Alastair W Wark

List of Publications by Year
in descending order

59 papers	3,325 citations	186265 28 h-index	149698 56 g-index
60 all docs	60 docs citations	60 times ranked	4602 citing authors

#	Article	IF	Citations
1	Attomole Microarray Detection of MicroRNAs by Nanoparticle-Amplified SPR Imaging Measurements of Surface Polyadenylation Reactions. Journal of the American Chemical Society, 2006, 128, 14044-14046.	13.7	429
2	Preparation of silver nanoparticles in solution from a silver salt by laser irradiation. Chemical Communications, 2002, , 792-793.	4.1	265
3	Multiplexed Detection Methods for Profiling MicroRNA Expression in Biological Samples. Angewandte Chemie - International Edition, 2008, 47, 644-652.	13.8	253
4	Long-Range Surface Plasmon Resonance Imaging for Bioaffinity Sensors. Analytical Chemistry, 2005, 77, 3904-3907.	6.5	241
5	Real-Time Surface Plasmon Resonance Imaging Measurements for the Multiplexed Determination of Protein Adsorption/Desorption Kinetics and Surface Enzymatic Reactions on Peptide Microarrays. Analytical Chemistry, 2004, 76, 5677-5684.	6.5	181
6	Enzymatically Amplified Surface Plasmon Resonance Imaging Detection of DNA by Exonuclease III Digestion of DNA Microarrays. Analytical Chemistry, 2005, 77, 5096-5100.	6.5	160
7	Single-Nucleotide Polymorphism Genotyping by Nanoparticle-Enhanced Surface Plasmon Resonance Imaging Measurements of Surface Ligation Reactions. Analytical Chemistry, 2006, 78, 3158-3164.	6.5	151
8	Nanoparticle-Enhanced Surface Plasmon Resonance Detection of Proteins at Attomolar Concentrations: Comparing Different Nanoparticle Shapes and Sizes. Analytical Chemistry, 2012, 84, 1702-1707.	6.5	148
9	Microarray methods for protein biomarker detection. Analyst, The, 2008, 133, 975.	3.5	134
10	Creating Advanced Multifunctional Biosensors with Surface Enzymatic Transformations. Langmuir, 2006, 22, 5241-5250.	3.5	103
11	Nanoparticle-Enhanced Diffraction Gratings for Ultrasensitive Surface Plasmon Biosensing. Analytical Chemistry, 2007, 79, 6697-6701.	6.5	88
12	Phenotypic analysis of extracellular vesicles: a review on the applications of fluorescence. Journal of Extracellular Vesicles, 2020, 9, 1710020.	12.2	79
13	Attomolar detection of protein biomarkers using biofunctionalized gold nanorods with surface plasmon resonance. Analyst, The, 2010, 135, 2528.	3.5	78
14	Ultrasensitive and Ultrawide Range Detection of a Cardiac Biomarker on a Surface Plasmon Resonance Platform. Analytical Chemistry, 2014, 86, 814-819.	6.5	78
15	Femtomolar Detection of Tau Proteins in Undiluted Plasma Using Surface Plasmon Resonance. Analytical Chemistry, 2016, 88, 7793-7799.	6.5	65
16	Surface Enzyme Kinetics for Biopolymer Microarrays:Â a Combination of Langmuir and Michaelisâ"Menten Concepts. Langmuir, 2005, 21, 4050-4057.	3.5	61
17	Controlled side-by-side assembly of gold nanorods and dye molecules into polymer-wrapped SERRS-active clusters. Chemical Communications, 2011, 47, 3757.	4.1	54
18	Tuning the interparticle distance in nanoparticle assemblies in suspension via DNA-triplex formation: correlation between plasmonic and surface-enhanced Raman scattering responses. Chemical Science, 2012, 3, 2262.	7.4	52

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19	Fabricating RNA Microarrays with RNAâ"DNA Surface Ligation Chemistry. Analytical Chemistry, 2005, 77, 7832-7837.	6.5	46
20	Synthesis and NIR optical properties of hollow gold nanospheres with LSPR greater than one micrometer. Nanoscale, 2013, 5, 765-771.	5.6	44
21	Dual Nanoparticle Amplified Surface Plasmon Resonance Detection of Thrombin at Subattomolar Concentrations. Analytical Chemistry, 2014, 86, 9824-9829.	6.5	44
22	Universal Surface-Enhanced Raman Tags: Individual Nanorods for Measurements from the Visible to the Infrared (514â€"1064 nm). ACS Nano, 2014, 8, 8600-8609.	14.6	44
23	Synthesis of size tunable monodispersed silver nanoparticles and the effect of size on SERS enhancement. Vibrational Spectroscopy, 2014, 71, 41-46.	2.2	41
24	Determination of Ribonuclease H Surface Enzyme Kinetics by Surface Plasmon Resonance Imaging and Surface Plasmon Fluorescence Spectroscopy. Analytical Chemistry, 2005, 77, 6528-6534.	6.5	40
25	Highly sensitive electrochemical detection of proteins using aptamer-coated gold nanoparticles and surface enzyme reactions. Analyst, The, 2012, 137, 2011.	3.5	39
26	De Novo Design of Functional Coassembling Organicâ€"Inorganic Hydrogels for Hierarchical Mineralization and Neovascularization. ACS Nano, 2021, 15, 11202-11217.	14.6	38
27	Covalent co-assembly between resilin-like polypeptide and peptide amphiphile into hydrogels with controlled nanostructure and improved mechanical properties. Biomaterials Science, 2020, 8, 846-857.	5.4	35
28	Dynamic Imaging Analysis of SERS-Active Nanoparticle Clusters in Suspension. Journal of Physical Chemistry C, 2010, 114, 18115-18120.	3.1	31
29	Mapping Localized Surface Plasmons within Silver Nanocubes Using Cathodoluminescence Hyperspectral Imaging. Journal of Physical Chemistry C, 2011, 115, 14031-14035.	3.1	27
30	Enhanced bioaffinity sensing using surface plasmons, surface enzyme reactions, nanoparticles and diffraction gratings. Analyst, The, 2008, 133, 596.	3.5	25
31	Bioaffinity detection of pathogens on surfaces. Journal of Industrial and Engineering Chemistry, 2010, 16, 169-177.	5.8	25
32	Lightâ€Triggered Inactivation of Enzymes with Photothermal Nanoheaters. Small, 2017, 13, 1603195.	10.0	20
33	Stabilized gold nanorodâ€"dye conjugates with controlled resonance coupling create bright surface-enhanced resonance Raman nanotags. Physical Chemistry Chemical Physics, 2013, 15, 18835.	2.8	19
34	Stimulated Raman scattering microscopy with spectral phasor analysis: applications in assessing drugâ€"cell interactions. Chemical Science, 2022, 13, 3468-3476.	7.4	19
35	Nanopropulsion by Biocatalytic Self-Assembly. ACS Nano, 2014, 8, 9580-9589.	14.6	17
36	Real-time assessment of nanoparticle-mediated antigen delivery and cell response. Lab on A Chip, 2016, 16, 3374-3381.	6.0	17

