

Russel J Reiter

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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|--------------------|--------------------------|----------------|-----------------|
| 648 papers | 60,341 citations | 128 h-index | 222 g-index |
| 685 ext. papers | 68,312 ext. citations | 6.7 avg, IF | 8.18 L-index |

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 648 | Guidelines for the use and interpretation of assays for monitoring autophagy. <i>Autophagy</i> , 2012 , 8, 445-544. | 14.2 | 2783 |
| 647 | Pineal melatonin: cell biology of its synthesis and of its physiological interactions. <i>Endocrine Reviews</i> , 1991 , 12, 151-80 | 27.2 | 1771 |
| 646 | Regulation of antioxidant enzymes: a significant role for melatonin. <i>Journal of Pineal Research</i> , 2004 , 36, 1-9 | 10.4 | 1462 |
| 645 | One molecule, many derivatives: a never-ending interaction of melatonin with reactive oxygen and nitrogen species?. <i>Journal of Pineal Research</i> , 2007 , 42, 28-42 | 10.4 | 1160 |
| 644 | Melatonin as a natural ally against oxidative stress: a physicochemical examination. <i>Journal of Pineal Research</i> , 2011 , 51, 1-16 | 10.4 | 816 |
| 643 | Actions of melatonin in the reduction of oxidative stress. A review. <i>Journal of Biomedical Science</i> , 2000 , 7, 444-58 | 13.3 | 788 |
| 642 | Melatonin as an antioxidant: under promises but over delivers. <i>Journal of Pineal Research</i> , 2016 , 61, 253-78. | 18.4 | 786 |
| 641 | Chemical and physical properties and potential mechanisms: melatonin as a broad spectrum antioxidant and free radical scavenger. <i>Current Topics in Medicinal Chemistry</i> , 2002 , 2, 181-97 | 3 | 777 |
| 640 | A review of the evidence supporting melatonin's role as an antioxidant. <i>Journal of Pineal Research</i> , 1995 , 18, 1-11 | 10.4 | 719 |
| 639 | Oxidative processes and antioxidative defense mechanisms in the aging brain1. <i>FASEB Journal</i> , 1995 , 9, 526-533 | 0.9 | 698 |
| 638 | Melatonin: an ancient molecule that makes oxygen metabolically tolerable. <i>Journal of Pineal Research</i> , 2015 , 59, 403-19 | 10.4 | 595 |
| 637 | On the free radical scavenging activities of melatonin's metabolites, AFMK and AMK. <i>Journal of Pineal Research</i> , 2013 , 54, 245-57 | 10.4 | 569 |
| 636 | Extrapineal melatonin: sources, regulation, and potential functions. <i>Cellular and Molecular Life Sciences</i> , 2014 , 71, 2997-3025 | 10.3 | 562 |
| 635 | Biochemical reactivity of melatonin with reactive oxygen and nitrogen species: a review of the evidence. <i>Cell Biochemistry and Biophysics</i> , 2001 , 34, 237-56 | 3.2 | 504 |
| 634 | A review of the multiple actions of melatonin on the immune system. <i>Endocrine</i> , 2005 , 27, 189-200 | | 459 |
| 633 | Melatonin: the chemical expression of darkness. <i>Molecular and Cellular Endocrinology</i> , 1991 , 79, C153-8 | 4.4 | 441 |
| 632 | Melatonin: a multitasking molecule. <i>Progress in Brain Research</i> , 2010 , 181, 127-51 | 2.9 | 432 |

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| 631 | Oxidative stress impairs oocyte quality and melatonin protects oocytes from free radical damage and improves fertilization rate. <i>Journal of Pineal Research</i> , 2008 , 44, 280-7 | 10.4 | 432 |
| 630 | A review of the molecular aspects of melatonin's anti-inflammatory actions: recent insights and new perspectives. <i>Journal of Pineal Research</i> , 2013 , 54, 1-14 | 10.4 | 429 |
