The 46th Annual meeting of the International Research Group on Wood Protection (IRG46) 10-14 May 2015, Viña del Mar, Chile

	Sunday 10 May
15:30-18:30	Registration
19:00-21:00	Welcome reception
19.00-21.00	Club Viña del Mar

Room Monday 11 May

President: Jeff Lloyd Vice-President: Joris Van Acker Secretary-General: Jöran Jermer Opening Ceremony of the 46th Annual Meeting	
Opening Coromony of the 46th Appual Moeting	
Opening addresses by Jeff Lloyd, President, The International Research Group on Wood Protection Francisca Latorre, Local Organizing Committee	
Plenary 1. Opening of the meeting 2. Approval of the agenda 3. Membership issues -Ratification of the election of new members since last year's Plenary 4. Announcement of Ron Cockcroft Award and Travel Award recipients 5. Approval of the Annual Report 2014 and Auditors' report 6. Granting discharge for the Executive Council and Secretary-General from the administration and accountancy for 2014	15-60377 15-60376
	Jeff Lloyd, President, The International Research Group on Wood Protection Francisca Latorre, Local Organizing Committee Plenary 1. Opening of the meeting 2. Approval of the agenda 3. Membership issues -Ratification of the election of new members since last year's Plenary 4. Announcement of Ron Cockcroft Award and Travel Award recipients 5. Approval of the Annual Report 2014 and Auditors' report 6. Granting discharge for the Executive Council and Secretary-General from the administration and

Pacifico	Scientific Main Session - keynotes	
General	Chairman: Joris Van Acker	
	Local keynote:	
09:00-09:20	A Vision of Chile as an Important Forest Products Supplier	
03.00 03.20	Mr Fernando Raga Castellanos, President of Corma	
	Conference invited keynote:	
09:20-10:00	How to Increase the Lifespan of Exterior Wood Coatings	15-40700
03.20 10.00	Dr Mojgan Nejad, Mississippi State University	13-40700
10:00-10:30	Coffee / Tea	
Pacifico	Scientific Main Session	
General	Co-conveners: Rod Stirling, Miha Humar, Lehong Jin, Tripti Singh, Ed Suttie	
10:30-10:55	The role of hydrophobins in surface growth by the Blue Stain fungi Aureobasidium pullulans	15-10837
10:30-10:55	<u>J Stenbæk</u> , L Riber, J Blæsbjerg Nielsen, C Møller Hansen, B Jensen	12-10837
	Non-destructive monitoring of structure and moisture dynamics of plywood exposed outdoors to	
10:55-11:20	improve service life prediction and fit-for-purpose design	15-20570
	<u>W Li</u> , J Van den Bulcke, I De Windt, M Dierick, J Van Acker	
	Search for an anti-sapstain treatment for fresh radiata pine wood in compliance with European BPD norms:	
11:20-11:45	Field tests	15-30673
	<u>P Montes C</u> , T Hanke W	
11:45-12:10	A review of the analytical methods used in determining on heat treated wood decay resistance	15-40690
	<u>K Candelier</u> , M-F Thévenon, A Pétrissans, S Dumarçay, P Gérardin, M Pétrissans	
	Environmental Fate of Micronized Copper	
12:10-12:35	C Civardi, L Schlagenhauf, J Benz, C Hirsch, J Van den Bulcke, M Schubert, J Van Acker, P Wick, F W Schwarze	15-50310

