



Curriculum Vitae

Personal Information

Name: Behzad

Surname: Kord

Date of Birth: 12/11/1979

Place of Birth: Tehran, Iran

Marital Status: Married, One Child (Son)

Postal Address: Cellulosic Materials and Packaging Research Group, Chemistry and Petrochemistry Research Center, Standard Research Institute (SRI), P.O.Box: 31745-139, Karaj, Iran.

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Educational Record

PhD in Wood Science and Technology, GPA 17.25 out of 20, Islamic Azad University (IAU), Science and Research Branch, Tehran, Iran, December 2008.

Dissertation Title: Effect of nanoclay on the physical, mechanical and morphological properties of wood flour/polypropylene hybrid composites.

MSc in Wood Science and Technology, GPA 18.22 out of 20, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran, July 2005.

Dissertation Title: Investigation on the effect of tree age and height on the physical and chemical properties of *populus deltoids* wood.

BSc in Wood and Paper Science and Technology, GPA 15.7 out of 20, Islamic Azad University (IAU), Karaj Branch, Karaj, Iran, July 2002.

Dissertation Title: Effect of hydrogen peroxide on the deinking properties of mechanical pulps.

Employment

1. Academic Staff (Assistant Professor) at the Standard Research Institute (SRI), October 2013- Present.
2. Academic Staff (Assistant Professor) at the Islamic Azad University (IAU), Chalous Branch, October 2007- October 2013.

Major Research Interests

- 1.** Green Composite and Biocomposite Materials.
- 2.** Natural Fiber Reinforced Plastic Composites.
- 3.** Renewable Composite Nanomaterials (Nanoclay, Carbon Nanotubes, Graphene Nanoplatelets, Silica Nanoparticles, Nanofiber, Nanocellulose, and etc.).
- 4.** Production, Characterization, and Performance Evaluation of Wood-based Products.
- 5.** Assessment of the Principal Wood Properties (physical, chemical, mechanical, dynamic mechanical, biological, thermal, acoustical, and etc.).
- 6.** Wood Preservation & Modification.
- 7.** Pulp and Paper Technology.

Honors and Awards

- 1.** Recognised by Elsevier as one of the top scientists in 2021 (A percentile rank of 2% of top-scientists that provides standardized information on citation indicators by Elsevier).
<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3>
- 2.** Annual Award Winner of “Research Excellence Award” by the Standard Research Institute, Iran, 2017.
- 3.** Annual Award Winner of “Research Excellence Award” by the Standard Research Institute, Iran, 2016.
- 4.** Annual Award Winner of “Research Excellence Award” by the Iran National Standards Organization, Tehran, Iran, 2016.
- 5.** Annual Award Winner of “Research Excellence Award” by the Standard Research Institute, Iran, 2015.
- 6.** Annual Award Winner of “Research Excellence Award” by the Standard Research Institute, Iran, 2014.
- 7.** Annual Award Winner of “Research Excellence Award” by the Islamic Azad University (IAU), Chalous Branch, Iran, 2012.
- 8.** The Bronze Medallist in the “2nd Olympiad of Inventors, Originators and Innovators” of the Islamic Azad University (IAU) in Isfahan, Iran, 2011.
- 9.** Annual Award Winner of “Research Excellence Award” by the Islamic Azad University (IAU), Chalous Branch, Iran, 2011.
- 10.** Awarded the “Best Business Plan in the 6th National Seikh-Bahai Technopreneurship Festival” in Isfahan, Iran, 2010.
- 11.** Annual Award Winner of “Research Excellence Award” by the Islamic Azad University (IAU), Chalous Branch, Iran, 2010.
- 12.** The Bronze Medallist in the “International Exhibition of Innovation and Investment” in Moscow, Russia, 2010.
- 13.** Annual Award Winner of “Research Excellence Award” by the Islamic Azad University (IAU), Chalous Branch, Iran, 2009.
- 14.** Awarded the “Best PhD Thesis in the 2nd Nanotechnology Festival” in Tehran, Iran, 2009.
- 15.** Awarded the “Best Innovative Plan in the Provincial Festival of Innovation, Flourishment and Research Week” in Guilan, Iran, 2008.
- 16.** Achieved the “First Rank in PhD Entrance Exam”, 2005.
- 17.** Achieved the “First Rank in MSc Entrance Exam”, 2003.
- 18.** Member of American Nano Association.

