Danguolė Bridžiuvienė

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

1981 – 1992	Doctoral degree in natural sciences field of biology (03.00.24 B, mycology, 03.00.12 plant physiology) (Institute of Botany). Dissertation topic: "Species composition, ecological and physiological properties of fungi functioning on silicon organic materials"; supervisor - Dr. Prof. A. Lugauskas. Nostrified on June 21, 1996. Field of research: microbiological damage of synthetic polymeric materials.
1976 – 1981	Vilnius University, Faculty of Natural Sciences; biology major, biology and chemistry lecturer/ Diploma thesis topic "Influence of phytohormones on nitrogen metabolism in germinating alfalfa seeds"; head - doc. J. Gruodienė. Field of research: The influence of phytohormones on plant nitrogen metabolism enzymes.

PROFESSIONAL EXPERIENCE

2010 – up to now	**Senior researcher** Laboratory of Biodedeterioration Research, Institute of Botany, Nature Research Center
1996 – 2010	**Senior researcher** Laboratory of Biodedeterioration Research, Institute of Botany
1992 – 1996	**Research worker** Laboratory of Biodedeterioration Research, Institute of Botany
1987 – 1992	**Junior researche** Laboratory of Biodedeterioration Research, Institute of Botany
1981 – 1987	**Laboratory assistant** Laboratory of Biodedeterioration Research, Institute of Botany

RESEARCH INTERESTS

Field of research: ecology and physiology of fungi, development and adaptation of fungi on wood and inorganic substrates, studies of microbiological damage to anthropogenic substrates based on the gravimetric method and the search for effective preservative measures using standards EN 113:1980 Wood preservatives and LST L ENV 807: 2001 Wood preservatives; identification of fungi based on biological and micromorphological characteristics; primary determination of

physiological properties of fungi based on biochemical analysis. Fungi are able to inactivate or even degrade antiseptic substances that are usually toxic and pose a risk of environmental pollution, so the study of the biological-physiological properties of these fungi reveals the possibilities of using these fungi to solve environmental ecological problems (e.g. soil bioremediation).

PUBLICATIONS

Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science" database (with citation index):