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37	Self-assembly of gold supraparticles with crystallographically aligned and strongly coupled nanoparticle building blocks for SERS and photothermal therapy. Chemical Science, 2016, 7, 6232-6237.	7.4	16
38	Tandem Femto- and Nanomolar Analysis of Two Protein Biomarkers in Plasma on a Single Mixed Antibody Monolayer Surface Using Surface Plasmon Resonance. Analytical Chemistry, 2017, 89, 12562-12568.	6.5	14
39	Optimized polydopamine coating and DNA conjugation onto gold nanorods for single nanoparticle bioaffinity measurements. Analyst, The, 2018, 143, 1635-1643.	3.5	13
40	Second Harmonic Scattering from Silver Nanocubes. Journal of Physical Chemistry C, 2018, 122, 17447-17455.	3.1	12
41	Gold Suprashells: Enhanced Photothermal Nanoheaters with Multiple Localized Surface Plasmon Resonances for Broadband Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2017, 121, 7404-7411.	3.1	11
42	Ultrasensitive and towards single molecule SERS: general discussion. Faraday Discussions, 2017, 205, 291-330.	3.2	11
43	Diagnostics of Spectrally Resolved Transient Absorption:â€‰ Surface Plasmon Resonance of Metal Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 18525-18532.	3.1	10
44	Surface Plasmon Resonance Imaging Measurements of Protein Interactions With Biopolymer Microarrays. , 2006, 328, 113-130.		8
45	Interfacial Velocity-Dependent Plasmon Damping in Colloidal Metallic Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 10836-10840.	3.1	6
46	Detection and quantification of warfarin in pharmaceutical dosage form and in spiked human plasma using surface enhanced Raman scattering. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 228, 117533.	3.9	5
47	Surface second harmonic generation in the characterization of anodic sulphide and oxide films on Hg1â^'xCdxTe (MCT). Journal of Electronic Materials, 1999, 28, 830-837.	2.2	4
48	Pure component contribution (PCCA) and synergy interval partial least squares (siPLS) algorithms for efficient resolution and quantification of overlapped signals; an application to novel antiviral tablets of daclatasvir, sofosbuvir and ribavirin. European Journal of Chemistry, 2019, 10, 350-357.	0.6	4
49	Second-harmonic generation in the characterization of surface effects in epitaxial layers. Semiconductor Science and Technology, 1998, 13, 1117-1122.	2.0	3
50	Measurement of the d36 coefficient of mercury cadmium telluride by reflection second harmonic generation. Journal of Applied Physics, 2001, 89, 306-310.	2.5	3
51	Utilizing ultrathin DNA/poly-lysine multilayer films to create liquid/liquid interfaces: spectroscopic characterization, interfacial reactions and nanoparticle adsorption. Journal of Physics Condensed Matter, 2007, 19, 375107.	1.8	3
52	Gel electrophoretic analysis of differently shaped interacting and non-interacting bioconjugated nanoparticles. RSC Advances, 2016, 6, 109613-109619.	3.6	3
53	In-situ evaluation of the anodic oxide growth on Hg1â^'xCdxTe (MCT) using ellipsometry and second harmonic generation. Journal of Electronic Materials, 2000, 29, 648-653.	2.2	2
54	A universal polymer shell-isolated nanoparticle (SHIN) design for single particle spectro-electrochemical SERS sensing using different core shapes. Nanoscale Advances, 2021, 3, 6415-6426.	4.6	2

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55	Interference between second harmonic waves in an anodically grown cadmium sulphide thin film. Electrochimica Acta, 1999, 45, 623-628.	5.2	1
56	Second harmonic generation by reflection from vicinal surfaces of epitaxial layers of cadmium mercury telluride. Journal Physics D: Applied Physics, 2001, 34, 1712-1716.	2.8	1
57	Stability-indicating micellar enhanced spectro-fluorometric determination of Daclatasvir in its tablet and spiked human plasma. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 211, 52-58.	3.9	1
58	Ultrasensitive Microarray Detection of DNA using Enzymatically Amplified SPR Imaging. , 0, , 169-194.		1
59	Hyper Rayleigh scattering from gold nanorods : The shape effect for centrosymmetric nanoparticles. , 2014, , .		0