

THE INTERNATIONAL RESEARCH GROUP ON WOOD PRESERVATION

List of technical and other main documents issued by the IRG Secretariat since the last Annual Report

Working Group Ia

- Minutes of the meetings of Working Group Ia 'Biological Problems (Flora)' held at Hotel Convención, Madrid, Spain during 25-28 April 1988 (88-09-08) Document No: IRG/WP/1378
- Biological control of blue stain on wood with *Pseudomonas cepacia* 6253 - Laboratory and field test by Riana Benko (89-01-05) Document No: IRG/WP/1380
- The restricted distribution of *Serpula lacrymans* in Australian buildings by John D Thornton (89-02-08) Document No: IRG/WP/1382
- Why don't more people work with *Serpula lacrymans* nowadays? A discussion of some of the different approaches to experimenting with this unique fungus by John D Thornton (89-02-24) Document No: IRG/WP/1383
- A new laboratory technique devised with the intention of determining whether, related to practical conditions, there should be a relationship between growth rate and decay capacity (of different strains) of *Serpula lacrymans* by John D Thornton (89-02-28) Document No: IRG/WP/1384
- An attempt to grow dry rot fungus *Serpula lacrymans* on mortar substrate in non-sterile conditions by Lucien Trong (89-02-28) Document No: IRG/WP/1385
- Decay resistance of wood removed from poles treated with *Trichoderma* by A Bruce, B King & T L Highley (89-03-07) Document No: IRG/WP/1386
- The effect of precolonisation of blocks with common pole resident fungi on subsequent biological control of *L.lepideus* by *Trichoderma* spp. by A Bruce & T L Highley (89-03-07) Document No: IRG/WP/1387
- Extracellular carbohydrate production by isolates of *Postia* (=Poria) *placenta* by J A Micales, A L Richter & T L Highley (89-03-07) Document No: IRG/WP/1388
- Identification of terminal structures in cellulose degraded by the brown-rot fungus *Postia placenta* by T K Kirk, T L Highley, R Ibach & M D Mozuch Document No: IRG/WP/1389
- Pretreatment decay in air-seasoning Scots and Corsican pine poles in England by A R Zahora & D J Dickinson (89-03-08) Document No: IRG/WP/1390

- Proposed model for the penetration and decay of wood by the hyphal sheath of the brown-rot fungus Postia placenta by F Green, M J Larsen, L L Murmanis & T L Highley (89-03-08) Document No: IRG/WP/1391
- Antagonism of Scytalidium lignicola against wood decay fungi by T L Highley (89-03-13) Document No: IRG/WP/1392
- Serpula lacrymans the dry rot fungus - Revue on previous papers by J Bech-Andersen (89-03-13) Document No: IRG/WP/1393
- Observations on the colonization of freshly-felled timber treated with prophylactic chemicals by mould and sapstain fungi by G R Williams & D A Lewis (89-03-13) Document No: IRG/WP/1394
- Utilization of nitrogenous substance by Serpula lacrymans by Shuichi Doi & Iwao Togashi (89-03-14) Document No: IRG/WP/1397
- Soft rot in CCA-treated utility poles in Sweden by Henning Friis-Hansen & Hans Lundström (89-03-21) Document No: IRG/WP/1398
- A study of methanogenesis and sulphate-reduction: a possible source of explosive gas mixtures in a gold mine by Linda D Abraham, John F Putterill & Albin A W Baecker (89-03-16) Document No: IRG/WP/1399
- Repairs of dry rot damages. A follow-up survey by Leena Paajanen (89-03-16) Document No: IRG/WP/1400
- Decay fungi in Finnish houses on the basis of inspected samples from 1978 to 1988 by Leena Paajanen & Hannu Viitanen (89-03-16) Document No: IRG/WP/1401
- Preliminary studies of the decay mechanism of some brown-rot fungi by Anne Ritschkoff & Hannu Viitanen (89-03-16) Document No: IRG/WP/1402
- The colonization pattern of anaerobic fungi in wood by A H Wiederhold, M Morrison & A A W Baecker (89-03-17) Document No: IRG/WP/1403
- Some thoughts on the future strategy for eradicating Serpula lacrymans from a building by D H Jennings (89-03-17) Document No: IRG/WP/1405
- Moisture requirements and wood degradation of pine and spruce wood by some basidiomycetes-fungi by Hannu Viitanen & Anne Ritschkoff (89-03-21) Document No: IRG/WP/1406
- Blue-stain fungi (Ceratocystis spp.) found in Spain on pine woods by M Teresa Troya & Angeles Navarrete (89-03-21) Document No: IRG/WP/1410
- Study of the degradation caused by micro-organisms in Pinus sp. waterlogged wood by M Teresa Troya, M C Escorial, J Garcia & A Cabañas (89-03-21) Document No: IRG/WP/1411

