



CURRICULUM VITAE

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Personal	Married, son (36), daughter (19)

Academic Appointments and Education:

1972 – 1978 Undergraduate and graduate student at Moscow Institute of Physics and Technology

1978 -1981 Doctor Course at the same University

1981 PhD in Chemical Physics

1981 – 1991 Junior Researcher, Senior Researcher at Institute of High Temperatures Russian Academy of Science (IVTAN), Moscow

1991-1992 Deputy Director of the International Department at the Institute of High Temperatures of the Russian Academy of Science (IVTAN), Moscow

1992 – 1993 Deputy Director at Marcon Co. (Moscow)

1993 – 2009 Senior Researcher at National Institute of Advanced Industrial Science and Technology (AIST), Hokkaido.

2009 – present Senior researcher at National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba

2015 – present Adjunct Professor at Tokyo City University

Research themes: Mass spectrometry of inorganic negative ions;
High temperature thermodynamics;
Coal combustion and gasification

Heat and mass transfer in moving and fluidized beds; Fluidization fundamental and applications

in chemical engineering

Heat and mass transfer under microgravity; Study of powder dispersion under microgravity

Study of microencapsulated phase change materials (MC PCM); Physico-chemical properties of microencapsulated PCM and its slurry; Heat transfer in MC PCM slurry.

Laser Photonics and Nanofabrication; Interaction of pulse laser beam with individual nanoparticles; Particle synthesis and modification of its properties with laser irradiation

Member of Editorial Boards of International Journals

1. Journal of Nanomaterials
2. Nanomedicine and Nanotechnology Journal
3. SciFed Nanotech Research Letters
4. Current Nanoscience

Invited Lectures

1. SPIE Photonics Europe. 16-19 April 2012, Brussels. Paper 8424-17.
2. Conference of Nanomaterials (CN2013). 16-17 August 2013, Beijing.
3. "Submicron nanoparticles" Workshop 17-18 December 2013, Tokyo
4. Int. Conf. on Applications of Optics and Photonics AOP 2014. 26-30 May 2014, Aveiro, Portugal.
5. Int. Conf. on Advanced Laser Technologies (ALT14), October 6 – 10 2014, Cassis, France.

List of Publications

Book chapters

1. Synthesis of Silver Nanoparticles with Laser Assistance.

Pyatenko, A.

In: *Silver Nanoparticles*. Ed.: D. P. Perez. In-Tech Publisher (2010) 121-144.

2. Nanostructure Synthesis in Aqueous Media.

Pyatenko, A.

In: *Recent Advances in Nanoscience and Technology*. Ed.: S.K. Bajpai and M.M. Yallapu. Bentham Science Publisher Ltd. (2009) 1-11.

Journal papers

1. Laser dewetting behaviors of Ag and Au thin films on glass and Si substrates: Experiments and theoretical considerations.

Harim Oh, Alexander Pyatenko, Myeongkyu Lee

APPLIED SURFACE SCIENCE V. 475, 740-747, (2019).

2. Tailoring of Magnetic Properties of NiO/Ni Composite Particles Fabricated by Pulsed Laser Irradiation.

Zaneta Swiatkowska-Warkocka, Alexander Pyatenko, Yoshiki Shimizu, Marcin Perzanowski, Arkadiusz Zarzycki, Benedykt Jany, and Marta Marszalek

NANOMATERIALS V. 8, Article Number 790, (2018).

- 3. Fabrication by laser irradiation in a continuous flow jet of carbon quantum dots for fluorescence imaging.**

Carlos Donate-Buendia, Rafael Torres-Mendieta, Alexander Pyatenko, Eva Falomir, Mercedes Fernandez-Alonso, and Gladys Minguez-Vega
ACS OMEGA V. 3, 2735-2742, (2018).
- 4. Facile one-pot fabrication of calcium phosphate-based composite nanoparticles as delivery and MRI contrast agents for macrophages.**

Maki Nakamura, Oyane Ayako, Kiyoko Kuroiwa, Yoshiki Shimizu, Alexander Pyatenko, Maski Misawa, Tomokazu Numano, and Hisanori Kosuge
COLLOIDS AND SURFACES B-BIOINTERFACES V. 162, 135-145, (2018).
- 5. Various morphologies phases of gold-based nanocomposite particles produced by pulsed laser irradiation in liquid media: insight in physical processes involved in particle formation.**

