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## Xiao Cheng Zeng Bibliography (April 2016)

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# Xiao Cheng Zeng Bibliography (April 2016)

## Summary Table of Major Publications (397)

High-Profile Journals (Impact-Factor >7.5)	<i>Number</i>	Other High-impact Journals (Impact-Factor>5)	<i>Number</i>	High-quality Physical Chemistry, Physics, Nanoscience Journals	<i>Number</i>
<b>Nature</b>	2	<b>ACS Catalysis</b>	5	J. Chem. Phys.	<b>89</b>
<b>Science</b>	1	<b>Chemistry of Materials</b>	2	J. Phys. Chem. A/B/C	<b>45</b>
<b>Proc. Natl. Acad. Sci. (PNAS)</b>	12	<b>Nanoscale</b>	19	Phys. Rev. A/B/E	<b>23</b>
<b>Science Advances</b>	2	<b>J. Phys. Chem. Lett.</b>	15	J. Mater. Chem. C	7
<b>Nature Communications</b>	2	<b>J. Mater. Chem. A</b>	3	Phys. Chem. Chem. Phys.	7
<b>J. Am. Chem. Soc. (JACS)</b>	41	<b>ACS Appl. Mater. &amp; Inter.</b>	2	Langmuir	2
<b>Nano Letters</b>	11	<b>Advanced Science</b>	1	RSC Advances	5
<b>Phys. Rev. Lett. ♦ (PRL)</b>	8	<b>Chemical Communications</b>	10	Appl. Phys. Lett.	5
<b>Advanced Materials</b>	4	<b>Nano Research</b>	3	Nanotechnology	1
<b>ACS Nano</b>	16	<b>Organic Lett.</b>	3	Chem. Phys. Lett.	8
<b>Angew. Chem. Int. Ed.</b>	6	<b>J. Chem. Theory Comput.</b>	6	Fluid Phase Equilibria	5
<b>Chemical Science</b>	2	<b>Chemistry: A Euro. J.</b>	2	J. Phys. A/CM/F	7
<b>Energy &amp; Environ. Science</b>	1	<b>Scientific Reports</b>	3	J. Appl. Phys.	2
<b>Phys. Rev. X</b>	1	<b>WIREs Comput. Mol. Sci.</b>	1	ChemPhysChem	1
<b>Acc. Chem. Res.</b>	1			Mol. Simulation	4
				Microfluidic Nanofluidic	1
<b>total</b>	<b>110</b>	<b>total</b>	<b>75</b>	<b>total</b>	<b>212</b>

# News Media Featuring Publications (31)

## I. Publications on Nano Ice, Water, Hydrophobic Interactions (16)

Y. Huang, C. Zhu, L. Wang, X. Cao, Y. Su, X. Jiang, S. Meng, J. J. Zhao, and X. C. Zeng, "A new phase diagram of water under negative pressure: The rise of the lowest-density clathrate s-III," **Sci. Adv.** **2**, e1501010 (2016). [UNL News, February 12, 2016](#), [Phys.Org, Feb. 12, 2016](#), [Cosmos Magazine, Feb. 15, 2016](#), [Science alert, Feb. 15, 2016](#), [Technology Grip, Feb. 15, 2016](#), [Sci-News.com, Feb. 15, 2016](#), [ScienceNet.cn, Feb. 19, 2016](#).

L. Li, M. Kumar, C. Q. Zhu, J. Zhong, J. S. Francisco, and X. C. Zeng, "Near-Barrierless Ammonium Bisulfate Formation via a Loop-Structure Promoted Proton-Transfer Mechanism on the Surface of Water," **J. Am. Chem. Soc.** **138**, 1816-1819 (2016). [Featured in February 8, 2016 Chem. & Eng. News, USTC News, Feb. 9, 2016](#).

H. Li, J. S. Francisco, and X. C. Zeng, "Unraveling the mechanism of selective ion transport in hydrophobic subnanometer channels," **Proc. Natl. Acad. Sci. USA** **112**, 10851-10856 (2015). [UNL Today, Aug. 28, 2015](#), [Phys.Org \(Aug. 25, 2015\)](#), [Chinese Academy of Sciences](#).

W. H. Zhao, L. Wang, J. Bai, J. S. Francisco, and X. C. Zeng, "Spontaneous Formation of One-Dimensional Hydrogen Gas Hydrate in Carbon Nanotubes," **J. Am. Chem. Soc.** **136**, 10661-10668 (2014). [JACS Spotlights \(7/30/2014\)](#), and [JACS Cover \(7/30/2014\)](#), [highlighted by USTC \(7/31/2014\)](#), and [by UNL Today \(8/15/2014\)](#).