- Effect of humidity fluctuations on mould growth on pine wood by Jonny Bjurman (89-03-31) Document No: IRG/WP/1412
- Influence of storage on mould susceptibility of wood at RH values lower than 100% by Jonny Bjurman (89-03-21) Document No: IRG/WP/1413
- Mould growth and permeability in relation to wet-storage by Jonny Bjurman & Eeva-Liisa Holappa (89-03-31) Document No: IRG/WP/1414
- Estimation of mycelial biomass by determination of the ergosterol content of wood decayed by Coniophora puteana and Fomes fomentarius by Kent Nilsson & Jonny Bjurman (89-03-31) Document No: IRG/WP/1415
- Cytoplasmic and extracellular localization of manganese II dependent peroxidase(s) in white rot fungi during degradation of woody materials by G Daniel, B Pettersson, T Nilsson & J Volc (89-03-31) Document No: IRG/WP/1416
- Contribution to study of the degradation caused in Pinus spp. poles used in field test by M Teresa Troya, A Garcia, J M Pozuelo, Angeles Navarrete & A Cabañas (89-04-05) Document No: IRG/WP/1417
- Questionnaire relating to the occurrence, prevention and repair of dry rot attacks in buildings by Anne Pia Koch (89-04-24) Document No: IRG/WP/1418
- Molecular studies on isolates of Serpula lacrymans by Anne Vigrow, David Button, John W Palfreyman, Bernard King & Bryan M Hegarty (89-05-22) Document No: IRG/WP/1421
- Application of immunological methods to the analysis and detection of Lentinus lepideus Fr. by Heather Glancy, Alan Bruce, David Button, John A Palfreyman & Bernard King (89-05-22) Document No: IRG/WP/1422
- New experiences with dry rot in Danish buildings, heat-treatment and viability tests by Anne Pia Koch, Christian Kjerulf-Jensen, Bo Madsen (89-05-23) Document No: IRG/WP/1423
- Minutes of the meetings of Working Group Ia 'Biological Problems (Flora)' held at the 20th Annual Meeting in Lappeenranta, Finland during 22-26 May 1989 Document No: IRG/WP/1425
- Working Group Ib
- Minutes of the meeting of Working Group Ib 'Biological Problems (Fauna)' held in Hotel Convención, Madrid, Spain on Thursday, 28 April 1988 (88-08-29) Document No: IRG/WP/1379

The case for non-chemical termite barriers in termite control? by J R J French (89-03-04) Document No: IRG/WP/1381

Termite standards questionnaire survey - Second Report by J R J French & J P La Fage (89-03-14) Document No: IRG/WP/1395

The gaseous environment of Coptotermes lacteus mound colonies before and after mirex treatment by J R J French, R A Rasmussen, D M Ewart & M A K Khalil (89-04-14) Document No: IRG/WP/1396

Variable chlordane residues in soil surrounding houses in Louisiana by J P La Fage & K S Delaplane (89-03-17) Document No: IRG/WP/1404

Deltamethrin effectiveness against subterranean termite attack on wood under natural conditions by Pedro Antonio Zanotto (89-03-21) Document No: IRG/WP/1407

Description of the damage produced by Xilophagus curculionides in Spain by Eduardo L Rodriguez Trobajo (89-03-21) Document No: IRG/WP/1408

The wood-attacking insects in wood houses of an old open air museum in southern Finland by Hannu Viitanen & Markku Pulkkinen (89-03-21) Document No: IRG/WP/1409

Minutes of the meetings of Working Group Ib 'Biological Problems (Fauna)' held at the 20th Annual Meeting in Lappeenranta, Finland during 22-26 May 1989 Document No: IRG/WP/1424

