
PUBLICATIONS

Publications in 2013
(Articles in English published in refereed journals)

- Abe K, Ifuku S, Kawata M, Yano H, "Preparation of tough hydrogels based on β -chitin nanofibers via NaOH treatment", *Cellulose*, vol.21, no.1, pp.535-540, 2014.
- Ando D, Nakatsubo F, Takano T, Nishimura H, Katahira M, Yano H, "Multi-step degradation method for β -O-4 linkages in lignins: γ -TTSA method. Part 2: Reaction of lignin model polymer (DHP)", *Holzforschung*, vol.67, no.3, pp.249–256, 2013.
- Ando D, Nakatsubo F, Takano T, Nishimura H, Katahira M, Yano H, "Multi-step degradation method for β -O-4 linkages in lignins: γ -TTSA method. Part 3. Degradation of milled wood lignin (MWL) from *Eucalyptus globulus*", *Holzforschung*, vol.67, no.8, pp.835–841, 2013.
- Bhatnagar R, Panwar V, Shibagaki Y, Hashiguchi H, Fukao S, Koza T, Takahashi M, Dhaka SK, "Hourly radiosonde observation of humidity and temperature and high resolution vertical wind using the Equatorial Atmosphere Radar during convection over Koto Tabang, Indonesia in CPEA-II campaign", *Indian Journal of Radio and Space Physics*, vol.42, pp.277-291, 2013.
- Chen JS, Su CL, Chu YH, Kuong RM, Furumoto J, "Measurement of range-weighting function for range imaging of VHF atmospheric radars using range oversampling", *Journal of Atmospheric and Oceanic Technology*, vol.37, pp.47-61, 2014.
- Chen W, Abe K, Uetani K, Yu H, Liu Y, Yano H, "Individual cotton cellulose nanofibers: pretreatment and fibrillation technique", *Cellulose*, vol.21, no.3, pp.1517-1528, 2014.
- Colussi AJ, Enami S, Yabushita A, Hoffmann MR, Liu W, Mishra H, Goddard WA, "Tropospheric aerosol as a reactive intermediate", *Faraday Discussions*, vol.165, pp.407-420, 2013.
- Ebihara Y, Tanaka T, "Fundamental properties of substorm-time energetic electrons in the inner magnetosphere", *Journal of Geophysical Research*, 118, 1589-1603, DOI: 10.1002/jgra.50115, 2013.
- Enami S, "Atmospheric chemistry of biogenic terpenes: Elucidating the mechanism of heterogeneous reactions", *Aroma Research*, vol.15, pp.68-71, 2014, (in Japanese).
- Enami S, Colussi AJ, "Ion-specific long-range correlations on interfacial water driven by hydrogen bond fluctuations", *The Journal of Physical Chemistry B*, vol.118, pp.1861-1866, 2014.
- Enami S, Colussi AJ, "Long-range Hofmeister effects of anionic and cationic amphiphiles", *The Journal of Physical Chemistry B*, vol.117, pp.6276-6281, 2013.
- Enami S, Colussi AJ, "Long-range specific ion-ion interactions in hydrogen-bonded liquid films", *The Journal of Physical Chemistry*, vol.138, pp.184706(1-6), 2013.
- Enami S, Sakamoto Y, Colussi AJ, "Fenton chemistry at aqueous interfaces", *Proceedings of the National Academy of Sciences of the United States of America*, vol.111, pp.623-628, 2014.
- Endo R, Sugiyama J. "Evaluation of cell wall reinforcement in feather keratin-treated waterlogged wood as imaged by synchrotron X-ray microtomography (μ XRT) and TEM", *Holzforschung*, vol.67, no.7, pp.795-803, 2013.

PUBLICATIONS

- Fujii Y, Fujiwara Y, Yanase Y, Mori T, Yoshimura T, Nakajima M, Tsusumi H, Mori M, Kurisaki H, "Development of radar apparatus for scanning of wooden-wall to evaluate inner structure and bio-degradation non-destructively", *Advanced Materials Research*, vol.778, pp.289-294, 2013.
- Funaki I, Kajimura Y, Ashida Y, Nishida H, Oshio Y, Shinohara I, Yamakawa H, "The use of dipole plasma equilibrium for magnetic sail spacecraft", *Transactions of Fusion Science and Technology*, vol.63, no.1, pp.168-171, 2013.
- Fung SF, Hashimoto K, Kojima H, Boardson SA, Garcia LN, Matsumoto H, Green JL, Reinisch B, "Terrestrial myriametric radio burst observed by IMAGE and Geotail satellites", *Journal of Geophysical Research*, doi:10.1002/jgra.50149, 2013.
- Goel A, Panwar V, Hashiguchi H, Dhaka SK, "Observed change in association of temperature with solar activity in upper troposphere and lower stratosphere after 1977", *Indian Journal of Radio and Space Physics*, vol.42, pp.309-319, 2013.
- Grison B, Santolik O, Cornilleau-Wehrin N, Masson A, Engebretson MJ, Pickett JS, Omura Y, Robert P, Nomura R, "EMIC triggered chorus emissions in Cluster data", *Journal of Geophysical Research*, vo.118, doi:10.1002/jgra.50178, 2013.
- Hara K, Hayashi M, Yabuki M, Shiobara M, Nishita-Hara C, "Simultaneous aerosol measurements of unusual aerosol enhancement in troposphere over Syowa Station, Antarctica", *Atmospheric Chemistry and Physics*, vol.14, pp.4169-4183, 2014.
- Hasebe F, Inai Y, Shiotani M, Fujiwara M, Vomel H, Nishi N, Ogino SY, Shibata T, Iwasaki S, Komala N, Peter T, Oltmans SJ, "Cold trap dehydration in the Tropical Tropopause Layer characterized by SOWER chilled-mirror hygrometer network data in the Tropical Pacific", *Atmospheric Chemistry and Physics*, vol.13, pp.4393-4411, 2013.
- Hassel BI, Kitamori A, Kiho J, Komatsu K, "Prefabricated mud wall units based on a traditional Japanese building system: Lateral performance in terms of connection, and crack development using digital speckle photography", *International Journal of Sustainable Built Environment*, vol.2, no.1, pp.1-9, 2013.
- Himmi SK, Tarmadi D, Ismayati M, Yusuf S, "Bioefficacy performance of neem-based formulation on wood protection and soil barrier against subterranean termite, *Coptotermes gestroi* Wasmann (Isoptera: Rhinotermitidae)", *Procedia Environmental Sciences*, vol.17, pp.135-141, 2013.
- Horikawa Y, Konakahara N, Imai T, Kentaro A, Kobayashi Y, Sugiyama J. "The structural changes in crystalline cellulose and effects on enzymatic digestibility", *Polymer Degradation and Stability*, vol.98, no.11, pp.2351-2356, 2013.
- Horikawa Y, Sugiyama J, "Chemical and structural analysis of the "Ceiling" phenomena in saccharification at low enzyme loading", *Seibutsu-kogaku Kaishi*, vol.91, pp.561-564, 2013 (in Japanese).
- Imai K, Fujiwara M, Inai Y, Manago N, Suzuki M, Sano T, Mitsuda C, Naito Y, Hasebe F, Koide T, Shiotani M, "Comparison of ozone profiles between Superconducting Submillimeter-Wave Limb-Emission Sounder and worldwide ozonesonde measurements", *Journal of Geophysical Research*, vol.118, pp.12755-12765, 2013.

