Simone Ciampi

List of Publications by Citations

99 papers	4,003 citations	31 h-index	61 g-index
111 ext. papers	4,658 ext. citations	9.9 avg, IF	5.74 L-index

#	Paper	IF	Citations
99	Electrostatic catalysis of a Diels-Alder reaction. *Nature*, **2016**, 531, 88-91	50.4	422
98	The molecular level modification of surfaces: from self-assembled monolayers to complex molecular assemblies. *Chemical Society Reviews*, **2011**, 40, 2704-18	58.5	386
97	Wet chemical routes to the assembly of organic monolayers on silicon surfaces via the formation of Si-C bonds: surface preparation, passivation and functionalization. *Chemical Society Reviews*, **2010**, 39, 2158-83	58.5	258
96	Functionalization of acetylene-terminated monolayers on Si(100) surfaces: a click chemistry approach. *Langmuir*, **2007**, 23, 9320-9	4	241
95	Harnessing electrostatic catalysis in single molecule, electrochemical and chemical systems: a rapidly growing experimental tool box. *Chemical Society Reviews*, **2018**, 47, 5146-5164	58.5	129
94	Using an electrical potential to reversibly switch surfaces between two states for dynamically controlling cell adhesion. *Angewandte Chemie - International Edition*, **2012**, 51, 7706-10	16.4	110
93	Silicon (100) electrodes resistant to oxidation in aqueous solutions: an unexpected benefit of surface acetylene moieties. *Langmuir*, **2009**, 25, 2530-9	4	104
92	Multi-responsive photo- and chemo-electrical single-molecule switches. *Nano Letters*, **2014**, 14, 7064-70	11.5	102
91	Click chemistry in mesoporous materials: functionalization of porous silicon rugate filters. *Langmuir* , **2008**, 24, 5888-92	4	102
90	Nanoscale condensation of water on self-assembled monolayers. *Soft Matter*, **2011**, 7, 5309	3.6	90
89	Electrochemical and Electrostatic Cleavage of Alkoxyamines. *Journal of the American Chemical Society*, **2018**, 140, 766-774	16.4	88
88	A novel route to copper(II) detection using 'click' chemistry-induced aggregation of gold nanoparticles. *Analyst, The*, **2012**, 137, 82-6	5	79
87	Distance-dependent electron transfer at passivated electrodes decorated by gold nanoparticles. *Analytical Chemistry*, **2013**, 85, 1073-80	7.8	78
86	One-pot synthesis of colloidal silicon quantum dots and surface functionalization via thiol-ene click chemistry. *Chemical Communications*, **2012**, 48, 11874-6	5.8	64
85	Connecting electrodes with light: one wire, many electrodes. *Chemical Science*, **2015**, 6, 6769-6776	9.4	61
84	Comparing the reactivity of alkynes and alkenes on silicon (100) surfaces. *Langmuir*, **2009**, 25, 13934-41	4	61
83	Optimization of Click Chemistry of Ferrocene Derivatives on Acetylene-Functionalized Silicon(100) Surfaces. *Electroanalysis*, **2008**, 20, 1513-1519	3	61

