

30 years of IVESC – a short historical review

Georg Gaertner, Consultant, Aachen, Germany

Email: georg.f.gaertner@t-online.de

With the 16th International Vacuum Electron Sources Conference (IVESC) 2026 here in Bad Honnef, Germany, we also celebrate 30 years of IVESC. At the 1994 TRI Services/NASA Cathode Workshop in Cleveland / USA it was decided to start an international vacuum electron sources conference in continuation of this biennial cathode workshop, which had been organized by the cathode research groups in US Army, Navy and Airforce, and by NASA since 1978 in USA, but only with limited participation by European and Japanese researchers. The 16th IVESC is also the 25th cathode conference in the sequence Cathode Workshops → IVESC. The first IVESC was organized by Philips Research and took place in Eindhoven / The Netherlands in 1996 and was chaired by Dr. Sjaak Deckers from Philips Research. About 200 participants gathered there (105 from Western Europe, 27 from Eastern Europe, 23 from Japan, 2 from Korea, 33 from USA). The Proceedings (a selection of 54 papers) were published in a special issue of Applied Surface Science, a tradition which lasted till the 5th IVESC. It was also decided to change the location biennially from Europe to Asia and then to USA. In 1998 the second IVESC was held in Tsukuba/Japan and was chaired by Prof. Shigehiko Yamamoto from the University of Tsukuba, with some 182 participants, among these 142 from Asia. The third IVESC in Orlando, Florida followed in 2000, hosting 106 participants, among these 56 from USA. It was chaired by Edwin Wintucky from NASA and was locally organized by IEEE. The fourth IVESC in Saratov in 2002 was the first IVESC in Russia and had in total 176 participants (142 from Russia). The 5th IVESC 2004 in Beijing hosted about 166 participants from 14 countries, among these 144 from Asia Pacific, presenting about 165 papers in form of orals or posters (116 from China). 45 selected papers were published in Appl. Surf. Sci. 251 (2005). The 6th IVESC in Monterey, California was a joint conference with the 7th IVEC. General Chair was Robert Fickett (CPI, USA) with Co-Chairmen B. Levush (NRL, USA) and E. Wintucky (NASA, USA; IVESC part); 155 orals and 110 posters were presented, with the majority of contributions from USA. 41 orals and 18 posters were contributed by IVESC. The 7th IVESC took place at Queen Mary University of London in 2008. Conference Chair was Prof. David S. Barratt from Blackburn MicroTech Solutions (formerly LG.Philips Displays Blackburn). From the 79 participants 37 came from Europe. The generally high participation from the conference site region shows, how important the site change is in order to involve the whole electron emission community over the years. The following conferences will be addressed in the presentation and also a complete list of proceedings and books of abstracts will be given there.

The 13th IVESC in 2020 was planned as the first joint conference with 7th ITG IVEW in Bad Honnef, but due to Corona could only take place online in Thales virtual room (France). IVESC chair was Dr. J.-M. Roquais and IVEW chair was Dr. W. Knapp. 31 IVEW and 38 IVESC contributions were presented. Now the 16th IVESC 2026 is a joint conference with 10th VDE ITG International Vacuum Electronics Workshop (IVEW) again, with the chairs Dr. Wolfram Knapp (IVEW) and Dr. Alice Gallissian (IVESC). 49 abstracts were contributed by IVEW and 23 abstracts by IVESC, with about 70 participants. We wish this joint conference further success and express our thanks to the organizers. By the way, also ITG IVEW can celebrate a jubilee, since it is the 20th conference/workshop in a row, which started with 1st NTG-Conference on "Electron Tubes and Related Devices" 1977 in Garmisch-Partenkirchen. After the 10th ITG-Conference on Displays and Vacuum Electronics 2004 in Garmisch-Partenkirchen it was continued by the 1st ITG International Vacuum Electronics Workshop 2008 in Bad Honnef.