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Dr. Naoki Ohashi was born in Tochigi, Japan, in 1965. He graduated from Graduate School of Science and Engineering of Tokyo Institute of Technology and received doctoral degree of engineering in 1992 for his study on high temperature superconductors (HTSC). He was selected as a Fellow of Japan Society for Promotion of Science in 1992 and continued his study on HTSC until 1993. He visited Europe including France when he was a graduate student, and it was an initiation for him into interaction with European scientists working in the field of materials science and technology. He had been appointed as an assistant professor of Tokyo Institute of Technology since 1993. At the same time, he was involved in the Frontier Ceramics Project operated by the Ministry of Education and Culture and started his study on electroceramics. He engaged in particularly the study on semiconductor oxide and these experiences formed basis of his scientific carrier. In 1999-2000, he was invited to Massachusetts Institute of Technology as a visiting scholar and joined Prof. Chiang group for study in the field of lead-free actuator materials. After returning to Japan in 2000, he moved from Tokyo Institute of Technology to National Institute for Research in Inorganic Materials (NIRIM). Due to change in Japanese governmental administration frameworks, NIRIM was reorganized as National Institute for Materials Science (NIMS) in 2001 and he has been working in NIMS until now. Currently, he is a director for Research Center for Functional Materials in NIMS and leading researcher for Japanese nationwide Materials Research project operated by the Ministry of Education, Culture, Sports, Science and Technology, Japan.

He continued his study on electroceramics, including oxides and nitrides, for development of optoelectronics. He has been in the front line of science and technology in electroceramics study, particularly on crystal growth and defect engineering of oxide semiconductors. He has published more than 300 scientific articles and some of his papers have been cited more than 100 times and total citation to his article far exceeded 6,000 times. For those contributions, he received awards and honors until now including Richard M. Fulrath Award from the American Ceramics Society. Because of his outstanding scientific contributions, he was invited to many academic conferences including European Materials Research Society and European Ceramics Society, to give lectures. He has been also contributed to high level education by sharing guest lecturer and guest professor positions, including honors to give lectures at École Polytechnique, France. He has hosted many intern students from over the world including students from French and US universities and French engineering schools. He made many contributions to not only academia but also industries. His inventions have been filed as international patents and he was a member of director board of a start-up utilizing his inventions. As mentioned, his activities are truly international in both academia and industry. Recently, he has been distinguished as a Doctorat Honoris Causa of Rennes University 1, France, in 2018 for his activity on electroceramics and its related materials science and technology, and he also received National Order of Merit Chevalier, from Republic of France in 2019.

Academic Background

Apr. 1981 - Mar. 1984	Tochigi High School, Tochigi, Japan
Apr. 1984 - Mar. 1988	Faculty of Engineering, Tokyo Institute of Technology, Tokyo, Japan Degree: Bachelor of Engineering (Inorganic Materials)
Apr. 1988 - Mar. 1990	Graduate School of Science and Engineering, Tokyo Institute of Technology, Tokyo, Japan, Degree: Master of Engineering, Mar. 26, 1990
Apr. 1990 - Jun. 1992	Graduate School of Science and Engineering, Tokyo Institute of Technology, Tokyo, Japan, Degree: Doctor of Engineering, Jun. 30, 1992

Professional Experiences

Apr. 1992 - Mar. 1993	Research Fellow, Japan Society for Promotion of Science
Apr. 1993 - Mar. 1999	Assistant Professor, Department of Inorganic Materials, Faculty of Engineering, Tokyo Institute of Technology, Tokyo, Japan
Jul. 1999 - Jun. 2000	Visiting Scholar, Department of Materials Science and Engineering, Massachusetts Institute of Technology, MA, USA
Jul. 2000 - Mar. 2001	Senior-Researcher, The 4th Research Group, National Institute for Research in Inorganic Materials, Japan
Apr. 2001 - Mar. 2002	Senior-Researcher, Electronic Materials Group, Advanced Materials Laboratory, National Institute for Materials Science (NIMS), Japan
Nov. 2007 - Mar., 2011	Director, Optoronic Materials Center, NIMS, Japan
Apr. 2011 - Mar. 2016	Director, Energy and Environmental Materials Division, NIMS, Japan
Apr. 2016 - Now	Director, Research Center for Functional Materials, NIMS, Japan