82	Single-molecule electrical contacts on silicon electrodes under ambient conditions. *Nature Communications*, **2017**, 8, 15056	17.4	60
81	Studies on the effect of solvents on self-assembled monolayers formed from organophosphonic acids on indium tin oxide. *Langmuir*, **2012**, 28, 9487-95	4	53
80	A photoelectrochemical platform for the capture and release of rare single cells. *Nature Communications*, **2018**, 9, 2288	17.4	50
79	Different functionalization of the internal and external surfaces in mesoporous materials for biosensing applications using "click" chemistry. *Langmuir*, **2011**, 27, 328-34	4	50
78	Mesoporous silicon photonic crystal microparticles: towards single-cell optical biosensors. *Faraday Discussions*, **2011**, 149, 301-17; discussion 333-56	3.6	48
77	Versatile "click chemistry" approach to functionalizing silicon quantum dots: applications toward fluorescent cellular imaging. *Langmuir*, **2014**, 30, 5209-16	4	47
76	Reproducible flaws unveil electrostatic aspects of semiconductor electrochemistry. *Nature Communications*, **2017**, 8, 2066	17.4	47
75	TEMPO Monolayers on Si(100) Electrodes: Electrostatic Effects by the Electrolyte and Semiconductor Space-Charge on the Electroactivity of a Persistent Radical. *Journal of the American Chemical Society*, **2016**, 138, 9611-9	16.4	44
74	Electrochemical "switching" of Si(100) modular assemblies. *Journal of the American Chemical Society*, **2012**, 134, 844-7	16.4	43
73	Mechanical Stretching-Induced Electron-Transfer Reactions and Conductance Switching in Single Molecules. *Journal of the American Chemical Society*, **2017**, 139, 14699-14706	16.4	42
72	Chemically and Mechanically Controlled Single-Molecule Switches Using Spiropyrans. *ACS Applied Materials & Interfaces*, **2019**, 11, 36886-36894	9.5	40
71	Tandem "click" reactions at acetylene-terminated Si(100) monolayers. *Langmuir*, **2011**, 27, 6940-9	4	40
70	Metal-Single-Molecule-Semiconductor Junctions Formed by a Radical Reaction Bridging Gold and Silicon Electrodes. *Journal of the American Chemical Society*, **2019**, 141, 14788-14797	16.4	37
69	Nanoscale water condensation on click-functionalized self-assembled monolayers. *Langmuir*, **2011**, 27, 10753-62	4	35
68	Light Activated Electrochemistry: Light Intensity and pH Dependence on Electrochemical Performance of Anthraquinone Derivatized Silicon. *Journal of Physical Chemistry C*, **2016**, 120, 2874-2882	3.8	31
67	Electrochemical behavior of gold colloidal alkyl modified silicon surfaces. *ACS Applied Materials & Interfaces*, **2009**, 1, 2477-83	9.5	31
66	Probing the effect of the solution environment around redox-active moieties using rigid anthraquinone terminated molecular rulers. *Journal of the American Chemical Society*, **2012**, 134, 18401-9	16.4	30
65	Grafting of poly(ethylene glycol) on click chemistry modified Si(100) surfaces. *Langmuir*, **2013**, 29, 8355-62	4	29

64	Direct electrochemistry of cytochrome c at modified Si(100) electrodes. *Chemistry - A European Journal*, **2010**, 16, 5961-8	4.8	29
63	Light-addressable electrochemistry at semiconductor electrodes: redox imaging, mask-free lithography and spatially resolved chemical and biological sensing. *Chemical Society Reviews*, **2019**, 48, 3723-3739	58.5	28
62	Reversible potential-induced structural changes of alkanethiol monolayers on gold surfaces. *Electrochemistry Communications*, **2011**, 13, 387-390	5.1	27
61	Electrochemical Microscopy Based on Spatial Light Modulators: A Projection System to Spatially Address Electrochemical Reactions at Semiconductors. *Journal of the Electrochemical Society*, **2018**, 165, H3085-H3092	3.9	26
60	Effect of Chemical Structure on the Electrochemical Cleavage of Alkoxyamines. *Journal of Physical Chemistry C*, **2019**, 123, 5273-5281	3.8	26
59	The spontaneous formation of single-molecule junctions via terminal alkynes. *Nanotechnology*, **2015**, 26, 381001	3.4	24
58	The impact of surface coverage on the kinetics of electron transfer through redox monolayers on a silicon electrode surface. *Electrochimica Acta*, **2015**, 186, 216-222	6.7	24
57	Switching of Current Rectification Ratios within a Single Nanocrystal by Facet-Resolved Electrical Wiring. *ACS Nano*, **2018**, 12, 8071-8080	16.7	24
56	Electrochemistry on Tribocharged Polymers Is Governed by the Stability of Surface Charges Rather than Charging Magnitude. *Journal of the American Chemical Society*, **2019**, 141, 5863-5870	16.4	23
55	Quantitative Analysis of Cyclic Voltammetry of Redox Monolayers Adsorbed on Semiconductors: Isolating Electrode Kinetics, Lateral Interactions, and Diode Currents. *Analytical Chemistry*, **2019**, 91, 5929-5937	7.8	23
54	The corona of a surface bubble promotes electrochemical reactions. *Nature Communications*, **2020**, 11, 6323	17.4	23
53	Antibody modified porous silicon microparticles for the selective capture of cells. *Bioconjugate Chemistry*, **2014**, 25, 1282-9	6.3	22
52	Antifouling behaviour of silicon surfaces modified with self-assembled monolayers containing both ethylene glycol and charged moieties. *Surface Science*, **2010**, 604, 1388-1394	1.8	22
51	A robust DNA interface on a silicon electrode. *Chemical Communications*, **2014**, 50, 7878-80	5.8	20
50	Using an Electrical Potential to Reversibly Switch Surfaces between Two States for Dynamically Controlling Cell Adhesion. *Angewandte Chemie*, **2012**, 124, 7826-7830	3.6	20
49	Harnessing silicon facet-dependent conductivity to enhance the direct-current produced by a sliding Schottky diode triboelectric nanogenerator. *Nano Energy*, **2020**, 78, 105210	17.1	20
48	Control over Near-Ballistic Electron Transport through Formation of Parallel Pathways in a Single-Molecule Wire. *Journal of the American Chemical Society*, **2019**, 141, 240-250	16.4	20
47	Light-Activated Electrochemistry for the Two-Dimensional Interrogation of Electroactive Regions on a Monolithic Surface with Dramatically Improved Spatial Resolution. *Journal of Physical Chemistry C*, **2016**, 120, 13032-13038	3.8	19

