

# Joseph M Desimone

## List of Publications by Year in descending order

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124  
papers

11,778  
citations

47006

47  
h-index

26613

107  
g-index

126  
all docs

126  
docs citations

126  
times ranked

17195  
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of particle design on cellular internalization pathways. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11613-11618.	7.1	2,553
2	Continuous liquid interface production of 3D objects. Science, 2015, 347, 1349-1352.	12.6	1,617
3	Practical Approaches to Green Solvents. Science, 2002, 297, 799-803.	12.6	855
4	PEGylated PRINT Nanoparticles: The Impact of PEG Density on Protein Binding, Macrophage Association, Biodistribution, and Pharmacokinetics. Nano Letters, 2012, 12, 5304-5310.	9.1	530
5	More Effective Nanomedicines through Particle Design. Small, 2011, 7, 1919-1931.	10.0	403
6	PRINT: A Novel Platform Toward Shape and Size Specific Nanoparticle Theranostics. Accounts of Chemical Research, 2011, 44, 990-998.	15.6	267
7	Layerless fabrication with continuous liquid interface production. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11703-11708.	7.1	228
8	Atom Transfer Radical Polymerization in Supercritical Carbon Dioxide. Macromolecules, 1999, 32, 4802-4805.	4.8	204
9	Mediating Passive Tumor Accumulation through Particle Size, Tumor Type, and Location. Nano Letters, 2017, 17, 2879-2886.	9.1	199
10	Nonflammable perfluoropolyether-based electrolytes for lithium batteries. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3327-3331.	7.1	182
11	CO2 Technology Platform: An Important Tool for Environmental Problem Solving. Angewandte Chemie - International Edition, 2001, 40, 518-527.	13.8	173
12	Nanoparticle clearance is governed by Th1/Th2 immunity and strain background. Journal of Clinical Investigation, 2013, 123, 3061-3073.	8.2	170
13	XPS Studies of Fluorinated Acrylate Polymers and Block Copolymers with Polystyrene. Macromolecules, 1996, 29, 3247-3254.	4.8	165
14	Fluorocarbons Dissolved in Supercritical Carbon Dioxide. NMR Evidence for Specific Solute~Solvent Interactions. Journal of Physical Chemistry B, 1998, 102, 1775-1780.	2.6	153
15	Plasma, tumor and tissue pharmacokinetics of Docetaxel delivered via nanoparticles of different sizes and shapes in mice bearing SKOV-3 human ovarian carcinoma xenograft. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 686-693.	3.3	141
16	Biomimetic microlens array with antireflective ~moth-eye~ surface. Soft Matter, 2011, 7, 6404.	2.7	127
17	Controlled analysis of nanoparticle charge on mucosal and systemic antibody responses following pulmonary immunization. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 488-493.	7.1	124
18	Photocurable Amphiphilic Perfluoropolyether/Poly(ethylene glycol) Networks for Fouling-Release Coatings. Macromolecules, 2011, 44, 878-885.	4.8	120

