BIOGRAPHICAL SKETCH

Yoke Khin Yap, Ph.D.

Professor of Physics
Director, Graduate Program in Applied Physics
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A. PROFESSIONAL PREPARATION:

University of Malaya (Kuala Lumpur, Malaysia), Physics	*B.Sc. (Hon)* 1992
University of Malaya (Kuala Lumpur, Malaysia), Physics	*M.Sc.* 1994
Osaka University (Osaka, Japan), Electrical Engineering	*Ph.D.* 1999
New Energy Industrial Tech Development Org./Osaka Univ.	*Scientist* (1999-2000)
The Japan Society for the Promotion of Science/Osaka Univ.	*JSPS Fellow* (2000-2002)

B. APPOINTMENTS:

Professor	Michigan Technological University (Since August 2011)
Associate Professor	Michigan Technological University (August 2006-August 2011)
Assistant Professor	Michigan Technological University (January 2002-August 2006)

C. Selected Publication:

1. S. Bhandari, B. Hao, K. Waters, C. H. Lee, J-C. Idrobo, D. Zhang, R. Pandey, Y. K. Yap, "Two-Dimensional Gold Quantum Dots with Tunable Bandgaps," *ACS Nano* **13**, 4347 (2019). News from Physorg, EurekAlert!, Nanowerk, Electropages, IntelligentThings, etc.
2. (Frontier Review) C. H. Lee, B. Tiwari, D. Zhang, Y. K. Yap, "Water Purification: Oil-water Separation by Nanotechnology and Environmental Concerns," *Environ. Sci.: Nano 2017,* **4**, 514-525. Environmental Science: Nano 2017 Most Downloaded Article.
3. B. Hao, A. Asthana, P. K. Hazaveh, P. L. Bergstrom, D. Banyai, M. A. Savaikar, J. A. Jaszczak, and Y. K. Yap, "New Flexible Channels for Room Temperature Tunneling Field Effect Transistors," *Scientific Report* **6**, 20293 (2016) *News coverage in EurekAlert, Phys.Org, IEEE Spectrum, Nanowerk, EE Times, NSF, Science Daily, R&D Magazine, Materials Gate, New Electronics, EETAsia, and numerous other.
4. B. Tiwari, D. Zhang, D. Winslow, C. H. Lee, B. Hao, Y. K. Yap, "A Simple and Universal Technique To Extract One- and Two-Dimensional Nanomaterials from Contaminated Water," *ACS Appl. Mater. Interfaces* **7**, 26108-26116 (2015). *News coverage in Nanowerk, PhysOrg, EurekAlert, NSF, ChemEurope, ScienceDaily, R & D Magazine, Science World Report, Quality Assurance & Food Safety, and numerous others.
5. V. Parashar, C. P. Durand, B. Hao, R. G. Amorim, R. Pandey, B. Tiwari, D. Zhang, Y. Liu, A-P. Li and Y. K. Yap, "Switching Behaviors of Graphene-Boron Nitride Nanotube Heterojunctions," *Scientific Reports* **5**, Article number: 12238 (2015) *Media Highlight in *Nanowerk*, *Scicasts*, *Electronics Weekly*, *EE Times*, *IEEE Spectrum*, *KurzweilAI*, and numerous others.
6. C. H. Lee, S.Y. Qin, M. A. Savaikar, J. Wang, B. Hao, D. Zhang, D. Banyai, J. A. Jaszczak, K.W. Clark, J.-C. Idrobo, A.-P. Li, Y. K. Yap, "Room-Temperature Tunneling Behavior of Boron Nitride Nanotubes Functionalized with Gold Quantum Dots," *Advanced Materials* **25**, 2544 (2013). * News Coverage in *Phys Org*, the *Register*, *Science World Report*, *IEEE Spectrum,* and *numerous others*.

7. (Review) Jiesheng Wang, Chee Huei Lee and Yoke Khin Yap, "Recent advancements in boron nitride nanotubes," *Nanoscale* **2**, 2028 (2010).
8. C. H. Lee, M. Xie, V. Kayastha, J. Wang and Y. K. Yap, "Patterned Growth of Long and Clean Boron Nitride Nanotubes on Substrates," *Chem. Mater.* ***22***, 1782 (2010). *News Coverage from *NSF, EurekAlert, Nano Today* (April 2010 issue) and numerous others.
9. A. Kumar, P. A. Lin, A. Xue, B. Y. Hao, Y. K. Yap, R. M. Sankaran, "Formation of Nanodiamonds at Near-Ambient Conditions via Microplasms Dissociation of Ethanol Vapor," *Nature Communications* 4, Article number: 2618, doi:10.1038/ncomms3618. *News Coverage in numerous media.
10. J. Wang, V. Kayastha, Y. K. Yap, et. al., "Low temperature growth of boron nitride nanotubes on substrates," Nano Letters.5, 2528 (2005). *Unsolicited News Coverage in Materials Today Vol. 9 (no 1-2), page 9, Jan-Feb 2006.

D. SYNERGISTRIC ACTIVITIES:

1. The creator and lead organizer of a MRS symposium series: 1) *Symposium MM: Nanotubes and Related Nanostructures* in Spring 2014; 2) *Symposium AA: Carbon Nanotubes, Graphene, and Related Nanostructures* in Fall 2011; 3) *Symposium K: Nanotubes and Related Nanostructures* in Fall 2009; and 3) *Symposium II: Nanotubes and Related Nanostructures*, in Fall 2007. More from the organizer team in 2016, 2018, etc.
2. The editor of four volumes of MRS Proceedings 1) "Nanotubes and Related Nanostructures—2014" (Vol. 1700), 2) "*Carbon Nanotubes, Graphene and Related Nanostructures*" (Vol. 1407), 3) "*Nanotubes and Related Nanostructures -2009*" (Vol. 1204), and 4) "*Nanotubes and Related Nanostructures*" (Vol. 1057).
3. The editor of a book, "*B-C-N nanotubes and related nanostructures*" (Springer 2009). Author of a series of book and encyclopedia chapters.
4. Reviewer of various funding agencies (including NSF, DOE, etc, and the 2015 DOE BES DMSE Triennial Review of the Oak Ridge National Laboratory projects) and international journals (*Science, Nature Nanotech., Nano Letters, ACS Nano, Advanced Materials, JACS, Chem. Mater., Appl. Phys. Lett.,* etc.)
5. Fellowships and Honors:

2018	The recipient of the MTU Research Award
2016-	Senator, MTU Senate
2015-	Osaka University *Global Alumni Fellow*
2014-2016	*Faculty Fellow* in Economy Development and Technology Commercialization, MTU Office of the Vice President for Research
2014-	*Member* of the MTU Research Advisory Council
2012-	*Member* of the MTU Graduate Faculty Council
2011	The recipient of the MTU Bhakta Rath Research Award
2010	*Task force member and sub-group leader* of MRS to provide input to the White House OSTP for the development of a revised Plan for the National Nanotechnology Initiative.
2008-2009	The first elected *Chair* of the User Group of the DOE Center for Nanophase Materials Sciences (CNMS) at Oak Ridge National Laboratory (ORNL)
2006	*US representative* to the 2006 NSF US-China Nanotechnology workshop.
2005-	*Board member* of Osaka University North America Alumni Association
2005-2007	*Charter member* of the users' executive committee of CNMS at ORNL
2005	NSF Faculty Early Career Development *(CAREER)* Award
2000-2002	*Fellow* of the Japan Society for the Promotion of Science (JSPS)
1995-1999	*Monbusho* Scholar of the Japanese Ministry of Education, Science, Sports, and Culture.