Pau Gorostiza

List of Publications by Year
in descending order

124 papers	5,657 citations	71102 41 h-index	85541 71 g-index
140 all docs	140 docs citations	140 times ranked	6100 citing authors

#	Article	IF	Citations
1	Distance and Potential Dependence of Charge Transport Through the Reaction Center of Individual Photosynthetic Complexes. Small, 2022, 18, 2104366.	10.0	4
2	Fast Photoswitchable Molecular Prosthetics Control Neuronal Activity in the Cochlea. Journal of the American Chemical Society, 2022, 144, 9229-9239.	13.7	3
3	Adrenergic Modulation With Photochromic Ligands. Angewandte Chemie, 2021, 133, 3669-3675.	2.0	5
4	Adrenergic Modulation With Photochromic Ligands. Angewandte Chemie - International Edition, 2021, 60, 3625-3631.	13.8	29
5	Fast Photo-Chrono-Amperometry of Photosynthetic Complexes for Biosensors and Electron Transport Studies. ACS Sensors, 2021, 6, 581-587.	7.8	2
6	Control of Brain State Transitions with a Photoswitchable Muscarinic Agonist. Advanced Science, 2021, 8, e2005027.	11.2	8
7	Rational Design of Photochromic Analogues of Tricyclic Drugs. Journal of Medicinal Chemistry, 2021, 64, 9259-9270.	6.4	9
8	Subunit-Specific Photocontrol of Glycine Receptors by Azobenzene-Nitrazepam Photoswitcher. ENeuro, 2021, 8, ENEURO.0294-20.2020.	1.9	9
9	Photoswitchable dynasore analogs to control endocytosis with light. Chemical Science, 2020, 11, 8981-8988.	7.4	3
10	An Azobenzene-Based Single-Component Supramolecular Polymer Responsive to Multiple Stimuli in Water. Journal of the American Chemical Society, 2020, 142, 10069-10078.	13.7	49
11	Kainate Receptor Activation Shapes Short-Term Synaptic Plasticity by Controlling Receptor Lateral Mobility at Glutamatergic Synapses. Cell Reports, 2020, 31, 107735.	6.4	15
12	Photomodulation of Inhibitory Neurotransmission. Insights from Molecular Modeling. Biophysical Journal, 2020, 118, 325a-326a.	0.5	0
13	Optical Control of GABA_A Receptors with a Fulgimideâ€Based Potentiator. Chemistry - A European Journal, 2020, 26, 12722-12727.	3.3	12
14	Photocontrol of Endogenous Glycine Receptors InÂVivo. Cell Chemical Biology, 2020, 27, 1425-1433.e7.	5.2	16
15	Electrochemically Gated Longâ€Distance Charge Transport in Photosystemâ€…I. Angewandte Chemie, 2019, 131, 13414-13418.	2.0	0
16	Electrochemically Gated Longâ€Distance Charge Transport in Photosystemâ€…I. Angewandte Chemie - International Edition, 2019, 58, 13280-13284.	13.8	8
17	Reversible silencing of endogenous receptors in intact brain tissue using 2-photon pharmacology. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13680-13689.	7.1	17
18	Synthetic Photoswitchable Neurotransmitters Based on Bridged Azobenzenes. Organic Letters, 2019, 21, 3780-3784.	4.6	42

