

Prof. Dr. Henning Riechert

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Current Position: Director of the Paul-Drude-Institut für Festkörperelektronik and Professor (W3) for Experimental Physics and Materials Science at the Humboldt-Universität zu Berlin

University Education

Studies in Physics (1975 – 1982), Universität Bonn, Diploma in Physics (with distinction), Supervisor: Prof. Dr. G. Althoff

Scientific Degrees

Dr. rer. nat. (1986), Physics, Universität Köln, Advisor: Prof. Dr. M. C. Campagna

Diplom-Physiker (1982), Universität Bonn

Professional Experience

Since 11/2007 - Director of the Paul-Drude-Institut in Berlin, Germany and Professor at the Humboldt-Universität zu Berlin

2006 - Senior Principal Scientist for Materials Science at Qimonda AG, designated scientific director of Namlab gGmbH, Dresden, Germany

2005 - Technical Manager for Nanomaterials Topics at Infineon Corporate Research, Munich

2001 - Department head for Photonics within Corporate Research, full responsibility for technical direction, personnel and budget, Infineon, Munich

1999 - Transfer from Siemens to Infineon Technologies, Infineon Corporate Research, Munich

1994 - Project manager, responsibility for technical direction, budget and external funding for the MBE group, multiple projects on devices based on group-III nitrides and dilute nitrides, main results:

first InGaN-LED in Europe (1996)

first monolithically grown 1.3 μ m vertical-cavity surface-emitting laser (2001)

1987 - Responsible for setting up and operating molecular beam epitaxy (MBE) lab, under various device programs (III-V electronics and optoelectronics), Siemens, Munich

1986 - Research Staff Member at Siemens AG, Corporate Research and Development, Munich

Selected Recent Publications

ca. 300 publications in peer-reviewed journals, H-Index 37

R. Averbeck, H. Tews, A. Graber and H. Riechert, "Blue and green electroluminescence from GaN/InGaN heterostructures", Electronics Letters, vol. 32, p.2004 (1996)

Henning Riechert, Arun Ramakrishnan and Gunther Steinle, "Development of InGaAsN-based 1.3 μm VCSELs", Invited review article in Semiconductor Science and Technology, vol 17, pp. 892-897 (2002)

Breuer, S., C. Pfüller, T. Flissikowski, O. Brandt, H. T. Grahn, L. Geelhaar, and H. Riechert, Suitability of Au- and self-assisted GaAs nanowires for optoelectronic applications, Nano Lett. 11, 1276–1279 (2011).

Consonni, V., M. Hanke, M. Knelangen, L. Geelhaar, A. Trampert, and H. Riechert, Nucleation mechanisms of self-induced GaN nanowires grown on an amorphous interlayer, Phys. Rev. B 83, 035310, (2011).

Jumpei Kamimura, Peter Bogdanoff, Jonas Lähnemann, Christian Hauswald, Lutz Geelhaar, Sebastian Fiechter, and Henning Riechert, Photoelectrochemical Properties of (In,Ga)N Nanowires for Water Splitting Investigated by in Situ Electrochemical Mass Spectroscopy, J. Am. Chem. Soc., 135 (28), pp 10242–10245, (2013)

Selected memberships in advisory boards and review panels

Advisory boards of international conferences:

European MBE-Workshop, since 1997

International Symposium on Compound Semiconductors (ISCS), since 2004

International Conference on Molecular Beam Epitaxy, since 2000

Physics and Chemistry of Surfaces and Interfaces (PCSI), since 2011

Energy Frontier Research Center "Center for energy efficient materials", based at UCSB, USA: Member of Scientific Advisory Board (since 2010)

International Peer Review Board of the Research School COBRA, Eindhoven, Netherlands: Head of int. Peer Review Panel 2010

MRS Communications (Journal): Member of advisory board (since 2013)

Selected talks

Plenary (opening) talk at EuroMBE 2013, Levi, Finland

Plenary talk at the International Conference on Semiconductor Physics, ICSP 2008, Rio de Janeiro, Brasil

Plenary talk at InP and Related Compounds (IPRM) 2003, Santa Barbara, USA

Short Course at 18th IEEE International Conference on Semiconductor Lasers, ICSL 2002, Garmisch, Germany

Patents

> 15 patents