

Научни приноси на гл. ас. д-р Пламен Петков

Глава от книга

- 1 **Boryan Radoev, Plamen V. Petkov, Ivan T. Ivanov, Capillary Bridges—A Tool for Three-Phase Contact Investigation**, ISBN:978-953-51-2216-6, InTechOpen, London, EC3R 6AF, UK 2015
- 2 **Plamen V. Petkov, Rashkov, K. , Gerogieva, N, Development of statistical methodology for analysis of operational data trends acquired during reactor operation in 'Kozloduy' NPP**, ISSN (print): 92–0–101307–8, ISSN (online): 92–0–101307–8, ISBN: 92–0–101307–8, IAEA, Vienna, Рецензирано 2007
- 3 **Plamen V. Petkov, Status of Input Data Development for Severe Accident Calculation in Kozloduy NPP**, ISBN:953-96132-9-9, Croatian Nuclear Society, Dubrovnik, Рецензирано 2006

Дисертация д-р

- Пламен Весков Петков, Взаимодействия и двумерно налягане при монослоеве от заредени колоидни частици върху течна повърхност**, Софийски Университет Св. Климент Охридски , Ръководител:Петър Кралчевски и Красимир Данов 2015

Монография

- Sienicki, J.J., Petkov, P.V., Operational and passive safety aspects of the STAR-LM natural convection HLMC reactor. Study on operational aspects of a natural circulation HLMC reactor**, JNC TA9400 ; 2001-2, Japan, International 2001

Научно ръководство

- 1 **Пламен Петков, Анализ на неопределености при пускови неутронно-физични експерименти на ВВЕР-1000**, Софийски университет "Св. Климент Охридски" дипломна работа:Александър Пимпас 2021
- 2 **Пламен Петков, АНАЛИЗ НА ПРЕХОДЕН ПРОЦЕС ПРИ СПИРАНЕ НА ГЛАВНИ ЦИРКУЛАЦИОННИ ПОМПИ НА ВВЕР-1000**, СУ "Св. Климент Охридски" дипломна работа:Хрисимира Тасева 2020
- 3 **Пламен Петков, Изследване на остатъчното енергоотделяне в басейна за отлежаване на касетите, с помощта на U.S. Nuclear Regulatory Commission Regulatory Guide 3.54 Spent fuel heat generation in an independent spent fuel storage installation, revision 2.**, Ядрена техника и ядрена енергетика дипломна работа:Чавдар Минков 2018
- 4 **Пламен Петков, Термоидравлични анализи на активната зона на ВВЕР-1000 при нормална експлоатация**, СУ "Св. Климент Охридски" дипломна работа:Венелин Русанов 2017

Статия в научно списание

- 1 **Plamen V. Petkov, Dimitar Liutov, Hristo Iliev, Investigation of solders surface tension in temperature range from melting point up to 673K, INTERNATIONAL SCIENTIFIC JOURNAL" MACHINES. TECHNOLOGIES. MATERIALS"**, vol:15, issue:2, 2021, pages:69-72, ISSN (print):2535-0196, ISSN (online):2535-020X, doi:10.5281/zenodo.4632761 2021
- 2 **Danail Hristov, Plamen V. Petkov, Iwo Naev, Calculation of decay heat rate in VVER-1000 spent fuel pool including uncertainties**, Nuclear Engineering and Design, vol:366, 2020, ISBN:0029-5493, doi:10.1016/j.nucengdes.2020.110754, Ref, IR , SCOPUS, SJR (1.073 - 2020), SCOPUS Quartile: Q1 (2020) 2020
- 3 **Plamen V. Petkov, Boryan Radoev, Investigation of Single and Binary of "Sandwich" Type Convex Liquid Capillary Bridges, Stretched between Two Flat Surfaces (Experimental Approach)**, Colloids and Interfaces, vol:3, issue:4, 2019, ISSN (online):2504-5377, doi:10.3390/ colloids3040068, Ref, IF (- 2019), Web of Science Quartile: Q4 (2019) 2019
- 4 **Venelin Rusanov, Plamen V. Petkov, Kasimir Kamenov, Implementation of Uncertainty** 2018

[Analysis for Evaluation of Nuclear Reactors VVER-1000 Fuel Safety Margins during Normal Operation by FEMAXI-6 Computer Code Calculations](#), Journal of Physics and Technology, vol:2, issue:1, 2018, pages:19-36, ISSN (online):2535-0536, doi:10.5281/zenodo.2550826, Ref, др.(Scientific Journal Impact Factor:4.802(2018)), MSc

