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Исследовательская лаборатория
"Микрофлюидные технологии для
ускоренного синтеза материалов"

Должность: Инженер-исследователь

Дата рождения: 02.03.1986 г.,
г. Новочеркасск, Россия

Образование и ученые степени:

2022 г. – н.в.: Аспирантура МИИ ИМ ЮФУ, 2.6.6. - Нанотехнологии и наноматериалы.
2017-2019 гг.: Дипломатическая академия МИД России. Направление подготовки:
Международные отношения. Программа подготовки: Международное регионоведение.
2002-2007 гг.: Южный федеральный университет, Факультет: Юридический.
Специальность: Международное право.

Направления исследований:

Физика, химия и материаловедение.

Исследовательская активность:

Аддитивные технологии, микрофлюидика.

Область научных интересов:

Аддитивные технологии производства микрофлюидных устройств для ускоренного синтеза новых наноматериалов.

Научные публикации в реферируемых журналах:

1. Modeling and analysis of energy efficiency of methods for maintaining temperature conditions in microbioreactors VA Chistyakov, AD Lukyanov, SV Chapek, YD Donskoy, OI Katin IOP Conference Series: Materials Science and Engineering 900 (1), 012015

2. Visualization of different anatomical parts of the enucleated human eye using X-ray micro-CT imaging SY Tkachev, BI Mitrin, NS Karnaukhov, EV Sadyrin, MV Voloshin, ...*Experimental Eye Research* 203, 108394
3. Mechanical properties and failure mechanisms of 3D-printed PLA scaffolds: A preliminary study BI Mitrin, SV Chapek, EV Sadyrin, MV Swain IOP Conference Series: Materials Science and Engineering 1029 (1), 012074
4. Online Microfluidic Droplets Characterization Using Microscope Data Intelligent Analysis OO Kartashov, SV Chapek, DS Polyanichenko, GI Belyavsky, ... *Big Data and Cognitive Computing* 7 (1), 7
5. Machine Learning Analysis of Reaction Parameters in UV-Mediated Synthesis of Gold Nanoparticles AA Guda, MV Kirichkov, VV Shapovalov, AI Muravlev, DM Pashkov, ... *The Journal of Physical Chemistry C* 127 (2), 1097-1108
6. Application of 3D bioprinting in the study of bacterial biofilms S Chapek, S Golovin, M Chikindas, S Ponomareva, D Rudoy, ... *E3S Web of Conferences* 273, 13010
7. Operando Laboratory X-ray Absorption Spectroscopy and UV-Vis Study of Pt/TiO₂ Photocatalysts during Photodeposition and Hydrogen Evolution Reactions EG Kozyr, PN Njoroge, SV Chapek, VV Shapovalov, AA Skorynina, ... *Catalysts* 13 (2), 414
8. Применение биосовместимых композитных структур (скаффолдов) в онкологии ОИ Кит, АЮ Максимов, ИА Новикова, АС Гончарова, ЕА Лукбанова, ... *Сибирский онкологический журнал* 21 (1), 130-136
9. High-Quality In Situ X-ray Absorption Spectroscopy Monitoring of the Palladium Nucleation inside the 3D Printed Microfluidic Chip AV Dobrovolskaya, SV Chapek, OA Usoltsev, E Naranov, DN Gorbunov, ... *The Journal of Physical Chemistry C*
10. 3D-printed microfluidic system for the in situ diagnostics and screening of nanoparticles synthesis parameters VV Shapovalov, SV Chapek, AA Tereshchenko, AN Bulgakov, AP Bagliy, ... *Micro and Nano Engineering* 20, 100224
11. 3D Printed Microfluidic Cell for SAXS Time-Resolved Measurements of the Structure of Protein Crystallization Solutions MA Marchenkova, SV Chapek, PV Konarev, KB Ilina, GS Peters, ... *Crystals* 13 (6), 938



Sergei Chapek

Born: 02.03.86

Positions: Research engineer

Education and Degrees:

2022 – present Postgraduate course at SFU ;
2.6.6. - Nanotechnologies and nanomaterials.

2017 – 2019 MS Diplomatic Academy of the
Russian Ministry of Foreign Affairs; Field of
study: International Relations. Specialty:
International Regional Studies.

2002—2007 BS, MS Southern Federal
University; Faculty: Law. Specialty: International
Law.

Research sectors:

Physics, Chemistry and Materials Science.

Research activity:

Additive manufacturing, microfluidics.

Fields of interest:

Additive technologies for the production of microfluidic devices.

Scientific publications in referred journals:

1. Modeling and analysis of energy efficiency of methods for maintaining temperature conditions in microbioreactors VA Chistyakov, AD Lukyanov, SV Chapek, YD Donskoy, OI Katin IOP Conference Series: Materials Science and Engineering 900 (1), 012015
2. Visualization of different anatomical parts of the enucleated human eye using X-ray micro-CT imaging SY Tkachev, BI Mitrin, NS Karnaukhov, EV Sadyrin, MV Voloshin, ...Experimental Eye Research 203, 108394
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4. Online Microfluidic Droplets Characterization Using Microscope Data Intelligent Analysis OO Kartashov, SV Chapek, DS Polyanichenko, GI Belyavsky, ... Big Data and Cognitive Computing 7 (1), 7

5. Machine Learning Analysis of Reaction Parameters in UV-Mediated Synthesis of Gold Nanoparticles AA Guda, MV Kirichkov, VV Shapovalov, AI Muravlev, DM Pashkov, ... The Journal of Physical Chemistry C 127 (2), 1097-1108
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7. Operando Laboratory X-ray Absorption Spectroscopy and UV-Vis Study of Pt/TiO₂ Photocatalysts during Photodeposition and Hydrogen Evolution Reactions EG Kozyr, PN Njoroge, SV Chapek, VV Shapovalov, AA Skorynina, ... Catalysts 13 (2), 414
8. Применение биосовместимых композитных структур (скаффолдов) в онкологии
а. ОИ Кит, АЮ Максимов, ИА Новикова, АС Гончарова, ЕА Лукбанова, ...
Сибирский онкологический журнал 21 (1), 130-136
9. High-Quality In Situ X-ray Absorption Spectroscopy Monitoring of the Palladium Nucleation inside the 3D Printed Microfluidic Chip AV Dobrovolskaya, SV Chapek, OA Usoltsev, E Naranov, DN Gorbunov, ... The Journal of Physical Chemistry C
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11. 3D Printed Microfluidic Cell for SAXS Time-Resolved Measurements of the Structure of Protein Crystallization Solutions MA Marchenkova, SV Chapek, PV Konarev, KB Iliina, GS Peters, ... Crystals 13 (6), 938