

ANNOUNCEMENT

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The 1st Announcement of the 69th Annual Meeting of the Japan Wood Research Society in Hakodate

Date: March 14–16, 2019

Venue: Hakodate Arena (1-32-1, Yunokawa-cho, Hakodate, Hokkaido, Japan)

Time Table:

Date	March 14 (Thu)		March 15 (Fri)		March 16 (Sat)	
Venue	Hakodate Arena		Hakodate Arena		Hakodate Arena	
Morning	Oral presentation	Exhibition of related companies	Poster presentation	Exhibition of related companies	Oral presentation	Exhibition of related companies
					Closing ceremony	
Afternoon	Oral presentation	Exhibition of related companies	JWRS awards ceremony Symposium	Exhibition of related companies	Seminars for research groups	
Evening	Wood Science Mixer		Banquet			

Due Dates:

The entry of presentation with an abstract: 17:00 (JST), January 10, 2019

Early bird registration: 17:00 (JST), February 15, 2019

The Japan Wood Research Society (JWRS) takes great pleasure in inviting all members of our society with an interest in the science and technology of wood to attend the 69th Annual Meeting of the JWRS that will be held from March 14 to 16, 2019, Hakodate, Hokkaido, Japan.

The society members may take oral and poster presentations during the meeting. The symposium and the exhibition of the related companies will also be held.

For more detail information, please visit <http://www.jwrs.org/wood2019/index-e.html>

Organizing Committee:

Prof. Dr. Akio Koizumi (Chief)

Prof. Dr. Yuzou Sano (Executive Chief)

Associate Prof. Dr. Yutaka Tamai (Secretary)

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Mokuzai Gakkaishi (Journal of the Japan Wood Research Society)

Mokuzai Gakkaishi is another official journal of the Japan Wood Research Society. This journal publishes original articles, notes, review articles, and announcements from the Society in Japanese but with English abstracts, tables, and figure captions for original reports. Contents of the latest issue of *Mokuzai Gakkaishi* are as follows:

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Category II

Keita Ogawa, Masaki Harada, Tatsuya Shibusawa, Kohta Miyamoto

Single shear properties and deformation behavior of nailed joints using various structural panel materials

With the recent concern toward wood utilization in large-scale structures, increasing the strength performance of structural elements is important. Developing structural elements using board materials is one of the measures to increase the strength performance. A high-performance nailed joint to resist shear loading is necessary to increase the strength performance of wooden structural elements using board materials. This study was conducted in order to understand the shear properties of nailed joints intended for large-scale structures. Shear tests were conducted with nailed joints using structural plywood, medium density fiberboard, or particleboard. The yield resistance was determined from experimental load-slip displacement curves, and was also calculated using European yield theory (EYT). Consequently, the nailed joint specimens using MDF showed an experimental yield resistance higher than those using structural sugi plywood. The nailed joint specimens using PB also showed a high value similar to that of the joints using structural karamatsu plywood. The yield resistance of most of the joint specimen series calculated using European yield theory showed slightly higher values than the experimental yield resistance. This study observed the deformation behavior around nail the head under shear loading. No deformation was observed from the appearance at the initial region of the test. The nail head started a rotational deformation when the joint started yielding. Moreover, the side panel became partially embedded. The nail head was completely embedded at the maximum load of the specimen. Nail pull-out from the base material was not remarkably evident. This deformation behavior was observed in all the board materials used in this study.

Category II

Yasuo Yanagawa

Evaluation of Bond Durability by Outdoor Exposure Test of Sugi Glued-Laminated-Timber Using Laminae Treated with 5 Wood-Preservatives I: bond shear-strength and wood-failure ratio

To investigate the influence of preservatives on bond durability of glued-laminated-timber (GLT), sugi (*Cryptomeria japonica* D.Don) laminae were impregnated with five kinds of wood preservative (ACQ, NCU, CUAZ2, NZN, and AAC),

and 5-ply GLTs of low and high density were fabricated using resorcinol–formaldehyde (RF) and phenol-resorcinol–formaldehyde (PRF) resin adhesives. They were subjected to 10 years of outdoor exposure testing, and after 1, 3, 5, and 10 years of exposure, block-shear tests were conducted. As the result, bond shear-strength decreased with exposure duration regardless of adhesive resin in GLT treated with ACQ, NCU, and CUAZ2, which contain copper as the main ingredient. The rate of decrease of bond shear-strength of GLTs treated with ACQ, NCU and CUAZ2 was greater when using RF than when using PRF. Comparing the bond shear-strengths of high and low density GLTs, it was recognized that decrease of bond shear-strength was greater for high density than for low density GLTs. Decrease of wood-failure ratio with exposure duration was low for all GLTs.

Category II

Yasuo Yanagawa

Evaluation of Bond Durability by Outdoor Exposure Tests of Sugi Glued-Laminated-Timber Using Laminae Treated with 5 Wood-Preservatives II: shear-strength according to position and relationship with accelerated-aging tests

To investigate the influence wood preservatives on glued-laminated-timber (GLT), sugi (*Cryptomeria japonica* D.Don) laminae were treated with five kinds of wood preservative (ACQ, NCU, CUAZ2, NZN, and AAC), and 5-ply GLTs with low and high density were fabricated using resorcinol–formaldehyde (RF) and phenol-resorcinol–formaldehyde (PRF) resin adhesives. They were subjected to 10 years of outdoor exposure testing, and after 1, 3, 5, and 10 years of exposure block-shear tests were conducted. As the result, for GLTs treated with ACQ, NCU, or CUAZ2, which contain copper as the main ingredient, the specimens sawn from both lateral sides were more degraded than the specimens sawn from the middle part. In GLTs treated with ACQ, NCU, or CUAZ2 the glue-layers closer to the upper horizontal surface tended to show greater deterioration. In addition, in some GLTs the lower glue-layers also deteriorated. From the results of the specimens sawn from the west side of GLTs exposed outdoors, of exposure tests of 2 years, and of accelerated-aging tests using block-shear specimen with 10 and 25 mm width, reduction curves (plots of deterioration vs. exposure time) of shear-strength were obtained and compared. The reduction curves of GLTs exposed outdoors were similar to those of the outdoor exposure tests using block-shear specimen of 25 mm width.