| 629 | Melatonin membrane receptors in peripheral tissues: distribution and functions. <i>Molecular and Cellular Endocrinology</i> , 2012 , 351, 152-66 | 4.4 | 427 |
| 628 | Melatonin mitigates mitochondrial malfunction. <i>Journal of Pineal Research</i> , 2005 , 38, 1-9 | 10.4 | 418 |
| 627 | Melatonin, hydroxyl radical-mediated oxidative damage, and aging: a hypothesis. <i>Journal of Pineal Research</i> , 1993 , 14, 151-68 | 10.4 | 405 |
| 626 | Effects of melatonin treatment in septic newborns. <i>Pediatric Research</i> , 2001 , 50, 756-60 | 3.2 | 395 |
| 625 | Significance of melatonin in antioxidative defense system: reactions and products. <i>NeuroSignals</i> , 2000 , 9, 137-59 | 1.9 | 384 |
| 624 | Extrapineal melatonin: analysis of its subcellular distribution and daily fluctuations. <i>Journal of Pineal Research</i> , 2012 , 52, 217-27 | 10.4 | 381 |
| 623 | Kynuramines, metabolites of melatonin and other indoles: the resurrection of an almost forgotten class of biogenic amines. <i>Journal of Pineal Research</i> , 2009 , 47, 109-126 | 10.4 | 379 |
| 622 | Reducing oxidative/nitrosative stress: a newly-discovered genre for melatonin. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2009 , 44, 175-200 | 8.7 | 364 |
| 621 | Mitochondria and chloroplasts as the original sites of melatonin synthesis: a hypothesis related to melatonin's primary function and evolution in eukaryotes. <i>Journal of Pineal Research</i> , 2013 , 54, 127-38 | 10.4 | 345 |
| 620 | Melatonin directly scavenges hydrogen peroxide: a potentially new metabolic pathway of melatonin biotransformation. <i>Free Radical Biology and Medicine</i> , 2000 , 29, 1177-85 | 7.8 | 343 |
| 619 | COVID-19: Melatonin as a potential adjuvant treatment. <i>Life Sciences</i> , 2020 , 250, 117583 | 6.8 | 334 |
| 618 | Evidence of melatonin synthesis by human lymphocytes and its physiological significance: possible role as intracrine, autocrine, and/or paracrine substance. <i>FASEB Journal</i> , 2004 , 18, 537-9 | 0.9 | 330 |
| 617 | Melatonin enhances plant growth and abiotic stress tolerance in soybean plants. <i>Journal of Experimental Botany</i> , 2015 , 66, 695-707 | 7 | 324 |
| 616 | Distribution of melatonin in mammalian tissues: the relative importance of nuclear versus cytosolic localization. <i>Journal of Pineal Research</i> , 1993 , 15, 59-69 | 10.4 | 314 |
| 615 | Melatonin, cardiolipin and mitochondrial bioenergetics in health and disease. <i>Journal of Pineal Research</i> , 2010 , 48, 297-310 | 10.4 | 312 |
| 614 | Protective effects of melatonin in reducing oxidative stress and in preserving the fluidity of biological membranes: a review. <i>Journal of Pineal Research</i> , 2014 , 56, 225-37 | 10.4 | 311 |

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| 613 | Melatonin as a free radical scavenger: implications for aging and age-related diseases. <i>Annals of the New York Academy of Sciences</i> , 1994 , 719, 1-12 | 6.5 | 311 |
| 612 | Comparative physiological, metabolomic, and transcriptomic analyses reveal mechanisms of improved abiotic stress resistance in bermudagrass [<i>Cynodon dactylon</i> (L). Pers.] by exogenous melatonin. <i>Journal of Experimental Botany</i> , 2015 , 66, 681-94 | 7 | 310 |