	Working Party Session WP 4.1. Chemical wood modification &	
Pacifico General	Working Party Session WP 4.2. Wood composites, WPCs and Engineered wood p Conveners: Erik Larnøy / Paul Merrick	roducts
13:30-13:50	Termite and insect resistance of acetylated wood F Bongers, M Kutnik, I Paulmier, J Alexander, H Militz	15-40703
13:50-14:10	Bio-friendly preservative systems for enhanced wood durability: 1st periodic report on DURAWOOD project B Mazela, M Broda, W Perdoch, L Ross Gobakken, I Ratajczak, G Cofta, W Grześkowiak, A Komasa, A Przybył	15-30677
14:10-14:30	Durable fibre for durable MDF – testing Tricoya® <u>E Suttie</u> , J Alexander, M Maes	15-40704
14:30-14:50	Some comments on durability testing of WPC according to EN 15534-1 S Bollmus, A Gellerich, H Militz	15-4069
14:50-15:00	Questions/Discussion	
15:00-15:30	Coffee / Tea	
Pacifico General	Special session on Fire protection of wood Co-conveners: Tripti Singh & Joris Van Acker	
15:30-15:50	Durability of reaction to fire performance of FRT wood products in different end use applications B Östman, L Tsantaridis (presented by J Jermer)	15-4070
15:50-16:10	Experimental Measurements of Fire Retardants on Plywood at Fire Test G C A Martins, L A Marcolin, J M Vidal, C Calil Jr	15-4070
16:10-16:30	Fire protection of wooden facades in Norway <u>U Hundhausen</u> , K-C Mahnert	15-4071
16:30-16:50	The whitening cause of Korean wooden heritage by flame retardant treatment Jin Qyu Kim, Gyu-Seong Han, Yong Jae Chung, Hwa Soo Lee, <u>Dong Won Son</u>	15-2056
16:50-17:10	Questions/Discussion	
18:30-20:30	President's RECEPTION	

Gran Estrella	Working Party Session WP 2.2. Microbial test methodology Convener: Eric Gelhaye	
13:30-13:50	Characterization of biofilm formation on wood treated with vegetable oils by color-based image interpretation method K Filippovych, H Huinink, L van der Ven, O C G Adan	15-40697
13:50-14:10	Development of a rapid screening method to determine the susceptibility to mould growth of novel construction and insulation products B K Stefanowski, S F Curling, E Mansour, G A Ormondroyd	15-20562
14:10-14:30	Applicability of wood durability testing methods to bio-based building materials S F Curling, B K Stefanowski, E Mansour, G A Ormondroyd	15-20561
14:30-14:50	Colonization of treated and untreated decking materials by bacteria, fungi and algae quantified by qPCR <u>E Stoyanova</u> , B Schmöllerl, A Steitz, N Pfabigan, R Gründlinger	15-20568
14:50-15:00	Questions/Discussion	
15:00-15:30	Coffee / Tea	
Gran Estrella	Working Party Session WP 2.3. Chemical/physical analysis Convener: Bruce Breedt	
15:30-15:50	Development of a new characterization method to analyse Cypermethrin penetration in wood material by immunolabelling S Tapin-Lingua, K Ruel, J-P Joseleau, D Messaoudi, O Fahy, M Jequel, M Petit-Conil	15-30674
15:50-16:10	The potential of 2D NIR imaging for wood protection research J Van den Bulcke, N Defoirdt, W Li, J Van Acker	15-20566
16:10-16:30	Penetration of phenol formaldehyde (PF) resin into beech wood studied by light microscopy V Biziks, S Bicke, H Militz	15-20558
16:30-16:50	Evaluation of color and gloss in decorative applied to cases of <i>Pinus radiata</i> impr. Cu type C azole micronized R Garay, M Inostroza	15-20571
	President's RECEPTION	

The 46th Annual meeting of the International Research Group on Wood Protection (IRG46) 10-14 May 2015, Viña del Mar, Chile

Tuesday 12 May

Pacifico General	Working Party Session WP 1.1. Soft rot, bacteria, bluestain and moulds Working Party Session WP 1.2. Basidiomycetes Convener: Claudia Ibáñez	
08:40-09:00	Effects of UV Radiation on Melanization and Growth of Fungi Isolated from Weathered Wood Surfaces V A Hernández, P D Evans	15-10842
09:00-09:20	Glutathione transferases and wood extracts A Deroy, F Saiag, Z Kebbi-Benkeder, N Touahri, M Morel-Rouhier, F Colin, <u>S Dumarçay</u> , P Gérardin, E Gelhaye	15-10845
09:20-09:40	Interpretation of moisture monitoring data - Relevance of moisture content thresholds for fungal decay <u>L Meyer</u> , C Brischke	15-10839
09:40-10:00	Discussion / Questions	
10:00-10:30	Coffee / Tea	

