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### 2021

**Boosting transfection efficiency: A systematic study using layer-by-layer based gene delivery platform.**

Tarakanchikova YV, Linnik DS, Mashel T, Muslimov AR, Pavlov S, Lepik KV, Zyuzin MV, Sukhorukov GB and Timin AS. *Materials Science and Engineering C vol. 126*,.

**Low intensity focused ultrasound responsive microcapsules for non-ablative ultrafast intracellular release of small molecules.**

Song F, Gao H, Li D, Petrov AV, Petrov VV, Wen D and Sukhorukov GB. *Journal of Materials Chemistry B vol. 9, (10) 2384-2393*.

**Enhanced cytotoxicity caused by AC magnetic field for polymer microcapsules containing packed magnetic nanoparticles.**

Zharkov MN, Brodovskaya EP, Kulikov OA, Gromova EV, Ageev VP, Atanova AV, Kozyreva ZV, Tishin AM, Pyatakov AP, Pyataev NA and Sukhorukov GB. *Colloids and Surfaces B: Biointerfaces vol. 199*,.

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**Endovascular addressing improves the effectiveness of magnetic targeting of drug carrier. Comparison with the conventional administration method.**

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**Poly(lactic Acid)-Based Patterned Matrixes for Site-Specific Delivery of Neuropeptides On-Demand: Functional NGF Effects on Human Neuronal Cells.**

Sindeeva OA, Kopach O, Kurochkin MA, Sapelkin A, Gould DJ, Rusakov DA and Sukhorukov GB. *Frontiers in Bioengineering and Biotechnology vol. 8*,.

**Microchamber arrays made of biodegradable polymers for enzymatic release of small hydrophilic cargos.**

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**Biomimetic drug delivery platforms based on mesenchymal stem cells impregnated with light-responsive submicron sized carriers.**

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**Poling and annealing of piezoelectric Poly(Vinylidene fluoride) micropillar arrays.**

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### 2019

**Focused ultrasound-mediated fluorescence of composite microcapsules loaded with magnetite nanoparticles: In vitro and in vivo study.**

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**Submicron-Sized Nanocomposite Magnetic-Sensitive Carriers: Controllable Organ Distribution and Biological Effects.**

Novoselova MV, German SV, Sindeeva OA, Kulikov OA, Minaeva OV, Brodovskaya EP, Ageev VP, Zharkov MN, Pyataev NA, Sukhorukov GB and Gorin DA. *Polymers (Basel)* vol. 11, (6).Mdpi.

**Piezoelectric Response in Hybrid Micropillar Arrays of Poly(Vinylidene Fluoride) and Reduced Graphene Oxide.**

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**Magnetically targetable microcapsules display subtle changes in permeability and drug release in response to a biologically compatible low frequency alternating magnetic field.**

Luo D, Poston RN, Gould DJ and Sukhorukov GB. *Materials Science and Engineering C* vol. 94, 647-655.

**Poly(lactic acid) sealed polyelectrolyte complex microcontainers for controlled encapsulation and NIR-Laser based release of cargo.**

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**Fabrication and photoluminescent properties of Tb<sup>3+</sup> doped carbon nanodots.**

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**In-situ NIR-laser mediated bioactive substance delivery to single cell for EGFP expression based on biocompatible microchamber-arrays.**

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**Dispersion of optical and structural properties in gel column separated carbon nanoparticles.**

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**Protective composite silica/polyelectrolyte shell with enhanced tolerance to harsh acid and alkali conditions.**

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**Efficient gene editing via non-viral delivery of CRISPR-Cas9 system using polymeric and hybrid microcarriers.**

Timin AS, Muslimov AR, Lepik KV, Epifanovskaya OS, Shakirova AI, Mock U, Riecken K, Okilova MV, Sergeev VS, Afanasyev BV, Fehse B and Sukhorukov GB. *Nanomedicine: Nanotechnology, Biology, and Medicine*.

**Silver-Coated Colloidosomes as Carriers for an Anticancer Drug.**

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**A comparison study between electrospun polycaprolactone and piezoelectric poly(3-hydroxybutyrate-co-3-hydroxyvalerate) scaffolds for bone tissue engineering.**

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**Mesenchymal Stem Cells Engineering: Microcapsules-Assisted Gene Transfection and Magnetic Cell Separation.**

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**Silver Alginate Hydrogel Micro- and Nanocontainers for Theranostics: Synthesis, Encapsulation, Remote Release, and Detection.**

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**Morphology alterations of skin and subcutaneous fat at NIR laser irradiation combined with delivery of encapsulated indocyanine green.**

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Gai M, Frueh J, Tao T, Petrov AV, Petrov VV, Shesterikov EV, Tverdokhlebov SI and Sukhorukov GB. *Nanoscale* vol. 9, (21) 7063-7070.

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**Synthesis of Novel Chlorhexidine Spheres with controlled release from a UDMA-HEMA Resin using Ultrasound.**

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**Formulation for Oral Delivery of Lactoferrin Based on Bovine Serum Albumin and Tannic Acid Multilayer Microcapsule.**

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**Hybrid inorganic-organic capsules for efficient intracellular delivery of novel siRNAs against influenza A (H1N1) virus infection.**

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**Multi-layer microcapsules: fresh insights and new applications.**

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**Photodynamic therapy platform based on localized delivery of photosensitizer by vaterite submicron particles.**

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**Multifunctional polyelectrolyte microcapsules as a contrast agent for photoacoustic imaging in blood.**

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**Novel Formulation of Chlorhexidine Spheres and Sustained Release with Multilayered Encapsulation.**

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**Microcontact printing of polyelectrolyte multilayer thin films: Glass-viscous flow transition based effects and hydration methods.**

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