| 611 | Melatonin, the circadian multioscillator system and health: the need for detailed analyses of peripheral melatonin signaling. <i>Journal of Pineal Research</i> , 2012 , 52, 139-66 | 10.4 | 310 |
| 610 | Melatonin as a Potent and Inducible Endogenous Antioxidant: Synthesis and Metabolism. <i>Molecules</i> , 2015 , 20, 18886-906 | 4.8 | 306 |
| 609 | Melatonin, mitochondria, and cellular bioenergetics. <i>Journal of Pineal Research</i> , 2001 , 30, 65-74 | 10.4 | 302 |
| 608 | Melatonin: reducing the toxicity and increasing the efficacy of drugs. <i>Journal of Pharmacy and Pharmacology</i> , 2002 , 54, 1299-321 | 4.8 | 294 |
| 607 | Melatonin and its relation to the immune system and inflammation. <i>Annals of the New York Academy of Sciences</i> , 2000 , 917, 376-86 | 6.5 | 286 |
| 606 | Melatonin and the ovary: physiological and pathophysiological implications. <i>Fertility and Sterility</i> , 2009 , 92, 328-43 | 4.8 | 281 |
| 605 | Melatonin: from basic research to cancer treatment clinics. <i>Journal of Clinical Oncology</i> , 2002 , 20, 2575-601 | 6.1 | 279 |
| 604 | Melatonin and reproduction revisited. <i>Biology of Reproduction</i> , 2009 , 81, 445-56 | 3.9 | 274 |
| 603 | Nuclear localization of melatonin in different mammalian tissues: immunocytochemical and radioimmunoassay evidence. <i>Journal of Cellular Biochemistry</i> , 1993 , 53, 373-82 | 4.7 | 271 |
| 602 | Melatonin: exceeding expectations. <i>Physiology</i> , 2014 , 29, 325-33 | 9.8 | 269 |
| 601 | Free Radical-Mediated Molecular Damage. <i>Annals of the New York Academy of Sciences</i> , 2006 , 939, 200-265 | 6.5 | 265 |
| 600 | High levels of melatonin in the seeds of edible plants: possible function in germ tissue protection. <i>Life Sciences</i> , 2000 , 67, 3023-9 | 6.8 | 262 |
| 599 | Melatonin in walnuts: influence on levels of melatonin and total antioxidant capacity of blood. <i>Nutrition</i> , 2005 , 21, 920-4 | 4.8 | 261 |
| 598 | Melatonin as a mitochondria-targeted antioxidant: one of evolution's best ideas. <i>Cellular and Molecular Life Sciences</i> , 2017 , 74, 3863-3881 | 10.3 | 255 |
| 597 | Phytomelatonin: a review. <i>Journal of Experimental Botany</i> , 2009 , 60, 57-69 | 7 | 250 |
| 596 | The mammalian pineal gland: structure and function. <i>American Journal of Anatomy</i> , 1981 , 162, 287-313 | | 247 |

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| 595 | Melatonin and its metabolites: new findings regarding their production and their radical scavenging actions.. <i>Acta Biochimica Polonica</i> , 2007 , 54, 1-9 | 2 | 238 |
| 594 | Melatonin prevents changes in microsomal membrane fluidity during induced lipid peroxidation. <i>FEBS Letters</i> , 1997 , 408, 297-300 | 3.8 | 237 |
| 593 | Inhibition of cerebellar nitric oxide synthase and cyclic GMP production by melatonin via complex formation with calmodulin. <i>Journal of Cellular Biochemistry</i> , 1997 , 65, 430-42 | 4.7 | 236 |
| 592 | Melatonin and mitochondrial function. <i>Life Sciences</i> , 2004 , 75, 765-90 | 6.8 | 231 |
| 591 | Melatonin, a Full Service Anti-Cancer Agent: Inhibition of Initiation, Progression and Metastasis. <i>International Journal of Molecular Sciences</i> , 2017 , 18, | 6.3 | 230 |
| 590 | Melatonin and endoplasmic reticulum stress: relation to autophagy and apoptosis. <i>Journal of Pineal Research</i> , 2015 , 59, 292-307 | 10.4 | 229 |
| 589 | Identification of highly elevated levels of melatonin in bone marrow: its origin and significance. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1999 , 1472, 206-14 | 4 | 229 |
