



RESEARCH PAPERS

of Professor **George I. Mantanis** et al. | e-mail: mantanis@uth.gr

In: Referred CI-listed Journals (30)

- 1) Toulaki A.K., Bozinou E., Athanasiadis V., **Mantanis G.**, Dourtoglou V., Lalas S. (2020). [Accelerating of the aging process of Xinomavro wine \(Amyntaio, Greece\) using pulsed electric field and wood chips of various origins](#). Beverages (submitted)
- 2) Lin, C., Karlsson O., **Mantanis G.**, Sandberg D. (2020). [Fire performance and leach resistance of pine wood impregnated with guanyl-urea phosphate/boric acid and a melamine-formaldehyde resin](#). European Journal of Wood and Wood Products, 78(1): 107-111.
- 3) Esmailpour A., Taghiyari H.R., Ghorbanali M., **Mantanis G.** (2020). [Improving fire retardancy of medium density fibreboard by nano-wollastonite](#). Fire and Materials (*in press*)
- 4) **Mantanis G.**, Martinka J., Lykidis C., Ševčík L. (2019). [Technological properties and fire performance of medium density fibreboard \(MDF\) treated with selected polyphosphate-based fire retardants](#). Wood Material Science & Engineering, DOI: 10.1080/17480272.2019.1596159 (GS citations: 2)
- 5) **Mantanis G.**, Athanassiadou E., Barbu M., Wijnendaele, K., 2018. [Adhesive systems used in the European particleboard, MDF and OSB industries](#). Wood Material Science & Engineering 13(2): 104-116 (Google Scholar - GS citations: 20)
- 6) Lykidis C., De Troya T., Conde M., Galván J., **Mantanis G.**, 2018. [Termite resistance of beech wood treated with nano-sized zinc oxide and zinc borate nanocompounds](#). Wood Material Science & Engineering 13(1): 45-49 (GS citations: 3)
- 7) Sandberg D., Kutnar A., **Mantanis G.**, 2017. [Wood modification technologies - a review](#). iForest 10: 895-908 (GS citations: 24)
- 8) **Mantanis G.**, 2017. [Chemical modification of wood by acetylation or furfurylation – A review of the present scaled-up technologies](#). BioResources 12(2): 4478-4489 (GS citations: 20)

- 9) Doğu D., Yilgör N., Mantanis G., Tuncer F.D., 2017. [Structural evaluation of a timber construction element originating from the Great Metéoron monastery in Greece](#). BioResources 12(2): 2433-2451 (Google Scholar - GS citations: 2)
- 10) Lykidis, C., Bak, M., Mantanis, G., Neméth, R., 2016. [Biological resistance of pine wood treated with nano-sized zinc oxide and zinc borate against brown-rot fungi](#). European Journal of Wood and Wood Products 74(6): 909-911 (GS citations: 8)
- 11) Mantanis, G. and Lykidis, C., 2015. [Evaluation of weathering of furfurylated wood decks after a 3-year outdoor exposure in Greece](#). Drvna Industrija 66(2): 115-122 (GS citations: 6)
- 12) Mantanis, G., Terzi, E., Kartal, S.N., Papadopoulos A., 2014. [Evaluation of mold, decay and termite resistance of pine wood treated with zinc- and copper- based nanocompounds](#). International Biodeterioration and Biodegradation 90: 140-144 (GS citations: 51)
- 13) Lykidis, C., Mantanis, G., Adamopoulos, S., Kalafata, K. and I. Arabatzis, 2013. [Effects of nano-sized zinc oxide and zinc borate impregnation on brown-rot resistance of black pine \(*Pinus nigra* L.\) wood](#). Wood Material Science & Engineering 8(4): 242-244 (GS citations: 17)
- 14) Gortzi O., Metaxa X., Mantanis G., Lalas S., 2013. [Effect of artificial ageing using different wood chips on the antioxidant activity, resveratrol and catechin concentration, sensory properties and colour of 2 Greek red wines](#). Food Chemistry 141:2887-95 (GS citations: 28)
- 15) Skarvelis, M. and Mantanis, G., 2013. [Physical and mechanical properties of beech wood harvested in the Greek public forests](#). Wood Research 58(1): 123-130 (GS citations: 12)
- 16) Adamopoulos, S., Gellerich, A., Mantanis, G., Kalaitzi, T. and H. Miltz, 2012. [Resistance of *Pinus leucodermis* heartwood and sapwood against the brown-rot fungus *Coniophora puteana*](#). Wood Material Science & Engineering 7(4): 242-244 (Google Scholar - GS citations: 3)
- 17) Graikou K., Gortzi O., Mantanis G., Chinou I., 2012. [Chemical composition and biological activity of the essential oil from the wood of *Pinus heldreichii* Christ. var. *leucodermis*](#). European Journal of Wood & Wood Products 70: 615-620 (GS citations: 11)
- 18) Sahin T., Mantanis G., 2011. [Nano-based surface treatment effects on swelling, water sorption and hardness of wood](#). Maderas. Ciencia y tecnologia 13(1): 41-48 (GS citations: 9)

