

Christophe Humbert

List of Publications by Year in descending order

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72
papers

1,538
citations

257450

24
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361022

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all docs

75
docs citations

75
times ranked

1455
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-Colour Sum-Frequency Generation Spectroscopy Coupled to Plasmonics with the CLIO Free Electron Laser. <i>Photonics</i> , 2022, 9, 55.	2.0	1
2	Special Issue of <i>Symmetry</i> : "Recent Advances in Linear and Nonlinear Optics", <i>Symmetry</i> , 2022, 14, 495.	2.2	0
3	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
4	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
5	Vibronic interaction between quantum dot excitons and organic molecule vibrations. , 2021, , .		0
6	Unexpected enhancement of Förster resonant energy transfer thanks to quantum dots aggregation. , 2021, , .		0
7	Diagrammatic theory of linear and nonlinear optics for composite systems. <i>Physical Review A</i> , 2021, 104, .	2.5	3
8	Two-Dimensional Layers of Colloidal CdTe Quantum Dots: Assembly, Optical Properties, and Vibronic Coupling. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25873-25883.	3.1	7
9	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
10	How Quantum Dots Aggregation Enhances Förster Resonant Energy Transfer. <i>ChemPhysChem</i> , 2020, 21, 853-862.	2.1	10
11	Sum-Frequency Generation Spectroscopy of Plasmonic Nanomaterials: A Review. <i>Materials</i> , 2019, 12, 836.	2.9	28
12	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
13	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
14	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
15	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
16	Semiconductor quantum dots reveal dipolar coupling from exciton to ligand vibration. <i>Communications Chemistry</i> , 2018, 1, .	4.5	28
17	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
18	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

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19	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
20	Corrosion of cemented carbide grades in petrochemical slurries. Part I - Electrochemical adsorption of CN^- , SCN^- 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
21	Electrochemical fabrication of nanoporous gold decorated with manganese oxide nanowires from eutectic urea/choline chloride ionic liquid. Part III $\hat{\omega}$ 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
22	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
23	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
24	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
25	Spectroelectrochemical study of the electro-oxidation of ethanol on WC-supported Pt $\hat{\omega}$ 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
26	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
27	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
28	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
29	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 $\text{K}[\text{Au}(\text{CN})_2]$. <i>Molecules</i> , 2012, 17, 7722-7736.	3.8	10
30	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
31	Investigation of Au electrodeposition from [BMP][TFSA] room-temperature ionic liquid containing $\text{K}[\text{Au}(\text{CN})_2]$ by in situ two-dimensional sum frequency generation spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2011, 661, 20-24.	3.8	15
32	Sum-Frequency Generation Vibrational Spectroscopy of an Extramolecular Chemical Bond. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 2770-2773.	4.6	12
33	Sum-frequency generation spectroscopy of biointerfaces. , 2011, , 279-321.		6
34	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
35	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
36	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

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37	Molecular functionalization of tantalum oxide surface towards development of apatite growth. <i>Applied Surface Science</i> , 2009, 255, 4765-4772.	6.1	11
38	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
39	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
40	Nonlinear optical properties of Ag nanoparticles embedded in Si ₃ N ₄ . <i>Europhysics Letters</i> , 2008, 83, 64004.	2.0	8
41	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
42	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
43	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
44	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
45	Comparative study of decyl thiocyanate and decanethiol self-assembled monolayers on gold substrates. <i>Surface Science</i> , 2006, 600, 4052-4057.	1.9	31
46	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
47	On the Protoporphyrin Monolayers Conformation. <i>ChemPhysChem</i> , 2006, 7, 569-571.	2.1	3
48	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
49	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
50	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
51	Highlighting functional groups in self-assembled overlayers with specific functionalized scanning tunnelling microscopy tips. <i>Nanotechnology</i> , 2005, 16, 2596-2600.	2.6	5
52	Probing Ligand-Protein Recognition with Sum-Frequency Generation Spectroscopy: The Avidin-Biotin Case. <i>ChemPhysChem</i> , 2004, 5, 1719-1725.	2.1	39
53	Sum-frequency generation spectroscopy applied to model biosensors systems. <i>Thin Solid Films</i> , 2004, 464-465, 373-378.	1.8	24
54	Potential-dependent structure of the interfacial water on the gold electrode. <i>Surface Science</i> , 2004, 573, 11-16.	1.9	88

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55	Methanol dissociative adsorption on Pt(100) as studied by nonlinear vibrational spectroscopy. Journal of Electroanalytical Chemistry, 2004, 563, 9-14.	3.8	19
56	Molecule orientation in self-assembled monolayers determined by infrared-visible sum-frequency generation spectroscopy. Applied Surface Science, 2004, 237, 445-450.	6.1	12
57	Orientation of Thiophenol Adsorbed on Silver Determined by Nonlinear Vibrational Spectroscopy of the Carbon Skeleton. Journal of Physical Chemistry B, 2004, 108, 16135-16138.	2.6	32
58	Picosecond laser for performance of efficient nonlinear spectroscopy from 10 to 21 Åµm. Optics Letters, 2004, 29, 274.	3.3	14
59	Electronic and Molecular Properties of an Adsorbed Protein Monolayer Probed by Two-Color Sum-Frequency Generation Spectroscopy. Langmuir, 2004, 20, 7201-7207.	3.5	60
60	Self-assembled organic and fullerene monolayers characterisation by two-colour SFG spectroscopy: a pathway to meet doubly resonant SFG process. Applied Surface Science, 2004, 237, 463-469.	6.1	9
61	Self-assembled organic and fullerene monolayers characterisation by two-colour SFG spectroscopy: a pathway to meet doubly resonant SFG process. Applied Surface Science, 2004, 237, 463-469.	6.1	2
62	Electron-phonon couplings at C60 interfaces: a case study by two-color, infrared-visible sum-frequency generation spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2003, 129, 139-147.	1.7	27
63	Probing a molecular electronic transition by two-colour sum-frequency generation spectroscopy. Applied Surface Science, 2003, 212-213, 797-803.	6.1	14
64	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. Surface Science, 2002, 502-503, 203-207.	1.9	25
65	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. Surface Science, 2002, 502-503, 261-267.	1.9	31
66	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. Applied Physics B: Lasers and Optics, 2002, 74, 621-625.	2.1	72
67	Étude par spectroscopie de génération de la fréquence somme de l'interface méthanol-platine. European Physical Journal Special Topics, 2002, 12, 241-242.	0.2	1
68	Study of the water/poly(ethylene glycol) interface by IR-visible sum-frequency generation spectroscopy. Chemical Physics Letters, 2001, 333, 327-331.	2.6	71
69	Pumping picosecond optical parametric oscillators by a pulsed Nd:YAG laser mode locked using a nonlinear mirror. Applied Physics Letters, 2001, 79, 1945-1947.	3.3	54
70	What can we learn from the non-linear optical investigation of the liquid-solid interface?. Journal of Electroanalytical Chemistry, 1999, 473, 25-33.	3.8	20
71	In Situ Monitoring of the Self-Assembly of p-Nitroanilino Terminated Thiol on Gold: a Study by IR-vis Sum-Frequency Generation Spectroscopy. Physica Status Solidi A, 1999, 175, 129-136.	1.7	16
72	Sum-frequency generation characterization of the molecular recognition of avidin by biocytin films adsorbed on metallic substrates. , 0, , .		0