Antoine Venault

List of Publications by Year
in descending order

83 papers	2,435 citations	201674 27 h-index	233421 45 g-index
83 all docs	83 docs citations	83 times ranked	2411 citing authors

#	Article	IF	Citations
1	Low-biofouling membranes prepared by liquid-induced phase separation of the PVDF/polystyrene-b-poly (ethylene glycol) methacrylate blend. Journal of Membrane Science, 2014, 450, 340-350.	8.2	129
2	Investigating the potential of membranes formed by the vapor induced phase separation process. Journal of Membrane Science, 2020, 597, 117601.	8.2	110
3	Bacterial Resistance Control on Mineral Surfaces of Hydroxyapatite and Human Teeth via Surface Charge-Driven Antifouling Coatings. ACS Applied Materials & Interfaces, 2014, 6, 3201-3210.	8.0	101
4	Sulfur-doped g-C3N4 nanosheets for photocatalysis: Z-scheme water splitting and decreased biofouling. Journal of Colloid and Interface Science, 2020, 567, 202-212.	9.4	90
5	A Review on Polymeric Membranes and Hydrogels Prepared by Vapor-Induced Phase Separation Process. Polymer Reviews, 2013, 53, 568-626.	10.9	84
6	Antifouling pseudo-zwitterionic poly(vinylidene fluoride) membranes with efficient mixed-charge surface grafting via glow dielectric barrier discharge plasma-induced copolymerization. Journal of Membrane Science, 2016, 516, 13-25.	8.2	83
7	Surface Zwitterionization of Expanded Poly(tetrafluoroethylene) Membranes via Atmospheric Plasma-Induced Polymerization for Enhanced Skin Wound Healing. ACS Applied Materials & Interfaces, 2013, 5, 6732-6742.	8.0	76
8	Surface self-assembled zwitterionization of poly(vinylidene fluoride) microfiltration membranes via hydrophobic-driven coating for improved blood compatibility. Journal of Membrane Science, 2014, 454, 253-263.	8.2	74
9	Direct in-situ modification of PVDF membranes with a zwitterionic copolymer to form bi-continuous and fouling resistant membranes. Journal of Membrane Science, 2018, 550, 45-58.	8.2	69
10	Introducing Mixed-Charge Copolymers As Wound Dressing Biomaterials. ACS Applied Materials & Interfaces, 2014, 6, 9858-9870.	8.0	67
11	Designs of Zwitterionic Interfaces and Membranes. Langmuir, 2019, 35, 1714-1726.	3.5	65
12	Bacterial resistance of self-assembled surfaces using PPO -b-PSBMA zwitterionic copolymer â€“ Concomitant effects of surface topography and surface chemistry on attachment of live bacteria. Colloids and Surfaces B: Biointerfaces, 2014, 118, 254-260.	5.0	59
13	PEGylation of anti-biofouling polysulfone membranes via liquid- and vapor-induced phase separation processing. Journal of Membrane Science, 2012, 403-404, 47-57.	8.2	50
14	Functionalized porous filtration media for gravity-driven filtration: Reviewing a new emerging approach for oil and water emulsions separation. Separation and Purification Technology, 2021, 259, 117983.	7.9	49
15	Fabricating hemocompatible bi-continuous PEGylated PVDF membranes via vapor-induced phase inversion. Journal of Membrane Science, 2014, 470, 18-29.	8.2	48
16	Zwitterionic Modifications for Enhancing the Antifouling Properties of Poly(vinylidene fluoride) Membranes. Langmuir, 2016, 32, 4113-4124.	3.5	46
17	Surface zwitterionization of PVDF VIPS membranes for oil and water separation. Journal of Membrane Science, 2018, 563, 54-64.	8.2	44
18	Graphene oxide/PVDF VIPS membranes for switchable, versatile and gravity-driven separation of oil and water. Journal of Membrane Science, 2018, 565, 131-144.	8.2	44