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19	Optical Control of Cardiac Function with a Photoswitchable Muscarinic Agonist. Journal of the American Chemical Society, 2019, 141, 7628-7636.	13.7	52
20	A photoswitchable GABA receptor channel blocker. British Journal of Pharmacology, 2019, 176, 2661-2677.	5.4	20
21	Rationally designed azobenzene photoswitches for efficient two-photon neuronal excitation. Nature Communications, 2019, 10, 907.	12.8	86
22	Photochromic antifolate for light-activated chemotherapy. , 2019, , .		1
23	Dendrimer-based Uneven Nanopatterns to Locally Control Surface Adhesiveness: A Method to Direct Chondrogenic Differentiation. Journal of Visualized Experiments, 2018, , .	0.3	5
24	Lightâ€induced regulation of ligandâ€gated channel activity. British Journal of Pharmacology, 2018, 175, 1892-1902.	5.4	25
25	Long distance electron transfer through the aqueous solution between redox partner proteins. Nature Communications, 2018, 9, 5157.	12.8	30
26	Photoswitchable Antimetabolite for Targeted Photoactivated Chemotherapy. Journal of the American Chemical Society, 2018, 140, 15764-15773.	13.7	84
27	Targeted Nanoswitchable Inhibitors of Proteinâ€“Protein Interactions Involved in Apoptosis. ChemMedChem, 2018, 14, 100-106.	3.2	7
28	Positional isomers of bispyridine benzene derivatives induce efficacy changes on mGlu5 negative allosteric modulation. European Journal of Medicinal Chemistry, 2017, 127, 567-576.	5.5	14
29	Illuminating Phenylazopyridines To Photoswitch Metabotropic Glutamate Receptors: From the Flask to the Animals. ACS Central Science, 2017, 3, 81-91.	11.3	58
30	Bioengineering a Single-Protein Junction. Journal of the American Chemical Society, 2017, 139, 15337-15346.	13.7	84
31	Differential Electrochemical Conductance Imaging at the Nanoscale. Small, 2017, 13, 1700958.	10.0	14
32	Tight temporal coupling between synaptic rewiring of olfactory glomeruli and the emergence of odorâ€guided behavior in Xenopus tadpoles. Journal of Comparative Neurology, 2017, 525, 3769-3783.	1.6	4
33	Optical control of endogenous receptors and cellular excitability using targeted covalent photoswitches. Nature Communications, 2016, 7, 12221.	12.8	50
34	OptoGluNAM4.1, a Photoswitchable Allosteric Antagonist for Real-Time Control of mGlu 4 Receptor Activity. Cell Chemical Biology, 2016, 23, 929-934.	5.2	68
35	Shining Light on an mGlu5 Photoswitchable NAM: A Theoretical Perspective. Current Neuropharmacology, 2016, 14, 441-454.	2.9	18
36	Absence of a Stable Secondary Structure Is Not a Limitation for Photoswitchable Inhibitors of Î²-Arrestin/Î²-Adaptin 2 Protein-Protein Interaction. Chemistry and Biology, 2015, 22, 31-37.	6.0	20

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37	An Optimized Glutamate Receptor Photoswitch with Sensitized Azobenzene Isomerization. Journal of Organic Chemistry, 2015, 80, 9915-9925.	3.2	31
38	Direct Measurement of the Nanomechanical Stability of a Redox Protein Active Site and Its Dependence upon Metal Binding. Journal of Physical Chemistry B, 2015, 119, 12050-12058.	2.6	16
39	Large-scale dendrimer-based uneven nanopatterns for the study of local arginine-glycine-aspartic acid (RGD) density effects on cell adhesion. Nano Research, 2014, 7, 399-409.	10.4	27
40	Conductance Switching in Single Wired Redox Proteins. Small, 2014, 10, 2537-2541.	10.0	44
41	Two-Photon Neuronal and Astrocytic Stimulation with Azobenzene-Based Photoswitches. Journal of the American Chemical Society, 2014, 136, 8693-8701.	13.7	103
42	A double effect molecular switch leads to a novel potent negative allosteric modulator of metabotropic glutamate receptor 5. MedChemComm, 2014, 5, 1548-1554.	3.4	12
43	An allosteric modulator to control endogenous G protein-coupled receptors with light. Nature Chemical Biology, 2014, 10, 813-815.	8.0	147
44	Photomodulation of G Protein-Coupled Adenosine Receptors by a Novel Light-Switchable Ligand. Bioconjugate Chemistry, 2014, 25, 1847-1854.	3.6	44
45	Optical Control of Enzyme Enantioselectivity in Solid Phase. ACS Catalysis, 2014, 4, 1004-1009.	11.2	22
46	Nanoscale charge transfer in redox proteins and DNA: Towards biomolecular electronics. Electrochimica Acta, 2014, 140, 83-95.	5.2	29
47	Photoswitchable Ion Channels and Receptors. Advances in Atom and Single Molecule Machines, 2014, , 169-188.	0.0	4
48	Automated high-throughput measurement of body movements and cardiac activity of Xenopus tropicalis tadpoles. Journal of Biological Methods, 2014, 1, e9.	0.6	3
49	Scanning Tunneling Microscopy Studies of Immobilized Biomolecules. , 2014, , 1851-1868.		0
50	Lightâ€Regulated Stapled Peptides to Inhibit Proteinâ€“Protein Interactions Involved in Clathrinâ€Mediated Endocytosis. Angewandte Chemie - International Edition, 2013, 52, 7704-7708.	13.8	88
51	Optical control of calcium-regulated exocytosis. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 2853-2860.	2.4	15
52	Optical Modulation of Neurotransmission. Biophysical Journal, 2013, 104, 497a.	0.5	1
53	Titelbild: Light-Regulated Stapled Peptides to Inhibit Protein-Protein Interactions Involved in Clathrin-Mediated Endocytosis (Angew. Chem. 30/2013). Angewandte Chemie, 2013, 125, 7759-7759.	2.0	0
54	New GABA amides activating GABAA-receptors. Beilstein Journal of Organic Chemistry, 2013, 9, 406-410.	2.2	1

