

Dieter Trau

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/816652/publications.pdf>

Version: 2024-02-01

50
papers

2,297
citations

304743

22
h-index

206112

48
g-index

54
all docs

54
docs citations

54
times ranked

2870
citing authors

#	ARTICLE	IF	CITATIONS
1	Enzyme Encapsulation in Layer-by-Layer Engineered Polymer Multilayer Capsules. <i>Langmuir</i> , 2000, 16, 1485-1488.	3.5	516
2	Microencapsulation of Uncharged Low Molecular Weight Organic Materials by Polyelectrolyte Multilayer Self-Assembly. <i>Langmuir</i> , 2000, 16, 8932-8936.	3.5	175
3	Nanoencapsulated Microcrystalline Particles for Superamplified Biochemical Assays. <i>Analytical Chemistry</i> , 2002, 74, 5480-5486.	6.5	109
4	Encapsulation of glucose oxidase microparticles within a nanoscale layer-by-layer film: immobilization and biosensor applications. <i>Biosensors and Bioelectronics</i> , 2003, 18, 1491-1499.	10.1	107
5	A "microfluidic pinball"™ for on-chip generation of Layer-by-Layer polyelectrolyte microcapsules. <i>Lab on A Chip</i> , 2011, 11, 1030.	6.0	106
6	Layer-by-Layer Construction of Novel Biofunctional Fluorescent Microparticles for Immunoassay Applications. <i>Journal of Colloid and Interface Science</i> , 2001, 234, 356-362.	9.4	105
7	Genotyping on a Complementary Metal Oxide Semiconductor Silicon Polymerase Chain Reaction Chip with Integrated DNA Microarray. <i>Analytical Chemistry</i> , 2002, 74, 3168-3173.	6.5	91
8	Disposable Optical Sensor Chip for Medical Diagnostics: New Ways in Bioanalysis. <i>Analytical Chemistry</i> , 1999, 71, 5430-5435.	6.5	90
9	Surface-chemistry technology for microfluidics. <i>Journal of Micromechanics and Microengineering</i> , 2003, 13, 272-278.	2.6	84
10	Nanocrystal Biolabels with Releasable Fluorophores for Immunoassays. <i>Analytical Chemistry</i> , 2004, 76, 3638-3645.	6.5	77
11	Micromolding of PDMS scaffolds and microwells for tissue culture and cell patterning: A new method of microfabrication by the self-assembled micropatterns of diblock copolymer micelles. <i>Polymer</i> , 2006, 47, 5124-5130.	3.8	64
12	Silole nanocrystals as novel biolabels. <i>Journal of Immunological Methods</i> , 2004, 295, 111-118.	1.4	63
13	Diffusion Controlled and Temperature Stable Microcapsule Reaction Compartments for High-Throughput Microcapsule-PCR. <i>Advanced Functional Materials</i> , 2008, 18, 2930-2937.	14.9	57
14	Influence of Different Polyelectrolytes on Layer-by-Layer Microcapsule Properties: Encapsulation Efficiency and Colloidal and Temperature Stability. <i>Chemistry of Materials</i> , 2008, 20, 5475-5484.	6.7	51
15	Electrochemical Bioassay Utilizing Encapsulated Electrochemical Active Microcrystal Biolabels. <i>Analytical Chemistry</i> , 2005, 77, 2835-2841.	6.5	50
16	Miniaturized Flow Fractionation Device Assisted by a Pulsed Electric Field for Nanoparticle Separation. <i>Analytical Chemistry</i> , 2002, 74, 5364-5369.	6.5	48
17	Matrix-Assisted Colloidosome Reverse-Phase Layer-by-Layer Encapsulating Biomolecules in Hydrogel Microcapsules with Extremely High Efficiency and Retention Stability. <i>Langmuir</i> , 2009, 25, 769-775.	3.5	47
18	Development of an amperometric flow injection immunoanalysis system for the determination of the herbicide 2,4-dichlorophenoxyacetic acid in water. <i>Biosensors and Bioelectronics</i> , 1997, 12, 499-510.	10.1	43

