

Steven G. Boxer Festschrift Virtual Special Issue		
Title	Submitting Author	URL
Review Article		
Local Electric Fields: From Enzyme Catalysis to Synthetic Catalyst Design	Kshatresh Dutta Dubey*, Thijs Stuyver*, and Sason Shaik*	https://doi.org/10.1021/acs.jpcc.2c06422
Dry molten globule-like intermediates in protein folding, function and disease	Nirbhik Acharya and Santosh Kumar Jha*	https://doi.org/10.1021/acs.jpcc.2c04991
Biophysical and Biochemical Systems and Processes		
Vibrational solvatochromism study of the C — H...O improper hydrogen bond	Lixue Shi* and Wei Min*	https://doi.org/10.1021/acs.jpcc.2c08119
Kinetics and Energetics of Electron Transfer to Dimer Radical Cations	Michele S. Myong, Matthew J. Bird, and John R. Miller*	https://doi.org/10.1021/acs.jpcc.2c07302
Regulation of XPC binding dynamics and global nucleotide excision repair by p63 and vitamin D receptor	Christian T. Wong, Katherine Ona, and Dennis H. Oh*	https://doi.org/10.1021/acs.jpcc.2c07257
Design of an Electrostatic Frequency Map for the NH Stretch of the Protein Backbone and Application to Chiral Sum Frequency Generation Spectroscopy	Daniel Konstantinovskiy, Ethan A. Perets, Ty Santiago, Kristian Olesen, Zhijie Wang, Alexander V. Soudackov, Elsa C.Y. Yan*, and Sharon Hammes-Schiffer*	https://doi.org/10.1021/acs.jpcc.3c00217
Biophysical correlates of enhanced immunogenicity of a stabilized variant of the receptor binding domain of SARS-CoV-2	Kawkab Kanjo, Gopinath Chattopadhyay, Sameer Kumar Malladi, Randhir Singh, Sowrabha Jayatheertha, and Raghavan Varadarajan*	https://doi.org/10.1021/acs.jpcc.2c07262

Disulfide Bonds Are Not Necessary for Intrinsic TNSALP Activity	Arek V. Melkonian, Tal Gilboa, and David R. Walt*	https://doi.org/10.1021/acs.jpcc.2c08392
Self-quenching behaviour of a fluorescent probe incorporated within lipid membranes explored using electrophoresis and fluorescence lifetime imaging microscopy	Sophie A. Meredith, Yuka Kusunoki, Simon D. Connell, Kenichi Morigaki, Stephen D. Evans, and Peter G. Adams*	https://doi.org/10.1021/acs.jpcc.2c07652
The unusual robustness of neurotransmitter vesicle membranes against serotonin-induced perturbations	Ankur Gupta, Pawel Krupa, Oskar Engberg, Magdalena Krupa, Ankur Chaudhary, Mai Suan Li, Daniel Huster*, and Sudipta Maiti*	https://doi.org/10.1021/acs.jpcc.2c07464
Dimensional Reduction for Single Molecule Imaging of DNA and Nucleosome Condensation by polyamines, HP1 α and Ki-67	Nils A. Benning, Jacob Kæstel-Hansen, Fahad Rashid, Sangwoo Park, Raquel Merino Urteaga, Ting-Wei Liao, Jingzhou Hao, James M. Berger, Nikos S. Hatzakis, and Taekjip Ha*	https://doi.org/10.1021/acs.jpcc.2c07011
Flavin Charge Redistribution Upon Optical Excitation is Independent of Solvent Polarity	Cornelius J. Van Galen, Raymond F. Pauszek, Ronald L. Koder, and Robert J. Stanley*	https://doi.org/10.1021/acs.jpcc.2c07266
Hysteretic Pressure Dependence of Ca ²⁺ Binding in LH1 Bacterial Membrane Chromoproteins	Kōu Timpmann, Liina Kangur, and Arvi Freiberg*	https://doi.org/10.1021/acs.jpcc.2c05938
Trapping of Mono-Nitrosyl Non-Heme Intermediate of Nitric Oxide Reductase by Cry-photolysis of Caged Nitric Oxide	Hanae Takeda, Kanji Shimba, Masaki Horitani, Tetsunari Kimura, Takashi Nomura, Minoru Kubo, Yoshitsugu Shiro*, and Takehiko Tosha*	https://doi.org/10.1021/acs.jpcc.2c05852

