

## Seznam vědeckých nebo odborných prací

Radim Uhlář

### 2024

Granja, C., Uhlář, R., Poklop, D., Alexa, P., Zach, V., Oancea, C., & Marek, L. (2024). Directional-sensitive wide field-of-view monitoring of high-intensity proton beams by spectral tracking of scattered particles with scattering foil and miniaturized radiation camera. *Journal of Instrumentation*, 19 C02054 DOI 10.1088/1748-0221/19/02/C02054

Zivotsky, O., Szurman I., Gembalova, L., Alexa, P., Uhlar, R., Cegan, T., Malina O., Cizek J., Veverka, M., & Gorau, J. (2024). Physical properties of MnFeAl-based alloys affected by Mn content and annealing. *Materials Chemistry and Physics*, 320 DOI 10.1016/j.matchemphys.2024.129480

### 2023

Košťál, M. et al. (2023). Measurement of dosimetrical cross sections with 14.05 MeV neutrons from compact neutron generator. *Annals of Nuclear Energy*, 191(109904) DOI 10.1016/j.anucene.2023.109904

Granja, C., Uhlář, R., Chuprakov, I., Alexa, P., Sansarbayar, E., Gledenov, Y.M., Poklop, D., Olsansky, V., Marek, L., Vuolo, M., & Pacik, J. (2023). Detection of fast neutrons with the pixel detector Timepix3. *Journal of Instrumentation*, 18(1) DOI 10.1088/1748-0221/18/01/P01003

### 2022

Jirásková, Y., Bursík, J., Životský, O., Luňáček, J., Alexa, P., Uhlář, R., Ederer, J., & Janos, P. (2022). Nanostructured magnetite-ceria-based composite: Synthesis, calcination, properties, and applications. *Journal of Alloys and Compounds*, 916 doi:10.1016/j.jallcom.2022.165481

Czako, T., Košťál, M., Zmeškal, M., Novák, E., Mravec, F., Cvachovec, F., Šimon, J., Schulc, M., Uhlář, R., Alexa, P., Matěj, Z. (2022). The characterization of D–T neutron generators in precise neutron experiments. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 1034 doi:10.1016/j.nima.2022.166837

### 2021

Harkut, O., Alexa, P., Uhlář, R. (2021). Radiocaesium Contamination of Mushrooms at High-and Low-Level Chernobyl Exposure Sites and Its Consequences for Public Health. *Life*, 11(12), 1370.

### 2020

Uhlář, R., Haroková, P., Alexa, P., Kačmařík, M. (2020). <sup>7</sup>Be atmospheric activity concentration and meteorological data: Statistical analysis and two-layer atmospheric model. *Journal of Environmental Radioactivity*, 219, Article number 106278.

Uhlář, R., Alexa, P., Harkut, O., Haroková, P. (2020). Modified Texas Convention Method for Fast Neutron Flux Measurement. *IEEE Transactions on Nuclear Science*, 67(1), 382-388.

Jirásek, J., Matýšek, D., Alexa, P., Osovský, M., Uhlář, R., Sivek, M. (2020). High specific activity of radium isotopes in baryte from the Czech part of the upper silesian basin—an example of spontaneous mine water treatment. *Minerals*, 10(2), 103.

Matej, Z., Kostal, M., Novak, E., Alexa, P., Uhlar, R., Mravec, F., Jancar, A., Cvachovec, F., Prenosil, V., Jancar, P. (2020). Characterization and comparison of neutron generators of IEC and linear D-T by the spectrometric system NGA-01. *International Conference on Physics of Reactors: Transition to a Scalable Nuclear Future, PHYSOR 2020*, 2020-March, 2786-2793.

## 2019

Abolghasem, M., Alexa, P., Uhlář, R., & Thiamová, G. (2019). Evolution of the position of single-particle levels in neutron-rich cerium and neodymium isotopes. *Acta Physica Polonica B, Proceedings Supplement*, 12(3), 507-514.

Uhlář, R. & Alexa, P. (2019). MCNP APPROACHES FOR DOSE RATES MODELING IN LABORATORY FOR NEUTRON ACTIVATION ANALYSIS AND GAMMA SPECTROMETRY AT OSTRAVA. *Radiation Protection Dosimetry*, 185(1), 116-123.