Publications

A) International Journals (ISI Index)

1. Dahmardeh Ghalehno M, **Kord B** and Adlnasab L. 2022. Evaluation of thermal degradation behavior and fire resistance performance of wood-plastic composites containing different modified clay nanoparticles. *Wood Material Science and Engineering*, DOI: 10.1080/17480272.2022.2056505.
2. Nouri-Sadegh N, Dahmardeh Ghalehno M, Nosrat B and **Kord B**. 2022. Physical, mechanical and viscoelastic properties of biocomposite produced from polylactic acid (PLA) and wood flour using graphene nanoparticles. *Wood Material Science and Engineering*, DOI: 10.1080/17480272.2021.2018040
3. Dahmardeh Ghalehno M, **Kord B** and Adlnasab L. 2021. A comparative study on effects of layered double hydroxide (LDH) and halloysite nanotube (HNT) on the physical, mechanical and dynamic mechanical properties of reed flour/polyvinyl chloride composites. *Journal of Thermoplastic Composite Materials*, DOI: 10.1177/08927057211051772.
4. **Kord B**, Movahedhi F, Adlnasab L and Ayrilmis N. 2021. Effect of novel scavengers based on phenolic compounds on formaldehyde emission and physical-mechanical properties of particleboard. *Wood Material Science and Engineering*, DOI: 10.1080/17480272.2021.1978542.
5. **Kord B**, Dahmardeh Ghalehno M and Movahedi F. 2021. Effect of imidazolium based green solvents on the moisture absorption and thickness swelling behavior of wood flour/polyethylene composites. *Journal of Thermoplastic Composite Materials*, DOI: 10.1177/0892705720962170.
6. **Kord B**, Ayrilmis N and Dahmardeh Ghalehno M. 2021. Effect of fungal degradation on technological properties of carbon nanotubes reinforced polypropylene/rice straw composites. *Polymers and Polymer Composites*, 29(5) : 303-310.
7. Dahmardeh Ghalehno M and **Kord B**. 2021. Preparation, characterization and performance evaluation of wood flour/HDPE foamed composites reinforced with graphene nanoplatelets. *Journal of Composite Materials*, 55(4): 531-540.
8. Dahmardeh Ghalehno M, **Kord B** and Sheshkal BN. 2020. Mechanical and physical properties of wood/polyethylene composite reinforced with TiO₂ nanoparticles. *Cerne*, 26 (4): 474-481.
9. **Kord B**, Movahedi F, Adlnasab L and Masrouri H. 2020. Influence of eco-friendly pretreatment of lignocellulosic biomass using ionic liquids on the interface adhesion and characteristics of polymer composite boards. *Journal of Composite Materials*, 54 (25): 3717-3729.
10. **Kord B**, Dahmardeh Ghalehno M and Movahedi F. 2020. Effect of surface functionalization of SiO₂ nanoparticles on the dynamic mechanical, thermal and fire properties of wheat straw/LDPE composites. *Journal of Polymers and the Environment*, 28 (1): 304–316.
11. Kiaei M, Rastegar Moghdam Y, **Kord B**, Samariha A and Farsi M. 2017. The effect of nano-MgO on the mechanical and flammability properties of hybrid nanocomposites from wood flour-polyethylene. *Maderas Ciencia y Tecnología*, 19(4): 471-480.
12. **Kord B**, Jamshidi M and Hosseinihasheni KH. 2017. Effect of multi-walled carbon nanotubes on viscoelastic properties of PP/reed flour composites. *Journal of Polymers and the Environment*, 25(4): 1313–1320.
13. **Kord B**, Ravanfar P and Ayrilmis N. 2017. Influence of organically modified nanoclay on thermal and combustion properties of bagasse reinforced HDPE nanocomposites. *Journal of Polymers and the Environment*, 25(4): 1198–1207.

