Eduardo Henrique Silva Sousa

List of Publications by Citations

85 papers	1,221 citations	19 h-index	31 g-index
92 ext. papers	1,473 ext. citations	4.2 avg, IF	4.23 L-index

#	Paper	IF	Citations
85	An oxygen-sensing diguanylate cyclase and phosphodiesterase couple for c-di-GMP control. *Biochemistry*, **2009**, 48, 9764-74	3.2	169
84	DosT and DevS are oxygen-switched kinases in Mycobacterium tuberculosis. *Protein Science*, **2007**, 16, 1708-19	6.3	121
83	An inorganic iron complex that inhibits wild-type and an isoniazid-resistant mutant 2-trans-enoyl-ACP (CoA) reductase from Mycobacterium tuberculosis. *Chemical Communications*, **2004**, 312-3	5.8	51
82	Synthesis of bifunctional mesoporous silica spheres as potential adsorbent for ions in solution. *Chemical Engineering Journal*, **2013**, 214, 27-33	14.7	33
81	Oxygen blocks the reaction of the FixL-FixJ complex with ATP but does not influence binding of FixJ or ATP to FixL. *Biochemistry*, **2005**, 44, 15359-65	3.2	33
80	Isoniazid metal complex reactivity and insights for a novel anti-tuberculosis drug design. *Journal of Biological Inorganic Chemistry*, **2012**, 17, 275-83	3.7	32
79	Thiol-Activated HNO Release from a Ruthenium Antiangiogenesis Complex and HIF-1□nhibition for Cancer Therapy. *ACS Chemical Biology*, **2016**, 11, 2057-65	4.9	30
78	Aryl-Substituted Ruthenium(II) Complexes: A Strategy for Enhanced Photocleavage and Efficient DNA Binding. *Inorganic Chemistry*, **2017**, 56, 9084-9096	5.1	30
77	Slow-onset inhibition of 2-trans-enoyl-ACP (CoA) reductase from Mycobacterium tuberculosis by an inorganic complex. *Current Pharmaceutical Design*, **2006**, 12, 2409-24	3.3	30
76	A memory of oxygen binding explains the dose response of the heme-based sensor FixL. *Biochemistry*, **2007**, 46, 6249-57	3.2	29
75	A proximal arginine R206 participates in switching of the Bradyrhizobium japonicum FixL oxygen sensor. *Journal of Molecular Biology*, **2006**, 360, 80-9	6.5	29
74	Activity of IQG-607, a new orally active compound, in a murine model of Mycobacterium tuberculosis infection. *International Journal of Antimicrobial Agents*, **2012**, 40, 182-5	14.3	27
73	[Fe(CN)5(isoniazid)](3-): an iron isoniazid complex with redox behavior implicated in tuberculosis therapy. *Journal of Inorganic Biochemistry*, **2014**, 140, 236-44	4.2	26
72	Hell Gate globin I: an acid and thermostable bacterial hemoglobin resembling mammalian neuroglobin. *FEBS Letters*, **2011**, 585, 3250-8	3.8	26
71	The ruthenium NO donor, [Ru(bpy)2(NO)SO3](PF6), inhibits inflammatory pain: involvement of TRPV1 and cGMP/PKG/ATP-sensitive potassium channel signaling pathway. *Pharmacology Biochemistry and Behavior*, **2013**, 105, 157-65	3.9	24
70	Signal transduction and phosphoryl transfer by a FixL hybrid kinase with low oxygen affinity: importance of the vicinal PAS domain and receiver aspartate. *Biochemistry*, **2013**, 52, 456-65	3.2	23
69	Mechanism and biological implications of the NO release of cis-[Ru(bpy)2L(NO)](n+) complexes: a key role of physiological thiols. *Journal of Inorganic Biochemistry*, **2011**, 105, 624-9	4.2	23

