

CURRICULUM VITAE

of Dr. George I. Mantanis



Full name	:	George I. Mantanis
Birth date	:	18 Sept. 1966
Birth place	:	Mytilene, Lesvos island, Greece
Family status	:	Married with Mrs. P. Zougrou, with two children
Citizenship	:	Greek
Profession	:	Professor, TEI of Larissa
Home address	:	Stamouli str. 27, Karditsa, 43100, Greece
Work address	:	Technological Educational Institution (TEI) of Larissa Dept. of Wood & Furniture Design and Technology V. Griva 11, Karditsa, GR-43100, Greece tel.: (+30) 6947 300585 - fax: +30 24410 79.220 email: mantanis@teilar.gr website: www.teilar.gr/~mantanis/en.htm

EDUCATION

- ✚ Diploma (Dipl. of Science). Department of Forestry and Natural Environment
Aristotelian University, Thessaloniki, Greece (11 Sept. 1989).
- ✚ Ph.D. (Doctor of Philosophy). Department of Forestry, University of
Wisconsin - Madison, Madison, Wisconsin, USA (21 May 1994).

THESES

Mantanis, G. I. (1989). *Improvement of Particleboard Properties with a High Temperature Press Treatment*. Diploma thesis, Department of Forestry & Natural Environment, Aristotelian Univ., Thessaloniki, Greece (supervisor: Prof. A. Grigoriou)

Mantanis G. I. (1994). [Swelling of Lignocellulosic Materials in Water and Organic Liquids](#).
Ph.D. thesis, Department of Forestry, University of Wisconsin-Madison, Madison,
Wisconsin, USA (supervisor: Prof. Raymond A. Young)

PROFESSIONAL EXPERIENCE

- *Professor*, Technological Educational Institution (TEI) of Larissa, [Department of Wood & Furniture Tech. and Design](#), Lab of Wood Technology, Karditsa, Greece. Teaching courses: *Wood structure; Wood properties; Chemical technology of wood products; Wood technology*.
(Oct. 2002 - present)
- *Research Scientist*, [Marlit Ltd.](#) - Industrial producer of special chemicals used in the wood panels industry, A.C.M. Wood Chemicals Plc, Gefyra, Thessaloniki, Greece.
(Sept. 1998 – Oct. 2001)
- *Research Scientist*, [Adhesives Research Institute Ltd.](#), A.C.M. Wood Chemicals Plc., Thessaloniki, Greece.
(Jan. 1998 - Sept. 1998)
- *Wood Technologist*, [Forest Research Institute](#), N.AG.RE.F, Thessaloniki, Greece.
(Aug. 1996 - Oct. 1997)
- *Research Assistant*, [Dept. of Forestry](#), Univ. of Wisconsin-Madison, WI, USA.
(Jan. 1991 - May 1994)

RESEARCH INTERESTS

- ✚ Physical and chemical properties of wood.
- ✚ Durability of wood.
- ✚ Chemical and thermal modification of wood.

QUALIFICATIONS

PC: Functional systems : *Windows, Excel, Word, Internet, Powerpoint etc.*

Languages: Greek (native language), English (fluently).

**PUBLICATIONS IN SCIENTIFIC JOURNALS &
PRESENTATIONS IN INTERNATIONAL CONFERENCES**

- (1) 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.
- (2) 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.
- (3) 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.
- (4) Mantanis G. I., Young R. A. and R. M. Rowell (1995). [Swelling of Compressed Cellulose Fiber Webs in Organic Liquids](#). *Cellulose* 2: 1-22.
- (5) 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.
- (6) Mantanis G. I. and R. A. Young (1997). [Wetting of wood](#). *Wood Science and Technology* 31: 339-353.
- (7) 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 Standardisation and Related Activities: A Means of Balkan Countries Collaboration*, pp. 156-162, May 8-10, 1997, Technology Park, Thessaloniki, Greece.
- (8) Mantanis G. I. and P. K. Koukos (1997). [Agricultural lignocellulosic residues in Greece: Estimation and prospects for rational utilization](#). *Proc. of the 3rd International Conference for Development of Forestry, Wood Science & Technology*, pp. 374-379, Sept. 28-30, 1997, Belgrade, Yugoslavia.
- (9) Alexandropoulos, D., Nakos, P. and G. Mantanis (1998). [European approach to particleboard and MDF adhesives](#). *1998 Resin & Blending Seminar Proceedings*,