Working Group II

Proposal for further work on accelerated ageing by Marie-Louise Edlund (88-04-19) Document No: IRG/WP/2314

European standardization for wood preservation by Gérard Castan (88-04-28) Document No: IRG/WP/2321

A technique for determining the efficacy of wood preservatives for partially treated timber by Antti J Nurmi (88-07-25) Document No: IRG/WP/2322

Minutes of the meetings of Working Group II 'Fundamentals of Testing' held at Hotel Convención, Madrid, Spain during 25-28 April 1988 (88-09-15) Document No: IRG/WP/2323

- An in-ground natural durability field test of Australian timbers and exotic reference species. V. Extensive data from a site where both decay and termites are active. Results from a fully-replicated set of heartwood specimens from each of ten myrtaceous hardwoods after 18, 19 and 20 years' exposure - A discussion paper by John D Thornton, Gary C Johnson & James W Creffield (88-12-09) Document No: IRG/WP/2324
- The performance of glue laminated railway ties after 40 years of service in the main line track by J P Hösli, E E Doyle, C P Bird & T Lee (89-01-10) Document No: IRG/WP/2325
- Determination of fungitoxic value of preservatives in laboratory wood-block tests. Part 1. Standard procedures by J Ważny & J D Thornton (89-02-15) Document No: IRG/WP/2326
- Determination of fungitoxic value of preservatives in laboratory wood-block tests. Part 2. Statistical estimation by J Ważny, John D Thornton & K J Krajewski (89-02-13) Document No: IRG/WP/2327
- A comparison between methods for evaluating the water repellency of wood by Ralph Nussbaum (89-03-08) Document No: IRG/WP/2328
- A novel device for detecting internal defects in wooden poles by R A Eaton & R S Johnstone (89-03-09) Document No: IRG/WP/2329
- A quantitative weathering study of wood surfaces modified by chromium VI and iron III compounds by Philip D Evans & Karl J Schmalzl (89-03-13) Document No: IRG/WP/2330
- Detection of termite attack in wood using acoustic emissions by Yoshihisa Fujii, Masami Noguchi, Yuji Imamura & Masahiko Tokoro (89-03-13) Document No: IRG/WP/2331
- Preliminary evaluations of a small wafer assay for screening potential biological control agents by Michael Freitag & Jeffrey J Morrell (89-03-15) Document No: IRG/WP/2332
- Are fungal cellar tests really necessary? by J N R Ruddick (89-04-06) Document No: IRG/WP/2333
- A comparison of the effectiveness of a vacuum oven and a wind tunnel in the accelerated ageing of treated wood by evaporation by R J Orsler & G E Holland (89-03-21) Document No: IRG/WP/2334
- European standardization for wood preservation by Gérard Castan (89-03-21) Document No: IRG/WP/2335
- Evaluation of a laboratory soft rot test on basis of weight loss and residual strength by W Verbeke, J van Acker & M Stevens (89-03-31) Document No: IRG/WP/2336

