Ing. Pavel Tichý - Publication List

Papers published in peer-reviewed journals:

[1] Khushvaktov J.H., Tichý P., Adam J., Baldin A.A., Baznat M., Brunčiaková M., Furman W.I. et al., *Study of the residual nuclei generation in a massive lead target irradiated with 660 MeV protons*, Nuclear Instruments and Methods in Physics Research A, 959 (2020) 163542.

[2] Suchopár M., Wagner V., Svoboda O., Vrzalová J., Chudoba, Tichý P., Majerle M., Krása A., Kugler A., Adam J., Závorka L., Baldin A.A., Furman W.I., Kadykov M.G., Khushvaktov J.H., Solnyshkin A.A., Tsoupko-Sitnikov V.M., Tyutyunnikov S.I, *Activation measurement of neutron production and transport in a thick lead target and a uranium blanket during 4 GeV deuteron irradiation*, Nuclear Instruments and Methods in Physics Research A, 908 (2018) 347.

[3] Závorka L., Vrzalová J., Zeman M., Adam J., Čaloun P., Chudoba P., Furman W.I., Katovský K., Khushvaktov J.H., Solnyshkin A.A., Suchopár M., Tichý P., Tsoupko-Sitnikov V.M., Tyutyunnikov S.I., Vespalec R., Wagner V., *Characterization of a mixed high-energy spallation neutron–proton field using monoisotopic activation detectors*, Nuclear Instruments and Methods in Physics Research A, 903 (2018) 246.

[4] Khushvaktov J.H., Adam J., Baldin A.A., Furman W.I., Gustov S.A., Kish Yu.V., Solnyshkin A.A., Stegailov V.I., Svoboda J., Tichý P., Tsoupko-Sitnikov V.M., Tyutyunnikov S.I., Vespalec R., Vrzalová J., Wagner V., Yuldashev B.S., Závorka L., Zeman M., *Monte Carlo simulations and experimental results on neutron production in the uranium spallation target QUINTA irradiated with 660 MeV protons*, Applied Radiation and Isotopes, 137 (2018) 102.

[5] Khushvaktov J.H., Adam J., Baldin A.A., Chilap V.V., Furman V.I., Sagimbaeva F., Solnyshkin A.A., Stegailov V.I., Tichý P., Tsoupko-Sitnikov V.M., Tyutyunnikov S.I., Vespalec R., Vrzalová J., Yuldashev B.S., Wagner V., Závorka L., Zeman M., *Interactions of secondary particles with thorium samples in the setup QUINTA irradiated with 6GeV deuterons*, Nuclear Instruments and Methods in Physics Research B, 381 (2016) 84.

Conference papers:

[6] Tichý P., Adam J., Baldin A.A., Chudoba P., Furman W.I., Gustov S.A., Khushvaktov J.H. et al., *Experimental Investigation and Monte Carlo Simulations of Radionuclide Production inside the Uranium Spallation Target QUINTA Irradiated with a 660-MeV Proton Beam*, in Proceedings of the XXIV International Baldin Seminar on High Energy Physics Problems, Dubna, Russia, EPJ, 204 (2019) 04003.

[7] Zeman M., Adam J., Katovský K., Šťastný O., Svoboda J., Baldin A.A., Gustov S.A., Khushvaktov J.H., Solnyshkin A.A., Tichý P. et al., *Experimental investigation of the radionuclides produced in massive spallation target*, in Proceedings of the 19th International Scientific Conference on Electric Power Engineering, Brno, Czech Republic, IEEE, (2018) 532.

[8] Svoboda J., Adam J., Brunčiaková M., Katovský K., Zeman M., Baldin A.A., Gustov S.A., Khushvaktov J.H., Solnyshkin A.A., Tichý P., Tyutyunnikov S.I., Vespalec R., *Process of heat generation and its transfer monitoring at uranium spallation target QUINTA*, in Proceedings of the 19th International Scientific Conference on Electric Power Engineering, Brno, Czech Republic, IEEE, (2018) 522.

[9] Král D., Zeman M., Adam J., Katovský K., Vespalec R., Tichý P., Khushvaktov J.H., Solnyshkin A.A., *Investigation of thorium utilization in accelerator driven systems*, in Proceedings of the 19th

International Scientific Conference on Electric Power Engineering, Brno, Czech Republic, IEEE, (2018) 512.

[10] Tichý P., Adam J., Baldin A.A., Chudoba P., Furman W.I., Gustov S.A., Khushvaktov J.H. et al., *Determination and Monte Carlo Simulations of Neutron Flux inside Spallation Target QUINTA*, in Proceedings of the 26th International Nuclear Physics Conference, Adelaide, Australia, PoS, 281 (2017) 115.

