# Arnaud Buhot

List of Publications by Year
in descending order

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|---|---|---|---|
| 88 papers | 1,984 citations | 236925 25 h-index | 276875 41 g-index |
| 90 all docs | 90 docs citations | 90 times ranked | 2115 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Discrimination of deletion to point cytokine mutants based on an array of cross-reactive receptors mimicking protein recognition by heparan sulfate. Analytical and Bioanalytical Chemistry, 2022, 414, 551-559. | 3.7 | 0 |
| 2 | Development of an Innovative Quantification Assay Based on Aptamer Sandwich and Isothermal Dumbbell Exponential Amplification. Analytical Chemistry, 2022, 94, 3376-3385. | 6.5 | 15 |
| 3 | Surfactant-like Peptide Self-Assembled into Hybrid Nanostructures for Electronic Nose Applications. ACS Nano, 2022, 16, 4444-4457. | 14.6 | 8 |
| 4 | Kinetics of Isothermal Dumbbell Exponential Amplification: Effects of Mix Composition on LAMP and Its Derivatives. Biosensors, 2022, 12, 346. | 4.7 | 7 |
| 5 | Recent advances in cardiac biomarkers detection: From commercial devices to emerging technologies. Journal of Pharmaceutical and Biomedical Analysis, 2021, 194, 113777. | 2.8 | 20 |
| 6 | Melting Curve Analysis of Aptachains: Adenosine Detection with Internal Calibration. Biosensors, 2021, 11, 112. | 4.7 | 4 |
| 7 | Contactless Bioâ€Electrofunctionalization of Planar Micropores. Advanced Materials Technologies, 2021, 6, 2001154. | 5.8 | 0 |
| 8 | Discrimination of Î±-Thrombin and Î³-Thrombin Using Aptamer-Functionalized Nanopore Sensing. Analytical Chemistry, 2021, 93, 7889-7897. | 6.5 | 22 |
| 9 | Bipolar Electrochemiluminescence Imaging: A Way to Investigate the Passivation of Silicon Surfaces. ChemPhysChem, 2021, 22, 1094-1100. | 2.1 | 6 |
| 10 | An Overview of Artificial Olfaction Systems with a Focus on Surface Plasmon Resonance for the Analysis of Volatile Organic Compounds. Biosensors, 2021, 11, 244. | 4.7 | 27 |
| 11 | Synergistic or Antagonist Effects of Different UV Ranges Analyzed by the Combination Index: Application to DNA Photoproducts. Photochemistry and Photobiology, 2021, , . | 2.5 | 0 |
| 12 | Development of an optoelectronic nose based on surface plasmon resonance imaging with peptide and hairpin DNA for sensing volatile organic compounds. Sensors and Actuators B: Chemical, 2020, 303, 127188. | 7.8 | 25 |
| 13 | Sensing with Nanopores and Aptamers: A Way Forward. Sensors, 2020, 20, 4495. | 3.8 | 30 |
| 14 | Bio-Inspired Strategies for Improving the Selectivity and Sensitivity of Artificial Noses: A Review. Sensors, 2020, 20, 1803. | 3.8 | 33 |
| 15 | Multiplexed Remote SPR Detection of Biological Interactions through Optical Fiber Bundles. Sensors, 2020, 20, 511. | 3.8 | 19 |
| 16 | Optical Index Prism Sensitivity of Surface Plasmon Resonance Imaging in Gas Phase: Experiment versus Theory. Journal of Physical Chemistry C, 2020, 124, 3756-3767. | 3.1 | 12 |
| 17 | Improvement of sensitivity of surface plasmon resonance imaging for the gas-phase detection of volatile organic compounds. Talanta, 2020, 212, 120777. | 5.5 | 11 |
| 18 | Wireless Enhanced Electrochemiluminescence at a Bipolar Microelectrode in a Solid-State Micropore. Journal of the Electrochemical Society, 2020, 167, 137509. | 2.9 | 7 |

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|---|---------|-----|-----------|