- L. M. Dimitrova, Plamen V. Petkov, P. A. Kralchevsky, S. D. Stoyanov, E. G. Pelan, **Production and Characterization of Stable Foams with Fine Bubbles from Solutions of Hydrophobin HFBII and Its Mixtures with Other Proteins**, Colloids and Surfaces A: Physicochemical and Engineering Aspects, vol:521, 2017, pages:92-104, doi:10.1016/j.colsurfa.2016.06.018, Ref, Web of Science, SCOPUS Quartile: Q2 (2017), International, PhD 2017
- B. Radoev, I. Ivanov, Plamen V. Petkov, **Capillary bridge: Transition from equilibrium to hydrodynamic state**, Colloids and Surfaces A: Physicochemical and Engineering Aspects, том:505, 2016, стр.:98-105, doi:<https://doi.org/10.1016/j.colsurfa.2016.01.040>, Ref, IR , SCOPUS, SJR (0.797 - 2017), SCOPUS Quartile: Q2 (2016), PhD 2016
- Plamen V. Petkov, Krassimir D. Danov, Peter A. Kralchevsky, **Monolayers of charged particles in a Langmuir trough: Could particle aggregation increase the surface pressure?**, Journal of colloid and interface science, том:462, 2016, стр.:223-234, doi:<https://doi.org/10.1016/j.jcis.2015.09.075>, Ref, IR , SCOPUS, SJR (1.144 - 2017), SCOPUS Quartile: Q1 (2016), PhD 2016
- Plamen V. Petkov, B. Radoev, **Statics and dynamics of capillary bridges**, Colloids and Surfaces A: Physicochemical and Engineering Aspects, том:460, 2014, стр.:18-27, doi:<https://doi.org/10.1016/j.colsurfa.2014.03.038>, Ref, IR , SCOPUS, SJR (0.854 - 2014), SCOPUS Quartile: Q2 (2014) 2014
- P. V. Petkov, K. D. Danov, P. A. Kralchevsky, **Surface pressure isotherm for a monolayer of charged colloidal particles at a water/nonpolar-fluid interface: experiment and theoretical model**, Langmuir, vol:30, 2014, pages:2768-2778, doi:10.1021/la500126d, Ref, Web of Science, SCOPUS Quartile: Q1 (2014), PhD 2014
- 10 Boryan Radoev, Plamen V. Petkov, **Capillary bridges**, Blg. J. Chem., том:1, 2012, doi:133-142 2012
- Petkov, P.V., **Identification of optimal number of histogram bars for large data trends**, Nuclear Science and Engineering, том:159, брой:2, 2008, стр.:221-227, doi:10.13182/NSE159-221, Ref, SCOPUS, SJR (0.717 - 2008), SCOPUS Quartile: Q1 (2008) 2008
- 12 Petkov, P.V., Hristov D. V., **VVER-1000/V320 decay heat analysis involving TVS-M and TVSA fuel assemblies**, Nuclear Engineering and Design, том:238, брой:12, 2008, стр.:3227-3239, doi:0.1016/j.nucengdes.2008.06.012, Ref, SCOPUS, SJR (0.816 - 2008), SCOPUS Quartile: Q1 (2008) 2008

Статия в поредица

Peter A. Kralchevsky, Krassimir D. Danov, Plamen V. Petkov, **Soft electrostatic repulsion in particle monolayers at liquid interfaces: surface pressure and effect of aggregation**, Philosophical Transaction of Royal Society A , брой:374(2072), издателство:The Royal Society, 2016, doi:10.1098/rsta.2015.0130, Ref, Web of Science, SCOPUS Quartile: Q1 (2016) 2016

Статия в сборник (на конференция и др.)

- 1 Petkov, P.V., **Implementation of a new controlling function in MELCOR computer code for uncertainty evaluations**, International Conference on Advances in Nuclear Power Plants, ICAPP 2008, 2008, стр.:1436-1442, Ref, SCOPUS, SJR (0.212 - 2009) 2008
- 2 Petkov, P.V., **Implementation of uncertainty analysis in evaluation of small disturbances**, Societe Francaise d'Energie Nucleaire - International Congress on Advances in Nuclear Power Plants - ICAPP 2007, "The Nuclear Renaissance at Work", 2008, pages:649-659, ISBN:978-160423871-6, Ref, SCOPUS, SJR (0.212 - 2009) 2008

