheric warming by CHAMP/GPS measurements, Geophys.Res.Lett.,31,L16101, doi:10.1029/2004GL019789 (2004)
- Tsuda, T., M. V. Ratnam, P. T. May, M. J. Alexander, R. A. Vincent, and A. MacKinnon: Characteristics of Gravity Waves with Short Vertical Wavelengths Observed with Radiosonde and GPS Occultation during DAWEX(Darwin Area Wave Experiment), J. Geophys. Res.-Atmospheres, in print (2004)

PUBLICATIONS

- Fujii, J., T. Nakamura, T. Tsuda, and K. Shiokawa: Comparison of wind velocity between MU radar and FPI considering OI5577 airglow height variations, *J. Atmos. solar-Terr. Phys.*, 66, 573-583 (2004)
- Behrendt, A., T. Nakamura, T. Tsuda: Combined temperature lidar for measurements in the troposphere, stratosphere, and mesosphere, *Appl. Optics*, 43(14), 2930-2939 (2004)
- Takahashi H., T. Nakamura, K. Shiokawa, T. Tsuda, L. M. Lima, D. Gobbi: Atmospheric density and pressure inferred from the meteor diffusion coefficient and airglow O2b temperature in the MLT region, *Earth Planets and Space*, 56(2), 249-258 (2004)
- Horinouchi T.: Simulated breaking of convectively generated mesoscale gravity waves and airglow modulation. *J. Atmos. Sol.-Terr. Phys.* 66(6-9) 755--767 (2004)
- Imamura T., T. Horinouchi, and T. J. Dunkerton: The lateral transport of zonal momentum due to Kelvin waves in a meridional circulation. *J. Atmos. Sci.*, 61(15), 1966-1975 (2004)
- Yokoyama, T., T. Horinouchi, M. Yamamoto, and S. Fukao: Modulation of the midlatitude ionospheric E region by atmospheric gravity waves through polarization electric field. *J. Geophys. Res.*, Vol. 109, No. A12, A12307, doi:10.1029/2004JA010508 (2004)
- Riggin D. M., R. S. Lieberman, R. A. Vincent, A. H. Manson, C. E. Meek, T. Nakamura, T. Tsuda, and Y. I. Portnyagin: The 2-day wave during the boreal summer of 1994. *J. Geophys. Res.* 109(D8) art.no.D08110 (2004)
- Holdsworth, D. A., M. Tsutsumi, I. M. Reid, T. Nakamura, and T. Tsuda: Interferometric meteor radar phase calibration using meteor echoes. *Radio Science* 39 (5), Art. No. RS5012 (2004)
- Koizumi, Y., M. Shimoyama, K. I. Oyama, Y. Murayama, T. Tsuda, T. Nakamura: Foil chaff ejection systems for rocket-borne measurement of neutral winds in the mesosphere and lower thermosphere, *Rev. Sci. Instruments*, 75 (7), 2346-2350 (2004)
- Shiokawa, K., Y. Otsuka, T. Ogawa, H. Takahashi, T. Nakamura, and T. Shimomai: Comparison of OH rotational temperatures measured by the spectral airglow temperature imager (SATI) and by a tilting-filter photometer. *J. Atmos. Sol.-Terr. Phys.* 66 (11), 891-897 (2004)
- Balan, N., S. Kawamura, T. Nakamura, M. Yamamoto, S. Fukao, K. Igarashi, T. Maruyama, K. Shiokawa, Y. Otsuka, T. Ogawa, H. Alleyne, S. Watanabe, and Y. Murayama: Simultaneous mesosphere/lower thermosphere and thermospheric F region observations during geomagnetic storms. *J. Geophys. Res.-Space Phys.* 109 (A4), Art. No. A04308 (2004)
- Eguchi N. and M. Shiotani: Intraseasonal variations of water vapor and cirrus clouds in the tropical upper troposphere. *Journal of Geophysical Research Atmosphere*, Vol.109, D12162, doi:10.1029/2003JD004314, , 2004..
- Kawamoto, N., Kanzawa, H. and Shiotani, M.: Time variations of descent in the Antarctic vortex during the early winter of 1997, *Journal of Geophysical Research Atmosphere*, 109, (D18), D18309, doi:10.1029/2004JD004650, , 2004..
- Eguchi N. and M. Shiotani: Intraseasonal variations of water vapor and cirrus clouds in the tropical upper troposphere, *Proceeding for International Workshop on Critical Evaluation of mm-/submm-wave Spectroscopic Data for Atmospheric Observations*, 2004.
- Eguchi N. and M. Shiotani: Intraseasonal variations of water vapor and cirrus clouds in the tropical tropopause layer, *Proceeding for SPARC 3rd General Assembly*, 2004..
- Shiotani M.: SOWER/Pacific - results and a future plan, *Proceeding for SPARC 3rd General Assembly*, 2004.
- Fukao, S., Y. Ozawa, T. Yokoyama, M. Yamamoto, and R. T. Tsunoda, First observations of spatial structure of 3-m-scale field-aligned irregularities with the equatorial atmosphere radar in Indonesia, *J. Geophys. Res.*, 109, A02304, doi:10.1029/2003JA010096 (2004)
- Yokoyama, T., M. Yamamoto, S. Fukao and R. B. Cosgrove, Three-dimensional simulation on generation of polarization electric field in the midlatitude E-region ionosphere, *J. Geophys. Res.*, 109, A01309, doi:10.1029/2003JA010238 (2004)
- Teshiba, M., H. Hashiguchi, A. Uematsu, H. Tanaka, Y. Ohmori, and S. Fukao, Fog observations with a millimeter-wave scanning radar at Miyoshi basin, Japan, *Earth Planet and Space*, 56, 259-268 (2004)

