Vesa-Pekka Lehto

List of Publications by Year
in descending order

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Version: 2024-02-01

129 papers	6,167 citations	71102 41 h-index	76900 74 g-index
131 all docs	131 docs citations	131 times ranked	6318 citing authors

#	Article	IF	Citations
1	Dualâ€contrast microâ€CT enables cartilage lesion detection and tissue condition evaluation ex vivo. Equine Veterinary Journal, 2023, 55, 315-324.	1.7	5
2	Functionalized nanoporous silicon for extraction of Sc from a leach solution. Hydrometallurgy, 2022, , 105866.	4.3	2
3	Experimental Evaluation of Radiation Response and Thermal Properties of NPs-Loaded Tissues-Mimicking Phantoms. Nanomaterials, 2022, 12, 945.	4.1	9
4	Recent Developments in Porous Silicon Nanovectors with Various Imaging Modalities in the Framework of Theranostics. ChemMedChem, 2022, 17, .	3.2	2
5	Self-standing mesoporous Si films as anodes for lithium-ion microbatteries. Journal of Power Sources, 2022, 529, 231269.	7.8	12
6	Colonic Delivery of Î±â€Linolenic Acid by an Advanced Nutrient Delivery System Prolongs Glucagonâ€Like Peptideâ€1 Secretion and Inhibits Food Intake in Mice. Molecular Nutrition and Food Research, 2022, 66, e2100978.	3.3	4
7	Quantitative Comparison of the Light-to-Heat Conversion Efficiency in Nanomaterials Suitable for Photothermal Therapy. ACS Applied Materials & Interfaces, 2022, 14, 33555-33566.	8.0	32
8	Rapid synthesis of nanostructured porous silicon carbide from biogenic silica. Journal of the American Ceramic Society, 2021, 104, 766-775.	3.8	6
9	Inorganic Nanomaterials for Photothermalâ€Based Cancer Theranostics. Advanced Therapeutics, 2021, 4, 2000207.	3.2	11
10	Biogenic nanoporous silicon carrier improves the efficacy of buparvaquone against resistant visceral leishmaniasis. PLoS Neglected Tropical Diseases, 2021, 15, e0009533.	3.0	5
11	Comparison between Fluorescence Imaging and Elemental Analysis to Determine Biodistribution of Inorganic Nanoparticles with Strong Light Absorption. ACS Applied Materials & Interfaces, 2021, 13, 40392-40400.	8.0	5
12	Production and stability of amorphous solid dispersions produced by a Freeze-drying method from DMSO. International Journal of Pharmaceutics, 2021, 606, 120902.	5.2	11
13	Cell membrane coating integrity affects the internalization mechanism of biomimetic nanoparticles. Nature Communications, 2021, 12, 5726.	12.8	126
14	Plant-based nanostructured silicon carbide modified with bisphosphonates for metal adsorption. Microporous and Mesoporous Materials, 2021, 324, 111294.	4.4	5
15	Recovery of uranium with bisphosphonate modified mesoporous silicon. Separation and Purification Technology, 2021, 272, 118913.	7.9	27
16	Challenges and prospects of nanosized silicon anodes in lithium-ion batteries. Nanotechnology, 2021, 32, 042002.	2.6	95
17	Triple Contrast CT Method Enables Simultaneous Evaluation of Articular Cartilage Composition and Segmentation. Annals of Biomedical Engineering, 2020, 48, 556-567.	2.5	10
18	Black Mesoporous Silicon as a Contrast Agent for LED-Based 3D Photoacoustic Tomography. ACS Applied Materials & Interfaces, 2020, 12, 5456-5461.	8.0	11