- Plamen V. Petkov, Danail Hristov, VVER-1000/V320 decay heat analysis, involving TVS- M and TVS-A fuel assemblies*, Societe Francaise d'Energie Nucleaire - International Congress on Advances in Nuclear Power Plants - ICAPP 2007, "The Nuclear Renaissance at Work", Publisher:American Nuclear Society (ANS), 2008, pages:146-152, ISBN:9781605607870, Ref, SCOPUS, SJR (0.258 - 2009), др.(Web of Knowledge) 2008
- Plamen V. Petkov, Implementation of Uncertainty Analysis in Evaluation of Small Disturbances**, Trans. Am. Nucl. Soc., Publisher:American Nuclear Society, 2006, pages:560-561, Ref, IR , SCOPUS, SJR (0.234 - 2006) 2006
- Sienicki, JJ, AV Moisseytsev, Wade, DC, Farmer, MT, Tzanos, CP, Stillman, JA, Holland, JW, Plamen V. Petkov, Therios, IU, The STAR-LM lead-cooled closed fuel cycle fast reactor coupled to a supercritical carbon dioxide Brayton cycle advanced power converter*, Global 2003: Atoms for Prosperity: Updating Eisenhower's Global Vision for Nuclear Energy, 2003, ISBN:978-0-89448-677-7, Ref, IR , SCOPUS, SJR (0.189 - 2004), International 2003
- James Sienicki, Plamen V. Petkov, Autonomous load following and operational aspects of the STAR-LM HLMC natural convection reactor*, 10. International Conference on Nuclear Engineering (ICON 10); Arlington, VA (United States); 14-18 Apr 2002, 2002, pages:667-676, doi:10.1115/ICON10-22291, Ref, SCOPUS, SJR (0.126 - 2017), International 2002
- James Sienicki, Plamen V. Petkov, Passive Safety of the STAR-LM HLMC Natural Convection Reactor*, 10. International Conference on Nuclear Engineering (ICON 10); Arlington, VA (United States); 14-18 Apr 2002, 2002, ISSN (print):00002016, doi:10.1115/ICON10-22290, Ref, SCOPUS, SJR (0.126 - 2017), International 2002
- J.J. Sienicki, Plamen V. Petkov, STAR-LM reactivity coefficient uncertainty effects upon autonomous load following and passive safety*, Trans. Am. Nucl. Soc., Publisher:American Nuclear Society, 2002, pages:282-283, doi:10.1115/ICON10-22290, Ref, IR , SCOPUS, SJR (0.126 - 2002), International 2002
- Plamen V. Petkov, T. Simeonov, P. Iontchev, G. Nanay, Statistical Analysis of the Temperature Field at the WWER-440 Core Outlet*, Proceedings of the third international seminar WWER Fuel Performance, modelling and Experimental support , editor/s:Svetla Stefanova and Albena Petrova, Publisher:INRNE, BAS, 2000, pages:168-172, ISBN:954-9820-03-3 2000
- Участие в конференция
- 1 [Секционен доклад, Пламен Петков, Experimental investigation of binary liquid capillary bridges of “sandwich” type](#) 2019
- 2 Постер, Пламен Петков, **Implementation of Uncertainty Analysis for Evaluation of Nuclear Reactors VVER-1000. Fuel Safety Margins During Normal Operation by FEMAXI-VI Computer Code Calculations** 2018
- 3 [Постер, Plamen V. Petkov, Implementation of Cobra-4I computer code of HELHEX software complex for analysis of DNBR during VVER-1000 normal operation](#) 2017
- 4 Секционен доклад, Венелин Русанов, **IMPLEMENTATION OF UNCERTAINTY ANALYSIS FOR EVALUATION OF NUCLEAR REACTORS VVER-1000 FUEL SAFETY MARGINS DURING NORMAL OPERATION BY FEMAXI-VI COMPUTER CODE CALCULATIONS** 2017
- 5 Постер, Пламен Петков, **Surface pressure of charged particles at a liquid interface in relation to micropatterning by non-densely packed interfacial colloid crystals** 2014
- 6 Секционен доклад, Пламен Петков, **Charged colloidal particles at the air-water interface: two-particle interactions, surface-pressure isotherm and effect of external electric field** 2013

- 7 Постер, *Пламен Петков*, **Interactions between Charged Particles at the Air-Water Interface: Effect of External Electric Field and Surface-Pressure Isotherm** 2013
- 8 Секционен доклад, *Пламен Петков*, **Controlling of the interactions between particles at a liquid interface by applied external electrical field** 2011
- 9 [Секционен доклад, Plamen V. Petkov, Implementation of a New Controlling Function in MELCOR ComputerCode for Uncertainty Evaluations, Plamen V. Petkov](#) 2008
- 10 [Секционен доклад, Plamen V. Petkov, Implementation of uncertainty analysis in evaluation of small disturbances](#) 2007
- 11 Секционен доклад, *Пламен Петков*, **Statistical analysis of the temperature field at the VVER-440 core outlet** 1999