## Minoru Seki

## List of Publications by Year in descending order

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Version: 2024-02-01


1. Process simplification and structure design of parallelized microslit isolator for physical property-based capture of tumor cells. Analyst, The, 2022, 147, 1622-1630.

Formation of 3D tissues of primary hepatocytes using fibrillized collagen microparticles as intercellular binders. Journal of Bioscience and Bioengineering, 2022, 133, 265-272.

Microengineering of Collagen Hydrogels Integrated into Microfluidic Devices for Perfusion Culture

Polyanion-induced, microfluidic engineering of fragmented collagen microfibers for reconstituting 4 extracellular environments of 3D hepatocyte culture. Materials Science and Engineering C, 2021, 129, 112417.

PDMS microstencil plate-supported fabrication of ultra-thin, condensed ECM membranes for
3.1

26
Micropassage-embedding composite hydrogel fibers enable quantitative evaluation of cancer cell
invasion under 3D coculture conditions. Lab on A Chip, 2018, 18, 1378-1387.

Development of a perfusable 3D liver cell cultivation system via bundling-up assembly of cell-laden microfibers. Journal of Bioscience and Bioengineering, 2018, 126, 111-118.

Assembly of carbon nanotubes into microparticles with tunable morphologies using droplets in a

| 21 | Direct Observation of Splitting in Oil-In-Water-In-Oil Emulsion Droplets via a Microchannel Mimicking Membrane Pores. Langmuir, 2017, 33, 14087-14092. | 1.6 | 17 |
| :---: | :---: | :---: | :---: |
| 22 | Control of invasion direction of cancer cells using hierarchically patterned hydrogel sheets. , 2017, , |  | 1 |
| 23 | Microstructure Formation on Polytetrafluoroethylene (PTFE) and Perfluoroalkoxy (PFA) Bulk Plates by a Magnetron Enhanced Reactive Ion Etching System. Journal of the Vacuum Society of Japan, 2017, 60, 176-181. | 0.3 | 0 |
| 24 | Microfluidics-based wet spinning of protein microfibers as solid scaffolds for 3D cell cultivation. , 2016, , . |  | 0 |
| 25 | Microfluidic System Enabling Multistep Tuning of Extraction Time Periods for Kinetic Analysis of Droplet-Based Liquidâ $\epsilon^{\prime \prime} L i q u i d ~ E x t r a c t i o n . ~ A n a l y t i c a l ~ C h e m i s t r y, ~ 2016, ~ 88, ~ 5637-5643 . ~ \$$ | 3.2 | 10 |
| 26 | Fabrication of multilayered vascular tissues using microfluidic agarose hydrogel platforms. Biotechnology Journal, 2016, 11, 1415-1423. | 1.8 | 36 |
| 27 | A new method for continuous sorting of cells/particles using lattice-shaped dual-depth microchannels. , 2015, , . |  | 4 |

28 One-step microfluidic spinning of collagen microfibers and their application to cell cultivation. , 2015, ,.

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29 Morphology control of protein microparticles produced using microfluidic droplets in a
    non-equilibrium state., 2015, , .
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30 Enhancement of osteoblastic differentiation in alginate gel beads with bioactive octacalcium
1.7
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phosphate particles. Biomedical Materials (Bristol), 2015, 10, 065019.
On-chip fabrication and magnetic force estimation of peapod-like hybrid microfibers using a
microfluidic device. Microfluidics and Nanofluidics, 2015, 18, 1177-1187.
1.0
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microfluidic device. Microfluidics and Nanofluidics, 2015, 18, 1177-1187.

Formation of Monodisperse Hierarchical Lipid Particles Utilizing Microfluidic Droplets in a