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19	Stable surface functionalization of carbonized mesoporous silicon. Inorganic Chemistry Frontiers, 2020, 7, 631-641.	6.0	11
20	Bisphosphonate modified mesoporous silicon for scandium adsorption. Microporous and Mesoporous Materials, 2020, 296, 109980.	4.4	21
21	Controlling the Nature of Etched Si Nanostructures: High- versus Low-Load Metal-Assisted Catalytic Etching (MACE) of Si Powders. ACS Applied Materials & Interfaces, 2020, 12, 4787-4796.	8.0	11
22	Low-Load Metal-Assisted Catalytic Etching Produces Scalable Porosity in Si Powders. ACS Applied Materials & Interfaces, 2020, 12, 48969-48981.	8.0	14
23	Tailored Synthesis of PEGylated Bismuth Nanoparticles for X-ray Computed Tomography and Photothermal Therapy: One-Pot, Targeted Pyrolysis, and Self-Promotion. ACS Applied Materials & Interfaces, 2020, 12, 47233-47244.	8.0	7
24	Thermal dose as a universal tool to evaluate nanoparticle-induced photothermal therapy. International Journal of Pharmaceutics, 2020, 587, 119657.	5.2	11
25	Cascading use of barley husk ash to produce silicon for composite anodes of Li-ion batteries. Materials Chemistry and Physics, 2020, 245, 122736.	4.0	14
26	Synthesis of graphene-like carbon from agricultural side stream with magnesiothermic reduction coupled with atmospheric pressure induction annealing. Nano Express, 2020, 1, 010014.	2.4	7
27	Mechanical penetration of Î²-lactamâ€“resistant Gram-negative bacteria by programmable nanowires. Science Advances, 2020, 6, .	10.3	23
28	Conjugation with carbon nanotubes improves the performance of mesoporous silicon as Li-ion battery anode. Scientific Reports, 2020, 10, 5589.	3.3	31
29	Injection Metal-Assisted Catalytic Etching (MACE) of Si Powder: Discovery of Low-Load MACE and Pore Distribution Tunability Using Ag, Au, Pd, Pt and Cu Catalysts. ECS Meeting Abstracts, 2020, MA2020-02, 1219-1219.	0.0	0
30	The atomic local ordering of SBA-15 studied with pair distribution function analysis, and its relationship to porous structure and thermal stability. Acta Materialia, 2019, 175, 341-347.	7.9	10
31	Inorganic mesoporous particles for controlled Î±-linolenic acid delivery to stimulate GLP-1 secretion in vitro. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 144, 132-138.	4.3	8
32	Cavitation Induced by Janus-Like Mesoporous Silicon Nanoparticles Enhances Ultrasound Hyperthermia. Frontiers in Chemistry, 2019, 7, 393.	3.6	17
33	Assessment of the Relaxation-Enhancing Properties of a Nitroxide-Based Contrast Agent TEEPO-Glc with In Vivo Magnetic Resonance Imaging. Contrast Media and Molecular Imaging, 2019, 2019, 1-8.	0.8	5
34	Site-Specific 111In-Radiolabeling of Dual-PEGylated Porous Silicon Nanoparticles and Their In Vivo Evaluation in Murine 4T1 Breast Cancer Model. Pharmaceutics, 2019, 11, 686.	4.5	14
35	Designed inorganic porous nanovector with controlled release and MRI features for safe administration of doxorubicin. International Journal of Pharmaceutics, 2019, 554, 327-336.	5.2	12
36	Approaches to improve the biocompatibility and systemic circulation of inorganic porous nanoparticles. Journal of Materials Chemistry B, 2018, 6, 3632-3649.	5.8	30

