Robert W Redmond

List of Publications by Year
in descending order

89 papers	5,275 citations	87888 38 h-index	88630 70 g-index
90 all docs	90 docs citations	90 times ranked	5749 citing authors

#	Article	IF	Citations
1	A Compilation of Singlet Oxygen Yields from Biologically Relevant Molecules. Photochemistry and Photobiology, 1999, 70, 391-475.	2.5	943
2	Spatially Resolved Cellular Responses to Singlet Oxygen. Photochemistry and Photobiology, 2006, 82, 1178.	2.5	368
3	PHOTOPHYSICAL AND PHOTOSENSITIZING PROPERTIES OF BENZOPORPHYRIN DERIVATIVE MONOACID RING A (BPDâ€MA)*. Photochemistry and Photobiology, 1994, 59, 328-335.	2.5	202
4	Bioabsorbable polymer optical waveguides for deep-tissue photomedicine. Nature Communications, 2016, 7, 10374.	12.8	173
5	The effects of aggregation, protein binding and cellular incorporation on the photophysical properties of benzoporphyrin derivative monoacid ring A (BPDMA). Journal of Photochemistry and Photobiology B: Biology, 1995, 30, 161-169.	3.8	165
6	Photochemical Mechanisms Responsible for the Versatile Application of Naphthalimides and Naphthaldiimides in Biological Systems. Journal of the American Chemical Society, 1997, 119, 11785-11795.	13.7	148
7	Optical probing and imaging of live cells using SERS labels. Journal of Raman Spectroscopy, 2009, 40, 1-5.	2.5	143
8	Collagen Cross-Linking Using Rose Bengal and Green Light to Increase Corneal Stiffness. , 2013, 54, 3426.		134
9	Time-resolved thermal lensing and phosphorescence studies on photosensitized singlet molecular oxygen formation. Influence of the electronic configuration of the sensitizer on sensitization efficiency. Chemical Physics Letters, 1988, 148, 523-529.	2.6	133
10	Interaction of Triplet Photosensitizers with Nucleotides and DNA in Aqueous Solution at Room Temperature. Journal of the American Chemical Society, 1996, 118, 2366-2373.	13.7	127
11	Photochemically Cross-Linked Collagen Gels as Three-Dimensional Scaffolds for Tissue Engineering. Tissue Engineering, 2007, 13, 1995-2001.	4.6	111
12	THE PHOTOPHYSICAL PROPERTIES OF PORPHYCENES: POTENTIAL PHOTODYNAMIC THERAPY AGENTS*. Photochemistry and Photobiology, 1986, 44, 555-559.	2.5	110
13	Triplet State Interactions between Nucleic Acid Bases in Solution at Room Temperature:Â Intermolecular Energy and Electron Transfer. Journal of the American Chemical Society, 1996, 118, 4256-4263.	13.7	95
14	PHOTOPHYSICAL PROPERTIES OF 3,3'-DIALKYLTHIACARBOCYANINE DYES IN HOMOGENEOUS SOLUTION. Photochemistry and Photobiology, 1993, 57, 472-479.	2.5	87
15	The Mechanism of Photochemical Release of Nitric Oxide from Sâ€Nitrosoglutathione. Photochemistry and Photobiology, 1996, 64, 518-524.	2.5	87
16	Enhancement of Porcine Skin Graft Adherence Using a Light-Activated Process. Journal of Surgical Research, 2002, 108, 77-84.	1.6	85
17	Phototoxicity of Hoechst 33342 in time-lapse fluorescence microscopy. Photochemical and Photobiological Sciences, 2010, 9, 1634-1639.	2.9	84
18	Microvascular anastomosis using a photochemical tissue bonding technique. Lasers in Surgery and Medicine, 2007, 39, 716-722.	2.1	76