PUBLICATIONS

- Imai K, Manago N, Mitsuda C, Naito Y, Nishimoto E, Sakazaki T, Fujiwara M, Froidevaux L, von Clarmann T, Stiller GP, Donal M, Rong P, Mlynczak MG, Walker KA, Kinnison D, Akiyoshi H, Nakamura T, Nishibori T, Mizobuchi S, Ochiai S, Kikuchi K, Ozeki H, Takahashi C, Hayashi H, Sano T, Suzuki M, Takayanagi M, Shiotani M, "Validation of ozone data from the Superconducting Submillimeter-Wave Limb-Emission Sounder (SMILES)", *Journal of Geophysical Research*, vol.118, pp.5750-5769, 2013.
- Inai Y, Aoki S, Honda H, Hasebe F, Uematsu M, "Operation of sonde observations based at R/V Hakuho Maru in the "EqPOS" cruise", JAXA Research and Development Report, JAXA-RR-13-011, pp.61-70, 2014 (in Japanese).
- Inai Y, Hasebe F, Fujiwara M, Shiotani M, Nishi N, Ogino SY, Voemel H, Iwasaki S, Shibata T, "Dehydration in the tropical tropopause layer estimated from the water vapor match", *Atmospheric Chemistry and Physics*, vol.13, pp.8623-8642, 2013.
- Indrayani Y, Setyawati D, Yoshimura T, Umemura K, "Mechanical and physical properties of medium density fiberboard produce from renewable biomass of agricultural fiber", *International Journal on Advanced Science, Engineering and Information Technology*, vol.3, no.3, pp.66-68, 2013.
- Iwata H, Kosugi Y, Ono K, Mano M, Sakabe A, Miyata A, Takahashi K, "Cross-validation of the open-path and closed-path eddy covariance techniques for observing methane flux", *Boundary-Layer Meteorology*, vol.151, no.1, pp.95-118, 2014.
- Kakad A, Omura Y, Kakad B, "Experimental evidence of ion acoustic soliton chain formation and validation of nonlinear fluid theory", *Physics of Plasmas*, vol.20, pp.062103, 2013.
- Karamat F, Olry A, Munakata R, Koeduka T, Sugiyama A, Paris C, Hehn A, Bourgaud F, Yazaki K, "A coumarin-specific prenyltransferase catalyzes the crucial biosynthetic reaction for furanocoumarin formation in parsley", *The Plant Journal*, vol.77, pp.627-638, 2014.
- Kartika T, Yoshimura T, "Nutritional quality of diet and fecundity in *Lyctus africanus* (Lesne)", *Procedia Environmental Sciences*, vol.17, pp.97-104, 2013.
- Kashimura K, Sabelstrom N, Imazeki K, Takeda K, Hayashi M, Mitani T, Shinohara N, Nagata K, "Quasi-stable temperature of the steady state of microwave heated hematite", *Chemical Engineering and Processing*, vol.76, pp.1-5, 2014.
- Katoh Y, Kitahara M, Kojima H, Omura Y, Kasahara S, Hirahara M, Miyoshi Y, Seki K, Asamura K, Takashima T, Ono T, "Significance of wave-particle interaction analyzer for direct measurements of nonlinear wave-particle interactions", *Annals of Geophysics*, doi:10.5194/angeo-31-503-2013, 2013.
- Katoh Y, Omura Y, "Effect of the background magnetic field inhomogeneity on generation processes of whistler-mode chorus and broadband hiss-like emissions", *Journal of Geophysical Research*, vol.118, pp.4189-4198, doi: 10.1002/jgra.50395, 2013.
- Khosravi M, Baron P, Urban J, Froidevaux L, Jonsson AI, Kasai Y, Kuribayashi K, Mitsuda C, Murtagh DP, Sagawa H, Santee ML, Sato TO, Shiotani M, Suzuki M, von Clarmann T, Walker KA, Wang S, "Diurnal variation of stratospheric and lower mesospheric HOCl, ClO and HO₂ at the equator: comparison of 1-D model calculations with measurements by satellite instruments", *Atmospheric Chemistry and Physics*, vol.13, pp.7587-7606, 2013.

