

Christophe Humbert

List of Publications by Year in descending order

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72
papers

1,538
citations

257450

24
h-index

361022

35
g-index

75
all docs

75
docs citations

75
times ranked

1455
citing authors

#	ARTICLE	IF	CITATIONS
1	Potential-dependent structure of the interfacial water on the gold electrode. <i>Surface Science</i> , 2004, 573, 11-16.	1.9	88
2	Influence of the metal electronic properties on the sum-frequency generation spectra of dodecanethiol self-assembled monolayers on Pt(111), Ag(111) and Au(111) single crystals. <i>Applied Physics B: Lasers and Optics</i> , 2002, 74, 621-625.	2.1	72
3	Study of the water/poly(ethylene glycol) interface by IR-visible sum-frequency generation spectroscopy. <i>Chemical Physics Letters</i> , 2001, 333, 327-331.	2.6	71
4	Electronic and Molecular Properties of an Adsorbed Protein Monolayer Probed by Two-Color Sum-Frequency Generation Spectroscopy. <i>Langmuir</i> , 2004, 20, 7201-7207.	3.5	60
5	Enhanced detection of thiophenol adsorbed on gold nanoparticles by SFG and DFG nonlinear optical spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7729.	2.8	55
6	Pumping picosecond optical parametric oscillators by a pulsed Nd:YAG laser mode locked using a nonlinear mirror. <i>Applied Physics Letters</i> , 2001, 79, 1945-1947.	3.3	54
7	Au-covered hollow urchin-like ZnO nanostructures for surface-enhanced Raman scattering sensing. <i>Journal of Materials Chemistry C</i> , 2019, 7, 15066-15073.	5.5	50
8	Sum-frequency generation as a vibrational and electronic probe of the electrochemical interface and thin films. <i>Journal of Electroanalytical Chemistry</i> , 2008, 621, 314-321.	3.8	48
9	Study of Au coated ZnO nanoarrays for surface enhanced Raman scattering chemical sensing. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3528-3535.	5.5	47
10	Influence of DNA condensation state on transfection efficiency in DNA/polymer complexes: An AFM and DLS comparative study. <i>Journal of Biotechnology</i> , 2006, 125, 11-21.	3.8	44
11	Probing Ligand-Protein Recognition with Sum-Frequency Generation Spectroscopy: The Avidin-Biotin Case. <i>ChemPhysChem</i> , 2004, 5, 1719-1725.	2.1	39
12	An SFG/DFG investigation of CN ⁻ adsorption at an Au electrode in 1-butyl-1-methyl-pyrrolidinium bis(trifluoromethylsulfonyl) amide ionic liquid. <i>Electrochemistry Communications</i> , 2010, 12, 56-60.	4.7	35
13	Revealing the Interplay between Adsorbed Molecular Layers and Gold Nanoparticles by Linear and Nonlinear Optical Properties. <i>Journal of Physical Chemistry C</i> , 2015, 119, 17146-17155.	3.1	35
14	Self-assembled organic monolayers on gold nanoparticles: A study by sum-frequency generation combined with UV-vis spectroscopy. <i>Electrochimica Acta</i> , 2005, 50, 3101-3110.	5.2	34
15	Orientation of Thiophenol Adsorbed on Silver Determined by Nonlinear Vibrational Spectroscopy of the Carbon Skeleton. <i>Journal of Physical Chemistry B</i> , 2004, 108, 16135-16138.	2.6	32
16	Development of a two-color picosecond optical parametric oscillator, pumped by a Nd:YAG laser mode locked using a nonlinear mirror, for doubly-resonant sum frequency generation spectroscopy. <i>Surface Science</i> , 2002, 502-503, 261-267.	1.9	31
17	Comparative study of decyl thiocyanate and decanethiol self-assembled monolayers on gold substrates. <i>Surface Science</i> , 2006, 600, 4052-4057.	1.9	31
18	Nonlinear optical response of a gold surface in the visible range: A study by two-color sum-frequency generation spectroscopy. I. Experimental determination. <i>Journal of Chemical Physics</i> , 2018, 148, 134701.	3.0	31