[11] Svoboda J., Adam J., Baldin A.A., Gustov S.A., Katovský K., Khushvaktov J.H., Mar'in I.I., Solnyshkin A.A., Tichý P., Tyutyunnikov S.I., Vespalec R., Zeman M., *Neutron Flux Determination by High Accuracy Temperature Measurement*, in Proceedings of the 26th International Nuclear Physics Conference, Adelaide, Australia, PoS, 281 (2017) 116.

[12] Adam J., Katovský K., Vespalec R., Závorka L., Zeman M., Baldin A.A., Furman W.I., Khushvaktov J.H., Solnyshkin A.A., Svoboda J., Tichý P., Tsoupko-Sitnikov V.M., Tyutyunikov S.I., Vrzalová J., Wagner V., Zhivkov P., *Current research on ADS at the Joint Institute for Nuclear Research*, in Proceedings of the 4th Workshop on ADS and thorium, Huddersfield, UK, PoS, 279 (2017) 013.

[13] Suchopár M., Wagner V., Svoboda O., Vrzalová J., Chudoba P., Tichý P., Kugler A., Adam J. et al., *Monte Carlo simulations of Yttrium reaction rates in Quinta uranium target*, in Proceedings of the XXIII International Baldin Seminar on High Energy Physics Problems, Dubna, Russia, EPJ, 138 (2017) 10003.

[14] Zeman M., Adam J., Baldin A.A., Furman W.I., Gustov S.A., Katovský K., Khushvaktov J.H., Mar'in I.I., Novotný F., Solnyshkin A.A., Tichý P., Tsoupko-Sitnikov V.M. et al., *Determination of the Secondary Neutron Flux at the Massive Natural Uranium Spallation Target*, Physics Procedia, 90 (2017) 68.

[15] Zeman M., Adam J., Katovský K., Svoboda J., Tichý P., Vespalec R. et al., *Comparison between simulation and measurement of neutron flux using 59Co at the spallation target QUINTA*, in Proceedings of the XX International Scientific Conference of Young Scientists and Specialists, Dubna, Russia, JINR, 2017.

[16] Svoboda J., Adam J., Katovský K., Tichý P., Vespalec R., Zeman M. et al., *High accurate measurement of temperature differences at the massive spallation uranium target to determine the neutron flux*, in Proceedings of the XX International Scientific Conference of Young Scientists and Specialists, Dubna, Russia, JINR, 2017.

[17] Wagner V., Schopár M., Vrzalová J., Chudoba P., Svoboda O., Tichý P., Krása A., Majerle M., Kugler A. et al., *How to Use Benchmark and Cross-section Studies to Improve Data Libraries and Models*, Journal of Physics: Conference Series, 724 (2016) 012052.

[18] Svoboda J., Katovský K., Zeman, M., Adam, J., Baldin A.A., Khushvaktov J.H., Tichý P., Solnyshkin A.A. et al., *Determination of the neutron flux by the temperature differences at the massive spallation uranium target QUINTA*, in Proceedings of the 17th International Scientific Conference on Electric Power Engineering, Prague, Czech Republic, IEEE, (2016) 582.

[19] Zeman M., Katovský K., Adam J., Baldin A.A., Furman W.I., Khushvaktov J.H., Solnyshkin A.A., Suchopár M., Tichý P., Tsoupko-Sitnikov V.M. et al., *Determination of the neutron flux inside spallation target with the use of threshold activation detectors*, in Proceedings of the 17th International Scientific Conference on Electric Power Engineering, Prague, Czech Republic, IEEE, (2016) 576.

[20] Tichý P., Suchopár M., *Future usage of quasi-infinite depleted uranium target (BURAN) for benchmark studies*, in Proceedings of the XXII International Baldin Seminar on High Energy Physics Problems, Dubna, Russia, PoS, 225 (2015) 065.

[21] Suchopár M., Wagner V., Svoboda O., Vrzalová J., Chudoba P., Tichý P., Kugler A., *Studies of Relativistic Deuteron Reaction Cross-sections on Copper by Activation Method*, in Proceedings of the XXII International Baldin Seminar on High Energy Physics Problems, Dubna, Russia, PoS, 225 (2015) 058.

[22] Wagner V., Suchopár M., Svoboda O., Vrzalová J., Chudoba P., Tichý P., Kugler A., Adam J., Závorka L. et al., *Nuclear data for advanced nuclear systems*, in Proceedings of the XXII International Baldin Seminar on High Energy Physics Problems, Dubna, Russia, PoS, 225 (2015) 057.