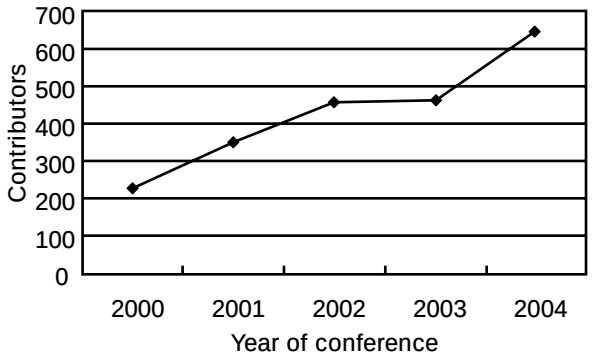
μTAS 2004, Sweden (September 26–30)

The 8th International Conference on Miniaturized Systems for Chemistry and Life Sciences (μTAS 2004) was held at the Malmö Exhibition and Convention Center in Malmö, Sweden on September 26–30, 2004.

Since the first of these conferences was held in 1994 as a workshop in Enschede, Holland, the numbers of contributors and participants have increased each year.

The latest conference received 655 contributions of which 430 were accepted. This is a large increase over the 462 contributions and 325 acceptances of the previous year, proving that research in this field continues to grow. Viewing the number of contributions by country, we can see that Japan contributed 175, the U.S. 132, Sweden 78, and Denmark 57, indicating that Japan, America, and Northern Europe are the leading countries and regions in this field. Among research institutions, the University of Tokyo submitted 46 contributions, the Technical University of Denmark 26, the Research Association of Micro Chemical Process Technology 13, and Lund University 13, indicating that the University of Tokyo is very active in this field. At last count, the conference attracted about 735 participants, of which more than 200 were from Asia.

The conference featured presentations on such basic technologies as microfluidics, MEMS and nanotechnology, and materials, as well as their applications in chemistry, biotechnology, medicine, and the like. It seemed that the conference was able to assemble a vast array of data in the field. Poster presentations, also reflecting the organizer's intention, were given on application systems, MEMS technology, and other technologies on the verge of practical applications. As many as 356 presentations were given during the three days of the conference. The conference also provided a venue for researchers to engage in direct intercourse.



Overall the presentations seemed to shift in content from single-step chemical processes to system research envisioning applications in chemistry, biotechnology, and medicine.

The first half of the presentations seemed to focus on nanotechnology, in which Japan is strongest, while the second half focused more on cellular tissue and analysis, which area is led by Europe and America. Conspicuous among these was the presentations on cells that included reports on the proposals and trial production of new systems from such perspectives as positioning, culture, and lysis or from points of view at which these overlap, resulting in a multifaceted presentation overall. Many presentations on MEMS processes covered chips and MEMS structures using polymers (PMMA, SU8/PDMS, etc.). There was also a presentation on two-layer processes that tried to drive home the stability and commercial potential for these processes.

The poster session was a great success. Presenters and participants used all the time allotted for the session to exchange opinions directly on applications, MEMS technology, fluid devices, and nanotechnology.

Next year, μTAS 2005 will be held in Boston, Massachusetts, U.S.A. on October 9–13, 2005.

Malmö Exhibition and Convention Center

View of a conference room