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19	Zwitterionic electrospun PVDF fibrous membranes with a well-controlled hydration for diabetic wound recovery. Journal of Membrane Science, 2020, 598, 117648.	8.2	44
20	Hemocompatibility of PVDF/PS-b-PEGMA membranes prepared by LIPS process. Journal of Membrane Science, 2015, 477, 101-114.	8.2	41
21	Design of PVDF/PEGMA-b-PS-b-PEGMA membranes by VIPS for improved biofouling mitigation. Journal of Membrane Science, 2016, 510, 355-369.	8.2	40
22	Surface anti-biofouling control of PEGylated poly(vinylidene fluoride) membranes via vapor-induced phase separation processing. Journal of Membrane Science, 2012, 423-424, 53-64.	8.2	38
23	Antifouling PVDF membrane prepared by VIPS for microalgae harvesting. Chemical Engineering Science, 2016, 142, 97-111.	3.8	32
24	A zwitterionic interpenetrating network for improving the blood compatibility of polypropylene membranes applied to leukodepletion. Journal of Membrane Science, 2019, 584, 148-160.	8.2	30
25	FTIR mapping as a simple and powerful approach to study membrane coating and fouling. Journal of Membrane Science, 2016, 520, 477-489.	8.2	29
26	Design of near-superhydrophobic/superoleophilic PVDF and PP membranes for the gravity-driven breaking of water-in-oil emulsions. Journal of the Taiwan Institute of Chemical Engineers, 2016, 65, 459-471.	5.3	29
27	A zwitterionic zP(4VP- r -ODA) copolymer for providing polypropylene membranes with improved hemocompatibility. Journal of Membrane Science, 2016, 501, 68-78.	8.2	29
28	Zwitterionized chitosan based soft membranes for diabetic wound healing. Journal of Membrane Science, 2019, 591, 117319.	8.2	29
29	Epoxylated Zwitterionic Triblock Copolymers Grafted onto Metallic Surfaces for General Biofouling Mitigation. Langmuir, 2017, 33, 9822-9835.	3.5	28
30	Biofouling-resistance control of expanded poly(tetrafluoroethylene) membrane via atmospheric plasma-induced surface PEGylation. Journal of Membrane Science, 2013, 439, 48-57.	8.2	27
31	Zwitterionic bi-continuous membranes from a phosphobetaine copolymer/poly(vinylidene fluoride) blend via VIPS for biofouling mitigation. Journal of Membrane Science, 2018, 550, 377-388.	8.2	27
32	A combined polymerization and self-assembling process for the fouling mitigation of PVDF membranes. Journal of Membrane Science, 2018, 547, 134-145.	8.2	24
33	Self-Cleaning Interfaces of Polydimethylsiloxane Grafted with pH-Responsive Zwitterionic Copolymers. Langmuir, 2019, 35, 1357-1368.	3.5	24
34	Fluorine-free and hydrophobic/oleophilic PMMA/PDMS electrospun nanofibrous membranes for gravity-driven removal of water from oil-rich emulsions. Separation and Purification Technology, 2021, 279, 119720.	7.9	24
35	Superior Bioinert Capability of Zwitterionic Poly(4-vinylpyridine propylsulfobetaine) Withstanding Clinical Sterilization for Extended Medical Applications. ACS Applied Materials & Interfaces, 2018, 10, 17771-17783.	8.0	23
36	Adjusting the morphology of poly(vinylidene fluoride-co-hexafluoropropylene) membranes by the VIPS process for efficient oil-rich emulsion separation. Journal of Membrane Science, 2019, 581, 178-194.	8.2	23

