

Editorial

The Fifth International Symposium on Development and Application of Semiconductor Tracking Detectors (STD5 Hiroshima) was held at Essor Hiroshima in Hiroshima, Japan during 14–17, June 2004. The symposium was originally proposed to bring together experts who are involved in the development of semiconductor tracking detectors for discussions covering the entire range from ideas of completely new detectors to solutions of detailed technical problems. The organizers believed that such a regular symposium was needed to establish semiconductors as a reliable choice for tracking detectors and to achieve a high level of performance for detecting high-energy particles and radiation.

The proceedings of the first, second, and fourth STD Hiroshima symposium were published as special issues of Nucl. Instr. and Meth. A 342, A 383, and A 466, respectively. These are being used almost as a convenient handbook for designing semiconductor-tracking detectors and for finding solutions when encountering problems during semiconductor detector prototyping. By now, silicon microstrip detectors have become the most popular tracking devices in high-energy particle experiments and have been expanding their field of application, such as space and medical applications.

The last symposium was held on March 2000. The organizers and the international advisory committee of the symposium discussed the merit of holding the symposium this year and felt that it was an ideal time to have the fifth symposium, with emphasis both on discussion of past experiences (good and bad) and scrutiny of new ideas while they were still in the development stage. In addition, we wanted to summarize and review the technologies established through the symposiums in the past and to identify new directions, new materials and new ideas to be developed in the coming years.

In the middle of intense presentations and discussions, the participants enjoyed an excursion and a symposium dinner. The excursion was to the Kintaikyo bridge in Iwakuni and the Itsukushima shrine on the Miyajima Island. The Kintaikyo bridge is an old style wooden multiple-arch bridge which is basically assembled without a nail, very much resembling one of the artful silicon detector modules being assembled all over the world. The Itsukushima shrine is a national treasure and one of the world heritage monuments, standing on the shore with its galleries spreading like wings, with the “Torii”, a large shrine gate, standing in the water when the tide is high. The symposium dinner was composed of artistic Japanese Tofu dishes and the guests were entertained by a presentation “Touching the heart of Kaiseki”, with which one of the symposium organizers introduced the composition of Japanese dishes.

We would like to thank the staff members for all their excellent and tireless work to make this symposium an enjoyable and rewarding experience, especially Drs. S. Yoshida, Y. Fukazawa, K. Kawabata, and Ms. N. Ishii, and H. Kutsuma, the secretary of the symposium. This symposium was supported by the Faculty of Science of Hiroshima University, the Grant-in-Aid for Scientific Research on Priority Areas, 1479101 and 1479206 for the years of 2002–2006, of the Ministry of Education, Science, Sports and Culture,

and the Scholarship Contributions Account, Y. Unno and T. Kondo, of KEK. We are encouraged to think about the next symposium within 2–3 years in order to continue the tradition of the symposium.

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(Guest Editors)