PUBLICATIONS

- Balan, N., S. Kawamura, T. Nakamura, M. Yamamoto, S. Fukao, K. Igarashi, T. Maruyama, K. Shiokawa, Y. Otsuka, T. Ogawa, H. Alleyne, S. Watanabe, and Y. Maruyama, Simultaneous mesosphere/Lower thermosphere and thermospheric F region observations during geomagnetic storms, *J. Geophys. Res.*, 109, A04308, doi:10.1029/2003JA009982 (2004)
- Hashiguchi, H., S. Fukao, Y. Moritani, T. Wakayama, and S. Watanabe, A lower troposphere radar: 1.3-GHz active phased-array type wind profiler with RASS, *J. Meteor. Soc. Japan*, 82(3), 915-931 (2004)
- Cosgrove, R. B., R. T. Tsunoda, S. Fukao and M. Yamamoto, coupling of the Perkins instability and the sporadic E layer instability derived from physical arguments, *J. Geophys. Res.*, 109, A06301, doi:10.1029/2003JA010295 (2004)
- Pavlov, A. V., S. Fukao, and S. Kawamura, Comparison of the measured and modeled electron densities and electron and ion temperatures in the low latitude Ionosphere during 19-21 March 1988, *Ann. Geophys.* 22, 2747-2763 (2004)
- Rao, Q. J., H. Hashiguchi, S. Fukao, and T. Matsuda, Effects of a clutter suppression cut-fence with a metallic disk on low-elevation sidelobes of lower-troposphere radar, *Radio Sci.*, 39, RS6002, doi:10.1029/2003RS002915 (2004)
- Seto, T. H., M. K. Yamamoto, H. Hashiguchi, and S. Fukao, Convective activities associated with intraseasonal variation over Sumatra, Indonesia observed with the equatorial atmosphere radar, *Ann. Geophys.*, 22, 3899 – 3916 (2004)
- Tsuda T., M. Yamamoto, T. Nakamura, H. Hashiguchi, M. D. Yamanaka, and S. Fukao, Middle atmosphere response to forcing from above and below, *Advances in Solar-Terrestrial Physics* (ed. H. Oya), 213-267, TERRAPUB, Tokyo (2004)
- Mori, S., J. Hamada, Y.I. Tauhid, M.D. Yamanaka, N. Okamoto, F. Murata, N. Sakurai, H. Hashiguchi, and T. Sribimawati, Diurnal land-sea rainfall peak migration over Sumatera Island, Indonesia maritime continent observed by TRMM satellite and intensive rawinsonde soundings, *Mon. Weather Rev.*, 132, 2021-2039 (2004)
- Yokoyama, T., S. Fukao, and M. Yamamoto, Relationship of the onset of equatorial F region irregularities with the sunset terminator observed with the Equatorial Atmosphere Radar, *Geophys. Res. Lett.*, 31(24): L24804 (2004)
- Yokoyama, T., T. Horinouchi, M. Yamamoto, and S. Fukao, Modulation of the midlatitude ionospheric E region by atmospheric gravity waves through polarization electric field, *J. Geophys. Res.*, 109, A12307, doi:10.1029/2004JA010508 (2004)
- Praskovsky, A. A., E. A. Praskovskaya, G. Hassenpflug, M. Yamamoto, and S. Fukao, Wind and Turbulence Measurements by the Middle and Upper Atmosphere Radar (MUR): Comparison of Techniques, *Ann. Geophys.*, 22(11), 3843-3862 (2004)
- G. Hassenpflug, M. Yamamoto, and S. Fukao, Variance of wind estimates using spaced antenna techniques with the MU radar *Ann. Geophys.*, 22(11), 3863-3868 (2004)
- N. M. Gavrilov, and S. Fukao, Numerical and the MU radar estimations of gravity wave enhancement and turbulent ozone fluxes near the tropopause, *Ann. Geophys.*, 22(11), 3889-3898 (2004)
- M. Teshiba, M. D. Yamanaka, H. Hashiguchi, Y. Shibagaki, Y. Ohno, and S. Fukao, Secondary circulation within a tropical cyclone observed with L-band wind profilers, *Ann. Geophys.*, 22(11), 3951-3958 (2004)
- Y. Umemoto, M. Teshiba, Y. Shibagaki, H. Hashiguchi, M. D. Yamanaka, and S. Fukao, Combined wind profiler-weather radar observations of orographic rainband around Kyushu, Japan in the Baiu season, *Ann. Geophys.*, 3971-3982 (2004)
- A.V. Pavlov AV, S. Fukao, and S. Kawamura, F-region ionospheric perturbations in the low-latitude ionosphere during the geomagnetic storm of 25-27 August 1987, *Ann. Geophys.*, 22(10), 3479-3501 (2004)
- Otsuka, Y., K. Shiokawa, T. Ogawa, T. Yokoyama, M. Yamamoto, and S. Fukao, Spatial relationship of equatorial plasma bubbles and field-aligned irregularities observed with an all-sky airglow imager and the Equatorial Atmosphere Radar, *Geophys. Res. Lett.*, 31, L20802, doi:10.1029/2004GL020869 (2004)

