# Makoto Suzuki

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 71 papers | 970 citations | 430442 18 h-index | 476904 29 g-index |
| 73 all docs | 73 docs citations | 73 times ranked | 810 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hyper-Mobile Water Is Induced around Actin Filaments. Biophysical Journal, 2003, 85, 3154-3161. | 0.2 | 92 |
| 2 | Hydration Study of Proteins in Solution by Microwave Dielectric Analysis. The Journal of Physical Chemistry, 1996, 100, 7279-7282. | 2.9 | 73 |
| 3 | Hydrophobic Hydration Analysis on Amino Acid Solutions by the Microwave Dielectric Method. Journal of Physical Chemistry B, 1997, 101, 3839-3845. | 1.2 | 55 |
| 4 | Hydration Study of Globular Proteins by Microwave Dielectric Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 12622-12627. | 1.2 | 52 |
| 5 | Crucial influences of K33/K11 ratio on viewing angle of display mode using a bendâ€alignment liquidâ€crystal cell with a compensator. Applied Physics Letters, 1996, 68, 1461-1463. | 1.5 | 50 |
| 6 | Myosin-induced volume increase of the hyper-mobile water surrounding actin filaments. Biochemical and Biophysical Research Communications, 2004, 322, 340-346. | 1.0 | 45 |
| 7 | A statistical-mechanical analysis on the hypermobile water around a large solute with high surface charge density. Journal of Chemical Physics, 2009, 130, 014707. | 1.2 | 33 |
| 8 | Membrane Translocation and Organelle-Selective Delivery Steered by Polymeric Zwitterionic Nanospheres. Biomacromolecules, 2016, 17, 1523-1535. | 2.6 | 32 |
| 9 | Hydration of Apomyoglobin in Native, Molten Globule, and Unfolded States by Using Microwave Dielectric Spectroscopy. Biophysical Journal, 2002, 82, 418-425. | 0.2 | 31 |
| 10 | Amphoteric Polyvinyl Alcohol Hydrogel and Electrohydrodynamic Control Method for Artificial Muscles. , 1991, , 221-236. | | 29 |
| 11 | Entropic potential field formed for a linear-motor protein near a filament: Statistical-mechanical analyses using simple models. Journal of Chemical Physics, 2010, 133, 045103. | 1.2 | 27 |
| 12 | Hydration properties of adenosine phosphate series as studied by microwave dielectric spectroscopy. Biophysical Chemistry, 2011, 154, 1-7. | 1.5 | 25 |
| 13 | Spatial-Decomposition Analysis of Energetics of Ionic Hydration. Journal of Physical Chemistry B, 2016, 120, 1813-1821. | 1.2 | 25 |
| 14 | Selfâ€Assembled Microspheres Driven by Dipoleâ€Dipole Interactions: UCSTâ€Type Transition in Water. Macromolecular Rapid Communications, 2014, 35, 103-108. | 2.0 | 23 |
| 15 | Amphoteric poly(vinyl alcohol) hydrogel as a material of artificial muscle.. Kobunshi Ronbunshu, 1989, 46, 603-611. | 0.2 | 22 |
| 16 | Cooperative structural change of actin filaments interacting with activated myosin motor domain, detected with copolymers of pyrene-labeled actin and acto-S1 chimera protein. Biochemical and Biophysical Research Communications, 2005, 337, 1185-1191. | 1.0 | 22 |
| 17 | Measurement of the Dielectric Relaxation Property of Waterâ˜'Ion Loose Complex in Aqueous Solutions of Salt at Low Concentrations. Journal of Physical Chemistry A, 2008, 112, 10801-10806. | 1.1 | 21 |
| 18 | Comparative Study on the Properties of Hydration Water of Na- and K-Halide Ions by Raman OH/OD-stretching Spectroscopy and Dielectric Relaxation Data. Journal of Physical Chemistry A, 2014, 118, 2922-2930. | 1.1 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Water-Induced Crystallization of Hydrogels. Langmuir, 2002, 18, 965-967. | 1.6 | 20 |
| 20 | Molecular dynamics study of fast dielectric relaxation of water around a molecular-sized ion. Journal of Chemical Physics, 2012, 137, 224502. | 1.2 | 19 |
| 21 | Fast and effective mitochondrial delivery of Ï‰-Rhodamine-B-polysulfobetaine-PEG copolymers. Scientific Reports, 2018, 8, 1128. | 1.6 | 19 |
| 22 | Relative stabilities of metastable states of convecting charged-fluid systems by computer simulation. Physical Review A, 1983, 27, 478-489. | 1.0 | 17 |
| 23 | Octane/Water Interfacial Tension Calculation by Molecular Dynamics Simulation. Journal of Colloid and Interface Science, 1996, 180, 188-192. | 5.0 | 17 |
| 24 | Hydration analysis of Pseudomonas aeruginosa cytochrome c551 upon acid unfolding by dielectric relaxation spectroscopy. Biophysical Chemistry, 2010, 151, 160-169. | 1.5 | 16 |