Zaneta Swiatkowska-Warkocka, Alexander Pyatenko, Kenji Koga, Kenji Kawaguchi, Wang, Hongqiang, and Naoto Koshizaki
JOURNAL OF PHYSICAL CHEMISTRY C V. 121, 8177-8187, (2017).
- 6. Biomimetic apatite coating on yttria-stabilized tetragonal zirconia utilizing femtosecond laser surface processing (Reprinted).**

Ayako Oyane, Masayuki Kakehata, Ikuko Sakamaki, Alexander Pyatenko, Hidehiko Yashiro, Atsuo Ito and Kenji Torizuka
SURFACE & COATING TECHNOLOGY V. 307, 1144-1151, (2016).
- 7. Submicron-sized spherical iron oxide particles fabricated by pulsed laser melting in liquid.**

Yoshie Ishikawa, Naoto Koshizaki, Alexander Pyatenko,
ELECTRONICS AND COMMUNICATIONS IN JAPAN V. 99, 37-42, (2016).
- 8. The mechanism underlying calcium phosphate precipitation on titanium via ultraviolet, visible, and near infrared laser-assisted biomimetic process.**

Moumita Mahanti, Maki Nakamura, Alexander Pyatenko, Ikuko Sakamaki,

Kenji Koga and Ayako Oyane

JOURNAL OF PHYSICS D: APPLIED PHYSICS V. 49, article 304003 (10pp), (2016).

9. **Synthesis of various 3D porous gold-based alloy nanostructures with branched shapes.**

Zaneta Swiatkowska-Warkocka, Alexander Pyatenko, Naoto Koshizaki, Kenji Kawaguchi

JOURNAL OF COLLOID AND INTERFACE SCIENCE V. 483, 281-586, (2016).

10. **Biomimetic apatite coating on yttria-stabilized tetragonal zirconia utilizing femtosecond laser surface processing.**

Ayako Oyane, Masayuki Kakehata, Ikuko Sakamaki, Alexander Pyatenko, Hidehiko Yashiro, Atsuo Ito, Kenji Torizuka

SURFACE & COATING Technology V. 296, 88-95, (2016).

11. **Nano- and Submicrometer-Sized Spherical Particle Fabrication Using a Submicroscopic Droplet Formed Using Selective Laser Heating.**

Yoshie Ishikawa, Naoto Koshizaki, Alexander Pyatenko, Noriyuki Saitoh, Noriko Yoshizawa, Yoshiki Shimizu

JOURNAL OF PHYSICAL CHEMISTRY C V. 120, 2439-2446, (2016).

12. **Synthesis of new metastable nanoalloys of immiscible metals with a pulse laser technique.**

Swiatkowska-Warkocka Zaneta; Pyatenko Alexander; Krok Fraciszek; Jany Benedict; Marszalek Marta

SCIENTIFIC REPORTS V. 5, article 9849, 1-6, (2015).

13. **散乱制御のためのサブミクロン球状粒子の作製技術とその応用**

越崎直人・石川善恵・Alexander Pyatenko・宮内雅浩

光学, V. 43, N. 11, 510-513, (2014).

Fabrication and Application of Submicron Spherical Particles for Scattering Control.

Koshizaki, Naoto; Ishikawa, Yoshie; Pyatenko, Alexander; Miyauchi, Masahiro.

JAPANESE JOURNAL OF OPTICS V. 43, N. 11, 510-513, (2014).

(in Japanese, with English abstract)

14. **Laser-assisted calcium phosphate deposition on polymer substrates in supersaturated solutions.**