PUBLICATIONS

- Ghebrebrhan, O., H. Luce, M. Yamamoto, and S. Fukao, Interference suppression factor characteristics of complementary codes for ST/MST radar applications, *Radio Sci.*, 39(3), RS3013, doi:10.1029/2003RS002901 (2004)
- Hirono, M., H. Luce, R. M. Worthington, M. Yamamoto, and S. Fukao, Horizontal maps of echo power in the lower stratosphere using the MU radar, *Ann. Geophys.*, 22(3), 717-724 (2004)
- Shams, M.I., H. Yano and K. Endou: Compressive deformation of wood impregnated with low molecular weight phenol formaldehyde (PF) resin I: Effects of pressing pressure and pressure holding, *J. Wood Science*, 50, 343-350 (2004)
- Shams, M.I. and H. Yano: Compressive deformation of wood impregnated with low molecular weight phenol formaldehyde (PF) resin II: Effects of processing parameters, *J. Wood Science*, 50, 351-357 (2004)
- Yano, H. and S. Nakahara: Bio-composites produced from plant microfiber bundles with a nanometer unit web-like network, *J. Materials Science*, 39, 1635-1638 (2004).
- Nakagaito, A.N. and H. Yano: The effect of morphological changes from pulp fiber towards nano-scale fibrillated cellulose on the mechanical properties of high-strength plant fiber based composites, *Applied Physics A*, 78, 547-552 (2004).
- Sugimoto, H., M. Norimoto: Dielectric relaxation due to Interfacial polarization in heat treatment wood, *Carbon*, 42, 211-218 (2004)
- Sugimori, H., M. Norimoto and H. Yano: Dielectric relaxation due to the heterogeneous structure of wood charcoal, *Proceedings of the Fifth International Wood Science Symposium*, Kyoto, September 17-19, 124-129, 2004.
- Shams, M. I. and H. Yano: Effects of removal of matrix substances as a pretreatment on the compressive deformation of resin impregnated wood, *Proceedings of the Fifth International Wood Science Symposium*, Kyoto, September 17-19, 347-352, 2004.
- Nakagaito, A., N., S. Iwamoto and H. Yano: Bacterial Cellulose: The ultimate Nano-scalar cellulose morphology for the production of high-strength composites, *Proceedings of the Fifth International Wood Science Symposium*, Kyoto, September 17-19, 341-346, 2004
- Shams, M. I. and H. Yano: Compressive deformation of wood impregnated with low molecular weight phenol formaldehyde resin, *Proceedings of the Third International Conference of the European Society for Wood Mechanics*, Vila Real, Portugal, September 6-8, 183-190.
- Dwianto, W., T. Morooka and M. Norimoto: Fixation of Gombong and Tali Bamboo, *J.IImu dan Teknologi Kayu Tropis (J. Tropical Wood Science and Technology)*, 2, 40-45 (2004)
- Cheng, W., T. Morooka and M. Norimoto: Shrinkage stress of wood during drying under superheated steam above 100C, *Holzforschung*, 58, 423-427 (2004)
- Fujisawa, M., T. Hata, P. Bronsveld, V. Castro, F. Tanaka, H. Kikuchi, T. Furuno and Y. Imamura: SiC/C composites prepared from wood-based carbons by pulse current sintering with SiO₂: Electrical and thermal properties, *Journal of the European Ceramic Society*, 24, 3575-3580 (2004)
- Ifuku, S., H. Kamitakahara, T. Takano, F. Tanaka and F. Nakatsubo: Preparation of 6-O-(4-alkoxytrityl)celluloses and their properties, *Organic & Biomolecular Chemistry*, 2, 402-407 (2004)
- Tanaka, F. and N. Fukui: The behavior of cellulose molecules in aqueous environments, *Cellulose* (Dordrecht, Netherlands), 11, 33-38 (2004)
- Tanaka, F., Y. Doi and T. Iwata: The deformation of the chain molecules and crystallites for poly([R]-3-hydroxybutyrate) and poly(4-hydroxybutyrate) under the tensile stress, *Polymer Degradation and Stability*, 85, 893-901 (2004)
- Tanaka, F. and N. Fukui: Molecular Motion of an Isolated Single Chain Cellulose Molecule, *Sen'I Gakkaishi (Journal of the Society of Fiber Science and Technology, Japan)*, 60, 261-265 (2004)
- Xu J, R Sugawara, R Widjorini, G Han,S Kawai: Manufacture and properties of low-density binderless particleboard from kenaf core. *J. Wood Science*, 50 (1), 62-67 (2004).
- Widjorini R, J Xu, T Watanabe, S Kawai: Chemical changes of steam-pressed kenaf core binderless particleboard, *J. Wood Science*, 50(1), 26-32 (2004)
- Subyakto, H Hata, I Ide, T Yamane, S Kawai: Fire protection of a laminated veneer lumber joint by wood carbon phenolic spheres sheeting, *J. Wood Science*, 50(2), 157-161, 2004.