46	Photolithographic strategy for patterning preformed, chemically modified, porous silicon photonic crystal using click chemistry. *ACS Applied Materials & Interfaces*, **2013**, 5, 6514-21	9.5	19
45	Investigation of the Antifouling Properties of Phenyl Phosphorylcholine-Based Modified Gold Surfaces. *Electroanalysis*, **2014**, 26, 1471-1480	3	17
44	Nanocrystal Inks: Photoelectrochemical Printing of Cu2O Nanocrystals on Silicon with 2D Control on Polyhedral Shapes. *Advanced Functional Materials*, **2018**, 28, 1804791	15.6	17
43	Spontaneous S-Si bonding of alkanethiols to Si(111)-H: towards Si-molecule-Si circuits. *Chemical Science*, **2020**, 11, 5246-5256	9.4	15
42	Oxidative acetylenic coupling reactions as a surface chemistry tool. *Physical Chemistry Chemical Physics*, **2011**, 13, 15624-32	3.6	15
41	Mechanism of Oxidative Alkoxyamine Cleavage: The Surprising Role of the Solvent and Supporting Electrolyte. *Journal of Physical Chemistry C*, **2019**, 123, 10300-10305	3.8	14
40	Hydrogen evolution during the electrodeposition of gold nanoparticles at Si(100) photoelectrodes impairs the analysis of current-time transients. *Electrochimica Acta*, **2017**, 247, 200-206	6.7	14
39	Redox-Active Monolayers in Mesoporous Silicon. *Journal of Physical Chemistry C*, **2012**, 116, 16080-16088	3.8	14
38	The influence of organic-film morphology on the efficient electron transfer at passivated polymer-modified electrodes to which nanoparticles are attached. *ChemPhysChem*, **2013**, 14, 2190-7	3.2	14
37	Reduced graphene oxide-silicon interface involving direct Si-O bonding as a conductive and mechanical stable ohmic contact. *Chemical Communications*, **2020**, 56, 6209-6212	5.8	13
36	Coupled Thermodynamic and Kinetic Changes in the Electrochemistry of Ferrocenyl Monolayers Induced by Light. *Langmuir*, **2017**, 33, 2497-2503	4	12
35	Stability of Chemically Passivated Silicon Electrodes in Aqueous Solutions: Interplay between Bias Voltage and Hydration of the Electrolyte. *Journal of Physical Chemistry C*, **2016**, 120, 15941-15948	3.8	12
34	Forming Ferrocenyl Self-Assembled Monolayers on Si(100) Electrodes with Different Alkyl Chain Lengths for Electron Transfer Studies. *ChemElectroChem*, **2019**, 6, 211-220	4.3	12
33	The rapid formation of functional monolayers on silicon under mild conditions. *Physical Chemistry Chemical Physics*, **2014**, 16, 8003-11	3.6	12
32	The detailed characterization of electrochemically switchable molecular assemblies on silicon electrodes. *Physical Chemistry Chemical Physics*, **2013**, 15, 9879-90	3.6	12
31	Covalent Linkages of Molecules and Proteins to Si-H Surfaces Formed by Disulfide Reduction. *Langmuir*, **2020**, 36, 14999-15009	4	12
30	Switchable Interfaces: Redox Monolayers on Si(100) by Electrochemical Trapping of Alcohol Nucleophiles. *Surfaces*, **2018**, 1, 3-11	2.9	12
29	Light-activated electrochemistry on alkyne-terminated Si(100) surfaces towards solution-based redox probes. *Electrochimica Acta*, **2016**, 213, 540-546	6.7	11