Composite Panel Association (CPA), pp. 137-146, Dec. 10-11, 1998, Charlotte, N. Carolina, USA.

- (10) 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*, pp. 840-848, Aug. 28-31, Aristotelian Univ. of Thessaloniki, Thessaloniki, Greece.
- (11) Mantanis G. I. and J. Berns (2001). [Strawboard bonded with urea-formaldehyde resins](#). *Proc. of the 35th International Particleboard/Composite Materials Symposium*, April 2-5, 2001, Washington State University, Pullman, WA, USA, pp. 137-144.
- (12) Roffael E., Athanassiadou E. and G. Mantanis (2002). [Recycling of particle- and fibre-boards using the extruder technique](#). *Proc. of the 2nd Conf. of Umweltschutz in der Holzwerkstoffindustrie*, March 21-22, 2002, Goettingen, Germany, pp. 56-65.
- (13) Ntalos G., Papadopoulos A., Karastergiou S., Mantanis G. and J. Kakaras (2003). [Dimension stability and decay resistance against conioophora puteana of scots pine sapwood due to reaction with propionic anhydride](#). *Proc. of International Conference – 75th anniversary of the Forest Research Institute of Bulgarian Academy*, Sept. 9-11, 2003, Sofia, Bulgaria.
- (14) Mantanis G. I., E. Athanassiadou, P. Nakos and A. Coutinho (2004). [A new chemical process for recycling waste fibreboards](#). *Proc. of the 38th International Particleboard/Composite Materials Symposium*, April 5-8, 2004, Washington State University, Pullman, Washington, USA, pp. 119-122.
- (15) Mantanis, G., Athanassiadou, E., Coutinho, J.M.A. and P. Nakos (2004). [A new recycling process for waste panels](#). In: *Proc. of European COST E31 Conference: "Management of recovered wood"*. Ed. C. Gallis, 22-24 April 2004, Thessaloniki, Greece, pp. 204-210.
- (16) Athanassiadou E., Roffael E. and G. Mantanis (2005). [Medium density fibreboards from recycled fibres](#). *Proc. of 2nd Conference: «Towards a higher technical, economical*

and environmental standard». COST Action E31 “Management of Recovered Wood”, Sept. 29-30, 2005, CTBA, Bordeaux, France.

- (17) Mantanis G., Vouli E., Gonitsioti C. and G. Ntalos (2007). [Formaldehyde in indoor air of new apartments in Greece](#). *Proceedings of the COST Action E49 Conference “Measurement and Control of VOC Emissions from Wood-Based Panels”*, 28-30 November 2007, WKI, Braunschweig, Germany.
- (18) Karastergiou S., Mantanis G. and K. Skoularakos (2008). [Green gluing of oak wood \(*Quercus conferta*\) with a one-component polyurethane adhesive](#). *Wood Material Science and Engineering* 2008; 3-4: 79-82.
- (19) 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.
- (20) Mantanis G.I., Adamopoulos S. and E. Rammou (2010). [Physical and mechanical properties of *Pinus leucodermis* wood](#). *Wood Material Science & Engineering* 2010; 5(1): 50-52.
- (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 & Wood Products* 68: 237-239.
- (22) Mantanis G. and D. Birbilis (2010). [Physical and mechanical properties of athel wood \(*Tamarix aphylla*\)](#). *SDU Forestry Faculty Journal* 2010; A(2): 82-87.
- (23) Sahin T. and G. Mantanis (2011). [Nano-based surface treatment effects on swelling, water sorption and hardness of wood](#). *Maderas. Ciencia y tecnologia* 13(1):41-48
- (24) Sahin T. and G. Mantanis (2011). [Colour changes in wood surfaces modified by a nanoparticulate based treatment](#). *Wood Research* 56(4): 525-532.
- (25) Mantanis G., Karastergiou S. & I. Barboutis (2011). [Finger jointing of green Black pine wood \(*Pinus nigra L.*\)](#). *European J. of Wood & Wood Products* 69(1): 155-157.

