# Curriculum vitae

# Name: Eva Kuželová Košťáková

# Date of birth: 25.7.1978

# Place of birth: Mladá Boleslav

# Adress: Máchova 2146, 51101 Turnov, Czech Republic

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| **Education and academic degrees**  |

*Docent, doc.*Textile Technology and Material Engineering,

Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2014.

*International Teacher of Technical Subjects, Ing. Paed. IGIP*, Vysokoškolská pedagogika

 Center of Additional Education, Technical University of Liberec, Czech Republic, 2013.

*Doctor, Ph.D.,*Textile Material Engineering

Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2012.

*Bachelor, Bc*., Additional Pedagogy Study,

 Faculty of Education, Technical University of Liberec, Czech Republic , 2003

*Master of Science, Ing. (MSc.),Textile Material Engineering*

 Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2001

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| **Professional profile**  |

*Associated Professor - Docent Department of Nonwovens and Nanofibrous Materials,*

 Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2014-now.

*Assistent of Professor with Academical Degree Department of Nonwovens and nanofibrous Materials*

 Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2012-2014

*Assistent – lector Department of Nonwovens*

 Faculty of Textile Engineering, Technical University of Liberec, Czech Republic, 2004-2012

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| **Teaching experience**  |

Textile Nanomaterials (BSc. study program Faculty of Textile Engineering and MSc. study program Faculty of Mechatronics and Interdisciplinary Studies at Technical University of Liberec, present and distance study form)

Theory of Nonwovens (MSc. study program Faculty of Textile Engineering at Technical University of Liberec, present and distance study form)

Textile nanomaterials (Erasmus program Faculty of Textile Engineering at Technical University of Liberec)

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| **Recently supervised Ph.D. students**  |

Ing. Lenka Blažková – Coaxial centrifugal spinning

Ing. Jana Hlavatá – Centrifugal spinning- technology and applications

Ing. Jan Kovačičin – Wet-electrospinning

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| **Selected publications including Impact Factors**  |

**2016**

Erben, Jakub; Jencova, Vera; Chvojka, Jiri; Blazkova, Lenka; Strnadova, Katerina; Modrak, Miroslav; Kuzelova Kostakova, Eva: The combination of meltblown technology and electrospinning – The influence of the ratio of micro and nanofibers on cell viability, MATERIALS LETTERS, Volume 173, 15 June 2016, pg. 153-157, 2016, **IF=2.486**.

Mikes, Petr; Chvojka, Jiri; Slabotinsky, Jiri; Pavlovsky, Jiri; Kostakova, Eva; Sanetrnik, Filip; Pokorny, Pavel; Lukas, David. (2016). Nanofibrous Composite Materials Integrating Nano/Micro Particles between the Fibres. JOURNAL OF MEMBRANE SCIENCE & TECHNOLOGY, 2016, IF=1.53

**2015**

Erben, Jakub; Pilarova, Katerina; Sanetrnik, Filip; Chvojka, Jiri; Jencova, Vera; Blazkova, Lenka; Havlicek, Jiri; Novak, Ondrej; Mikes, Petr; Prosecka, Eva; Lukas, David; Kostakova, Eva Kuzelova, The combination of meltblown and electrospinning for bone tissue engineering, MATERIALS LETTERS, **143**, 172-176, 2015. **IF=2.466.**

 Stanishevsky, Andrei; Wetuski, Joshua; Walock, Michael; Stanishevskaya, Inessa; Yockell-Lelievre, Helene; Kostakova, Eva; [Lukas, D](http://apps.webofknowledge.com/OneClickSearch.do?product=UA&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&SID=W2KkK8OnUd448b88bSd&field=AU&value=Lukas,%20D&cacheurlFromRightClick=no)avid, Ribbon-like and spontaneously folded structures of tungsten oxide nanofibers fabricated via electrospinning, RSC ADVANCES, **5** (85), 69534-69542 2015, **IF=3.907.**

**2014**

Pokorny, P.; Kostakova, E.; Sanetrnik, F.; Mikes, P., chvojka, J., Kalous, T., BIlek, M., Pejchar, K., Valtera, J. and Lukas, D.: ,Effective AC needleless and collectorless electrospinning for yarn production, PHYSICAL CHEMISTRY CHEMICAL PHYSICS,   **16** (48),  pp. 26816-26822, 2014, **IF=4.219**.

Kostakova, E.; Seps, M.; Pokorny, P., Lukas, D; et al., [Study of polycaprolactone wet electrospinning process,](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=2&SID=4DymQwUFIQnhlbNrVAG&page=1&doc=2) EXPRESS POLYMER LETTERS, **8**(8) pp. 554-564, 2014, IF=2.932.

Molnár, K., Kostakova, E., Meszaros, L.: The effect of needleless electrospun nanofibrous interleaves on mechanical properties of carbon fabrics/epoxy laminates, EXPRESS POLYMER LETTERS, Vol. 8, No.1 (2014) 62-72, **IF=2,932**.