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19	Nanoparticle surface charge impacts distribution, uptake and lymph node trafficking by pulmonary antigen-presenting cells. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2016, 12, 677-687.	3.3	119
20	High-pressure rheology of polystyrene melts plasticized with CO <sub>2</sub> : Experimental measurement and predictive scaling relationships. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000, 38, 3168-3180.	2.1	117
21	Relationship between Conductivity, Ion Diffusion, and Transference Number in Perfluoropolyether Electrolytes. <i>Macromolecules</i> , 2016, 49, 3508-3515.	4.8	114
22	Compliant glassy polymer hybrid single ion-conducting electrolytes for lithium batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 52-57.	7.1	108
23	Carbon Dioxide-Induced Swelling of Poly(dimethylsiloxane). <i>Macromolecules</i> , 1999, 32, 8965-8973.	4.8	104
24	Nanoparticle drug loading as a design parameter to improve docetaxel pharmacokinetics and efficacy. <i>Biomaterials</i> , 2013, 34, 8424-8429.	11.4	101
25	Rapid and Persistent Delivery of Antigen by Lymph Node Targeting PRINT Nanoparticle Vaccine Carrier To Promote Humoral Immunity. <i>Molecular Pharmaceutics</i> , 2015, 12, 1356-1365.	4.6	96
26	Docetaxel-Loaded PLGA Nanoparticles Improve Efficacy in Taxane-Resistant Triple-Negative Breast Cancer. <i>Nano Letters</i> , 2017, 17, 242-248.	9.1	94
27	Macromolecular surfactants for supercritical carbon dioxide applications: Synthesis and characterization of fluorinated block copolymers prepared by nitroxide-mediated radical polymerization. <i>Journal of Polymer Science Part A</i> , 2004, 42, 3537-3552.	2.3	90
28	Spatially controlled coating of continuous liquid interface production microneedles for transdermal protein delivery. <i>Journal of Controlled Release</i> , 2018, 284, 122-132.	9.9	90
29	Targeted PRINT Hydrogels: The Role of Nanoparticle Size and Ligand Density on Cell Association, Biodistribution, and Tumor Accumulation. <i>Nano Letters</i> , 2015, 15, 6371-6378.	9.1	87
30	Nanoparticulate immunotherapy for cancer. <i>Journal of Controlled Release</i> , 2015, 219, 167-180.	9.9	80
31	Structure of Phosphate Fluorosurfactant Based Reverse Micelles in Supercritical Carbon Dioxide. <i>Langmuir</i> , 2002, 18, 7371-7376.	3.5	78
32	Dispersion Polymerization of Acrylonitrile in Supercritical Carbon Dioxide. <i>Macromolecules</i> , 2000, 33, 1565-1569.	4.8	76
33	Controlling release from 3D printed medical devices using CLIP and drug-loaded liquid resins. <i>Journal of Controlled Release</i> , 2018, 278, 9-23.	9.9	73
34	Nanoparticle Drug Delivery Platform. <i>Polymer Reviews</i> , 2007, 47, 321-327.	10.9	65
35	Dispersion Polymerization of 1-Vinyl-2-pyrrolidone in Supercritical Carbon Dioxide. <i>Macromolecules</i> , 2000, 33, 1917-1920.	4.8	62
36	Phase Behavior and Electrochemical Characterization of Blends of Perfluoropolyether, Poly(ethylene) Tj ETQqO O O rgBT /Overlock 10 Tf 5	6.7	58