| 588 | Melatonin: clinical relevance. <i>Best Practice and Research in Clinical Endocrinology and Metabolism</i> , 2003 , 17, 273-85 | 6.5 | 226 |
| 587 | Phytomelatonin: assisting plants to survive and thrive. <i>Molecules</i> , 2015 , 20, 7396-437 | 4.8 | 225 |
| 586 | Both physiological and pharmacological levels of melatonin reduce DNA adduct formation induced by the carcinogen safrole. <i>Carcinogenesis</i> , 1994 , 15, 215-8 | 4.6 | 224 |
| 585 | On the primary functions of melatonin in evolution: mediation of photoperiodic signals in a unicell, photooxidation, and scavenging of free radicals. <i>Journal of Pineal Research</i> , 1995 , 18, 104-11 | 10.4 | 221 |
| 584 | Melatonin: an established antioxidant worthy of use in clinical trials. <i>Molecular Medicine</i> , 2009 , 15, 43-506.2 | 6.2 | 218 |
| 583 | Melatonin: a novel protective agent against oxidative injury of the ischemic/reperfused heart. <i>Cardiovascular Research</i> , 2003 , 58, 10-9 | 9.9 | 218 |
| 582 | Alzheimer's disease: pathological mechanisms and the beneficial role of melatonin. <i>Journal of Pineal Research</i> , 2012 , 52, 167-202 | 10.4 | 217 |
| 581 | Melatonin as a radioprotective agent: a review. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004 , 59, 639-53 | 4 | 216 |
| 580 | The ageing pineal gland and its physiological consequences. <i>BioEssays</i> , 1992 , 14, 169-75 | 4.1 | 213 |
| 579 | Visualization of the antioxidative effects of melatonin at the mitochondrial level during oxidative stress-induced apoptosis of rat brain astrocytes. <i>Journal of Pineal Research</i> , 2004 , 37, 55-70 | 10.4 | 210 |
| 578 | Melatonin Synthesis and Function: Evolutionary History in Animals and Plants. <i>Frontiers in Endocrinology</i> , 2019 , 10, 249 | 5.7 | 209 |

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|-----|--|------|-----|
| 577 | Increased levels of malondialdehyde and nitrite/nitrate in the blood of asphyxiated newborns: reduction by melatonin. <i>Journal of Pineal Research</i> , 2001 , 31, 343-9 | 10.4 | 207 |
| 576 | Cardiovascular diseases: protective effects of melatonin. <i>Journal of Pineal Research</i> , 2008 , 44, 16-25 | 10.4 | 205 |
| 575 | The Safety of Melatonin in Humans. <i>Clinical Drug Investigation</i> , 2016 , 36, 169-75 | 3.2 | 201 |
| 574 | Melatonin protects against common deletion of mitochondrial DNA-augmented mitochondrial oxidative stress and apoptosis. <i>Journal of Pineal Research</i> , 2007 , 43, 389-403 | 10.4 | 201 |
| 573 | Age-associated reduction in nocturnal pineal melatonin levels in female rats. <i>Endocrinology</i> , 1981 , 109, 1295-7 | 4.8 | 197 |
| 572 | The RNA-seq approach to discriminate gene expression profiles in response to melatonin on cucumber lateral root formation. <i>Journal of Pineal Research</i> , 2014 , 56, 39-50 | 10.4 | 190 |
| 571 | Antioxidant properties of the melatonin metabolite N1-acetyl-5-methoxykynuramine (AMK): scavenging of free radicals and prevention of protein destruction. <i>Redox Report</i> , 2003 , 8, 205-13 | 5.9 | 190 |
| 570 | The changing biological roles of melatonin during evolution: from an antioxidant to signals of darkness, sexual selection and fitness. <i>Biological Reviews</i> , 2010 , 85, 607-23 | 13.5 | 189 |