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37	Controlling the zwitterionization degree of alternate copolymers for minimizing biofouling on PVDF membranes. Journal of Membrane Science, 2018, 565, 119-130.	8.2	22
38	Surface zwitterionization on versatile hydrophobic interfaces <i>via</i> a combined copolymerization/self-assembling process. Journal of Materials Chemistry B, 2018, 6, 4909-4919.	5.8	22
39	Zwitterionic fibrous polypropylene assembled with amphiphatic carboxybetaine copolymers for hemocompatible blood filtration. Acta Biomaterialia, 2016, 40, 130-141.	8.3	21
40	Zwitterionic PMMA-r-PEGMA-r-PSBMA copolymers for the formation of anti-biofouling bicontinuous membranes by the VIPS process. Journal of Membrane Science, 2021, 618, 118753.	8.2	21
41	Formation mechanisms of low-biofouling PVDF/F127 membranes prepared by VIPS process. Journal of the Taiwan Institute of Chemical Engineers, 2016, 62, 297-306.	5.3	20
42	Surface charge-bias impact of amine-contained pseudozwitterionic biointerfaces on the human blood compatibility. Colloids and Surfaces B: Biointerfaces, 2017, 151, 372-383.	5.0	20
43	A Zwitterionic-Shielded Carrier with pH-Modulated Reversible Self-Assembly for Gene Transfection. Langmuir, 2017, 33, 1914-1926.	3.5	20
44	Turning Expanded Poly(tetrafluoroethylene) Membranes into Potential Skin Wound Dressings by Grafting a Bioinert Epoxylated PEGMA Copolymer. ACS Biomaterials Science and Engineering, 2017, 3, 3338-3350.	5.2	20
45	Bio-inert interfaces via biomimetic anchoring of a zwitterionic copolymer on versatile substrates. Journal of Colloid and Interface Science, 2018, 529, 77-89.	9.4	20
46	A bio-inert and thermostable zwitterionic copolymer for the surface modification of PVDF membranes. Journal of Membrane Science, 2020, 598, 117655.	8.2	20
47	Hemocompatible biomaterials of zwitterionic sulfobetaine hydrogels regulated with pH-responsive DMAEMA random sequences. International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, 65, 65-74.	3.4	19
48	One-step entrapment of a PS-PEGMA amphiphilic copolymer on the outer surface of a hollow fiber membrane via TIPS process using triple-orifice spinneret. Journal of Membrane Science, 2021, 638, 119712.	8.2	19
49	Strategy to prepare skin-free and macrovoid-free polysulfone membranes via the NIPS process. Journal of Membrane Science, 2022, 655, 120597.	8.2	19
50	Superhydrophobic SiO2 /poly(vinylidene fluoride) composite membranes for the gravity-driven separation of drug enantiomers from emulsions. Journal of Membrane Science, 2021, 618, 118737.	8.2	18
51	Structural effect of poly(ethylene glycol) segmental length on biofouling and hemocompatibility. Polymer Journal, 2016, 48, 551-558.	2.7	17
52	Tuning the molecular design of random copolymers for enhancing the biofouling mitigation of membrane materials. Journal of Membrane Science, 2019, 588, 117217.	8.2	17
53	Bioinert Control of Zwitterionic Poly(ethylene terephtalate) Fibrous Membranes. Langmuir, 2019, 35, 1727-1739.	3.5	16
54	Zwitterionized Nanofibrous Poly(vinylidene fluoride) Membranes for Improving the Healing of Diabetic Wounds. ACS Biomaterials Science and Engineering, 2021, 7, 562-576.	5.2	15