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37	Preparation of micron-size polystyrene particles in supercritical carbon dioxide. Journal of Polymer Science Part A, 1999, 37, 2429-2437.	2.3	56
38	Dispersion polymerization of styrene in supercritical carbon dioxide utilizing random copolymers containing a fluorinated acrylate for preparing micron-size polystyrene particles. Journal of Polymer Science Part A, 2000, 38, 1146-1153.	2.3	56
39	Local iontophoretic administration of cytotoxic therapies to solid tumors. Science Translational Medicine, 2015, 7, 273ra14.	12.4	56
40	Applications of "Dry" Processing in the Microelectronics Industry Using Carbon Dioxide. Critical Reviews in Solid State and Materials Sciences, 2004, 29, 97-109.	12.3	55
41	Analysis of the Murine Immune Response to Pulmonary Delivery of Precisely Fabricated Nano- and Microscale Particles. PLoS ONE, 2013, 8, e62115.	2.5	53
42	Use of iontophoresis for the treatment of cancer. Journal of Controlled Release, 2018, 284, 144-151.	9.9	53
43	High-pressure rheology and viscoelastic scaling predictions of polymer melts containing liquid and supercritical carbon dioxide. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 3055-3066.	2.1	51
44	Tumor Presence Induces Global Immune Changes and Enhances Nanoparticle Clearance. ACS Nano, 2016, 10, 861-870.	14.6	51
45	A Direct Deposition Method for Coupling Matrix-assisted Laser Desorption/Ionization Mass Spectrometry with Gel Permeation Chromatography for Polymer Characterization. Rapid Communications in Mass Spectrometry, 1997, 11, 1134-1138.	1.5	50
46	Ring-Opening Metathesis Polymerizations in Carbon Dioxide. Journal of Macromolecular Science - Pure and Applied Chemistry, 1996, 33, 953-960.	2.2	49
47	Towards programming immune tolerance through geometric manipulation of phosphatidylserine. Biomaterials, 2015, 72, 1-10.	11.4	49
48	One-Pot Synthesis and Characterization of a Chromophore "Donor" Acceptor Assembly. Inorganic Chemistry, 2000, 39, 71-75.	4.0	48
49	Solid-State Polymerization of Polycarbonates Using Supercritical CO <sub>2</sub> . Macromolecules, 1999, 32, 3167-3169.	4.8	44
50	Evaluation of drug loading, pharmacokinetic behavior, and toxicity of a cisplatin-containing hydrogel nanoparticle. Journal of Controlled Release, 2015, 204, 70-77.	9.9	43
51	Dispersion polymerization of 2-hydroxyethyl methacrylate in supercritical carbon dioxide. Journal of Polymer Science Part A, 2000, 38, 3783-3790.	2.3	42
52	Particle Replication in Nonwetting Templates Nanoparticles with Tumor Selective Alkyl Silyl Ether Docetaxel Prodrug Reduces Toxicity. Nano Letters, 2014, 14, 1472-1476.	9.1	42
53	Developments in CO <sub>2</sub> research. Pure and Applied Chemistry, 2001, 73, 1281-1285.	1.9	39
54	Pulmonary Delivery of Nanoparticle-Bound Toll-like Receptor 9 Agonist for the Treatment of Metastatic Lung Cancer. ACS Nano, 2020, 14, 7200-7215.	14.6	38

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55	Distribution and Cellular Uptake of PEGylated Polymeric Particles in the Lung Towards Cell-Specific Targeted Delivery. <i>Pharmaceutical Research</i> , 2015, 32, 3248-3260.	3.5	36
56	Well-defined glycopolymer amphiphiles for liquid and supercritical carbon dioxide applications. <i>Journal of Polymer Science Part A</i> , 2001, 39, 3841-3849.	2.3	33
57	Reduction Sensitive PEG Hydrogels for Codelivery of Antigen and Adjuvant To Induce Potent CTLs. <i>Molecular Pharmaceutics</i> , 2016, 13, 3381-3394.	4.6	33
58	Frontiers in green chemistry utilizing carbon dioxide for polymer synthesis and applications. <i>Pure and Applied Chemistry</i> , 2000, 72, 1357-1363.	1.9	31
59	Copolymerization of Vinylidene Fluoride with Hexafluoropropylene in Supercritical Carbon Dioxide. <i>Macromolecules</i> , 2006, 39, 15-18.	4.8	31
60	Metronomic Docetaxel in PRINT Nanoparticles and EZH2 Silencing Have Synergistic Antitumor Effect in Ovarian Cancer. <i>Molecular Cancer Therapeutics</i> , 2014, 13, 1750-1757.	4.1	31
61	Reductively Responsive Hydrogel Nanoparticles with Uniform Size, Shape, and Tunable Composition for Systemic siRNA Delivery <i>in Vivo</i> . <i>Molecular Pharmaceutics</i> , 2015, 12, 3518-3526.	4.6	31
62	Dispersion polymerization of methyl methacrylate in supercritical carbon dioxide: Influence of helium concentration on particle size and particle size distribution. <i>Journal of Polymer Science Part A</i> , 1997, 35, 2009-2013.	2.3	29
63	An Investigation into the Importance of Polymer-Matrix Miscibility Using Surfactant Modified Matrix-assisted Laser Desorption/Ionization Mass Spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 1997, 11, 1462-1466.	1.5	29
64	Photoinduced graft polymerization of styrene onto polypropylene substrates. <i>Journal of Applied Polymer Science</i> , 1997, 64, 883-889.	2.6	27
65	OPPORTUNITIES FOR POLLUTION PREVENTION AND ENERGY EFFICIENCY ENABLED BY THE CARBON DIOXIDE TECHNOLOGY PLATFORM. <i>Annual Review of Environment and Resources</i> , 2000, 25, 115-146.	1.2	27
66	Subtumoral analysis of PRINT nanoparticle distribution reveals targeting variation based on cellular and particle properties. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2016, 12, 1053-1062.	3.3	27
67	Step-Scan FTIR Time-Resolved Spectroscopy Study of Excited-State Dipole Orientation in Soluble Metallopolymers. <i>Inorganic Chemistry</i> , 2000, 39, 893-898.	4.0	26
68	Liquid perfluoropolyether electrolytes with enhanced ionic conductivity for lithium battery applications. <i>Polymer</i> , 2016, 100, 126-133.	3.8	26
69	An Equilibrium Model for Diffusion-Limited Solid-State Polycondensation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2000, 39, 2797-2806.	3.7	25
70	Co-opting Moore's law: Therapeutics, vaccines and interfacially active particles manufactured via PRINT <sup>®</sup> . <i>Journal of Controlled Release</i> , 2016, 240, 541-543.	9.9	25
71	Reaction Kinetics of the Solid State Polymerization of Poly(bisphenol A carbonate). <i>Macromolecules</i> , 2001, 34, 2060-2064.	4.8	24
72	Formation of Self-Assembled Monolayers of Semifluorinated and Hydrocarbon Chlorosilane Precursors on Silica Surfaces from Liquid Carbon Dioxide. <i>Langmuir</i> , 2002, 18, 6170-6179.	3.5	24

