References

- 1. Chitrphiromsri P, Kuznetsov AV. Modeling heat and moisture transport in firefighter protective clothing during flash fire exposure. *Heat and Mass Transfer* 2005; 41: 206-215.
- 2. Song G, Chitrphiromsri P, Ding D. Numerical simulations of heat and moisture transport in thermal protective clothing under flash fire conditions. *Journal of Occupational Safety and Ergonomics* 2008; 14 (1): 89–106.
- 3. Li Y. The science of clothing comfort. *Textile Progress* 2001; 15, (1, 2).
- 4. Ghazy A, Bergstrom DJ. Influence of the air gap between protective clothing and skin on clothing performance during flash fire exposure. *Heat and Mass Transfer* 2011; 47: 1275-1288.
- 5. Ghazy A, Bergstrom DJ. Numerical simulation of heat transfer in firefighters protective clothing with multiple air gaps during flash fire exposure. *Numerical Heat Transfer A* 2012; 61: 569-593.
- 6. Fan J, Chen XY. Heat and moisture transfer with sorption and phase change through clothing assemblies. Part II: Theoretical modeling, simulation and comparison with experimental results. *Textile Research Journal* 2005; 75 (3): 187.
- 7. Puchalski M, Sulak K, Chrzanowski M, Sztajnowski S, Krucińska I. Effect of processing variables on the thermal and physical properties of poly(L-lactide) spun bond fabrics. *Textile Research Journal* 2015; 85(5): 535-547.
- 8. Song G., Paskaluk S., Sati R., Crown E.M., Dale D.J., Ackerman M., Thermal protective performance of protective clothing used for law radiant heat protection. *Textile Research Journal* 2011; 81(3): 311.
- 9. Rossi RM, Schmid M, Camenzind MA. Thermal energy transfer through heat protective clothing during a flame engulfment test. *Textile Research Journal* 2014; 84 (13): 101.
- 10. Barker RL, Guerth-Schacher C, Grimes RV, Hamouda H. Effect of moisture on the thermal protective performance of firefighter protective clothing in low-level radiant heat exposures. *Textile Research Journal* 2006; 76 (1): 27.
- 11. Li Y, Zhu Q. Simultaneous heat and moisture transfer with moisture sorption, condensation and capillary liquid diffusion in porous textiles. *Textile Research Journal* 2003; 73, 6: 515-524.
- 12. Li Y, Luo Z. An improved mathematical simulation of the coupled diffusion of moisture and heat in wool fabric. *Textile Research Journal* 1999; 69, 10: 760-768.
- 13. Wang ZP, Turteltaub S, Abdalla M. Shape optimization and optimal control for transient heat conduction problems using an isogeometric approach. *Composites and Structures*, 2017; 185: 59-74.

- 14. Wang ZP, Kumar D. On the numerical implementation of continuous adjoint sensitivity for transient heat conduction problems using an isogeometric approach. *Structural and Multidisciplinary Optimization*. DOI:10.1007/s00158-017-1669-5, 2017
- 15. Turant J. Modeling and numerical evaluation of effective thermal conductivities of fibre functionally graded materials. *Composites and Structures* 2016, 159, 240-245.
- 16. Turant J, Radaszewska E. Thermal properties of functionally graded fibre material. *FIBRES & TEXTILES in Eastern Europe* 2016; 24, 4(118): 68-73.
- 17. Korycki R. Modelling of transient heat transfer within bounded seams. *FIBRES & TEXTILES in Eastern Europe* 2011; 19, 5(88): 112-116.
- 18. Korycki R, Szafranska H. Modelling of temperature field within textile inlayers of clothing laminates. *FIBRES & TEXTILES in Eastern Europe* 2013; 21, 4(100): 118-122.
- 19. Korycki R. Sensitivity oriented shape optimization of textile composites during coupled heat and mass transport. *International Journal of Heat and Mass Transfer* 2010; 53, 2385-2392.
- 20. Korycki R. Method of thickness optimization of textile structures during coupled heat and mass transport. *FIBRES & TEXTILES in Eastern Europe* 2009, 17, 1(72): 33-38.
- 21. Korycki R. Shape optimization and shape identification for transient diffusion problems in textile structures. *FIBRES & TEXTILES in Eastern Europe* 2007; 15, 1(60): 43-49.
- 22. EN-ISO 6942: 2002 Protective clothing Protection against heat and fire Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat.
- 23. Haghi AK. Factors effecting water-vapor transport through fibers. *Theoretical and Applied Mechanics* 2003; 30, 4: 277-309.
- 24. Korycki R, Szafranska H. Optimisation of pad thicknesses in ironing machines during coupled heat and mass transport. *FIBRES & TEXTILES in Eastern Europe* 2016; 24 1(115): 128-135.
- 25. Kostowski E. Thermal radiation (in Polish), PWN, 1993