| 25 | Drastic Compensation of Electronic and Solvation Effects on ATP Hydrolysis Revealed through Large-Scale QM/MM Simulations Combined with a Theory of Solutions. Journal of Physical Chemistry B, 2017, 121, 2279-2287. | 1.2 | 16 |
| 26 | Hydration-State Change of Horse Heart Cytochrome c Corresponding to Trifluoroacetic-Acid-Induced Unfolding. Biophysical Journal, 2013, 104, 163-172. | 0.2 | 13 |
| 27 | Hyper-mobility of water around actin filaments revealed using pulse-field gradient spin-echo 1H NMR and fluorescence spectroscopy. Biochemical and Biophysical Research Communications, 2011, 404, 985-990. | 1.0 | 12 |
| 28 | What is â€œhypermobileâ€• water?: detected in alkali halide, adenosine phosphate, and F-actin solutions by high-resolution microwave dielectric spectroscopy. Pure and Applied Chemistry, 2014, 86, 181-189. | 0.9 | 12 |
| 29 | Nonlinear oscillations of a polarâ€liquid column under unipolarâ€ion injection. Journal of Applied Physics, 1980, 51, 5667-5674. | 1.1 | 11 |
| 30 | Temperature-responsive telechelic dipalmitoylglyceryl poly(N-isopropylacrylamide) vesicles: real-time morphology observation in aqueous suspension and in the presence of giant liposomes. Chemical Communications, 2014, 50, 8350-8352. | 2.2 | 11 |
| 31 | Microscale evaluation of the viscoelastic properties of polymer gel for artificial muscles using transmission acoustic microscopy. Journal of Applied Physics, 1993, 74, 6407-6412. | 1.1 | 10 |
| 32 | Strong Dependence of Hydration State of F-Actin on the Bound Mg2+/Ca2+ Ions. Journal of Physical Chemistry B, 2016, 120, 6917-6928. | 1.2 | 10 |
| 33 | Propagating transitions of electroconvection. Physical Review A, 1985, 31, 2548-2555. | 1.0 | 9 |
| 34 | Design and functional analysis of actomyosin motor domain chimera proteins. Biochemical and Biophysical Research Communications, 2002, 299, 825-831. | 1.0 | 9 |
| 35 | Anion-Dependence of Fast Relaxation Component in Na-, K-Halide Solutions at Low Concentrations Measured by High-Resolution Microwave Dielectric Spectroscopy. Journal of Physical Chemistry A, 2013, 117, 4851-4862. | 1.1 | 9 |
| 36 | Physical driving force of actomyosin motility based on the hydration effect. Cytoskeleton, 2017, 74, 512-527. | 1.0 | 9 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 37 | Potential of mean force calculation of solute molecules in water by a modified solvent-accessible surface method. Journal of Computational Chemistry, 1997, 18, 1656-1663. | 1.5 | 8 |
| 38 | Trading polymeric microspheres: Exchanging DNA molecules via microsphere interaction. Colloids and Surfaces B: Biointerfaces, 2015, 128, 94-99. | 2.5 | 8 |
| 39 | Electric Charging of Particles Near the Corona Glow Region in Air-CO2 Mixtures. IEEE Transactions on Industry Applications, 1979, IA-15, 276-287. | 3.3 | 7 |
| 40 | Assessment of the VDW interaction converting DMAPS from the thermal-motion form to the hydrogen-bonded form. Scientific Reports, 2019, 9, 13104. | 1.6 | 6 |
| 41 | New concept of a hydrophobicity motor based on local hydrophobicity transition of functional polymer substrate for micro/nano machines. Polymer Gels and Networks, 1994, 2, 279-287. | 0.6 | 4 |
| 42 | Modulation of actomyosin motor function by 1-hexanol. Journal of Muscle Research and Cell Motility, 2004, 25, 77-85. | 0.9 | 4 |
| 43 | Evidence against essential roles for subdomain 1 of actin in actomyosin sliding movements. Biochemical and Biophysical Research Communications, 2005, 332, 474-481. | 1.0 | 3 |
| 44 | 1,3-Diethylurea-enhanced Mg-ATPase activity of skeletal muscle myosin with a converse effect on the sliding motility. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2620-2629. | 1.1 | 2 |
| 45 | Dynamic transformations of self-assembled polymeric microspheres induced by AC voltage and shear flow. RSC Advances, 2015, 5, 14851-14857. | 1.7 | 2 |
| 46 | Translational motion of a polymer gel microrod via electrically induced wave propagation. Materials Science and Engineering C, 1993, 1, 1-9. | 3.8 | 1 |
| 47 | Rotational motion of rhodamine 6G tethered to actin through oligo(ethylene glycol) linkers studied by frequency-domain fluorescence anisotropy. Biophysics and Physicobiology, 2015, 12, 87-102. | 0.5 | 1 |
| 48 | Novel Intermolecular Surface Force Unveils the Driving Force of the Actomyosin System. , 2018, , 257-274. | | 1 |
| 49 | Spatial Distribution of Ionic Hydration Energy and Hyper-Mobile Water. , 2018, , 33-52. | | 1 |