PUBLICATIONS

- Kijima M, Watanabe M, "Creation of nano-structured carbon using organic and polymeric materials", *Journal of the Imaging Society of Japan*, vol.54, no.1, 61-70, 2014 (in Japanese).
- Kinrade J, Mitchell C, Smith N, Ebihara Y, Weatherwax AT, Bust G, "GPS phase scintillation associated with optical auroral emissions: First statistical results from the geographic South Pole", *Journal of Geophysical Research: Space Physics*, vol.118, pp.2490-2502, doi:10.1002/jgra.50214, 2013.
- Kitamori A, Nomura M, Inayama M, Gotou M, "Estimation method of tensile performance of the shear keyed joint in traditional column to beam joints: The mechanical characteristics of traditional column to beam joints using spline and inclined shear keys (Part 1)", *Journal of Structural and Construction Engineering (Transaction of AIJ)*, vol.79, no.695, pp.93-102, 2014 (in Japanese).
- Koeduka T, Suzuki S, Iijima Y, Ohnishi T, Suzuki H, Watanabe B, Shibata D, Umezawa T, Pichersky E, Hiratake J, "Enhancement of production of eugenol and its glycosides in transgenic aspen plants via genetic engineering", *Biochemical and Biophysical Research Communications*, vol.436, pp.73-78, 2013.
- Kojima H, "Plasma wave receivers onboard scientific satellites", *An introduction to Space Instrumentation*, ed. K. Oyama and F. Cheng, pp.227-240, 2013.
- Koshiba T, Hirose N, Mukai M, Yamamura M, Hattori T, Suzuki S, Sakamoto M, Umezawa T, "Characterization of 5-hydroxyconiferaldehyde O-methyltransferase in *Oryza sativa*", *Plant Biotechnology*, vol.30, pp.157-167, 2013.
- Koshiba T, Murakami S, Hattori T, Mukai M, Takahashi A, Miyao A, Hirochika H, Suzuki S, Sakamoto M, Umezawa T, "CAD2 deficiency causes both brown midrib and gold hull and internode phenotypes in *Oryza sativa* L. cv. Nipponbare", *Plant Biotechnology*, vol.30, pp.365-373, 2013.
- Koshiro T, Shiotani M, "Relationship between low stratiform cloud amount and estimated inversion strength in the lower troposphere over the global ocean in terms of cloud types", *Journal of the Meteorological Society of Japan*, vol.92, no.1, pp.107-120, 2014.
- Koyanaka H, Ueda Y, Takeuchi K, Kolesnikov AI, "Effect of crystal structure of manganese dioxide on response for electrolyte of a hydrogen sensor operative at room temperature", *Sensors & Actuators: B. Chemical*, vol.183, no.5, pp.641-647, ISSN 0925-4005, 10.1016/j.snb.2013.03.074, 2013.
- Kumar S, Anandan VK, Tsuda T, Furumoto J, Reddy ChG, "Improved performance in horizontal wind estimation using a spaced antenna drift technique and signal processing approaches", *IEEE Transactions on Geoscience and Remote Sensing*, vol.57, pp.3056-3062, 2013.
- Kuroyanagi A, Kusunoki T, Inayama M, Isoda H, Kamachi K, Kitamura T, Suzuki S, "Experimental study on wood-concrete composite beams as simple beam: Proposal of design method for wood-concrete composite beams (Part 1)", *Journal of Structural and Construction Engineering (Transaction of AIJ)*, vol.79, no.697, pp.393-400, 2014 (in Japanese).
- Lee KH, Omura Y, Lee LC, "Electron acceleration by Z-mode and whistler-mode waves", *Physics of Plasmas*, vol.20, pp.112901; doi: 10.1063/1.4829439, 2013.

PUBLICATIONS

- Lenz M, Kard B, Creffield JW, Evans TA, Brown KS, Freytag ED, Zhong JH, Lee CY, Yeoh BH, Yoshimura T, Tsunoda K, Vongkaluang C, Sornnuwat Y, Roland TA Sr, De Santi MP, "Ability of field populations of *Coptotermes* spp, *Reticulitermes flavipes*, and *Mastotermes darwiniensis* (Isoptera: Rhinotermitidae; Mastotermitidae) to damage plastic cable sheathings", *Journal of Economic Entomology*, vol.106, no.3, pp.1395-1403, 2013.
- Magli G, Realini E, Reguzzoni M, Sampietro D, "Uncovering a masterpiece of Roman engineering: the project of Via Appia between Colle Pardo and Terracina", *Journal of Cultural Heritage*, DOI: 10.1016/j.culher.2013.11.014, 2014.
- Marzuki M, Hashiguchi H, Yamamoto MK, Mori S, Yamanaka MD, "Regional variability of raindrop size distribution over Indonesia", *Annales Geophysicae*, vol.31, no.11, pp.1941-1948, 2013.
- Matsuo M, Umemura K, Kawai S, "Kinetic analysis of color changes in keyaki (*Zelkova serrata* Makino) and sugi (*Cryptomeria Japonica* D.Don) wood during heat treatment", *Journal of Wood Science*, vol.60, no.1, pp.12-20, 2014.
- Mehta SK, Ratnam MV, Krishna Murthy BV, "Characteristics of the multiple tropospheres in the tropics", *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.95, pp.78-86, 2013.
- Millan L, Read W, Kasai Y, Lambert A, Livesey N, Mendrok J, Sagawa H, Sano T, Shiotani M, Wu D, "SMILES Ice Cloud Products", *Journal of Geophysical Research*, vol.118, pp.6468-6477, 2013.
- Mitani S, Yamakawa H, "Continuous-thrust transfer under constraints on control magnitude and direction using smoothing techniques", *Journal of Guidance, Control, and Dynamics*, vol.36, pp.163-174, 10.2514/1.56882, 2013.
- Miyasaka J, Ohdoi K, Watanabe M, Nakashima H, Oida A, Shimizu H, Hashimoto K, Shinohara N, Mitani T, "Control for microwave-driven agricultural Vvehicle - Tracking system of parabolic transmitting antenna and vehicle rectenna panel -", *Engineering in Agriculture, Environment and Food*, vol.6, no.3, pp.135-140, 2013.
- Miyoshi Y, Katoh Y, Kojima H, Hikishima M, "Study on the generation mechanism of relativistic electrons due to wave-particle interactions in the radiation belts via spacecraft observation", *Journal of Plasma and Fusion Research*, 89, 535-543, 2013 (in Japanese).
- Mori T, Yanase Y, Tanaka K, Kawano K, Noda Y, Mori M, Kurisaki H, Komatsu K, "Evaluation of compression and bending strength properties of wood damaged from bio-deterioration", *Journal of the Society of Materials Science, Japan*, vol.62, no.4, pp.208-285, 2013 (in Japanese).
- Morioka A, Miyoshi Y, Kurita S, Kasaba Y, Angelopoulos V, Misawa H, Kojima H, McFadden JP, "Universal time control of AKR: Earth is a spin-modulated variable radio source", *Journal of Geophysical Research*, doi:10.1002/jgra.50180, 2013.
- Nagaoka S, Isoda H, "Establishment and accuracy of seismic response estimation of wooden houses by the equivalent linearization technique", *Journal of JAEE (Japanese earthquake Japan Federation of Engineering Societies memoir)*, vol.13, no.3, pp.3_1-3_13, 2013 (in Japanese).
- Nagasaki Y, Nakamura T, Funaki I, Ashida Y, Yamakawa H, "Conceptual design of YBCO coil with large magnetic moment for space application", *IEEE Transactions on Applied Superconductivity*, vol.23, Issue 3, Part 2, DOI: 10.1109/TASC.2013.2243791, 2013.

