

High-speed manufacturing of antimicrobial paper

Brobbey, K. J., Haapanen, J., Gunell, M., Mäkelä, J. M., Eerola, E., Saarinen, J. J. & Toivakka, M., 2018, *Paper Conference and Trade Show, PaperCon 2018*. TAPPI Press, p. 564-566 3 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Fermentative metabolism of an anaerobic, thermophilic consortium on plant polymers and commercial paper samples

Carver, S. M., Nelson, M. C., Yu, Z. & Tuovinen, O. H., 1 Apr 2015, In : *Biomass & Bioenergy*. 75, p. 11-22 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Finite element analysis of trees in the wind based on terrestrial laser scanning data

Jackson, T., Shenkin, A., Wellpott, A., Calders, K., Origo, N., Disney, M., Burt, A., Raunonen, P., Gardiner, B., Herold, M., Fourcaud, T. & Malhi, Y., 15 Feb 2019, In : *Agricultural and Forest Meteorology*. 265, p. 137-144 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

How management intensity and neighborhood composition affect the structure of beech (*Fagus sylvatica* L.) trees

Juchheim, J., Annighöfer, P., Ammer, C., Calders, K., Raunonen, P. & Seidel, D., 14 Jul 2017, In : *TREES-STRUCTURE AND FUNCTION*. 31, 5, p. 1723-1735 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Applicability of portable tools in assessing the bearing capacity of forest roads

Kaakkurivaara, T., Vuorimies, N., Kolisoja, P. & Uusitalo, J., 2015, In : *Silva Fennica*. 49, 2, 26 p., 1239.

Research output: Contribution to journal > Article > Scientific > peer-review

Fly ash in forest road rehabilitation

Kaakkurivaara, T., Kolisoja, P., Uusitalo, J. & Vuorimies, N., 2016, In : *Croatian Journal of Forest Engineering*. 37, 1, p. 119-130 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Terrestrial laser scanning for non-destructive estimates of liana stem biomass

Krishna Moorthy, S. M., Raunonen, P., Van den Bulcke, J., Calders, K. & Verbeeck, H., 15 Jan 2020, In : *FOREST ECOLOGY AND MANAGEMENT*. 456, 14 p., 117751.

Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of wood volume estimates of young trees from terrestrial laser scan data

Kunz, M., Hess, C., Raunonen, P., Bienert, A., Hackenberg, J., Maas, H. G., Härdtle, W., Fichtner, A. & Von Oheimb, G., 1 Apr 2017, In : *iForest - Biogeosciences and Forestry*. 10, 2, p. 451-458 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Planning land use for biogas energy crop production: The potential of cutaway peat production lands

Laasasenaho, K., Lensu, A. & Rintala, J., 1 Feb 2016, In : *Biomass & Bioenergy*. 85, p. 355-362 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Landowners' willingness to promote bioenergy production on wasteland – future impact on land use of cutaway peatlands

Laasasenaho, K., Lensu, A., Rintala, J. & Lauhanen, R., 1 Dec 2017, In : *Land Use Policy*. 69, p. 167-175 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Exposure to biological and chemical agents at biomass power plants

Laitinen, S., Laitinen, J., Fagermäk, L., Korpiljärvi, K., Korpinen, L., Ojanen, K., Aatamila, M., Jumpponen, M., Koponen, H. & Jokiniemi, J., 1 Oct 2016, In : *Biomass & Bioenergy*. 93, p. 78-86 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Quantifying branch architecture of tropical trees using terrestrial LiDAR and 3D modelling

Lau, A., Bentley, L. P., Martius, C., Shenkin, A., Bartholomeus, H., Raunonen, P., Malhi, Y., Jackson, T. & Herold, M., Oct 2018, In : *Trees - Structure and Function*. 32, 5, p. 1219-1231 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Tree biomass equations from terrestrial LiDAR: A case study in Guyana

Lau, A., Calders, K., Bartholomeus, H., Martius, C., Raunonen, P., Herold, M., Vicari, M., Sukhdeo, H., Singh, J. & Goodman, R. C., 1 Jun 2019, In : *Forests*. 10, 6, 527.