- 19) Mantanis G., Karastergiou S. and I. Barboutis, 2011. [Finger jointing of green Black pine wood \(*Pinus nigra* L.\)](#). European Journal of Wood and Wood Products 69 (1): 155-157 (GS citations: 7)
- 20) Sahin T., Mantanis G., 2011. [Colour changes in wood surfaces modified by a nanoparticulate based treatment](#). Wood Research 56 (4): 525-532 (GS citations: 11)
- 21) Mantanis G.I. and A. Papadopoulos, 2010. [Reducing the thickness swelling of wood-based panels by applying a nanotechnology compound](#). European Journal of Wood and Wood Products 68: 237-239 (GS citations: 12)
- 22) Mantanis G.I. and A. Papadopoulos, 2010. [The sorption of water vapour of wood treated with a nanotechnology compound](#). Wood Science and Technology 44 (3): 515-522 (GS citations: 30)
- 23) Mantanis G., Adamopoulos S. and E. Rammou, 2010. [Physical and mechanical properties of *Pinus leucodermis* wood](#). Wood Material Science & Engineering 5(1): 50-52 (Google Scholar - GS citations: 2)
- 24) Karastergiou S., Mantanis G.I. and K. Skoularakos, 2008. [Green gluing of oak wood \(*Quercus conferta* L.\) with a one-component polyurethane adhesive](#). Wood Material Science & Engineering 2008; 3-4: 79-82 (GS citations: 9)
- 25) Mantanis G.I. and R.A. Young, 1997. [Wetting of wood](#). Wood Science and Technology 31: 339-353 (GS citations: 94)
- 26) Mantanis G.I., Young R.A. and R.M. Rowell, 1995. [Swelling of wood. Part IV. A statistical model for prediction of maximum swelling of wood in organic liquids](#). Wood and Fiber Science 27(1): 22-24 (GS citations: 20)
- 27) Mantanis G.I., Young R.A. and R.M. Rowell, 1995. [Swelling of compressed cellulose fiber webs in organic liquids](#). Cellulose 2: 1-22 (GS citations: 143)
- 28) Mantanis G.I., Young R.A. and R.M. Rowell, 1995. [Swelling of wood. Part III. Effect of temperature and extractives on rate and maximum swelling](#). Holzforschung 49(3): 239-248 (Google Scholar - GS citations: 70)
- 29) Mantanis G.I., Young R.A. and R.M. Rowell, 1994. [Swelling of wood. Part II. Swelling in organic liquids](#). Holzforschung 48(6): 480-490 (GS citations: 128)
- 30) Mantanis G.I., Young R.A. and R.M. Rowell, 1994. [Swelling of wood. Part I. Swelling in water](#). Wood Science and Technology 28: 119-134 (GS citations: 158).

