

## Katsumi Kaneko

### *Biographical Information*

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Title: Distinguished Professor  
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#### **Education:**

B.T. In Applied Chemistry from Yokohama National University, 1969  
M.S. In Chemistry(Physical Chemistry) from The University of Tokyo, 1971  
Dr. Sci. Faculty of Science, The University of Tokyo, 1977  
*Thesis title:* Electrical Properties and Defect Structures of Iron Hydroxide Oxide  
Colloids (which was carried out at Chiba University)

#### **Professional experience**

1971/04-1974/03 Research assistant in Department of Chemistry, Faculty of Science,  
Chiba University  
1974/04-1986/06 Assistant professor, Chiba University  
1986/04-1992/06 Associate professor, Chiba University, Head of Physical Chemistry  
07/1992- 03/2010 Professor, Chiba University  
04/2004-03/2006 Dean of Faculty of Science  
04/2006-03/2008 Dean of Graduate School of Science and Technology, Chiba Univ.  
04/2010-03/2014 Distinguished project professor, Japan Science and Technology Agency  
Regional Priority Project: Research Center for Exotic Nanocarbons,  
Shinshu University  
04/2014-present Distinguished professor, Center for Energy and Environmental Science,  
Shinshu University  
Research area advisor of Promoting Individual Researcher to Nature the  
Seeds of Future Innovation (PRESTO) : Hyper-nano-space design toward  
Innovative Functionality

#### **Awards:**

1998 Award by Carbon Society of Japan  
1999 Award by Chemical Society of Japan  
2007 Charles Petinos Award by American Carbon Society  
2011 Adsorption Society Award by Japan Adsorption Society  
2011 Fellow of Chemical Society of Japan  
2013 Fellow of Royal Society of Chemistry, Fellow of International Adsorption Society  
2014 Excellent achievement in Joint programme JST-MINECO  
“Nanotechnology and New Materials for Environmental Challenges”  
Thursday 22 October 2015, Spanish Embassy in Tokyo  
2016 Honorary session at 2016 American Institute of Chemical Engineering Annual  
Meeting, San Francisco, USA, November 14, 2016

## Representative publications:

1. Water adsorption property of hierarchically nanoporous detonation nanodiamonds, E.-Z. Pina-Salazar, K. Urita, T. Hayashi, R. Futamura, F. Vallejos-Burgos, J. Włoch, P. Kowalczyk, M. Wiśniewski, T. Sakai, I. Moriguchi, A. Terzyk, E. Osawa, K. Kaneko, *Langmuir*: DOI: q0.102/acs.langmuir.7b02046
2. Partial breaking of the Coulombic ordering of ionic liquids confined in carbon nanopores R. Futamura, T. Iiyama, Y. Takasaki, Y. Gogotsi, M. J. Biggs, M. Salanne, J. Ségalini, P. Simon, K. Kaneko, *Nature Materials*, **16**, 1225-1232 (2017). DOI: 10.1038/NMAT4974.
3. Efficient storage mechanisms for building better supercapacitors ,M. Salanne B. Rotenberg, K. Naoi, K. Kaneko, P.-L. Taberna, C. P. Grey, B. Dunn, P. Simon, *Nature Energy*, **1**, Article number: 16070 (2016) doi:10.1038/nenergy.2016.7
4. Methane hydrate formation in confined nanospace can surpass nature, M. E. Casco, J. Silvestre-Albero, A. J. Ramirez-Cuesta, F. Rey, J. L. Jorda, A. Bansode, A. Urakawa, I. Pera, M. Martinez-Escandel, K. Kaneko, F. Rodriguez-Reinoso, *Nature Comm.*, **6**, 6432-6440 (2015)
5. M. Thommes, K. Kaneko, A. V. Neimark, J. P. Olivier, F. Rodriguez-Reinoso, J. Rouquerol, K. S.W. Sing, Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report), *Pure Appl. Chem.* (2015) 87, 1051-1069. DOI 10.1515/pac-2014-1117
6. Sol-gel chemistry mediated Zn/Al-based complex dispersant for SWCNT in water without foam formation, R. Kukobat, D. Minami, T. Hayashi, Y. Hattori, T. Matsuda, M. Sunaga, B. Bharti, K. Asakura, K. Kaneko, *Carbon*, **94** (2015) 518–523 .http://dz.d
7. Graphitic nanopores: Water capture in carbon cuboids, K. Kaneko, *Nature Chem.* **7**, 194-196 (2015).
8. Activation routes for high surface-area graphene monoliths from graphene oxide colloids, S. Wang, F. Tristan, D. Minami, T. Fujimori, R. Cruz-Silva, M. Terrones, K. Takeuchi, K. Teshima, F. Rodríguez-Reinoso, M. Endo, K. Kaneko, *Carbon*, **76**, 220-231 (2014)
9. Conducting linear chains of sulphur inside carbon nanotubes, T. Fujimori, A. Morelos-Gomez, Z. Zhu, H. Muramatsu, R. Futamura, K. Urita, M. Terrones, T. Hayashi, M. Endo, S. Y. Hong, Y. C. Choi, D. Tomanek, K. Kaneko, *Nature Comm.* **4**, 2162-2169(2013).
10. Mesopore-added zeolites: An overview of their preparation, characterization and evaluation of the application, Y. Tao, H. Kanoh, A. Lloyd, K. Kaneko, *Chem. Review.* **106**, 896-910 (2006).

**Total publications** 506 on Nature family journals, J. Amer. Chem. Soc. Nano. Lett. ACS Nano, Chem. Sci., J. Phys. Chem., Langmuir, Chem. Phys. Lett., J. Chem. Phys., Phys. Rev., Carbon etc.