Hsien-Yeh Chen

List of Publications by Year
in descending order

78 papers	1,729 citations	331259 21 h-index	301761 39 g-index
81 all docs	81 docs citations	81 times ranked	1614 citing authors

#	Article	IF	Citations
1	Reactive Polymer Coatings that â€œClickâ€. Angewandte Chemie - International Edition, 2006, 45, 3360-3363.	7.2	179
2	The insulation performance of reactive parylene films in implantable electronic devices. Biomaterials, 2009, 30, 6158-6167.	5.7	119
3	Surface Modification of Confined Microgeometries via Vapor-Deposited Polymer Coatings. Journal of the American Chemical Society, 2006, 128, 374-380.	6.6	106
4	Designable Biointerfaces Using Vapor-Based Reactive Polymers. Langmuir, 2011, 27, 34-48.	1.6	102
5	Solventless Adhesive Bonding Using Reactive Polymer Coatings. Analytical Chemistry, 2008, 80, 4119-4124.	3.2	87
6	Fabrication of Discontinuous Surface Patterns within Microfluidic Channels Using Photodefinable Vapor-Based Polymer Coatings. Analytical Chemistry, 2005, 77, 6909-6914.	3.2	73
7	Reactive Polymer Coatings: A General Route to Thiolâ€ene and Thiolâ€yne Click Reactions. Macromolecular Rapid Communications, 2012, 33, 922-927.	2.0	67
8	Vapor-Based Synthesis of Poly[(4-formyl-p-xylylene)-co-(p-xylylene)] and Its Use for Biomimetic Surface Modifications. Macromolecular Rapid Communications, 2005, 26, 1794-1799.	2.0	65
9	Substrate-Independent Dip-Pen Nanolithography Based on Reactive Coatings. Journal of the American Chemical Society, 2010, 132, 18023-18025.	6.6	65
10	Colloids with high-definition surface structures. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11173-11178.	3.3	54
11	Substrateâ€Selective Chemical Vapor Deposition of Reactive Polymer Coatings. Advanced Materials, 2008, 20, 3474-3480.	11.1	48
12	The use of reactive polymer coatings to facilitate gene delivery from poly (É›-caprolactone) scaffolds. Biomaterials, 2009, 30, 5785-5792.	5.7	38
13	Vapor-based synthesis of maleimide-functionalized coating for biointerface engineering. Chemical Communications, 2012, 48, 10969.	2.2	37
14	Vapor sublimation and deposition to build porous particles and composites. Nature Communications, 2018, 9, 2564.	5.8	37
15	Vaporâ€Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications. Advanced Functional Materials, 2014, 24, 2281-2287.	7.8	35
16	Towards Multipotent Coatings: Chemical Vapor Deposition and Biofunctionalization of Carbonylâ€Substituted Copolymers. Macromolecular Rapid Communications, 2008, 29, 855-870.	2.0	34
17	Vapor-based tri-functional coatings. Chemical Communications, 2013, 49, 4531.	2.2	32
18	Sustained Immobilization of Growth Factor Proteins Based on Functionalized Parylenes. ACS Applied Materials & Interfaces, 2014, 6, 21906-21910.	4.0	29