- (26) 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* wood](#). *Eur. J. of Wood & Wood Products* 70: 615-620.
- (27) Papadopoulos, A.N., **Mantanis, G.** (2012). [Vapour sorption studies of Belmadur wood](#). *Advances in Forestry Letter* 1(1): 1-6.
- (28) Adamopoulos, S., Gellerich, A., **Mantanis, G.**, Kalaitzi, T. and H. Militz (2012). [Resistance of *Pinus leucodermis* heartwood and sapwood against the brown rot fungus *Coniophora puteana*](#). *Wood Material Science & Engineering* 2012; 1-3.
- (29) **Mantanis, G.**, Jones, D. (2012). [Innovative modification of wood with nanoparticulate treatment](#). In: *Proc. of 6th European Conference on Wood Modification*, Slovenia, 16-18 Sept. 2012, pp. 447-453.
- (30) Skarvelis M. and **G. Mantanis** (2013). [Physical and mechanical properties of beech wood harvested in the Greek public forests](#). *Wood Research* 58(1): 123-128.
- (31) Gortzi, O., Metaxa, X., **Mantanis, G.**, Lalas, S. (2013). [Effect of artificial aging using different wood chips on the antioxidant activity, resveratrol and catechin concentration, sensory properties and color of two Greek red wines](#). *Food Chemistry* (accepted, in press).

INTERNATIONAL PATENTS


- (1) **Mantanis G.**, Nakos P., Labat G. and L. Rigal (2000). [Method for extracting and recycling waste chemically treated wood](#). *WO 00/74909 A1*, World Intellectual Property Organisation, 14/12/2000.
- (2) **Mantanis G.** (2002). [Aqueous fire retardant](#). *WO 02/102926 A1*, World Intellectual Property Organisation, 27/12/2002.


RECOGNITION OF WORK


- CITATIONS, total citations for the work of Dr. George Mantanis: **>two hundred ninety four (294)**, see <http://users.teilar.gr/~mantanis/research.files/H1.htm>

- MEMBER IN EDITORIAL BOARD, journal *Wood Material Science and Engineering*
<http://www.tandfonline.com/action/aboutThisJournal?show=editorialBoard&journalCode=swoo20>

PRESENTATIONS IN WORKSHOPS

-  Kakaras I. and G. Mantanis (2007). Repair and conservation of old wooden constructions and furniture at TEI Larissa - Greece: Education and activities. Poster presentation. *Workshop COST Action IE0601 "Wood Science for Conservation of Cultural Heritage"*, 8/9 June 2007, Royal Museum for Central Africa, Tervuren, Belgium.

-  Mantanis G. (2007). Green gluing of wood: a new technology – useful for the conservation of wooden cultural heritage objects? Poster presentation. *Workshop COST Action IE0601 "Wood Science for Conservation of Cultural Heritage"*, 8/9 June 2007, Royal Museum for Central Africa, Tervuren, Belgium.

-  Mantanis G. and M. Skarvelis (2006). Forestry & Quality control of wood products: Status-quo in Greece. International Workshop «*Status-quo in Quality Control*». COST Action E53 “Quality Control of Wood and Wood Products”, Nov. 8-10, 2006, Univ. of West Hungary, Sopron, Hungary.