28	Heterojunctions Based on Amorphous Silicon: A Versatile Surface Engineering Strategy To Tune Peak Position of Redox Monolayers on Photoelectrodes. *Journal of Physical Chemistry C*, **2020**, 124, 836-844	3.8	10
27	Spatiotemporal Control of Electrochemiluminescence Guided by a Visible Light Stimulus. *Cell Reports Physical Science*, **2020**, 1, 100107	6.1	10
26	Light-activated electrochemistry without surface-bound redox species. *Electrochimica Acta*, **2017**, 251, 250-255	6.7	9
25	A multimodal optical and electrochemical device for monitoring surface reactions: redox active surfaces in porous silicon Rugate filters. *Physical Chemistry Chemical Physics*, **2012**, 14, 16433-9	3.6	9
24	Depth-resolved chemical modification of porous silicon by wavelength-tuned irradiation. *Langmuir*, **2012**, 28, 15444-9	4	9
23	Spatially confined electrochemical activity at a non-patterned semiconductor electrode. *Electrochimica Acta*, **2017**, 242, 240-246	6.7	9
22	Impermeable Graphene Oxide Protects Silicon from Oxidation. *ACS Applied Materials & Interfaces*, **2021**, 13, 38799-38807	9.5	9
21	Silicon□SAM□AuNP electrodes: Electrochemical □switching□and stability. *Electrochemistry Communications*, **2016**, 70, 28-32	5.1	8
20	Electrostatics and Electrochemistry: Mechanism and Scope of Charge-Transfer Reactions on the Surface of Tribocharged Insulators. *Journal of the American Chemical Society*, **2021**, 143, 3019-3032	16.4	8
19	DNA-Hybridization Detection on Si(100) Surfaces Using Light-Activated Electrochemistry: A Comparative Study between Bovine Serum Albumin and Hexaethylene Glycol as Antifouling Layers. *Langmuir*, **2018**, 34, 14817-14824	4	8
18	Experimental Evidence of Long-Lived Electric Fields of Ionic Liquid Bilayers. *Journal of the American Chemical Society*, **2021**, 143, 17431-17440	16.4	7
17	The Position of Solid Carbon Dioxide in the Triboelectric Series. *Australian Journal of Chemistry*, **2019**, 72, 633	1.2	6
16	Single-Electrode Electrochemistry: Chemically Engineering Surface Adhesion and Hardness To Maximize Redox Work Extracted from Tribocharged Silicon. *ACS Applied Nano Materials*, **2019**, 2, 7230-7236	5.6	6
15	Decoloration rates of a photomerocyanine dye as a visual probe into hydrogen bonding interactions. *Chemical Communications*, **2015**, 51, 4815-8	5.8	5
14	Common Background Signals in Voltammograms of Crystalline Silicon Electrodes are Reversible Silica-Silicon Redox Chemistry at Highly Conductive Surface Sites. *Journal of the American Chemical Society*, **2021**, 143, 1267-1272	16.4	5
13	Spontaneous Grafting of OH-Terminated Molecules on Si□H Surfaces via Si□□C Covalent Bonding. *Surfaces*, **2021**, 4, 81-88	2.9	5
12	Irreproducibility in the triboelectric charging of insulators: evidence of a non-monotonic charge versus contact time relationship. *Physical Chemistry Chemical Physics*, **2020**, 22, 11671-11677	3.6	3
11	Static Electrification of Plastics under Friction: The Position of Engineering-Grade Polyethylene Terephthalate in the Triboelectric Series. *Advanced Engineering Materials*, **2020**, 22, 1901201	3.5	3

10	Sublayer-enhanced atomic sites of single atom catalysts through in situ atomization of metal oxide nanoparticles. *Energy and Environmental Science*,	35.4	2
9	Microelectrode arrays with active-area geometries defined by spatial light modulation. *Electrochimica Acta*, **2020**, 356, 136849	6.7	2
8	Absence of a Relationship between Surface Conductivity and Electrochemical Rates: Redox-Active Monolayers on Si(211), Si(111), and Si(110). *Journal of Physical Chemistry C*, **2021**, 125, 18197-18203	3.8	2
7	Electrostatic Regulation of TEMPO Oxidation by Distal Molecular Charges. *ChemElectroChem*, **2020**, 7, 3522-3527	4.3	1
6	Nanoscale Silicon Oxide Reduces Electron Transfer Kinetics of Surface-Bound Ferrocene Monolayers on Silicon. *Journal of Physical Chemistry C*, **2021**, 125, 27763-27770	3.8	1
5	Surface Patterning of Biomolecules Using Click Chemistry and Light-Activated Electrochemistry to Locally Generate Cu(I). *ChemElectroChem*, **2020**, 7, 4245-4250	4.3	0
4	Sliding silicon-based Schottky diodes: Maximizing triboelectricity with surface chemistry. *Nano Energy*, **2022**, 93, 106861	17.1	0
3	Effect of Electric Fields on Silicon-Based Monolayers.. *Langmuir*, **2022**, 38, 2986-2992	4	0
2	Bubbles pinned on electrodes: friends or foes of aqueous electrochemistry?. *Current Opinion in Electrochemistry*, **2022**, 100992	7.2	0
1	Electric Field Modulation of Silicon upon Tethering of Highly Charged Nucleic Acids. Capacitive Studies on DNA-modified Silicon (111). *Electroanalysis*, **2016**, 28, 2367-2372	3	