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19	Multifunctional and Continuous Gradients of Biointerfaces Based on Dual Reverse Click Reactions. ACS Applied Materials & Interfaces, 2016, 8, 13812-13818.	4.0	27
20	Fully monolithic CMOS nickel micromechanical resonator oscillator. Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS), 2008, , .	0.0	26
21	Compatibility balanced antibacterial modification based on vapor-deposited parylene coatings for biomaterials. Journal of Materials Chemistry B, 2014, 2, 8496-8503.	2.9	25
22	Human Adipose-Derived Stem Cell Secreted Extracellular Matrix Incorporated into Electrospun Poly(Lactic-co-Glycolic Acid) Nanofibrous Dressing for Enhancing Wound Healing. Polymers, 2019, 11, 1609.	2.0	23
23	Controlling multi-function of biomaterials interfaces based on multiple and competing adsorption of functional proteins. Colloids and Surfaces B: Biointerfaces, 2017, 149, 130-137.	2.5	19
24	Decoration of Material Surfaces with Complex Physicochemical Signals for Biointerface Applications. ACS Biomaterials Science and Engineering, 2020, 6, 1836-1851.	2.6	19
25	Vapor-Deposited Parylene Photoresist: A Multipotent Approach toward Chemically and Topographically Defined Biointerfaces. Langmuir, 2012, 28, 14313-14322.	1.6	18
26	Thiolâ€Reactive Parylenes as a Robust Coating for Biomedical Materials. Advanced Materials Interfaces, 2014, 1, 1400093.	1.9	18
27	Construction and control of 3D porous structure based on vapor deposition on sublimation solids. Applied Materials Today, 2017, 7, 77-81.	2.3	18
28	Fabrication of Asymmetrical and Gradient Hierarchy Structures of Poly-<i>p</i>-xylylenes on Multiscale Regimes Based on a Vapor-Phase Sublimation and Deposition Process. Chemistry of Materials, 2020, 32, 1120-1130.	3.2	18
29	Customizable Optical and Biofunctional Properties of a Medical Lens Based on Chemical Vapor Deposition Encapsulation of Liquids. Chemistry of Materials, 2015, 27, 7028-7033.	3.2	16
30	Tunable coverage of immobilized biomolecules for biofunctional interface design. Biomaterials Science, 2015, 3, 1266-1269.	2.6	15
31	Development of Antifouling Hyperbranched Polyglycerol Layers on Hydroxyl Poly-<i>p</i>-xylylene Coatings. Langmuir, 2017, 33, 14657-14662.	1.6	15
32	Partially Fluorinated Polyâ€<i>p</i>â€xylylenes Synthesized by CVD Polymerization. Chemical Vapor Deposition, 2009, 15, 142-149.	1.4	14
33	Switching the Biointerface of Displaceable Poly-<i>p</i>-xylylene Coatings. ACS Applied Materials & Interfaces, 2015, 7, 14431-14438.	4.0	14
34	Multifaceted and route-controlled â€œclickâ€•reactions based on vapor-deposited coatings. Biomaterials Science, 2016, 4, 265-271.	2.6	13
35	A facile approach toward protein-resistant biointerfaces based on photodefinable poly-p-xylylene coating. Colloids and Surfaces B: Biointerfaces, 2014, 116, 727-733.	2.5	12
36	Enhanced bone morphogenic property of parylene-C. Biomaterials Science, 2016, 4, 1754-1760.	2.6	11

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37	Synergistically Controlled Stemness and Multilineage Differentiation Capacity of Stem Cells on Multifunctional Biointerfaces. Advanced Materials Interfaces, 2017, 4, 1700243.	1.9	11
38	Topologically Controlled Cell Differentiation Based on Vapor-Deposited Polymer Coatings. Langmuir, 2017, 33, 8943-8949.	1.6	11
39	Multifunctional nanoparticles with controllable dimensions and tripled orthogonal reactivity. Nanoscale, 2017, 9, 14787-14791.	2.8	11
40	Vapor-phased fabrication and modulation of cell-laden scaffolding materials. Nature Communications, 2021, 12, 3413.	5.8	11
41	Micro- and nano-surface structures based on vapor-deposited polymers. Beilstein Journal of Nanotechnology, 2017, 8, 1366-1374.	1.5	10
42	Enhanced Growth Activities of Stem Cell Spheroids Based on a Durable and Chemically Defined Surface Modification Coating. ACS Applied Materials & Interfaces, 2018, 10, 31882-31891.	4.0	10
43	Vapor-based coatings for antibacterial and osteogenic functionalization and the immunological compatibility. Materials Science and Engineering C, 2016, 69, 283-291.	3.8	8
44	Stepwise and Programmable Cell Differentiation Pathways of Controlled Functional Biointerfaces. ACS Biomaterials Science and Engineering, 2017, 3, 1815-1821.	2.6	8
45	Synergistically Enhanced Wound Healing of a Vapor-Constructed Porous Scaffold. ACS Applied Bio Materials, 2020, 3, 5678-5686.	2.3	8
46	Fabrication of multipotent poly-para-xylylene particles in controlled nanoscopic dimensions. Colloids and Surfaces B: Biointerfaces, 2016, 139, 259-268.	2.5	7
47	Electrically charged selectivity of poly-para-xylylene deposition. Chemical Communications, 2016, 52, 3022-3025.	2.2	7
48	Parylene-Based Porous Scaffold with Functionalized Encapsulation of Platelet-Rich Plasma and Living Stem Cells for Tissue Engineering Applications. ACS Applied Bio Materials, 2020, 3, 7193-7201.	2.3	7
49	Osteogenic Surface Modification Based on Functionalized Poly-P-Xylylene Coating. PLoS ONE, 2015, 10, e0137017.	1.1	7
50	Vapor-phase synthesis of poly(p -xylylene) membranes for gas separations. Journal of Membrane Science, 2017, 539, 101-107.	4.1	6
51	Multifunctional Surface Modification: Facile and Flexible Reactivity toward a Precisely Controlled Biointerface. Macromolecular Bioscience, 2017, 17, 1600322.	2.1	6
52	Vapor construction and modification of stem cell-laden multicomponent scaffolds for regenerative therapeutics. Materials Today Bio, 2022, 13, 100213.	2.6	6
53	Surface patterning strategies for microfluidic applications based on functionalized poly-<i>p</i>-xylylenes. Bioanalysis, 2010, 2, 1717-1728.	0.6	5
54	Conjugation of Monocarboxybetaine Molecules on Amino-Poly-p-xylylene Films to Reduce Protein Adsorption and Cell Adhesion. Langmuir, 2014, 30, 14257-14262.	1.6	5

