

CURRICULUM VITAE

OFFICE ADDRESS

Warsaw University of Life Sciences – WULS
Institute of Wood Sciences and Furniture
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OBTAINED DEGREES

May 2019, professorship in Forest Science, President of Republic of Poland

September 2013, Post-doctoral degree (habilitation) in Wood Science, Warsaw University of Life Sciences – WULS, Warsaw, Poland, *Application of hyperbranched polyglycerols as components of wood adhesives*

December 2007, Ph.D. in Wood Science, Warsaw University of Life Sciences – WULS, Warsaw, Poland, Wood Science. Thesis: *The effect on aliphatic alcohols and carbonyl compounds on the properties of urea-formaldehyde resins for wood bonding*

September 2000, M.Sc. in Chemical Technology, Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland, September 2000, Thesis: *Investigation of the structure and conformation of dibenzocycloheptanone derivatives*

EXPERIENCE

Teaching, Extension and Research Appointments

June 2019 – present, professor, Warsaw University of Life Sciences – SGGW, Institute of Wood Sciences and Furniture, Warsaw, Poland

August 2017 – May 2019, associate professor, Warsaw University of Life Sciences – SGGW, Faculty of Wood Technology, Warsaw, Poland

October 2014 – March 2015, visiting scholar, College of Natural Resources, University of Idaho, Moscow, ID, USA

December 2007 – July 2017, assistant professor, Warsaw University of Life Sciences – SGGW, Faculty of Wood Technology, Warsaw, Poland

April 2003 – June 2003, fellow, Supramolecular Chemistry and Technology, University of Twente, Enschede, The Netherlands

October 2001 – July 2004, Researcher in Department of Analytical Chemistry, Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland

TEACHING ACCOMPLISHMENTS

Courses taught

Bonding and adhesive technology; Environmental protection; Industrial adhesive bonding; Bonding in furniture industry; Bioresources and new materials

Students Supervised

22 M.Sc. students, Warsaw University of Life Sciences – WULS

42 B.Sc. students, Warsaw University of Life Sciences – WULS

2 Ph.D. defended at the Warsaw University of Life Sciences – WULS

Students Co-supervised

3 Ph.D.'s completed at the University Putra Malaysia

1 Ph.D. in progress at the Warsaw University of Technology

RESEARCH PROJECTS

Grant from National Centre for Research and Development, realized in years 2021-2023: *Development of innovative adhesive formulations for wide application in wood industry*

Grant from National Centre for Research and Development, realized in years 2020-2023: *Development of an innovative method of covering wood-based panels in order to obtain innovative furniture products with new functionality*

Grant from National Centre for Research and Development, realized in years 2016-2018: *EcoPlank – Studies on the application of natural polymers and natural fibers in manufacturing of hybrid wood-based panels for furniture and construction industry*

Grant from National Centre for Research and Development, realized in years 2016-2018: *Innovative technology for Eco-Bonding of asymmetrically veneered composites for furniture industry*

Grant from Ministry of Science and Higher Education, realized in years 2010-2012: *Investigation of formaldehyde emission levels at consecutive stages of industrial manufacturing of particleboards*

Grant from Ministry of Science and Higher Education, realized in years 2009-2011: *Studies on utilization of oligo- and polyglycerols in wood adhesives*

Grant from Ministry of Science and Higher Education, realized in years 2007-2009: *Studies on using of thermoplastics as wood particles binders in manufacturing of particleboard and plywood*

ERA-NET IB Project – 6th EU Framework Program, funding by National Centre for Research and Development realized in years 2008-2011: *Improvement of strength properties and reduction of emission of volatile organic compounds by enzymatic modification of lignin containing biopolymers and composites*

MEMBERSHIP

Forest Products Society (USA), member since 2017

Wood-Based Panels Association Producers of Poland, member since 2013

Association of Foresters and Wood Technologists, member since 2010

Polish Standardization Committee, Products of Timber and Wood-Based Materials Technical Committee, WULS representative since 2009

HONORS AND AWARDS

2021, 2020, 2018, 2017, 2016, 2015, 2013, 2010, 2009 Individual Rector Prize for scientific achievements

2016 Excellence in Teaching, Students' Award, Warsaw University of Life Sciences – WULS

PUBLICATIONS

IF >80; H-index 13

JCR journals	53
proceedings and other journals	>100;
Patents	6
Books	3
Chapters in books	4