68	The nitric oxide donor cis-[Ru(bpy)2(SO3)NO](PF6) increases gastric mucosa protection in mice--involvement of the soluble guanylate cyclase/K(ATP) pathway. *Nitric Oxide - Biology and Chemistry*, **2015**, 45, 35-42	5	21
67	Ruthenium(II) bipyridine complexes with pendant anthracenyl and naphthyl moieties: A strategy for a ROS generator with DNA binding selectivity. *Inorganica Chimica Acta*, **2016**, 439, 92-99	2.7	19
66	The potent anti-cancer activity of Dioclea lasiocarpa lectin. *Journal of Inorganic Biochemistry*, **2017**, 175, 179-189	4.2	19
65	A biphosphinic ruthenium complex with potent anti-bacterial and anti-cancer activity. *New Journal of Chemistry*, **2017**, 41, 13085-13095	3.6	18
64	Oxygen-sensing histidine-protein kinases: assays of ligand binding and turnover of response-regulator substrates. *Methods in Enzymology*, **2008**, 437, 173-89	1.7	18
63	Electron transfer kinetics and mechanistic study of the thionicotinamide coordinated to the pentacyanoferrate(III)/(II) complexes: a model system for the in vitro activation of thioamides anti-tuberculosis drugs. *Journal of Inorganic Biochemistry*, **2005**, 99, 368-75	4.2	18
62	Drug discovery targeting heme-based sensors and their coupled activities. *Journal of Inorganic Biochemistry*, **2017**, 167, 12-20	4.2	17
61	Crystal structure, electrochemical and spectroscopic properties of the trans-K{[FeCl(NO0)(cyclam)][FeCl(NO+)(cyclam)]2}(PF6)6 complex. *Dalton Transactions RSC*, **2002**, 1903-1906		17
60	Hydroxyl Radical Generation and DNA Nuclease Activity: A Mechanistic Study Based on a Surface-Immobilized Copper Thioether Clip-Phen Derivative. *Chemistry - A European Journal*, **2016**, 22, 10081-9	4.8	16
59	In vitro and in vivo leishmanicidal activity of a ruthenium nitrosyl complex against Leishmania (Viannia) braziliensis. *Acta Tropica*, **2019**, 192, 61-65	3.2	15
58	Thiocarbonyl-bound metallonitrosyl complexes with visible-light induced DNA cleavage and promising vasodilation activity. *Journal of Inorganic Biochemistry*, **2018**, 182, 83-91	4.2	15
57	Non-nitric oxide based metallovasodilators: synthesis, reactivity and biological studies. *Dalton Transactions*, **2015**, 44, 13633-40	4.3	13
56	Synthesis and mechanistic investigation of iron(II) complexes of isoniazid and derivatives as a redox-mediated activation strategy for anti-tuberculosis therapy. *Journal of Inorganic Biochemistry*, **2018**, 179, 71-81	4.2	13
55	Target DNA stabilizes Mycobacterium tuberculosis DevR/DosR phosphorylation by the full-length oxygen sensors DevS/DosS and DosT. *FEBS Journal*, **2017**, 284, 3954-3967	5.7	12
54	NO donors cis-[Ru(bpy)2(L)NO]3+ and [Fe(CN)4(L)NO]complexes immobilized on modified mesoporous silica spheres. *Polyhedron*, **2010**, 29, 3349-3354	2.7	12
53	A vanillin-based copper(ii) metal complex with a DNA-mediated apoptotic activity.. *RSC Advances*, **2018**, 8, 16873-16886	3.7	11
52	Nitro-imidazole-based ruthenium complexes with antioxidant and anti-inflammatory activities. *Journal of Inorganic Biochemistry*, **2020**, 206, 111048	4.2	10
51	Haem-Based Sensors of O: Lessons and Perspectives. *Advances in Microbial Physiology*, **2017**, 71, 235-257	4.4	10