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[6 Citations] X. Zhou, G. Liu, K. Yamato, Y. Shen, R. Cheng, X. Wei, W. Bai, Y. Gao, H. Li, Y. Liu, D. M. Czajkowsky, J. Wang, M. J. Dabney, Z. Cai, J. Hu, F. V. Bright, L. He, X. C. Zeng, Z. Shao, and B. Gong. "Self-assembling subnanometer pores with unusual mass-transport properties," **Nature Communications** **3:1038**, doi:10.1038/ncomms1949 (2012). [UNL News Release, July 17, 2012](#), [University at Buffalo News, July 17, 2012](#), [RSC, July 18, 2012](#), [National Science Foundation](#), [Bioon \(in Chinese\)](#), [Argonne National Lab.](#), [DOE Pulse, July 30, 2012](#), [DOE Office of Science, Aug. 20, 2012](#).

[29 Citations] H.-X. Zhao, X.-J. Kong, H. Li, Y.-C. Jin, L. Long, X.C. Zeng, R.-B. Huang, and L.-S. Zheng, "Transition from one-dimensional water to ferroelectric ice within a supramolecular architecture," **Proc. Natl. Acad. Sci. USA** **108**, 3481-3486 (2011). [UNL Today, Feb. 17, 2011](#), [PhysOrg.com, Feb. 25, 2011](#), [Physics Inventions.com](#), [The Daily Scientist](#)

[22 Citations] J. Bai, C.A. Angell, and X.C. Zeng, "Guest-free monolayer clathrate: coexistence and phase transition between two-dimensional low-density and high-density ice," **Proc. Natl. Acad. Sci. USA** **107**, 5718-5722 (2010). [UNL News Releases, March 25, 2010](#)

[116 Citations] S. Yoo, X.C. Zeng, and S.S. Xantheas, "On the phase diagram of water with density functional theory potentials: The melting temperature of ice I<sub>h</sub> with the Perdew-Burke-Ernzerhof and Becke-Lee-Yang-Parr functionals," **J. Chem. Phys. (Communication)** **130**, 221102 (2009). [The Journal of Chemical Physics Editors' Choice for 2009](#), [DOE PNNL Research Chemical & Materials Sciences Division Highlights](#).

[122 Citations] T. Koishi, K. Yasuoka, S. Fujikawa, T. Ebisuzaki, and X.C. Zeng, "Coexistence and Transition between Cassie and Wenzel State on Pillared Hydrophobic Surface," **Proc. Natl. Acad. Sci. USA** **106**, 8435-8440 (2009). [Omaha KETV 7 News \(video\) \(June 23, 2009\)](#), [NSF News From the Field \(May 4, 2009\)](#), [US News and World Report \(May 6, 2009\)](#), [The Times of India \(May 5, 2009\)](#), [Popular Mechanics \(May 13, 2009\)](#).

[37 Citations] N. Arai, K. Yasuoka, and X.C. Zeng, "Self-Assembly of Surfactants and Polymorphic Transition in Nanotubes," **J. Am. Chem. Soc.** **130**, 7916-7920 (2008). [JACS Select 2008](#)

[83 Citations] J. Bai, J. Wang, and X.C. Zeng, "Multiwalled ice helices and ice nanotubes," **Proc. Natl. Acad. Sci. USA** **103**, 19664-19667 (2006). [Earth & Sky Radio Show](#), [American Scientist \(The Magazine of Sigma Xi Scientific Research Society\)](#), [Royal Society of Chemistry \(England\)](#), [Nature May 31, 2007](#), [Nature Nanotechnology Jan. 5, 2007](#), [New Scientist Dec. 12, 2006](#), [The Science Coalition](#), [Science Daily](#), [Lincoln Journal Star - Dec. 13, 2006](#), [Nanotechnology World](#), [ZDNet](#), [Materials gate](#), [Nano Werk](#), [Mad Cow News Site](#), [Physorg](#), [Newswise](#), [Azo-nano](#), [Sufficiently advanced](#), [Innovations Report \(Germany\)](#), [Nanotechwire](#), [EurekAlert](#), [What's Next In Science & Technology](#), [Cogito.org](#), [CCNews](#), [Abrahamadabra](#), [Roland Piquepaille's Technology Trends](#), [Metareligion](#)

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[127 Citations] K. Koga, X.C. Zeng, and H. Tanaka, "Freezing of confined water: A bilayer ice phase in hydrophobic nanopores," **Phys. Rev. Lett.** **79**, 5262-5265 (1997). [Featured in May, 1998 The Sciences \(www.nyas.org\)](#)

[18 Citations] K. Koga and X.C. Zeng, "Scanning Motions of an Atomic Force Microscope Tip in Water," **Phys. Rev. Lett.** **79**, 853 (1997). [Featured in Photonic Spectra.](#)