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55	Optical modulation of neurotransmission using calcium photocurrents through the ion channel LiGluR. Frontiers in Molecular Neuroscience, 2013, 6, 3.	2.9	17
56	Molecular probes and switches for functional analysis of receptors, ion channels and synaptic networks. Frontiers in Molecular Neuroscience, 2013, 6, 48.	2.9	4
57	Transistor-like Behavior of Single Metalloprotein Junctions. Nano Letters, 2012, 12, 2679-2684.	9.1	90
58	Currentâ€"Voltage Characteristics and Transition Voltage Spectroscopy of Individual Redox Proteins. Journal of the American Chemical Society, 2012, 134, 20218-20221.	13.7	53
59	Direct Measurement of Electron Transfer Distance Decay Constants of Single Redox Proteins by Electrochemical Tunneling Spectroscopy. ACS Nano, 2011, 5, 2060-2066.	14.6	48
60	A robust molecular platform for non-volatile memory devices with optical and magnetic responses. Nature Chemistry, 2011, 3, 359-364.	13.6	192
61	Photoswitchable Ligand-Gated Ion Channels. Neuromethods, 2011, , 267-285.	0.3	0
62	Nanosculpting reversed wavelength sensitivity into a photoswitchable iGluR. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6814-6819.	7.1	82
63	Direct Observation of the Valence Band Edge by in Situ ECSTM-ECTS in p-Type Cu₂O Layers Prepared by Copper Anodization. Journal of Physical Chemistry C, 2009, 113, 1028-1036.	3.1	99
64	Optical Switches for Remote and Noninvasive Control of Cell Signaling. Science, 2008, 322, 395-399.	12.6	296
65	Nanoengineering Ion Channels for Optical Control. Physiology, 2008, 23, 238-247.	3.1	27
66	Remote Control of Neuronal Activity with a Light-Gated Glutamate Receptor. Neuron, 2007, 54, 535-545.	8.1	310
67	Reversibly Caged Glutamate:Â A Photochromic Agonist of Ionotropic Glutamate Receptors. Journal of the American Chemical Society, 2007, 129, 260-261.	13.7	154
68	Mechanisms of photoswitch conjugation and light activation of an ionotropic glutamate receptor. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10865-10870.	7.1	169
69	Optical switches and triggers for the manipulation of ion channels and pores. Molecular BioSystems, 2007, 3, 686.	2.9	68
70	Diving in Solid/Liquid Nanointerfaces. Imaging & Microscopy, 2007, 9, 61-62.	0.1	0
71	The twisted ion-permeation pathway of a resting voltage-sensing domain. Nature, 2007, 445, 546-549.	27.8	130
72	Titration Force Microscopy on Supported Lipid Bilayers. Analytical Chemistry, 2006, 78, 61-70.	6.5	26