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55	Clickable and Photo-Erasable Surface Functionalities by Using Vapor-Deposited Polymer Coatings. ACS Biomaterials Science and Engineering, 2019, 5, 1753-1761.	2.6	5
56	Reactive Polymer Coatings for Biological Applications. ACS Symposium Series, 2008, , 283-298.	0.5	4
57	Bihydrogel particles as free-standing mechanical pH microsensors. Applied Physics Letters, 2013, 102, 031901.	1.5	4
58	Vaporâ€Phase Fabrication of Cellâ€Accommodated Scaffolds with Multicomponent Functionalization for Neuronal Applications. Advanced Materials Interfaces, 2021, 8, 2100929.	1.9	4
59	Antifouling: Vaporâ€Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications (Adv. Funct. Mater. 16/2014). Advanced Functional Materials, 2014, 24, 2280-2280.	7.8	3
60	Surface Modification: Thiol-Reactive Parylenes as a Robust Coating for Biomedical Materials (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.9	3
61	Surface modification: activation and deactivation of osteogenic differentiation based on detachable growth factor protein. Journal of Materials Chemistry B, 2018, 6, 236-240.	2.9	3
62	Vapor-Deposited Reactive Coating with Chemically and Topographically Erasable Properties. Polymers, 2019, 11, 1595.	2.0	3
63	Characterization of Mechanical Stability and Immunological Compatibility for Functionalized Modification Interfaces. Scientific Reports, 2019, 9, 7644.	1.6	3
64	Synergistic and Regulatable Bioremediation Capsules Fabrication Based on Vapor-Phased Encapsulation of Bacillus Bacteria and its Regulator by Poly-p-Xylylene. Polymers, 2021, 13, 41.	2.0	3
65	Fabrication of Functional Polymer Structures through Bottom-Up Selective Vapor Deposition from Bottom-Up Conductive Templates. Langmuir, 2018, 34, 4651-4657.	1.6	2
66	Editorial: Polymer Surface Chemistry: Biomolecular Engineering and Biointerfaces. Frontiers in Chemistry, 2019, 7, 271.	1.8	2
67	Defined cell adhesion for silicon-based implant materials by using vapor-deposited functional coatings. Colloids and Surfaces B: Biointerfaces, 2019, 175, 545-553.	2.5	2
68	Immobilization of functional polymers on poly(4-benzoyl-pxylylene-co-p-xylylene) films via photochemical conjugation for modulation of cell adhesion. Colloids and Surfaces B: Biointerfaces, 2019, 174, 360-366.	2.5	2
69	Vapor-Stripping and Encapsulating to Construct Particles with Time-Controlled Asymmetry and Anisotropy. Coatings, 2020, 10, 1248.	1.2	2
70	Vapor-Phase Fabrication of a Maleimide-Functionalized Poly-p-xylylene with a Three-Dimensional Structure. Coatings, 2021, 11, 466.	1.2	2
71	Human platelet lysate (hPL) alters the lineage commitment and paracrine functions of human mesenchymal stem cells via mitochondrial metabolism. Applied Materials Today, 2022, 26, 101264.	2.3	2
72	Fabrication of Low-Fouling Surfaces on Alkyne-Functionalized Poly-(p-xylylenes) Using Click Chemistry. Polymers, 2022, 14, 225.	2.0	2

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73	Hybrid Surface Nanostructures Using Chemical Vapor Deposition and Colloidal Self-Assembled Patterns for Human Mesenchymal Stem Cell Cultureâ€"A Preliminary Study. Coatings, 2022, 12, 311.	1.2	2
74	Macromol. Rapid Commun. 10/2012. Macromolecular Rapid Communications, 2012, 33, 948-948.	2.0	1
75	Vapor Sublimation and Deposition to Fabricate a Porous Methyl Propiolate-Functionalized Poly-p-xylylene Material for Copper-Free Click Chemistry. Polymers, 2021, 13, 786.	2.0	1
76	Biointerfaces: Synergistically Controlled Stemness and Multilineage Differentiation Capacity of Stem Cells on Multifunctional Biointerfaces (Adv. Mater. Interfaces 11/2017). Advanced Materials Interfaces, 2017, 4, .	1.9	0
77	Guiding Stem Cell Differentiation and Proliferation Activities Based on Nanometer-Thick Functionalized Poly-p-xylylene Coatings. Coatings, 2021, 11, 582.	1.2	0
78	Vaporâ€Phase Fabrication of Cellâ€Accommodated Scaffolds with Multicomponent Functionalization for Neuronal Applications (Adv. Mater. Interfaces 24/2021). Advanced Materials Interfaces, 2021, 8, .	1.9	0