SCIENTIFIC INTERESTS

wood modification, environmentally friendly materials, renewable resources, biopolymer chemistry, adhesives and bonding, wood-based composites manufacturing and development, bioenergy

Selected publications

1. Toczyłowska-Mamińska R., Mamiński M.Ł., Wastewater as a Renewable Energy Source—Utilisation of Microbial Fuel Cell Technology, *Energies* 2022, 15(19), 6928; <https://doi.org/10.3390/en15196928>
2. Zalewski J.M., Mamiński M.Ł., Parzuchowski P.G., Synthesis of Polyhydroxyurethanes—Experimental Verification of the Box–Behnken Optimization Model, *Polymers*, 2022,14(21),4510; <https://doi.org/10.3390/polym14214510>
3. Lee M.S.T., Chin K.L., H'ng P.S., Mariapan M., Ooi S.Y., Gandaseca S., Maminski M., The Role of Forest and Environmental Conservation Film in Creating Nature Connectedness and Pro-Environmental Behaviour, *Quarterly Review of Film and Video*, 2021; DOI: 10.1080/10509208.2021.1996310
4. Mamiński M., Novák I. Mičušík M., Małolepszy A., Toczyłowska-Mamińska R., Discharge Plasma Treatment as an Efficient Tool for Improved Poly(lactide) Adhesive–Wood Interactions, *Materials*, 2021, 3672; DOI:10.3390/ma14133672
5. Laskowska A., Majewska K., Kozakiewicz P., Mamiński M., Bryk G., Case Study of Anatomy, Physical and Mechanical Properties of the Sapwood and Heartwood of Random Tree *Platycladus orientalis* (L.) Franco from South-Eastern Poland, *Forests*, 2021, 925; DOI:10.3390/f12070925
6. Lee C.L., Chin K.L., H'ng P.S., Rashid U., Maminski M., Khoo P.S., Effect of pretreatment conditions on the chemical–structural characteristics of coconut and palm kernel shell: A potentially valuable precursor for eco-efficient activated carbon production, *Environmental Technology and Innovation*, 2021, 101309; DOI:10.1016/j.eti.2020.101309
7. Chin, K., Lee, C., H'ng, P., Rashid, U., Paridah, M., Khoo, P., and Maminski, M. Refining Micropore Capacity of Activated Carbon Derived from Coconut Shell via Deashing Post-Treatment, *Bioresources*, 2020, 15, 7749-7769; DOI:10.15376/biores.15.4.7749-7769
8. Laskowska A., Mamiński M., The properties of particles produced from waste plywood by shredding in a single-shaft shredder, *Maderas-Ciencia y Tecnologia*, 2020, 22, 197-204; DOI:10.4067/S0718-221X2020005000206
9. Mamiński M., Więctaw-Midor A., Parzuchowski P., The Effect of Silica-Filler on Polyurethane Adhesives Based on Renewable Resource for Wood Bonding, *Polymers*, 2020, 12(10), 2177
10. Mamiński M., Trzepałka A., Auriga R., H'ng P.S., Chin K.L., Physical and mechanical properties of thin high density fiberboard bonded with 1,3-dimethylol-4,5-dihydroxyethyleneurea (DMDHEU), *J. Adhesion*, 2020, 96(7), 679-690
11. Kozakiewicz P., Jankowska A., Mamiński M., Marciszewska K., Czurzycki W., Tulik M., The Wood of Scots Pine (*Pinus sylvestris* L.) from Post-Agricultural Lands Has Suitable Properties for the Timber Industry, *Forests* 2020, 11(10), 1033
12. Parzuchowski P., Świdarska A., Roguszewska M., Rolińska K., Wołosz D., Mamiński M., Hyperbranched Poly(ether-siloxane)s Containing Ammonium Groups: Synthesis, Characterization and Catalytic Activity, *Polymers*, 2020, 12(4), 85
13. Parzuchowski P., Mamiński M., Poly-(3-ethyl-3-hydroxymethyl)oxetanes—Synthesis and Adhesive Interactions with Polar Substrates, *Polymers*, 2020, 12(1), 222
14. Król P., Borysiuk P., Mamiński M., Comparison of methodologies for acid buffering capacity determination - empirical verification of models, *Appl. Sci.*, 2019, 9, 2345
15. Mamiński M., Romanowska A., Polyglycerol- and sucrose-based green polyurethane adhesives for veneering, *Drvna Ind.* 2019, 70(3), 229-233
16. Lee C.L., H'ng P.S., Paridah Md T., Chin K.L., Rashid U., Mamiński M., Go W.Z., Nazrin Raja A.R., Rosli S.N.A., Khoo P.S., Production of bioadsorbent from phosphoric acid pretreated palm kernel shell and coconut shell by two-stage continuous physical activation via N₂ and air, *Royal Open Sci*, 2018, 5: 180775
17. Mohammad Padzil, F. N., Ariffin, H., Zakaria, S., Boruszewski, P., Krajewski, K. J., Mamiński, M. L., Effect of poplar cultivar “Hybrid 275” fiber impregnation with 1,3-dimethylol-4,5-dihydroxyethyleneurea on the properties of high density fiberboards, *BioResources*, 2018, 13(4), 7470-7480