- Co-operative research project on L-joint testing
Progress Report to May 1989
by Janice K Carey & A F Bravery (89-05-15) Document No: IRG/WP/2338
- Co-operative studies on determining toxic values
against wood-destroying basidiomycetes: Progress
report to May 1989
by A F Bravery & Janice K Carey (89-05-15) Document No: IRG/WP/2339
- Minutes of Working Group II 'Fundamentals of Testing'
held at the 20th Annual Meeting in Lappeenranta,
Finland during 22-26 May 1989 Document No: IRG/WP/2340
- Results of collaborative work on laboratory soft rot testing
by Scarlette Gray & D J Dickinson (89-05-29) Document No: IRG/WP/2341
- Working Group III
- Proposal for further work on fixation of CCA
preservatives in wood
by Marie-Louise Edlund (88-04-18) Document No: IRG/WP/3493
- Proposal for further work on environmental questions
by Jöran Jermer & Marie-Louise Edlund (88-04-22) Document No: IRG/WP/3494
- Minutes of the meetings of Working Group III
'Preservatives and Methods of Treatment' held in
Hotel Convención, Madrid, Spain
during 25-29 April 1988 (88-09-01) Document No: IRG/WP/3501
- Report of meetings of remedial treatments Sub-group
held in Madrid, Spain during 27-28 April 1988
(88-08-08) Document No: IRG/WP/3502
- Performance of above ground decay test units treated
with a substituted isothiazolone by Darrel D Nicholas
J A Wilson & David E Greenley (89-01-02) Document No: IRG/WP/3503
- CCA fixation experiments - Part 1
by W S McNamara (89-01-05) Document No: IRG/WP/3504
- CCA fixation experiments - Part 2
by W S McNamara (89-01-05) Document No: IRG/WP/3505
- Performance of treated spruce in Canadian field
test sites by J P Hösli & E E Doyle (89-01-10) Document No: IRG/WP/3506
- Low temperature drying conditions of Pinus radiata
wood for avoiding internal stain
by María Cristina Rose (89-01-15) Document No: IRG/WP/3507
- The chemical nature of bis(tributyltin) oxide in
Pinus sylvestris sapwood
by S J Blunden & R Hill (89-02-13) Document No: IRG/WP/3508
- Dip-diffusion of dressed timber - Effect of drying
by C Konabe (89-02-21) Document No: IRG/WP/3509

- Laboratory evaluation of anti-sapstain formulations
by K Tsunoda (89-02-21) Document No: IRG/WP/3510
- Exposure monitoring of creosote vapours
by P Heikkilä, M Loutamo, V Riihimäki & M Romo
(89-02-28) Document No: IRG/WP/3511
- Field trials of Sinesto B at some sawmills in Portugal
by Irma Linderborg (89-02-28) Document No: IRG/WP/3512
- A field test with anti-stain chemicals on sawn pine
timber in Brazil by M B B Monteiro & S Brazolin
(89-02-28) Document No: IRG/WP/3513
- A study on the pressure impregnation of Eucalyptus
globulus fence-posts with CCA preservatives (Part II)
by Lina Nunes & Dario Reimão (89-03-01) Document No: IRG/WP/3514
- The use of chlorothalonil for protection against
mould and sapstain fungi. I. Laboratory evaluation
by Jessie A Micales, T L Highley & A L Richter
(89-03-01) Document No: IRG/WP/3515
- Acetylation of lignocellulosic materials
by Pia Larsson & Anne-Marie Tillman (89-03-07) Document No: IRG/WP/3516
- Oxine copper (NYTEK[®] GD) for the control of mould and
sapstain on lumber in North America
by Donald F Myers, James M Fyler, C H Palmer & Gerald
D Rosebery (89-03-13) Document No: IRG/WP/3517
- Diffusion of fused borate rods in top ends of poles
by Daniéle Dirol (89-03-13) Document No: IRG/WP/3518
- Wood preservation in France. "Bois plus" chain of
quality - Description of the scheme early 1989
by G Ozanne (89-03-13) Document No: IRG/WP/3519
- The utilization and preservation of Eucalyptus
globulus agricultural stakes from Portugal
by A Milne e Carmo, D A Lewis & A Lyman (89-03-14) Document No: IRG/WP/3520
- Comparative studies on the species effects of wood
preservatives by K Yamamoto & S Matsuoka (89-03-14) Document No: IRG/WP/3521
- Moderate temperature fixation of CCA-C
by P A Cooper & T Ung (89-03-15) Document No: IRG/WP/3522
- TBTO absorption and penetration in pine joinery
treated by various processes
by P A Cooper & T Ung (89-03-15) Document No: IRG/WP/3523
- Estimation of effective diffusion path lengths in
wood by swelling studies
by P A Cooper & R Churma (89-03-15) Document No: IRG/WP/3524

