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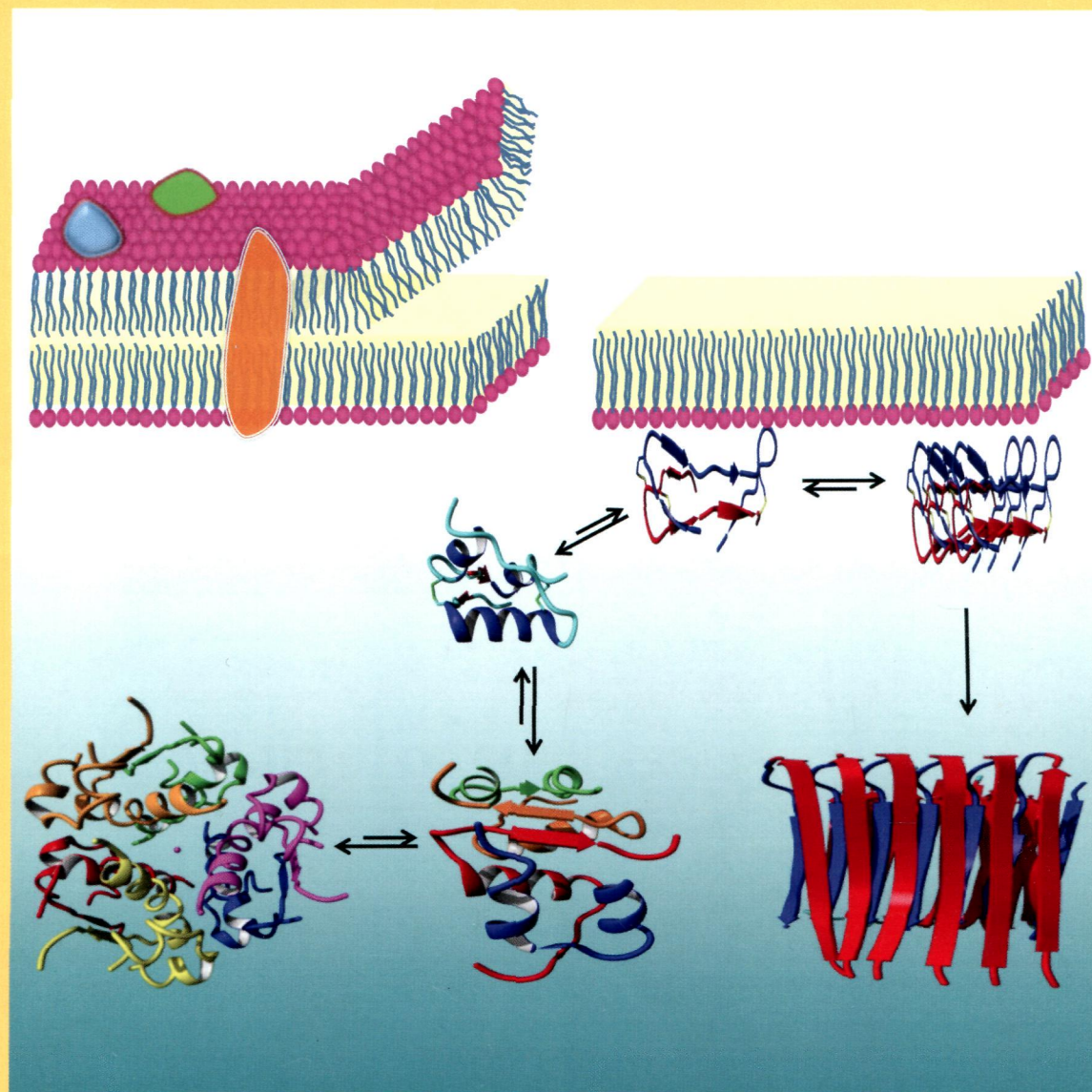
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B



The Pathway of
Insulin Fibrillation at
the Interface
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BIOPHYSICAL CHEMISTRY, BIOMATERIALS, LIQUIDS, AND SOFT MATTER



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ON THE COVER: The pathway of insulin fibrillation at the interface. Partially unfolded insulin monomers at the interface assemble into oligomers, which subsequently develop into nuclei. The fast growth of these nuclei results in the formation of insulin fibrils. A Langmuir monolayer at the air–water interface is a good model to mimic the interface of the biological membrane. See page 1181.

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[dx.doi.org/10.1021/jp4101202](https://doi.org/10.1021/jp4101202)

Aggregation of Insulin at the Interface

Shanghai Li and Roger M. Leblanc*

Articles

Biophysical Chemistry and Biomolecules

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[dx.doi.org/10.1021/jp4083294](https://doi.org/10.1021/jp4083294)

How to Determine the Size of Folding Nuclei of Protofibrils from the Concentration Dependence of the Rate and Lag-Time of Aggregation. I. Modeling the Amyloid Protofibril Formation

Nikita V. Dovidchenko, Alexey V. Finkelstein, and Oxana V. Galzitskaya*

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How to Determine the Size of Folding Nuclei of Protofibrils from the Concentration Dependence of the Rate and Lag-Time of Aggregation. II. Experimental Application for Insulin and LysPro Insulin: Aggregation Morphology, Kinetics, and Sizes of Nuclei

Olga M. Selivanova, Maria Yu. Suvorina, Nikita V. Dovidchenko, Irina A. Eliseeva, Alexey K. Surin, Alexey V. Finkelstein, Vadim V. Schmatchenko, and Oxana V. Galzitskaya*

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[dx.doi.org/10.1021/jp408689x](https://doi.org/10.1021/jp408689x)

Phosphorus Binding Sites in Proteins: Structural Preorganization and Coordination

Mathias Gruber, Per Greisen Jr., Caroline M. Junker, and Claus Hélix-Nielsen*

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[dx.doi.org/10.1021/jp408909t](https://doi.org/10.1021/jp408909t)

Optimization of an AMBER Force Field for the Artificial Nucleic Acid, LNA, and Benchmarking with NMR of L(CAAU)

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Resonant Coherence in Photosynthetic Electronic Energy Transfer by Site-Dependent Pigment-Protein Interactions
Yoshihiro Sato* and Meredith F. Reynolds

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Non-Polarizable Force Field of Water Based on the Dielectric Constant: TIP4P/e
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[dx.doi.org/10.1021/jp411780d](https://doi.org/10.1021/jp411780d)

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[dx.doi.org/10.1021/jp412023g](https://doi.org/10.1021/jp412023g)

Inhomogeneous Distribution in Methanol/Acetone Mixture: Vibrational and NMR Spectroscopy Analysis

Abdenacer Idrissi,* Kamil Polok,* Bogdan Marekha, Isabelle De waele, Marc Bria, and Wojciek Gadomski

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[dx.doi.org/10.1021/jp412226w](https://doi.org/10.1021/jp412226w)

Relative Contribution of Stoichiometry and Mean Coordination to the Fragility of Ge–As–Se Glass Forming Liquids

Ting Wang, Ozgur Gulbiten, Rongping Wang, Zhiyong Yang,* Anita Smith, Barry Luther-Davies, and Pierre Lucas*

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[dx.doi.org/10.1021/jp412422e](https://doi.org/10.1021/jp412422e)

Order, Viscoelastic, and Dielectric Properties of Symmetric and Asymmetric Alkyl[1]benzothieno[3,2-b][1]benzothiophenes

Christos Grigoriadis, Claude Niebel, Christian Ruzié, Yves H. Geerts, and George Floudas*