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19	Semiconductor quantum dots reveal dipolar coupling from exciton to ligand vibration. <i>Communications Chemistry</i> , 2018, 1, .	4.5	28
20	Sum-Frequency Generation Spectroscopy of Plasmonic Nanomaterials: A Review. <i>Materials</i> , 2019, 12, 836.	2.9	28
21	Electron-phonon couplings at C60 interfaces: a case study by two-color, infrared-visible sum-frequency generation spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2003, 129, 139-147.	1.7	27
22	Doubly Resonant Sum Frequency Generation Spectroscopy of Adsorbates at an Electrochemical Interface. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11791-11795.	3.1	27
23	A multiscale description of molecular adsorption on gold nanoparticles by nonlinear optical spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 280-289.	2.8	27
24	IR-visible sum-frequency vibrational spectroscopy of Biphenyl-3 methylene thiol monolayer on gold and silver: effect of the visible wavelength on the SFG spectrum. <i>Surface Science</i> , 2002, 502-503, 203-207.	1.9	25
25	Optical spectroscopy of functionalized gold nanoparticles assemblies as a function of the surface coverage. <i>Gold Bulletin</i> , 2013, 46, 299-309.	2.4	25
26	Sum-frequency generation spectroscopy applied to model biosensors systems. <i>Thin Solid Films</i> , 2004, 464-465, 373-378.	1.8	24
27	In situ spectroelectrochemical measurements during the electro-oxidation of ethanol on WC-supported Pt-black, based on sum-frequency generation spectroscopy. <i>Journal of Power Sources</i> , 2010, 195, 4119-4123.	7.8	24
28	Localised detection of thiophenol with gold nanotriangles highly structured as honeycombs by nonlinear sum frequency generation spectroscopy. <i>Journal of Materials Science</i> , 2018, 53, 4554-4562.	3.7	22
29	The Prevailing Role of Hotspots in Plasmon-Enhanced Sum-Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7706-7711.	4.6	22
30	Corrosion of cemented carbide grades in petrochemical slurries. Part I - Electrochemical adsorption of CN_3^- , SCN_3^- and MBT: A study based on in situ SFG. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 60, 37-51.	3.8	21
31	What can we learn from the non-linear optical investigation of the liquid-solid interface?. <i>Journal of Electroanalytical Chemistry</i> , 1999, 473, 25-33.	3.8	20
32	Highly crystalline ZnO film decorated with gold nanospheres for PIERS chemical sensing. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 21000-21004.	2.8	20
33	Methanol dissociative adsorption on Pt(100) as studied by nonlinear vibrational spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2004, 563, 9-14.	3.8	19
34	Electrochemical fabrication of nanoporous gold decorated with manganese oxide nanowires from eutectic urea/choline chloride ionic liquid. Part III - Electrodeposition of Au-Mn: a study based on in situ Sum-Frequency Generation and Raman spectroscopies. <i>Electrochimica Acta</i> , 2016, 218, 208-215.	5.2	18
35	In Situ Monitoring of the Self-Assembly of p-Nitroanilino Terminated Thiol on Gold: a Study by IR-vis Sum-Frequency Generation Spectroscopy. <i>Physica Status Solidi A</i> , 1999, 175, 129-136.	1.7	16
36	Investigation of Au electrodeposition from [BMP][TFSA] room-temperature ionic liquid containing $K[Au(CN)_2]$ by in situ two-dimensional sum frequency generation spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2011, 661, 20-24.	3.8	15

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37	Enhanced Stability of a Carbon Monoxide Monolayer Adsorbed on Platinum under Electrochemical Control Probed by Sum-Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2016, 120, 16211-16220.	3.1	15
38	Probing a molecular electronic transition by two-colour sum-frequency generation spectroscopy. <i>Applied Surface Science</i> , 2003, 212-213, 797-803.	6.1	14
39	Picosecond laser for performance of efficient nonlinear spectroscopy from 10 to 21 μm . <i>Optics Letters</i> , 2004, 29, 274.	3.3	14
40	The influence of surface defects in methanol dissociative adsorption and CO oxidation on Pt(110) probed by nonlinear vibrational SFG spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2012, 672, 1-6.	3.8	14
41	Use of Specific Functionalised Tips with STM: A New Identification Method of Ester Groups and Their Molecular Structure in Self-Assembled Overlayers. <i>Chemistry - A European Journal</i> , 2005, 11, 4185-4190.	3.3	13
42	Linear and nonlinear optical properties of functionalized CdSe quantum dots prepared by plasma sputtering and wet chemistry. <i>Journal of Colloid and Interface Science</i> , 2015, 445, 69-75.	9.4	13
43	A global method for handling fluorescence spectra at high concentration derived from the competition between emission and absorption of colloidal CdTe quantum dots. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26559-26565.	2.8	13
44	The reduction of 4-nitrobenzene diazonium electrografted layer: An electrochemical study coupled to in situ sum-frequency generation spectroscopy. <i>Electrochimica Acta</i> , 2018, 283, 1640-1648.	5.2	13
45	Molecule orientation in self-assembled monolayers determined by infrared-visible sum-frequency generation spectroscopy. <i>Applied Surface Science</i> , 2004, 237, 445-450.	6.1	12
46	Sum-Frequency Generation Vibrational Spectroscopy of an Extramolecular Chemical Bond. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 2770-2773.	4.6	12
47	Spectroelectrochemical study of the electro-oxidation of ethanol on WC-supported Pt " Part III: Monitoring of electrodeposited-Pt catalyst ageing by in situ Fourier transform infrared spectroscopy, in situ sum frequency generation spectroscopy and ex situ photoelectron spectromicroscopy. <i>Journal of Power Sources</i> , 2013, 231, 6-17.	7.8	12
48	Molecular functionalization of tantalum oxide surface towards development of apatite growth. <i>Applied Surface Science</i> , 2009, 255, 4765-4772.	6.1	11
49	Adsorption properties of decyl thiocyanate and decanethiol on platinum substrates studied by sum-frequency generation spectroscopy. <i>Surface Science</i> , 2007, 601, 1259-1264.	1.9	10
50	In Situ Electrochemical SFG/DFG Study of CN ⁻ and Nitrile Adsorption at Au from 1-Butyl-1-methyl-pyrrolidinium Bis(trifluoromethylsulfonyl) Amide Ionic Liquid ([BMP][TFSA]) Containing 4-{2-[1-(2-Cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazanyl} Benzonitrile (CTDB) and K[Au(CN) ₂]. <i>Molecules</i> , 2012, 17, 7722-7736.	3.8	10
51	How Quantum Dots Aggregation Enhances Förster Resonant Energy Transfer. <i>ChemPhysChem</i> , 2020, 21, 853-862.	2.1	10
52	Self-assembled organic and fullerene monolayers characterisation by two-colour SFG spectroscopy: a pathway to meet doubly resonant SFG process. <i>Applied Surface Science</i> , 2004, 237, 463-469.	6.1	9
53	Selective detection of the antigenic polar heads of model lipid membranes supported on metals from their vibrational nonlinear optical response. <i>Chemical Physics Letters</i> , 2010, 489, 12-15.	2.6	9
54	Synthesis and characterization of aromatic self-assembled monolayers containing methylene and ethyleneglycol entities by means of sum-frequency generation spectroscopy. <i>Thin Solid Films</i> , 2006, 500, 268-277.	1.8	8