14. **Kord B** and Roohani M. 2017. Water transport kinetics and thickness swelling behavior of natural fiber-reinforced HDPE/CNT nanocomposite. *Composite Part B*, 126: 94-99.
15. Kiaei M, **Kord B** and Samariha A. Rastegar Moghdam, Y. Farsi, M. 2017. Mechanical, flammability, and morphological properties of nanocomposite plastic based on hardwood flour high-density polyethylene embedding by nanozinc oxide. *Bioresources*, 12(3): 6518-6528.
16. **Kord B** and Roohani M. 2017. Performance characteristics of polyethylene/old corrugated container composites reinforced with carbon nanotubes. *Journal of Composite Materials*, 51(18): 2665-2673.
17. **Kord B**, Tajik M and Malekian B. 2017. Effect of chemical solvents on the technological characteristics of hemp fiber/polypropylene composites. *Plastics, Rubber and Composites*, 46(8): 341-345.
18. **Kord B**, Malekian B and Ayrilmis N. 2017. Weathering performance of montmorillonite/wood flour based polypropylene nanocomposites. *Mechanics of Composite Materials*, 53(2): 271-278.
19. **Kord B**, Malekian B, Yousefi H and Najafi A. 2016. Preparation and characterization of nanofibrillated cellulose/poly (vinyl alcohol) composite films. *Maderas Ciencia y Tecnología*, 18(4): 743-752.
20. Tajik M, Resalati H, Hamzeh Y, Torshizi HJ, Kermanian H and **Kord B**. 2016. Improving the properties of soda bagasse pulp by using cellulose nanofibers in the presence of cationic polyacrylamide. *Bioresources*, 11(4): 9126-9141.
21. **Kord B** and Taghizadeh Haratbar D. 2016. Influence of fiber surface treatment on the physical and mechanical properties of wood flour reinforced polypropylene bionanocomposites. *Journal of Thermoplastic Composite Materials*, 29(7): 979-992.
22. Roohani M, Shabaniyan M, **Kord B**, Hajibeygi M and Khonakdar HA. 2016. New functional Fe₃O₄ nanoparticles utilizing as adjuvant in the green PVA/cellulose whiskers nanocomposite. *Thermochimica Acta*, 635: 17-25.
23. **Kord B**, Taghizadeh Haratbar D, Malekian B and Ismaeilimoghadam S. 2016. Effect of chemical modification of wood flour on long-term hygroscopic behavior of polypropylene composites. *Journal of Thermoplastic Composite Materials*, 29 (4): 577-588.
24. **Kord B**, Zare H and Hosseinzadeh A. 2016. Evaluation of the mechanical and physical properties of particleboard manufactured from Canola (*Brassica napus*) straws. *Maderas Ciencia y Tecnología*, 18(1): 517-524.
25. **Kord B**, Sheykholeslami A and Najafi, A. 2015. Effect of nanoclay on the flexural creep behavior of wood plastic composites. *Mechanics of Composite Materials*, 51(6): 731-736.
26. **Kord B**, Roohani M and Kord B. 2015. Characterization and utilization of reed stem as a lignocellulosic resource for particleboard production. *Maderas Ciencia y Tecnología*, 17(3): 517-524.
27. Hassankhani M, **Kord B** and Pourpasha M. 2015. Empirical statistical model for predicting wood properties of paulownia. Part 1: physical and biometrical properties. *Maderas Ciencia y Tecnología*, 17(4): 919-930.
28. Kiaei M, **Kord B**, Chehalmardian A, Moya R and Farsi M. 2015. Mineral content in relation to radial position, altitude, chemical properties and density of Persian ironwood. *Maderas Ciencia y Tecnología*, 17(3): 657-672.
29. **Kord B**, Jari E, Najafi A and Tazakorrezaie V. 2014. Effect of nanoclay on the decay resistance and physicomechanical properties of natural fiber-reinforced plastic composites against white-rot fungi (*Trametes versicolor*). *Journal of Thermoplastic Composite Materials*, 27(8): 1085-1096.