Professional Experiences (Guest and Visiting Position)

Apr. 1996 - Mar. 1997	Fixed Term Lecture, Yokohama City University, Japan
Apr. 2003 - Mar. 2008	Guest Lecture, Faculty of Science and Technology, Keio University, Yokohama, Japan
Apr. 2006 - Mar. 2007	Guest Associate Professor, Faculty of Science and Engineering, Tokyo University of Science, Chiba, Japan
Apr. 2007 - Mar. 2012	Guest Professor, Faculty of Science and Engineering, Tokyo University of Science, Chiba, Japan
Apr. 2008 - Now	Professor, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Fukuoka, Japan
Apr. 2009 - Mar. 2014	Professor, Department of Metallurgy and Ceramics Science, Graduate School of Science and Engineering, Tokyo Institute of Technology, Japan
Apr. 2013 - Mar. 2022	Professor, Materials Research Center for Elemental Strategy, Tokyo Institute of Technology, Tokyo, Japan

Awards and Honors (Selected)

May 22, 1999	Ceramics Society of Japan Award for Advancements in Ceramic Science and Technology
Dec. 2, 2004	Poster Award, 2004 MRS Fall Meeting, Boston, MA, USA, "Crystallinity and Polarity of III-V Nitride Semi conductors Grown on ZnO "
Dec. 27, 2005	Top Cited Paper Award, Catalyst Today, "Synthesis of nanosized nitrogen-containing MO_x-ZnO (M=W,V,Fe) composite powders by spray pyrolysis and their visible-light-driven photocatalysis in gas-phase acetaldehyde decomposition "
Oct. 26, 2009	Richard M. Fulrath Award from the American Ceramics Society, USA
Jun. 8, 2012	Ceramics Society of Japan Awards for academic achievements in ceramic science and technology,
Jun. 5, 2015	Outstanding Paper Award, Journal of Ceramics Society of Japan "Effects of dielectric film surface on oxygen diffusion"
Jun. 3, 2016	Fellow, Ceramics Society of Japan
Apr. 6, 2018	Le Doctorat Honoris Causa à l'Université de Rennes 1, France
Jan 15, 2019	Ordre national du Mérite, Chevalier, République Française