In: International Conferences (7)

- 1) Lykidis C., De Troya T., Conde M., Galván J., Mantanis G., 2016. [The termite resistance of wood impregnated with nano-zinc oxide and borate dispersions](#). In: Proc. of the 16th IRG on Wood Protection, IRG/WP 16-30691, 15-19 May 2016, Lisbon, Portugal (GS citations: 0)
- 2) Mantanis G., Jones D., 2012. [Innovative modification of wood with nanoparticulate treatment](#). In: Proc. of the 6th European Conference on Wood Modification, 16-18 Sept. 2012, Ljubljana, Slovenia, pp. 447- 453 (GS citations: 4)
- 3) Mantanis G., Athanassiadou E., Nakos P. and A. Coutinho, 2004. [A new process for recycling waste fiberboards](#). Proc. of the 38th International Wood Composites Symposium, 5-8 April 2004, Washington State University, Pullman, Washington, USA, pp. 119-122 (GS citations: 5)
- 4) Roffael E., Athanassiadou E. and G. Mantanis, 2002. [Recycling of particle- and fibre- boards using the extruder technique](#). Proc. of the 2nd International Conference on Environmental Protection in the Wood Industry, 21-22 March 2002, Goettingen, Germany, pp. 56-65 (GS citations: 5)
- 5) Mantanis G. and J. Berns, 2001. [Strawboards bonded with urea-formaldehyde resins](#). Proc. of the 35th International Particleboard/ Composite Materials Symposium, 2-5 April 2001, Washington State University, Pullman, Washington, USA, pp. 137-144 (GS citations: 23)
- 6) Mantanis G., Nakos P., Berns J. and L. Rigal, 2000. [Turning agricultural straw residues into value-added composite products: A new environmentally friendly technology](#). Proc. of the 5th International Conference on Environmental Pollution, 28-31 Aug. 2000, Aristotelian University, Thessaloniki, Greece, pp. 840-848 (GS citations: 15)
- 7) Mantanis G.I. and P.K. Koukos, 1997. [Agricultural lignocellulosic residues in Greece: Estimation and prospects for rational utilization](#). In: Proceedings of the 3rd International Conference for Development of Forestry, Wood Science & Technology, 28-30 Sept. 1997, Belgrade, Yugoslavia, pp. 374-379 (GS citations: 1)

International Patents (2)

- 1) Mantanis G., 2002. [Aqueous fire retardant](#). WO 02/102926, World Intellectual Property Organisation, [link](#) (GS citations: 7)

- 2) [Mantanis G., Nakos P., Labat G., Rigal L., 2000. Method for extracting and recycling waste chemically treated wood.](#) WO 00/74909, World Intellectual Property Organisation (GS citations: 0)

In: Greek Referred Scientific Journals (in Greek) (8)