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73	Continuous precipitation polymerization of acrylic acid in supercritical carbon dioxide: The polymerization rate and the polymer molecular weight. <i>Journal of Polymer Science Part A</i> , 2005, 43, 2546-2555.	2.3	24
74	NMR Studies of Water Transport and Proton Exchange in Water-in-Carbon Dioxide Microemulsions. <i>Journal of Physical Chemistry B</i> , 2003, 107, 1962-1968.	2.6	23
75	Diffusion of Block Copolymers in Liquid CO <sub>2</sub> : Evidence of Self-Assembly from Pulsed Field Gradient NMR. <i>Journal of the American Chemical Society</i> , 1998, 120, 9390-9391.	13.7	22
76	Extending antigen release from particulate vaccines results in enhanced antitumor immune response. <i>Journal of Controlled Release</i> , 2018, 269, 393-404.	9.9	22
77	Formulation of High-Performance Dry Powder Aerosols for Pulmonary Protein Delivery. <i>Pharmaceutical Research</i> , 2018, 35, 195.	3.5	22
78	Role of Linker Length and Antigen Density in Nanoparticle Peptide Vaccine. <i>ACS Omega</i> , 2019, 4, 5547-5555.	3.5	22
79	HF Etchant Solutions in Supercritical Carbon Dioxide for "Dry" Etch Processing of Microelectronic Devices. <i>Chemistry of Materials</i> , 2003, 15, 2867-2869.	6.7	21
80	Biodistribution and Toxicity Studies of PRINT Hydrogel Nanoparticles in Mosquito Larvae and Cells. <i>PLoS Neglected Tropical Diseases</i> , 2015, 9, e0003735.	3.0	21
81	Preparation of silicone-graft copolymers by homogeneous radical copolymerization in supercritical carbon dioxide. <i>Journal of Polymer Science Part A</i> , 2000, 38, 1139-1145.	2.3	20
82	Synthesis of Sugar-Containing Amphiphiles for Liquid and Supercritical Carbon Dioxide. <i>Industrial &amp; Engineering Chemistry Research</i> , 2000, 39, 4564-4566.	3.7	20
83	Nucleophilic Displacements in Supercritical Carbon Dioxide Using Silica-Supported Phase-Transfer Agents. <i>Journal of Organic Chemistry</i> , 2001, 66, 4047-4049.	3.2	20
84	Determination of the equilibrium constant for the reaction between bisphenol A and diphenyl carbonate. <i>Journal of Polymer Science Part A</i> , 2002, 40, 171-178.	2.3	19
85	Biodistribution and Trafficking of Hydrogel Nanoparticles in Adult Mosquitoes. <i>PLoS Neglected Tropical Diseases</i> , 2015, 9, e0003745.	3.0	19
86	XPS analysis of poly[(3-hydroxybutyric acid)-co-(3-hydroxyvaleric acid)] film surfaces exposed to an allylamine low-pressure plasma. <i>Macromolecular Chemistry and Physics</i> , 1997, 198, 3737-3752.	2.2	18
87	Effect of polymer coatings from CO <sub>2</sub> on water-vapor transport in porous media. <i>AIChE Journal</i> , 2002, 48, 941-952.	3.6	18
88	Iontophoretic device delivery for the localized treatment of pancreatic ductal adenocarcinoma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2200-2205.	7.1	18
89	Improvement of silicone endothelialization by treatment with allylamine and/or acrylic acid low-pressure plasma. <i>Journal of Applied Polymer Science</i> , 2003, 87, 1794-1802.	2.6	17
90	Preparation and biological evaluation of synthetic and polymer-encapsulated congeners of the antitumor agent pactamycin: Insight into functional group effects and biological activity. <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 1849-1857.	3.0	17