Selected Publications

- Ohashi, Naoki; Matsushita, Yoshitaka; Saito, Noriko: Experimental and theoretical investigation of crystal structure of formamidinium-copper-iodide single crystals grown from aqueous solution, *J. Solid State Chem*., 306, 2022, 122778-1–122778-10
- Ohashi, Naoki; Matsui, Yoshio; Segawa, Hiroyo; Tanida, Noboru; Nagaso, Satoshi; Nishida, Masaya; Okamura, Ichitaro; Osawa, Yuta; Noviyanto, Alfian; Soulie, Benjamin; Watanabe, Kenji; Nishimura, Toshiyuki; Ohsawa, Takeo; Ogiso, Yoshifumi; Omiya, Suetake: Chemothermal pulverization: Crushing titanate crystals to obtain nanosized powders via high-temperature treatment, *J. Am. Ceram. Soc*., 105(3), 2022, 1913–1927
- Ohsawa, Takeo; Tsunoda, Kei; Dierre, Benjamin; Grachev, Sergey; Montigaud, Herve; Ishigaki, Takamasa; Ohashi, Naoki: Growth-Parameter Dependence of Polarity and Electronic Transports in ZnO Thin Films Deposited by Magnetron Sputtering, *Phys. Status Solidi A-Appl. Mat*., 215(16), 2018, 1700838-1–1700838-7
- Horiba, Koji; Yukawa, Ryu; Mitsuhashi, Taichi; Kitamura, Miho; Inoshita, Takeshi; Hamada, Noriaki; Otani, Shigeki; Ohashi, Naoki; Maki, Sachiko; Yamaura, Jun-ichi; Hosono, Hideo; Murakami, Youichi; Kumigashira, Hiroshi: Semimetallic bands derived from interlayer electrons in the quasi-two-dimensional electride Y_2C, *Phys. Rev. B*, 96(4), 2017, 45101-1–45101-5
- Ohashi, Naoki; Yoshikawa, Hideki; Yamashita, Yoshiyuki; Ueda, Shigenori; Li, Jianyong; Okushi, Hideyo; Kobayashi, Keisuke; Haneda, Hajime: Determination of Schottky barrier profile at Pt/$SrTiO_3$:Nb junction by x-ray photoemission (vol 101, 251911, 2012), *Appl. Phys. Lett*., 102(7), 2013, 79901-1–79901-1
- Ohashi, Naoki; Adachi, Yutaka; Ohsawa, Takeo; Matsumoto, Kenji; Sakaguchi, Isao; Haneda, Hajime; Ueda, Shigenori; Yoshikawa, Hideki; Kobayashi, Keisuke: Polarity-dependent photoemission spectra of wurtzite-type zinc oxide, *Appl. Phys. Lett*., 94(12), 2009, 122102-1–122102-3
- Ohashi, Naoki; Wang, Yu-Guang; Ishigaki, Takamasa; Wada, Yoshiki; Taguchi, Hiroyuki; Sakaguchi, Isao; Ohgaki, Takeshi; Adachi, Yutaka; Haneda, Hajime: Lowered stimulated emission threshold of zinc oxide by hydrogen doping with pulsed argon-hydrogen plasma, *J. Cryst. Growth*, 306(2), 2007, 316–320
- Li, D; Ohashi, N; Hishita, S; Kolodiazhnyi, T; Haneda, H: Origin of visible-light-driven photocatalysis: A comparative study on N/F-doped and N-F-codoped TiO_2 powders by means of experimental characterizations and theoretical calculations, *J. Solid State Chem*., 178(11), 2005, 3293–3302
- Ohashi, N; Ebisawa, N; Sekiguchi, T; Sakaguchi, I; Wada, Y; Takenaka, T; Haneda, H: Yellowish-white luminescence in codoped zinc oxide, *Appl. Phys. Lett*., 86(9), 2005, 91902-1–91902-3
- Grasset, F; Saito, N; Li, D; Park, D; Sakaguchi, I; Ohashi, N; Haneda, H; Roisnel, T; Mornet, S; Duguet, E: Surface modification of zinc oxide nanoparticles by aminopropyltriethoxysilane, *J. Alloy. Compd*., 360(1-2), 2003, 298–311
- Ohashi, N; Kataoka, K; Ohgaki, T; Miyagi, T; Haneda, H; Morinaga, K: Synthesis of zinc oxide varistors with a breakdown voltage of three volts using an intergranular glass phase in the bismuth-boron-oxide system, *Appl. Phys. Lett*., 83(23), 2003, 4857–4859
- Ohashi, N; Ishigaki, T; Okada, N; Sekiguchi, T; Sakaguchi, I; Haneda, H: Effect of hydrogen doping on ultraviolet emission spectra of various types of ZnO, *Appl. Phys. Lett*., 80(16), 2002, 2869–2871
- Sheets, SA; Soukhojak, AN; Ohashi, N; Chiang, YM: Relaxor single crystals in the $(Bi_{1/2}Na_{1/2})_{1-x}Ba_xZr_yTi_{1-y}O_3$ system exhibiting high electrostrictive strain, *J. Appl. Phys*., 90(10), 2001, 5287–5295