PUBLICATIONS

- Firmanti A, B Subiyanto, S Takino, S Kawai: The critical stress in various stress levels of bending member on fire exposure for mechanical graded lumber, *J Wood Science*, 50 (5), 385-390 (2004)
- Ragil Widyorini, Jianying Xu, Kenji Umemura, Shuichi Kawai: Binderless Particleboard from Baggasse Core and Baggase Face. Proc. The 5th International Wood Science Symposium, p.119-123 (2004)
- Kenji Umemura, Shuichi Kawai: Potentiality of chitosan as wood adhesives. Proc. The 7th Pacific Rim Bio-Based Composites Symposium Vol.1, p.159-165 (2004)
- Komatsu, K., Y. Idris, S. Yuwasdiki, B. Subiyanto and A. Firmanti : Development of Structural LVL from Tropical Wood and Evaluation of Their Performance for the Structural Components of Wooden Houses Part-1. Application of Tropical LVL to a Roof Truss, Proceedings of the International Council for Research and Innovation in Building and Construction, Working Commision W18-Timber Structures, CIB-W18/37-12-2, Edingdurg, UK, (2004).
- Noguchi, M. and K. Komatsu : Mechanical Models of the Knee Joints with Cross-Lapped Glued Joints and Glued in Steel Rods, Proceedings of the International Council for Research and Innovation in Building and Construction, Working Commision W18-Timber Structures, CIB-W18/37-7-2, Edingdurg, UK, (2004).
- Komatsu, K., S. Takino, K.H.Hwang, T. Mori, and Y. Kataoka :Lateral Shear Performance of the Wooden Post & Beam Structure with Prefabricated Small Mud Shear Walls, Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.1, p.159-164, Lahti, Finland, (2004).
- Nakatani, M. and K. Komatsu :Development and Verification of Theory on Pull-Out Properties of Lagscrewbolted Timber Joints", Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.2, p.95-104, Lahti, Finland, (2004).
- Kataoka, Y., K. Komatsu and A. Kitamori, : Structural correlations between Dong Race architectures in China and Japanese 'Nuki' construction, Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.107-113, Lahti, Finland, (2004).
- Tabuchi, A. and K. Komatsu : Evaluation of shear performance of earth-wall as a structural element in Japanese traditional timber structure, Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.255-259, Lahti, Finland, (2004).
- Hwang,,K.H., M. Kitagawa and K. Komatsu : Reinforcement of timber joints using wooden dowels and adhesive", Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.297-311, Lahti, Finland, (2004).
- Noguchi, M. and K. Komatsu : Design method of the knee joints using adhesive for the wooden portal frame structures", Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.301-305, Lahti, Finland, (2004).
- Gong, M., K. Komatsu and M. Nakatani : Fatigue behaviour of lagscrewbolted timber joints, Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.339-343, Lahti, Finland, (2004)
- Watanabe, H. and K. Komatsu : Loading tests of two log beams for road bridges, Proceedings of the 8th World Conference on Timber Engineering, WCTE2004, Vol.3, p.417-420, Lahti, Finland, (2004).
- Noguchi, M and K. Komatsu : New proposal for estimating method of stiffness and strength in the bolted timber-to-timber joints and its verification by experiments (II) : bolted cross-lapped beam to column joints, *Journal of Wood Science*, 50(5), 391-399, (2004).
- Harada, M., K. Komatsu, T. Hayashi and M. Karube : Dynamic excitation and static loading tests of glulam lattice floor, *Journal of Wood Science*, 50(5), 450-454, (2004).
- Komatsu, K., Y. Idris, S.Yuwasdiki, B. Subiyanto, A. Firmanti and K.Yokoo : Development of Structural LVL from Tropical Wood and Evaluation of their Performance for the Structural Components of Wooden Houses Part-1. Application of Tropical LVL to a Roof Truss, Proceedings of the 5th International Wood Science Symposium, 17 September, Kyoto, (2004).
- Hadi, M., B. Subiyanto, A. Firmanti, K. Komatsu and S. Yuwasdiki : Application of Some Mechanical Fasteners on Laminated Veneer Lumber (LVL) Rafter Joints, Proceedings of the 5th International Wood Science Symposium, 17 September, Kyoto, (2004).