- The use of fumigants for controlling decay of wood:
a review of their efficacy and safety
by J J Morrell (89-03-15) Document No: IRG/WP/3525
- A 53-year old field trial to evaluate the performance
of a range of chemical treatments on eucalypt poles
by R S Johnstone & R A Eaton (89-03-15) Document No: IRG/WP/3526
- Wood preservation in East European countries
by J Ważny (89-03-15) Document No: IRG/WP/3527
- Biological degradation resistance of pine wood
treated with dimethylol compounds
by C L Videlov (89-03-17) Document No: IRG/WP/3528
- Suitability of propiconazole (R 49362) as a
new-generation wood-preserving fungicide
by A Valcke (89-03-17) Document No: IRG/WP/3529
- Practical testing of wood preservatives to prevent
weathering damage and infection by micro-organisms
on spruce and pine by R Gründlinger, O Janotta,
H Melzer & K Messner (89-03-17) Document No: IRG/WP/3530
- The use of propionic acid to prevent Pinus patula
biodeterioration during outside chip storage in
Zululand
by S Ismail, E J Smith & A A W Baecker (89-03-17) Document No: IRG/WP/3531
- Performance of proprietary formulations of
anti-sapstain preservatives on Hevea brasiliensis
timbers in laboratory tests by L T Hong (89-03-17) Document No: IRG/WP/3532
- Moisture condition in treated wood exposed outdoors.
A progress report by Marie-Louise Edlund &
Carl-Erik Sundman (89-03-23) Document No: IRG/WP/3533
- Remedial ground-line treatment of CCA poles in service.
A final report after 60 months' testing
by Björn Henningsson, Henning Friis-Hansen, Aino
Käärik & Marie-Louise Edlund (89-03-23) Document No: IRG/WP/3534
- Tilting and vacuum treatment - two methods to obtain
a non-dripping freshly treated timber
by Ingvar Johansson & Marie-Louise Edlund
(89-03-23) Document No: IRG/WP/3535
- Studies on the preservative treatment of round
bamboos by a new technique
by V R Sonti, S Sonti & B Chatterjee (89-03-23) Document No: IRG/WP/3536
- The effect of service life and preservative treatment
on the hardness of wooden poles
by E Barbro Jonnsson, E M Anette Nilsson &
John N R Ruddick (89-03-23) Document No: IRG/WP/3537

- Treatment of poplar plywood with solvent and water-borne preservatives
by J van Acker & M Stevens (89-03-23) Document No: IRG/WP/3538
- Field evaluation of CCA movement in sap-displaced copper/chrome/arsenic treated softwood poles
by Sandra D Hainey, George M Smith, Alan Bruce, Philip D Evans, Bernard King & Harry J Staines (89-03-23) Document No: IRG/WP/3539
- Effect of acetylation on decay resistance of wood against brown-rot, white-rot and soft-rot fungi
by Munezoh Takahashi, Yuji Imamura & Mitsuhiko Tanahashi (89-03-23) Document No: IRG/WP/3540
- Maintaining the adoption of the equilibrium moisture content in timber by bifluorides under outdoor circumstances by H F M Nijman (89-03-25) Document No: IRG/WP/3541
- Borates as wood preserving compounds: The status of research in the United States
by H M Barnes, T L Amburgey, L H Williams & J J Morrell (89-03-31) Document No: IRG/WP/3542
- Mechanical properties of CCA treated southern pine after post-treatment kiln drying
by H M Barnes & J E Winandy (89-03-31) Document No: IRG/WP/3543
- Acceleration of the fixation of chromated wood preservatives by UV-radiation
by H M Illner, H Willeitner & K Brandt (89-03-31) Document No: IRG/WP/3544
- A field test on susceptibility of wood-based board materials to moulds
by Qiao Wang & Björn Henningsson (89-04-10) Document No: IRG/WP/3545
- Wood preservation in China
by Huiming Zhou & Zhongwei Jin (89-04-10) Document No: IRG/WP/3546
- Use of vermiculite as substrate in assays on phytotoxicity of treated wood
by M V Baonza & D Franco (89-04-10) Document No: IRG/WP/3547
- Cell wall micro-distribution of chloropicrin and methylisothiocyanate in treated spruce
by G Daniel & B Goodell (89-04-21) Document No: IRG/WP/3548
- Phytotoxic effects of preservative treated props for agricultural use
by D Franco & M V Baonza (89-04-28) Document No: IRG/WP/3550
- Protection of rubberwood timber.
I. Impregnation with boron preservatives
by L T Hong & Christopher C K Liew (89-04-29) Document No: IRG/WP/3551
- Wood surface pretreatments with metal tannates by
D V Plackett & D R Cronshaw (89-05-08) Document No: IRG/WP/3552