1. Treinyte T., Cesoniene L., **Bridziuviene D.**, Ostrauskaite J., Bucinskas A., Rainosalo E., Grazuleviciene V., 2018. Applicability of Crude Glycerol as the Multifunctional Additive for the Preparation of Mulching Coatings. *Waste and Biomass Volarization*. 9(10): 1855-1865.
2. Kasetaite S., Ostrauskaite J. ,Grazuleviciene V., **Bridziuviene D**., Budreckiene R., Rainosalo E. 2018. Biodegradable photocross-linked polymers of glycerol diglycidyl ether and structurally different alcohols. *Reactive and Functional Polymers*, 122: 42-50. https://www.sciencedirect.com/science/article/pii/S1381514817302407 - af0010
3. Treinyte J., **Bridziuviene D**, Fataraite-Urboniene E., Rainosalo E., Rajan R., Cesoniene L., Grazuleviciene **V.** 2018. Forestry wastes filled polymer composites for agricultural use. *Journal of Cleaner Production*, 205: 388–406.
4. Vaicekauskaite J., Ostrauskaite J., Treinyte J., Grazuleviciene V., **Bridziuviene D.**, Rainosalo E. 2019. Biodegradable linseed oil-based cross-linked polymer composites filled with industrial waste materials for mulching coatings. *Journal of Polymers and the Environment*, 27: 395-404.
5. Valeika V., Širvaitytė J., **Bridžiuvienė D**., Švedienė J. 2019. An application of advanced hair-save processes in leather industry as the reason of formation of keratinous waste: few peculiarities of its utilisation. *Environmental Science and Pollution Research*, 26(6); 6223-6233.
6. Raudonienė V., **Bridžiuvienė D**., Malachovskienė E., Levinskaitė L. 2019. Biodegradation of Wood Treated with Copper Based Preservative by Two Dematiaceous Fungi: Alternaria Tenuissima and Ulocladium Consortiale. *Material Science (Medžiagotyra),* 25(3): 309–315.
7. Navaruckiene A., Kasetaite S., Ostrauskaite J., Skliutas E., Rekstyte S., Malinauskas M., Raudoniene V., **Bridziuviene D.** 2020. Vanillin acrylate-based resins for optical 3D printing. *Polymers*,12, 397; doi:10.3390/polym12020397 onlin
8. Jasiūnas, L., McKenna, S.T., **Bridžiuvienė, D**. Miknius L. 2020. Mechanical, Thermal Properties and Stability of Rigid Polyurethane Foams Produced with Crude-Glycerol Derived Biomass Biopolyols. *Journal of Polymers and the Environment*, 2: 896. https://doi.org/10.1007/s10924-020-01686-y
9. Jasiūnas L., Peck G., **Bridžiuvienė D**., Miknius L. Mechanical, thermal properties and stability of high renewable content liquefied residual biomass derived bio-polyurethane wood adhesives. *International Journal of Adhesion and Adhesives*. Volume 101, September 2020, 102618 https://doi.org/10.1016/j.ijadhadh.2020.102618
10. Jefanova O., Baužienė J., Lujanienė G., Švedienė J., Raudonienė V., **Bridžiuvienė D**., Paškevičius A., Levinskaitė L., Žvirgždas J., Petrošius R., Skuratovič Ž., Mažeika J. 2020. Initiation of radioecological monitoring of forest soils and plants at the Lithuanian border region before the start of the Belarusian nuclear power plant operation. *Environmental Monitoring and Assessment*, 92(10):666. doi: 10.1007/s10661-020-08638-y.
11. Paškevičius A., Švedienė J., Kiverytė S., **Bridžiuvienė D**., Vaitonis G., Jablonskienė V. (2020). Candida Distribution in Onychomycosis and in vitro Susceptibility to Antifungal Agents. *Acta Dermatovenerol Croat*, 28(4):204-209
12. Navaruckiene, A., **Bridziuviene, D**., Raudoniene, V., Rainosalo, E., Ostrauskaite, J. 2021. Influence of vanillin acrylate-based resin composition on resin photocuring kinetics and

antimicrobial properties of the resulting polymers. *Materials*, 14: 653. https://doi.org/10.3390/ ma14030653. https://www.mdpi.com/1996-1944/14/3/65

13. Navaruckiene, A., Bridziuviene, D., Raudoniene, V., Rainosalo, E., Ostraukaitė, J. 2022. Vanillin acrylate-based thermo-responsive shape memory antimicrobial photopolymers. *Express Polymer Letters*, 16(3): 279-295. www.expresspolymlett.com https://doi.org/10.3144/expresspolymlett.2022.22

14. **Bridžiuvienė, D**., Raudonienė, V., Švedienė. J., Paškevičius, A., Baužienė, I., Vaitonis, G., Šlepetiene, A., Šlepetys. J., Kačergius, A. 2022. Impact of Soil Chemical Properties on the Growth Promotion Ability of *Trichoderma ghanense*, *T. tomentosum* and Their Complex on Rye in Different Land-Use Systems. *J. Fungi*, 8, 85. https://doi.org/10.3390/jof8010085 https://www.mdpi.com/2309-608X/8/1/85/pdf

15. Malachovskienė, E., **Bridžiuvienė, D**., Ostrauskaitė, J., Vaičekauskaitė, J., Žalūdienė, G. 2022. Degradative impact of *Alternaria multiformis* on novel polymeric biocomposites with the fillers of industrial waste materials under different pH and temperature conditions, *Bioremediation Journal*, DOI: 10.1080/10889868.2022.2086527