	10-14 May 2013, Vina uci Mai, Chine	
Gran Estrella	Working Party Session WP 1.3. Insect biology and testing	
Gran Estrena	Convener: Teresa de Troya	
00.40 00.00	Shells of Coconut and their Durability against Termite Attack	15 10053
08:40-09:00	M Dass, A H H Wong, <u>W Unger</u>	15-10853
	Effects of geographical and dietary variation on the symbiotic flagellate protists communities of the	
09:00-09:20	subterranean termite Reticulitermes grassei Clément	15-10847
	S Duarte, M Duarte, P A V Borges, <u>L Nunes</u>	
Gran Estrella	Working Party Session WP 1.6. Cultural artefact protection	
Gran Estrena	Convener: Wibke Unger	
09:20-09:40	Diagnosis and control of pathology of wood used in the Alahambra Palace, Santiago de Chile	15-40711
09.20-09.40	<u>J Poblete Escanilla</u> , P Astaburuaga Merino	15-40/11
10:00-10:30	Coffee / Tea	
Cuan Fatualla	Working Party Session WP 4.3. Treating processes & treatability of timb	er
Gran Estrella	Convener: Julien Trompetter	
40 20 40 50	Remedial treatment of difficult to access timber in buildings	45 40604
10:30-10:50	T Singh, I Simpson, D Page	15-40691
10.50 11.10	Impact of early lignification of ray parenchyma cells on the treatability of Scots pine sapwood	15 40700
10:50-11:10	K Zimmer, <u>A Treu</u>	15-40706
11:10-11:30	Outcomes deal to impregnability of Eucalyptus globulus L. wood after microwave treatment	15-40712
11.10-11.50	A Vega, E Hermoso, M T Troya	15-40/12
11:30-11:50	Buffered Amine Oxide Treatment Systems for Imparting Water Based Azoles/Insecticides in Douglas Fir and Eucalyptus	15-40707
11.50 11.50	R W Clawson Jr	15 40/0/
11:50-12:10	A novel enzymatic treatment as a new approach for wood protection	15-40701
	<u>C Fernández-Costas</u> , S Palanti, M Ángeles Sanromán, D Moldes	
12:10-12:30	Steam Accelerated Borate Diffusion: Optimizing dry tie treatment	15-40713
	Jae-Woo Kim, <u>J D Lloyd</u>	
12:30-13:30	Lunch	

Gran Estrella	Working Party Session WP 3.3. Performance - lab & field tests Conveners: Andrew Zahora & Simon Curling	
13:30-13:50	Factors Affecting Performance of Preserved Wood Decking Against Decay Fungi R Stirling, P I Morris	15-30663
13:50-14:10	Building solid foundations to support market growth of preserved wood in the UK – treatment quality, product approval and the largest national field trial of preservative treated wood in 50 years <u>E Suttie</u> , G Ewbank	15-30662
14:10-14:30	Above ground field testing: results of experiments in Brazil after one year M F Natale, J M Vidal	15-30660
14:30-14:50	Durability of Fence Posts of Four Wood Species After 20 Years in Field Test A Florian da Costa, A C Salgado de Freitas, E Meneses Oliveira	15-30670
14:50-15:00	Questions/Discussion	
15:00-15:30	Coffee / Tea	
Gran Estrella	Working Party Session WP 3.3. Performance - lab & field tests cont'd Conveners: Andrew Zahora & Simon Curling	
15:30-15:50	Tall oil – performance after a decade of field exposure <u>G Alfredsen</u> , P-O Flæte	15-30672
15:50-16:10	The effect of preservative treatment on mechanical strength and structural integrity of wood M Humar, D Kržišnik, C Brischke	15-30667
16:10-16:30	Performance of kiln-dried and air-dried anti-sapstain treated pallet timber under use scenarios against wood discolouring fungi A Steitz, <u>E Stoyanova</u> , N Pfabigan, R Gründlinger	15-30669
16:30-16:50	Wood protectors to control <i>Bursaphelenchus xylophilus</i> <u>M T Troya</u> , C S Arcos, A Navas, L Robertson, M Conde, F Llinares	15-30661
16:50-17:00	Questions/Discussion	