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91	Ultrathin Cross-Linked Perfluoropolyether Film Coatings from Liquid CO <sub>2</sub> and Subsequent UV Curing. <i>Chemistry of Materials</i> , 2010, 22, 2411-2413.	6.7	16
92	Broadening of molecular-weight distribution in solid-state polymerization resulting from condensate diffusion. <i>Journal of Applied Polymer Science</i> , 2001, 79, 928-943.	2.6	15
93	Pulmonary Delivery of Butyrylcholinesterase as a Model Protein to the Lung. <i>Molecular Pharmaceutics</i> , 2016, 13, 1626-1635.	4.6	15
94	Flow system and 9.5 GHz microwave resonators for time-resolved and steady-state electron paramagnetic resonance spectroscopy in compressed and supercritical fluids. <i>Review of Scientific Instruments</i> , 1997, 68, 2505-2510.	1.3	12
95	Analysis of human innate immune responses to PRINT fabricated nanoparticles with cross validation using a humanized mouse model. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015, 11, 589-599.	3.3	12
96	Lithium Salt Distribution and Thermodynamics in Electrolytes Based on Short Perfluoropolyether- <i>block</i> -Poly(ethylene oxide) Copolymers. <i>Macromolecules</i> , 2020, 53, 1142-1153.	4.8	12
97	Synthesis and characterization of monodisperse uniformly shaped respirable aerosols. <i>AIChE Journal</i> , 2013, 59, 3184-3194.	3.6	11
98	Optimization of Surface Display of DENV2 E Protein on a Nanoparticle to Induce Virus Specific Neutralizing Antibody Responses. <i>Bioconjugate Chemistry</i> , 2018, 29, 1544-1552.	3.6	10
99	Impact of formulation on the iontophoretic delivery of the FOLFIRINOX regimen for the treatment of pancreatic cancer. <i>Cancer Chemotherapy and Pharmacology</i> , 2018, 81, 991-998.	2.3	10
100	New insights into immunomodulation via overexpressing lipoic acid synthase as a therapeutic potential to reduce atherosclerosis. <i>Vascular Pharmacology</i> , 2020, 133-134, 106777.	2.1	10
101	3D printed drug-loaded implantable devices for intraoperative treatment of cancer. <i>Journal of Controlled Release</i> , 2022, 344, 147-156.	9.9	10
102	Advantages of Supercritical Carbon Dioxide for Composite Particle Synthesis Using Water-Soluble or Water-Reactive Monomers. <i>Macromolecules</i> , 2005, 38, 4542-4544.	4.8	9
103	Calibration-Quality Cancer Nanotherapeutics. <i>Cancer Treatment and Research</i> , 2015, 166, 275-291.	0.5	8
104	Silylated Precision Particles for Controlled Release of Proteins. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 5756-5767.	8.0	7
105	Incipient microphase separation in short chain perfluoropolyether- <i>block</i> -poly(ethylene oxide) copolymers. <i>Soft Matter</i> , 2017, 13, 4047-4056.	2.7	7
106	Micro- and Nanoporous Materials Developed Using Supercritical CO <sub>2</sub> . <i>ACS Symposium Series</i> , 2004, , 223-235.	0.5	4
107	Organic Polymer Chemistry in the Context of Novel Processes. <i>ACS Central Science</i> , 2016, 2, 588-597.	11.3	4
108	Novel materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11667-11669.	7.1	4