| 50 | Motor Protein Mechanism Coupled with Hydrophobic Hydration/Dehydration Cycle. , 2000, , 361-369. | | 1 |
| 51 | S3f1-3 Dielectric relaxation study of protein hydration and hyper-mobile water found around actin filaments(S3-f1: "Hydration Effects on Structure and Thermodynamics of) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 177 Td (Protein | 0.0 | 0 |
| 52 | 3P116 Effect of polymers as water structure maker or breaker on the visible light absorption spectra of phenol red solution(Water, hydration, and elctrolytes,Poster Presentations). Seibutsu Butsuri, 2007, 47, S232. | 0.0 | 0 |
| 53 | 3P118 Effect of NaCl on the hydration property of rigid charge PBDT, poly(biphenyl disulfonic acid) Tj ETQq1 1 0.784314 rgBT /Overlock 2007, 47, S232. | 0.0 | 0 |
| 54 | 1P156 Evidence of hyper-mobile water : Enhanced proton diffusion coefficients in F-actin solutions with bound myosin S1 by PFG-SE NMR(Muscle-muscle proteins and contraction,Oral Presentations). Seibutsu Butsuri, 2007, 47, S62. | 0.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | 3P119 Spatial variation analysis of dielectric relaxation property of water around solute(Water,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 0.0 | 0 |
| 56 | 3P-118 Hydration change in ATP hydrolysis system as measured by dielectric spectroscopy(The 46th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 0.0 | 0 |
| 57 | 2P-074 Hydration study of native and acid-unfolded cytochrome c551 of Pseudomonas aeruginosa by dielectric relaxation spectroscopy(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S86. | 0.0 | 0 |
| 58 | 3P-115 A theoretical analysis on the hyper-mobile water molecules near a solute(The 46th Annual) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 0.0 | 0 |
| 59 | 3P-137 Accelerated proton diffusion coefficient in actin aqueous solutions revealed by pulse field gradient spin echo proton NMR : Effect of actin polymerization(Molecular motor,The 47th Annual) Tj ETQq1 1 0.784314 rgBT /Overlock | 0.0 | 0 |
| 60 | 1P-110 Effect of hyper-mobile water on the swelling of polyelectrolyte hydrogels(Water, Hydration &) Tj ETQq0 0 0 rgBT /Overlock 10 Tf S80. | 0.0 | 0 |
| 61 | 1P-112 Dielectric hydration analysis of the negative entropy change for the neutralization of sodium dihydrogenphosphate solutions and application for ATP hydrolysis system(Water, Hydration &) Tj ETQq1 1 0.784314 rgBT /Overlock S81. | 0.0 | 0 |
| 62 | 3P051 Hydration study of trifluoroacetic acid-induced unfolding of horse heart cytochrome c by dielectric relaxation spectroscopy(Protein: Property,The 48th Annual Meeting of the Biophysical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4 | 0.0 | 0 |
| 63 | 2P200 Sequential measurement of ATP aqueous solution hydrolyzed by acto-S1 by dielectric relaxation spectroscopy(The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S117. | 0.0 | 0 |
| 64 | 3P133 Water mobility around actin is increased by the polymerization(Muscle,The 48th Annual Meeting) Tj ETQq0 0 0 rgBT /Overlock 10 | 0.0 | 0 |
| 65 | 1P148 1E1310 Hydration properties of ATP and phosphate : correlation with the thermodynamic parameters(Water & Hydration & Electrolyte,Oral Presentations,Oral Presentations,The 48th Annual) Tj ETQq1 1 0.784314 rgBT /Overlo | 0.0 | 0 |
| 66 | 2SB0925 Dynamic properties of water hydrating ATP(2SB Molecular Basis of ATP Energy,The 48th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 0.0 | 0 |
| 67 | 1SG-02 Unidirectional conformational changes of actin filaments : possible implications in force generation by myosin(1SG Asymmetryproduced by water and ATP,The 49th Annual Meeting of the) Tj ETQq1 1 0.784314 rgBT /Overlock | 0.0 | 0 |
| 68 | é‹å‹•ã,¿ãƒ³ãƒ'ã,¯ã«ãŠã'ã,‹åŒ–å¦åŠ›å¦å‰æ›ã®ãƒŠãƒŽãƒã,ªãƒ¡ã,«ãƒ‹ã,ºãƒ. Journal of the Society of Biomechanisms, 2003, 27, 83-86. | 0.0 | 0 |
| 69 | Rotational Mobility of Water around Muscle Proteins by High-Resolution Microwave Dielectric Spectroscopy and a Clue to Molecular Mechanism of Muscle Contraction. Seibutsu Butsuri, 2007, 47, 295-301. | 0.0 | 0 |
| 70 | 3P130 Hydration analysis of DNA/RNA oligomers by dielectric relaxation spectroscopy(Water &) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Butsuri, 2010, 50, S167-S168. | 0.0 | 0 |
| 71 | Biophysics Laboratories that Experienced the Higashinihon Earthquake. Seibutsu Butsuri, 2011, 51, 192-195. | 0.0 | 0 |