PUBLICATIONS

- Idris, Y., B. Subiyanto, S. Yuwasdiki, K. Komatsu and S. Takino : In-plane Shear Cyclic Load Testing for Shear Resistance of LVB Floor Panels Nailed to Wood Frame Floor Systems, Proceedings of the 5th International Wood Science Symposium, 17 September, Kyoto, (2004).
- Mori, T., Y. Noda, K. Komatsu : Reinforcement of Large Finger-Jointed Corner Frame Connections, Proceedings of the WCTE 2004, Vol.1, 273-278, Lahti, Finland, (2004).
- Kambe, W., T. Mori, T. Hashizume, T. Takeda and A. Sasagawa : Bending strength of large dimension glue-laminated timber beam, Proceedings of the WCTE 2004, CD-ROM, Lahti, Finland, (2004).
- Mori, T., M. Inoue, K. Komatsu and M. Nakatani : Development of Wooden Wall for House using Natural Structural Materials, Proceedings of the IWSS 2004, 409, Kyoto, Japan, (2004).
- Nakatani, M., T. Mori and K. Komatsu : Pull-out properties of Lagscrewbolted Timber Joints with Epoxy Resin Adhesive, Proceedings of the IWSS 2004, 406, Kyoto, Japan, (2004).
- Tabuchi, A., A. Kitamori, T. Mori and K. Komatsu : Shear Performance of Earth-wall that is a Typical Town House of Kyoto, Proceedings of the IWSS 2004, 408, Kyoto, Japan, 2004.
- Muin, M. and K. Tsunoda: Biological performance of wood-based composites treated with a formulation of 3-iodo-2-propynyl butylcarbamate and silafluofen using supercritical carbon dioxide, *J. Wood Sci.*, 50, 535-539 (2004)
- Nakayama, T., T. Yoshimura and Y. Imamura: Effects of desiccation treatment on Japanese subterranean termites, *Reticulitermes speratus* (Kolbe) and *Coptotermes formosanus* Shiraki (Isoptera: Rhinotermitidae), *Sociobiology*, 43(3), 477-487 (2004)
- Nakayama, T., T. Yoshimura and Y. Imamura: Recovery of Japanese subterranean termites, *Reticulitermes speratus* (Kolbe) and *Coptotermes formosanus* Shiraki (Isoptera: Rhinotermitidae), from desiccation treatment, *Sociobiology*, 43(3), 489-499 (2004)
- Nakayama, T., T. Yoshimura and Y. Imamura: Effects of the desiccation process on survival and food consumption of Japanese subterranean termites (Isoptera: Rhinotermitidae), *Reticulitermes speratus* and *Coptotermes formosanus*, *Sociobiology*, 44(1), 127-138 (2004)
- Nakayama, T., T. Yoshimura and Y. Imamura: The optimum temperature-humidity combination for the feeding activities of Japanese subterranean termites, *J. Wood Sci.*, 50, 530-534 (2004)
- Indrayani, Y., T. Yoshimura, Y. Fujii, Y. Yanase, Y. Okahisa and Y. Imamura: Survey on the infestation by *Incisitermes minor* (Hagen) in Kansai and Hokuriku areas, *Jap. J. Environ. Entomol. Zool.*, 15, 261-268 (2004)
- Kartal, S. N. and Y. Imamura: Effects of N'-N-(1, 8-Naphthalyl) hydroxylamine (NHA-Na) and hydroxynaphthalimide (NHA-H) on boron leachability and biological degradation of wood, *Holz als Roh und Werkstoff*, 62, 378-385 (2004)
- Kartal, S. N. and Y. Imamura: Removal of copper, chromium, and arsenic from CCA-treated wood onto chitin and chitosan, *Bioresource Technology*, 96, 389-392 (2004),
- Kartal, S. N., E. Munir, T. Kakitani and Y. Imamura: Bioremediation of CCA-treated wood by brown-rot fungi *Fomitopsis palustris*, *Coniophora puteana*, and *Laetiporus sulphureus*, *J. Wood Sci.*, 50, 182-188 (2004)
- Kartal, S. N., T. Kakitani and Y. Imamura: Bioremediation of CCA-C treated wood by *Aspergillus niger* fermentation, *Holz Roh Werkst*, 62, 64-68 (2004)
- Kartal, S. N., T. Yoshimura and Y. Imamura: Decay and termite resistance of boron-treated and chemically modified wood by in situ co-polymerization of allyl glycidyl ether (AGE) with methyl methacrylate (MMA), *Inter. Biodeterioration & Biodegradation*, 53, 111-117 (2004)
- Ngee, P.-S., A. Tashiro, T. Yoshimura, Z. Jaal and C.-Y. Lee: Wood preference of selective Malaysian Subterranean Termites (Isoptera: Rhinotermitidae, Termitidae), *Sociobiology*, 43(3), 535-550 (2004)
- Furuno, T., Y. Imamura and H. Kajita: The modification of wood by treatment with low molecular weight phenol-formaldehyde resin: a properties enhancement with neutralized phenolic-resin and resin penetration into wood cell walls, *Wood Sci. Technol.*, 37, 349-361 (2004)
- Yamauchi, S., Y. Sudiyani, Y. Imamura and S. Doi: Depth profiling of weathered tropical wood using Fourier transform infrared photoacoustic spectroscopy, *J. Wood Sci.*, 50, 433-438 (2004)
- T. Hata, P. Bronsveld, T. Kakitani, D. Meier, T. Kajimoto and Y. Imamura: Recycling of Chromium-Copper-Arsenate (CCA) treated wood by thermochemical conversion, *Management of Environmental Quality*, 15(5) 502-508 (2004)