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109	Scalable Manufacture of Built-to-Order Nanomedicine: Spray-Assisted Layer-by-Layer Functionalization of PRINT Nanoparticles (Adv. Mater. 34/2013). Advanced Materials, 2013, 25, 4706-4706.	21.0	3
110	Driving Convergence with Human Diversity. Science Translational Medicine, 2014, 6, 238ed11.	12.4	3
111	Designing Photoresist Systems for Microlithography in Carbon Dioxide. Materials Research Society Symposia Proceedings, 2001, 705, 781.	0.1	2
112	Organic Nanoparticles: Adapting Emerging Techniques from the Electronics Industry for the Generation of Shape-Specific, Functionalized Carriers for Applications in Nanomedicine. , 0, , 285-303.		2
113	Homogeneous and heterogeneous free radical polymerizations in environmentally responsible supercritical carbon dioxide. Macromolecular Symposia, 1995, 98, 795-795.	0.7	1
114	A commentary on "Carbon Dioxide-Poly(vinylidene Fluoride) Interactions at High Pressure?". Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 602-604.	2.1	1
115	Fluoropolymer Synthesis in Carbon Dioxide-Expanded Liquids: A Practical Approach to Avoid the Use of Perfluorooctanoic Acid. ACS Symposium Series, 2009, , 259-273.	0.5	1
116	Particles for Local Delivery of Proteins Using Intra-articular Route. Advanced Healthcare Materials, 2016, 5, 653-658.	7.6	1
117	Lessons in Translating University Research to the Marketplace. ACS Symposium Series, 2016, , 87-90.	0.5	1
118	Photoinduced graft polymerization of styrene onto polypropylene substrates. , 1997, 64, 883.		1
119	All CO <sub>2</sub> -Processed Fluoropolymer-Containing Photoresist Systems. Materials Research Society Symposia Proceedings, 2001, 705, 241.	0.1	0
120	Polysiloxanes in Compressed Carbon Dioxide. ACS Symposium Series, 2003, , 79-93.	0.5	0
121	The Synthesis and Characterization of Energy-Conducting Polymers with Pendant Inorganic Chromophores. Materials Research Society Symposia Proceedings, 2004, 847, 411.	0.1	0
122	Melt Rheology of Poly Vinylidene Fluoride: Evidence of Long Chain Branching and Microgel Formation. AIP Conference Proceedings, 2008, , .	0.4	0
123	Novel platforms for vascular carriers with controlled geometry. IUBMB Life, 2011, 63, spcone.	3.4	0
124	Biomedical Nanopreparations with Controlled Geometry. Frontiers in Nanobiomedical Research, 2014, , 349-400.	0.1	0