

Short Curriculum Vitae

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Hideo Hosono, born in 1953, received his Ph. D. at Tokyo Metropolitan University in 1982. He became Research Associate (1982) and Associate Professor (1990) at Nagoya Institute of Technology, and then Associate Professor (1993) of Tokyo Institute of Technology. He was promoted to Professor (1999) of Functional Ceramics Division at Materials and Structures Laboratory (MSL), Tokyo Tech, via an associate professor at Institute for Molecular Science (1995-97) and moved to Frontier Collaborative Research Center, Tokyo Tech, from October, 2004, keeping the position at MSL. He has served the leader of ERATO "Hosono Transparent Electro-Active Materials Project" (1999.10-2004.9) sponsored by Japan Science and Technology (JST) and is leading the 21st Century COE project "Nanomaterial Frontier Cultivation for Industrial Collaboration" sponsored by the MEXT, Japan. He received the Progress (1986) and Scientific (1999) Awards from the Ceramic Society of Japan, Scientific Award from the Chemical Society of Japan (2004), the Ichimura Scientific Award (1997), the Inoue Scientific Award (2001), the 1st Otto-Schott Research Award (Ernst-Abbe Foundation, Germany, 1990), the W.H.Zachariasen Award (1995), and the Best Paper Award of SPIE(2002). His main research field are Inorganic Materials Science and Wide-Gap Oxide Semiconductors. In particular, he focus is placed on frontier cultivation of active functions in transparent oxides utilizing nano-structures. He has published ~ 450 original papers and ~70 patents. Selected recent publications are as follows:

1. Kawazoe,H.;Yasukawa,M.; Yanagi, H.;and Hosono,H., P-type electrical conduction in transparent thin films of CuAlO_2 , *Nature*, 389, 939~942 (1997).
2. Nomura, K.; Ohta, H.; Ueda, K.; Kamiya, T.; Hirano, M.; Hosono, H. Thin-film transistor fabricated in single-crystalline transparent oxide semiconductor.

Science 300, 1269-1272 (2003).

3. Hayashi, K.; Matsuishi, S.; Kamiya, T.; Hirano, M.; Hosono, H. Light-induced conversion of an insulating refractory oxide into a persistent electronic conductor. **Nature** 419, 462-465 (2002).
4. Matsuishi, S.; Toda, Y.; Miyakawa, M.; Hayashi, K.; Kamiya, K.; Hirano, M.; Tanaka, I.; Hosono, H. High-density electron anions in a nano-porous single crystal: $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(4\text{e}^-)$. **Science** 301, 626-629 (2003).
5. Nomura, K.; Ohta, H.; Takagi, A.; Kamiya, T.; Hirano, M.; Hosono, H. Room-Temperature Fabrication of Transparent Flexible Thin Film Transistors Using Amorphous Oxide Semiconductors," **Nature**, 432, 488 (2004)..