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J. Dai and X. C. Zeng, "Titanium Trisulfide Monolayer: Theoretical Prediction of a New Direct-Gap Semiconductor with High and Anisotropic Carrier Mobility," **Angew. Chem. Int. Ed.** **54**, 7572-7576 (2015). [UNL Today, June 23, 2015](#), [Popular Mechanics, July 6, 2015](#)

W. W. Xu, Y. Gao, and X. C. Zeng, "Unraveling structures of protection ligands on gold nanoparticle Au<sub>68</sub>(SH)<sub>32</sub>," **Sci. Adv.** **1**, e1400211 (2015). [Chem. Eng. News, April 27, 2015](#), [ScienceDaily, April 28, 2015](#), [Phys.Org](#), [UNL Today, April 27, 2015](#), [WEB TECHKING.com](#), [BEFORE IT'S News](#).

S. Chen and X. C. Zeng, "Design of Ferroelectric Organic Molecular Crystals with Ultrahigh Polarization," **J. Am. Chem. Soc.** **136**, 6428-6436 (2014). [Chem. Eng. News, April 28, 2014](#), [JACS Spotlights, April 30, 2014](#), [UNL Today \(April 30, 2014\)](#)

R. Zhou, B. Qu, J. Dai, and X. C. Zeng, "Unraveling Crystalline Structure of High-Pressure Phase of Silicon Carbonate," **Phys. Rev. X** **4**, 011030 (2014). [UNL Today \(Feb. 28, 2014\)](#), [Omaha World Herald \(Feb. 27, 2014\)](#), [Phys. Org. News](#), and [Nanowerk](#).

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[235 Citations] S. Bulusu, X. Li, L.S. Wang, and X.C. Zeng, "Evidence of hollow golden cages," **Proc. Natl. Acad. Sci. USA** **103**, 8326-8330 (2006). [Reported by UNL Press - May 17, 2006](#), [Omaha World Herald - May 17, 2006](#), [New York Times - May 23, 2006](#), [Nature - May 25, 2006](#), [Nature Nanotechnology - March 23, 2007](#), [Chem & Eng. News - May, 17, 2006](#), and [Seattle Post-Intelligencer - May 16, 2006](#), [Royal Society of Chemistry \(England\)](#), [CERN \(Courier\)](#), [Wikipedia](#), [Newswise](#), [High Performance Computing wire](#), [Interest Alert](#), [Engineer online](#), [Innovations report](#), [Inside BayArea.com](#), [SpaceDaily](#), [Nanotechweb](#), [EurekAlert](#), [Nanotechwire](#), [The NanoTechnology Group Inc](#), [Photonics](#), [AZoNano](#), [Physorg.com](#), [Science Daily](#), [WhatsnextNetwork.com](#), [Voyle.net](#), [SoftPedia](#), [Free Republic](#), [Netcomposites](#), [YubaNet.com](#)

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W. W. Xu, Y. Li, Y. Gao, and X. C. Zeng, "Unraveling a generic growth pattern in structure evolution of thiolate-protected gold nanoclusters," **Nanoscale** **8**, 7396-7401 (2016).

W. W. Xu, Y. Li, Y. Gao, and X. C. Zeng, "Medium-Sized Au<sub>40</sub>(SR)<sub>24</sub> and Au<sub>52</sub>(SR)<sub>32</sub> Nanoclusters with Distinct Gold-Kernel Structure and Spectroscopy Features," **Nanoscale** **8**, 1299-1304 (2016).

- X. K. Wan, W. W. Xu, S. F. Yuan, Y. Gao, X. C. Zeng, and Q. M. Wang, "A Near-Infrared-Emissive Alkynyl-Protected Au<sub>24</sub> Nanocluster," **Angew. Chem. Int. Ed.** **54**, 9683-9686 (2015).
- L. Li, H. Li, and X. C. Zeng, "Structure transition of Au<sub>18</sub> from pyramidal to a hollow-cage during soft-landing onto a TiO<sub>2</sub>(110) surface," **Chem. Comm.** **51**, 9535-9538 (2015).
- Y. Pei, J. Tang, X. Q. Tang, Y. Q. Huang, and X. C. Zeng, "New Structure Model of Au<sub>22</sub>(SR)<sub>18</sub>: Bitetrahedron Golden Kernel Enclosed by [Au<sub>6</sub>(SR)<sub>6</sub>] Au(I) Complex," **J. Phys. Chem. Lett.** **6**, 1390-1395 (2015).
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- X. H. Wei, R. Zhou, W. Lefebvre, K. He, D. Le Roy, R. Skomski, X. Li, J. E. Shield, M. J. Kramer, S. Chen, X. C. Zeng, and D. J. Sellmyer, "Structural and Magnetic Evolution of Bimetallic MnAu Clusters Driven by Asymmetric Atomic Migration," **Nano Lett.** **14**, 1362-1368 (2014).
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