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37	Mesoporous systems for poorly soluble drugs â€“ recent trends. International Journal of Pharmaceutics, 2018, 536, 178-186.	5.2	51
38	Scalable Synthesis of Biodegradable Black Mesoporous Silicon Nanoparticles for Highly Efficient Photothermal Therapy. ACS Applied Materials & Interfaces, 2018, 10, 23529-23538.	8.0	35
39	New approach for determining cartilage pore size distribution: NaCl-thermoporometry. Microporous and Mesoporous Materials, 2017, 241, 238-245.	4.4	23
40	Dual Contrast CT Method Enables Diagnostics of Cartilage Injuries and Degeneration Using a Single CT Image. Annals of Biomedical Engineering, 2017, 45, 2857-2866.	2.5	22
41	Nano Air Seeds Trapped in Mesoporous Janus Nanoparticles Facilitate Cavitation and Enhance Ultrasound Imaging. ACS Applied Materials & Interfaces, 2017, 9, 35234-35243.	8.0	27
42	Electrochemically anodized porous silicon: Towards simple and affordable anode material for Li-ion batteries. Scientific Reports, 2017, 7, 7880.	3.3	48
43	Chlorin e6 Functionalized Theranostic Multistage Nanovectors Transported by Stem Cells for Effective Photodynamic Therapy. ACS Applied Materials & Interfaces, 2017, 9, 23441-23449.	8.0	51
44	Toward Controlled Photothermal Treatment of Single Cell: Optically Induced Heating and Remote Temperature Monitoring In Vitro through Double Wavelength Optical Tweezers. ACS Photonics, 2017, 4, 1993-2002.	6.6	25
45	Temperature responsive porous silicon nanoparticles for cancer therapy â€“ spatiotemporal triggering through infrared and radiofrequency electromagnetic heating. Journal of Controlled Release, 2016, 241, 220-228.	9.9	58
46	Tailored Dual PEGylation of Inorganic Porous Nanocarriers for Extremely Long Blood Circulation in Vivo. ACS Applied Materials & Interfaces, 2016, 8, 32723-32731.	8.0	39
47	Improved production efficiency of mesoporous silicon nanoparticles by pulsed electrochemical etching. Powder Technology, 2016, 288, 360-365.	4.2	26
48	Cytotoxicity assessment of porous silicon microparticles for ocular drug delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 100, 1-8.	4.3	37
49	Fabrication of Porous Silicon Based Humidity Sensing Elements on Paper. Journal of Sensors, 2015, 2015, 1-10.	1.1	21
50	Synthesis and in vitro phantom NMR and MRI studies of fully organic free radicals, TEEPO-glucose and TEMPO-glucose, potential contrast agents for MRI. RSC Advances, 2015, 5, 15507-15510.	3.6	13
51	Special Issue on the recent trends in Thermal Analysis and Calorimetry in the European Region. Journal of Thermal Analysis and Calorimetry, 2015, 121, 1-5.	3.6	9
52	Novel Delivery Systems for Improving the Clinical Use of Peptides. Pharmacological Reviews, 2015, 67, 541-561.	16.0	62
53	Optimisation of thermoporometry measurements to evaluate mesoporous organic and carbon xero-, cryo- and aerogels. Thermochimica Acta, 2015, 621, 81-89.	2.7	10
54	Systematic inÂvitro and inÂvivo study on porous silicon to improve the oral bioavailability of celecoxib. Biomaterials, 2015, 52, 44-55.	11.4	38

