

**2016/2017 Division & Class Report
to the
ACerS Board of Directors**

Division/Class: **Basic Science Division**

Current Division/Class Officers:

Chair: **Xingbo Liu**
Chair-Elect: **Dunbar Birnie**
Vice-chair: **Paul Salvador**
Secretary: **John Blendell**

Counselor: **Wayne Kaplan**
Counselor: **Bryan Huey**
Counselor: **Shen Dillon**

Incoming Division Officers:

Chair: **Dunbar Birnie**
Chair-Elect: **Paul Salvador**
Vice-chair: **John Blendell**
Secretary: **Kristen Brosnan**
Secretary-Elect: **Yiquan Wu**

Counselor: **Bryan Huey**
Counselor: **Shen Dillon**
Counselor: **Xingbo Liu**

Summary of Meetings and Activities Held/To Be Held (from Oct. 2016 through Oct. 2017):

BSD continued strong support of the MS&T annual meeting in 2016. We supported Registration waivers for symposia organized by BSD members, and supported waivers for presenters in the Sosman Symposium. The Sosman prize was awarded to Jennifer Lewis in 2016 and Michael Hoffmann was selected for the 2017 Award. Juergen Roedel has been announced as the awardee for 2018.

GEMS graduate student awards were again coordinated by John Blendell and funded by BSD.

The Ceramographic contest overseen by Karren More of BSD was again a favorite of MS&T attendees. For MS&T 2016, larger prize amounts were provided. Support has been set aside for printing digital submissions in 2017 as well. We hope to increase participation in the contest through this initiative.

EMA 2017 (January 18-20, 2017) was also strongly supported by BSD working jointly with the Electronics Division. Ming Tang and Yiquan Wu represented BSD on the EMA organizing committee. Several symposia were sponsored by BSD members, scholarships were provided to students for attendance and participation, full or partial registration waivers were provided for BSD invited

speakers, and we continued to support the tutorial at EMA, this time on the topic of “*Ceramic Microstructure Evolution: Fundamentals and Characterization Techniques*”, taught by Wayne Kaplan, Yiquan Wu, and Ming Tang. We also requested supplemental funds that were used to support students to attend EMA and the Winter Workshop.

Future Planned Meetings/Activities (from Nov. 2017 – October 2018):

BSD continues to strongly support the MS&T annual conference and GRC Solid State Studies in Ceramics biennial meeting (next being Summer 2018: organized by Jian Luo).

The newest effort has been a BSD effort to participate in a more division-specific meeting. The new name of the conference is 2018 Conference on Electronic and Advanced Materials (EAM), organized jointly by the Electronics and Basic Science Divisions. The dates are January 17 (Wednesday) to 19 (Friday), 2018, in Orlando, Florida. In addition to two plenary lectures (one selected the by Electronics Division (ED) and one selected by the Basic Science Division (BSD)), there will be a joint poster session on Wednesday from 5-7 PM, followed by the BSD tutorial from 7-9 PM. The conference dinner (Thursday) will be a joint dinner.

These symposia are planned:

1. Field Effects and Densification (Klaus van Benthem, UC Davis)
2. Fundamentals of Mechanical Response (Gerhard Dehm, MPI Dusseldorf and Ivar Reimanis, CSM)
3. Computational Studies (Ming Tang, Rice University)
4. Interfaces (Dominique Chatain, CNRS Marseille and Christina Scheu, MPI Dusseldorf)
5. Microstructural Evolution (Dan Lewis, RPI)

New Initiatives/Opportunities:

The new EAM meeting has been our most important new initiative.

Action Items for ACerS Board Consideration at October 7, 2017 meeting:

BSD continues to be concerned that the incentive structure of providing funds directly based on membership has discouraged cooperation amongst the divisions. Basic Science shares interests with all of the divisions so we encourage a structure with possible multiple head-counting or some way that jointly-planned activities can benefit more than one division.

Issues/Concerns:

None.

Additional Items of Note:

None.

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

Attached.

Submitted By: Dunbar Birnie