| 37 | Patterned hydrogel microfibers prepared using multilayered microfluidic devices for guiding network formation of neural cells. Biofabrication, 2014, 6, 035011. | 3.7 | 46 |
| :---: | :---: | :---: | :---: |
| 38 | In vitro assessment of osteoblastic differentiation of encapsulated stromal cells in alginate/octacalcium phosphate., 2014, , . |  | 0 |
| 39 | Shape control of cell-embedding hydrogel microstructures utilizing non-equilibrium aqueous two-phase systems. , 2014, , . |  | 1 |
| 40 | Facile fabrication processes for hydrogel-based microfluidic devices made of natural biopolymers. Biomicrofluidics, 2014, 8, 024115. | 1.2 | 32 |
| 41 | Asymmetric lattice-shaped microchannel structures for continuous size-dependent cell sorting. , 2014, , . |  | 0 |
| 42 | One-step synthesis of spherical/nonspherical polymeric microparticles using non-equilibrium microfluidic droplets. RSC Advances, 2014, 4, 13557. | 1.7 | 20 |
| 43 | On-chip fabrication of magnetic alginate hydrogel microfibers by multilayered pneumatic microvalves. Microfluidics and Nanofluidics, 2014, 17, 457-468. | 1.0 | 21 |
| 44 | Microfluidic counterflow centrifugal elutriation system for sedimentation-based cell separation. Microfluidics and Nanofluidics, 2013, 14, 1049-1057. | 1.0 | 17 |
| 45 | Magnetophoresis-Integrated Hydrodynamic Filtration System for Size- and Surface Marker-Based Two-Dimensional Cell Sorting. Analytical Chemistry, 2013, 85, 7666-7673. | 3.2 | 59 |
| 46 | Preparation of stripe-patterned heterogeneous hydrogel sheets using microfluidic devices for high-density coculture of hepatocytes and fibroblasts. Journal of Bioscience and Bioengineering, 2013, 116, 761-767. | 1.1 | 68 |
| 47 | Microfabricated complex hydrogel fibers for quantitative evaluation of cancer cell invasion in in vivo tissue-like environments. , 2013, , . |  | 0 |
| 48 | Cell encapsulation into alginate/octacalcium phosphate hydrogel beads for bone regenerative therapy. , 2013, , . |  | 0 |
| 49 |  |  | 0 |

50 Magnetic manipulation for spatially patternel alginate hydrogel microfibers. , 2013, , . 1
A droplet-based microfluidic process to produce yarn-ball-shaped hydrogel microbeads. RSC Advances,
$2013,3,12299$.

52 Assembly techniques for artificial small diameter blood vessel structures. , 2013, , .

53 Low-pressure plasma-etching of bulk polymer materials using gas mixture of CF4 and O2. AIP Advances,
2013, 3, 112105.
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Preparation and characterization of magnetic PEGDA beads for enhanced construction of hydrogel

| 59 | Fabrication of Complex Hydrogel Materials by Utilizing Microfluidics and Micromolding. Materials Research Society Symposia Proceedings, 2012, 1415, 157. | 0.1 | 0 |
| :---: | :---: | :---: | :---: |
| 60 | Manipulation of cells and cell spheroids using collagen hydrogel microbeads prepared by microfluidic devices. , 2012, , . |  | 2 |
| 61 | Fabrication of vascular tissue models by assembling multiple cell types inside hydrogel microchannels. , 2012, , . |  | 5 |
| 62 | Microfluidic synthesis of chemically and physically anisotropic hydrogel microfibers for guided cell growth and networking. Soft Matter, 2012, 8, 3122. | 1.2 | 158 |
| 63 | Micropatterning of Hydrogels on Locally Hydrophilized Regions on PDMS by Stepwise Solution Dipping and in Situ Gelation. Langmuir, 2012, 28, 14073-14080. | 1.6 | 17 |
| 64 | Controlled formation of heterotypic hepatic micro-organoids in anisotropic hydrogel microfibers for long-term preservation of liver-specific functions. Biomaterials, 2012, 33, 8304-8315. | 5.7 | 227 |
| 65 | Fluidic preparation of patterned hydrogel fibers using micronozzle-array devices for neural cell guidance., 2012, , . |  | 0 |
| 66 | Isolation of cell nuclei in microchannels by short-term chemical treatment via two-step carrier medium exchange. Biomedical Microdevices, 2012, 14, 751-757. | 1.4 | 16 |
| 67 | Fluidic shear-assisted formation of actuating multilamellar lipid tubes using microfabricated nozzle array device. Chemical Communications, 2011, 47, 8433. | 2.2 | 10 |

Fabrication of functional hydrogel microbeads utilizing non-equilibrium microfluidics for biological applications., 2011, , .

69 Size-dependent sorting of corneal limbal epithelial cell with microfluidic chip. , 2011, , .
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70 Formation of self-actuating lipid tubes using microfabricated picoliter nozzle array., 2011, , .

[^0]$77 \quad$| Solâ€"gel based fabrication of hybrid microfluidic devices composed of PDMS and thermoplastic |
| :--- |
| substrates. Sensors and Actuators B: Chemical, 2010, 148, 323-329. |

78 Development of microfluidic cell nucleus separator employing rapid chemical treatment. , 2010, , .

Polymer surface morphology control by reactive ion etching for microfluidic devices. Sensors and
Microfluidic devices for size-dependent separation of liver cells. Biomedical Microdevices, 2007, 9,
637-645.