PUBLICATIONS

- Nagasaki, Y, Nakamura, T, Funaki, I, Ashida, Y, Kojima, H, and Yamakawa, H, "Coupled-analysis of Current Transport Performance and Thermal Behaviour of Conduction-cooled Bi-2223/Ag Double-pancake Coil for Magnetic Sail Spacecraft", *Physica C: Superconductivity and its Applications*, vol.492, pp.96-102, 2013.
- Nakagawa M, Isoda H, Kawai N, Koshihara M, Araki Y, "Shaking table tests of horizontal composite structure of reinforced concrete and timber frame", *Journal of Structural and Construction Engineering (Transaction of AIJ)*, vol.79, no.697, pp.401-410, 2014 (in Japanese).
- Nakai T, Sugano Y, Shoda M, Sakakibara H, Oiwa K, Tuzi S, Imai T, Sugiyama J, Takeuchi M, Yamauchi D, Mineyuki Y, "Formation of highly twisted ribbons in a strain of a cellulose-producing bacterium, carboxymethylcellulase gene-disrupted", *Journal of Bacteriology*, vol.195, no. 5, pp.958-964, 2013.
- Nakashima S, Kitamori A, Komatsu K, "Evaluation of tensile performance of drift pinned joint with steel plate on cross laminated timber", *Journal of Structural and Construction Engineering (Transaction of AIJ)*, vol.78, no.687, pp.969-975, 2013 (in Japanese).
- Nakashima S, Kitamori A, Mori T, Komatsu K, "Propose alternative design criteria for dowel type joint with CLT", *Materials and Joints in Timber Structures, RILEM Bookseries volume 9*, pp.739-748, 2014.
- Nakashima S, Kitamori A, Que X, Komatsu K, Komatsu K, "Evaluation of in-plane shear performance of cross laminated timber shear wall with drift pinned leg joint", *Journal of structural engineering*, vol.59B, pp.529-536, 2013 (in Japanese).
- Nishimoto E, Shiotani M, "Intraseasonal variations in the tropical tropopause temperature revealed by cluster analysis of convective activity", *Journal of Geophysical Research*, vol.118, pp.3545-3556, 2013.
- Nishimura T, Bortnik J, Li W, Thorne RM, Ni B, Lyons LR, Angelopoulos V, Ebihara Y, Bonnell JW, Le Contel O, Auster HU, "Structures of dayside whistler-mode waves deduced from conjugate diffuse aurora", *Journal of Geophysical Research*, vol.118, no.2, pp.664-673, doi:10.1029/2012JA018242, 2013.
- Nishino MN, Fujimoto M, Saito Y, Tsunakawa H, Kasahara Y, Kawamura M, Matsushima M, Takahashi F, Shibuya H, Shimizu H, Goto Y, Hashimoto K, Omura Y, Kumamoto A, Ono T, Yokota S, "Type-II entry of solar wind protons into the lunar wake: Effects of magnetic connection to the night-side surface", *Planetary and Space Science*, vol.87, pp.106-114, 2013.
- Nishiwaki-Akine Y, Watanabe T, "Dissolution of wood in α -keto acid and aldehydic carboxylic acids and fractionation at room temperature", *Green Chemistry*, vol.16, no.7, pp.3569-3579, 2014.
- Noda S, Takahashi Y, Tsurumaki Y, Yamamura M, Nishikubo N, Yamaguchi M, Sakurai N, Hattori T, Suzuki H, Demura T, Shibata D, Suzuki S, Umezawa T, "ATL54, a RING-H2 domain protein selected by a gene co-expression network analysis, is associated with secondary cell wall formation in *Arabidopsis*", *Plant Biotechnology*, vol.30, pp.169-177, 2013.
- Noda S, Yamaguchi M, Tsurumaki Y, Takahashi Y, Nishikubo N, Hattori T, Demura T, Suzuki S, Umezawa T, "ATL54, a ubiquitin ligase gene related to secondary cell wall formation, is transcriptionally regulated by MYB46", *Plant Biotechnology*, vol.30, pp.503-509, 2013.

