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Born in Irkutsk region, Russia



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Education and Skill:

July'66 - June'71	Novosibirsk State University, Chemistry Department, Russia
Oct.'71 - Oct.'74	PhD course at the Institute of Semiconductor Physics, Novosibirsk
May 1977	The degree "Candidate of Chemical Sciences" (PhD)
December 1991	The degree "Doctor of Chemical Sciences" (Habilitation)

Experience:

1974 - 1980	Research Scientist, Institute of Semiconductor Physics (ISP), Russia
1980 - 1990	Senior Scientist, ISP.
1990 - 1995	Head of Laboratory, ISP.
1995 - 2001	Visiting Professor, IMEC, Leuven, Belgium
2001 - 2003	R&D Director, XPEQT, Switzerland/Belgium
2010-2013	Visiting Professor of Buryat State University (Ulan-Ude, Russia) and South Kazakhstan State University (Shymkent, Kazakhstan)
2013 -	visiting Professor at Moscow State University (Skobeltsyn Institute of Nuclear Physics, Microelectronics Department).
2016 -	visiting Professor of North China University of Technology (Beijing)
2003 -	present: Principal Scientist, IMEC, Belgium

Public activities and honors:

1993 – 1995: Principal Investigator of International Science Foundation's Grant "Elementary Stages of Interaction of Elemental Semiconductors with Halogens"

2000: Award for the best lecture at Anniversary Symposium of Mattson Europe

2000-2013: Member of Organizing and Program Committees of several International conferences (PESM (Belgium, France), MAM (Belgium), ICMNE (Russia), Euromat 2009 (Scotland), PGL, 2000-2011 (Poland), Spring MRS 2011, 2013, 2015 (USA) etc.

1995-2015: more than 70 invited lectures at International Scientific Conferences;

2010-2011: Coordinator of Pilot trial projects in Eu-Ru-NET project (FP-7).

2013: Chairman of Interconnect Symposium at Spring MRS (San Francisco).

2014: Member of Scientific Board of Eurotex Brussels.

2015: Chairman of Interconnect Symposium at Spring MRS (San Francisco).

2013-2015: Contributor of low-k/barrier parts of International Technology Roadmap for Semiconductors (ITRS)

2015: Co-founder and Member of Board of Directors of Leuven Instruments.

Membership:

Materials Research Society (USA), Electrochemical Society (USA), American Vacuum Society (USA).

Publications:

More than 600 publications (including > 230 papers in peer reviewed journals), >30 granted patents and >60 invited presentations at International conferences, Editor and contributor of several books.

The most known books:

- M. Baklanov, K. Maex, M. Green (Eds.). Dielectric films for advanced microelectronics. Wiley & Sons, 2007.
- M. Baklanov, P. S. Ho, E. Zschech (Eds.). Advanced interconnects for ULSI technology. Wiley & Sons, 2012.

The most successful patents: Three patents related to ellipsometric porosimetry (EP). The EP system is presently under industrial production by Company “Semilab” and it is a standard system for evaluation of nanoporous low-k films developed for nanoelectronics. Four (4) patents related to damage free cryogenic etching that allowed to achieve the lowest integrated k-value in ultralow-k materials.

Articles citations:

6271 citations, h-index is 37, i10=120 (number of papers cited more than 10 times) (https://scholar.google.com/citations?user=oU5_bOkAAAAJ&hl=ru)

The most cited papers (the status for January 2016) are

- *Low dielectric constant materials for microelectronics*, Maex K; Baklanov M. R; et al. JOURNAL OF APPLIED PHYSICS , **93**, 8793-8841, 2003 (**1238 citations**: the most cited paper at IMEC and in the field of Cu/low-k interconnect technology - worldwide);
- *Determination of pore size distribution in thin films by ellipsometric porosimetry*, Baklanov M.R. et al. JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B, **18**, 1385-1391, 2000 (**381 citations**: the most cited paper in the field of Cu/low-k metrology – at IMEC and worldwide);
- *Non-destructive characterization of porous low-k dielectric films*, Baklanov M.R.; Mogilnikov K.P., Microelectronic Engineering, **64**, 335-349, 2002 (**152 citations**).