- 1) [Μαντάνης Γ., Λυκίδης Χ. και Ε. Αθανασιάδου, 2011. Προσδιορισμός της ελεύθερης φορμαλδεΐδης σε συγκολλημένα προϊόντα ξύλου: συγκριτική μελέτη των υφιστάμενων μεθόδων δοκιμών.](#) Γεωτεχνικά Επιστημονικά Θέματα 21(2): 61-72.
- 2) [Κακαράς Ι. και Γ. Μαντάνης, 2009. Η εφαρμογή της σύγχρονης τεχνολογίας στη συντήρηση έργων τέχνης από ξύλο.](#) Επιστημονική Επετηρίδα της Σχολής Δασολογίας και Φυσικού Περιβάλλοντος - Τιμητικός τόμος για τον αείμνηστο Καθηγητή Νικόλαο Στάμου, Α.Π.Θ., Θεσσαλονίκη.
- 3) [Μαντάνης Γ. και Σ. Καραστεργίου, 2007. Συγκόλληση χλωρού ξύλου - Μια νέα τεχνολογία κατά μήκος συγκόλλησης του ξύλου με δακτυλοειδείς συνδέσεις.](#) Δασική Έρευνα 20: 3-10.
- 4) [Μαντάνης Γ., Αναστάσης Γ. και Ι. Κακαράς, 2006. Φορμαλδεΐδη: ένας από τους κυριότερους ρυπαντές εσωτερικών χώρων σε νεόδμητες κατοικίες.](#) Γεωτεχνικά Επιστημονικά Θέματα 17: 52-58.
- 5) [Μαντάνης Γ., Νταλός Γ. και Γ. Αναστάσης, 2005. Επιπτώσεις της σκόνης ξύλου στην υγεία των εργαζομένων σε βιομηχανίες ξύλου και επίπλου.](#) Γεωτεχνικά Επιστημονικά Θέματα 16 (2): 74-80.
- 6) [Παπαδόπουλος Α., Καραστεργίου Σ., Νταλός Γ. και Γ. Μαντάνης, 2004. Θερμική τροποποίηση του ξύλου: Μία νέα τεχνική για ξύλο με βελτιωμένες ιδιότητες.](#) Γεωτεχνικά Επιστημονικά Θέματα 15 (1): 53-60.
- 7) [Μαντάνης Γ. και Ι. Φιλίππου, 1999. Μεταβολές κατά τη θερμική αποικοδόμηση του ξύλου.](#) Δασική Έρευνα 12: 73-81.
- 8) [Μαντάνης Γ., 1998. Παραγωγή συμπιεσμένου καυσόξυλου από υπολείμματα κατεργασίας ξύλου.](#) Γεωτεχνικά Επιστημονικά Θέματα 9 (1): 56-59.

In: International Symposia (5)

- 1) [Mantanis G., Vouli E., Gonitsioti C. and G. Ntalos, 2007. Formaldehyde in indoor air of new apartments in Greece.](#) Proc. of the Conference "Measurement and Control of VOC Emissions from Wood-Based Panels", COST Action E49, 28-30 Nov. 2007, WKI, Braunschweig, Germany (GS citations: 0)

- 2) Athanassiadou E., Roffael E. and G. Mantanis, 2005. [Medium density fibreboards \(MDF\) from recycled fibres](#). Proc. of Conference «Towards a higher technical, economical and environmental standard in Europe», COST Action E31, 29/09-01/10 2005, Bordeaux, France, pp. 248-261 (GS citations: 6)
- 3) Mantanis G., Athanassiadou E., Coutinho G.M.A., Nakos, P., 2004. [A new recycling process for waste panels](#). Proc. of Conference “Management of recovered wood recycling, bioenergy and other options”, COST Action E31, 22-24 April 2004, Thessaloniki, Greece, pp. 204-210 (GS citations: 6)
- 4) Alexandropoulos, D., Nakos, P. and G. Mantanis, 1998. [European approach to particleboard and MDF adhesives](#). 1998 Resin and Blending Seminar Proceedings, Composite Panel Association (CPA), 10-11 Dec. 1998, Charlotte, N. Carolina, USA, pp. 133-141 (GS citations: 6)
- 5) Mantanis G.I. and A.E. Karalivanos, 1997. [Control and certification of the European wooden pallet: Current status in Greece](#). Proc. of the 1st Conf. of Standardization and Related Activities: A Means of Balkan Countries Collaboration, 8-10 May 1997, Technology Park, Thessaloniki, pp. 156-162 (GS citations: 0)

In: Greek Scientific Conferences (in Greek) (5)