- A. Oyane, I. Sakamaki, A. Pyatenko, M. Nakamura, Y. Ishikawa, Y. Shimizu, K. Kawaguchi, and N. Koshizaki
RSC ADVANCES V. 4, 53645-53648, (2014).
15. **Theoretical background of pulsed laser melting in liquid for submicron spherical particle fabrication.**
A. Pyatenko.
SPIE PROCEEDINGS. V. 9286, 92863D1-9, (2014).
16. **Growth Mechanism of Monodisperse Spherical Particle under Nanosecond Pulsed Laser Irradiation.**
A. Pyatenko, H. Wang, and N. Koshizaki.
JOURNAL OF PHYSICAL CHEMISTRY C V. 118, N. 8, 4495-4500, (2014).
17. **Single-Crystalline ZnO Spherical Particles by Pulsed Laser Irradiation of Colloidal Nanoparticles for Ultraviolet Photodetection.**
Wang, Hongqiang; Pyatenko, Alexander; Koshizaki, Naoto; Moehwald, Helmuth; Shchukin, Dmitrii.
ACS APPLIED MATERIALS AND INTERFACES V.6, N. 4, 2241-2247, (2014).
18. **Mechanism of pulse laser interaction with colloidal nanoparticles**
Pyatenko, Alexander; Wang, Hongqiang; Koshizaki, Naoto; Tsuji, Takeshi.
LASER & PHOTONICS REVIEWS V. 7, N. 4, 596-604, (2013).
19. **Photomediated assembly of single crystalline silver spherical particles with enhanced electrochemical performance**
Wang, Hongqiang; Jia, Lichao; Li, Liang; Pyatenko, Alexander; et al.
JOURNAL OF MATERIALS CHEMISTRY A V. 1, N. 3, 692-698, (2013).
20. **Pulsed laser irradiation of colloidal nanoparticles: a new synthesis route for the production of non-equilibrium bimetallic alloy submicrometer spheres**
Swiatkowska-Warkocka, Zaneta; Koga, Kenji; Kawaguchi, Kenji; Pyatenko, Alexander; et al.
RSC ADVANCES V. 3, N. 1, 79-83, (2013).
21. **Tetragonal zirconia spheres fabricated by carbon-assisted selective laser heating in a liquid medium**
Li, Xiangyou; Shimizu, Yoshiki; Pyatenko, Alexander; et al.
NANOTECHNOLOGY V. 23, N. 11, Article Number: 115602, 8p., (2012).
22. **Synthesis of Au-Based Porous Magnetic Spheres by Selective Laser Heating in Liquid**
Swiatkowska-Warkocka, Zaneta; Kawaguchi, Kenji; Shimizu, Yoshiki; Pyatenko, Alexander; Wang, Hongqiang; Koshizaki, Naoto.
LANGMUIR V. 28, N. 11, 4903-4907, (2012).
23. **液中レーザー溶融法によるサブミクロン球状粒子作製**
越崎直人、Alexander Pyatenko, Hongqiang Wang, 石川善恵
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Submicrometer spherical particle fabrication by pulsed laser melting in liquid.

Koshizaki, Naoto; Pyatenko, Alexander; Wang, Hongqiang; Ishikawa, Yoshie.
THE REVIEW OF LASER ENGINEERING V. 40, N. 2, 83-87, (2012).
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24. **液中レーザー溶融法による酸化チタン真球粒子の合成**
石川善恵、越崎直人、Alexander Pyatenko
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Titanium oxide sphere preparation by pulsed laser melting in liquid.
Ishikawa, Yoshie; Pyatenko, Alexander; Koshizaki, Naoto.
THE REVIEW OF LASER ENGINEERING V. 40, N. 2, 133-136, (2012).
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25. **Gallium Phosphide Spherical Particles by Pulsed Laser Irradiation in Liquid**
Wang, Hongqiang; Li, Xiangyou; Pyatenko, Alexander; Koshizaki, Naoto.
SCIENCE OF ADVANCED MATERIALS V. 4, N. 3-4, 544-547, (2012).
26. **General Bottom-Up Construction of Spherical Particles by Pulsed Laser Irradiation of Colloidal Nanoparticles: A Case Study on CuO**
Wang, Hongqiang; Kawaguchi, Kenji; Pyatenko, Alexander; Li, Xiangyou; Swiatkowska-Warkocka, Zaneta; Katou, Yukiko; Koshizaki, Naoto.
CHEMISTRY-A EUROPEAN JOURNAL V. 18, N.1, 163-169, (2012).
27. **Single-Crystalline Rutile TiO₂ Hollow Spheres: Room-Temperature Synthesis, Tailored Visible-Light-Extinction, and Effective Scattering Layer for Quantum Dot-Sensitized Solar Cells**
Wang, Hongqiang; Miyauchi, Masahiro; Ishikawa, Yoshie; Pyatenko, Alexander; Koshizaki, Naoto; Li, Yue; Li, Liang; Li, Xiangyou; Bando, Yoshio; Golberg, Dmitri.
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28. **Preparation of silver spheres by selective laser heating in silver-containing precursor solution**
Li, Xiangyou; Koshizaki, Naoto; Pyatenko, Alexander; Shimizu, Yoshiki; Wang, Hongqiang; Liu, Jianguo; Wang, Xiaoye; Gao, Ming; Wang, Zemin; Zeng, Xiaoyan.
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29. **Size-Tailored ZnO Submicrometer Spheres: Bottom-Up Construction, Size-Related Optical Extinction, and Selective Aniline Trapping**
Wang, Hongqiang; Koshizaki, Naoto; Li, Liang; Lichao, Jia; Kawaguchi, Kenji; Li, Xiangyou; Pyatenko, Alexander; Swiatkowska-Warkocka, Zaneta; Bando, Yoshio; Golberg, Dmitri.
ADVANCED MATERIALS V. 23, N. 16, 1865-1870, (2011).
30. **Fabrication of Crystalline Silicon Spheres by Selective Laser Heating in Liquid Medium**
Li, Xiangyou; Pyatenko, Alexander; Shimizu, Yoshiki; Wang, Hongqiang; Koga, Kenji; Koshizaki, Naoto.

