

**IUPAP Commission on Semiconductor Physics (C8)
Report on Activities in 2016 for the October, 2016 C&CC Meeting**

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Sponsored Conferences

C8 had one sponsored type-A conference in 2016, the 33rd International Conference on the Physics of Semiconductors (ICPS) in Beijing, China from July 31 to August 5. The ICPS is the main conference series of C8, and the 33rd ICPS was a great success. Over 1025 physicists attended from 35 countries, and 1217 abstracts were submitted. The program included nearly 300 oral contributions, more than 80 plenary and invited talks, and almost 800 posters. The Nobel Symposium which began the conference on Sunday was a particular success, with animated participation from the audience.

The commission was gratified that this year's ICPS organizers gave the IUPAP Young Scientist Prizes particularly high exposure, with a Plenary Awards Session on Friday immediately before the closing ceremonies. The organizers also reinstated the Student Poster Awards, 34 of which were given out during the Plenary Awards Session. These awards were adjudicated by the ICPS Program Committee, and the financial component of the awards were supported in equal part by C8 and the 33rd ICPS.

19.7 % of those attending the 33rd ICPS were female, and almost 20% of the student poster awards went to female participants. However, only 12.4% of oral presentations at the conference were given by women, so there is certainly room for improvement.

The organizers noted that the number of participants was considerably lower than the 1470 that registered, and further noted that a number of cancellations resulted from

inabilities to obtain travel documents or authorizations. This is a significant problem, but there is no clear solution other than encouraging potential attendees to begin making their travel plans as early as possible.

IUPAP C8 Young Scientist Prizes for 2016

Two prizes were awarded at the 33rd ICPS, to:

Prof. Kimberly Thelander, Lund University:

“for her work to control and understand growth of nanowires, including three-dimensional structures, superlattices, crystal phase engineering and bandgap design”

and to Dr. Sam Stranks, MIT:

“for pioneering discoveries in the field of perovskite solar cells and optoelectronics through spectroscopy”

C8 Annual General Meeting (AGM)

The C8 AGM took place on the afternoon of August 4, 2016 at the 33rd ICPS in Beijing, China. Seven members of C8 were present at the meeting, and the entire membership offered input via email on issues of significance both before and after the meeting.

ICPS chair Hongqi Xu presented a summary and statistics for 33rd ICPS, which all agreed had been a notable success.

Conference Chair Bernard Gil and Program Chair Guillaume Cassabois presented a bid for the 34rd International Conference on the Physics of Semiconductors (ICPS34), to be held in Montpellier, France from July 29 to Aug. 3, 2018. Members of the commission made several helpful suggestions, and were pleased that the planned early registration fee of 500 EUR was less than the maximum allowed by IUPAP.

C8 members unanimously approved the Montpellier bid for the 34th ICPS, and Bernard Gill invited the 33rd ICPS attendees to the 34th ICPS in Montpellier during the ICPS closing ceremonies on Friday.

Sven Rogge and Michelle Simmons, of the University of New South Wales, Australia, presented an update of their plans to bid for ICPS35 (2020) in Sydney. All preparations and plans seemed to be well in hand. A formal bid is expected at the C8 AGM during ICPS34 in 2018.

Two bids for sponsorship in 2017 were received during the year and discussed at the meeting. There was unanimous support for ranking EP2DS22/MSS18 as our highest priority type A conference in 2017, and for supporting the 18th Int. II-VI conference as our second priority for a type B conference. C8 members made several suggestions for

adding to the international advisory committees and program committees of both conferences, and these suggestions were accepted with thanks by the organizers.

There was a brief review of IUPAP rules on reappointment, term limits, and nomination to commission executive committees, with the suggestion that members plan ahead, consult the executive on their plans, and try to ensure that nominations from the National Liaison Committees were in alignment with plans formulated within the commission.

The chair reviewed the merits and process of conference endorsement, and encouraged commission members to identify conferences suitable for endorsement, whether or not they would eventually apply for sponsorship. Endorsement was requested and approved by IUPAP for the 34th ICPS in Montpellier, 2018, and the 35th ICPS, tentatively in Sydney, 2020.

The nomination and adjudication process for the C8 Young Scientist Prizes was reviewed. Advancing the submission deadline date to Dec. 31 in the latest round was successful, and by the deadline date we had a good number of very strong nominations in hand. For the first time in several cycles the nomination deadline did not have to be extended, which is highly desirable. It was agreed that we were receiving a sufficient number of very strong nominations, and that the selection procedure was working well. The high profile given to the Prizes at the 33rd ICPS was greatly appreciated.

Thanks to the efforts of member Allan MacDonald, a group of potential bidders for the 2022 ICPS was identified in the Pittsburgh area of the USA. The conference would ideally take place in the Americas that year in order to maintain a geographic rotation. The group was provided with preliminary information on the conference details and bidding process, and we expect to hear more from them at the next C8 AGM.

The next C8 AGM will take place in 2017 during the EP2DS22/MSS18 conference in the USA, at a time and place to be announced.