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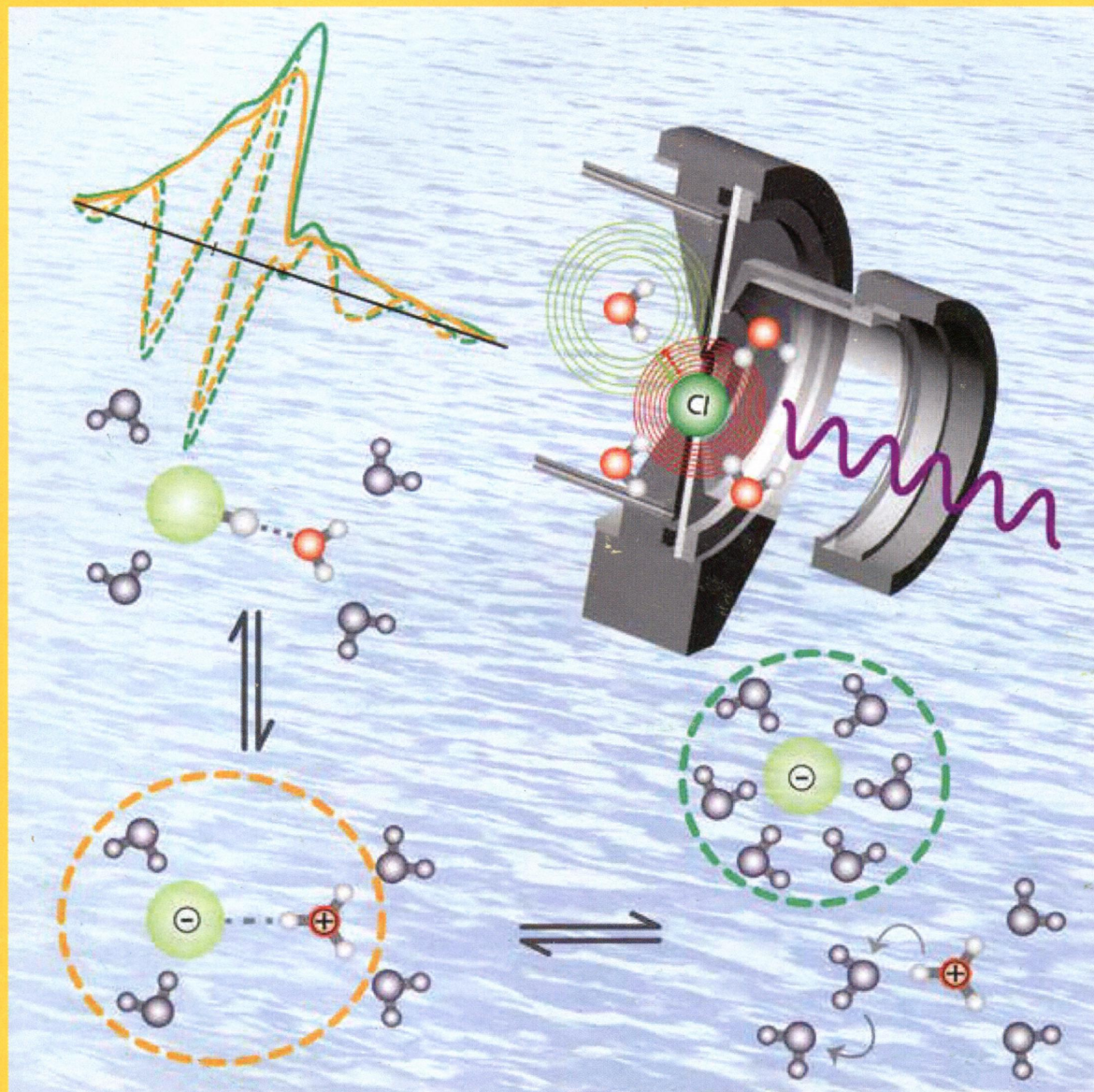
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# THE JOURNAL OF PHYSICAL CHEMISTRY

# B



Experimental  
and Theoretical  
Determination of the  
Local Structure of HCl.  
Persistent Ion Pairing  
(see page 7211)

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**ON THE COVER:** The experimental prediction and theoretical confirmation of persistent ion pairing between hydronium and chloride provides a unified description of the molecular structure of concentrated HCl solutions. See page 7211.

## Feature Article

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[dx.doi.org/10.1021/jp501091h](https://doi.org/10.1021/jp501091h)

### Persistent Ion Pairing in Aqueous Hydrochloric Acid

Marcel D. Baer, John L. Fulton, Mahalingam Balasubramanian, Gregory K. Schenter, and Christopher J. Mundy\*

## Articles

### Biophysical Chemistry and Biomolecules

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[dx.doi.org/10.1021/jp500539w](https://doi.org/10.1021/jp500539w)

### Triplet Excited State Energies and Phosphorescence Spectra of (Bacterio)Chlorophylls

Daniel A. Hartzler, Dariusz M. Niedzwiedzki, Donald A. Bryant, Robert E. Blankenship, Yulia Pushkar, and Sergei Savikhin\*

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[dx.doi.org/10.1021/jp500955z](https://doi.org/10.1021/jp500955z)

### Detailed Microscopic Unfolding Pathways of an $\alpha$ -Helix and a $\beta$ -Hairpin: Direct Observation and Molecular Dynamics

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[dx.doi.org/10.1021/jp502473s](https://doi.org/10.1021/jp502473s)

### Factors That Drive Peptide Assembly from Native to Amyloid Structures: Experimental and Theoretical Analysis of [Leu-5]-Enkephalin Mutants

Thanh D. Do, Nichole E. LaPointe, Smriti Sangwan, David B. Teplow, Stuart C. Feinstein, Michael R. Sawaya, David S. Eisenberg, and Michael T. Bowers\*

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[dx.doi.org/10.1021/jp502526z](https://doi.org/10.1021/jp502526z)


### Design, Synthesis, Physicochemical Studies, Solvation, and DNA Damage of Quinoline-Appended Chalcone Derivative: Comprehensive Spectroscopic Approach toward Drug Discovery

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- 7267  [dx.doi.org/10.1021/jp5030944](https://doi.org/10.1021/jp5030944)  
**Temperature Induced Morphological Transitions from Native to Unfolded Aggregated States of Human Serum Albumin**  
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Surma Talapatra and Eitan Geva\*

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Axel Thuresson,\* Magnus Ullner, and Martin Turesson\*

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**Time-Resolved Fourier Transform Infrared Spectroscopy, Gravimetry, and Thermodynamic Modeling for a Molecular Level Description of Water Sorption in Poly( $\epsilon$ -caprolactone)**  
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**Size and Phase Control of Cubic Lyotropic Liquid Crystal Nanoparticles**  
Terence E. Hartnett, Katharina Ladewig, Andrea J. O'Connor, Patrick G. Hartley, and Keith M. McLean\*

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[dx.doi.org/10.1021/jp503259b](https://doi.org/10.1021/jp503259b)

**Highly Selective Separation of Carbon Dioxide from Nitrogen and Methane by Nitrile/Glycol-Difunctionalized Ionic Liquids in Supported Ionic Liquid Membranes (SILMs)**

Sandra D. Hojniak, Ian P. Silverwood, Asim Laeeq Khan, Ivo F. J. Vankelecom, Wim Dehaen, Sergei G. Kazarian,\* and Koen Binnemans\*

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[dx.doi.org/10.1021/jp504317j](https://doi.org/10.1021/jp504317j)

**Amplification of Hofmeister Effect by Alcohols**

Yun Xu and Guangming Liu\*