| 19 | Surface plasmon resonance imaging-based optoelectronic nose: fundamental study on the effects of temperature and humidity. , 2020, , . | | 1 |
| 20 | Enhancing the sensitivity of plasmonic optical fiber sensors by analyzing the distribution of the optical modes intensity. Optics Express, 2020, 28, 28740. | 3.4 | 4 |
| 21 | Odorant-binding protein-based optoelectronic tongue and nose for sensing volatile organic compounds. , 2019, , . | | 1 |
| 22 | Polarization Induced Electro-Functionalization of Pore Walls: A Contactless Technology. Biosensors, 2019, 9, 121. | 4.7 | 5 |
| 23 | Enhanced Bipolar Electrochemistry at Solid-State Micropores: Demonstration by Wireless Electrochemiluminescence Imaging. Analytical Chemistry, 2019, 91, 8900-8907. | 6.5 | 26 |
| 24 | Highly parallel remote SPR detection of DNA hybridization by micropillar optical arrays. Analytical and Bioanalytical Chemistry, 2019, 411, 2249-2259. | 3.7 | 14 |
| 25 | Opto-electronic nose - temperature and VOC concentration effects on the equilibrium response. , 2019, , . | | 2 |
| 26 | Highly sensitive olfactory biosensors for the detection of volatile organic compounds by surface plasmon resonance imaging. Biosensors and Bioelectronics, 2019, 123, 230-236. | 10.1 | 41 |
| 27 | Highly-Selective Optoelectronic Nose Based on Surface Plasmon Resonance Imaging for Sensing Volatile Organic Compounds. Analytical Chemistry, 2018, 90, 9879-9887. | 6.5 | 65 |
| 28 | Red Blood Cell Agglutination for Blood Typing Within Passive Microfluidic Biochips. High-Throughput, 2018, 7, 10. | 4.4 | 19 |
| 29 | Linear Chain Formation of Split-Aptamer Dimers on Surfaces Triggered by Adenosine. Langmuir, 2017, 33, 12785-12792. | 3.5 | 8 |
| 30 | Development of a novel multiplexed optoelectronic nose for analysis of volatile organic compounds. , 2017, , . | | 3 |
| 31 | Small Molecule SPR Imaging Detection from Split Aptamer Microarrays. Procedia Technology, 2017, 27, 6-7. | 1.1 | 3 |
| 32 | D-dimer Quantification from Autologous Red Blood Cells Agglutination by a Lens-free Imaging Device. Procedia Technology, 2017, 27, 167-168. | 1.1 | 1 |
| 33 | Real time observation and automated measurement of red blood cells agglutination inside a passive microfluidic biochip containing embedded reagents. Biosensors and Bioelectronics, 2017, 93, 110-117. | 10.1 | 19 |
| 34 | A Versatile Electronic Tongue Based on Surface Plasmon Resonance Imaging and Cross-Reactive Sensor Arraysâ€"A Mini-Review. Sensors, 2017, 17, 1046. | 3.8 | 16 |
| 35 | Polymer translocation through nano-pores in vibrating thin membranes. Scientific Reports, 2016, 6, 38558. | 3.3 | 28 |
| 36 | A nanoparticle-based thermo-dynamic aptasensor for small molecule detection. Nanoscale, 2016, 8, 16947-16954. | 5.6 | 21 |

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| 37 | On the use of aptamer microarrays as a platform for the exploration of human prothrombin/thrombin conversion. Analytical Biochemistry, 2015, 473, 66-71. | 2.4 | 4 |
| 38 | Gold Nanoparticles Surface Plasmon Resonance Enhanced Signal for the Detection of Small Molecules on Split-Aptamer Microarrays (Small Molecules Detection from Split-Aptamers). Microarrays (Basel, Switzerland), 2015, 4, 41-52. | 1.4 | 34 |
| 39 | Surface plasmon resonance imaging of the conversion of clustered DNA lesions into double strand breaks by Fpg protein. AIMS Materials Science, 2015, 2, 473-483. | 1.4 | 0 |
| 40 | Electronic Tongue Generating Continuous Recognition Patterns for Protein Analysis. Journal of Visualized Experiments, 2014, , 51901. | 0.3 | 3 |
