### **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

2024 – TSUNENOBU KIMOTO Professor, Kyoto University, Kyoto, Japan "For contributions to silicon carbide material and power devices."

2023 - H.-S. PHILIP WONG
Willard R. and Inez Kerr Bell
Professor in the School of
Engineering, Stanford University,
Stanford, California, USA

"For contributions to novel and advanced semiconductor device concepts and their implementation."

2022 – HEIKI RIEL
IBM Fellow, Lead IBM Research
Quantum Europe & Africa, Zurich,
Switzerland

"For contributions to materials for nanoscale electronics and organic lightemitting devices."

2021 – HIDEAKI AOCHI Senior Expert, Institute of Memory Technology Research and Development, Kioxia Corporation, Kanagawa, Japan "For pioneering and sustained contributions to high-density, three-dimensional flash memory."

AND

RYOTA KATSUMATA Deputy General Manager, Advanced Memory Development Center, Kioxia Corporation, Mie, Japan

AND

MASARU KITO Group Manager, Advanced Memory Development Center, Kioxia Corporation, Mie, Japan

> "For pioneering contributions to microelectronics fabrication technologies for nanoscale and photonic devices."

2020 – EVELYN L. HU
Tarr-Coyne Professor
of Applied Physics and Electrical
Engineering, John A. Paulson
School of Engineering and Applied
Sciences, Harvard University,
Cambridge, Massachusetts, USA

2019 – DIGH HISAMOTO Chief Senior Scientist, Hitachi; Ltd., Tokyo, Japan "For pioneering work in the manufacturing of three-dimensional double-gate MOSFET devices."

2018 - GURTEJ S. SANDHU

"For contributions to silicon CMOS process technology that enable DRAM and NAND memory chip scaling."

### **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

Senior Fellow, Director, Emerging Memory Technologies R&D, Micron Technology Inc., Boise, Idaho, USA

2017 – SORIN CRISTOLOVEANU
Director of Research, The French
National Centre for Scientific
Research, Grenoble, France

"For contributions to silicon-on-insulator technology and thin body devices."

2016 - CARLOS H. DÍAZ
Director, Advanced Logic
Technology Development, Taiwan
Semiconductor Manufacturing Co.,
Hsinchu, Taiwan

"For sustained contributions to and leadership in foundry advanced CMOS logic transistor technology."

2015 – MASAYOSHI ESASHI Professor, Tohoku University, Sendai, Miyagi, Japan "For developments in micro-electromechanical systems (MEMS) used in transportation and industrial electronics."

2014 – SANJAY BANERJEE

Cockrell Regents Chair Professor of
Electrical and Computer Engineering
and Director, Microelectronics
Center, University of Texas,
Austin, Texas, USA

"For contributions to column-IV MOSFETs and related materials processing."

2013 – SHINICHI TAKAGI Full Professor, The University of Tokyo, Tokyo, Japan "For contributions to the understanding of transport properties in inversion layers of high-performance MOSFETs."

2012 – JEAN-PIERRE COLINGE Head of the Micro-Nano Electronics Centre, Tyndall National Institute, University College Cork Cork, Ireland "For contributions to silicon-on-insulator devices and technology."

2011 – JUDY HOYT
Professor, Massachusetts Institute of
Technology,
Cambridge, MA, USA

"For seminal contributions to the demonstration of Si/Ge lattice mismatch strain engineering for enhanced carrier transport properties in MOSFET devices."

AND

EUGENE A. FITZGERALD
Merton C. Flemings SMA Professor of
Materials Engineering,
Massachusetts Institute of
Technology,
Cambridge, MA, USA

### **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

2010 – BIJAN DAVARI IBM Fellow, Vice President IBM Corporation Yorktown Heights, NY, USA "For contributions to high performance deep-submicron CMOS technology."

2009 – ERIC FOSSUM Chairman & CEO, Siimpel Corporation, Arcadia, CA, USA

"For significant contributions to the invention, development and commercialization of CMOS image sensors."

2008 – STEFAN LAI
Retired Vice President, Technology &
Manufacturing Group, Intel
Corporation,
Santa Clara, CA, USA

"For contributions in developing Flash memory into a main stream non-volatile memory and the development of multiple generations of Flash memory technologies"

2007 – JAMES D. PLUMMER Dean of Engineering Stanford University, Stanford, CA, USA "For seminal contributions to the modeling, simulation and physics of silicon devices."

2006 – CHANG-GYU HWANG
President and CEO of
Samsung Electronics Co, Ltd
Gyeonggi-Do, Korea

"For contributions to the development of advanced memory products."

2005 – TSO-PING MA
Raymond John Wean Professor and
Chairman of Electrical Engineering
Yale University, New Haven, CT, USA

"For contributions to the development and understanding of CMOS gate dielectrics."

2004 – KRISHNA SARASWAT Professor, Dept of Electrical Engrg Stanford University, Stanford, CA, USA "For seminal contributions to silicon process technology."

2003 – MARK BOHR
Fellow, Director of Process
Architecture & Integration
Intel Corporation,
Hillsboro, OR, USA

"For leadership in scaling of advanced CMOS technology for microprocessors."

### **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

2002 – DIMITRI A. ANTONIADIS Massachusetts Institute of Technology Cambridge, MA, USA "For seminal contributions to field-effect devices and silicon process modeling."