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19	Evaluation of photochemical tissue bonding for closure of skin incisions and excisions. Lasers in Surgery and Medicine, 2005, 37, 264-270.	2.1	74
20	Photochemistry of N-Hydroxypyridine-2-thione Derivatives: Involvement of the 2-Pyridylthiyl Radical in the Radical Chain Reaction Mechanism. Journal of the American Chemical Society, 1995, 117, 9699-9708.	13.7	67
21	Secondary Reactive Oxygen Species Extend the Range of Photosensitization Effects in Cells: DNA Damage Produced Via Initial Membrane PhotosensitizationÂ¶â€. Photochemistry and Photobiology, 2003, 77, 192-203.	2.5	65
22	Phototoxicity is not associated with photochemical tissue bonding of skin. Lasers in Surgery and Medicine, 2010, 42, 123-131.	2.1	64
23	Improving electrophysiologic and histologic outcomes by photochemically sealing amnion to the peripheral nerve repair site. Surgery, 2009, 145, 313-321.	1.9	62
24	Photochemistry of the Nonspecific Hydroxyl Radical Generator,N-Hydroxypyridine-2(1H)-thione. Journal of the American Chemical Society, 1996, 118, 10113-10123.	13.7	60
25	Photochemical Tissue Bonding: A Promising Technique for Peripheral Nerve Repair. Journal of Surgical Research, 2007, 143, 224-229.	1.6	60
26	THERMALâ€ŁENSING AND PHOSPHORESCENCE STUDIES OF THE QUANTUM YIELD AND LIFETIME OF SINGLET MOLECULAR OXYGEN (1Î”_g) SENSITIZED BY HEMATOPORPHYRIN AND RELATED PORPHYRINS IN DEUTERATED AND NONâ€ÐEUTERATED ETHANOLS. Photochemistry and Photobiology, 1987, 45, 209-213.	2.5	57
27	Can Cellular Phototoxicity be Accurately Predicted on the Basis of Sensitizer Photophysics?. Photochemistry and Photobiology, 1999, 69, 306.	2.5	57
28	Bystander Effects Induced by Diffusing Mediators after Photodynamic Stress. Radiation Research, 2009, 172, 74-81.	1.5	53
29	Photochemical Sealing Improves Outcome Following Peripheral Neurorrhaphy. Journal of Surgical Research, 2009, 151, 33-39.	1.6	51
30	Photochemical repair of Achilles tendon rupture in a rat model1. Journal of Surgical Research, 2005, 124, 274-279.	1.6	50
31	Light-Initiated Bonding of Amniotic Membrane to Cornea. , 2011, 52, 9470.		50
32	MEROCYANINE DYES: EFFECT OF STRUCTURAL MODIFICATIONS ON PHOTOPHYSICAL PROPERTIES AND BIOLOGICAL ACTIVITY. Photochemistry and Photobiology, 1994, 60, 348-355.	2.5	47
33	Medical Applications of Rose Bengalâ€•and Riboflavinâ€Photosensitized Protein Crosslinking. Photochemistry and Photobiology, 2019, 95, 1097-1115.	2.5	47
34	A wavelength dependent mechanism for rose bengal-sensitized photoinhibition of red cell acetylcholinesterase. Biochimica Et Biophysica Acta - General Subjects, 1991, 1075, 42-49.	2.4	46
35	Photophysical properties of 3,3â€²-dialkylthiacarbocyanine dyes in organized media: unilamellar liposomes and thin polymer films. Biochimica Et Biophysica Acta - Biomembranes, 1993, 1151, 168-174.	2.6	46
36	Environmental Effects on Cellular Photosensitization: Correlation of Phototoxicity Mechanism with Transient Absorption Spectroscopy Measurements. Photochemistry and Photobiology, 1998, 68, 51-62.	2.5	44