30. **Kord B** and Tajik M. 2014. Effect of organomodified montmorillonite on acoustic properties of wood–plastic nanocomposites. *Journal of Thermoplastic Composite Materials*, 27(6): 731-740.
31. **Kord B** and Hosseini Hashemi KH. 2014. Effect of fungal decay on the hygroscopic thickness swelling rate of lignocellulosic filler-polyolefin biocomposites. *Mechanics of Composite Materials*, 49(6): 1029-1040.
32. **Kord B**. 2014. Investigation on the long-term water absorption behavior and cell morphology of foamed wood–plastic nanocomposites. *Journal of Thermoplastic Composite Materials*, 27(3): 379-394.
33. Kiaei M, **Kord B** and Vaysi R. 2014. Influence of residual lignin content on physical and mechanical properties of kraft pulp/PP composites. *Maderas Ciencia y Tecnología*, 16(4): 495-503.
34. **Kord B**. 2013. Effect of nanoclay on thickness swelling behavior in the extrusion foaming of wood flour/polyethylene composites. *Journal of Thermoplastic Composite Materials*, 26(10): 1303-1316.
35. **Kord B**, Hosseini Hashemi KH and Modirzare M. 2013. Influence of fungal infection on the long-term water absorption and morphological behavior of bagasse fiber/polypropylene composites at different exposure times. *Science Engineering Composite Material*, 20(4): 351-357.
36. **Kord B**. 2013. Effect of chemical blowing agent on the hygroscopic behavior of HDPE/rice husk flour composites. *Journal of Thermoplastic Composite Materials*, 26(8): 1114-1126.
37. **Kord B**. 2013. Assessment of long-term water absorption in natural fiber reinforced thermoplastic composites influenced by filler rate and compatibilizer treatment. *Journal of Thermoplastic Composite Materials*, 26(3): 296-306.
38. Veysi R and **Kord B**. 2013. The effects of H₂O₂ bleaching and DTPA spraying on the brightness stability of hornbeam CMP pulp following accelerated irradiation aging. *Bioresources*, 8(2): 1909-1917.
39. Badritala A, Hosseini Hashemi KH, **Kord B**, Zabihzadeh M and Safdari, V. 2013. Morphology and mechanical properties of zinc borate-pretreated poplar wood flour/plastic composite. *Bioresources*, 8(1): 913-922.
40. **Kord B**. 2012. Studies on mechanical characterization and water resistance of glass fiber/thermoplastic polymer bionanocomposites. *Journal of Applied Polymer Science*, 123: 2391-2396.
41. **Kord B**, Varshoei A and Chamany V. 2012. Influence of chemical foaming agent on the physical, mechanical and morphological properties of HDPE/wood flour/nanoclay composites. *Journal of Reinforced Plastics and Composites*, 30(13): 1115-1124.
42. **Kord B**. 2012. Effects of compatibilizer and nanolayered silicate on physical and mechanical properties of PP/bagasse composites. *Turkish Journal of Agriculture and Forestry*, 36: 510-517.
43. Najafi A, **Kord B**, Abdi A and Ranaee S. 2012. The impact of the nature of nanoclay on physical and mechanical properties of polypropylene/reed flour nanocomposites. *Journal of Thermoplastic Composite Materials*, 25(6): 717-727.
44. **Kord B**. 2012. Effect of nanoparticles loading on properties of polymeric composite based on hemp fiber/polypropylene. *Journal of Thermoplastic Composite Materials*, 25(7): 793-806.
45. **Kord B**. 2012. Preparation and characterization of lignocellulosic material filled polyethylene composite foams. *Journal of Thermoplastic Composite Materials*, 25(8): 917-926.
46. **Kord B**, Danesh MA, Veysi R and Shams M. 2011. Effect of virgin and recycled plastics on moisture sorption of nanocomposites from newsprint fiber and organoglay. *Bioresources*, 6(4): 4190-4199.
47. Hosseini Hashemi KH, Modirzare M, Safdari V and **Kord B**. 2011. Decay resistance, hardness, water absorption, and thickness swelling of a bagasse fiber/plastic composite. *Bioresources*, 6(3): 3289-3299.

48. **Kord B.** 2011. Evaluation on the effect of wood flour and coupling agent content on the hygroscopic thickness swelling rate of polypropylene composites. *Bioresources*, 6(3): 3055-3065.
49. Hosseini Hashemi KH and **Kord B.** 2011. Variation of within-stem biometrical and physical properties indices of wood from cupressus sempervirens L. *Bioresources*, 6(2): 1843-1857.
50. **Kord B** and Hosseini Kiakojouri SM. 2011. Effect of nanoclay dispersion on physical and mechanical properties of wood flour/polypropylene/glass fiber hybrid composites. *Bioresources*, 6(2): 1741-1751.
51. **Kord B.** 2011. Nanofiller reinforcement effects on the thermal, dynamic mechanical and morphological behavior of HDPE/rice husk flour composites, *Bioresources*, 6(2): 1351-1358.
52. Kord B and **Kord B.** 2011. Heavy metal levels in pine (*Pinus eldarica* Medw.) tree barks as indicators of atmospheric pollution. *Bioresources*, 6(2): 927-935.
53. **Kord B**, Ismaeilimoghadam S and Malekian, B. 2011. Effect of immersion temperature on the water uptake of polypropylene/wood flour/organoclay hybrid nanocomposite. *Bioresources*, 6(1): 584-593.
54. **Kord B.** 2011. Effect of organomodified layered silicates on flammability performance of HDPE/ rice husk flour nanocomposite. *Journal of Applied Polymer Science*, 120: 607-610.
55. **Kord B**, Hemmasi AH and Ghasemi I. 2011. Properties of PP/wood flour/organomodified montmorillonite nanocomposite. *Wood Science and Technology*, 45: 111-119.
56. **Kord B** and Kiaeifar A. 2010. Hygroscopic thickness swelling rate of wood polymer nanocomposite. *Journal of Reinforced Plastics and Composites*, 29 (23): 3480-3485.
57. Hemmasi A, Khademi-Eslam H, Talaiepoor M, Ghasemi I and **Kord B.** 2010. Effect of nanoclay on the mechanical and morphological properties of wood polymer nanocomposite, *Journal of Reinforced Plastics and Composites*, 29 (7): 964-971.
58. **Kord B**, Kialashaki A and Kord B. 2010. Within-tree variation of wood density and shrinkage and their relationship in populus euramericana. *Turkish Journal of Agriculture and Forestry*, 34: 121-126.
59. Ghasemi I and **Kord, B.** 2009. Longterm water absorption behavior of polypropylene/wood flour/organoclay hybrid nanocomposite. *Iranian Polymer Journal*, 18(9): 683-691.