PUBLICATIONS

- T. Kakitani, T. Hata, T. Kajimoto and Y. Imamura: Two possible pathways for the release of arsenic during pyrolysis of chromated copper arsenate (CCA)-treated wood, *Journal of Hazardous Materials*, 113(1-3) 247-252 (2004)
- M. Fujisawa, T. Hata, P. Bronsveld, V. Castro, F. Tanaka, H. Kikuchi, T. Furuno and Y. Imamura: SiC/C composites from wood charcoal by pulse current sintering with SiO₂, *Electrical & Thermal properties, Journal of the European Ceramics Society*, 24/13 3575-3580 (2004)
- V. Castro, M. Fujisawa, T. Hata, P. Bronsveld, T. Vystavel, J. De Hosson, H. Kikuchi and Y. Imamura: Silicon carbide nanorods and ceramics from wood, *Key Eng. Mat.* 264-268, 2267-2270 (2004)
- T. Kakitani, T. Hata, T. Kajimoto and Y. Imamura: The effect of pyrolysis on the extractability of toxic metals from Chromated Copper Arsenate (CCA)-treated wood (II): The behavior of toxic metals during solvent extraction, *Journal of Hazardous Materials* 109/1-3, 53-57 (2004)
- T. Hata, T. Vystavel, P. Bronsveld, J. De Hosson, H. Kikuchi, K. Nishimiya and Y. Imamura, Catalytic carbonization of wood charcoal: graphite or diamond?, *CARBON* 42(5-6) 961-964 (2004)
- K. Nishimiya, T. Hata, H. Kikuchi and Y. Imamura, Effect of aluminum compound addition on graphitization of wood charcoal by direct electric pulse heating method, *J Wood Sci*, 50(2) 177-181 (2004)
- Subyakto, T. Hata, I. Ide, T. Yamane, S. Kawai: Fire protection of a laminated veneer lumber joint by wood carbon phenolic spheres sheeting, *J. Wood Science*, 50(2) 157-161 (2004)
- Tsunoda, K. and T. Yoshimura: Current termite management in Japan, *Proc. 1st Conference of Pacific Rim Termite Research Group*, Penang, Malaysia, March 8-9, 1-5 (2004)
- Tsunoda, K., A. Byrne, P. I. Morris and J. K. Grace: Performance of borate-treated lumber in a protected, above-ground field test in Japan, *The Int. Res. Group on Wood Preserv. Document No. IRG/WP 04-30344* (2004)
- Yoshimura, T., N. Kagemori, J. Sugiyama, S. Kawai, K. Sera, S. Futatsugawa, M. Yukawa, H. Imazeki, K. Sakuma, S. Ozeki, M. Oyoshi, Y. Yanase, Y. Fujii and S. Okumura: Mandibles of Japanese subterranean termites, *Coptotermes formosanus Shiraki* and *Reticulitermes speratus* (Kolbe). *Proc. 5th Int. Wood Sci. Symp.*, Kyoto, Japan, Sept. 17-19, 102-107 (2004)
- Nakayama, T., T. Yoshimura, Y. Yanase, Y. Fujii and Y. Imamura: Monitoring of the change of feeding activities of Japanese subterranean termites under various humidity conditions, *Proc. 3rd Int. Symp. on Surface and Finishing of wood*, Kyoto Japan, Nov. 24-26, 434-438 (2004)
- Nakayama, T., T. Yoshimura and Y. Imamura: Effects of the moisture content of wood blocks on the feeding preferences of Japanese subterranean termites, *Proc. 5th Int. Wood Sci. Symp.*, Kyoto, Japan, Sept. 17-19, 96-101 (2004)
- Nakayama, T., T. Yoshimura, Y. Yanase, Y. Fujii and Y. Imamura: Monitoring of the change of feeding activities of Japanese subterranean termites under various humidity conditions, *Proc. 3rd Int. Symp. on Surface and Finishing of wood*, Kyoto Japan, Nov. 24-26, 434-438 (2004)
- Hwang, W.-J., S. N. Kartal, Y. Imamura and K. Shinoda: Effect of alkyl ammonium compounds, DDAC and DBF, on wood of different natural durability, *Proc. 5th Int. Wood Sci. Symp.*, Kyoto, Japan, Sept. 17-19, 415 (2004)
- Hwang, W.-J., S. N. Kartal and Y. Imamura: Evaluation of termite and decay resistance of wood treated with a boron-containing quaternary ammonium compound, didecyldimethylammonium tetrafluoroborate (DBF): Effects of wood species with different durability, *Proc. 3rd Int. Symp. on Surface and Finishing of wood*, Kyoto Japan, Nov. 24-26, 393-402 (2004)
- Indrayani, Y., T. Yoshimura, Y. Yanase, Y. Fujii, H. Matsuoka and Y. Imamura: Feeding behavior of the exotic dry-wood termite *Incisitermes minor* (Hagen), *Proc. 5th Int. Wood Sci. Symp.*, Kyoto, Japan, Sept. 17-19, 108-113 (2004)
- Indrayani, Y., T. Yoshimura, Y. Yanase, Y. Fujii, H. Matsuoka and Y. Imamura: Wood-feeding behavior of four termite species covering three different habitation, *Proc. 3rd Int. Symp. on Surface and Finishing of wood*, Kyoto Japan, Nov. 24-26, 426-431 (2004)
- Okahisa, Y., T. Yoshimura and Y. Imamura: A novel method for analyzing starch and sugar contents of bamboo, *Proc. 5th Int. Wood Sci. Symp.*, Kyoto, Japan, Sept. 17-19, 416 (2004)