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37	Photophysical Properties of Tin Ethyl Etiopurpurin I (SnET2) and Tin Octaethylbenzochlorin (SnOEBC) in Solution and Bound to Albumin. Photochemistry and Photobiology, 1998, 68, 809-815.	2.5	43
38	Spatial and temporal dynamics of in vitro photodynamic cell killing: extracellular hydrogen peroxide mediates neighbouring cell death. Photochemical and Photobiological Sciences, 2009, 8, 457-464.	2.9	43
39	A photoactivated nanofiber graft material for augmented Achilles tendon repair. Lasers in Surgery and Medicine, 2012, 44, 645-652.	2.1	42
40	Thiophenes as mosquito larvicides: Structure-toxicity relationship analysis. Pesticide Biochemistry and Physiology, 1991, 41, 89-100.	3.6	41
41	Photochemical Keratodesmos for Bonding Corneal Incisions. , 2004, 45, 2177.		41
42	Photochemistry ofN-Hydroxy-2(1H)-pyridone, a More Selective Source of Hydroxyl Radicals ThanN-Hydroxypyridine-2(1H)-thione. Journal of the American Chemical Society, 1996, 118, 10124-10133.	13.7	39
43	ENHANCEMENT OF THE SENSITIVITY OF RADIATIVE and NONâ€RADIATIVE DETECTION TECHNIQUES IN THE STUDY OF PHOTOSENSITIZATION BY WATER SOLUBLE SENSITIZERS USING A REVERSE MICELLE SYSTEMS*,â€. Photochemistry and Photobiology, 1991, 54, 547-556.	2.5	38
44	Triplet energy level of Î²-carotene. Chemical Physics Letters, 1994, 228, 495-498.	2.6	37
45	Preparation and Integration of Human Amnion Nerve Conduits Using a Light-Activated Technique. Plastic and Reconstructive Surgery, 2009, 124, 428-437.	1.4	34
46	Enhancing the stiffness of collagen hydrogels for delivery of encapsulated chondrocytes to articular lesions for cartilage regeneration. Journal of Biomedical Materials Research - Part A, 2015, 103, 1332-1338.	4.0	34
47	Two-photon irradiation of an intracellular singlet oxygen photosensitizer: Achieving localized sub-cellular excitation in spatially-resolved experiments. Free Radical Research, 2010, 44, 1383-1397.	3.3	33
48	N-Hydroxypyridine-2(1H)-thione:Â Not a Selective Generator of Hydroxyl Radicals in Aqueous Solution. Journal of the American Chemical Society, 1996, 118, 289-290.	13.7	31
49	Photochemical keratodesmos as an adjunct to sutures for bonding penetrating keratoplasty corneal incisions. Journal of Cataract and Refractive Surgery, 2004, 30, 2420-2424.	1.5	31
50	Effects of structural modifications on the photosensitizing properties of dialkylcarbocyanine dyes in homogeneous and heterogeneous solutions. Biochimica Et Biophysica Acta - General Subjects, 1994, 1199, 149-156.	2.4	29
51	Lightâ€activated sutureless closure of wounds in thin skin. Lasers in Surgery and Medicine, 2012, 44, 163-167.	2.1	29
52	Lightâ€activated sealing of skin wounds. Lasers in Surgery and Medicine, 2015, 47, 17-29.	2.1	29
53	The photophysical properties of porphycene incorporated in small unilamellar lipid vesicles. Journal of Photochemistry and Photobiology B: Biology, 1989, 3, 193-207.	3.8	27
54	Laser flash photolysis of haematoporphyrins in some homogeneous and heterogeneous environments. Journal of the Chemical Society Faraday Transactions I, 1984, 80, 2293.	1.0	26

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55	A lightâ€activated method for repair of corneal surface defects. Lasers in Surgery and Medicine, 2011, 43, 481-489.	2.1	26
56	Photochemical tissue bonding: A potential strategy for treating limbal stem cell deficiency. Lasers in Surgery and Medicine, 2011, 43, 433-442.	2.1	25
57	Light-Activated Sealing of Nerve Graft Coaptation Sites Improves Outcome following Large Gap Peripheral Nerve Injury. Plastic and Reconstructive Surgery, 2015, 136, 739-750.	1.4	25
58	Engineering Cartilage in a Photochemically Crosslinked Collagen Gel. Journal of Knee Surgery, 2009, 22, 72-81.	1.6	24
59	Photochemical repair of vocal fold microflap defects. Laryngoscope, 2011, 121, 1244-1251.	2.0	24
60	Melanocytes Are Selectively Vulnerable to UVA-Mediated Bystander Oxidative Signaling. Journal of Investigative Dermatology, 2014, 134, 1083-1090.	0.7	24
61	Real-time imaging of novel spatial and temporal responses to photodynamic stress. Free Radical Biology and Medicine, 2009, 47, 283-290.	2.9	23
62	Wide-Field Functional Microscopy of Peripheral Nerve Injury and Regeneration. Scientific Reports, 2018, 8, 14004.	3.3	23
63	Prevention of Capsular Contracture with Photochemical Tissue Passivation. Plastic and Reconstructive Surgery, 2014, 133, 571-577.	1.4	20
64	Why is Rose Bengal More Phototoxic to Fibroblasts In Vitro Than In Vivo?. Photochemistry and Photobiology, 2014, 90, 297-305.	2.5	18
65	Improving Outcomes in Immediate and Delayed Nerve Grafting of Peripheral Nerve Gaps Using Light-Activated Sealing of Neurorrhaphy Sites with Human Amnion Wraps. Plastic and Reconstructive Surgery, 2016, 137, 887-895.	1.4	17
66	A light-activated amnion wrap strengthens colonic anastomosis and reduces peri-anastomotic adhesions. Lasers in Surgery and Medicine, 2016, 48, 530-537.	2.1	16
67	Photochemical Tissue Passivation Reduces Vein Graft Intimal Hyperplasia in a Swine Model of Arteriovenous Bypass Grafting. Journal of the American Heart Association, 2016, 5, .	3.7	15
68	Light-Activated Sealing of Acellular Nerve Allografts following Nerve Gap Injury. Journal of Reconstructive Microsurgery, 2016, 32, 421-430.	1.8	12
69	Prevention of vein graft intimal hyperplasia with photochemical tissue passivation. Journal of Vascular Surgery, 2017, 65, 190-196.	1.1	12
70	Exclusive Free Radical Mechanisms of Cellular Photosensitization. Photochemistry and Photobiology, 1998, 68, 266-275.	2.5	11
71	No midterm advantages in the middle term using small intestinal submucosa and human amniotic membrane in Achilles tendon transverse tenotomy. Journal of Orthopaedic Surgery and Research, 2016, 11, 125.	2.3	8
72	Photochemical Tissue Passivation Attenuates AV Fistula Intimal Hyperplasia. Annals of Surgery, 2018, 267, 183-188.	4.2	8

