Menno Prins

List of Publications by Year
in descending order

58 papers	1,793 citations	394421 19 h-index	276875 41 g-index
58 all docs	58 docs citations	58 times ranked	2615 citing authors

#	Article	IF	Citations
1	Integrated lab-on-chip biosensing systems based on magnetic particle actuation â€“ a comprehensive review. Lab on A Chip, 2014, 14, 1966-1986.	6.0	219
2	Rapid integrated biosensor for multiplexed immunoassays based on actuated magnetic nanoparticles. Lab on A Chip, 2009, 9, 3504.	6.0	194
3	How Antibody Surface Coverage on Nanoparticles Determines the Activity and Kinetics of Antigen Capturing for Biosensing. Analytical Chemistry, 2014, 86, 8158-8166.	6.5	141
4	Stochastic Protein Interactions Monitored by Hundreds of Single-Molecule Plasmonic Biosensors. Nano Letters, 2015, 15, 3507-3511.	9.1	125
5	One-Step Homogeneous Magnetic Nanoparticle Immunoassay for Biomarker Detection Directly in Blood Plasma. ACS Nano, 2012, 6, 3134-3141.	14.6	117
6	Controlled torque on superparamagnetic beads for functional biosensors. Biosensors and Bioelectronics, 2009, 24, 1937-1941.	10.1	113
7	Continuous biomarker monitoring by particle mobility sensing with single molecule resolution. Nature Communications, 2018, 9, 2541.	12.8	70
8	The influence of covalent immobilization conditions on antibody accessibility on nanoparticles. Analyst, The, 2017, 142, 4247-4256.	3.5	60
9	Frequency-Selective Rotation of Two-Particle Nanoactuators for Rapid and Sensitive Detection of Biomolecules. Nano Letters, 2011, 11, 2017-2022.	9.1	53
10	Magneto-capillary valve for integrated purification and enrichment of nucleic acids and proteins. Lab on A Chip, 2013, 13, 106-118.	6.0	53
11	Disaggregation of microparticle clusters by induced magnetic dipoleâ€“dipole repulsion near a surface. Lab on A Chip, 2013, 13, 1394.	6.0	50
12	Rotating magnetic particles for lab-on-chip applications â€“ a comprehensive review. Lab on A Chip, 2019, 19, 919-933.	6.0	47
13	Magnetically controlled rotation and torque of uniaxial microactuators for lab-on-a-chip applications. Lab on A Chip, 2010, 10, 179-188.	6.0	36
14	Chaotic fluid mixing by alternating microparticle topologies to enhance biochemical reactions. Microfluidics and Nanofluidics, 2014, 16, 265-274.	2.2	36
15	Multivalent weak interactions enhance selectivity of interparticle binding. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22690-22697.	7.1	31
16	Particle Motion Analysis Reveals Nanoscale Bond Characteristics and Enhances Dynamic Range for Biosensing. ACS Nano, 2016, 10, 3093-3101.	14.6	27
17	Probing the Cell Membrane by Magnetic Particle Actuation and Euler AngleÂTracking. Biophysical Journal, 2012, 102, 698-708.	0.5	25
18	Continuous Small-Molecule Monitoring with a Digital Single-Particle Switch. ACS Sensors, 2020, 5, 1168-1176.	7.8	25

#	Article	IF	Citations
19	Antimicrobial stewardship, therapeutic drug monitoring and infection management in the ICU: results from the international A- TEAMICU survey. Annals of Intensive Care, 2021, 11, 131.	4.6	22
20	Quantification of Proteinâ€"Ligand Dissociation Kinetics in Heterogeneous Affinity Assays. Analytical Chemistry, 2012, 84, 9287-9294.	6.5	21
21	Multiplexed Continuous Biosensing by Single-Molecule Encoded Nanoswitches. Nano Letters, 2020, 20, 2296-2302.	9.1	20
22	Torsion Profiling of Proteins Using Magnetic Particles. Biophysical Journal, 2013, 104, 1073-1080.	0.5	19
23	Dynamic wetting: status and prospective of single particle based experiments and simulations. New Biotechnology, 2015, 32, 420-432.	4.4	19
24	Mechanical properties of single supramolecular polymers from correlative AFM and fluorescence microscopy. Polymer Chemistry, 2016, 7, 7260-7268.	3.9	19
25	Torsion Stiffness of a Protein Pair Determined by Magnetic Particles. Biophysical Journal, 2011, 100, 2262-2267.	0.5	17
26	Sensing Methodology for the Rapid Monitoring of Biomolecules at Low Concentrations over Long Time Spans. ACS Sensors, 2021, 6, 4471-4481.	7.8	17
27	Transportation, dispersion and ordering of dense colloidal assemblies by magnetic interfacial rotaphoresis. Lab on A Chip, 2015, 15, 2864-2871.	6.0	15
28	Analysis of individual magnetic particle motion near a chip surface. Journal of Applied Physics, 2009, 105, 104905.	2.5	14
29	Accelerated Particle-Based Target Captureâ€"The Roles of Volume Transport and Near-Surface Alignment. Journal of Physical Chemistry B, 2013, 117, 1210-1218.	2.6	13
30	How Reactivity Variability of Biofunctionalized Particles Is Determined by Superpositional Heterogeneities. ACS Nano, 2021, 15, 1331-1341.	14.6	13
31	Interparticle Capillary Forces at a Fluidâ€"Fluid Interface with Strong Polymer-Induced Aging. Langmuir, 2017, 33, 696-705.	3.5	12
32	Click-Coupling to Electrostatically Grafted Polymers Greatly Improves the Stability of a Continuous Monitoring Sensor with Single-Molecule Resolution. ACS Sensors, 2021, 6, 1980-1986.	7.8	12
33	Real-Time Monitoring of Biomolecules: Dynamic Response Limits of Affinity-Based Sensors. ACS Sensors, 2022, 7, 286-295.	7.8	12
34	Multibody interactions of actuated magnetic particles used as fluid drivers in microchannels. Microfluidics and Nanofluidics, 2010, 9, 357-364.	2.2	11
35	Accurate quantification of magnetic particle properties by intra-pair magnetophoresis for nanobiotechnology. Applied Physics Letters, 2013, 103, 043704.	3.3	11
36	Self-organized twinning of actuated particles for microfluidic pumping. Applied Physics Letters, 2008, 92, 024104.	3.3	8