4-Cyanotryptophan as a Sensitive Fluorescence Probe of Local Electric Field of Proteins	Yuyao Yang, Ran-ran Feng, and Feng Gai*	https://doi.org/10.1021/acs.jpcc.2c07605
Conformational dynamics of mCherry variants: a link between sidechain motions and fluorescence brightness	Srijit Mukherjee, Premashis Manna, Nancy Douglas, Prem P. Chapagain, and Ralph Jimenez*	https://doi.org/10.1021/acs.jpcc.2c05584
Connecting Conformational Motions to Rapid Dynamics in Human Purine Nucleoside Phosphorylase	Clara F. Frost, Sree Ganesh Balasubramani, Dimitri Antoniou, and Steven D. Schwartz*	https://doi.org/10.1021/acs.jpcc.2c07243
Frequency changes in terminal alkynes provide strong, sensitive, and solvatochromic Raman probes of biochemical environments	Matthew G. Romei, Eliana V. von Krusenstiern, Stephen T. Ridings, Renee N. King, Julia C. Fortier, Caroline A. McKeon, Krysta M. Nichols, Louise K. Charkoudian, and Casey H. Londergan*	https://doi.org/10.1021/acs.jpcc.2c06176
Influenza Virus Membrane Fusion is Promoted by the Endosome-Resident Phospholipid Bis(monoacylglycero)phosphate	Steinar Mannsverk, Ana M. Villamil Giraldo, and Peter M. Kasson*	https://doi.org/10.1021/acs.jpcc.2c06642
A Generalized Transition State Theory Treatment of Water-Assisted Proton Transport Processes in Proteins	Yu Liu, Chenghan Li, and Gregory A. Voth*	https://doi.org/10.1021/acs.jpcc.2c06703
Observation of cation chromophore photoisomerization of a fluorescent protein using millisecond synchrotron serial crystallography and infrared vibrational and visible spectroscopy	James M. Baxter, Christopher D. M. Hutchison, Karim Maghlaoui, Violeta Cordon-Preciado, R. Marc L. Morgan, Pierre Aller, Agata Butryn, Danny Axford, Sam Horrell, Robin L. Owen, Selina L. S. Storm,	https://doi.org/10.1021/acs.jpcc.2c06780

	Nicholas E. Devenish, and Jasper J. van Thor*	
Exploring masses and internal mass distributions of single carboxysomes in free solution using fluorescence and interferometric scattering in an anti-Brownian trap	Abhijit A. Lavania, William B. Carpenter, Luke M. Oltrogge, Davis Perez, Julia B. Turnšek, David F. Savage, and W. E. Moerner*	https://doi.org/10.1021/acs.jpcc.2c05939
High Yield of B-side Electron Transfer at 77 K in the Photosynthetic Reaction Center Protein from <i>Rhodospirillum rubrum</i>	Nikki Cecil M. Magdaong, Kaitlyn M. Faries, James C. Buhrmaster, Gregory A. Tira, Ryan M. Wyllie, Claire E. Kohout, Deborah K. Hanson, Philip D. Laible, Dewey Holten, and Christine Kirmaier*	https://doi.org/10.1021/acs.jpcc.2c05905
Role of Repeated Conformational Transitions in Substrate Binding of Adenylate Kinase	Jiajun Lu, David Scheerer, Gilad Haran*, Wenfei Li*, and Wei Wang*	https://doi.org/10.1021/acs.jpcc.2c05497
Interdomain Interactions Modulate the Active Site Dynamics of Human Inducible Nitric Oxide Synthase	Goran W. Tumbic, Jinghui Li, Ting Jiang, Md Yeathad Hossain, Changjian Feng*, and Megan C. Thielges*	https://doi.org/10.1021/acs.jpcc.2c04091
Viral Size Modulates Sendai Virus Binding to Cholesterol-stabilized Receptor Nanoclusters	Amy Lam, Daniel S. Yuan, Samir H. Ahmed, and Robert J. Rawle*	https://doi.org/10.1021/acs.jpcc.2c03830
Role of the triplet state and protein dynamics in the formation and stability of the tryptophan radical in an apoazurin mutant	Ignacio López-Peña, Christopher T. Lee, Joel J. Rivera, and Judy E. Kim*	https://doi.org/10.1021/acs.jpcc.2c02441
Correlated Protein Modules Revealing Functional Coordination of Interacting	Mo Hu, Yutong Zhang, Yuan Yuan, Wenping Ma, Yinghui Zheng,	https://doi.org/10.1021/acs.jpcc.3c00014