| 569 | Melatonin biosynthesis in plants: multiple pathways catalyze tryptophan to melatonin in the cytoplasm or chloroplasts. <i>Journal of Pineal Research</i> , 2016 , 61, 426-437 | 10.4 | 187 |
| 568 | N1-acetyl-N2-formyl-5-methoxykynuramine, a biogenic amine and melatonin metabolite, functions as a potent antioxidant. <i>FASEB Journal</i> , 2001 , 15, 2294-6 | 0.9 | 186 |
| 567 | Cancer metastasis: Mechanisms of inhibition by melatonin. <i>Journal of Pineal Research</i> , 2017 , 62, e12370 | 10.4 | 185 |
| 566 | Melatonin: A Mitochondrial Targeting Molecule Involving Mitochondrial Protection and Dynamics. <i>International Journal of Molecular Sciences</i> , 2016 , 17, | 6.3 | 182 |
| 565 | Melatonin: Current Status and Future Perspectives in Plant Science. <i>Frontiers in Plant Science</i> , 2015 , 6, 1230 | 6.2 | 182 |
| 564 | Melatonin-mitochondria interplay in health and disease. <i>Current Topics in Medicinal Chemistry</i> , 2011 , 11, 221-40 | 3 | 179 |
| 563 | Rhythms of glutathione peroxidase and glutathione reductase in brain of chick and their inhibition by light. <i>Neurochemistry International</i> , 1998 , 32, 69-75 | 4.4 | 179 |
| 562 | Detection and quantification of the antioxidant melatonin in Montmorency and Balaton tart cherries (<i>Prunus cerasus</i>). <i>Journal of Agricultural and Food Chemistry</i> , 2001 , 49, 4898-902 | 5.7 | 177 |
| 561 | Melatonin prevents cell death and mitochondrial dysfunction via a SIRT1-dependent mechanism during ischemic-stroke in mice. <i>Journal of Pineal Research</i> , 2015 , 58, 61-70 | 10.4 | 171 |
| 560 | Sirtuins, melatonin and circadian rhythms: building a bridge between aging and cancer. <i>Journal of Pineal Research</i> , 2010 , 48, 9-19 | 10.4 | 170 |

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| 559 | Nocturnal elevation of plasma melatonin and urinary 5-hydroxyindoleacetic acid in young men: attempts at modification by brief changes in environmental lighting and sleep and by autonomic drugs. <i>Journal of Clinical Endocrinology and Metabolism</i> , 1976 , 42, 752-64 | 5.6 | 170 |
| 558 | Reactive oxygen and nitrogen species and cellular and organismal decline: amelioration with melatonin. <i>Mechanisms of Ageing and Development</i> , 2002 , 123, 1007-19 | 5.6 | 169 |
| 557 | Melatonin induces nitric oxide and the potential mechanisms relate to innate immunity against bacterial pathogen infection in Arabidopsis. <i>Journal of Pineal Research</i> , 2015 , 59, 102-8 | 10.4 | 167 |
| 556 | Characterization of high-affinity melatonin binding sites in purified cell nuclei of rat liver. <i>Journal of Pineal Research</i> , 1994 , 16, 100-12 | 10.4 | 167 |
| 555 | Melatonin reprogramming of gut microbiota improves lipid dysmetabolism in high-fat diet-fed mice. <i>Journal of Pineal Research</i> , 2018 , 65, e12524 | 10.4 | 161 |
| 554 | Mitochondria: Central Organelles for Melatonin's Antioxidant and Anti-Aging Actions. <i>Molecules</i> , 2018 , 23, | 4.8 | 159 |
| 553 | Light at night, chronodisruption, melatonin suppression, and cancer risk: a review. <i>Critical Reviews in Oncogenesis</i> , 2007 , 13, 303-28 | 1.3 | 159 |
| 552 | Protective role of melatonin in cardiac ischemia-reperfusion injury: From pathogenesis to targeted therapy. <i>Journal of Pineal Research</i> , 2018 , 64, e12471 | 10.4 | 158 |
| 551 | Melatonin and stable circadian rhythms optimize maternal, placental and fetal physiology. <i>Human Reproduction Update</i> , 2014 , 20, 293-307 | 15.8 | 156 |