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55	Smart Porous Silicon Nanoparticles with Polymeric Coatings for Sequential Combination Therapy. Molecular Pharmaceutics, 2015, 12, 4038-4047.	4.6	63
56	Porous Silicon in Drug Delivery Applications. Springer Series in Materials Science, 2015, , 163-185.	0.6	0
57	Endogenous Stable Radicals for Characterization of Thermally Carbonized Porous Silicon by Solid-State Dynamic Nuclear Polarization ¹³C NMR. Journal of Physical Chemistry C, 2015, 119, 19272-19278.	3.1	23
58	Improved stability and biocompatibility of nanostructured silicon drug carrier for intravenous administration. Acta Biomaterialia, 2015, 13, 207-215.	8.3	60
59	A Nanostopper Approach To Selectively Engineer the Surfaces of Mesoporous Silicon. Chemistry of Materials, 2014, 26, 6734-6742.	6.7	28
60	Injected nanoparticles: The combination of experimental systems to assess cardiovascular adverse effects. European Journal of Pharmaceutics and Biopharmaceutics, 2014, 87, 64-72.	4.3	17
61	Microfluidic Assembly of Monodisperse Multistage pHâ€Responsive Polymer/Porous Silicon Composites for Precisely Controlled Multiâ€Drug Delivery. Small, 2014, 10, 2029-2038.	10.0	105
62	Phase Separation in Coamorphous Systems: in Silico Prediction and the Experimental Challenge of Detection. Molecular Pharmaceutics, 2014, 11, 2271-2279.	4.6	36
63	Facile synthesis of biocompatible superparamagnetic mesoporous nanoparticles for imageable drug delivery. Microporous and Mesoporous Materials, 2014, 195, 2-8.	4.4	15
64	Porous Siliconâ€“Cell Penetrating Peptide Hybrid Nanocarrier for Intracellular Delivery of Oligonucleotides. Molecular Pharmaceutics, 2014, 11, 382-390.	4.6	28
65	Nanocarriers and the delivered drug: Effect interference due to intravenous administration. European Journal of Pharmaceutical Sciences, 2014, 63, 96-102.	4.0	10
66	Co-delivery of a hydrophobic small molecule and a hydrophilic peptide by porous silicon nanoparticles. Journal of Controlled Release, 2013, 170, 268-278.	9.9	141
67	Development of Porous Silicon Nanocarriers for Parenteral Peptide Delivery. Molecular Pharmaceutics, 2013, 10, 353-359.	4.6	65
68	Effect of surface chemistry of porous silicon microparticles on glucagon-like peptide-1 (GLP-1) loading, release and biological activity. International Journal of Pharmaceutics, 2013, 454, 67-73.	5.2	30
69	Mesoporous systems for poorly soluble drugs. International Journal of Pharmaceutics, 2013, 453, 181-197.	5.2	196
70	Insights into the Evaporation Kinetics of Indomethacin Solutions. Chemical Engineering and Technology, 2013, 36, 1300-1306.	1.5	5
71	Functionalization of Mesoporous Silicon Nanoparticles for Targeting and Bioimaging Purposes. Journal of Nanomaterials, 2012, 2012, 1-9.	2.7	52
72	Amine Surface Modifications and Fluorescent Labeling of Thermally Stabilized Mesoporous Silicon Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 22307-22314.	3.1	41

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73	Porous silicon micro- and nanoparticles for printed humidity sensors. Applied Physics Letters, 2012, 101, .	3.3	29
74	Computational Approach for Fast Screening of Small Molecular Candidates To Inhibit Crystallization in Amorphous Drugs. Molecular Pharmaceutics, 2012, 9, 2844-2855.	4.6	19
75	Surface Chemistry, Reactivity, and Pore Structure of Porous Silicon Oxidized by Various Methods. Langmuir, 2012, 28, 10573-10583.	3.5	82
76	Effect of isotonic solutions and peptide adsorption on zeta potential of porous silicon nanoparticle drug delivery formulations. International Journal of Pharmaceutics, 2012, 431, 230-236.	5.2	82
77	Investigation of Solid Phase Composition on Tablet Surfaces by Grazing Incidence X-ray Diffraction. Pharmaceutical Research, 2012, 29, 134-144.	3.5	13
78	Mesoporous Silicon (PSi) for Sustained Peptide Delivery: Effect of PSi Microparticle Surface Chemistry on Peptide YY3-36 Release. Pharmaceutical Research, 2012, 29, 837-846.	3.5	79
79	¹⁸F-Labeled Modified Porous Silicon Particles for Investigation of Drug Delivery Carrier Distribution in Vivo with Positron Emission Tomography. Molecular Pharmaceutics, 2011, 8, 1799-1806.	4.6	65
80	Nanostructured porous silicon microparticles enable sustained peptide (Melanotan II) delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2011, 77, 20-25.	4.3	61
81	Low-temperature aerosol flow reactor method for preparation of surface stabilized pharmaceutical nanocarriers. Journal of Aerosol Science, 2011, 42, 645-656.	3.8	8
82	In Vitro Dissolution Methods for Hydrophilic and Hydrophobic Porous Silicon Microparticles. Pharmaceutics, 2011, 3, 315-325.	4.5	10
83	Physicochemical stability of high indomethacin payload ordered mesoporous silica MCM-41 and SBA-15 microparticles. International Journal of Pharmaceutics, 2011, 416, 242-51.	5.2	50
84	Utilising thermoporometry to obtain new insights into nanostructured materials. Journal of Thermal Analysis and Calorimetry, 2011, 105, 811-821.	3.6	58
85	Utilising thermoporometry to obtain new insights into nanostructured materials. Journal of Thermal Analysis and Calorimetry, 2011, 105, 823-830.	3.6	41
86	Aerosol characterization and lung deposition of synthesized TiO2 nanoparticles for murine inhalation studies. Journal of Nanoparticle Research, 2011, 13, 2949-2961.	1.9	9
87	Atmospheric pressure chemical vapour synthesis of siliconâ€“carbon nanoceramics from hexamethyldisilane in high temperature aerosol reactor. Journal of Nanoparticle Research, 2011, 13, 4631-4645.	1.9	25
88	Drug permeation across intestinal epithelial cells using porous silicon nanoparticles. Biomaterials, 2011, 32, 2625-2633.	11.4	157
89	Multifunctional Porous Silicon for Therapeutic Drug Delivery and Imaging. Current Drug Discovery Technologies, 2011, 8, 228-249.	1.2	97
90	Calorimetric determination of dissolution enthalpy with a novel flow-through method. Journal of Pharmaceutical and Biomedical Analysis, 2010, 53, 821-825.	2.8	3