17:00-18:00	POSTER SESSION (IRGWP 15-60378)	
	Toxic effect of <i>Melia azedarach</i> L. unripe fruit extracts onto <i>Reticulitermes flavipes</i> Kollar A Huerta Fuentes, B Rubio Díaz, Í Chiffelle Gómez	15-10848
	Natural durability of Chilean commercial wood exposed to the action of marine borers R Carmona C, C Osorio, A Almuna	15-10849
Repell	ency of <i>Schinus molle</i> L. leaf extracts onto <i>Reticulitermes flavipes</i> Kollar (Isoptera: Rhinotermitidae) A Huerta Fuentes, S Constenla Cáceres, Í Chiffelle Gómez	15-10850
Red	uction of Environmental Impacts of treated Wood Poles on Soil and Water at Pole Storage Facility E Potvin, S Besner, M Perrier, G Lajoie	
	Outcomes deal to impregnability of <i>Eucalyptus globulus</i> L. wood after microwave treatment A Vega, E Hermoso, M T Troya	15-40712
	Study on the Effects of Flame Retardant in Dancheong for Korea Wooden Cultural Heritage Hwa Soo Lee, So Jung Lee, Gyu Seong Han, Yong Jae Chung	15-40692
St	udy on Biological Distribution to Conserve the <i>Tripitaka Koreana</i> woodblocks in Haeinsa Temple Si Hyun Kim, Hyun Ju Lee, Yong Jae Chung	15-10844

The 46th Annual meeting of the International Research Group on Wood Protection (IRG46) 10-14 May 2015, Viña del Mar, Chile

Wednesday 13 May

Gran Estrella	Working Party Session WP 2.1. Prediction of service life Convener: Linda Meyer	
08:40-09:00	The combined effect of wetting ability and durability on field performance – verification of a new prediction approach C Brischke, G Alfredsen, P-O Flæte, M Humar, T Isaksson, L Meyer	15-20565
09:00-09:20	Influence of artificial and natural weathering on water exclusion efficacy of wood <u>M Žlahtič</u> , M Humar	15-20559
09:20-09:40	Mould growth on spruce claddings and the effect of selected influencing factors after 4 years of outdoor testing L Ross Gobakken, G I Vestøl	15-30671
09:40-10:00	Introduction of the COST FP 1303 Cooperative Performance Test M Humar, C Brischke, L Meyer, B Lesar, N Thaler, D Jones, S Bardage, C Belloncle, J Van den Bulcke, J M Abascal, G Alfredsen, D Baisch, B Brunnhuber, G Cofta, E Grodås, E Frühwald Hansson, M Irle, H Kallakas, J Kers, M Klamer, P Larsson Brelid, A B Maider, K C Mahnert, E Melcher, R Möller, M Noël, L Nunes, G A Ormondroyd, S Palanti, N Pfabigan, A Pilgård, A O Rapp, P Schumacher, E Suttie, T Teppand, M Touza, J Van Acker	15-20567
10:00-10:30	Coffee / Tea	

Gran Estrella	Working Party Session WP 1.4. Natural durability	
3.4 23	Convener: Marie-France Thévenon	
	Field Performance of Old-Growth and Second-Growth Western Red Cedar Fence Posts with and without	
10:30-10:50	Barrier Wraps	15-10838
	<u>P I Morris</u> , J K Ingram, R Stirling	
	Chemical composition of extractives of different wood compartments of Pinus merkusii and their potential	
10:50-11:10	implication in wood durability	15-10841
	A Wijayanto, <u>S Dumarçay</u> , R Kartika Sari, W Syafii, P Gérardin, C Gérardin-Charbonnier	
11:10-11:30	Investigations on the durability of several Congo basin wood species	15-10840
11.10-11.50	S Mounguengui, J-B Tchinda Saha, M Kor Ndikontar, <u>S Dumarçay</u> , C Attéké, D Perrin, E Gelhaye, P Gérardin	15-10640
11:30-11:50	An update on durability of New Zealand grown timber	15-10851
11.50-11.50	D Page, <u>T Singh</u>	12-10931
	Influence of the moon phase on durability against wood decay fungi of Larix kaempferi and Pseudotsuga	
11:50-12:10	menziesii wood species	15-10836
	M T Troya, M Conde, <u>M J Barriola</u> , F Llinares, V Dorronsoro	
12:10-12:50	Performance of bio-based building materials – viewpoints from the first year of COST Action FP1303	15-20572
	D Jones (presented by L Nuñes)	15-205/2
12:30-13:30	Lunch	
13:45	Excursion departs	