**2013**

Filova, E.; Rampichova, M.; Litvinec, A.; Drzik, M.; Mickova, A; Buzgo, M.; Kost'akova, E; Martinova, L.; Usvald, D.; Prosecka, E.; Uhlik, J.; Motlik, J.; Vajner, L.; Amler, E.: A cell-free nanofiber composite scaffold regenerated osteochondral defects in miniature pigs; INTERNATIONAL JOURNAL OF PHARMACEUTICS; Volume: 447;Issue: 1-2;Pages: 139-149, 2014, **IF = 4.011.**

**2012**

Kostakova E. Gregr J. Meszaros L. Chotebor M. Nagy Z. Pokorny P. Lukas D: Laboratory synthesis of carbon nanostructured materials using natural gas, MATERIALS LETTERS,  **79**, pp. 35-38, 2012,  DOI: 10.1016/j.matlet.2012.03.101, ISSN: 0167-577X, **IF = 2.466.**

Rampichova M. Martinova L. Kostakova E. Filova E. Mickova A. Buzgo M. Michalek J. Pradny M. Necas A. Lukas D. Amler E.: JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE,  **23**/2   pp. 555-563 (2012) DOI: 10.1007/s10856-011-4518-x, ISSN: 0957-4530, **IF = 2.831**.

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| **H-index and citation index** |

H-index: 7

Citation index according ISI Web of Knowledge: 187

***AUTHOR:*** *(Kost'akova E OR Kostakova E)* - 25.4.2016

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| **Participation in projects**  |

# TA CR: TA 03010609. 2013-2015. Nanofibers and Nanoparticles Abrasives as the Basis for a New Generation of Tools for Ultra-fine Polishing Surfaces. Principal Inventor: Institute of Plasma Physics ASCR, v.v.i. Co-Investigator: Technical University of Liberec, prof. RNDr. David Lukas, CSc. Subsidies TUL 3,060 thousand CZK – Košťáková Eva: member of R&D co-investigator team

#  <http://www.isvav.cz/projectDetail.do?rowId=TA03010609>

# Ministry of the Interior, CR: VG20102014049. 2010-2014. Research of possibilities of application of new materials (with focus on nanomaterials) and advanced technologies to protect people against the effect of CBRN materials, with an emphasis on critical infrastructure. Coordinating beneficiary/Coordinator: National Institute for Nuclear, Chemical and Biological Protection v.v.i., Ing. Jiří Slabotinský, CSc. Co-investigator/Recipient: TUL, prof. RNDr. David Lukáš, CSc. Subsidies TUL 7,398 thousand CZK. – Eva Košťáková: member of R&D co-investigator team

#  <http://www.isvav.cz/projectDetail.do?rowId=VG20102014049>

# Ministry of Education, Youth and Sport, CR: VaVpI Pre-seed CZ.1.05/3.1.00/14.0308. 2014-2015. Nanofiber materials for tissue engineering. Principal investigator: Technical University of Liberec, Ing. Jana Drašarová, Ph.D. Subsidy: 25,073 thousand CZK.

<http://www.isvav.cz/projectDetail.do;jsessionid=E8B0BECACEB1E27734DBA22CE6A805DF?rowId=ED3.1.00%2F14.0308> – Eva Košťáková: 2014: **Leader of research group IA03 focusing on Combination of 3D printing and electrospun nanofibers for knee cartilage tissue engineering. Subsidy for IA03 (2014):** 2,991 thousand CZK. 2014 and 2015: **Member of research group focused on Combination of meltblown and electrospun nanofibers for bone tissue engineering**.

# **Academy of Sciences, CR: A500390702. 2007-2010. **Scaffolds from nanofibrous materials with integrated liposomes.** Cooridinating beneficiary/Coordinator: Institute of Experimental Medicin, Academy of Sciences of the Czech Republic: doc. RNDr. Evžen Amler, CSc. Co-investigator: Technical Univerity of Liberec, prof. RNDr. David Lukáš, CSc. Eva Košťáková:** member of R&D co-investigator team. Subsidy **TUL 2,396 thousand CZK.**

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| **Patents and industrial collaboration (last 5 years)** |

**Patents granted by the World Intellectual Property Organization**

Kocis, [Pokorny](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Pavel+Pokorny%22), [Lukas](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22David+Lukas%22), [Mikes](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Petr+Mikes%22), [Chvojka](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Jiri+Chvojka%22), [Kostakova](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Eva+Kostakova%22), [Beran](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Jaroslav+Beran%22), [Bilek](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Martin+BILEK%22), [Valtera](http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=ininventor:%22Jan+Valtera%22), Method for production of polymeric nanofibers by spinning of solution or melt of polymer in electric field, and a linear formation from polymeric nanofibers prepared by this method, WO2014094694 A1.