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73	Conductance Maps by Electrochemical Tunneling Spectroscopy To Fingerprint the Electrode Electronic Structure. Analytical Chemistry, 2006, 78, 7325-7329.	6.5	23
74	Water Exclusion at the Nanometer Scale Provides Long-Term Passivation of Silicon (111) Grafted with Alkyl Monolayers. Journal of Physical Chemistry B, 2006, 110, 5576-5585.	2.6	54
75	In situ studies of metal passive films. Current Opinion in Solid State and Materials Science, 2006, 10, 144-152.	11.5	42
76	Allosteric control of an ionotropic glutamate receptor with an optical switch. Nature Chemical Biology, 2006, 2, 47-52.	8.0	558
77	The iron passive film breakdown in chloride media may be mediated by transient chloride-induced surface states located within the band gap. Electrochemistry Communications, 2006, 8, 627-632.	4.7	30
78	Electronic barriers in the iron oxide film govern its passivity and redox behavior: Effect of electrode potential and solution pH. Electrochemistry Communications, 2006, 8, 1595-1602.	4.7	37
79	Nanomechanics of silicon surfaces with atomic force microscopy: An insight to the first stages of plastic deformation. Journal of Chemical Physics, 2005, 123, 114711.	3.0	30
80	Molecular Handles for the Mechanical Manipulation of Single-Membrane Proteins in Living Cells. IEEE Transactions on Nanobioscience, 2005, 4, 269-276.	3.3	3
81	Collective behaviour in two-dimensional cobalt nanoparticle assemblies observed by magnetic force microscopy. Nature Materials, 2004, 3, 263-268.	27.5	297
82	Alkali halide nanocrystal growth and etching studied by AFM and modeled by MD simulations. Journal of Chemical Physics, 2004, 120, 2963-2971.	3.0	16
83	Preparation of Reliable Probes for Electrochemical Tunneling Spectroscopy. Analytical Chemistry, 2004, 76, 5218-5222.	6.5	41
84	Electrochemically Grown Tin Oxide Thin Films:â€‰ In Situ Characterization of Electronic Properties and Growth Mechanism. Journal of Physical Chemistry B, 2004, 108, 8173-8181.	2.6	15
85	Self-Assembly of Drugâ€“Polymer Complexes: A Spontaneous Nanoencapsulation Process Monitored by Atomic Force Microscopy**This work was presented in part at the 13th International Symposium on Microencapsulation, September 5â€“7, 2001, Angers, France.. Journal of Pharmaceutical Sciences, 2003, 92, 77-83.	3.3	13
86	Electrochemical Characterization of the Open-Circuit Deposition of Platinum on Silicon from Fluoride Solutions. Journal of Physical Chemistry B, 2003, 107, 6454-6461.	2.6	51
87	Direct Evidence of the Electronic Conduction of the Passive Film on Iron by EC-STM. Journal of the Electrochemical Society, 2003, 150, B348.	2.9	31
88	Control of neurotransmitter release by an internal gel matrix in synaptic vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3485-3490.	7.1	88
89	An electrochemical study of tin oxide thin film in borate buffer solutions. Journal of the Brazilian Chemical Society, 2003, 14, 523-529.	0.6	17
90	Nanoindentation: Toward the sensing of atomic interactions. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5228-5232.	7.1	69

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91	Nanoindentation: From forces to energies. Materials Research Society Symposia Proceedings, 2002, 738, 621.	0.1	0
92	Supramolecular Properties of the Proline-Rich Î³-Zein N-Terminal Domain. Biophysical Journal, 2002, 83, 1194-1204.	0.5	50
93	Electrochemical deposition of metal layers and structures for Si-based microsystems. Sensors and Actuators A: Physical, 2002, 99, 41-44.	4.1	6
94	Sequential atomic force microscopy imaging of a spontaneous nanoencapsulation process. International Journal of Pharmaceutics, 2002, 242, 291-294.	5.2	6
95	First Stages of Electrochemical Growth of the Passive Film on Iron. Journal of the Electrochemical Society, 2001, 148, B307.	2.9	82
96	Self-assembly of the amphipathic helix (VHLPPP)8. A mechanism for zein protein body formation11Edited by W. Baumeister. Journal of Molecular Biology, 2001, 312, 907-913.	4.2	52
97	Nanomechanical properties of surfaces of molecular organic thin films. Synthetic Metals, 2001, 121, 1417-1418.	3.9	4
98	In situ analysis of the conductance of SnO2 crystalline nanoparticles in the presence of oxidizing or reducing atmosphere by scanning tunneling microscopy. Sensors and Actuators B: Chemical, 2001, 78, 57-63.	7.8	16
99	Platinum Electroless Deposition on Silicon from Hydrogen Fluoride Solutions: Electrical Properties. Journal of the Electrochemical Society, 2001, 148, C528.	2.9	30
100	Structural and Micromechanical Assessment of Electrochemically Grown Metal Layers for Si Magnetic Microactuators. Materials Research Society Symposia Proceedings, 2000, 657, 421.	0.1	1
101	Atomic-layer expulsion in nanoindentations on an ionic single crystal. Applied Physics Letters, 2000, 77, 839-841.	3.3	22
102	Charge Exchange Processes during the Open-Circuit Deposition of Nickel on Silicon from Fluoride Solutions. Journal of the Electrochemical Society, 2000, 147, 1026.	2.9	90
103	Atomic force microscopy study of nanoindentation creep on the (100) face of MgO single crystals. Surface Science, 2000, 446, 314-322.	1.9	16
104	Polymorphic transformations observed on molecular organic thin films: p -nitrophenyl nitronyl nitroxide radical. Europhysics Letters, 1999, 48, 461-467.	2.0	9
105	Atomic force microscopy study of nanoindentation deformation and indentation size effect in MgO crystals. Journal of Materials Research, 1999, 14, 3973-3982.	2.6	19
106	Simultaneous platinum deposition and formation of a photoluminescent porous silicon layer. Journal of Electroanalytical Chemistry, 1999, 469, 48-52.	3.8	45
107	Determination of micromechanical properties of thin films by beam bending measurements with an atomic force microscope. Sensors and Actuators A: Physical, 1999, 74, 134-138.	4.1	55
108	Surface characterization of TTF-TCNQ thin films evaporated on alkali halide substrates. Synthetic Metals, 1999, 102, 1607-1608.	3.9	6