#	ARTICLE	IF	CITATIONS
19	Reverse-Phase LbLEncapsulation of Highly Water Soluble Materials by Layer-by-Layer Polyelectrolyte Self-Assembly. <i>Langmuir</i> , 2007, 23, 8827-8832.	3.5	40
20	Multiplex detection platform for tumor markers and glucose in serum based on a microfluidic microparticle array. <i>Analytica Chimica Acta</i> , 2012, 751, 146-154.	5.4	30
21	In-situ measurement of cellular microenvironments in a microfluidic device. <i>Lab on A Chip</i> , 2009, 9, 257-262.	6.0	28
22	Assembly of biomacromolecule loaded polyelectrolyte multilayer capsules by using water soluble sacrificial templates. <i>Soft Matter</i> , 2012, 8, 2760.	2.7	23
23	Inwards Buildup of Concentric Polymer Layers: A Method for Biomolecule Encapsulation and Microcapsule Encoding. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5189-5193.	13.8	22
24	New ways in bioanalysisâ€”one-way optical sensor chip for environmental analysis. <i>Sensors and Actuators B: Chemical</i> , 1998, 51, 249-255.	7.8	20
25	Utilizing microfluidics to synthesize polyethylene glycol microbeads for FÃ¶rster resonance energy transfer based glucose sensing. <i>Biomicrofluidics</i> , 2012, 6, 22006-220069.	2.4	20
26	Fabrication of inflated LbL microcapsules with a â€”bead-in-a-capsuleâ€”™ morphology. <i>Soft Matter</i> , 2009, 5, 4152.	2.7	19
27	Learning-Based Cell Injection Control for Precise Drop-on-Demand Cell Printing. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1267-1279.	2.5	19
28	Reusable optical bioassay platform with permeability-controlled hydrogel pads for selective saccharide detection. <i>Analytica Chimica Acta</i> , 2008, 607, 204-210.	5.4	18
29	Self-Assembly of Polyamines as a Facile Approach to Fabricate Permeability Tunable Polymeric Shells for Biomolecular Encapsulation. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 1665-1674.	8.0	18
30	Gel pad array chip for high throughput and multi-analyte microbead-based immunoassays. <i>Biosensors and Bioelectronics</i> , 2015, 66, 370-378.	10.1	17
31	Integrated Direct DNA/Protein Patterning and Microfabrication by Focused Ion Beam Milling. <i>Advanced Materials</i> , 2008, 20, 1636-1643.	21.0	16
32	Inwards Interweaving of Polymeric Layers within Hydrogels: Assembly of Spherical Multiâ€”Shells with Discrete Porosity Differences. <i>Advanced Functional Materials</i> , 2013, 23, 5108-5115.	14.9	16
33	5â€”-Thiolated Oligonucleotides on (3-Mercaptopropyl)trimethoxysilaneâ€”Mica:Ã” Surface Topography and Coverage. <i>Langmuir</i> , 2003, 19, 5846-5850.	3.5	15
34	Preservation of the Biofunctionality of DNA and Protein during Microfabrication. <i>Langmuir</i> , 2006, 22, 877-881.	3.5	15
35	Engineering and Design of Polymeric Shells: Inwards Interweaving Polymers as Multilayer Nanofilm, Immobilization Matrix, or Chromatography Resins. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5447-5456.	8.0	13
36	Hand-Held Photometer for Instant On-Spot Quantification of Nucleic Acids, Proteins, and Cells. <i>Analytical Chemistry</i> , 2018, 90, 2564-2569.	6.5	9

#	ARTICLE	IF	CITATIONS
37	PEG-based autonomous capillary system with integrated microbead array for immunoassay. <i>Materials Science and Engineering C</i> , 2017, 70, 1031-1038.	7.3	8
38	Homogeneous cell printing on porous PCL/F127 tissue engineering scaffolds. <i>Bioprinting</i> , 2018, 12, e00030.	5.8	7
39	Comparison of Different Types of Immunoaffinity Reactors in an Electrochemical Flow Injection Immunoanalysis System Developed for Residue Analysis. <i>Biocatalysis and Biotransformation</i> , 1999, 17, 103-124.	2.0	5
40	Nanoengineered Encapsulation of Mediator Microcrystals and Their Use as a Non-metallic Label System for the Silver Enhancement Technique. <i>Electroanalysis</i> , 2004, 16, 156-160.	2.9	5
41	Surface-Bound Microenclosures for Biomolecules. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9773-9776.	13.8	5
42	A portable generic DNA bioassay system based on in situ oligonucleotide synthesis and hybridization detection. <i>Biosensors and Bioelectronics</i> , 2011, 26, 2436-2441.	10.1	5
43	A biologically inspired hierarchical PCL/F127 scaffold for esophagus tissue repair. <i>Materials Letters</i> , 2019, 243, 132-135.	2.6	5
44	Real time observation of diffusion and bioaffinity binding processes in single polyelectrolyte-coated microcapsules: A fluorescence-based approach. <i>Colloids and Surfaces B: Biointerfaces</i> , 2007, 60, 125-130.	5.0	3
45	Mitochondrial Routing of Glucose and Sucrose Polymers after Pinocytotic Uptake: Avenues for Drug Delivery. <i>Biomacromolecules</i> , 2014, 15, 2119-2127.	5.4	3
46	Design, preparation and assessment of surface-immobilised tetraphenylethenes for biosensing applications. <i>Applied Surface Science</i> , 2014, 307, 475-481.	6.1	3
47	PDMS microdevice with built-in optical biosensor array for on-site monitoring of the microenvironment within microchannels. , 2007, , .		2
48	Capsule-like Safe Genetic Vectors'Cell-Penetrating Core'Shell Particles Selectively Release Functional Small RNA and Entrap Its Encoding DNA. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21113-21124.	8.0	2
49	A fast point pattern matching algorithm for robust spatially addressable bead encoding. , 2013, , .		1
50	Novel Fluorescent Labels Prepared by Layer-by-Layer Assembly on Colloids for Biodetection Systems. <i>Materials Research Society Symposia Proceedings</i> , 2001, 667, 1.	0.1	0