50	Antimicrobial activity of cis-[Ru(bpy)2(L)(L?)]n+ complexes, where L = 4-(4-chlorobenzoyl)pyridine or 4-(benzoyl)pyridine and L? = Cl or CO. *Polyhedron*, **2018**, 144, 88-94	2.7	10
49	Electrochemistry, surface plasmon resonance, and quartz crystal microbalance: an associative study on cytochrome c adsorption on pyridine tail-group monolayers on gold. *Journal of Physical Chemistry B*, **2013**, 117, 8673-80	3.4	10
48	Antihypertensive potential of cis-[Ru(bpy)(ImN)(NO)], a ruthenium-based nitric oxide donor. *Research in Veterinary Science*, **2020**, 130, 153-160	2.5	9
47	Is IQG-607 a Potential Metallodrug or Metallopro-Drug With a Defined Molecular Target in ?. *Frontiers in Microbiology*, **2018**, 9, 880	5.7	9
46	On the incorporation of Rhodamine B and 2?,7?-dichlorofluorescein dyes in silica: Synthesis of fluorescent nanoparticles. *Optical Materials*, **2014**, 36, 1197-1202	3.3	9
45	Development of a spectrophotometric assay for cyclase activity. *Analytical Biochemistry*, **2006**, 348, 57-63	3.1	9
44	Relaxant effect of a metal-based drug in human corpora cavernosa and its mechanism of action. *International Journal of Impotence Research*, **2016**, 28, 20-4	2.3	8
43	KinChem: A Computational Resource for Teaching and Learning Chemical Kinetics. *Journal of Chemical Education*, **2014**, 91, 2203-2205	2.4	8
42	Thermal isomerization of cis-[Fe(cyclam)Cl2]Cl H2O complex in the solid state. *Thermochimica Acta*, **2001**, 376, 141-145	2.9	8
41	Light-induced disruption of an acyl hydrazone link as a novel strategy for drug release and activation: isoniazid as a proof-of-concept case. *Inorganic Chemistry Frontiers*, **2020**, 7, 859-870	6.8	8
40	Oxygen triggers signal transduction in the DevS (DosS) sensor of Mycobacterium tuberculosis by modulating the quaternary structure. *FEBS Journal*, **2019**, 286, 479-494	5.7	8
39	Photochemical studies of cis-[Ru(bpy)(4-bzpy)(CO)](PF) and cis-[Ru(bpy)(4-bzpy)(Cl)](PF): Blue light-induced nucleobase binding. *Journal of Inorganic Biochemistry*, **2017**, 173, 144-151	4.2	7
38	Ascorbyl and hydroxyl radical generation mediated by a copper complex adsorbed on gold. *Dalton Transactions*, **2019**, 48, 14128-14137	4.3	7
37	The Heme-Based Oxygen Sensor Rhizobium etli FixL: Influence of Auxiliary Ligands on Heme Redox Potential and Implications on the Enzyme Activity. *Journal of Inorganic Biochemistry*, **2016**, 164, 34-41	4.2	7
36	A spectroelectrochemical investigation of the heme-based sensor DevS from Mycobacterium tuberculosis: a redox versus oxygen sensor. *FEBS Journal*, **2019**, 286, 4278-4293	5.7	7
35	An unusual bidentate methionine ruthenium(II) complex: photo-uncaging and antimicrobial activity. *Journal of Biological Inorganic Chemistry*, **2020**, 25, 419-428	3.7	6
34	Incorporation of Nitroprusside on Silica Nanoparticles-A Strategy for Safer Use of This NO Donor in Therapy. *Molecular Pharmaceutics*, **2019**, 16, 2912-2921	5.6	5
33	A bioinorganic chemistry perspective on the roles of metals as drugs and targets against - a journey of opportunities. *Dalton Transactions*, **2020**, 49, 15988-16003	4.3	5