LANGMUIR V. 27, N. 8, 5076-5080, (2011).

31. **Carbon-assisted fabrication of submicrometre spheres for low-optical-absorbance materials by selective laser heating in liquid**
Li, Xiangyou; Shimizu, Yoshiki; Pyatenko, Alexander; Wang, Hongqiang; Koshizaki, Naoto.
JOURNAL OF MATERIALS CHEMISTRY V. 21, N. 38, 14406-14409, (2011).
32. **Preparation of carbon quantum dots with tunable photoluminescence by rapid laser passivation in ordinary organic solvents**
Li, Xiangyou; Wang, Hongqiang; Shimizu, Yoshiki; Pyatenko, Alexander; Kawaguchi, Kenji; Koshizaki, Naoto.
CHEMICAL COMMUNICATIONS V. 47, N. 3, 932-934, (2011).
33. **Selective Pulsed Heating for the Synthesis of Semiconductor and Metal Submicrometer Spheres**
Wang, Hongqiang; Pyatenko, Alexander; Kawaguchi, Kenji; Li, Xiangyou; Swiatkowska-Warkocka, Zaneta; Koshizaki, Naoto.
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION V. 49, N. 36, 6361-6364, (2010).
34. **Mechanisms of Size Reduction of Colloidal Silver and Gold Nanoparticles Irradiated by Nd:YAG Laser**
Pyatenko, Alexander; Yamaguchi, Munehiro; Suzuki, Masaaki
JOURNAL OF PHYSICAL CHEMISTRY C V. 113, N. 21, 9078-9085, (2009).
35. **Synthesis of spherical silver nanoparticles with controllable sizes in aqueous solutions**
Pyatenko, Alexander; Yamaguchi, Munehiro; Suzuki, Masaaki
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36. **Self-assembly of micelles into designed networks**
Yuan, Yong J.; Pyatenko, Alexander T.; Suzuki, Masaaki
NANOSCALE RESEARCH LETTERS V. 2, N. 3, 119-122, (2007).
37. **Laser photolysis of silver colloid prepared by citric acid reduction method**
Pyatenko, A.; Yamaguchi, M.; Suzuki, M.
JOURNAL OF PHYSICAL CHEMISTRY B V. 109, N. 46, 21608-2161, (2005)
38. **Silver nanoparticles by laser ablation**
Yuan, Y.; Andrews, M.; Marlowa, B.; Suzuki, M.; Pyatenko, A.
In: *Nanophotonics, Nanostructure and Nanometrology*, Book series: Proceeding of the Society of Photo-Optical Instrumentation Engineering (SPIE) Book Editor(s): Zhu, X.; Chow, S.; Arakawa, Y. V. 5635, 77-82, (2005).
39. **Synthesis of silver nanoparticles by laser ablation in pure water**
Pyatenko, A.; Shimokawa, K.; Yamaguchi, M.; Nishimura, O.; Suzuki, M.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, V. 79, N. 4-6, 803-806, (2004).
40. 微小重力場での鋸波形平行振動壁による粒子駆動作の可能性

大山恭史、武内洋、ピアテンコ A, 千葉繁生、内館いずみ、篠原邦夫
粉体工学会誌、V. 41, N. 1, 15-18, (2004).

Possibility of particle transportation with vibrating parallel saw-tooth under microgravity (in Japanese, with English abstract)

Ohyama, Y.; Takeuchi, H.; Pyatenko, A.; Chiba, S.; Uchjdate, I.; Shinohara, T.
JOURNAL OF THE SOCIETY OF POWDER TECHNOLOGY JAPAN, V. 41, N. 1, 15-18, (2004).

