



**2019/2020 Division & Class Report
to the
ACerS Board of Directors**

Division/Class: Basic Science Division

Current Division/Class Officers: (complete as appropriate for your Division or Class)

Chair: John Blendell
Chair-elect: Kristen Brosnan
Vice-chair: Yiquan Wu
Secretary: Wolfgang Rheinheimer
Secretary-elect: Edwin Garcia
Board of Directors Liaison: Martha Mecartney
PCSA Representative: Jenniffer Bustillos; Kimiko Nakajima

Incoming Division Officers: (complete as appropriate for your Division or Class)

Chair: Kristen Brosnan
Chair-elect: Yiquan Wu
Vice-chair: Wolfgang Rheinheimer
Secretary: Edwin Garcia
Secretary-elect: Amanda Krause
Board of Directors Liaison: Makio Naito
PCSA Representatives: to be determined

Summary of Meetings and Activities Held/To Be Held (from Oct. 2019 through Oct. 2020):

For MS&T 2019 the BSD was the lead organizer for 3 symposia, on Sintering, Interfaces, and Optical and Photonics. BSD provided \$2000 for registration waivers to each symposium to support the organizers. BSD also provided 4 registration waivers to PCSA delegates. BSD also supported the registration of the Sosman Award recipient, Yury Gogotsi from Drexel.

For MS&T being virtual, BSD has not supported any attendees at the meeting or the symposium organizers. It is not clear how MS&T 2020 divisional support will be used. The 2020 Sosman award was postponed until MS&T 2021 and will be Wayne Kaplan from the Technion.

The Ceramographic contest overseen by Klaus van Benthem of BSD was again a favorite of MS&T attendees. For MS&T 2019, 1st (\$75 award) and 2nd place (\$50 award) were awarded in the SEM, TEM, Optical, and Undergraduate categories, with a \$1500 prize for the Roland B. Snow Award. Digital submissions were used in 2019 and the entire content will be virtual in 2020 with the posters displayed on the ceramics.org website.

There were 47 applicants for the 2019 GEMS award, and ten finalists were chosen: Kimiko Nakajima, Xin Li Phuah, Shenglong Mu, Yi Yuan, Jun Gao, Archana Loganathan, Beecher Watson, Mingyang Zhao, Talia Barth, Jacob Cordell. The Sapphire level award went to Xin Li Phuah, Beecher Watson, and Talia Barth.

The 2020 GEMS award has 19 applicants. Due to the changes to MS&T the applicants will be asked to submit a recorded talk. The number of awards will be reduced to 3-5 depending on the evaluation of the award committee.

EMA 2020 featured about 350 participants. BSD contributed with four symposia on Structure-Property relationships in Functional Ceramics, Point Defects, Sintering and Microstructure control, and Hybrid Ferroelectrics as lead or co-organizers. BSD member Beth Dickey presented one of the plenary lectures. BSD participated in the student lunch sessions, presented an evening tutorial and participated in the well-received 'failure – the greatest teacher' session. BSD provided funding for attendees and students. Beyond this, the winter workshop held in conjunction with EMA and ICACC meetings was supported with student registration waivers.

The 2020 Gordon Research Conference on Ceramics that the BSD supports was postponed until 2022. The meeting is on a 2-year cycle. BSD plans to continue support for the GRC and BSD member and former chair Ivar Reimanis is the Ceramics GRC chair.

Future Planned Meetings/Activities (from Nov. 2020 – October 2021):

BSD plans to participate in MS&T 2021 at a similar level to previous year, 3-4 symposium and supports at the \$2000/symposium level.

BSD also is involved in EMA 2021. The meeting will be entirely virtual. Four symposia are BSD-led or with significant BSD participation (Characterization of Structure-Property Relationships in Functional Ceramics, Point Defects and Transport in Ceramics, Dislocations in Ceramics: Processing, Structure, Plasticity, and Functionality, Evolution of Structure and Chemistry of Grain Boundaries and Their Networks as a Function of Material Processing). Haiyan Wang (BSD) will present a plenary lecture.

As in the past, support of students and young professionals is an important focus in conjunction with Electronics Division. However, the details of EMA21's program for students are still not decided and due to the move to a virtual meeting, changes are being discussed.

GRC support will continue.

New Initiatives/Opportunities:

Additional communication to all BSD after MS&T soliciting nominations for the Sosman award, volunteers and update on conference activities.

Social media presence e.g. for intensification of meeting advertisements

Action Items for ACerS Board Consideration at October 2, 2020 virtual meeting:

Allow GEMS award to be virtual for 2020

Issues/Concerns:

Virtual meetings are a large concern for how BSD will continue to operate. Changes in how we reach members are needed.

Also, budget carryover limits will be a problem as funds anticipated to be spent were not due to meeting cancelations and postponements. Thus we request excess funds be rolled over and spent when activities resume. Loss of these funds would damage our ability to continue providing services to our members.

Additional Items of Note:

Again, timing of EMA and ICACC is problematic. We have mentioned this before and will continue to do so as it affects many BSD members. Board should take an active role on this.

Financial Statement: (Including year-end summary of expenditures from the Division's Funds)

Concern about carry-over policy

Attached.

Submitted By: John Blendell