18. Chin K.L., H'ng P.S., Mamiński M., Go W.Z., Lee C.L., Raja-Nazrin R.A., Khoo P.S., Ashikin S.N., Halimatun I., Additional additives to reduce ash related operation problems of solid biofuel from oil palm biomass upon combustion, *Ind. Crops Prod.*, 2018, 123, 285-295
19. Khoo P.S., H'ng P.S., Chin K.L., Bakar E.S., Mamiński M., Raja-Ahmad R.-N., Lee C.L., Ashikin S.N., Saharudin M.-H., Peeling of small diameter rubber log using spindleless lathe technology: evaluation of veneer properties from outer to inner radial section of log at different veneer thicknesses, *Eur. J. Wood Prod.* 2018, 1335–1346
20. Laskowska A., Mamiński M., The properties of particleboards produced from post-production UF- and PF-bonded waste plywood, *Eur. J. Wood. Prod.*, 2018, 76, 427–435
21. Król P., Toczyłowska-Mamińska R., Mamiński M., A critical role for the presence of lignocellulosic material in the determination of wood buffering capacity, *J. Wood Chem. Technol.*, 2017, 37(6), 478-784.
22. Mamiński M., Kozakiewicz P., Jaskółowski W., Chin K.L., H'ng P.S., Toczyłowska-Mamińska R., Enhancement of technical value of oil palm (*Elaeis guineensis* Jacq.) waste trunk through modification with 1,3-dimethylol-4,5-dihydroxyethyleneurea (DMDHEU), *Eur. J. Wood Prod.* 2016, 74, 837–844.
23. Boruszewski P., Borysiuk P., Mamiński M., Czechowska J., Mat compression measurements during low density particleboard manufacturing, *BioResources*, 2016, 11(3), 6909-6919.
24. Wysocka K., Szymona K., McDonald A., Mamiński M., Characterization of thermal and mechanical properties of lignosulfonate- and hydrolyzed lignosulfonate-based polyurethane foams, *BioResources*, 2016, 11(3), 7355-7364.
25. Toczyłowska-Mamińska R., Szymona K., Madej H., Wong W.Z., Brutkowski W., Bala A., Krajewski K., H'ng P.S., Mamiński M., Cellulolytic and electrogenic activity of *Enterobacter cloacae* in mediatorless microbial fuel cell, *Appl. Energy*, 2015, 160, 88-93.
26. Chin K.L., H'ng P.S., Paridah M.T., Szymona K., Mamiński M., Lee S.H., Lum W.C., Nurliyana M.Y., Chow M.J., Go W.Z., Reducing ash related operation problems of fast growing timber species and oil palm biomass for combustion applications using leaching techniques, *Energy*, 2015, 90, 622-630.
27. Kong M.T., Lim T.W., Król P., Auriga R., Mamiński M., 1,3-Dimethylol-4,5-dihydroxyethyleneurea as a potential alternative binder for plywood, *J. Adhes.*, 2016, 92, 908-915.
28. Lee S. H., Lum W. C., Zaidon A., Mamiński M., Microstructural, mechanical and physical properties of post heat-treated melamine-fortified urea formaldehyde-bonded particleboard, *Eur. J. Wood Prod.* , 2015, 73:607–616.
29. Oleńska S., Tarcicki P., Mamiński M., Beer P., Effectiveness of asymmetrical veneering with hardwood species of varying shrinkage and porosity, *Drvna Industrija*, 2014, 65, 139-142.
30. Kowaluk G., Borysiuk P., Boruszewski P., Mamiński M., Particleboards engineered through separate layer bonding. *Wood Research*, 2013, 58(2), 2013, 265-274.
31. Chin K.L., H'ng P.S., Go W.Z., Wong W.Z., Lim T.W., Mamiński M., Paridah M.T., Luqman A.C., Optimization of torrefaction conditions for high energy density solidbiofuel from oil palm biomass and fast growing species available in Malaysia, *Ind Crops Prod*, 2013, 49, 768– 774.
32. Szymona K., Borysiuk P., Chin K.L., Hng P.S., Mamiński M., Valorization of waste oil palm (*Elaeis guineensis* Jacq.) biomass through furfurylation, *Mater Design*, 2014, 53 425–429.
33. Mamiński M., Król M., McDonald A.G., McIlroy D.N., Niraula I.B., Czechowska J., Parzuchowski P., Thermallyinitiated solvent-free radical modification of beech (*Fagus sylvatica*) wood, *Wood Sci Technol*, 2013, 47, 1019–1031.
34. Chin K. L., H'ng P. S., Chai E. W., Tey B. T., Chin M. J., Paridah M. T., Luqman A. C., Maminski M., Fuel Characteristics of Solid Biofuel Derived from Oil Palm Biomass and Fast Growing Timber Species in Malaysia, *Bioenerg. Res.*, 2013, 6, 75–82
35. Mamiński M., Witek. S., P. Parzuchowski, Szymona K., Novel adhesive system based on 1,3-dimethylol-4,5-dihydroxyethyleneurea (DMDHEU) and hyperbranched polyglycerols, *Eur. J. Wood Prod.*, 2013, 71, 267–275
36. Mamiński M., Szymański R., Parzuchowski P., Antczak A., Szymona K., Hyperbranched polyglycerols with bisphenol A core as glycerol-derived components of polyurethane wood adhesives, *BioResources*, 2012, 7,1440–1451
37. Mamiński M., Czarzasta M., Parzuchowski P., Wood adhesives derived from hyperbranched polyglycerol cross-linked with hexamethoxymethyl melamines, *Int. J. Adhes. Adhes.* 2011, 31, 704–707