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109	Study of the surface morphology of the (100) cleavage planes of MgO single crystals by atomic force microscopy. Surface Science, 1999, 424, 139-144.	1.9	10
110	In situ study of the recovery of nanoindentation deformation of the (100) face of MgO crystals by atomic force microscopy. Surface Science, 1999, 442, 161-178.	1.9	17
111	Measurement of micromechanical properties of polysilicon microstructures with an atomic force microscope. Sensors and Actuators A: Physical, 1998, 67, 215-219.	4.1	42
112	Surface morphology of grown thin films of the quasi one-dimensional organic conductor TTF-TCNQ studied by Atomic Force Microscopy. Surface Science, 1998, 395, 205-215.	1.9	14
113	Dislocation hollow cores observed on surfaces of molecular organic thin films: p-nitrophenyl nitroxyl nitroxide radical. Surface Science, 1998, 415, 241-250.	1.9	14
114	Atomic Force Microscopy Study of the Silicon Doping Influence on the First Stages of Platinum Electroless Deposition. Journal of the Electrochemical Society, 1997, 144, 909-914.	2.9	51
115	Different Behavior in the Deposition of Platinum from HF Solutions on nâ€•and pâ€Type (100) Si Substrates. Journal of the Electrochemical Society, 1997, 144, 4119-4122.	2.9	31
116	Nanotribological Properties of Octadecyltrichlorosilane Self-Assembled Ultrathin Films Studied by Atomic Force Microscopy:â€‰ Contact and Tapping Modes. Langmuir, 1997, 13, 2333-2339.	3.5	54
117	Surface step bunching and crystal defects in InAlAs films grown by molecular beam epitaxy on (111)B InP substrates. Applied Physics Letters, 1997, 71, 2961-2963.	3.3	11
118	Enhanced surface atomic step motion observed in real time after nanoindentation of NaCl(100). Surface Science, 1997, 380, 427-433.	1.9	9
119	Nature of multilayer steps on the {100} cleavage planes of MgO single crystals. Surface Science, 1997, 383, 78-87.	1.9	20
120	Atomic force microscopic study of step bunching and macrostep formation during the growth of L-arginine phosphate monohydrate single crystals. Journal of Crystal Growth, 1997, 172, 209-218.	1.5	17
121	Atomic force microscopy observation of the first stages of diamond growth on silicon. Diamond and Related Materials, 1996, 5, 592-597.	3.9	20
122	First stages of platinum electroless deposition on silicon (100) from hydrogen fluoride solutions studied by AFM. Thin Solid Films, 1996, 275, 12-17.	1.8	46
123	Nanometerâ€scale oxidation of Si(100) surfaces by tapping mode atomic force microscopy. Journal of Applied Physics, 1995, 78, 6797-6801.	2.5	84
124	Electrodeposition of Zincâ€Cobalt Alloys: Tapping Mode AFM Technique Applied to Study the Initial Stages of Deposition. Journal of the Electrochemical Society, 1995, 142, 4091-4096.	2.9	22