A microfluidic flow distributor generating stepwise concentrations for high-throughput
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| 115 | Stimulatory Effect of an Indirectly Attached RNA Helicase-Recruiting Sequence on the Suppression of Gene Expression by Antisense Oligonucleotides. Oligonucleotides, 2003, 13, 9-17. | 4.4 | 3 |
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| 116 |  | 0.0 | 1 |
| 117 | Induction of apoptosis in HeLa cells with siRNA expression vector targeted against bcl-2. Nucleic Acids Symposium Series, 2002, 2, 251-252. | 0.3 | 31 |
| 118 | Isolation and Characterization of Polyhydroxyalkanoates Inclusions and Their Associated Proteins inPseudomonassp. 61-3. Biomacromolecules, 2002, 3, 787-792. | 2.6 | 31 |
| 119 | Characterization of Spontaneous Transformation-Based Droplet Formation during Microchannel Emulsification. Journal of Physical Chemistry B, 2002, 106, 9405-9409. | 1.2 | 186 |
| 120 | Preparation of Monodispersed Polymeric Microspheres over 50 1̂1/4m Employing Microchannel Emulsification. Industrial \& Engineering Chemistry Research, 2002, 41, 4043-4047. | 1.8 | 71 |
| 121 | Effect of Channel Structure on Microchannel Emulsification. Langmuir, 2002, 18, 5708-5712. | 1.6 | 145 |
| 122 | Prediction of Droplet Diameter for Microchannel Emulsification. Langmuir, 2002, 18, 3854-3859. | 1.6 | 134 |
| 123 | Interesterification and hydrolysis catalyzed by fatty acid-modified lipases. European Journal of Lipid Science and Technology, 2002, 104, 255-261. | 1.0 | 8 |
| 124 | Preparation of monodispersed emulsion with large droplets using microchannel emulsification. JAOCS, Journal of the American Oil Chemists' Society, 2002, 79, 515-519. | 0.8 | 61 |
| 125 | Screening for transgenic plant cells that highly express a target gene from genetically mixed cells. Biochemical Engineering Journal, 2002, 10, 175-182. | 1.8 | 5 |


| 127 | Small-Angle X-Ray Scattering Analysis of Stearic Acid Modified Lipase. Bioscience, Biotechnology and Biochemistry, 2001, 65, 1003-1006. | 0.6 | 20 |
| :---: | :---: | :---: | :---: |
| 128 | Biosynthesis of Poly(3-hydroxybutyrate-co-3-hydroxyalkanoates) Copolymer from Sugars by RecombinantRalstoniaeutrophaHarboring thephaC1Psand thephaGPsGenes ofPseudomonassp. 61-3. Biomacromolecules, 2001, 2, 934-939. | 2.6 | 50 |
| 129 | Cloning and Characterization of thePseudomonassp. 61-3phaGGene Involved in Polyhydroxyalkanoate Biosynthesis. Biomacromolecules, 2001, 2, 142-147. | 2.6 | 33 |
| 130 | Interfacial Tension Driven Monodispersed Droplet Formation from Microfabricated Channel Array. Langmuir, 2001, 17, 5562-5566. | 1.6 | 417 |
| 131 | Preparation Characteristics of Monodispersed Water-in-Oil Emulsions Using Microchannel Emulsification.. Journal of Chemical Engineering of Japan, 2001, 34, 757-765. | 0.3 | 74 |
| 132 | Structural study of lipase modified with fatty acids. Biochemical Engineering Journal, 2001, 9, 185-191. | 1.8 | 7 |
| 133 | Formation and Characterization of Reversed Micelles Composed of Phospholipids and Fatty Acids. Journal of Colloid and Interface Science, 2001, 240, 566-572. | 5.0 | 15 |
| 134 | Integration of gene amplification and capillary gel electrophoresis on a polydimethylsiloxane-glass hybrid microchip. Electrophoresis, 2001, 22, 328-333. | 1.3 | 166 |
| 135 | Synthesis of Polymeric Microspheres with Narrow Size Distributions Employing Microchannel Emulsification. Macromolecular Rapid Communications, 2001, 22, 773-778. | 2.0 | 97 |
| 136 | Microfabricated Polymer Chip for Capillary Gel Electrophoresis. Biotechnology Progress, 2001, 17, 958-962. | 1.3 | 39 |
| 137 | Effect of hydrocarbon-water interfaces on synthetic and hydrolytic activities of lipases. Journal of Bioscience and Bioengineering, 2001, 92, 242-247. | 1.1 | 12 |
| 138 | Integration of gene amplification and capillary gel electrophoresis on a polydimethylsiloxane-glass hybrid microchip. , 2001, 22, 328. |  | 19 |
| 139 | Monodispersed Droplet Formation Caused by Interfacial Tension from Microfabricated Channel Array. , 2001, , 252-261. |  | 4 |

# 140 Novel Liquid Injection Method with Wedge-Shaped Microchannel on a PDMS Microchip System for Diagnostic Analyses. , 2001, , 1204-1207. 