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55	Nonlinear optical properties of Ag nanoparticles embedded in Si ₃ N ₄ . <i>Europhysics Letters</i> , 2008, 83, 64004.	2.0	8
56	Molecular conformation and electronic properties of protoporphyrin-IX self-assembled monolayers adsorbed on a Pt(111) surface. <i>Surface Science</i> , 2006, 600, 3702-3709.	1.9	7
57	Two-Dimensional Layers of Colloidal CdTe Quantum Dots: Assembly, Optical Properties, and Vibroelectronic Coupling. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25873-25883.	3.1	7
58	Sum-frequency generation spectroscopy of biointerfaces. , 2011, , 279-321.		6
59	Vibrational Sum-Frequency Generation Activity of a 2,4-Dinitrophenyl Phospholipid Hybrid Bilayer: Retrieving Orientational Parameters from a DFT Analysis of Experimental Data. <i>ChemPhysChem</i> , 2013, 14, 1227-1236.	2.1	6
60	A Unified Mathematical Formalism for First to Third Order Dielectric Response of Matter: Application to Surface-Specific Two-Colour Vibrational Optical Spectroscopy. <i>Symmetry</i> , 2021, 13, 153.	2.2	6
61	Highlighting functional groups in self-assembled overlayers with specific functionalized scanning tunnelling microscopy tips. <i>Nanotechnology</i> , 2005, 16, 2596-2600.	2.6	5
62	Sum-frequency generation from surface species in porous silicon. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 1487-1491.	1.8	3
63	On the Protoporphyrin Monolayers Conformation. <i>ChemPhysChem</i> , 2006, 7, 569-571.	2.1	3
64	Spatial Dependence of the Dipolar Interaction between Quantum Dots and Organic Molecules Probed by Two-Color Sum-Frequency Generation Spectroscopy. <i>Symmetry</i> , 2021, 13, 294.	2.2	3
65	Diagrammatic theory of linear and nonlinear optics for composite systems. <i>Physical Review A</i> , 2021, 104, .	2.5	3
66	Self-assembled organic and fullerene monolayers characterisation by two-colour SFG spectroscopy: a pathway to meet doubly resonant SFG process. <i>Applied Surface Science</i> , 2004, 237, 463-469.	6.1	2
67	Étude par spectroscopie de génération de la fréquence somme de l'interface méthanol-platine. <i>European Physical Journal Special Topics</i> , 2002, 12, 241-242.	0.2	1
68	Two-Colour Sum-Frequency Generation Spectroscopy Coupled to Plasmonics with the CLIO Free Electron Laser. <i>Photonics</i> , 2022, 9, 55.	2.0	1
69	Sum-frequency generation characterization of the molecular recognition of avidin by biocytin films adsorbed on metallic substrates. , 0, , .		0
70	Vibroelectronic interaction between quantum dot excitons and organic molecule vibrations. , 2021, , .		0
71	Unexpected enhancement of Förster resonant energy transfer thanks to quantum dots aggregation. , 2021, , .		0
72	Special Issue of <i>Symmetry</i> : Recent Advances in Linear and Nonlinear Optics. <i>Symmetry</i> , 2022, 14, 495.	2.2	0