| 41 | Relationship between humoral response against hepatitis C virus and disease overcome. SpringerPlus, 2014, 3, 56. | 1.2 | 4 |
| 42 | SPR imaging based electronic tongue via landscape images for complex mixture analysis. Talanta, 2014, 130, 49-54. | 5.5 | 13 |
| 43 | Landscapes of Taste by a Novel Electronic Tongue for the Analysis of Complex Mixtures. Sensor Letters, 2014, 12, 1059-1064. | 0.4 | 6 |
| 44 | Physico-chemical foundations underpinning microarray and next-generation sequencing experiments. Nucleic Acids Research, 2013, 41, 2779-2796. | 14.5 | 49 |
| 45 | Real time monitoring of thrombin interactions with its aptamers: Insights into the sandwich complex formation. Biosensors and Bioelectronics, 2013, 40, 186-192. | 10.1 | 36 |
| 46 | Solution-Phase vs Surface-Phase Aptamer-Protein Affinity from a Label-Free Kinetic Biosensor. PLoS ONE, 2013, 8, e75419. | 2.5 | 50 |
| 47 | Polarization-Induced Local Pore-Wall Functionalization for Biosensing: From Micropore to Nanopore. Analytical Chemistry, 2012, 84, 3254-3261. | 6.5 | 23 |
| 48 | Continuous Evolution Profiles for Electronic‐Tongue‐Based Analysis. Angewandte Chemie - International Edition, 2012, 51, 10394-10398. | 13.8 | 18 |
| 49 | Temperature scans/cycles for the detection of low abundant DNA point mutations on microarrays. Biosensors and Bioelectronics, 2012, 31, 554-557. | 10.1 | 11 |
| 50 | TOX4 and its binding partners recognize DNA adducts generated by platinum anticancer drugs. Archives of Biochemistry and Biophysics, 2011, 507, 296-303. | 3.0 | 36 |
| 51 | On chip real time monitoring of B-cells hybridoma secretion of immunoglobulin. Biosensors and Bioelectronics, 2011, 26, 2728-2732. | 10.1 | 19 |
| 52 | Effects of formamide on the thermal stability of DNA duplexes on biochips. Analytical Biochemistry, 2010, 397, 132-134. | 2.4 | 40 |
| 53 | Salt Concentration Effects on Equilibrium Melting Curves from DNA Microarrays. Biophysical Journal, 2010, 99, 1886-1895. | 0.5 | 52 |
| 54 | Viscosity and Renewal Time of Polymer Reptation Models. Macromolecules, 2010, 43, 9155-9159. | 4.8 | 1 |

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| 55 | Point Mutation Detection by Surface Plasmon Resonance Imaging Coupled with a Temperature Scan Method in a Model System. Analytical Chemistry, 2008, 80, 1049-1057. | 6.5 | 47 |
| 56 | SPR imaging for label-free multiplexed analyses of DNA N-glycosylase interactions with damaged DNA duplexes. Analyst, The, 2008, 133, 1036. | 3.5 | 27 |
| 57 | Stretching of Homopolymeric RNA Reveals Single-Stranded Helices and Base-Stacking. Physical Review Letters, 2007, 98, 158103. | 7.8 | 133 |
| 58 | Temperature Effects on DNA Chip Experiments from Surface Plasmon Resonance Imaging: Isotherms and Melting Curves. Biophysical Journal, 2007, 92, 935-946. | 0.5 | 87 |
| 59 | Hybridization at a Surface:Â The Role of Spacers in DNA Microarrays. Langmuir, 2006, 22, 11290-11304. | 3.5 | 45 |
| 60 | On the hybridization isotherms of DNA microarrays: the Langmuir model and its extensions. Journal of Physics Condensed Matter, 2006, 18, S463-S490. | 1.8 | 85 |
| 61 | Exact curvilinear diffusion coefficients in the repton model. European Physical Journal E, 2005, 18, 239-244. | 1.6 | 9 |
| 62 | Cluster algorithm for nonadditive hard-core mixtures. Journal of Chemical Physics, 2005, 122, 024105. | 3.0 | 21 |