| 550 | Novel rhythms of N1-acetyl-N2-formyl-5-methoxykynuramine and its precursor melatonin in water hyacinth: importance for phytoremediation. <i>FASEB Journal</i> , 2007 , 21, 1724-9 | 0.9 | 155 |
| 549 | High physiological levels of melatonin in the bile of mammals. <i>Life Sciences</i> , 1999 , 65, 2523-9 | 6.8 | 155 |
| 548 | Melatonin and circadian biology in human cardiovascular disease. <i>Journal of Pineal Research</i> , 2010 , 49, 14-22 | 10.4 | 154 |
| 547 | Utility of high doses of melatonin as adjunctive anticonvulsant therapy in a child with severe myoclonic epilepsy: two years' experience. <i>Journal of Pineal Research</i> , 1997 , 23, 97-105 | 10.4 | 154 |
| 546 | The universal nature, unequal distribution and antioxidant functions of melatonin and its derivatives. <i>Mini-Reviews in Medicinal Chemistry</i> , 2013 , 13, 373-84 | 3.2 | 153 |
| 545 | Melatonin feedback on clock genes: a theory involving the proteasome. <i>Journal of Pineal Research</i> , 2015 , 58, 1-11 | 10.4 | 152 |
| 544 | Mechanistic and comparative studies of melatonin and classic antioxidants in terms of their interactions with the ABTS cation radical. <i>Journal of Pineal Research</i> , 2003 , 34, 249-59 | 10.4 | 152 |
| 543 | Physiological levels of melatonin contribute to the antioxidant capacity of human serum. <i>Journal of Pineal Research</i> , 1999 , 27, 59-64 | 10.4 | 151 |
| 542 | Apoptosis signaling pathways in osteoarthritis and possible protective role of melatonin. <i>Journal of Pineal Research</i> , 2016 , 61, 411-425 | 10.4 | 150 |

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| 541 | On the significance of an alternate pathway of melatonin synthesis via 5-methoxytryptamine: comparisons across species. <i>Journal of Pineal Research</i> , 2016 , 61, 27-40 | 10.4 | 150 |
| 540 | Melatonin alleviates brain injury in mice subjected to cecal ligation and puncture via attenuating inflammation, apoptosis, and oxidative stress: the role of SIRT1 signaling. <i>Journal of Pineal Research</i> , 2015 , 59, 230-9 | 10.4 | 149 |
| 539 | Defining chronodisruption. <i>Journal of Pineal Research</i> , 2009 , 46, 245-7 | 10.4 | 149 |
| 538 | A brief survey of pineal gland-immune system interrelationships. <i>Endocrine Research</i> , 1992 , 18, 91-113 | 1.9 | 149 |
| 537 | Ischemia/reperfusion-induced arrhythmias in the isolated rat heart: prevention by melatonin. <i>Journal of Pineal Research</i> , 1998 , 25, 184-91 | 10.4 | 148 |
| 536 | Melatonin and its metabolites vs oxidative stress: From individual actions to collective protection. <i>Journal of Pineal Research</i> , 2018 , 65, e12514 | 10.4 | 146 |
| 535 | Augmentation of indices of oxidative damage in life-long melatonin-deficient rats. <i>Mechanisms of Ageing and Development</i> , 1999 , 110, 157-73 | 5.6 | 145 |
| 534 | Functional pleiotropy of the neurohormone melatonin: antioxidant protection and neuroendocrine regulation. <i>Frontiers in Neuroendocrinology</i> , 1995 , 16, 383-415 | 8.9 | 145 |
| 533 | Melatonin reduces kainate-induced lipid peroxidation in homogenates of different brain regions. <i>FASEB Journal</i> , 1995 , 9, 1205-10 | 0.9 | 144 |
| 532 | Obesity and metabolic syndrome: association with chronodisruption, sleep deprivation, and melatonin suppression. <i>Annals of Medicine</i> , 2012 , 44, 564-77 | 1.5 | 143 |