141 Chromatographic Separation of Proteins on A Pdms-Polymer Chip by Pressure Flow. , 2001, , 48-50.
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142 Separation and Collection of a Specified DNA Fragment by Chip-Based CE System. , 2001, , 113-114.

143 Diagnostic Analyses by Biochemical Reactions and Separations on a Chip. , 2001, , 542-551.

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145 Analysis of pigment accumulation heterogeneity in plant cell population by image-processing system.,
    2000, 67, 493-497.
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Formation of biocompatible reversed micellar systems using phospholipids. Biochemical Engineering
Journal, 2000, 6, 193-199.

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155 Medium Recycling as an Operational Strategy to Increase Plant Secondary Metabolite Formation. , 1999,
    , 157-163.
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    156 Plant Cell Immobilization in Loofa Sponge Using Two-Way Bubble Circular System.. Journal of
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        Anthocyanin synthesis, growth and nutrient uptake in suspension cultures of strawberry cells.
    157 Anthocyanin synthesis, growth and nutrient uptare in suspend Bioengineering, 1998, 86, 72-78.
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        Characteristics of loofa (Luffa cylindrica) sponge as a carrier for plant cell immobilization. Journal
    Evaluation of Co-Immobilized Lactobacillus Delbrueckii with Porous Particles for Lactic Acid
Production.. Journal of Chemical Engineering of Japan, 1996, 29, 37-43.

166 Changes of anthocyanin composition by conditioned medium and cell inoculum size using strawberry
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suspension culture. Biotechnology Letters, 1996, 18, 1149-1154.
167 Effect of CO2 concentration of growth and carbon fixation rate of pleurochrysis carterae.. Journal
of Chemical Engineering of Japan, 1995, 28, 474-476.
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168 Continuous production of taxol by cell culture of taxus cuspidata.. Journal of Chemical Engineering of Japan, 1995, 28, 488-490.
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| 169 | Characteristics of immobilized Lactobacillus delbrueckii in a liquid-solid fluidized bed bioreactor for lactic acid production.. Journal of Chemical Engineering of Japan, 1995, 28, 198-203. | 0.3 | 9 |
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| 170 | Mass transfer behavior in lactic acid fermentation using immobilized Lactobacillus delbrueckii.. Journal of Chemical Engineering of Japan, 1995, 28, 480-482. | 0.3 | 7 |
| 171 | Mathematical model for analysis of mass transfer for immobilized cells in lactic acid fermentation. Biotechnology Progress, 1995, 11, 558-564. | 1.3 | 34 |
| 172 | Use of auxin and cytokinin to regulate anthocyanin production and composition in suspension cultures of strawberry cell. Journal of the Science of Food and Agriculture, 1994, 65, 271-276. | 1.7 | 46 |
| 173 | Effects of conditioning factor on anthocyanin production in strawberry suspension cultures. Journal of the Science of Food and Agriculture, 1994, 66, 381-388. | 1.7 | 35 |
| 174 | Increased alkaloid production in a suspension culture of Coffea arabica cells using an adsorption column for product removal. Journal of Bioscience and Bioengineering, 1994, 78, 117-119. | 0.9 | 13 |
| 175 | Hydrodynamic damage of cultured cells of Carthamus tinctorius in a stirred tank reactor.. Journal of Chemical Engineering of Japan, 1994, 27, 466-471. | 0.3 | 37 |

176 Light Effect to Promote Secondary Metabolite Production of Plant Cell Culture. , 1994, , 103-133.
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177 Factors Affecting Vitamin E Production Using Plant Cell Culture of Carthamus Tinctorius.. Journal of Chemical Engineering of Japan, 1993, 26, 470-474.
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Effect of Co-immobilization of Microporous Particles on the Overall Reaction Rate of Immobilized
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Cell Biocatalysts.. Journal of Chemical Engineering of Japan, 1993, 26, 662-668.

Growth and Carbon Fixation Rate of Calcareous Algae Cricosphaera carterae.. Kagaku Kogaku
Ronbunshu, 1993, 19, 893-900.
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185 Effect of intraparticle diffusion on reaction by immobilized growing yeast.. Journal of Chemical

Reaction characteristics of an immobilized yeast producing ethanol. Biotechnology and Bioengineering, 1983, 25, 2921-2928.


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