PUBLICATIONS

- Noda Y, Mori T, Komatsu K, "Estimation of Joint strength of Large-Finger-Jointed Glued Laminated Timber", *Journal of the Society of Materials Science, Japan*, vol.62, no.4, pp.274-279, 2013 (in Japanese).
- Nonaka S, Umemura K, Kawai S, "Characterization of bagasse binderless particleboard manufactured in high temperature range", *Journal of Wood Science*, vol.59, no.1, pp.50-56, 2013.
- Ogino SY, Fujiwara M, Shiotani M, Hasebe F, Matsumoto J, Hoang Thuy Ha T, Nguyen Tan Thanh T, "Ozone variations over the northern subtropical region revealed by ozonesonde observations in Hanoi", *Journal of Geophysical Research*, vol.118, pp.3245-3257, 2013.
- Ohara K, Mito K, Yazaki K, "Homogeneous purification and characterization of LePGT1 - a membrane-bound aromatic substrate prenyltransferase involved in secondary metabolism of *Lithospermum erythrorhizon*", *Biological and Pharmaceutical Bulletin*, vol.280, pp.2572-1580, 2013.
- Omura Y, Zhao Q, "Relativistic electron microbursts due to nonlinear pitch-angle scattering by EMIC triggered emissions", *Journal of Geophysical Research*, vol.118, pp.5008-5020, doi: 10.1002/jgra.50477, 2013.
- Oramahi HA, Yoshimura T, "Antifungal and antitermite activities of wood vinegar from *Vitex pubescens* Vahl", *Journal of Wood Science*, vol.59, no.4, pp.344-350, 2013.
- Oshida K, Murata M, Fujiwara K, Itaya T, Yanagisawa T, Kimura K, Nakazawa T, Kim YA, Endo M, Kim BH, Yang KS, "Structural analysis of nano structured carbon by transmission electron microscopy and image processing", *Applied Surface Science*, vol.275, pp.409-412, 2013.
- Otsuka Y, Mizutani N, Shiokawa K, Patra A, Yokoyama T, Yamamoto M, "Study on drift velocity of field aligned irregularity at 150 km altitude using the Equatorial Atmosphere Radar", *Antarctic Record*, vol.57, no.3, pp.369-378, 2013 (in Japanese).
- Ozaki M, Yagitani S, Kojima H, Takahashi K, Kitagawa A, "Current-sensitive CMOS preamplifier for investigating space plasma waves by magnetic search coils", *IEEE sensors journal*, vol.14, pp.421-429, 2013.
- Parrish A, Boyd IS, Nedoluha GE, Bhartia PK, Frith SM, Kramarova NA, Connor BJ, Bodeker GE, Froidevaux L, Shiotani M, Sakazaki T, "Diurnal variations of stratospheric ozone measured by ground-based microwave remote sensing at the Mauna Loa NDACC site: measurement validation and GEOSCCM model comparison", *Atmospheric Chemistry and Physics Discussions*, vol.13, pp.31855-31890, 2013.
- Prikryl P, Zhang Y, Ebihara Y, Ghoddousi-Fard R, Jayachandran PT, Kinrade J, Mitchell CN, Weatherwax AT, Bust G, Cilliers PJ, Spogli L, Alfonsi L, Romano V, Ning B, Li G, Jarvis MJ, Danskin DW, Spanswick E, Donovan E, Terkildsen M, "An interhemispheric comparison of GPS phase scintillation with auroral emission observed at the South Pole and from the DMSP satellite", *Annals of Geophysics*, vol.56, no.2, R0216, doi:10.4401/ag-6227, 2013.
- Ragamustari SK, Nakatsubo T, Hattori T, Ono E, Kitamura Y, Suzuki S, Yamamura M, Umezawa T, "A novel O-methyltransferase involved in the first methylation step of yatein biosynthesis in *Anthriscus sylvestris*", *Plant Biotechnology*, vol.30, pp.375-384, 2013.

PUBLICATIONS

- Ragamustari SK, Shiraiwa N, Hattori T, Nakatsubo T, Suzuki S, Umezawa T, "Characterization of three cinnamyl alcohol dehydrogenases from *Carthamus tinctorius*", *Plant Biotechnology*, vol.30, pp.315-326, 2013.
- Realini E, Reguzzoni M, "goGPS: open source software for enhancing the accuracy of low-cost receivers by single-frequency relative kinematic positioning", *Measurement Science and Technology*, vol.24, pp.115010, 2013.
- Sakaguchi K, Kasahara Y, Shoji M, Omura Y, Miyoshi Y, Nagatsuma T, Kumamoto A, Matsuoka A, "Akebono observations of EMIC waves in the slot region of the radiation belts", *Geophysical Research Letters*, vol.40, doi: 10.1002/2013GL058258, 2013.
- Sakazaki T, Fujiwara M, Mitsuda C, Imai K, Manago N, Naito Y, Nakamura T, Akiyoshi H, Kinnison D, Sano T, Suzuki M, Shiotani M, "Diurnal ozone variations in the stratosphere revealed in observations from the Superconducting Submillimeter-Wave Limb-Emission Sounder (SMILES) on board the International Space Station (ISS)", *Journal of Geophysical Research*, vol.118, pp.2991-3006, 2013.
- Sakazaki T, Fujiwara M, Zhang X, "Interpretation of the vertical structure and seasonal variation of the diurnal migrating tide from the troposphere to the lower mesosphere", *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.105-106, pp.66-80, 2013.
- Sakurai T, Narita E, Shinohara N, Miyakoshi J, "Alteration of gene expression by exposure to a magnetic field at 23 kHz is not detected in astroglia cells", *Journal of Radiation Research*, vol.54, no.6, pp.1005-1009, 2013.
- Shinbori A, Hori T, Tanaka Y, Koyama Y, Kikuchi T, Nagatsuma T, "Global distributions of storm-time ionospheric currents as seen in geomagnetic field variations", *Advances in Polar Science*, vol.24, pp.296-314, 2013.
- Shinohara N, "Beam control technologies with a high-efficiency phased array for microwave power transmission in Japan", *Proceeding of IEEE*, vol.101, no.6, pp.1448-1463, 2013.
- Shinohara N, "Rectennas for microwave power transmission", *IEICE Electronics Express*, vol.10, no.21, pp.20132009, 2013.
- Shitan N, Dalmas F, Dan K, Kato N, Ueda K, Sato F, Forestier C, Yazaki K, "Characterization of *Coptis japonica* CjABC2, an ATP-binding cassette protein involved in alkaloid transport", *Phytochemistry*, vol.91, pp.109-116, 2013.
- Shitan N, Sugiyama A, Yazaki K, "Chapter 19: Functional analysis of jasmonic acid-responsive secondary metabolite transporters", *Methods in Molecular Biology*, vol.1011, pp.241-250, 2013.
- Shitan N, Yazaki K, "New insights into the transport mechanisms in plant vacuoles", *International Review of Cell and Molecular Biology*, vol.305, pp.383-433, 2013.
- Shoji M, Omura Y, "Triggering process of electromagnetic ion cyclotron rising tone emissions in the inner magnetosphere", *Journal of Geophysical Research*, vol.118, pp.5553-5561, doi:10.1002/jgra.50523, 2013.