Lukáš D. Růžičková J. Košťáková E. Novák O. Pokorný P. Bristenský J. Samek L. (2009) Collecting electrode of the device for production of nanofibres through electrostatic spinning of polymer matrices, and device comprising this collecting electrode. **WO2009/049564 A2**. 2009-04-23, International application (PCT), Int. Appl. Num: PCT/CZ2008/000123.

**Patents granted by the Industrial Properti Office**

Kočiš L. Pokorný P.  Lukáš D. Mikeš P. Chvojka J. Košťáková E. Beran J. Bílek M. Valtera J. Amler E. Buzgo M. Míčková A. Process for preparing polymeric nanofibers by spinning a solution of polymer melt in electric field and linear form of polymeric nanofibers prepared in such a manner, patent, CZ 304137

Lukáš D. Růžičková J. Košťáková E. Novák O. Pokorný P. Briestenský J. Samek L. (2007) Collecting electrode of a device for producing nanofibers by electrostatic spinning of polymer matrices and device comprising such collecting electrode, patent CZ 2007-727.

Pokorný P. Košťáková E. Lukáš D. (2007) Collecting electrode of a device for producing nanofibers by electrostatic spinning of polymer matrices and device comprising such collecting electrode, Užitný vzor, číslo zápisu 18094, **2007-19250**

Chvojka J. Lukáš D. Košťáková E. Mikeš P. Pokorný P. Brustmann (2013), Layered material/fabric for polishing hard surfaces, užitný vzor 27192,

Chvojka, Košťáková, Lukaš, Šafka, Kříž, (2014) 3D composite material intended particularly as biologically degradable cartilage replacement, užitný vzor 27202

Chvojka J. Lukáš D. Košťáková E. Mikeš P. Pokorný P. Chaloupek J. Saterník F. (2014) Nanofibrous material with incorporated particles, užitný vzor 28410,

Lukáš D. Mikeš P. Kuželová-Košťáková E. Pokorný P. Novák O. Sanetrník F. Chvojka J. Havlíček J. Jenčová V. Horáková J. Blažková L. Pilařová K. Erben J. Kovačičin J. (2014) Apparatus to manufacture composite textile material containing polymeric nanofibers, užitný vzor 28190,

Chvojka, Lukáš, Kuželová Košťáková, Mikeš, Pokorný, Blažková (2015) Filler for polishing wheels , Utility model 27933

Amler, E., Mickova, A., Jakubova, R., Plencner, M., Prosecka, E., Filova, E., Rampichova, M., Pokorny, I., Lukas, D., Martinova, L., Košťáková, E., Pokorny P.: Net enriched with nanofibers of polycaprolactone or a mixture of polylactic acid and polyglycolic acid or polyvinylchloride with adhered liposomes,utility model 20346, 2009-21121

Amler, E., Mickova, A., Jakubova, R., Plencner, M., Prosecka, E., Filova, E., Rampichova, M., Pokorny, I., Lukas, D., Martinova, L., Košťáková, E., Pokorny P.: Net of polycaprolactone or polyglycolic acid or a mixture of polylactic and polyglycolic acids with nanofibers, utility model:20292, 2009- 21120

Amler, E., Mickova, A., Jakubova, R., Plencner, M., Prosecka, E., Filova, E., Rampichova, M., Pokorny, I., Lukas, D., Martinova, L., Košťáková, E., Pokorny P.: Collagen/fibrin net with nanofibers of polycaprolactone, utility model:20291, 2009-21119

Amler, E., Mičkova, A., Jakubova, R., Plencner,M., Prosecka, E., Rampichova, M., Filova, E., Buzgo, M., Lukas, D., Pokorny, P., Košťáková, E., Pokorný, I., Vodsedalkova, K.: Process for producing nanofiber-based nanopellets, patent number 2009-496, dokument number 302699

**Cooperation with industry**

**Cluster NANOPROGRES**

# MPO ČR: OPPI - CZ.1.03/5.1.00/12.00018. NANOPROGRES. 2011-2014. Prof. David Lukáš, a member of the steering committee leading professional advice and expert guarantor no. 1. The development of reproducible methods for the production of nanofibers of the "core / shell". <http://nanoprogres.cz/cs/podnikatelsky-program/zakladni-model-klastru-nanoprogres-podnikatelsky>, Eva Košťáková: member of R&D team

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| **Intershops aboroad**  |

**Budapest University of Technology and Economics, Faculty of Mechanical Engineering, Department of Polymer Engineering, Hungary**: 2002 – 2 month project CEEPUS, 2005-2011 –two weeks each year projects KONTAKT Mobility.

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| **Membershops in scientific boards and professional memberships** |

Member of the Fiber Society USA (2015-now)

Member of Branch Counsil of Faculty of Textile Engineering, Technical University of Liberec, (2015-now)

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| **Other experience**  |

Conference Chair – The Fiber Society Spring Conference, Liberec 2014

<https://www.thefibersociety.org/ConferenceInformation/PastConferences/tabid/104/language/en-US/Default.aspx>