Research output: Contribution to journal > Article > Scientific > peer-review

Screening boreal energy crops and crop residues for methane biofuel production

Lehtomäki, A., Viinikainen, T. A. & Rintala, J. A., Jun 2008, In : *Biomass & Bioenergy*. 32, 6, p. 541-550 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Estimating tree stem diameters and volume from smartphone photogrammetric point clouds

Marzulli, M. I., Raunonen, P., Greco, R., Persia, M. & Tartarino, P., 2020, In : *FORESTRY*. 93, 3, p. 411-429 19 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Classifying soil stoniness based on the excavator boom vibration data in mounding operations

Melander, L., Ritala, R. & Strandström, M., 2019, In : *Silva Fennica*. 53, 2, 10068.

Research output: Contribution to journal > Article > Scientific > peer-review

Fusion of open forest data and machine fieldbus data for performance analysis of forest machines

Melander, L., Einola, K. & Ritala, R., 2019, In : *EUROPEAN JOURNAL OF FOREST RESEARCH*. 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Separating the impact of work environment and machine operation on harvester performance

Melander, L. & Ritala, R., 2020, In : *EUROPEAN JOURNAL OF FOREST RESEARCH*. 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The role of base substrate on barrier and convertability properties of Water based barrier coated (WBBC) paper and paperboard

Miettinen, P., Ahokas, M., Engström, T., Heinonen, J. & Auvinen, S., 2017, *Paper Conference and Trade Show, PaperCon 2017: Renew, Rethink, Redefine the Future, Minneapolis, Minnesota, USA, 23-26 April 2017*. TAPPI Press, Vol. 1. p. 220-232 13 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

The economics of renewable CaC₂ and C₂H₂ production from biomass and CaO

Pääkkönen, A., Tolvanen, H. & Kokko, L., 1 Jan 2019, In : *Biomass and Bioenergy*. 120, p. 40-48 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

One-stage H₂ and CH₄ and two-stage H₂ + CH₄ production from grass silage and from solid and liquid fractions of NaOH pre-treated grass silage

Pakarinen, O. M., Tähti, H. P. & Rintala, J. A., Oct 2009, In : *Biomass & Bioenergy*. 33, 10, p. 1419-1427 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Data-based stochastic modeling of tree growth and structure formation

Potapov, I., Järvenpää, M., Åkerblom, M., Raunonen, P. & Kaasalainen, M., 2016, In : *Silva Fennica*. 50, 1, 1413.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of nutrient deprivations on lipid accumulation in a dominant indigenous microalga *Chlorella* sp., BUM11008: Evaluation for biodiesel production

Praveenkumar, R., Shameera, K., Mahalakshmi, G., Akbarsha, M. A. & Thajuddin, N., Feb 2012, In : *Biomass & Bioenergy*. 37, p. 60-66 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

How and why does willow biochar increase a clay soil water retention capacity?

Rasa, K., Heikkinen, J., Hannula, M., Arstila, K., Kulju, S. & Hyväluoma, J., 1 Dec 2018, In : *Biomass and Bioenergy*. 119, p. 346-353 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Online quality evaluation of tissue paper structure on new generation tissue machines

Raunio, J-P., Löytyniemi, T. & Ritala, R., 26 Mar 2018, In : *Nordic Pulp and Paper Research Journal*. 33, 1, p. 133-141 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluating the contrast of planar periodic patterns on paper

Raunio, J-P., Makela, I., Mäntylä, M. & Ritala, R., 2018, *Paper Conference and Trade Show, PaperCon 2018*. TAPPI Press, p. 294-302 9 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Methane production from maize in Finland - Screening for different maize varieties and plant parts

Seppälä, M., Pyykkönen, V., Laine, A. & Rintala, J., Nov 2012, In : *Biomass & Bioenergy*. 46, November, p. 282-290 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Controlled wettability of paperboard by nanoparticles using liquid flame spray process

Stepien, M., Saarinen, J. J., Teisala, H., Tuominen, M., Aromaa, M., Kuusipalo, J., Mäkelä, J. & Toivakka, M., 2010, *International Conference on Nanotechnology for the Forest Products Industry 2010*. p. 1390-1392 3 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Customer-oriented approach in cadastral procedures – Case study from Finland

Sulonen, K., Riekkinen, K. & Kotilainen, S., 2020, In : *Land Use Policy*. 90, 104209.

Research output: Contribution to journal › Article › Scientific › peer-review

Sustainability of bioenergy in finland and globally – fact check

Vakkilainen, E., Konttinen, J., Orasuo, V. & Aalto, P., 2019, *27th European Biomass Conference and Exhibition, EUBCE 2019*. ETA-Florence Renewable Energies, p. 1634-1635 2 p. (European Biomass Conference and Exhibition Proceedings).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review