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91	Investigations on particle surface characteristics vs. dispersion behaviour of l-leucine coated carrier-free inhalable powders. International Journal of Pharmaceutics, 2010, 385, 79-85.	5.2	53
92	In vitro cytotoxicity of porous silicon microparticles: Effect of the particle concentration, surface chemistry and size. Acta Biomaterialia, 2010, 6, 2721-2731.	8.3	158
93	Predicting the Formation and Stability of Amorphous Small Molecule Binary Mixtures from Computationally Determined Floryâ˜Huggins Interaction Parameter and Phase Diagram. Molecular Pharmaceutics, 2010, 7, 795-804.	4.6	145
94	Cytotoxicity study of ordered mesoporous silica MCM-41 and SBA-15 microparticles on Caco-2 cells. European Journal of Pharmaceutics and Biopharmaceutics, 2010, 74, 483-494.	4.3	87
95	Biocompatibility of Thermally Hydrocarbonized Porous Silicon Nanoparticles and their Biodistribution in Rats. ACS Nano, 2010, 4, 3023-3032.	14.6	316
96	Semimetallic TiO₂ Nanotubes. Angewandte Chemie - International Edition, 2009, 48, 7236-7239.	13.8	133
97	Electrochemically induced bioactivity of porous silicon functionalized by acetylene. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1333-1338.	1.8	4
98	Detecting amine vapours with thermally carbonized porous silicon gas sensor. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1769-1772.	0.8	16
99	Optical gas sensing properties of thermally hydrocarbonized porous silicon Bragg reflectors. Optics Express, 2009, 17, 5446.	3.4	60
100	Determination of the Physical State of Drug Molecules in Mesoporous Silicon with Different Surface Chemistries. Langmuir, 2009, 25, 6137-6142.	3.5	73
101	Fabrication and chemical surface modification of mesoporous silicon for biomedical applications. Chemical Engineering Journal, 2008, 137, 162-172.	12.7	152
102	Mesoporous Silicon in Drug Delivery Applications. Journal of Pharmaceutical Sciences, 2008, 97, 632-653.	3.3	398
103	An Effective Desiccant System to Regulate the Humidity Inside the Chambers of the Solid Dosage Forms. Drug Development and Industrial Pharmacy, 2007, 33, 1233-1239.	2.0	3
104	Enhanced in vitro permeation of furosemide loaded into thermally carbonized mesoporous silicon (TCPSi) microparticles. European Journal of Pharmaceutics and Biopharmaceutics, 2007, 66, 348-356.	4.3	83
105	Failure of MTT as a Toxicity Testing Agent for Mesoporous Silicon Microparticles. Chemical Research in Toxicology, 2007, 20, 1913-1918.	3.3	129
106	Carbon doping of self-organized TiO2nanotube layers by thermal acetylene treatment. Nanotechnology, 2007, 18, 105604.	2.6	121
107	Does the preferred orientation of crystallites in tablets affect the intrinsic dissolution?. Journal of Pharmaceutical and Biomedical Analysis, 2007, 43, 1315-1323.	2.8	19
108	Effect of texture on the intrinsic dissolution behaviour of acetylsalicylic acid and tolbutamide compacts. Journal of Applied Crystallography, 2007, 40, 857-864.	4.5	7