PUBLICATIONS

- Okahisa, Y., T. Yoshimura and Y. Imamura: The potential of termite attack against Moso Bamboo (*Phyllostachys pubescens* Mazel) with special references to surface characteristics, Proc. 3rd Int. Symp. on Surface and Finishing of wood, Kyoto Japan, Nov. 24-26, 414-418 (2004)
- Katsumata, N., T. Mitani, T. Yoshimura N. Shinohara and Y. Imamura: Preliminary study on wood deterioration in the simulated space environment, Proc. 5th Int. Wood Sci. Symp, Kyoto, Japan, Sept. 17-19, 411 (2004)
- Katsumata, N., T. Yoshimura and Y. Imamura: Biological deterioration of gamma-irradiated wood, Proc. 3rd Int. Symp. on Surface and Finishing of wood, Kyoto Japan, Nov. 24-26, 420-424 (2004)
- Kawaguchi, S., H. Saitou and Y. Imamura: Primary production of a young *Salix subfragilis* community on abandoned paddy field, Proc. 5th Int. Wood Sci. Symp, Kyoto, Japan, Sept. 17-19, 393 (2004)
- Ishida, H., T. Ito, M. Yamai, H. Matsusaka and K. Tsunoda: Why did Japan replace CCA by alternatives? The Int. Res. Group on Wood Preserv. Document No. IRG/WP 04-50215 (2004)
- Taylor, A. M., Ba. L. Gartner, J. J. Morrell and K. Tsunoda: Extractive fractions of *Thuja plicata* and *Chamaecyparis nootkatensis* heartwood that deter *Coptotermes formosanus*, The Int. Res. Group on Wood Preserv. Document No. IRG/WP 04-10535 (2004)
- Grace, J. K., A. Byrne, P. I. Morris, and K. Tsunoda: Six-year report on the performance of borate-treated lumber in an above-ground termite field test in Hawaii, The Int. Res. Group on Wood Preserv. Document No. IRG/WP 04-30343 (2004)
- Lee, C.-Y., P.-S. Nggee, A. Tashiro, T. Yoshimura and J. Zairi: Resistance of Japanese wood species to attack by the Asian subterranean termite, *Coptotermes gestroi* (Wasnmann), Proc. 5th Int. Wood Sci. Symp., Kyoto, Japan, Sept. 17-19, 145-150 (2004)
- Miura, M., Y. Yanase, Y. Fujii, S. Okumura, T. Yoshimura, Y. Imamura, T. Maekawa and K. Suzuki: Detection of hydrogen and methane from the feeding activity of termites using a gas analyzer, Proc. 5th Int. Wood Sci. Symp., Kyoto, Japan, Sept. 17-19, 151-156 (2004)
- Yanase, Y., Y. Fujii, S. Okumura, T. Yoshimura, Y. Imamura, M. Ishida, H. Kawaguchi, H. Shiozaki and T. Okumura: Feasibility of several particle materials as a physical barrier against termites, Proc. 3rd Int. Symp. on Surface and Finishing of wood, Kyoto Japan, Nov. 24-26, 440-444 (2004)
- Kartal, N. S., W.-J. Hwang, N. Katsumata, K. Shionoda, T. Yoshimura and Y. Imamura: Effect of acryl-silicon type resin on boron leachability, Proc. 3rd Int. Symp. on Surface and Finishing of wood, Kyoto Japan, Nov. 24-26, 208-213(2004).
- Kartal, S. N. and Y. Imamura: Fungal remediation of CCA-treated wood, The Int. Res. Group on Wood Preserv., Document No. IRG/WP, 2004
- Kartal, S. N., W. J. Hwang, K. Shinoda and Y. Imamura: Decay and termite resistance of wood treated with boron-containing quaternary ammonia compound, didecyl dimethyl ammonium tetrafluoroborate (DBF) incorporated with acryl-silicon type resin, The Int. Res. Group on Wood Preserv., Document No. IRG/WP, 2004
- Muin, M. and K. Tsunoda: Biological resistance of wood-based composites impregnated with a fungicide-termicide mixture formulation using supercritical carbon dioxide, Proc. 5th Int. Wood Sci. Symp., Kyoto, Japan, Sept. 17-19, 140-144 (2004)
- Muin, M. and K. Tsunoda: Retention of silafluofen in wood-based composites after supercritical carbon dioxide impregnation, Forest Prod. J., 54(12), 168-171 (2004)
- Sudiyani, Y., K. Hanata, Y. Imamura and S. Doi: Effect of weathering process on hyphal penetration in tropical wood by *Pycnoporus coccineus*, Proc. 3rd Int. Symp. on Surfacing and Finishing of Wood, Kyoto Japan, Nov. 24-26, 99-112 (2004)
- Tsujimoto, Y., N. Ohba and Y. Imamura: Proposal of a simple method for deterioration diagnosis of roofing sheet of polyvinyl chloride system, Proc. 3rd Int. Symp. on Surfacing and Finishing of Wood, Kyoto Japan, Nov. 24-26, 361-374 (2004)
- Subyakto, V. Castro, K. Ishimaru, Gustan Pari, T. Hata, Yuji Imamura and S. Kawai, Biomass carbons from oil-palm residues, Proceedings of the 5th International Wood Science Symposium, 301-306, 2004