| 63 | Brush Effects on DNA Chips: Thermodynamics, Kinetics, and Design Guidelines. Biophysical Journal, 2005, 89, 796-811. | 0.5 | 89 |
| 64 | Hybridization Isotherms of DNA Microarrays and the Quantification of Mutation Studies. Clinical Chemistry, 2004, 50, 2254-2262. | 3.2 | 16 |
| 65 | Effects of stacking on the configurations and elasticity of single-stranded nucleic acids. Physical Review E, 2004, 70, 020902. | 2.1 | 39 |
| 66 | Sensitivity, Specificity, and the Hybridization Isotherms of DNA Chips. Biophysical Journal, 2004, 86, 718-730. | 0.5 | 127 |
| 67 | Kovacs effect and fluctuationâ€"dissipation relations in 1D kinetically constrained models. Journal of Physics A, 2003, 36, 12367-12377. | 1.6 | 20 |
| 68 | Simple strong glass forming models: mean-field solution with activation. Journal of Physics A, 2003, 36, 307-328. | 1.6 | 9 |
| 69 | Rigorous Bounds to Retarded Learning. Physical Review Letters, 2002, 88, 099801. | 7.8 | 1 |
| 70 | Fluctuation-Dissipation Relations in the Activated Regime of Simple Strong-Glass Models. Physical Review Letters, 2002, 88, 225702. | 7.8 | 32 |
| 71 | Crossover from fragile to strong glassy behaviour in the spin facilitated chain model. Journal of Physics Condensed Matter, 2002, 14, 1499-1507. | 1.8 | 7 |
| 72 | Glassy behaviour in simple kinetically constrained models: topological networks, lattice analogues and annihilation-diffusion. Journal of Physics Condensed Matter, 2002, 14, 1673-1682. | 1.8 | 10 |

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|---|---------|-----|-----------|
| 73 | Extension Behavior of Helicogenic Polypeptides. Macromolecules, 2002, 35, 3238-3252. | 4.8 | 40 |
| 74 | Storage capacity of the Tilinglike Learning Algorithm. AIP Conference Proceedings, 2001, , . | 0.4 | 0 |
| 75 | Robust learning and generalization with support vector machines. Journal of Physics A, 2001, 34, 4377-4388. | 1.6 | 5 |
| 76 | Crossover from fragile to strong glassy behavior in kinetically constrained systems. Physical Review E, 2001, 64, 021505. | 2.1 | 25 |
| 77 | On the helix-coil transition in grafted chains. Europhysics Letters, 2000, 50, 756-761. | 2.0 | 11 |
| 78 | Storage capacity of a constructive learning algorithm. Journal of Physics A, 2000, 33, 1713-1727. | 1.6 | 4 |
| 79 | Buhot Replies:. Physical Review Letters, 2000, 84, 1841-1841. | 7.8 | 1 |
| 80 | Extension of Rod-Coil Multiblock Copolymers and the Effect of the Helix-Coil Transition. Physical Review Letters, 2000, 84, 2160-2163. | 7.8 | 43 |
| 81 | Phase separation in two-dimensional additive mixtures. Physical Review E, 1999, 59, 2939-2941. | 2.1 | 25 |
| 82 | Packing Fraction at Phase-Separation Transition in Hard-Core Mixtures. Physical Review Letters, 1999, 82, 960-963. | 7.8 | 7 |
| 83 | Bayesian learning versus optimal learning. Physica A: Statistical Mechanics and Its Applications, 1998, 257, 85-98. | 2.6 | 3 |
| 84 | Numerical Solution of Hard-Core Mixtures. Physical Review Letters, 1998, 80, 3787-3790. | 7.8 | 65 |
| 85 | Phase transitions in optimal unsupervised learning. Physical Review E, 1998, 57, 3326-3333. | 2.1 | 13 |
| 86 | Finite size scaling of the Bayesian perceptron. Physical Review E, 1997, 55, 7434-7440. | 2.1 | 9 |
| 87 | Cost function and pattern distribution of the Bayesian perceptron. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 228, 73-78. | 2.1 | 3 |
| 88 | Stability of Peptide in Microarrays: A Challenge for High-Throughput Screening. , 0, , . | | 0 |