2001 – AL F. TASCH, JR.
University of Texas at Austin,
Austin, TX, USA

"For contributions to MOS technology, and ion implantation and device modeling."

# Beginning with the year 2001, the Jack A. Morton Award was renamed the <u>IEEE Andrew S. Grove Award</u>

2000 – WOLFGANG FICHTNER
Swiss Federal Institute of
Technology
Zurich, Switzerland

"For outstanding contributions to semiconductor device simulations."

1999 – CHARLES H. HENRY Lucent Technologies, Bell Laboratories Murray Hill, NJ "For fundamental contributions to the understanding of the optical properties of quantum wells and semiconductor lasers."

1998 - ISAMU AKASAKI Meijo University Nagoya, Japan

1997 - CHENMING HU

"For contributions in the field of group-III nitride materials and devices."

AND

SHUJI NAKAMURA Nichia Chemical Industries, Ltd. Tokushima, Japan

"For outstanding contributions to the physics and modeling of MOS device reliability."

1996 – ROBERT W. DUTTON Stanford University Stanford, CA, USA

University of California

Berkeley, CA, USA

"For seminal contributions to semiconductor process and device modeling."

1995 – YOSHIO NISHI Hewlett-Packard Company Palo Alto, CA, USA "For contributions to the basic understanding and innovative development of MOS device technology."

1994 – ROBERT E. KERWIN AT&T Warren, NJ, USA AND "For pioneering work and the basic patent on the self-aligned silicon-gate process, a key element in fabrication of very large scale integrated circuits."

### **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

DONALD L. KLEIN IBM Corporation Hopewell Junction, NY, USA

AND

JOHN C. SARACE Rockwell International Anaheim, CA, USA

1993 – TOSHIHISA TSUKADA Hitachi, Ltd. Tokyo, Japan

1992 – TAKUO SUGANO University of Tokyo Tokyo, Japan

1991 – TAK H. NING HWA N. YU IBM Corporation Yorktown Height, NY, USA

1990 - GREGORY E. STILLMAN University of Illinois Urbana, IL

and CHARLES M. WOLFE Washington University St. Louis, MO, USA

1989 – CHIH-TANG SAH University of Illinois Urbana, IL, USA

1988 – FRANK STERN IBM Corp. Yorktown Heights, NY, USA

1987 - DENNIS D. BUSS AND

RICHARD A. CHAPMAN

AND

MICHAEL A. KINCH Texas Instruments Dallas, TX, USA

1986 – HERBERT KROEMER University of California Santa Barbara, CA, USA "For contributions to the discovery and development of Buried Heterostructure (BH) semiconductor lasers."

"For contributions to Metal-Insulator-Semiconductor Devices and Technology."

"For contributions to the development of advanced bipolar and MOS devices."

"For the growth and characterization of ultra-high purity gallium arsenide and related compounds."

"For contributions to the understanding of semiconductor defects and the physics of MOS devices."

"For contributions to the theory of injection lasers and two-dimensional electron gases."

"For the demonstration and development of mercury cadmium telluride monolithically- integrated charge-coupled device focal plane arrays."

"For pioneering the theory and device applications of semiconductor heterostructures."

# **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

(Formerly the IEEE Jack A. Morton Award)	
1985 – ROBERT D. BURNHAM AND WILLIAM STREIFER Xerox Corp. Palo Alto, CA, USA	"For contributions to electrically pumped distributed feedback lasers and high-power phased-locked laser arrays."
AND DONALD R. SCIFRES Spectra Diode Laboratories San Jose, CA, USA	
1984 – HANS S. RUPPRECHT AND JERRY M. WOODALL IBM Corp. Yorktown Heights, NY, USA	"For pioneering work in gallium aluminum arsenide heterojunctions and high efficiency light emitting diodes and injection lasers prepared by liquid phase epitaxy."
1983 – JUN-ICHI NISHIZAWA Tohoku University Sendai, Japan	"For invention and development of the class of static induction transistors (SIT) and for advances in optoelectronic devices."
1982 – DOV FROHMAN-BENTCHKOWSKY INTEL Elec. Jerusalem, Israel	"For contributions to non-volatile semiconductor memories."
1981 – NICK HOLONYAK, JR. University of Illinois Urbana, IL, USA	"For pioneering work in quantum well lasers and contributions to visible semiconductor lasers and light-emitting diodes."
1980 – JAMES F. GIBBONS Stanford University Stanford, CA, USA	"For pioneering contributions to the use of ion implantation in the fabrication of semiconductor devices."
1979 - MARTIN P. LEPSELTER Bell Laboratories Murray Hill, NJ, USA	"For invention of the beam-lead structure and metallurgy used in silicon integrated circuits."
1978 – JURI MATISOO IBM Corp. Yorktown Heights, NY, USA	"For pioneering the Josephson computer technology."
1977 – MORGAN SPARKS Sandia Corp. Albuquerque, NM, USA	"For contributions to solid-state device technology and the management of research and development."
1976 – ROBERT N. HALL General Electric Co.	"For outstanding achievement in solid-state physics and chemistry and the

# **RECIPIENTS**

(Formerly the IEEE Jack A. Morton Award)

Schenectady, NY USA

invention and development of semiconductor devices."