

Name: Hideaki Maeda, Ph. D.

Place of Birth: Tokyo, Japan

Date of Birth: August 31, 1949

Nationality: Japanese

Present Position: Director  
NMR Facility



Education:

1969-1975 Waseda University, Faculty of Electrical Engineering  
1980 Ph. D. degree

Academic Positions:

1975 -1988 Researcher, Toshiba Research and Development Center, Tokyo  
Shibaura Electric Co. Ltd.

1980 – 1981 Visiting Scientist, Francis Bitter National Magnet Laboratory, MIT,  
U.S.A.

1989 – 1996 Senior Research Scientist, Research and Development Center,  
Toshiba Co.

1996 – 1998 Senior Manager, Heavy Apparatus Engineering Laboratory, Toshiba  
Co.

1998 – 2000 Senior Manager, Power and Industrial Systems Research and  
Development Center, Toshiba Co.

2000 – 2002 Senior Technical Scientist, Protein Research Group (PRG), RIKEN  
Genomic Sciences Center (GSC)

2002 – 2008 Team Leader, Protein Research Group (PRG), RIKEN Genomic  
Sciences Center (GSC)

2008- 2013 Team Leader, NMR Technology Research Team, Systems and  
Structural Biology Center(SSBC)

2008- 2013 Guest Professor, Graduate School of Nano-bio-science, Yokohama  
City University

2009-2013 Director, NMR Core Technology Facility, Systems and Structural  
Biology Center(SSBC)

2013-present Facility Director, NMR Facility, Division of Structural and Synthetic  
Biology, RIKEN Center for Life Science Technologies

Membership:

Institute of Electrical Engineers of Japan  
 • Vice President of the Fundamentals and Materials Society (2005-2007)  
 • Chairman of the fact finding committee (2013-2015)  
 Cryogenics and Superconductivity Society of Japan  
 • Member of board of directors(1998-2000)  
 The nuclear Magnetic Resonance Society of Japan

Awards:

Best Paper Award, Cryogenic Association of Japan(1984)

Field of research:

NMR technology, Superconducting magnet technology,  
 Superconductor, Cryogenics, Electrical Engineering

Publications:**2014**

1. Maeda, H. and Yanagisawa, Y.: Recent developments in high temperature superconducting magnet technology (review): IEEE Transaction on Applied Superconductivity, **24**: 4602412, 2014.
2. Jin, X., Matsuda, H., T., Yanagisawa, Y., Sato, K., Piao, R., Nakagome, H., Takahashi, M., and Maeda, H.: Study on the mechanism of preventing degradation in the performance of REBCO coils: IEEE Transaction on Applied Superconductivity, **24**: 4600104, 2014.
3. Yanagisawa, Y., Takizawa, A., Hamada, M., Nakagome, H., Matsumoto, S., Kiyoshi, T., Suematsu, H., Jin, X., Takahashi, M., and Maeda, H.: Suppression of catastrophic thermal runaway for a REBCO innermost coil of an LTS/REBCO NMR magnet operated at 400-600 MHz (9.4-14.1T): IEEE Transaction on Applied Superconductivity **24**: 4301005, 2014.

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4. Yanagisawa, Y., Sato, S., Matsuda, T., Nagato, T., Kamibayashi, H., Nakagome, H., Jin, X., Takahashi, M., and Maeda, H.: An ultra-thin polyimide insulation coating on REBCO conductors by electrodeposition produces a maximum overall current density for REBCO coils: Physica C, **495**: 15-18, 2013.
5. Sato, K., Matsuda, T., Yanagisawa, Y., Nakagome, H., Kamibayashi, H., Uchida, A., Takahashi, M., and Maeda, H.: The performance of a practical size epoxy impregnated pancake coil wound with a polyimide electro-deposited (PIED) YBCO-coated conductor: IEEE Transaction on Applied Superconductivity, **23**: 4602504, 2013.
6. Yanagisawa, Y., Fukuda, T., Sato, K., Nakagome, H., Takao, T., Kamibayashi, H., Takahashi, M., and Maeda, H.: Use of a thermal grid method to increase thermal runaway current and suppress overheating for YBCO pancake coils operated at 77 K: IEEE Transaction on Applied Superconductivity, **23**: 4603505, 2013.
7. Matsumoto, S., Kiyoshi, T., Miyazoe, A., Otsuka, A., Hamada, M., Maeda, H., Yanagisawa, Y., Nakagome, H., Suematsu, H.: Operation of wax-impregnated GdBCO layer-wound coil using cryocoolers: IEEE Transaction on Applied Superconductivity, **23**: 4602704, 2013.

**2012**

8. Matsumoto, S., Kiyoshi, T., Otsuka, A., Hamada, M., Maeda, H. , Yanagisawa, Y., Nakagome, H., and Suematsu, H.: Generation of 24T at 4.2K using a layer-wound GdBCO insert coil with Nb<sub>3</sub>Sn and NbTi external magnetic field coils: Supercond. Sci. and Technol , **25**: 025017,2012.
9. Matsumoto, S., Choi, S., Kiyoshi, T., Ohtsuka, A., Hamada, M., Maeda, H., Yanagisawa, Y., Nakagome, H., and Suematsu, H.: REBCO layer-wound coil test under electromagnetic forces in an external magnetic field of up to 17.2T : IEEE Transaction on Applied Superconductivity. **22**: 9501604,2012.
10. Yanagisawa, Y., Sato, K., Piao, R., Nakagome, H., Takematsu, T., Takao, T., Kamibayashi, H., Takahashi, M., and Maeda, H.: Removal of degradation of the performance of the performance of an epoxy impregnated YBCO-coated conductor double pancake coil by using a polyimide-electrodeposited YBCO-coated conductor: Physica C , **476**: 19022 ,2012.
11. Yanagisawa, Y., Okuyama, E., Nakagome, H., Takemastu, T., Takao, T., Hamada, M., Matsumoto, S., Kiyoshi, T., Takizawa, A., and Maeda, H.: The mechanism of thermal runaway due to continuous local disturbances in the YBCO-coated conductor coil winding: Supercond. Sci. Technol. **25**: 075014 ,2012.
12. Takahashi, M., Ebisawa, Y., Tennmei, K., Yanagisawa, Y., Hosono, M., Takasugi, K., Hase, T., Miyazaki, T., Fujito, T., Nakagome, H., Kiyoshi, T., Yamazaki, T., and Maeda, H. : Towards a beyond 1GHz solid-state nuclear magnetic resonance: external lock operation in an eternal current mode for a 500MHz nuclear magnetic resonance: Rev. Sci. Instrum. **83**: 105110 ,2012.