- The performance of water repellants on radiata pine exposed to the weather
by D V Plackett & F M Cameron (89-05-08) Document No: IRG/WP/3553
- The variation of electrical resistance in the CCA-treated wood during the fixation
by Fred G Evans & Björn Nossen (89-05-11) Document No: IRG/WP/3554
- The effect of creosote and Basilit on the boards of four wood species against destructive fungi in Northern Iran by D Parsapajouh (89-05-16) Document No: IRG/WP/3555
- A field evaluation of chromated fluoride as a remedial treatment for creosoted distribution poles
by Bernard King & Alan Bruce (89-05-22) Document No: IRG/WP/3556
- Assessment of wood preservation facilities in Canada
by Gautam Das & Vishwa N P Mathur (89-05-22) Document No: IRG/WP/3557
- The foreign exchange situation and fate of wood preservation in Nigeria
by M A Odeyinde & S F Ifebueme (89-05-29) Document No: IRG/WP/3558
- Minutes of the meetings of Working Group III 'Preservatives and Methods of Treatment' held at the 20th Annual Meeting in Lappeenranta, Finland during 22-26 May 1989 Document No: IRG/WP/3559
- Hardwood field experiment - 10 year report
by David J Dickinson & Scarlett M Gray (89-05-29) Document No: IRG/WP/3560
- Report of meeting of the Refractory timbers Sub-group, Lappeenranta, Finland on 25 May 1989
by R J Murphy (89-07-24) Document No: IRG/WP/3561
- Working Group IV
- Minutes of the 15th Joint Meeting with the COIPM Wood Group held at Hotel Convención, Madrid, Spain on 27 April 1988 (88-08-08) Document No: IRG/WP/4148
- Examination of timbers from the Mary Rose in storage
by Renos Mouzouras (88-07-18) Document No: IRG/WP/4149
- Natural durability of fifty species of Indian timber in Goa waters against marine wood-borers by L N Santhakumaran, S Udaya & J C Jain (89-01-01) Document No: IRG/WP/4150
- The performance in the sea of seven experimental piles after sixteen years at Port Douglas, North Queensland by L J Cookson, J E Barnacle & C N McEnvoy (89-01-10) Document No: IRG/WP/4151
- Does Limnoria lignorum (Rathke) or other cold-water xylophagous limnoriid species exist in southern oceans? by J E Barnacle & L J Cookson (89-02-08) Document No: IRG/WP/4152

Ability of chloropicrin, Vorlex, or
methylisothiocyanate to prevent marine borer attack of
Douglas fir piling
by Mark A Newbill & Jeffrey J Morrell (89-02-20) Document No: IRG/WP/4153

Exposure trial at tropical marine sites of
pyrethroid/creosote mixtures as wood preservatives:
Preliminary results by Simon M Cragg (89-05-22) Document No: IRG/WP/4155

Information from the COIPM
by Anna Gambetta (89-05-22) Document No: IRG/WP/4156

Minutes of the meeting of Working Group IV 'Marine
Wood Preservation' held on 23 May 1989 during the
20th Annual Meeting held in Lappeenranta, Finland
Document No: IRG/WP/4157

Other Documents

Nineteenth Annual Meeting. Minutes of the Plenary
Meetings held at Hotel Convención, Madrid, Spain
during 24-29 April 1988 (88-08-05) Document No: IRG/WP/5338

Abstracts of some papers received and promised for
IRG 20 (89-02-09) Document No: IRG/WP/5342

An Index of IRG Documents 1980 - 1988
by R Cockcroft (89-03-04) Document No: IRG/WP/5343

IRG Foundation Fund Report
for the period 1 January to 31 December 1988 by
Björn Henningsson & Henning Friis-Hansen (89-03-13) Document No: IRG/WP/5344

IRG Secretariat Report by Gérald Ozanne (89-03-13) Document No: IRG/WP/5345

Abstracts of some papers and posters received and
promised for IRG 20. Part 2 (89-04-21) Document No: IRG/WP/5346

Minutes of the Plenary Meetings held at the 20th
Annual Meeting in Lappeenranta, Finland
during 22-26 May 1989 Document No: IRG/WP/5352

Members' and Sponsors' Guide
(89-12-31) Document No: IRG/WP/5353