

**Ceramic Subcommittee Meeting Minutes**  
**March 25, 2015**  
**ICDD Headquarters**  
**Peter Zavalij, Chairman**

**Call to Order**

The meeting was called to order at 1:00 p.m. by P. Zavalij.

**Appointment of Minutes Secretary - Emily Foster**

Attendance List on record at headquarters.

**Board of Directors' Liaison Report – Jeffrey Dann**

Dann reported that the two motions from last year were approved. The first motion was to allocate money for the Annual March 2015 meeting. The second motion was to remove the “superconductor” flag for entries without a  $T_c$ . The Database Department responded by stating all reported superconductors without a  $T_c$  will be forwarded to the Ceramic Subcommittee for their approval or dismissal.

Fawcett suggested cross-referencing  $T_c$ s for similar compounds.

**Old Business**

*Development of subfiles – P. Zavalij*

1. Focus will go to adding property data sheets to thermoelectric materials, metal hydrides and perovskites.
2. There were historical subfiles that were empty because the subfile was premature. The proper, updated route for development of Property Subfiles/Minifiles should prevent this.

*Superconductors - E. Antipov*

19 patterns were automatically assigned to the Semiconductor subfile for Set 65.

*Thermoelectrics - W. Wong-Ng*

1. 46 patterns were automatically assigned to the Semiconductor subfile for Set 65.
2. So far, 120 property data sheets are available.
3. Wong-Ng will provide a list of all known thermoelectric materials to Kabekkodu because the Database Department is able to efficiently determine which data sets are correctly identified.
4. Microwave materials have not been worked on because their commercial interest was overestimated.
  - a. NIST and Oak Ridge National Laboratory have lost interest and/or funding for research into microwave materials.
  - b. Wong-Ng will investigate universities' interest in pursuing research on the subject.
  - c. Fawcett suggested looking to scientists in the food industry.

*Semiconductors - M. Delgado/A. Davydov*

Set 65 was reviewed and 25 patterns were marked.

*Metal Hydride Electrodes - I. Zavalij*

1. **Hydrogen storage material** (intermetallic compounds) subfile.
  - a. To include Pressure-Concentration-Temperature diagrams.
  - b. Includes **Metal-Hydrides Electrode** subclass with electrochemical cycling and capacity plots.

Part of the **Battery Materials** subfile.
2. Set 65 was reviewed, and 37 patterns of HSM were marked, of which three were MHE.
3. 30 property data sheets were added last year.
4. Grant-in-Aid patterns are also being submitted.

*Ionic Conductors - V. Nalbandyan/G. Subba Rao*

1. This is one of the most completely described subfiles.
2. Set 65 was reviewed and six entries were marked.  
25 were marked automatically, and 19 were marked incorrectly.

*Ferroelectrics - S. Ivanov/V. Nalbandyan*

1. Set 65 was reviews, and 67 patterns were marked.
2. No property entries yet.

*Cements - B. Scheetz*

1. One was marked automatically.
2. No property entries.

*Battery Materials - P. Zavalij/E. Pomerantseva*

1. Set 65 was reviewed and 12 new patterns were marked (nine were automatic).
2. Needs almost double the property sheets from previous years (37).

*Perovskites*

1. Vasylechko has started work on perovskite properties.
2. Set 65 was reviewed and 130 patterns were marked.
3. ~30 property sheets added per year.
4. Submitting experimental patterns through Grant-in-Aid.
5. Existing patterns must be reviewed and classified.

*Other Subfiles*

1. Proposed subfiles include:
  - a. Piezoelectrics
  - b. Multiferroics
  - c. Giant Magneto-resistant materials
2. Existing:  
Bioceramics  
3 entries were automatically marked as bioactive.
3. Experts are needed to oversee these subfiles.

**Adjournment**