PUBLICATIONS

- F. Kuroski, K. Ishmaru, T. Hata, P. Bronsveld and Y. Imamura, The Formation Process of Wood Charcoal Prepared by Flash Heating, Proceedings of the 5th International Wood Science Symposium, 419, 2004
- M. Fujisawa, T. Hata, P. Bronsveld, V. Castro, F. Tanaka, H. Kikuchi and Y. Imamura: Development of SiC/C composites from wood charcoal by pulse current sintering and their thermoelectric properties, Proceedings of the 5th International Wood Science Symposium, 418, 2004
- T. Hata, Paul Bronsveld, Tomas Vystavel, Jeff De Hosson, Hikari Kikuchi, Kengo Ishimaru¹, Masashi Fujisawa¹, Takashi Nishizawa⁴ and Yuji Imamura⁵, Catalytic graphitization of biomass carbon with alumina by pulse current heating, Proceedings of the 5th International Wood Science Symposium, 417, 2004
- T. Kakitani, T. Hata and Y. Imamura: Immobilization of Toxic Metals in Chromated Copper Arsenate (CCA)-treated Wood by Thermo-Chemical Treatment, Proceedings of 3rd International Symposium on Surfacing and Finishing of Wood, 382-386 (2004)
- T. Hata, T. Vystavel, P. Bronsveld, J. DeHosson, H. Kikuchi, K. Nishimiya and Y. Imamura: Catalytic carbonization of wood charcoal: graphite or diamond?, Advanced Multifunctional Nanocarbon Materials and Nanosystems (editors: P. Scharif, H. Kuzmany, S. Gui, L. Dunsch, E. Buzaneva), European Materials Research Society, Symposia Proceedings 144, 961-964 (2004)
- T. Hata, P. Bronsveld, T. Kakitani, D. Meier, T. Kajimoto and Y. Imamura: Recycling of Chromium-Copper-Arsenate (CCA) treated wood by thermochemical conversion, 1st International Conference on Environmentally-Compatible Forest Products, 207-215 (2004)
- Ngee, P. -S., T. Yoshimura and C.-Y. Lee: Foraging populations and control strategies of subterranean termites in the urban environment, with special reference to baiting. Jpn. J. Environ. Entomol. Zool., 15, 197-215 (2004)
- Usui, H., H. Matsumoto, F. Yamashita, A. Yamamoto and Y. Omura: Antenna analysis in magnetized plasma via particle-in-cell simulation, Advances in Space Res., 34, 2433-2436(2004)
- Usui, H., H. Matsumoto, Y. Yasugi, H. Tashima and Y. Omura: PIC simulations of spacecraft charging and the neutralization process by plasma emission, Advances in Space Research, 34, 2437-2440(2004)
- Usui, H., H. Matsumoto, K. Miyata and Y. Omura: Computer experiments on electromagnetic environment of plasma sheath at conducting surface, Advances in Space Research, 34, 2441-2444(2004)
- Takano, H., I. Nagano, S. Yagitani, and H. Matsumoto: Lobe Trapped Continuum Radiation Generated in the Distant Magnetotail, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16(2004)
- Anderson, R. R., H. Matsumoto, K. Hashimoto, H. Kojima, Y. Kasaba, M. L. Kaiser, J-L. Bougeret, J-L. Steinberg, and G. Rostoker, Geotail: Polar, and wind observations of auroral kilometric radiation, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16, 205-219(2004)
- Murata, K. T., W. Kurth, K. Hashimoto, and H. Matsumoto: Occultations of Auroral Kilometric Radiation in the Vicinity of the Earth, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16, 220-223(2004)
- Kasaba, Y., H. Matsumoto, Y. Omura, and T. Mukai: 2fp Radio source in Geotail observations and numerical simulations ~Microscopic view~, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16, 247-250(2004)
- Shin, K., H. Kojima, H. Matsumoto, and T. Mukai: Electrostatic Quasi-monochromatic Waves Downstream of the Bow Shock: GEOTAIL Observations, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16, 293-296(2004)
- Ishisaka, K., T. Okada, H. Hayakawa, T. Mukai, and H. Matsumoto: Application of spacecraft potential to investigate the distribution of low-energy plasma in magnetosphere, Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, 16, 75-78(2004)
- Krasovsky, V. L., H. Matsumoto, and Y. Omura: Effect of trapped-particle deficit and structure of localized electrostatic perturbations of different dimensionality, J. Geophys. Res., 109 (2004)

PUBLICATIONS

- Umeda, T., Y. Omura, and H. Matsumoto: Two-dimensional particle simulation of electromagnetic field signature associated with electrostatic solitary waves, *J. Geophys. Res.*, 109, A02207-1-A02207-10(2004)
- Green, J. L., S. Boardsen, S. F. Fung, H. Matsumoto, K. Hashimoto, R. R. Anderson, B. R. Sandel, and B. W. Reinisch: Association of kilometric continuum radiation with plasmaspheric structures, *J. Geophys. Res.*, 109, A03203-1-A03203-7(2004)
- Deng, X. H., H. Matsumoto, H. Kojima, T. Murata, R. R. Anderson, W. Baumjohann, and R. Nakamura: Geotail encounter with reconnection diffusion region in the Earth's magnetotail: Evidence of multiple X lines collisionless reconnection?, *J. Geophys. Res.*, 109, A05206-1-A05206-9(2004)
- Imhof, W. L., S. M. Petrinec, R. R. Anderson, M. Walt, J. Mobilia, and H. Matsumoto: Correlations between low-frequency and high-frequency auroral kilometric radiation plasma wave intensity bursts and X rays in the auroral zone, *J. Geophys. Res.*, 109, A09204-1-A09204-12(2004)
- Shinohara, N., H. Matsumoto, K. Hashimoto, Phase-Controlled Magnetron Development for SPORTS : Space Power Radio Transmission System: The Radio Science Bulletin, 29-35, 2004.
- Sasaki, S., K. Tanaka, S. Kawasaki, N. Shinohara, K. Higuchi, N. Okuzumi, K. Senda, K. Ishimura, and USEF SSPS Study Team: Conceptual Study of SSPS Demonstration Experiment, The Radio Science Bulletin, 9-14, 2004.
- Hashimoto, K., K. Tsutsumi, H. Matsumoto, and N. Shinohara: Space Solar Power System Beam Control with Spread Spectrum Pilot Signals, The Radio Science Bulletin, 31-37(2004)
- Matsumoto, H., M. Iwata, and T. Sugiyama: Generation mechanism of electrostatic waves in the upstream and shock transition regions of quasi-parallel shocks, *J. Geophys. Res.*, in press (2004)