Proteins are Detected by Single-cell Proteomics	Qingqing Gu, and X. Sunney Xie*	
Biomaterials and Membranes		
Native function of the bacterial ion channel SthK in a sparsely tethered lipid bilayer membrane architecture Native function of the bacterial ion channel SthK in a sparsely tethered lipid bilayer membrane architecture	Jakob Andersson, David Kleinheinz, Ulrich Ramach, Nikolaus Kiesenhofer, Alex Ashenden, Markus Valtiner, Stephen Holt, Ingo Koeper, Philipp A. M. Schmidpeter*, and Wolfgang Knoll*	https://doi.org/10.1021/acs.jpcc.2c07252
QCM-D investigations on cholesterol-DNA tethering of liposomes to microbubbles for therapy	Fern J. Armistead, Damien V. B. Batchelor, Benjamin R. G. Johnson, and Stephen D. Evans*	https://doi.org/10.1021/acs.jpcc.2c07256
Lipid-Specific Direct Translocation of the Cell Penetrating Peptide NAF-144-67 Across Bilayer Membranes	Chad I. Drexler, Jenée D. Cyran, and Lauren J. Webb*	https://doi.org/10.1021/acs.jpcc.2c08076
DNA-Tethered Lipid Membrane Formation via Solvent-Assisted Self-Assembly	Sangmin Lee and Minsub Chung*	https://doi.org/10.1021/acs.jpcc.2c07978
Characterizing the self-assembly properties of monoolein lipid isosteres	Alessandro Fracassi, Kira A. Podolsky, Sudip Pandey, Cong Xu, Joshua Hutchings, Soenke Seifert, Carlos R. Baiz, Sunil K. Sinha, and Neal K. Devaraj*	https://doi.org/10.1021/acs.jpcc.2c07215
Retarded diffusion and confinement of membrane-bound molecules in a patterned hybrid membrane of phospholipid bilayers and monolayers	Yasushi Tanimoto, Yu Yoshimura, Fumio Hayashi, and Kenichi Morigaki*	https://doi.org/10.1021/acs.jpcc.2c06053

From LUVs to GUVs - How to Cover Micrometer-Sized Pores with Membranes	Kristina Kramer, Merve Sari, Kathrin Schulze, Hendrik Flegel, Miriam Stehr, Ingo Mey, Andreas Janshoff, and Claudia Steinem*	https://doi.org/10.1021/acs.jpcc.2c05685
Potential distribution across model membranes	Tillmann Utesch*, Jana Staffa, Sagie Katz, Guiyang Yao, Jacek Kozuch*, and Peter Hildebrandt*	https://doi.org/10.1021/acs.jpcc.2c05372
Cholesterol-dependent Dynamics of the Serotonin1A Receptor utilizing Single Particle Tracking: Analysis of Diffusion Modes	Sandeep Shrivastava, Parijat Sarkar, Pascal Preira, Laurence Salomé, and Amitabha Chattopadhyay*	https://doi.org/10.1021/acs.jpcc.2c03941
Surfactant-Mediated Structural Modulations to Planar, Amphiphilic Multilamellar Stacks	Daniel J. Speer, Marta Salvador-Castell, Yuqi Huang, Gang-Yu Liu, Sunil K. Sinha*, and Atul N. Parikh* https://doi.org/10.1021/acs.jpcc.3c01654	
Liquids; Chemical and Dynamical Processes in Solution		
Dissociation of endohedrally encapsulated HCl/HBr in C60 and C70: An electric field perspective	Reman Kumar Singh* and G. Naresh Patwari*	https://doi.org/10.1021/acs.jpcc.3c00411
Distinguishing between the Electrostatic Effects and Explicit Ion Interactions in a Stark Probe	Anwasha Maitra, Pratyusha Das, Barry C. Thompson, and Jahan M. Dawlaty*	https://doi.org/10.1021/acs.jpcc.2c08030
Rethinking Vibrational Stark Spectroscopy: Peak Shifts, Linewidths and the Role of Non-Stark Solvent Coupling	Sebastian M. Fica-Contreras, Aaron P. Charnay, Junkun Pan, and Michael D. Fayer*	https://doi.org/10.1021/acs.jpcc.2c06071
Molecular photothermal effects on time-resolved IR spectroscopy: Solute-solvent intermolecular energy transfer	Minhaeng Cho*	https://doi.org/10.1021/acs.jpcc.2c07043
Optical Initialization of Molecular Qubit Spin States	Haochuan Mao, Ryan M. Young, Matthew D.	https://doi.org/10.1021/acs.jpcc.2c07096