B) National Journals (In Persian Language, ISC Index)

1. Dahmardeh Ghalehno M, **Kord B** and Movahedi F. 2021. Effect of surface functionalized SiO₂ nanoparticles on the physical and mechanical properties of wheat straw/LDPE composites. *Forest and Wood Products* 74(1) : 125-136.
2. Yari Firouzabadi Z, Vaziri V, **Kord B** and Jamalirad L. 2020. The effect of nano-graphene particles on the Physical and mechanical of high density polyethylene-rapeseed stalk flour composites. *Iranian Journal of Wood and Paper Industries*, 10(4): 629-641.
3. Tajik M, Resalati H, Hamzeh Y, Torshizi HJ, Kermanian H and **Kord B.** 2017. Effect of cationic nanofibrillated cellulose and nanofibrillated cellulose cationic starch on properties of soda bagasse pulp. *Forest and Wood Products* 70(3): 529-537.
4. **Kord B**, Nabinejad-Maleh M, Bandboni A and Najafi A. 2016. Effect of chemical modification of wood material on the thermal properties and wettability of wood flour-polypropylene composites. *Journal of Wood and Forest Science and Technology*, 23(4): 215-232.
5. **Kord B.** 2016. Properties of rice straw flour and recycled polypropylene composites exposed to accelerated weathering. *Journal of Wood and Forest Science and Technology*, 23(1): 181-196.
6. **Kord B** and Roohani, M. 2016. Thermal properties and fire behavior of PLA nanocomposite films. *Journal of Wood and Forest Science and Technology*, 23(2): 185-201.

7. **Kord B**, Zare H and Hosseinzadeh A. 2016. Investigation on the effect of mixed rapeseed stalks residues with wood particles, and mixing of melamine and urea formaldehyde resin on properties of manufactured particleboard. *Iranian Journal of Wood and Paper Industries*, 7(2): 167-178.
8. **Kord B** and **Kord B**. 2016. Influence of type and content of chemical foaming agent on the dynamic mechanical properties of high density polyethylene-flax fiber composites. *Iranian Journal of Wood and Paper Industries*, 7(2): 179-191.
9. **Kord B**, Sheykholeslami A and Najafi A. 2016. A study on creep behavior of a wood flour-polypropylene-nanoclay hybrid composites. *Iranian Journal of Wood and Paper Industries*, 7(1): 1-12.
10. Roohani M and **Kord B**. 2016. Dynamic mechanical and thermal properties of bagasse/glass fiber/polypropylene hybrid composites. *Iranian Journal of Wood and Paper Industries*, 7(1): 103-114.
11. Kiaei M and **Kord B**. 2016. Influence of residual lignin content on the thermal and morphological behavior of polypropylene-kraft pulp composites. *Journal of Wood and Forest Science and Technology*, 23(1): 77-90.
12. **Kord B** and Roohani, M. 2016. Biodegradation and migration behavior of cellulose nanocrystal-nanoclay reinforced PLA composites. *Iranian Journal of Wood and Paper Science Research*, 31(1): 130-140.
13. **Kord B**. 2016. Effect of filler content and compatibilizer on thermal properties of wood flour-HDPE composites. *Journal of Wood and Forest Science and Technology*, 22(4): 187-203.
14. Ismaeilimoghadam S, Shamsian M, Bayat Kashkoli A and **Kord B**. 2015. Effect of chemical modification of wood flour on the properties of nanoSiO₂-polypropylene hybrid nanocomposite. *Iranian Journal of Wood and Paper Science Research*, 30(4): 689-674.
15. Roohani M, Shabani M and **Kord B**. 2015. Effects of modified iron oxide nanoparticles on the thermal and dynamic mechanical properties of cellulose poly (vinyl alcohol) blend films. *Iranian Journal of Wood and Paper Industries*, 6(2): 251-263.
16. **Kord B**, Roodkoli Nejati M and Najafi A. 2015. Effect of chemical modification of wood flour on the static and dynamic mechanical properties of polypropylene based composites. *Journal of Forest and Wood Products*, 68(3): 559-572.
17. Ismaeilimoghadam S, Shamsian M, Bayat Kashkoli A and **Kord B**. 2015. Evaluation of effect of nano SiO₂ on the physical, mechanical and morphological properties of hybrid nanocomposite from polypropylene-wood flour. *Iranian Journal of Wood and Paper Science Research*, 30(2): 266-277.
18. **Kord B** and Roohani M. 2015. Morphological, mechanical and barrier properties of polylactic acid/cellulose nanocrystal/nanoclay composite films. *Journal of Wood and Forest Science and Technology*, 21 (4): 41-60.
19. **Kord B**, Ekrami M and Roohani M. 2014. Effect of nanoclay particles content on the mechanical properties of wood flour-polypropylene composites using dynamic mechanic thermal analysis. *Iranian Journal of Wood and Paper Industries*, 5(2): 15-26.
20. Roohani M, **Kord B**, Motie N and Sharari, M. 2014. Biodegradation behaviors of cellulose nanocrystals-PVA nanocomposites. *Iranian Journal of Wood and Paper Industries*, 5(2): 1-14.
21. **Kord B**, Yazdanparast K and Tazakorrezaei V. 2014. Effect of weathering time on the physical - mechanical properties and color change in wood flour/HDPE composite. *Iranian Journal of Wood and Paper Industries*, 5(1); 75-83.
22. Roohani M, **Kord B**, Motie N and Behzadi F. 2014. Barrier properties of cellulose nanocrystals-PVA nanocomposites. *Journal of Forest and Wood Products*, 67(2): 517-528.