32	Biphosphinic ruthenium complexes as the promising antimicrobial agents. *New Journal of Chemistry* , **2020**, 44, 21318-21325	3.6	5
31	Potential therapeutic approaches for a sleeping pathogen: tuberculosis a case for bioinorganic chemistry. *Journal of Biological Inorganic Chemistry*, **2020**, 25, 685-704	3.7	5
30	Pentacyanoferrate(II) complex of pyridine-4- and pyrazine-2-hydroxamic acid as source of HNO: investigation of anti-tubercular and vasodilation activities. *Journal of Biological Inorganic Chemistry*, **2020**, 25, 887-901	3.7	5
29	Insights into signal transduction by a hybrid FixL: Denaturation study of on and off states of a multi-domain oxygen sensor. *Journal of Inorganic Biochemistry*, **2017**, 172, 129-137	4.2	4
28	A divergent mode of activation of a nitrosyl iron complex with unusual antiangiogenic activity. *Journal of Inorganic Biochemistry*, **2020**, 210, 111133	4.2	4
27	An anthracene-pendant ruthenium(II) complex conjugated to a biotin anchor, an essential handle for photo-induced anti-cancer activity. *New Journal of Chemistry*, **2020**, 44, 6610-6622	3.6	4
26	Escherichia coli DosC and DosP: a role of c-di-GMP in compartmentalized sensing by degradosomes. *Advances in Microbial Physiology*, **2019**, 75, 53-67	4.4	4
25	On the correlation between electronic intramolecular delocalization and Au-S bonding strength of ruthenium tetraammine SAMs. *Journal of the Brazilian Chemical Society*, **2010**, 21, 1283-1292	1.5	4
24	Antimicrobial activity and antibiotic synergy of a biphosphinic ruthenium complex against clinically relevant bacteria. *Biofouling*, **2020**, 36, 442-454	3.3	4
23	Nitrate-nitrite fate and oxygen sensing in dormant Mycobacterium tuberculosis: A bioinorganic approach highlighting the importance of transition metals. *Coordination Chemistry Reviews*, **2020**, 423, 213476	23.2	4
22	Anti-asthmatic effect of nitric oxide metallo-donor FOR811A [cis-[Ru(bpy)2(2-MIM)(NO)](PF6)3] in the respiratory mechanics of Swiss mice. *PLoS ONE*, **2021**, 16, e0248394	3.7	4
21	Bioinorganic systems responsive to the diatomic gases O2, NO, and CO: From biological sensors to therapy. *Coordination Chemistry Reviews*, **2021**, 445, 214096	23.2	4
20	The biofilm inhibition activity of a NO donor nanosilica with enhanced antibiotics action. *International Journal of Pharmaceutics*, **2021**, 610, 121220	6.5	3
19	Mechanistic insights into the in vitro metal-promoted oxidation of (di)azine hydroxamic acids: evidence of HNO release and N,O-di(di)azinoyl hydroxylamine intermediate. *New Journal of Chemistry*, **2020**, 44, 11965-11973	3.6	2
18	Preparation, characterization and structure of ruthenium phosphine complexes containing non-innocent ligands. *Polyhedron*, **2012**, 31, 104-109	2.7	2
17	Nitric Oxide Donors with Therapeutic Strategic in Experimental Schistossomiasis Mansoni. *American Journal of Immunology*, **2014**, 10, 225-239	0.3	2
16	Asymmetric heterobimetallic mixed-valence complex trans-[(SO3)Co(cyclam)(NCS)Ru(NH3)4(NCS)](BF4): Synthesis and characterization. *Polyhedron*, **2011**, 30, 2083-2089	2.7	2
15	When NO . Is not Enough: Chemical Systems, Advances and Challenges in the Development of NO . and HNO Donors for Old and Current Medical Issues. *European Journal of Inorganic Chemistry*,	2.3	2

14	Effect of Crotalus basiliscus snake venom on the redox reaction of myoglobin. *Journal of Biological Inorganic Chemistry*, **2019**, 24, 171-178	3.7	1
13	A new water-soluble ruthenium(II) carbonyl complex: cis-[Ru(bpy)2(SO3)(CO)]. *Polyhedron*, **2019**, 167, 111-118	2.7	1
12	Heme-Based Gas Sensors in Nature and Their Chemical and Biotechnological Applications. *Biochem*, **2022**, 2, 43-63		1
11	Synthesis and potential vasorelaxant effect of a novel ruthenium-based nitro complex.. *Journal of Inorganic Biochemistry*, **2021**, 228, 111666	4.2	1
10	Electrochemical, mechanistic, and DFT studies of amine derived diphosphines containing Ru(II)-cymene complexes with potent cytotoxic activity against HeLa and triple-negative breast cancer cells MDA-MB-231. *Dalton Transactions*, **2020**, 49, 16498-16514	4.3	0
9	Further Insights into the Oxidative Pathway of Thiocarbonyl-Type Antitubercular Prodrugs: Ethionamide, Thioacetazone, and Isoxyl. *Chemical Research in Toxicology*, **2021**, 34, 1879-1889	4	0
8	A bis-indazolic ruthenium(II) complex: Reactivity and biological studies on cancer cells. *Inorganica Chimica Acta*, **2021**, 516, 120125	2.7	0
7	Using Supramolecular Chemistry Strategy for Mapping Electrochemical Phenomena on the Nanoscale **2013**, 87-104		
6	Soluble Guanylyl Cyclase and Its Evolutionary Relatives **2008**, 524-539		
5	Sodium nitroprusside encapsulated in Silica nanoparticles as a strategy for safer nitric oxide delivery. *FASEB Journal*, **2019**, 33, 679.2	0.9	
4	Antioxidant Activity of Ruthenium Complexes Containing Nitro-imidazole Derivatives. *FASEB Journal*, **2019**, 33, 670.18	0.9	
3	Structural aspects and physiological implications of the hemoglobin of green iguana (Iguana iguana). *International Journal of Biological Macromolecules*, **2018**, 120, 1275-1285	7.9	
2	A binuclear Fe(iii)/quinizarin complex as a structural model for anthracycline drugs binding to iron. *New Journal of Chemistry*, **2022**, 46, 5515-5525	3.6	
1	Metal Complexes as DNA Cleavage and Antimicrobial Agents. *Springer Handbooks*, **2022**, 1051-1072	1.3	