#	Article	IF	Citations
37	Mobility and height detection of particle labels in an optical evanescent wave biosensor with single-label resolution. Journal Physics D: Applied Physics, 2010, 43, 155501.	2.8	8
38	Dynamics of magnetic particles near a surface: Model and experiments on field-induced disaggregation. Physical Review E, 2014, 89, 042306.	2.1	8
39	Quantification of platelet-surface interactions in real-time using intracellular calcium signaling. Biomedical Microdevices, 2014, 16, 217-227.	2.8	7
40	Interfacial rheometry of polymer at a waterâ€“oil interface by intra-pair magnetophoresis. Soft Matter, 2016, 12, 5551-5562.	2.7	7
41	Surfactants modify the torsion properties of proteins: a single molecule study. New Biotechnology, 2015, 32, 441-449.	4.4	6
42	How Actuated Particles Effectively Capture Biomolecular Targets. Analytical Chemistry, 2017, 89, 3402-3410.	6.5	6
43	Nanoscale Interparticle Distance within Dimers in Solution Measured by Light Scattering. Langmuir, 2018, 34, 179-186.	3.5	6
44	Rate of Dimer Formation in Stable Colloidal Solutions Quantified Using an Attractive Interparticle Force. Langmuir, 2019, 35, 10533-10541.	3.5	6
45	Distance within colloidal dimers probed by rotation-induced oscillations of scattered light. Optics Express, 2016, 24, A123.	3.4	5
46	Single-Bond Association Kinetics Determined by Tethered Particle Motion: Concept and Simulations. Biophysical Journal, 2016, 111, 1612-1620.	0.5	5
47	Real-Time Detection of State Transitions in Stochastic Signals from Biological Systems. ACS Omega, 2021, 6, 17726-17733.	3.5	5
48	Bond characterization by detection and manipulation of particle mobility in an optical evanescent field biosensor. Journal Physics D: Applied Physics, 2010, 43, 385501.	2.8	4
49	Interactions between Protein Coated Particles and Polymer Surfaces Studied with the Rotating Particles Probe. Langmuir, 2012, 28, 8149-8155.	3.5	4
50	The influence of inhomogeneous adhesion on the detachment dynamics of adhering cells. European Biophysics Journal, 2013, 42, 419-426.	2.2	3
51	Evanescent Field Biosensor Using Polymer Slab Waveguide-Based Cartridges for the Optical Detection of Nanoparticles. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 319-326.	2.9	3
52	Conformation switching of single native proteins revealed by nanomechanical probing without a pulling force. Nanoscale, 2019, 11, 19933-19942.	5.6	3
53	Inter-particle biomolecular reactivity tuned by surface crowders. Nanoscale, 2020, 12, 14605-14614.	5.6	3
54	Ara h 1 proteinâ€“antibody dissociation study: evidence for binding inhomogeneities on a molecular scale. New Biotechnology, 2015, 32, 458-466.	4.4	2

#	Article	IF	Citations
55	Single-Dimer Formation Rate Reveals Heterogeneous Particle Surface Reactivity. Langmuir, 2019, 35, 14272-14281.	3.5	2
56	Reversionary rotation of actuated particles for microfluidic near-surface mixing. Applied Physics Letters, 2011, 99, 024103.	3.3	1
57	Measurement of platelet responsiveness using antibody-coated magnetic beads for lab-on-a-chip applications. Platelets, 2012, 23, 626-632.	2.3	1
58	Molecular interference in antibodyâ€"antigen interaction studied with magnetic force immunoassay. New Biotechnology, 2015, 32, 450-457.	4.4	1