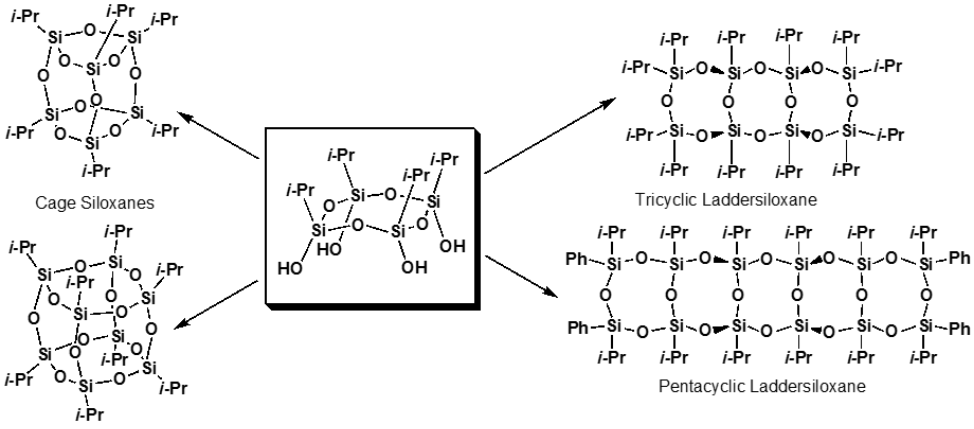
NANYANG TECHNOLOGICAL UNIVERSITY

CBC SEMINAR ANNOUNCEMENT

Professor Masafumi Unno
Gunma University

Well-defined siloxane materials: past and present

Synthesis of well-defined silsesquioxanes is now strongly desired especially from the industry because of recent high demanding to materials. Unlike conventional approach, we mostly control the structure of starting materials for the sake of the selective synthesis.
Cyclic silanols possess multiple hydroxyl groups in the molecule, and potential precursors to well-defined silsesquioxanes. We prepared many novel cyclic silanols,[1] and prepared cage, partial-cage, and ladder silsesquioxanes.[2] It is noteworthy that these silsesquioxanes shows expected high stability (thermal and photo- and radiochemical) as well as some unusual properties.
Detailed synthesis and properties of these silsesquioxanes based on our fundamental research in the last two decades, and very recent results are summarized in the presentation.



References
1. (a) M. Unno, Y. Kawaguchi, Y. Kishimoto, and H. Matsumoto, “Stereoisomers of 1,3,5,7-Tetrahydroxy-1,3,5,7-tetaisopropylcyclotetrasiloxane: Synthesis and Structures in the Crystal”, J. Am. Chem. Soc., 127, 2256–2263 (2005); (b) M. Unno, H. Endo, and N. Takeda, Synthesis and Structures of Extended Cyclic Siloxanes, Heteroatom Chem. 25, 525–532 (2014).
2. (a) N. Oguri, Y. Egawa, N. Takeda, and M. Unno, Janus-Cube Octasilsesquioxane: Facile Synthesis and Structure Elucidation, Angew. Chem. Int. Ed. 55, 9336-9339 (2016); (b) M. Unno, A. Suto, and T. Matsumoto, "Laddersiloxanes— Silsesquioxanes with defined ladder structure", Russ. Chem. Rev., 82, 289–302 (2013).

Date:	**19th October 2017 (Thursday)**
Time:	**11:00am – 12:30pm**
Venue:	**SPMS Research & Graduate Studies Office Conference Room**
Host:	**Assoc Professor Rei Kinjo**