PUBLICATIONS

- Smith AK, Harvey VL, Mlynczak MG, Funke B, Garcia-Comas M, Hervig M, Kaufmann M, Kyröla E, Lopez-Puertas M, McDade I, Randall CE, Russell JM, Sheese PE, Shiotani M, Skinner WR, Suzuki M, Walker KA, "Satellite observations of ozone in the upper mesosphere", *Journal of Geophysical Research*, vol.118, pp.5803-5821, 2013.
- Sonobe T, Hachiya, K, Mitani, T, Shinohara, N, Ohgaki H, "Delayed luminescence from ZnO ceramics upon microwave-induced plasma emission", *Journal of Physics and Chemistry of Solids*, vol.74, no.6, pp.837-840, 2013.
- Stachnik RA, Millan, Jarnot R, Monroe R, McLinden C, Kuhl S, Pukite J, Shiotani M, Suzuki M, Kasai Y, Goutail F, Pommereau JP, Dorf M, Pfeilsticker K, "Stratospheric BrO abundance measured by a balloon-borne submillimeterwave radiometer", *Atmospheric Chemistry and Physics*, vol.13, pp.3307-3319, 2013.
- Sugita T, Kasai Y, Terao Y, Hayashida S, Manney GL, Daffer WH, Sagawa H, Suzuki M, Shiotani M, Walker KA, Boone CD, Bernath PF, "HCl and ClO profiles inside the Antarctic vortex as observed by SMILES in November 2009: comparisons with MLS and ACE-FTS instruments", *Atmospheric Measurement Techniques*, vol.6, pp.3099-3113, 2013.
- Summers D, Tang R, Omura Y, Lee DH, "Parameter spaces for linear and nonlinear whistler-mode waves", *Physics of Plasmas*, vol.20, 072110; doi: 10.1063/1.4816022, 2013.
- Sureshbabu VN, Anandan VK, Tsuda T, Furumoto J, Rao SV, "Performance analysis of optimum tilt angle and beam configuration to derive horizontal wind velocities by postset beam steering technique", *IEEE Transactions on Geoscience and Remote Sensing*, vol.51, no.1, pp.520-526, 2013.
- Sureshbabu VN, Anandan VK, Tsuda T, Furumoto J, Rao SV, "Denoising atmospheric radar signals using spectral-based subspace method applicable for PBS wind estimation", *IEEE Transactions on Geoscience and Remote Sensing*, vol.57, pp.3853-3861, 2013.
- Suzuki K, Sato A, Okumura H, Hashimoto T, Nakagaito AN, Yano H, "Novel high-strength, micro fibrillated cellulose-reinforced polypropylene composites using a cationic polymer as compatibilizer", *Cellulose*, vol.21, no.1, pp.507-518, 2014.
- Suzuki S, Suzuki H, "Recent advances in forest tree biotechnology", *Plant Biotechnology*, vol.31, pp.1-9, 2014.
- Takahashi M, Yoshioka K, Imai T, Miyoshi Y, Nakano Y, Yoshida K, Yamashita T, Furuta Y, Watanabe T, Sugiyama J, Takeda T, "Degradation and synthesis of beta-glucans by a *Magnaporthe oryzae* endotransglucosylase, a member of the glycoside hydrolase 7 family", *The Journal of Biological Chemistry*, vol.288, no.19, pp.13821-13830, 2013.
- Takanashi K, Yokosho K, Saeki K, Sugiyama A, Sato S, Tabata S, Ma JF, Yazaki K, "LjMATE1, a citrate transporter responsible for iron supply to nodule infection zone of *Lotus japonicus*", *Plant and Cell Physiology*, vol.54, pp.585-594, 2013.
- Tanaka K, Kojima R, Takahashi K, Tonokura K, "Continuous measurements of stable carbon isotopes in CO₂ with a near-IR laser absorption spectrometer", *Infrared Physics and Technology*, vol.60, pp.281-287, 2013.