41. **Dispersion of fine powder agglomerates under microgravity**
Pyatenko, A.; Takeuchi, H.; Chiba, S.; Ohyama, Y.
AICHE JOURNAL, V. 47 N. 12, 2696-2704, (2001).
42. **0°C近傍の高湿度雰囲気を利用した農産物長期保存技術**
武内洋、ピアテンコ A, 吉田諒一、伊藤和彦、樋元淳一、柴田宏
ケミカルエンジニアリング、V. 45, N. 7, 11-16, (2000).
43. **微小重力下における横振動箱内微粒子群の運動特性**
大山恭史、武内洋、ピアテンコ A, 千葉繁生、内館いずみ、篠原邦夫
粉体工学会誌、V. 36, N. 10, 742-749, (1999).
Motion characteristics of fine particle assembly in laterally vibrated box under microgravity (in Japanese, with English abstract)
Ohyama, Y.; Takeuchi, H.; Pyatenko, A.; Chiba, S.; Uchjdate, I.; Shinohara, T.
JOURNAL OF THE SOCIETY OF POWDER TECHNOLOGY JAPAN, V. 36, N. 10, 742-749, (1999).
44. **Characteristics of microencapsulated PCM slurry as a heat-transfer fluid**
Yamagishi, Y.; Takeuchi, H.; Pyatenko, A.; Kayukawa, N.
AICHE JOURNAL, V. 45, N. 4, 696-707, (1999).
45. **Cold energy transportation using microencapsulated phase change material slurry.**
Yamagishi, Y.; Takeuchi, H.; Pyatenko, A.; Kayukawa, N.
Proc. of the 6th Asian Conf. on Fluidized Bed and Three-Phase Reactors, 292-297, (1998).
46. **Gross behavior of parabolic strands in a riser**
Takeuchi, H.; Pyatenko, A.; Hatano, H.
Proc. of 9th Engineering Foundation Conference on Fluidization, (FLUIDIZATION IX), Book Editor(s): Fan, L.S.; Knowlton, T.M. Durango, CO, 173-180, (1998).
47. **Forced convection heat transfer with microencapsulated phase-change-material slurries: Turbulent flow in a circular tube**
Yamagishi, Y.; Sugeno, T.; Takeuchi, H.; Pyatenko, A.
KAGAKU KOGAKU RONBUNSHU, V. 24 N. 1, 104-110, (1998).
48. **Characteristics of microencapsulated phase change material slurry as energy transportation refrigerant.**
Takeuchi, H.; Pyatenko, A.; Yamagishi, Y.; Sugeno, T.; Ishige, T.
THERMAL SCIENCE and ENGINEERING, V. 6, N. 1, 163-167, (1998).