| 531 | Rhythms in immunoreactive melatonin in the retina and Harderian gland of rats: persistence after pinealectomy. <i>Life Sciences</i> , 1983 , 32, 1229-36 | 6.8 | 142 |
| 530 | Diabetic retinopathy pathogenesis and the ameliorating effects of melatonin; involvement of autophagy, inflammation and oxidative stress. <i>Life Sciences</i> , 2018 , 193, 20-33 | 6.8 | 142 |
| 529 | The Keap1-Nrf2-antioxidant response element pathway: a review of its regulation by melatonin and the proteasome. <i>Molecular and Cellular Endocrinology</i> , 2015 , 401, 213-20 | 4.4 | 140 |
| 528 | Visualization of melatonin's multiple mitochondrial levels of protection against mitochondrial Ca(2+)-mediated permeability transition and beyond in rat brain astrocytes. <i>Journal of Pineal Research</i> , 2010 , 48, 20-38 | 10.4 | 140 |
| 527 | Melatonin mediates selenium-induced tolerance to cadmium stress in tomato plants. <i>Journal of Pineal Research</i> , 2016 , 61, 291-302 | 10.4 | 140 |
| 526 | Individual and synergistic antioxidative actions of melatonin: studies with vitamin E, vitamin C, glutathione and desferrioxamine (desferoxamine) in rat liver homogenates. <i>Journal of Pharmacy and Pharmacology</i> , 2001 , 53, 1393-401 | 4.8 | 134 |
| 525 | Pineal gland "magnetosensitivity" to static magnetic fields is a consequence of induced electric currents (eddy currents). <i>Journal of Pineal Research</i> , 1991 , 10, 109-16 | 10.4 | 131 |
| 524 | HsfA1a upregulates melatonin biosynthesis to confer cadmium tolerance in tomato plants. <i>Journal of Pineal Research</i> , 2017 , 62, e12387 | 10.4 | 130 |

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| 523 | A review of melatonin as a suitable antioxidant against myocardial ischemia-reperfusion injury and clinical heart diseases. <i>Journal of Pineal Research</i> , 2014 , 57, 357-66 | 10.4 | 130 |
| 522 | Melatonin and the circadian system: contributions to successful female reproduction. <i>Fertility and Sterility</i> , 2014 , 102, 321-8 | 4.8 | 130 |
| 521 | When melatonin gets on your nerves: its beneficial actions in experimental models of stroke. <i>Experimental Biology and Medicine</i> , 2005 , 230, 104-17 | 3.7 | 129 |
| 520 | Molecular mechanisms of the pro-apoptotic actions of melatonin in cancer: a review. <i>Expert Opinion on Therapeutic Targets</i> , 2013 , 17, 1483-96 | 6.4 | 127 |
| 519 | Protecting the melatonin rhythm through circadian healthy light exposure. <i>International Journal of Molecular Sciences</i> , 2014 , 15, 23448-500 | 6.3 | 126 |
| 518 | Melatonin in plants. <i>Nutrition Reviews</i> , 2001 , 59, 286-90 | 6.4 | 126 |
| 517 | Arabidopsis serotonin N-acetyltransferase knockout mutant plants exhibit decreased melatonin and salicylic acid levels resulting in susceptibility to an avirulent pathogen. <i>Journal of Pineal Research</i> , 2015 , 58, 291-9 | 10.4 | 124 |
| 516 | Inhibitory effect of melatonin on cataract formation in newborn rats: evidence for an antioxidative role for melatonin. <i>Journal of Pineal Research</i> , 1994 , 17, 94-100 | 10.4 | 124 |
| 515 | Melatonin and its metabolites as copper chelating agents and their role in inhibiting oxidative stress: a physicochemical analysis. <i>Journal of Pineal Research</i> , 2015 , 58, 107-16 | 10.4 | 121 |
| 514 | Neurotoxins: free radical mechanisms and melatonin protection. <i>Current Neuropharmacology</i> , 2010 , 8, 194-210 | 7.6 | 121 |