PUBLICATIONS

- Tanaka K, Takahashi K, Tonokura K, Sugiyama H, Nakano N, Nakano Y, "Detection of stable carbon isotopes of methane with a 2.4-mm distributed feedback laser", *Journal of Quantitative Spectroscopy and Radiative Transfer*, vol.133, pp.670-674, 2014.
- Tanaka Y, Shinbori A, Hori T, Koyama Y, Abe S, Umemura N, Sato Y, Yagi M, Ueno S, Yatagai A, Ogawa Y, Miyoshi Y, "Analysis software for upper atmospheric data developed by the IUGONET project and its application to polar science", *Advances in Polar Science*, vol.24, pp.231-240, 2013.
- Tascioglu C, Umemura K, Yoshimura T, Tsunoda K, "Biological performance of zinc borate-incorporated particleboard: Effects of leaching on efficacy", *Composites: Part B*, vol.57, pp.31-34, 2014.
- Tascioglu C, Yoshimura T, Tsunoda K, "Biological performance of wood-plastic composites containing zinc borate: Laboratory and 3-year field test results", *Composites: Part B*, vol.51, pp.185-190, 2013.
- Thorne PW, Vomel H, Bodeker G, Sommer M, Apituley A, Berger F, Bojinski S, Braathen G, Calpini B, Demoz B, Diamond HJ, Dykema J, Fasso A, Fujiwara M, Gardiner T, Hurst D, Leblanc T, Madonna F, Merlone A, Mikalsen A, Miller CD, Reale T, Rannat K, Richter C, Seidel DJ, Shiotani M, Sisterson D, Tan DGH, Vose RS, Voyles J, Wang J, Whiteman DN, Williams S, "GCOS reference upper air network (GRUAN): Steps towards assuring future climate records", *AIP Conference Proceedings*, vol.1552, pp.1042-1047, 2013.
- Tsubaki S, Hiraoka M, Hadano S, Nishimura H, Kashimura K, Mitani T, "Functional group dependent dielectric properties of sulfated hydrocolloids extracted from green macroalgal biomass", *Carbohydrate Polymers*, vol.107, no.17, pp.192-197, 2014.
- Tsubaki S, Oono K, Ueda T, Onda A, Yanagisawa K, Mitani T, Azuma J, "Microwave-assisted hydrolysis of polysaccharides over polyoxometalate clusters", *Bioresource Technology*, vol.144, pp.67-73, 2013.
- Tsuda T, "Characteristics of atmospheric gravity waves observed using the MU (Middle and Upper atmosphere) radar and GPS (Global Positioning System) radio occultation", *Proceedings of the Japan Academy, Series B, Physical and Biological Sciences*, vol.90, no.1, pp.12-27, 2013.
- Tsuji S, Bando M, Yamakawa H, "Spacecraft formation flying dynamics and control using the geomagnetic lorentz force", *Journal of Guidance, Control, and Dynamics*, vol.36, pp.136-148, 10.2514/1.57060, 2013.
- Tsunoda RT, Thampi SV, Nguyen TT, Yamamoto M, "On validating the relationship of ionogram signatures", *Journal of Atmospheric and Solar-Terrestrial Physics*, vol.103, pp.30-35, 2013.
- Tsuyama T, Kawai R, Shitan N, Matoh T, Sugiyama J, Yoshinaga A, Takabe K, Fujita M, Yazaki K, "Proton-dependent coniferin transport, a common major transport event in differentiating xylem tissue of woody plants", *Plant Physiology*, vol.162, pp.918-926, 2013.
- Tulasi Ram S, Yamamoto M, Tsunoda RT, Chau HD, Hoang TL, Dantie B, Wassae M, Yatini CY, Manik T, Tsugawa T, "Characteristics of large-scale wave structure observed from African and Southeast Asian longitudinal sectors", *Journal of Geophysical Research*, vol.119, no.3, pp.2288-2297, 2014.

PUBLICATIONS

- Ueda M, Makino S, Imai T, Sugiyama J, Kimura S, "Versatile peptide rafts for conjugate morphologies by self-assembling amphiphilic helical peptides", *Polymer Journal*, vol.45, no.5, pp.509-515, 2013.
- Ueda M, Nakamura M, Kitamori A, Komatsu K, "Minute color measurement of Sugi lumber (*Cryptomeria japonica*) dried by five conditions Part I: Minute color measurement of heartwood, sapwood, earlywood, and latewood", *Mokuzai Gakkaishi*, vol.59, no.6,, pp.339-345, 2013 (in Japanese).
- Ueda Y, Tokuda Y, Fujimura S, Nihei N, Oka T, "Cesium transfer from granule conglomerate, asphalt, concrete using water-containing nanosized air bubbles", *ECS transactions*, vo.50, no.22, pp.1-6, doi:10.1149/05022.0001ecst, 2013.
- Ueda Y, Tokuda Y, Goto H, Kobayashi T, Ono Y, "Removal of radioactive Cs from nonwoven cloth with less waste solution using aqueous sodium metasilicate", *Journal of the Society for Remediation of Radioactive Contamination in the Environment*, vo.1, no.3, pp.191-195, 2013.
- Ueda Y, Tokuda Y, Goto H, Kobayashi T, Ono Y, "Removal of radioactive Cs using aqueous sodium metasilicate with reduced volumes of waste solution", *ECS transactions*, vo.58, no.19, pp.35-41, doi:10.1149/05819.0035ecst, 2013.
- Ueda Y, Tokuda Y, Nagai H, Masai H, Yoko T, "Analysis of electrochemical characteristics of organic-inorganic hybrid titanophosphite membranes", *ECS transactions*, vo.58, no.22, pp.45-52, doi:10.1149/05822.0045ecst, 2014.
- Ueda, Y, Tokuda, Y, and Zushi, T, "Electrochemical performance of ultrafine bubble water", *ECS transactions*, vol.58, no.19, pp.11-19, doi:10.1149/05819.0011ecst, 2014.
- Ueno K, Oshio Y, Funaki I, Yamakawa H, "Experimental simulation of magnetoplasma sail for thrust measurement", *Transactions of Fusion Science and Technology*, Fusion Science and Technology, vol.63, no.1, pp.392-394, 2013.
- Uesaka A, Ueda M, Makino A, Imai T, Sugiyama J, Kimura S, "Facile and precise formation of unsymmetric vesicles with using helix dipole, stereo-complex, and steric effects of peptides", *Langmuir*, vol.30, no.15, pp.4273-4279, 2014.
- Uesaka A, Ueda M, Makino A, Imai T, Sugiyama J, Kimura S, "Morphology control between twisted ribbon, helical ribbon, and nanotube self-assemblies with his-containing helical peptides in response to pH change", *Langmuir*, vol.30, no. 4, pp.1022-1028, 2014.
- Uetani K, Watanabe Y, Abe K, Yano H, "Influence of drying method and precipitated salts on pyrolysis for nanocelluloses", *Cellulose*, vol.21, no.3, pp.1631-1639, 2014.
- Ueyama M, Takai Y, Takahashi Y, Ide R, Hamotani K, Kosugi Y, Takahashi K, Saigusa N, "High-precision measurements of the methane flux over a larch forest based on a hyperbolic relaxed eddy accumulation method using a laser spectrometer", *Agricultural and Forest Meteorology*, vol.178-179, pp.183-193, 2013.
- Umemura K, Sugihara O, Kawai S, "Investigation of a new natural adhesive composed of citric acid and sucrose for particleboard", *Journal of Wood Science*, vol.59, no.3, pp.203-208, 2013.