23. **Kord B**, Najafi A and Rezvani-Eski M. 2012. Investigation on the effect of penetration depth and installing method of screw on withdrawal resistance in face and edge of wood plastic composite. *Iranian Journal of Wood and Paper Industries*, 3 (2): 65-75.
24. Najafi A, Mousavi T, **Kord B** and Besharatifar, K. 2012. Study on flexural creep parameters in veneered and laminated particleboard. *Iranian Journal of Wood and Paper Industries*, 3(1): 119-128.
25. **Kord B**. 2011. Effect of nanoclay particles on the physical and flammability properties of HDPE/wood flour composites. *Journal of Wood and Forest Science and Technology*, 18(4): 131-144.
26. **Kord B**. 2010. Effect of nanoclay particles on mechanical properties of HDPE/wood flour composites. *Iranian Journal of Wood and Paper Science Research*, 25(1): 91-101.
27. Pasha Zanousi MB, **Kord B** and Raeesi M. 2010. The ability of metal ions removal from waste water with using tree leaves (case study: tree softwoods such as: Pinus Sylvestris, Cupressus Sempervirens and Cupressus Laxuses). *Journal of Wood and Forest Science and Technology*, 17(1): 93-104.
28. **Kord B** and Kord B. 2009. Determination of the best cutting age of populus deltoids clone 77/51 trees based on fundamental properties of wood (case study in Golestan Province). *Journal of Pajouhesh and Sazandegi*, 21: 73-77.
29. **Kord B**. 2009. Effect of refining intensity on pulp and paper properties made of eucalyptus camaldulensis wood. *Iranian Journal of Wood and Paper Science Research*, 24(1): 125-133.
30. **Kord B** and Saraeyan A. 2007. Investigation on the effects of tree age and height on chemical properties of populus deltoids wood. *Journal of Agriculture Science and Natural Resources*, 14(4): 32-40.

Conferences

1. **Kord B**. 2014. Cell morphology and mechanical properties of foamed wood plastic nanocomposite. 11th International Seminar on Polymer Science and Technology, Iran Polymer and Petrochemical Institute, Tehran, Iran, 6-9 October.
2. **Kord B** and Roohani, M. 2014. Effect of coupling agent on hygroscopic thickness swelling rate of wood based composites. 11th International Seminar on Polymer Science and Technology, Iran Polymer and Petrochemical Institute, Tehran, Iran, 6-9 October.
3. **Kord B**. 2010. Effect of immersion time on the water absorption and thickness swelling of polypropylene/wood flour/nanoclay hybrid composites. National Conference on Forest and Wood and Paper Industries, Islamic Azad University of Astara Branch, Guilan, Iran, May 26-27.
4. **Kord B**. 2010. Investigation on the effect of nanoclay on fire retardancy of wood polymer nanocomposite with polypropylene- wood flour. 1st National Conference on Modern Technology in Wood and Paper Industries, Islamic Azad University of Chalous Branch, Mazandaran, Iran, May 18-19.
5. Pasha Zanousi MB and **Kord B**. 2010. Comparison investigation between different hardwoods leaves in removal of metal ions from waste water. 1st National Conference on Modern Technology in Wood and Paper Industries, Islamic Azad University of Chalous Branch, Mazandaran, Iran, May 18-19.
6. **Kord B** and **Kord B**. 2010. Determination of the best cutting age of populus deltoids clone 77/51 trees based on fundamental properties of wood (case study in golestan province). 1st National Conference on Modern Technology in Wood and Paper Industries, Islamic Azad University of Chalous Branch, Mazandaran, Iran, May 18-19.
7. **Kord B**, Kord B and Khademi A. 2010. Effect of site on fiber biometry and physical properties of populus nigra wood. 2nd international conference on climate change and dendrochronology in caspian ecosystem. Sari Natural Resources University, Mazandaran, Iran, May 12-14.