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55	Surface Hydrophilicity and Morphology Control of Anti-Biofouling Polysulfone Membranes via Vapor-Induced Phase Separation Processing. Journal of Nanoscience and Nanotechnology, 2013, 13, 2656-2666.	0.9	14
56	Stimuli-Responsive and Hemocompatible Pseudozwitterionic Interfaces. Langmuir, 2015, 31, 2861-2869.	3.5	14
57	Bi-continuous positively-charged PVDF membranes formed by a dual-bath procedure with bacteria killing/release ability. Chemical Engineering Journal, 2021, 417, 128910.	12.7	14
58	Influence of solvent composition and non-solvent activity on the crystalline morphology of PVDF membranes prepared by VIPS process and on their arising mechanical properties. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 1087-1097.	5.3	13
59	Developing blood leukocytes depletion membranes from the design of bio-inert PEGylated hydrogel interfaces with surface charge control. Journal of Membrane Science, 2017, 537, 209-219.	8.2	13
60	Zwitterionic Polyhydroxybutyrate Electrospun Fibrous Membranes with a Compromise of Bioinert Control and Tissue-Cell Growth. Langmuir, 2017, 33, 2460-2471.	3.5	12
61	Toward Antibiofouling PVDF Membranes. Langmuir, 2019, 35, 6782-6792.	3.5	12
62	Healing kinetics of diabetic wounds controlled with charge-biased hydrogel dressings. Journal of Materials Chemistry B, 2019, 7, 7184-7194.	5.8	12
63	A Nondestructive Surface Zwitterionization of Polydimethylsiloxane for the Improved Human Blood-inert Properties. ACS Applied Bio Materials, 2019, 2, 39-48.	4.6	12
64	Simultaneous amphiphilic polymer synthesis and membrane functionalization for oil/water separation. Journal of Membrane Science, 2020, 604, 118069.	8.2	12
65	Reducing the pathogenicity of wastewater with killer vapor-induced phase separation membranes. Journal of Membrane Science, 2020, 614, 118543.	8.2	11
66	Design of hemocompatible poly(DMAEMAâ€‹<i>co</i>â€PEGMA) hydrogels for controlled release of insulin. Journal of Applied Polymer Science, 2015, 132, .	2.6	10
67	Fundamentals of nonsolvent-induced phase separation. , 2021, , 13-56.		10
68	Thermally Stable Bioinert Zwitterionic Sulfobetaine Interfaces Tolerated in the Medical Sterilization Process. ACS Biomaterials Science and Engineering, 2021, 7, 1031-1045.	5.2	10
69	A novel method to immobilize zwitterionic copolymers onto PVDF hollow fiber membrane surface to obtain antifouling membranes. Journal of Membrane Science, 2022, 656, 120592.	8.2	10
70	Development of PVDF Ultrafiltration Membrane with Zwitterionic Block Copolymer Micelles as a Selective Layer. Membranes, 2019, 9, 93.	3.0	9
71	Universal Bioinert Control of Polystyrene Interfaces via Hydrophobicâ€Driven Selfâ€Assembled Surface PEGylation with a Wellâ€Defined Block Sequence. Macromolecular Chemistry and Physics, 2017, 218, 1700102.	2.2	8
72	Failure of sulfobetaine methacrylate as antifouling material for steam-sterilized membranes and a potential alternative. Journal of Membrane Science, 2021, 620, 118929.	8.2	8

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73	Thermostable antifouling zwitterionic vapor-induced phase separation membranes. Journal of Membrane Science, 2021, 627, 119227.	8.2	8
74	Poly(vinylidene fluoride)/poly(styrene-co-acrylic acid) nanofibers as potential materials for blood separation. Journal of Membrane Science, 2022, 641, 119881.	8.2	8
75	A Biofouling Resistant Zwitterionic Polysulfone Membrane Prepared by a Dual-Bath Procedure. Membranes, 2022, 12, 69.	3.0	7
76	On the adsorption mechanisms of diethylamine by medically-certified activated carbons: Investigation of critical parameters controlling sorption properties. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 1937-1946.	5.3	6
77	Engineering sterilization-resistant and fouling-resistant porous membranes by the vapor-induced phase separation process using a sulfobetaine methacrylamide amphiphilic derivative. Journal of Membrane Science, 2022, 658, 120760.	8.2	6
78	Introducing a PEGylated diblock copolymer into PVDF hollow-fibers for reducing their fouling propensity. Journal of the Taiwan Institute of Chemical Engineers, 2018, 87, 252-263.	5.3	5
79	Temperature-triggered attachment and detachment of general human bio-foulants on zwitterionic polydimethylsiloxane. Journal of Materials Chemistry B, 2020, 8, 8853-8863.	5.8	4
80	Facile zwitterionization of polyvinylidene fluoride microfiltration membranes for biofouling mitigation. Journal of Membrane Science, 2022, 648, 120348.	8.2	4
81	Dopamine-Induced Surface Zwitterionization of Expanded Poly(tetrafluoroethylene) for Constructing Thermostable Bioinert Materials. ACS Biomaterials Science and Engineering, 2022, 8, 1532-1543.	5.2	3
82	Using the dimethyl sulfoxide green solvent for the making of antifouling PEGylated membranes by the vapor-induced phase separation process. , 2022, 2, 100025.		3
83	Surface PEGylation via Ultrasonic Spray Deposition for the Biofouling Mitigation of Biomedical Interfaces. ACS Applied Bio Materials, 2022, 5, 225-234.	4.6	2