| 513 | DNA oxidatively damaged by chromium(III) and H ₂ O ₂ is protected by the antioxidants melatonin, N(1)-acetyl-N(2)-formyl-5-methoxykynuramine, resveratrol and uric acid. <i>International Journal of Biochemistry and Cell Biology</i> , 2001 , 33, 775-83 | 5.6 | 121 |
| 512 | Fundamental issues related to the origin of melatonin and melatonin isomers during evolution: relation to their biological functions. <i>International Journal of Molecular Sciences</i> , 2014 , 15, 15858-90 | 6.3 | 120 |
| 511 | Melatonin: A Cutaneous Perspective on its Production, Metabolism, and Functions. <i>Journal of Investigative Dermatology</i> , 2018 , 138, 490-499 | 4.3 | 119 |
| 510 | Melatonin attenuated early brain injury induced by subarachnoid hemorrhage via regulating NLRP3 inflammasome and apoptosis signaling. <i>Journal of Pineal Research</i> , 2016 , 60, 253-62 | 10.4 | 116 |
| 509 | INDOLE-3-ACETIC ACID INDUCIBLE 17 positively modulates natural leaf senescence through melatonin-mediated pathway in Arabidopsis. <i>Journal of Pineal Research</i> , 2015 , 58, 26-33 | 10.4 | 115 |
| 508 | Melatonin induces the transcripts of CBF/DREB1s and their involvement in both abiotic and biotic stresses in Arabidopsis. <i>Journal of Pineal Research</i> , 2015 , 59, 334-42 | 10.4 | 115 |
| 507 | Melatonin regulates mesenchymal stem cell differentiation: a review. <i>Journal of Pineal Research</i> , 2014 , 56, 382-97 | 10.4 | 115 |
| 506 | Static and extremely low frequency electromagnetic field exposure: reported effects on the circadian production of melatonin. <i>Journal of Cellular Biochemistry</i> , 1993 , 51, 394-403 | 4.7 | 115 |

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| 505 | Caloric restriction, resveratrol and melatonin: Role of SIRT1 and implications for aging and related-diseases. <i>Mechanisms of Ageing and Development</i> , 2015 , 146-148, 28-41 | 5.6 | 114 |
| 504 | Paraquat toxicity and oxidative damage. Reduction by melatonin. <i>Biochemical Pharmacology</i> , 1996 , 51, 1095-9 | 6 | 113 |
| 503 | Melatonin administration prevents lipopolysaccharide-induced oxidative damage in phenobarbital-treated animals. <i>Journal of Cellular Biochemistry</i> , 1995 , 58, 436-44 | 4.7 | 113 |
| 502 | Phytomelatonin: a universal abiotic stress regulator. <i>Journal of Experimental Botany</i> , 2018 , 69, 963-974 | 7 | 112 |
| 501 | A review of metal-catalyzed molecular damage: protection by melatonin. <i>Journal of Pineal Research</i> , 2014 , 56, 343-70 | 10.4 | 112 |
| 500 | Melatonin as a major skin protectant: from free radical scavenging to DNA damage repair. <i>Experimental Dermatology</i> , 2008 , 17, 713-30 | 4 | 112 |
| 499 | Long-term melatonin treatment delays ovarian aging. <i>Journal of Pineal Research</i> , 2017 , 62, e12381 | 10.4 | 111 |
| 498 | Inhibition of neuronal nitric oxide synthase activity by N1-acetyl-5-methoxykynuramine, a brain metabolite of melatonin. <i>Journal of Neurochemistry</i> , 2006 , 98, 2023-33 | 6 | 111 |
| 497 | Melatonin counteracts inducible mitochondrial nitric oxide synthase-dependent mitochondrial dysfunction in skeletal muscle of septic mice. <i>Journal of Pineal Research</i> , 2006 , 40, 71-8 | 10.4 | 111 |
| 496 | Melatonin signaling in T cells: Functions and applications. <i>Journal of Pineal Research</i> , 2017 , 62, e12394 | 10.4 | 109 |
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