	Excursion
13:45-22:00	Estancia El Cuadro

The 46th Annual meeting of the International Research Group on Wood Protection (IRG46) 10-14 May 2015, Viña del Mar, Chile

Thursday 14 May

Pacifico	Working Party Session WP 4.5. Thermal wood modification	
General	Convener: Philippe Gérardin	
	Effect of natural variability of European Oak wood on heat treatment process and potential implication on	
08:40-09:00	wood durability	15-40693
	J Hamada, A Pétrissans, F Mothe, M Pétrissans, <u>P Gérardin</u>	
	Investigation of Dimensional Stability and Coating Performance of Different Heat-Treated Poplar Wood	
09:00-09:20	Before and After Accelerated Aging	15-40702
	A Talaei, D Ansari Movahed, <u>G Rassam</u>	
09:20-09:40	How does the test methodology influence the outcome of durability testing of thermally modified wood	15-40699
05.20 05.40	A Gellerich, S Bollmus, <u>H Militz</u>	
09:40-10:00	Questions/Discussion	
10:00-10:30	Coffee / Tea	
Pacifico	Working Party Session WP 4.4. Coatings, hydrophobic treatments and surface a	spects
General	Convener: Jan Van den Bulcke	
10.20 10.50	Acceptance levels of surface disfigurement - tolerance to defects of coated wood	15 20564
10:30-10:50	<u>C Brischke</u> , P Kaudewitz	15-20564
10:50-11:10	Functional silicones used as a potential tool for the development of non-biocidal wood treatments	15-30665
10.50-11.10	<u>F Lhumeau</u> , C Delaite, F Marchal, F Pochon, M Kutnik	15-30005
11:10-11:30	Polyamidoamines (PAA) functionalized with siloxane fragments as potential wood preservatives	15-40708
	<u>S Palanti</u> , G Predieri, E Feci, L Bergamonti	13-40708
11:30-11:50	Application of nanoparticles of silver and nanoparticles of titanium dioxide in reinforcement of wood and	
	coating for wood in Costa Rica	15-40698
	A Berrocal Jiménez, R Moya Roque, A Lucrecia Rodríguez, J R Vega Baudrit	

11:50-12:10	Indentation and pendulum hardness tests: two convenient assessment methods of the performance of exterior wood coatings	15-40689
	<u>L Malassenet</u> , L Podgorski, M Truskaller, G Grüll	
12:10-12:30	Effect of a wood stabilizer on checking of red oak log sections	15-30664
	C S Love, <u>J J Morrell</u>	
12:30-13:30	Lunch	

Gran Estrella	Working Party Session WP 5.1. Environment Convener: Morten Klamer	
08:40-09:00	Recycling of used railroad ties via two-staged pyrolysis for fractionation of wood preservatives and bio-oil: pyrolytic characterization by TGA and Py-GC/MS Pyoungchung Kim, J Lloyd, Jae-Woo Kim, N Labbe	15-50311
09:00-09:20	Effect of exposure site on metal migration from copper azole, alkaline copper quat or chromated copper arsenate treated southern pine decking J J Morrell, H M Barnes	15-50313
09:20-09:40	A Green and Novel Technology for Recovering Copper and Wood from Treated Waste - Part I S Chen (presented by L Jin)	15-50309
09:40-10:00	Minimum standards for habitability in emergency housing R Garay, F Pfenniger, W Figueroa	15-50312
10:00-10:30	Coffee / Tea	
Gran Estrella	Working Party Session WP 5.2. Sustainability Convener: Morten Klamer	
10:30-10:50	The situation of the industrial protection of wood in Argentina <u>D A Gherscovic</u>	15-30675
10:50-11:10	Best handling practices for wood crossties (sleepers) N Irby, J Lloyd, <u>A Taylor</u> , J Watt	15-40714
Gran Estrella	Working Party Session WP 3.2. Organic preservatives Convener: Jun Zhang	
11:10-11:30	Biological Performance of Triadimefon in combination with Tebuconazole in laboratory and field tests P Meckler, T Jaetsch	15-30668
11:30-11:50	Antifungal properties of wood treated with IPBC and organosilicone compounds against <i>Coniophora put.</i> <u>W Perdoch</u> , B Mazela, A Waśkiewicz	15-30676