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109	Crystal Structure Changes of Î³-cyclodextrin After the SEDS Process in Supercritical Carbon Dioxide Affect the Dissolution Rate of Complexed Budesonide. Pharmaceutical Research, 2007, 24, 1058-1066.	3.5	33
110	The comparison of seven different methods to quantify the amorphous content of spray dried lactose. Powder Technology, 2006, 167, 85-93.	4.2	99
111	Depth Profiling of Compression-Induced Disorders and Polymorphic Transition on Tablet Surfaces with Grazing Incidence X-ray Diffraction. Pharmaceutical Research, 2006, 23, 813-820.	3.5	38
112	Preparation of budesonide/Î³â€cyclodextrin complexes in supercritical fluids with a novel SEDS method. Journal of Pharmaceutical Sciences, 2006, 95, 2235-2245.	3.3	31
113	Quantitative analysis of amorphous content of lactose using CCD-Raman spectroscopy. Journal of Pharmaceutical and Biomedical Analysis, 2005, 37, 907-911.	2.8	22
114	Water adsorption on plasma sprayed transition metal oxides. Applied Surface Science, 2005, 249, 115-126.	6.1	25
115	Mesoporous silicon microparticles for oral drug delivery: Loading and release of five model drugs. Journal of Controlled Release, 2005, 108, 362-374.	9.9	497
116	Moisture transfer into medicament chambers equipped with a double-barrier-desiccant system. International Journal of Pharmaceutics, 2004, 275, 155-164.	5.2	5
117	Effect of particle morphology on the triboelectrification in dry powder inhalers. International Journal of Pharmaceutics, 2004, 282, 107-114.	5.2	76
118	Characterization of the preferred orientation of Î´-mannitol crystallites in tablets. Journal of Pharmaceutical and Biomedical Analysis, 2004, 36, 559-564.	2.8	7
119	Determination of Amorphous Content of Lactose Samples by Solution Calorimetry. Drug Development and Industrial Pharmacy, 2004, 30, 809-815.	2.0	22
120	Effects of carriers and storage of formulation on the lung deposition of a hydrophobic and hydrophilic drug from a DPI. International Journal of Pharmaceutics, 2003, 263, 151-163.	5.2	30
121	Effects of Ethanol to Water Ratio in Feed Solution on the Crystallinity of Spray-Dried Lactose. Drug Development and Industrial Pharmacy, 2002, 28, 949-955.	2.0	36
122	Lactose modifications enhance its drug performance in the novel multiple dose TaifunÂ® DPI. European Journal of Pharmaceutical Sciences, 2002, 16, 313-321.	4.0	42
123	Effect of amorphicity on the triboelectrification of lactose powder. Journal of Electrostatics, 2002, 56, 103-110.	1.9	41
124	Dynamic solid-state and tableting properties of four theophylline forms. International Journal of Pharmaceutics, 2001, 217, 225-236.	5.2	46
125	Simultaneous determination of the heat and the quantity of vapor sorption using a novel microcalorimetric method. , 2000, 17, 701-706.		15
126	Real time detection of photoreactivity in pharmaceutical solids and solutions with isothermal microcalorimetry. Pharmaceutical Research, 1999, 16, 368-373.	3.5	11

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127	A kinetic study of polymorphic transition of anhydrous caffeine with microcalorimeter. Thermochimica Acta, 1998, 317, 47-58.	2.7	52
128	A kinetic study on crystallization of an amorphous lubricant. , 1997, 14, 899-904.		8
129	X-ray diffraction and microcalorimetry study of the Î±â†'Î² transformation of tripalmitin. Thermochimica Acta, 1996, 276, 229-242.	2.7	12