PUBLICATIONS

- Umezawa T, Ragamustari SK, Nakatsubo T, Wada S, Li L, Yamamura M, Sakakibara N, Hattori T, Suzuki S, Chiang VL, "A lignan O-methyltransferase catalyzing the regioselective methylation of matairesinol in *Carthamus tinctorius*", *Plant Biotechnology*, vol.30, pp.97-109, 2013.
- Wakita T, Akihisa Kitamori A, Kiho J, Mori, Komatsu K, Kataoka Y, Soda S, Song S, "Evaluation of structural performance of prefabricated mud-shear wall using static and dynamic tests and damage estimation by ultrasonic measurement method", *Journal of Structural and Construction Engineering (Transaction of AIJ)*, vol.78, no.690, pp.1469-1476, 2013 (in Japanese).
- Wang H, Li D, Yano H, Abe K, "Preparation of tough cellulose II nanofibers with high thermal stability from wood", *Cellulose*, vol.21, no.3, pp.1505-1515, 2014.
- Watahabe H, Tanaka K, Mori T, Chida T, "A discussion for bending and bearing strength of decayed Ekki members", *Journal of structural Engineering*, vol.60A, pp.371-375, 2014 (in Japanese).
- Watanabe Y, Tamura S, Nakatsuka T, Tazuru S, Sugiyama J, Subiyanto B, Tsuda T, Tagami T, "Comparison of sungkai tree-ring components and meteorological data from western Java, Indonesia", *Journal of Disaster Research*, vol.18, no.1, pp.95-103, 2013.
- Widyorini R, Yudha AP, Isnain R, Awaludin A, Prayitno TA, Ngadianto A, Umemura K, "Improving the physico-mechanical properties of eco-friendly composite made from bamboo", *Advanced Material Research*, vol.896, pp.562-565, 2013.
- Wilson R, Luce H, Hashiguchi H, Shiotani M, Dalaudier F, "On the effect of moisture on the detection of tropospheric turbulence from in situ measurements", *Atmospheric Measurement Techniques*, vol.6, pp.697-702, 2013.
- Yamaguchi K, Matsumuro T, Omura Y, Nunn D, "Ray tracing of whistler-mode chorus elements: implications for generation mechanisms of rising and falling tone emissions", *Annals of Geophysics*, vol.31, pp.665-673, 2013.
- Yamamoto MK, "Elucidation of fine-scale cloud structure using multi-instrument measurements", *Low Temperature Science*, vol.72, pp.195-205, 2014 (in Japanese).
- Yamamura M, Noda S, Hattori T, Shino A, Kikuchi J, Takabe K, Suzuki S, Shibata D, Umezawa T, "Characterization of lignocellulose of *Erianthus arundinaceus* in relation to enzymatic saccharification efficiency", *Plant Biotechnology*, vol.30, pp.25-35, 2013.
- Yanagawa A, "Presumption of possible environmental information that termites receive by their antennae. -What type of receptor organs exist on an antenna of the termite, *Coptotermes formosanus*", *Termites*, vol.159, no.1, pp.1-6, 2013 (in Japanese).
- Yanagawa M, Kashimura K, Hayashi M, Sato M, Mitani T, Shinohara N, Nagata K, "Control of hot spots for continuous microwave iron making - Effects of ore-carbon mixture rotations on refractory and pig iron production -", *International Journal of Materials Engineering and Technology*, vol.9, no.2, pp.119-134, 2013.
- Yanase T, Miura M, Fujii Y, Okumura S, Yoshimura T, "Evaluation of the concentrations of hydrogen and methane emitted by termite using a semiconductor gas sensor", *Journal of Wood Science*, vol.59, no.3, pp.243-248, 2013.

PUBLICATIONS

Yanase Y, Maruyama S, Fujii Y, Okumura S, Yoshimura T, "Detection of hydrogen and methane emitted by feeding activity of termite under forced ventilation", *Japanese Journal of Environmental Entomology and Zoology*, vol.24, pp.97-105, 2013.

Yano H, Sasaki S, Shams MI, Abe K, Date T, "Wood pulp based optically transparent film: A paradigm from nanofibers to nanostructured fibers", *Advanced Optical Materials*, vol.2, no.3, pp.213-234, 2014.

Yusuf S, Himmi SK, Santoso B, Tarmadi D, Zulfiana D, "Semi-permanent immunization treatment (S.P.I.T): An alternative treatment for wood packaging materials under ISPM no.15 in Indonesia", *Procedia Environmental Sciences*, vol.17, pp.89-96, 2013.

Zhukovskaya M, Yanagawa A, Forschler BT, "Review: Grooming behavior as a mechanism of insect disease defense", *Insects*, vol.4, pp.609-630, 2013.