8. Kiaeifar A and **Kord B**. 2010. Investigation on the effect of clone on growth, biometry and physical properties of populus deltoids wood (case study in shastkolateh forest in gorgan). 2nd International Conference on Climate Change and Dendrochronology in Caspian Ecosystem. Sari Natural Resources University, Mazandaran, Iran, May 12-14.
9. **Kord B**. 2010. Physical and microstructural properties of HDPE/sawdust/organomodified montmorillonite nanocomposites. IMS/4 International Conference on the Applications of Traditional & High Performance Materials in Harsh Environment. Sharje, UAE, March 24-25.
10. **Kord B** and Ghasemi I. 2009. Effect of nanoclay and coupling agent on the mechanical properties of wood polymer nanocomposite. 9th International Seminar on Polymer Science and Technology. Iran Polymer and Petrochemical Institute, Tehran, Iran, October 17-21.
11. **Kord B**. 2009. The effect of filler content on mechanical properties of wood flour-polypropylene composites. National Conference on Forest and Wood and Paper Industries, Islamic Azad University of Astara Branch, Guilan, Iran, May 5.
12. **Kord B**. 2009. Effect of organo-modified layered silicates on flammability performance of wood polymer nanocomposite, 6th International ECNP Conference on Nanostructured Polymers and Nanocomposites, Moscow, Russia.
13. **Kord B**. 2008. Effect of coupling agent on engineering properties of wood flour-polypropylene composites. 1st International Conferences on Composites: Characterization Fabrication and Application (CCFA-1). Kish Island, Iran, December 15-18.
14. **Kord B**. 2008. Improvement of practical properties of wood polymer composite with nanoclay particles. New Materials National Congress, Materials and Energy Research Center (MERC), Tehran, Iran, June 10-12.
15. **Kord B**. Saraeyan A and Kord B. 2008. Variability of chemical composition contents of populus deltoids in longitudinal and radial axes of tree. 2nd National Congress on Poplar and Potential Use in Poplar Plantation, Research Institute of Forest and Rangelands, Tehran, Iran, May 5-7.
16. **Kord B**. 2007. Review on application of nanoclay particles on manufacture of wood polymer composite. Nanotechnology Application in Science and Research, Islamic Azad University of Chalous Branch, Mazandaran, Iran, December 15.
17. **Kord B**. 2007. Effect of nanoclay filler content on the mechanical properties of wood polymer composite. 4th Congress on Nanotechnology, Kermanshah University, Kermanshah, Iran, October 15-17.
18. **Kord B**. 2007. Effects of compression failure on the mechanical properties of Pinus wood in an experimental planting in north of Iran. 16th IIWC International Conference and Symposium Florence, Venice.

National Patents

1. Manufacture of wood-plastic nanocomposite using wood flour, polypropylene and nanofiller.
2. Lightening of wood-plastic composite with foaming agents.
3. Manufacture of polymer composite using cellulose fiber and thermoplastic polymer.
4. Foamed wood-plastic nanocomposite.
5. Manufacture of construction panels based on PVC/nanoclay/rice husk flour.
6. Use of nano and micro silica nanoparticles as a filler in the polymeric composites based on wood wastes and recycled plastic.

Project Activities

- 1.** A comparative study on the performance of the different nanofillers on the wear resistance and friction coefficient of wood-plastic flooring
- 2.** Design and characterization of newly chemical absorbent materials for reducing the formaldehyde emission from wood-based panels
- 3.** Detection of coating in the paper and board using Attenuated Total Reflection Fourier Transform Infrared (ATR-FTIR), Scanning Electron Microscopy (SEM) and Energy-dispersive X-ray (EDX) spectroscopy.
- 4.** Effect of compatibilizing agents on the physical, mechanical and morphological properties of wood flour-polypropylene composites.
- 5.** Effects of nanoclay particles on the microstructural characteristics and flammability of wood polymer nanocomposites
- 6.** The study of long-term water absorption and thickness swelling behavior of wood flour/polypropylene/clay nanocomposites.
- 7.** Effect of processing conditions on the dispersion quality of layered silicates and engineering properties of PVC/sawdust/montmorillonite hybrid composite.
- 8.** Effect of clay cationic exchange capacity on physical and mechanical properties of PVC/wood flour wood plastic nanocomposite.
- 9.** Investigation on the effect of weathering on thermal behavior of polypropylene/wood flour composite with TGA and DSC techniques.
- 10.** Feasibility study of nanoclay particles usage in enhancement of thermal property of wood polymer composites product.
- 11.** Investigation on the effect of polymeric type and coupling agent content on physical, mechanical and morphological properties of polymer nanocomposite based on HDPE/rice hulls/nanoclay.
- 12.** Effect of site index on the qualitative, quantitative, anatomical, physical and chemical characteristics of populus (case study in Malayer, Shazand and Brojerd).
- 13.** Mathematical modeling for predicting of the effects of tree age and high on anatomical, physical and chemical properties of wood from palwunia species.
- 14.** Investigation on the physical, mechanical, morphological and DMTA properties of wood polymer composites made of cellulosic fiber and thermoplastic polypropylene.
- 15.** Removal ability of heavy metal from waste water with hardwood and softwood species.
- 16.** Prediction of the effects of virgin and waste plastics on the physical, mechanical and flammability properties of wood plastic composite with fuzzy modeling.
- 17.** Investigation on the effect of alkali pre-treatment of wood flour on the physical, mechanical and thermal properties of wood plastic composite modified with acetyl, benzyl and silane treatment.
- 18.** Effect of residual lignin on thermal and morphological properties of kraft pulp-polypropylene composite.
- 19.** Investigation on the effects of foaming agent type and content on physical, dynamic mechanical and morphological properties of polymer nanocomposites made of flax fiber and high density polyethylene.
- 20.** Determination of formaldehyde release in imported wall-coverings.
- 21.** Investigation of heavy metals migration in imported wall-coverings.
- 22.** Determination of the oxygen gas permeability factor within the multilayer polymeric films using a gas transmission apparatus.