38. Mamiński M., Parzuchowski P., Trojanowska A., Dziewulski Sz., Fast-curing polyurethane adhesives derived from environmentally friendly hyperbranched polyglycerols - the effect of macromonomer structure, *Biomass Bioenerg.*, 2011, 35, 4461–4468
39. Mamiński M., Król M., Jaskółowski W., Borysiuk P., Wood-mineral wool hybrid particleboards, *Holz Roh Werkst*, 2011, 69, 337-339
40. Mamiński M., Król M., Grabowska M., Głuszyński P., Simple urea-glutaraldehyde mix used as a formaldehyde-free adhesive: effect of blending with nano-Al₂O₃, *Eur. J. Wood Prod.*, 2011, 69, 505–506
41. Kurowska A, Borysiuk P, Mamiński M., Simultaneous veneers incising and lower pressing temperatures - the effect on the plywood pressing time, *Eur. J. Wood Prod.*, 2011, 69, 495–497
42. Kurowska A., Borysiuk P., Mamiński M., Zbieć M., Veneer densification as a tool for shortening of plywood pressing time, *Drvna Industrija*, 2010, 61, 193–196
43. Borysiuk P., Mamiński M., Parzuchowski P., Zado A., Application of polystyrene as binder for veneers bonding—the effect of pressing parameters, *Eur. J. Wood Prod.*, 2010, 68, 487–489
44. Mamiński M.Ł., Mierzejewska K., Borysiuk P., Parzuchowski P., Boruszewski P., Surface properties of octadecanol-grafted pine veneers, *Int. J. Adhes. Adhes.*, 2009, 29, 781–784
45. Mamiński M.Ł., Borysiuk P., Parzuchowski P., Improved water resistance of particleboards bonded with glutaraldehyde-blended UF resin, *Holz Roh Werkst.*, 2008, 66, 381–383
46. Mamiński M.Ł., Borysiuk P., Zado A., Study on the water resistance of plywood bonded with UFglutaraldehyde adhesive, *Holz Roh Werkst.*, 2008, 66, 469–470
47. Mamiński M.Ł., Borysiuk P., Zado A., Lanolin-retarded water penetration into UF-bonded particleboards, *Holz Roh Werkst.*, 2008, 66, 303–304
48. Mamiński M.Ł., P. Pawlicki, A. Zado, P. Parzuchowski, Hyperbranched Polyether as a Modifying Agent for Urea-Formaldehyde Resins – Hardness and Strength Control Tool, *Int. J. Polym. Mater.*, 2007, 56, 453-460
49. Mamiński M.Ł., P. Pawlicki, A. Zado, P. Parzuchowski, Glutaraldehyde-Modified MUF Adhesive System – Improved Hot Water Resistance, *Holz Als Roh- und Werkstoff*, 2006, 65, 251-253
50. Mamiński M.Ł., P. Pawlicki, P. Parzuchowski, Improved Water Resistance and Adhesive Performance of a Commercial UF Resin Blended with Glutaraldehyde, *J. Adhesion*, 2006, 82, 629-641
51. Mamiński M., Olejniczak M., Chudy M., Dybko A., Brzózka Z., Spectrophotometric determination of dopamine in microliter scale using microfluidic system based on polymeric technology, *Anal. Chim. Acta*, 2005, 540, 153-157
52. Szczeciński P., Mamiński M., ¹H NMR study on the conformation of 5-dicyanomethylene-10,11-dihydro-5H-dibenzo[a,d]cycloheptene *J. Chem. Res.*, 2001, 9, 356-358
53. Szczeciński P., Mamiński M., 'Through-space' Csp-F spin-spin couplings in fluoroarenes, *J. Chem. Res.*, 2001, 3, 88-89

