

Dos Arroyos

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memorandum

To: Distribution
From: Peter L. Wallace
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Filename: M&A Minutes 03-08.doc
Date: May 1, 2008

Subject: Metals & Alloys (M&A) Subcommittee Minutes for March 12, 2008

Business Items

The meeting was called to order at 11 am. The [agenda](#) is Attachment 1, and the attendance list has been sent to ICDD Headquarters for archiving. Jeff Dann took meeting notes, and Pete Wallace wrote the minutes. The M&A Subcommittee Minutes of March 2007 were approved as written.

Board of Directors Liaison Report

Suri Kabekkodu reported on Board of Directors actions regarding last year's M&A motion.

At our last meeting, the M&A Subcommittee proposed the following motion regarding the presentation of prototype structures in ICDD products. (Note: This change has been adopted for 2008 Release Products.)

The Metals and Alloys Subcommittee recommends to the Technical Committee that the field, "Prototype Structure", be displayed with the elements arranged in alphabetical order.

This motion did not pass the ICDD Board of Directors. Instead, ICDD Headquarters personnel will make this a user preference in database products.

M&A Web Page

There have been no changes in the last year for this page.

M&A Electronic Editors' Book

The M&A Subcommittee is working with Terry Kahmer and Joel Reid at ICDD Headquarters to produce various electronic tables aimed at helping the M&A volunteers in their editing. At this meeting, we reviewed a draft specification for the tables, and the M&A chair will produce a final version based on the comments received during the review.

Status of the Pearson Symbol Code Index (PSCI-III) Editorial Review

Notes:

1. This review uses Pearson symbol code index tables created in 2005 after a very large increase in the population of the M&A subfile occurred.
2. This review is the first review where M&A volunteers are working directly on electronic files and submitting their recommendations in electronic form first to the M&A Subcommittee chairman for a quality check and then to ICDD Headquarters for approval and implementation.
3. The ICDD is adding about 7,000 to 10,000 entries to the M&A subfile each year. So, we have our work cut out for us. Fortunately, we believe that the work we have done (and will do) establishes a basis for automatically assigning prototype structures based on established *prototype structure profiles*. ICDD Headquarters is working on this possibility now. A caveat: Computer-assigned prototype structures still will need a review until we have confidence that the assignment is done correctly.

[The PSCI-III review status is shown in Attachment 2](#). We have had several additional people volunteer for this editorial work (many thanks) and are working to bring them up to speed on the review's requirements.

Review of Current M&A Patterns

This review involves from 100 to 200 experimental patterns a year. Most of these patterns are from grant-in-aid recipients. We are current in these reviews.

August 2008 M&A Working Group Meeting at the Denver X-ray Conference

The M&A Working Group will meet for four days before the 2008 Denver X-ray Conference to continue the PSCI-III review. The meeting dates are from Saturday August 2nd through Tuesday August 5th.

New/Old Business

M&A Subfile Sections

Jeff Dann continued the discussion begun at the March 2007 M&A Subcommittee meeting on the possibility of identifying subsections of the M&A subfile. [Note: Such subsections may be helpful in editing the subfile.] Possible subsections could be:

1. Pure metals and alloys,
2. Intermetallic compounds,
3. Related phases, e.g.
 - a. Sulfides, selenides and tellurides,
 - b. Borides, carbides, hydrides, nitrides and binary oxides as several metallurgical references have done [Alternatively, we could create separate files for each of these anions.],
 - c. All other phases. [Note: We could partition this group further and create (a) a subgroup composed of the arsenides and phosphides and (b) a subgroup containing the remaining phases.]

No action was taken at this time.

Motion regarding the M&A Common Names List

Note: The M&A Subcommittee maintains a common names list that contains, among many other items, cross-references to the Powder Diffraction File for pearlite, cementite, sigma-phase and many other metallurgically-important phases. This list is published in some ICDD hard copy products but not in any ICDD electronic products. Recently, Ray Goehner asked that this list be made available in the ICDD's electronic products, hence the following motion.

Pete Wallace made the following motion:

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| The M&A Subcommittee recommends to the Technical Committee that the <i>M&A Common Names List</i> be made available as a part of ICDD electronic products. |
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Jeff Dann seconded the motion, and the motion passed 15-0-0.

Adjournment

The meeting was adjourned at about 11:30 am.

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The M&A chair asked that the following addition be made to the minutes.

M&A Motion made at the Technical Committee Meeting

Pete Wallace made the following M&A motion at the Technical Committee Meeting on March 13, 2008:

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| The M&A Subcommittee recommends to the Technical Committee that four display fields be moved from the PDF 4+ product's <i>Miscellaneous</i> tab to the <i>Crystal</i> tab, if possible. The fields are (1) the Pearson Symbol, (2) the Pearson Symbol w/o H, (3) the Prototype Structure, and (4) the LPF Prototype Structure. |
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The motion was seconded by Jeff Dann and passed unanimously.

Reference: M&A Minutes 03-08.doc

Attachment 1: The M&A Agenda for March 12, 2008

1. Call to Order
2. Appointment of Secretary
3. Approval of Minutes
4. Board of Directors Liaison Report
5. M&A Web Page
6. M&A Electronic Editors' Book
7. Status of the Pearson Symbol Code Index (PSCI-III) Editorial Review
8. M&A Editor's Report and Review of Current M&A Patterns
9. August 2008 M&A Working Group Meeting at the Denver X-ray Conference
10. New/Old Business
 - a. Proposed M&A Subfile Sections
 - b. Motion regarding the M&A Common Names List
11. Adjournment

Reference: M&A Agenda 03-08.doc

Attachment 2: Status of the Metals and Alloys (M&A) Pearson Symbol Code Index (PSCI) Review, Third Pass (PSCI-III)

Last update: April 24, 2008

Filename: M&A PSCI-III Review Status.xls

| Volunteer | Crystal System | Pearson Symbol Codes | Entries | Status | Completion Date | Date Quality Review Complete | Date Submitted to ICDD |
|--------------|----------------|--|--------------|----------------------------------|-----------------|------------------------------|------------------------|
| Andy Roberts | Anorthic | aP ... | 682 | Complete. | 07/16/07 | 07/16/07 | ca. 10/27/07 |
| Pete Wallace | Monoclinic | mC... + mP... | 6599 | Complete. | ca. 7/1/06 | 07/13/06 | 7/13/06 |
| Not assigned | Orthorhombic | oC... + oP ... | 13,973 | | | | |
| Andy Roberts | | oF... | 620 | Complete. | 07/26/06 | 09/26/06 | 09/26/06 |
| Andy Roberts | | ol... | 1,852 | Complete. | 07/26/06 | 09/26/06 | 09/26/06 |
| Andy Roberts | Tetragonal | tl... | 10,806 | Complete. Need PLW QA review. | 03/10/08 | | |
| Harlan Clark | | tP... | 3000 | Complete. Need PLW QA review. | 07/21/07 | | |
| Harlan Clark | | tP... | 3929 | Complete. Need PLW QA review. | 03/12/08 | | |
| Not assigned | Hexagonal | hP... | 20,588 | | | | |
| Not assigned | | hR... | 5,613 | | | | |
| Not assigned | Cubic | cF... | 20,352 | | | | |
| Not assigned | | cl... | 4,369 | | | | |
| Pete Wallace | | cP... | 8,383 | | | | |
| Pete Wallace | All Systems | Complete Incomplete Pearson Symbols | (photocomps) | Have not been requested yet. | | | |
| | | Approximate total | 100,766 | [Includes unpublished patterns.] | | | |