

BIOGRAPHY OF THE 2009 KYOTO PRIZE LAUREATE IN ADVANCED TECHNOLOGY

Prize Field: Electronics

Dr. Isamu Akasaki

Semiconductor Scientist

Affiliation:	Nagoya University Meijo University	Title/Position:	University Professor Professor
Date of Birth:	January 30, 1929	Nationality:	JAPAN

Brief Biography:

1929 Born in Chiran, Kagoshima, Japan
1952 B. Sc., Kyoto University
1964 D. Eng., Nagoya University
1952-1959 Kobe Kogyo Corporation (currently Fujitsu Ltd.)
1959-1964 Research Associate, Assistant Professor and Associate Professor, Nagoya University
1964-1981 Head of Basic Research Laboratory 4, Matsushita Electric Industrial Co. Ltd.
1981-1992 Professor, Nagoya University
1992-present Professor Emeritus, Nagoya University
1992-present Professor, Meijo University
2004-present University Professor, Nagoya University

Selected Awards and Honors:

1995 Heinrich Welker Gold Medal
1997 Medal with Purple Ribbon (Japan)
1998 IOCG Laudise Prize, C&C Prize, IEEE Jack A. Morton Award Rank Prize
1999 Honoris Causa Doctorate of University of Montpellier
2001 Asahi Prize
Honoris Causa Doctorate of Linkoping University
2002 The Order of the Rising Sun, Gold Rays with Neck Ribbon
JSAP Outstanding Achievement Award, Fujihara Prize
2004 Person of Cultural Merits
Members: IEEE Fellow, Honorary Member of IEICE, Emeritus Member of JSAP, Foreign Associate of the US National Academy of Engineering

Selected Publications:

1986 Metalorganic vapor phase epitaxial growth of a high quality GaN film using an AlN buffer layer (Amano, H., Sawaki, N., Akasaki, I. and Toyoda, Y.). *Applied Physics Letters* **48**: 353-355.
1989 Effects of AlN Buffer Layer on Crystallographic Structure and on Electrical and Optical Properties of GaN and Ga_{1-x}Al_xN (0 < x ≤ 0.4) Films Grown on Sapphire Substrate by MOVPE (Akasaki, I., Amano, H., Koide, Y., Hiramatsu, K. and Sawaki, N.). *Journal of Crystal Growth* **98**: 209-219.
1989 P-Type Conduction in Mg-Doped GaN Treated with Low-Energy Electron Beam Irradiation (LEEBI) (Amano, H., Kito, M., Hiramatsu, K. and Akasaki, I.). *Japanese Journal of Applied Physics* **28**: L2112-L2114.
1997 Crystal Growth and Conductivity Control of Group III Nitride Semiconductors and Their Application to Short Wavelength Light Emitters (Akasaki, I. and Amano, H.). *Japanese Journal of Applied Physics* **36**: 5393-5408.
2006 Breakthroughs in Improving Crystal Quality of GaN and Invention of the p-n Junction Blue-Light-Emitting Diode (Akasaki, I. and Amano, H.). *Japanese Journal of Applied Physics* **45**: 9001-9010.