Books and monographs

1. **Mamiński M.Ł.**, Toczyłowska-Mamińska R., 2017: *Bio-derived adhesives and matrix polymers for composites*, In: *Handbook of composites from renewable materials*, Volume 1: Structure and Chemistry (Thakur V.K., Thakur M.K., Kessler M.R. – Eds.), ISBN: 978-1-119-22362-7, Wiley-Scrivener, pp. 151-188
2. Sedliacik J., **Mamiński M.**, Adhesives and bonding processes, WULS Press, Warsaw, 2016 (in Polish)
3. Chow May Jinn, H'ng Paik San, Chin Kit Ling, Chai Ee Wen, Paridah Md Tahir, Lee Seng Hua, Lum Wei Chen, Luqman Chuah and **Mamiński M.**, 2015: *Empty Fruit Bunches in the Race for Energy and Biochemical, and Material Industry*, w: *Agricultural biomass based potential materials* (K. R. Hakeem, M. Jawaid, O. Allothman – red.), ISBN 3319138464, 9783319138466, Springer International Publishing, pp. 375-389.
4. Boruszewski P., Borysiuk P., **Mamiński M.**, Nicewicz D., *Fundamentals for wood based composites technology*. WULS Press, Warsaw, 2013 (in Polish)
5. **Mamiński M.**, *Application of hyperbranched polyglycerols as components of wood adhesives*, WULS Press, Warsaw, 2013 (in Polish)
6. Ružinská E., **Mamiński M.**, Danihelova A., Jablonski M., *Sulfate liquor derived lignin as a perspective material for composites*, w: Boruszewski P., **Mamiński M.**, Ružinská E., (Eds.) *Raw materials and particleboards – a current status and perspectives Part I*, WULS Press, Warsaw, 2012

7. Dobrowolska E., Nicewicz D., Boruszewski P., Borysiuk P., **Mamiński M.**, Stelzer R., *Performance of a novel wood-fiber material with lignins as binder*, w: Minimizing the environmental impact of the forest products industries, Fernando Caldeira (Ed.), Fernando Pessoa Editions, Porto, 2011

Patents

1. Mamiński M., Wawrzyńska E., Parzuchowski P., 2020: Hot-melt adhesive for wood bonding. Patent no. 237550
2. Mamiński M., Wawrzyńska E., Parzuchowski P., 2020: Application of poly(hydroxyoxethanes). Patent no. 236050
3. Mamiński M., Parzuchowski P., Szymanowski K., Król M., 2013: An approach for manufacturing of 2-k PUR adhesive. Polish patent no. 215350
4. Borysiuk P., Grzeškiewicz M., Mamiński M., Boruszewski P., 2013: An approach for manufacturing of plywood of increased water resistance. Polish patent no. 214965
5. Mamiński M.Ł., Borysiuk P., Boruszewski P., Król M., 2011: Composite flake-mineral panels. Protection for utility model no. 65933

Fellowships

1. University Twente, Enschede, The Netherlands (April – June 2003)
2. University Putra Malaysia, Selangor, Malaysia (June 2010)
3. Fulbright Senior Award, University of Idaho, College of Natural Resources, Moscow, Idaho, USA (October 2014 – March 2015)

Actualisation – May 2023