Guided Postgraduate Students' Dissertation Works

1. Investigation on the effect of wood treatment on wettability of wood flour/polypropylene/nanoclay hybrid composite (**Supervisor**).
2. Study of thermal behavior of foamed wood-plastic composites made of wood flour/polypropylene with TGA and DSC techniques (**Supervisor**).
3. Assessments of physical and mechanical properties of composites made of lignocellulosic materials and epoxy resin (**Advisor**).
4. Investigation on the effect of carbon nanotubes on the morphological, physical, and dynamic mechanical properties of reed flour-polypropylene composites (**Supervisor**).
5. Study on flexural creep parameters of overlaid particleboard by natural and melaminated veneers (**Advisor**).
6. Study on physical, mechanical and morphological properties of cellulose nanofibril/poly (vinyl alcohol) composite (**Supervisor**).
7. Investigation on the viscoelastic behavior of wood plastic nanocomposite with dynamic mechanical thermal analysis (**Supervisor**).
8. Design and simulation of a waste recycling cost model in packaging supply chain using system dynamics (**Advisor**).
9. Investigation on the effects of nanoclay particles on natural durability of wood plastic composites against *coriolus versicolor* fungi (**Supervisor**).
10. Effect of nanographene on the physical, mechanical and thermal properties of PLA/wood biocomposites (**Advisor**).
11. Investigation on the effect of chemical modification of wood on the thermal behavior of wood plastic nanocomposite (**Supervisor**).
12. Study of thermal behavior of high density polyethylene/rice hulls/nanoclay hybrid composite with TGA and DSC techniques (**Supervisor**).
13. Effect of plasma treatment on adhesion, wettability and thermal behavior of polypropylene/ wood fiber composites (**Advisor**).
14. Comparison of withdrawal resistance in the different wood-base panels including particle board, medium density fiberboard (MDF) and wood plastic composites (**Supervisor**).
15. Evaluation of the effect of cationization of cellulose nanofiber on the physical, mechanical and optical properties of soda bagasse pulp (**Advisor**).
16. Feasibility study of particleboards production with rapeseed stalk particles (**Supervisor**).
17. The effect of nano graphene particles on the thermal viscoelastic of high density polyethylene-rapeseed stalk flour composites (**Advisor**).
18. Investigation on the effect of chemical modification of wood on the viscoelastic behavior of polypropylene/wood flour/nanoclay hybrid composite (**Supervisor**).
19. Effect of chemical modification of wood flour on the properties of polypropylene/nanoSiO₂ composites (**Advisor**).
20. Investigation on the creep behavior of polypropylene/wood flour/nanofiller hybrid composites (**Supervisor**).
21. Investigation of the effect of metal nanoxide particles on the mechanical and combustion properties polyethylene/wood flour composites (**Advisor**).

- 22.** Chemical modification effects of wood on the physical and mechanical properties polypropylene/wood flour/nanoclay hybrid composites (**Supervisor**).
- 23.** Effect of production variables on the physical and mechanical properties of wood flour/high density by hot-pressing method (**Advisor**).
- 24.** Effect of altitude on the chemical composition on the Persian Ironwood by Atomic Absorption, Gas Chromatography and Mass Spectrometry techniques (**Advisor**).
- 25.** Influence of residual lignin content on physical, mechanical and viscoelastic properties of kraft pulp/polypropylene composites (**Advisor**).

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- 17.** Journal of Science and Techniques in Natural Resources

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