PAPERS IN GREEK JOURNALS & CONFERENCES

- (1) Mantanis G. I. (1998). Production of briquettes from wood residues. *Geotechnical Scientific Matters* 9 (1): 56-59 (in Greek).
- (2) Mantanis G. I. and J. L. Philippou (1998). Changes during the thermal decomposition of wood. A review article. *Forestry Research J.* 12: 73-81 (in Greek).

- (3) Mantanis G., Ntalos G. and S. Karastergiou (2003). Coloured medium density fibreboard: A new value added product. Its perspectives in Greece. *Proceedings of 11th Panhellenic Society of Forestry*, 1-3 Oct. 2003, Ancient Olymbia, Greece (in Greek).
- (4) Ntalos G., Alkistis K., Karastergiou S. and G. Mantanis (2003). Levels of noise within the facilities of Greek wood industries. *Proceedings of 11th Panhellenic Society of Forestry*, 1-3 Oct. 2003, Ancient Olymbia, Greece (in Greek).
- (5) Mantanis G., Ntalos G. and G. Anastasis (2005). Consequences of wood dust on the health of furniture – wood industry workers. *Geotechnical Scientific Matters* 16 (2): 74-80 (in Greek).
- (6) Mantanis G., Anastasis G. and J. Kakaras (2005). Formaldehyde: the main indoor air pollutant in new houses. *Geotechnical Scientific Matters* (in Greek).

PARTICIPATION IN RESEARCH PROJECTS

- *Novel Closed-loop Technology for Panel Recycling*
EUROPEAN UNION funded project - FAIR PL96-1486 (1998-2000).
- *Non-Toxic Aminoplastic Adhesive for MDF and New Application for Panel Products of Improved Weather and Biological Resistance*
EUROPEAN UNION CEC funded project - FAIR PL96-1604 (1998-2000).
- *Innovative Technology for Panel Manufacture from Fiberised Agriwaste*
EUROPEAN UNION CEC funded project - INNOVATION IN20551I (1998-2001)

Participation in research & technical projects:

(ref: <http://users.teilar.gr/~mantanis/research.htm>)

- *Testing of Plato[®] wood products in a 3-year outdoor exposure in Greece using weathering and block tests*, in cooperation with [Plato International BV](#) (2011-2014)

- *Outdoor testing of Kebony[®] wood decks in a 3-year exposure in Greece*, in cooperation with [Kebony ASA](#) (2011-2014)
- *R&D: new nanocompounds for wood protection*, in cooperation with nanotech company [NanoPhos SA](#) (2010-2013)
- *Implementation project for use of Accoya wood in window frames in Greek market*, in cooperation with industry [N. Kritikos – A. Kritikos SA](#) (2010-2015).
- *Development of a new nanocompound for wood hygrophobicity*, in cooperation with nanotech company [NanoPhos SA](#) (2010-2011).

Participation in several technical & trouble-shooting small projects:

(please check this: <http://users.teilar.gr/~mantanis/research.htm>)

PARTICIPATION IN COST Actions

- ✚ Member in the Action: COST E31 *Management of Recovered Wood* http://www.ctib-tchn.be/coste31/frames/f_e31.htm
- ✚ Member in the Action: COST E34 - WG2: *Green Gluing of Wood* <http://www1.uni-hamburg.de/cost/e34/>
- ✚ National Representative in COST FP0904 *Thermo- Hydro- Mechanical- Wood Behaviour and Processing* <http://www.cost-fp0904.ahb.bfh.ch/cost/en/home>
- ✚ National Representative in COST FP1006 *Bringing new functions to wood through surface modification* http://www.cost.esf.org/domains_actions/fps/Actions/fp1006

OTHER SCIENTIFIC ACTIVITIES IN GREECE

- Technical articles (in Greek) <http://users.teilar.gr/~mantanis/articles.htm>
- Small projects (in Greece) <http://users.teilar.gr/~mantanis/anagnwrisi-xylou.htm>
- Articles-in-public (in Greek) <http://users.teilar.gr/~mantanis/theseis.htm>