- 1) Μαντάνης Γ. και Παπαδόπουλος Α., 2009. [Βελτίωση της διόγκωσης ξυλοπλακών μετά από επιφανειακό χειρισμό με νέο σκεύασμα нанοτεχνολογίας](#). Πρακτικά 14^{ου} Πανελληνίου Δασολογικού Συνεδρίου, 2-3 Οκτ. 2009, Πάτρα.
- 2) Καραστεργίου Σ., Μαντάνης Γ., Κακαράς Ι., 2007. [Μελέτη της αντοχής σε κάμψη επικολλητής ξυλείας δρυός \(Quercus conferta\) με κατά μήκος δακτυλοειδείς συνδέσεις \(finger-joints\) – Εφαρμογή της μεθόδου «συγκόλλησης χλωρού ξύλου»](#). Πρακτικά 13^{ου} Πανελληνίου Δασολογικού Συνεδρίου, 8-11 Οκτ. 2007, Καστοριά.
- 3) Μπαξεβάνης Κ., Παπαδόπουλος Ι., Μαντάνης Γ., Κόκκα Ε., 2005. [Έρευνα αγοράς του OSB διεθνώς και οι προοπτικές ανάπτυξης του στην ελληνική αγορά](#). Πρακτικά 12^{ου} Πανελληνίου Δασολογικού Συνεδρίου, 3-5 Οκτ. 2005, Δράμα.
- 4) Μαντάνης Γ., Νταλός Γ. και Σ. Καραστεργίου, 2003. [Χρωματιστή ινοπλάκα μέσης πυκνότητας \(MDF\): ένα νέο προστιθέμενης αξίας προϊόν. Οι προοπτικές του στη χώρα μας](#). Πρακτικά 11^{ου} Πανελληνίου Δασολογικού Συνεδρίου, 1-3 Οκτ. 2003, Αρχαία Ολυμπία, Ν. Ηλείας.

- 5) Νταλός Γ., Άλκηστις Κ., Σ. Καραστεργίου και Γ. Μαντάνης, 2003. [Επίπεδα θορύβου στους χώρους εργασίας βιομηχανιών κατεργασίας ξύλου](#). Πρακτικά 11^{ου} Πανελληνίου Δασολογικού Συνεδρίου, 1-3 Οκτ. 2003, Αρχαία Ολυμπία, Ν. Ηλείας.

In: International Journals (5)

- 1) Sahin, T., Mantanis, G., 2016. [Colour changes of pine and fir wood treated with several titanium- and zinc- oxide based nanocompounds](#). Advances in Forestry Letter 5: 17-23 (GS citations: 3)
- 2) Papadopoulos A.N., Mantanis G., Katsinikas K., Michael M., 2013. [Formaldehyde in indoor air of new apartments in Drama, Greece](#). Advances in Forestry Letter 2(2): 9-13 (GS citations: 0)
- 3) Papadopoulos A.N. and G. Mantanis, 2012. [Vapour sorption studies of Belmadur wood](#). Advances in Forestry Letter, 1:1-6 (GS citations: 1)
- 4) Papadopoulos A. and G. Mantanis, 2011. [Surface treatment technologies applied to wood surfaces](#). FDM-Asia, May/June 2011, 23(4): 36-39 (GS citations: 2)
- 5) Mantanis G. and D. Birbilis, 2010. [Physical and mechanical properties of Athel wood \(Tamarix aphylla\)](#). Suleyman Demirel Univ., Forestry Faculty Journal 2010; A(2): 82-87 (GS citations: 5)

International recognition of research work

Citations at **Google Scholar**[®]: **1,121** (until 20-01-2020) | h-index: **15** | i10-index: **21**
<https://scholar.google.gr/citations?user=rFT6H-wAAAAJ&hl=el>

Citations at **Scopus**[®]: **677** (until 20-01-2020) | h-index: **13** | i10-index: **16**
<https://www.scopus.com/authid/detail.uri?authorId=35322741000>

Co-Editor in the referred journal **Wood Material Science & Engineering** (Taylor & Francis) since 01/12/2017, [link](#)

Reviewer in the international referred journals:

European Journal of Wood and Wood Products, Wood Science and Technology, Wood Material Science & Engineering, Wood Research, Holzforschung, Maderas. Ciencia y tecnologia, BioResources, Wood and Fiber Science, Drvna Industrija, BioResource Technology, Cellulose, Journal of Building Engineering, Industrial Crops & Products, International Biodeterioration and Biodegradation

4th scientist -in international citations- among the **Greek Wood Scientists**
<http://users.teilar.gr/~mantanis/Greek-Wood-Scientists.pdf>

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