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73	Evidence for peroxynitrite formation during S -nitrosoglutathione photolysis in air saturated solutions. FEBS Letters, 1999, 449, 79-82.	2.8	6
74	Hyaline Articular Matrix Formed by Dynamic Self-Regenerating Cartilage and Hydrogels. Tissue Engineering - Part A, 2016, 22, 962-970.	3.1	6
75	An intraluminal stent facilitates light-activated vascular anastomosis. Journal of Trauma and Acute Care Surgery, 2017, 83, S43-S49.	2.1	6
76	A Photosealed Cap Prevents Disorganized Axonal Regeneration and Neuroma following Nerve Transection in Rats. Plastic and Reconstructive Surgery - Global Open, 2022, 10, e4168.	0.6	6
77	Photophysical Techniques used in Photobiology and Photomedicine. , 1994, , 1-28.		5
78	Lightâ€activated photosealing with human amniotic membrane strengthens bowel anastomosis in a hypotensive, traumaâ€relevant swine model. Lasers in Surgery and Medicine, 2022, 54, 407-417.	2.1	4
79	Photochemical Tissue Passivation Prevents Contracture of Full Thickness Wounds in Mice. Lasers in Surgery and Medicine, 2019, 51, 910-919.	2.1	3
80	Photochemical Tissue Passivation of Arteriovenous Grafts Prevents Long-Term Development of Intimal Hyperplasia in a Swine Model. Journal of Surgical Research, 2020, 253, 280-287.	1.6	3
81	Photophysical Properties of Tin Ethyl Etiopurpurin I (SnET2) and Tin Octaethylbenzochlorin (SnOEBC) in Solution and Bound to Albumin. Photochemistry and Photobiology, 1998, 68, 809.	2.5	3
82	Can Cellular Phototoxicity be Accurately Predicted on the Basis of Sensitizer Photophysics?. Photochemistry and Photobiology, 1999, 69, 306-316.	2.5	1
83	Environmental Effects on Cellular Photosensitization: Correlation of Phototoxicity Mechanism with Transient Absorption Spectroscopy Measurements. Photochemistry and Photobiology, 1998, 68, 51.	2.5	1
84	Exclusive Free Radical Mechanisms of Cellular Photosensitization. Photochemistry and Photobiology, 1998, 68, 266.	2.5	1
85	Light-Activated Vascular Anastomosis. Surgical Innovation, 2023, 30, 143-149.	0.9	1
86	Time-lapse microscopy studies of bystander effects induced by photosensitization. , 2006, , .		0
87	124â€Photochemical Tissue Bonding of Apligraf to Skin. Wound Repair and Regeneration, 2005, 13, A28-A48.	3.0	0
88	Use of a Light-Activated Stent for Sutureless Vascular Anastamosis. Journal of Hand Surgery, 2013, 38, e28-e29.	1.6	0
89	Light-activated wound healing and tissue modification. Biochemist, 2016, 38, 20-23.	0.5	0