16. Malachovskienė, E., **Bridžiuvienė, D**., Ostrauskaitė. J., Vaičekauskaitė, J., Žalūdienė, G. 2022. A Comparative Investigation of the Biodegradation Behaviour of Linseed OilBased Cross-Linked Composites Filled with Industrial Waste Materials in Two Different Soils. *Journal of Renewable Materials*, Vol.11, No.3, pp. 1255-1269, DOI:10.32604/jrm.2022.023574

17. Motiekaityte, G., Navaruckiene, A., Raudoniene, V., **Bridziuviene, D**., Jaras, J., Kantminiene, K., Ostrauskaite, J. 2022. Antimicrobial dual-cured photopolymers of vanillin alcohol diglycidyl ether and glycerol dimethacrylate. *Journal of Applied Polymer Science*, Early access **https://doi.org/10.1002/app.53289**

Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):

1. Pečiulytė D., **Bridžiuvienė D.** 2008. LIETUVOS GRYBAI II. Skurdeniečiai (*Mortierellales)* ir pelėsiečiai *(Mucorales)*. – Botanikos instituto leidykla, Vilnius. – 256.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

2013 – 2015 Participation in the project „Selection and development of biocatalysts for biogas production and their use for control of biomass conversion processes" ("BIOKONVERSA") VP1-3.1-ŠMM-10-V-02-018; Financing of EU structural funds and state budget funds. Coordinator Vilnius University. Partner Nature Research Center

INTERNSHIP AND TRAINING

1983 (3 months) Advanced courses "Fundamentals of Chromatographic Methods" at the Kyiv Petrochemical Institute

199 (1 month) Document Preservation and Bioresistance Research Laboratory of St. Petersburg Public Library

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. Navaruckiene, A; Jaras, J.; **Bridziuviene, D**.; Raudoniene, V.; Rainosalo, E.; Ostrauskaite, J. Antimicrobial shape memory vanillin-based polymers. – Baltic polymer symposium 2022,

Tallinn, Estonia, September 21–23, 2022: https://drive.google.com/drive/folders/1UxzmqynPFbgrq1h_q2xxv53Q5T1844AE

National scientific conferences:

1. **Bridžiuvienė, D**., Švedienė, J., Raudonienė, V., Impact of different type of media and co-cultivation on toxicity of indoor fungi. 27th international scientific-practical conference "Safety of Man and Nature", Kaunas, May 5-6, 2021. https://zua.vdu.lt/27-oji-tarptautine-moksline-praktine-konferencija-zmogaus-ir-gamtos-sauga-2021/
2. Dapkus, S., Raudonienė, V., **Bridžiuvienė, D**., Švedienė J. 2019: Temperatūros ir pH įtaka *Trichoderma* genties grybų augimo intensyvumui. 25th international scientific-practical conference "Safety of Man and Nature", Kaunas, May 8-10: Collection of scientific articles, 75-77.https://www.vdu.lt/wp-content/uploads/2019/05/ZGS_Programa_2019_leidybai.pdf

PARTICIPATION IN THE STUDY PROCESS

Supervision of PhD students:

Area of science: Natural sciences (N000). Field of study: Ecology and environmental studies (03B)

Eglė Malachovskienė	Dissertation topic: "Destructive activity of fungi and its dependence on environmental factors"	2015-10-02 – 2023-09-30

Supervision of bachelor and master students:

Kamelija Krivickaitė	Bachelor thesis topic "Ability of fungi producing phenoloxidases to absorb aromatic hydrocarbons (benzene, toluene, phenol) as a carbon source", VU Microbiology and Biotechnology study program.	2019 – 2020

OTHERS

1. Science festival "Spaceship Earth" in 2022. September. 09.
2. 2. GLOBE program "My contribution to global environmental monitoring" and the Baltic Sea project "Implementation of the Baltic Sea project in my school". Remote conference of the Center for Informal Education of Lithuanian Students. Vilnius, 2021 in November on the 26th
3. XVI Science Festival "Spaceship Earth" 2019 on the 20th of September.
4. Science popularization event "Researchers' Night" in 2019 on the 27th of September. Microscopic fungi: friends or foes?