## 2015

Uhlář, R., Količová, P., & Alexa, P. Short-term variations in <sup>7</sup>Be wet deposition in the eastern part of the Czech Republic. *Journal of Radioanalytical and Nuclear Chemistry*, 304(1), 89-93.

## 2014

Uhlář, R., Kadulová, M., Alexa, P., & Pištora, J. (2014). A new reflector structure for facility thermalizing D-T neutrons. *Journal of Radioanalytical and Nuclear Chemistry*, 300(2), 809-818.

Alexa, P., Količová, P., & Uhlář, R. (2014). Gamma radioactivity of the January 2013 rainfall in Ostrava. *GeoScience Engineering*, 60(2), 27-31.

## 2013

Uhlář, R., Alexa, P., & Pištora, J. (2013). A system of materials composition and geometry arrangement for fast neutron beam thermalization: an MCNP study. *Nuclear Instruments and Methods in Physics Research B: Beam Interactions with Materials and Atoms*, 298, 81-85. doi:10.1016/j.nimb.2013.01.032

Uhlář, R., Hlaváč, L., Gembalová, L., Jonšta, P., & Zuchnický, O. (2013). Abrasive water jet cutting of the steels samples cooled by liquid nitrogen. *Applied Mechanics and Materials*, 308(7), 7-12. doi:10.4028/www.scientific.net/AMM.308.7

Alexa, P. & Uhlář, R. (2013). The first test of the new neutron generator at the VŠB-Technical University of Ostrava. *GeoScience Engineering*, 59(3), 1-5.

## 2011

Jandačka, D., & Uhlář R. (2011). *Základy biomechaniky sportu a tělesných cvičení* [Vysokoškolské skriptum]. Ostrava: Ostravská univerzita, Pedagogická fakulta.

## 2010

Uhlář, R. (2010). Influence of the flight style corrections in ski jumping to the length of the jump and aerodynamic forces. In: 7. konference o matematice a fyzice na vysokých školách technických s mezinárodní účastí, Brno.

## 2009

Jandačka, P., Hlaváč, L., Uhlář, R., Mádr, V., & Burkovič, J. (2009). Regression model for depth of cut of water jet into rock materials. *Transactions of the VŠB-Technical University of Ostrava, Mechanical Series*, 55(1), 117-124.

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Hlaváč, L.M., Hlaváčová, I.M., Vašek, J., Jandačka, P., Zegzulka, J., Viliamsová, J., Mádr, V., Uhlář, R. (2009). Investigation Of Samples From the High-Velocity Water Jet Driven Micro/Nano Particle Collider. In: Proceedings of the ASME 2009 Pressure Vessels and Piping Division Conference, Praha, PVP2009-77751, 8, ISBN 978-0-7918-3854-9

Uhlář, R. & Janura, M. (2009). Simulace letové fáze skoku na lyžích a vliv vybraných parametrů na délku skoku. *Studia Sportiva*, 3(2), 5-13.

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Hlaváčová, I.M., Hlaváč, L., Mádr, V., Janurová, E., Uhlář, R., Kaličinský, J. (2008). Risk Assessment in Using the High-Energy Liquid Jet Technology. In Optimization of production processes, Gajek, M. (ed.), Opole University of Technology, Opole, 2008, Chapter 7, 85-96.

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Janura, M., Svoboda, Z., & Uhlář, R. (2006). A comparison of ski jumping execution in a group of the best jumpers. *Proceedings of the ICSNS*, Vuokatti, Finland.

Kopečný, J., Janurová, E., Foukal, J., Barčová, K., Uhlář, R., & Kušnerová, M. (2006). *Fyzika pro bakaláře* [Vysokoškolské skriptum], VŠB-TU, Ostrava.

## **2004**

Kopečný, J., Barčová, K., Jandačka, D., Janurová, E., M., Kopečná, M. & Uhlář, R. (2004). *Sbírka příkladů z fyziky*, CD, RCCV, VŠB-TU Ostrava, Ostrava.