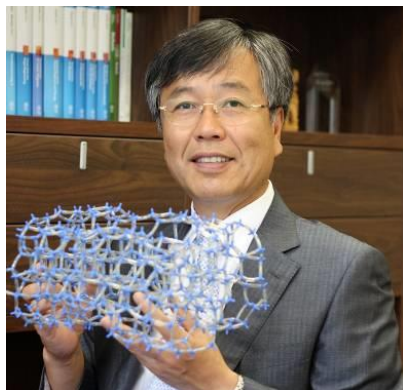


CURRICULUM VITAE



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Ryong Ryoo is the director of the Center for Nanomaterials and Chemical Reactions at Institute for Basic Science, and a Distinguished Professor in the Chemistry Department at Korea Advanced Institute of Science and Technology (KAIST). He received his B.S. degree from Seoul National University in 1977, and M.S. from KAIST in 1979. He obtained a chemistry Ph.D. degree in the field of heterogeneous catalysis at Stanford University in 1986, with a thesis titled 'Pt clusters supported on Y zeolite', under the supervision of Prof. Michel Boudart. After a one-year postdoctoral experience on solid-state NMR in the Prof. Alex Pines group at University of California at Berkeley in 1986, he started his faculty career as an assistant professor at KAIST. He carried out research on ^{129}Xe NMR of zeolites and EXAFS of supported metal nanoparticles until 1993 at KAIST. He then extended his research areas into synthesis of mesoporous materials. He is well known for his pioneering work on ordered mesoporous carbons, CMK-n. He obtained the award 'Leading Scientist in Research Front' from Thomson Scientific in 2007 for his carbon study. Later, he pioneered researches on tailored mesoporous materials in which the mesopore walls have a crystalline microporous zeolite structure. He has developed a synthesis route to such mesoporous materials, using various kinds of organic surfactants that are functionalized with a zeolite structure-directing agent. Recently, he developed a new catalytic carbonization route using La^{3+} , Y^{3+} and Ca^{2+} ions inside zeolite pores. He demonstrated that 3-dimensional graphenic carbons could be readily synthesized via the catalytic carbonization process using zeolite templates.

He received the Breck Award from the International Zeolite Association in 2010 for his work on MFI zeolite nanosheets. He was the third person to be bestowed with the 'National Scientist' title in Korea. He was listed among the Top 100 Chemists of the decade 2000-2010 by UNESCO & IUPAC, based on Thomson Reuters citation impact data. His work on tailored mesoporous zeolites was selected as one of the top 10 breakthroughs of 2011 by *Science* magazine. Later, he was placed on the list of Thomson Reuters' predictions for the 2014 Nobel Prize in Chemistry (jointly with Charles Kresge and Galen Stucky for *Design of Functional Mesoporous Materials*).

His current research interests lie in synthesis of nanostructured materials such as mesoporous materials, zeolitic materials, and metal nanoparticles, and their catalytic applications for future energy sources and green chemical technologies. He is author or coauthor of 260 papers published in international journals. His publications recorded more than 25,000 citations, resulting in an *h*-index of 78. For his publications and further information, visit <http://rryoo.kaist.ac.kr/>.

Education:

1973-1977 BS from Seoul National University
1977-1979 MS from Korea Advanced Institute of Science and Technology
1982-1985 PhD from Department of Chemistry at Stanford University
Major field: heterogeneous catalysis (Advisor: Prof. Michel Boudart)

Professional Career:

1979-1982 Researcher at Korea Atomic Energy Research Institute
1986 Postdoctoral researcher at University of California, Berkeley
Major field: solid state NMR (Supervisor: Prof. Alex Pines)
since 1986 Department of Chemistry
Korea Advanced Institute of Science and Technology
Assistant professor (1986-1990), Associate professor (1990-1996)
Professor (1996-present), Distinguished Professor (2008-present)
since 2012 Director of Center for Nanomaterials and Chemical Reactions
at Insitute for Basic Science

Academic Membership:

since 2001 Korean Academy of Science and Technology

Awards and Honors:

2014 Thomson Reuters Citation Laureate [*i.e.*, Thomson Reuters' predictions of 2014 Nobel Prize in Chemistry, jointly with Charles Kresge and Galen Stucky for *Design of Functional Mesoporous Materials*]
Leading Scientist Fellowship Award by S-Oil (2014)
Selected research in the top 10 breakthroughs of 2011 by *Science* magazine
Top 100 Chemist of the 2000-2010 Decade by UNESCO&IUPAC based on Thomson Reuters citation impact data (2011)
Breck Award by International Zeolite Association (2010)
Ho-Am Prize in Science by Samsung Co. (2010)
Distinguished Professor at KAIST (2008)
National Scientist by Ministry of Education, Science and Technology, Korea (2007)
Leading Scientist in a Research Front by Thomson Scientific and KOSEF (2007)
Top Scientist Award by Korean government (2005)
Academic Award by Korean Chemical Society (2002)
Professor of the Year at KAIST (2001)

Selected Journal Publications :

1. Kyoungsoo Kim, Taekyoung Lee, Yonghyun Kwon, Yongbeom Seo, Jongchan Song, Jung Ki Park, Hyunsoo Lee, Jeong Young Park, Hyotcherl Ihee, Sung June Cho & Ryong Ryoo, Lanthanum-catalysed synthesis of microporous 3D graphene-like carbons in a zeolite template, **Nature**, **535**, 131-135 (2016).
2. K. Na, C. Jo, J. Kim, K.Cho, J. Jung, Y. Seo, R. J. Messinger, B. F. Chmelka & R. Ryoo, Directing Zeolite Structures into Hierarchically Nanoporous Architectures, **Science**, **333**, 328-332 (2011)
3. M. Choi, K. Na, J. Kim, Y. Sakamoto, O. Terasaki & R. Ryoo, Catalytic Effect of Ultrathin MFI Zeolite Synthesized to a Single Unit Cell Thickness, **Nature**, **461**, 246-250 (2009)
4. S.H. Joo, S.J. Choi, I. Oh, J. Kwak, Z. Liu, O. Terasaki & R. Ryoo, Ordered nanoporous arrays of carbon supporting high dispersions of platinum nanoparticles, **Nature**, **412**, 169-172 (2001)
5. R. Ryoo, S.H. Joo & S. Jun, Synthesis of highly ordered carbon molecular sieves via template-mediated structural transformation, **J. Phys. Chem. B**, **103**, 7743-7746 (1999)