49. **過冷却を伴ったマイクロカプセル化相変化物質の熱的特性**
山岸康志、菅野智久、武内洋、ピアテンコ A、
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50. **微小重力下における粗粒子群の横振動による分散挙動**
大山恭史、武内洋、ピアテンコ A、千葉繁生、篠原邦夫
粉体工学会誌、V. 34, N. 11, 834-839, (1997).
The dispersion behavior of coarse particles by lateral vibration under microgravity (in Japanese, with English abstract)
Ohyama, Y.; Takeuchi, H.; Pyatenko, A.; Chiba, S.; Shinohara, T.
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51. **Motion of individual solid particles in a circulating fluidized bed riser.**
Matsuda, S.; Hatano, H.; Takeuchi, H.; Pyatenko, A.; Tsuchiya, K.
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52. **Flowing behavior of particles in the riser of a circulating fluidized bed.**
Takeuchi, H.; Pyatenko, A.; Hatano, H.
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53. **Characteristics of microencapsulated phase change material slurry as energy transportation refrigerant.**
Takeuchi, H.; Pyatenko, A.; Yamagishi, Y.; Sugeno, T.; Ishige, T.
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54. **Solid particles feeding and classification under microgravity.**
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55. **Study of ice powder formation on the surface of alumina particles.**
Pyatenko, A.; Takeuchi, H.; Uchida, T.; Yoshida, K.
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56. **Local interactive patterns of dispersed and swarm particles in a circulating fluidized-bed riser**
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57. **An evaluation of microencapsulated PCM for use in cold energy transportation medium**
Yamagishi, Y.; Sugeno, T.; Ishige, T.; Pyatenko, A.; Takeuchi, H.
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59. **Flowing behavior of particles in the riser of a circulating fluidized bed.**
Takeuchi, H.; Pyatenko, A.; Hatano, H.
Proc. of 5th Int. Conf. on Circulating Fluidized Bed, DGS7, 1-6, (1996).
60. **Local behavior of swarmed and dispersed particles in a circulating fluidized bed riser.**
Hatano, H.; Matsuda, S.; Takeuchi, H.; Pyatenko, A.; Tsuchiya, K.
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61. **Individual particle behavior and a local heat transfer coefficient around a tube in a moving bed.**
Pyatenko, A.; Takeuchi, H.
Proc. of the ASME/JSME Thermal Engineering Joint Conf. Editors: Fletcher, L.S.; Aihara, T. Book N. H0933B, 485-490, (1995).
62. **The features of the particles motion around a heat transfer tube in a flowing parcked bed.**
Pyatenko, A.; Takeuchi, H.
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63. **Experimental investigation of single coal particle devolatilization by laser heating.**
Pyatenko, A. T.; Bukhman, S. V.; Lebedinskii, V. S.; Nazarov, V. M.; Tolmachev, I. Y.
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64. **Carbon precipitation from methane in contact with the heterogeneous mixture of industrial catalyst GIAP-8 and zirconium dioxide.**
Lipovich, V. G.; Pyatenko, A. T.; Nizegorodova, M. Y.; Elimelakh E. A.
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65. **Mechanism of secondary volatile yield.**
Bukhman, S. V.; Lebedinskii, V. S.; Nazarov, V. M.; Pyatenko, A. T.
SOLID FUEL CHEMISTRY (Rus.) N. 5, 61-63, (1990).
66. **Investigation of the methane conversion on the surface of heterogeneous mixture Ni-ZrO₂ by TGA-method.**
Lipovich, V. G.; Pyatenko, A. T.; Nizegorodova, M. Y.; Elimelakh E. A.
SOLID FUEL CHEMISTRY (Rus.) N. 1, 78-82, (1990).
67. **High-temperature combustion and gasification of pulverized coal.**
Tolmachev, Y.; Pyatenko, A.; Dronov, Y.
In : "Advanced Energy Technology". Second USSR-Australia Workshop. SCIRO, Sydney, V.2, 207-217, (1988).
68. **Experimental analysis of Yugoslavian coal thermal decomposition technology.**
Ibrahimovich, H.; Neuman, S.; Nizegorodova, M.; Pyatenko, A.
In : "Science, Engineering Journal", Energoinvest, Sarayevo, V. 29, 71-80, (1988).

69. **Electron-affinities of the U_2F_n molecules.**
Pyatenko, A.T.; Gorokhov, L.N.
CHEMICAL PHYSICS LETTERS V. 105, N. 2, 205-208, (1984).
70. **Determination of the enthalpy of formation of ions UOF_5^- and $UO_2F_3^-$ by the method of ionic molecular equilibrium.**
Sidorova, I.V.; Pyatenko, A.T.; Gorokhov, L.N.; Smirnov, V. K.
Teplofizika Vysokih temperatur (Rus.) V. 22, N. 8, 1120-1123, (1984); English translation: *HIGH TEMPERATURE* V. 22, N. 8, 857-861, (1984).
71. **Thermochemistry of negative ions in the U-F system.**
Pyatenko, A.T.; Gusarov, A.V.; Gorokhov, L.N.
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72. **Calculation of new data on the enthalpy of formation of uranium pentafluoride during the selection of tentative thermochemical values of UF_n^- ions.**
Pyatenko, A.T.; Gusarov, A.V.; Gorokhov, L.N.
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73. **Thermochemistry of polynuclear negative $U_2F_n^-$ ions.**
Pyatenko, A.T.; Gorokhov, L.N.
Russian Journal of Phys. Chem. V. 58, N. 11, 2671-2674, (1984).
74. **Enthalpy determinations of UF_6^- and UF_4^- ions by the ion-molecule equilibrium method.**
Pyatenko, A.T.; Gusarov, A.V.; Gorokhov, L.N.
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75. **Negative ions in the vapour over yttrium trifluoride.**
Pyatenko, A.T.; Gusarov, A.V.; Gorokhov, L.N.
Teplofizika Vysokih temperatur (Rus.) V. 19, N. 6, 1167-1171, (1981); English translation: *HIGH TEMPERATURE* V. 19, N. 6, 837-840, (1981).
76. **Negative ions in the vapour over lanthanum trifluoride.**
Pyatenko, A.T.; Gusarov, A.V.; Gorokhov, L.N.
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