

CV—Per Olov Risman

Employments, etc.

- 1968 MSEE (Electro- and microwave technology) at Chalmers Univ. of Technology, Sweden.
- 1968–79 Microwave oven division at the Swedish company Husqvarna; R&D mgr from 1969.
- 1975– Swedish representative and expert in international microwave safety standardisation. Chairman 1977–97 of the Swedish and international (IEC – International Electrotechnical Commission) Committees 61B and 59H for microwave oven safety testing and performance measurements. 2002–2010: Main author of the international safety and measurement standards for commercial and industrial microwave equipment and installations (also group convenor), within the related IEC Committees 61B and 27. Since 2007: very active in modernisation of the safety and energy efficiency standardisation principles of industrial electroheating equipment (also group convenor), as well of the terminology as (convenor of the maintenance team) – IEC Committee 27.
- 1979– Own consulting company Microtrans AB founded 1979. Major clients in microwave ovens (Philips/Whirlpool 1982–98), microwave heating physics, microwave modelling, and microwave chemistry (Personal Chemistry, now Biotage, 1998–2003). Most recent client names are confidential.
- 1988–93 Part-time employment as researcher in microwave physics at the Swedish Food Institute (SIK), Göteborg Sweden.
- 1992–2004 Board member of the International Microwave Power Institute (IMPI; the world's only non-communication microwave non-profit organisation which publishes a scientific journal and also arranges annual symposia; *www.impi.org.*). IMPI President 2001-2003.
- 1994–2001 Partner in the Rubbright Group, Inc. in St Paul, MN, USA, with its Microwave Research Centre (active in licensing POR patents and in microwave process consulting). [The company was dissolved after the founder Harry Rubbright died in 2001.]
- 1996– Co-operation with the advanced microwave modelling software company QWED, Poland (*www.qwed.eu*) on microwave heating physics and applications.
- 2003– Co-owner of E×H LLC (St. Paul (MN) USA, with G W Leimer), active in licensing POR patents.

Achievements

- Published more than 25 full scientific papers and more than 25 articles in professional and trade journals. Two best paper awards from publications. Author of four chapters in an engineering book *Development of packaging and products for microwave ovens* (M. Lorence and P. Pesheck, ed.), published in 2009 by Woodhead Publishing (UK).
 - Referee and adjudicator for physics and technology journals.
 - Inventor of more than 50 patent families, mainly on microwave applicators, processes and safety systems. Two major patents are the first and basic on humidity sensing for microwave oven heating control, and the Whirlpool “Double Emission System” which enabled the company to grow to #1 in Europe and #3 in the world in microwave oven production towards the end of the 1990's. From 2003, particular open-ended industrial applicators (“HERA”) are very successful.
 - Elected IMPI Fellow (1990, for scientific papers).
 - IEC 1906 Award (2010, for microwave safety and test method standardisation work).
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