11:50-12:10	Potential of teak heartwood extractives as a natural preservative against <i>Nasutitermes corniger</i> termite <u>V Fassina Brocco</u> , J Benigno Paes, L Gonçalves da Costa, S Brazolin	15-30666
12:10-12:30	Questions/Discussion	
12:30-13:30	Lunch	

Gran Estrella	Scientific Plenary Session		
Gran Estrella	Session Chair: Joris Van Acker		
13:30-15:30	DISCUSSION FORUM: Strategies related to termites and wood constructions Monitored by Magdalena Kutnik Mario Aguilar: Landscape and culture of Wood in World Heritage sites in Chile: Threats and Challenges Magdalena Kutnik: Subterranean termite and wood construction protection and how this problem is handled in Europe Jeff Lloyd: Termite Management and the U.S. Experience: A Case for Wood Treatment & Integrated Control (15-30678) René Carmona: Termites in Chile Susana Jara: Wood in social houses, an overview of Chilean Housing Ministery		
	Enrique Escobar: An overview of the Wood in construction as the new regulation from the forestry companie	S	
15:30-16:00	Coffee / Tea		
Gran Estrella	Final Plenary Session President: Jeff Lloyd Vice-President: Joris Van Acker Secretary-General: Jöran Jermer		
	Plenary		
	7. Approval of membership fees for 2016		
	8. Approval of the budgets for 2015 and 2016 9. Election of new officers		
	Executive Council (2 vacancies)	15-60380	
	Scientific Programme Committee, Sections 3, 4 and 5	15-60381	
16:00-17:00	Information on EC appointments to other committees (Communications Committee, Travel Awards Committee)		
	Secretary-General		
	10. Appointment of auditors		
	11. Future venues		
	IRG 47: 15-19 May 2016, Lisbon, Portugal / IRG 48:		
	12. Any other business		
	13. Closure of the meeting		
19.00-22:00	CONFERENCE BANQUET		

Tabled papers

Section 1 Biology

IRG/WP 15-10843

Short-term protection of palm wood against moulds and decay fungi by environment-friendly organic

M Bahmani, O Schmidt

IRG/WP 15-10846

Remote sensing for detection of termite infestations—Proof of Concept F Green III, R A Arango, C R Boardman, K J Bourne, J C Hermanson, R A Munson

IRG/WP 15-10852 Bamboo – A poor man's timber S Kumar

Section 2 Test methodology and assessment

IRG/WP 15-20563

Durability of treated wood Corymbia torelliana and Eucalyptus grandis x Eucalyptus urophylla against subterranean termite

D Junior Verly Lopes, J Benigno Paes, P N de Medeiros Neto, G dos Santos Bobadilha

IRG/WP 15-20569

Interaction between *Aspergillus niger* fungus and other filamentous fungi on salt-agar medium and their growth on natural wood and wood treated with fungicide A Fojutowski, A Kropacz, A Koziróg

Section 3 Wood protecting chemicals

IRG/WP 15-30679

Termiticide Residues in Building Foundation Aggregate Fills After Trench and Surface Applications B Kard, C E Konemann, K T Shelton, C C Luper, R A Grantham

Section 4 Processes and properties

IRG/WP 15-40688

The resistance of composite boards protected with azole and inorganic nanoparticles to basidiomycetes and moulds

J Zabielska-Matejuk, I Frąckowiak, A Stangierska

IRG/WP 15-40694

Depictions on Wood: Acceptation and Internalization of Wood, which is an intercultural interaction tool, as "A Valuable Object" (Wood is Good)

I Usta

IRG/WP 15-40696

Importancia de la protección de la madera para la conservación de los inmuebles y objetos patrimoniales

(Significance of Wood Protection for the Conservation of Heritage Buildings and Objects) R G Ibáñez San Miguel, D Velázquez Viera