using Weak Exchange Coupling to Photogenerated Fullerene Triplet States	Krzyaniak*, and Michael R. Wasielewski*	
Blue fluorescence of cyano-tryptophan predicts local electrostatics and hydrogen bonding in biomolecules	Tapas Haldar, Srijan Chatterjee, Md Nirshad Alam, Pradip Maity, and Sayan Bagchi*	https://doi.org/10.1021/acs.jpcc.2c05848
Acceleration of Nonradiative Charge Recombination Reactions at Larger Distance in Kinked Donor–Bridge–Acceptor Molecules	Samuel Johnson, Amrita Makhijani, Miu Tsuji, and Tomoyasu Mani*	https://doi.org/10.1021/acs.jpcc.2c05252
Soft Matter, Fluid Interfaces, Colloids, Polymers, and Glassy Materials		
The Potential of Gadolinium Ascorbate Nanoparticles as Safer Contrast Agent	Ujjala Dey and Arun Chattopadhyay*	https://doi.org/10.1021/acs.jpcc.2c05831
Raman snapshots of side-chain dependent polaron dynamics in poly-thiophene films	Palas Roy, Gokul T. Anandan, Nagaraj Nayak, Anil Kumar, and Jyotishman Dasgupta*	https://doi.org/10.1021/acs.jpcc.2c06185
Thermal Insolubilization of Electrically n-Doped Films Achieved Using 7-Alkoxy-Benzocyclobutene-Substituted Fullerene and Dopant Molecules	Farzaneh Saeeidifard, Yi-Chien Chang, Bernard Kippelen, Seth R. Marder*, and Stephen Barlow*	https://doi.org/10.1021/acs.jpcc.2c05286
Tear Film Stability as a Function of Tunable Mucin Concentration Attached to Supported Lipid Bilayers	Kiara W. Cui, David J. Myung, and Gerald G. Fuller*	https://doi.org/10.1021/acs.jpcc.2c04154
Structure, Spectroscopy, and Reactivity of Molecules and Clusters		
Charge and Solvent Effects on the Redox Behavior of Vanadyl Salen-Crown Complexes	Hien M. Nguyen, Harry W. T. Morgan, Teera Chantarojsiri, Tyler A. Kerr, Jenny Y. Yang, Anastassia N. Alexandrova*, and Nadia G. Léonard*	https://doi.org/10.1021/acs.jpca.3c00827

Spectroscopy and Dynamics of Nano, Hybrid, and Low-Dimensional Materials and Physical Properties of Materials and Interfaces

Spin-Polarized Charge Separation in a Photo-excited Transition Metal Dichalcogenide Heterobilayer at Room Temperature	Qiuyang Li, Lucas Huber, Colin Nuckolls, and Xiaoyang Zhu*	https://doi.org/10.1021/acs.jpcc.2c04332
Ligand Coverage and Exciton Delocalization Control Chiral Imprinting in Perovskite Nanoplatelets	Zheni N. Georgieva, Zhendian Zhang, Peng Zhang, Brian P. Bloom, David N. Beratan*, and David H. Waldeck*	https://doi.org/10.1021/acs.jpcc.2c04192