STRUCTURE & PROPERTIES OF MATERIALS COMMITTEE
ANNUAL REPORT FOR 2014

1. Board membership

The committee currently has 16 active members, 11 from academia, and 5 from industry. Brad Wynne officially stepped down as Chairman of the committee in January 2014; the committee would like to thank him for his services over the years. Mike Cox was elected as the new Chairman in March 2014 and Mark Jepson became the new Secretary. A significant number of new members were invited to join the committee over the May to June period both from academia, and industry giving the committee a broader base.

2. Board meetings

The committee met three times during the year 2014:

14th March 2014 at Carlton House Terrace (6 attendees)
4th July 2013 at Carlton House Terrace (11 attendees)
7th November at Carlton House Terrace (10 attendees)

Attendance at the committee meetings improved substantially for the July and November gatherings.

3. Activities during 2014

3.1. Technical programme

A joint lunch/meeting with Materials Chemistry Committee (MCC) was held on the 7th November 2014 after the standard committee meeting. The event was held to explore the possibility of holding some joint events of common interest to both committees.

The committee helped organised the OPTIMUM Conference with the High Temperature Material Committee (HTMC) which was held between the 12th to 16th May 2014. The committee was also involved in the Eurosuper Alloy Conference organised by SF2M, between the 14th to 16th September 2014 in Giens, France. A summary of the events are detailed in the Appendix.

3.2. Web-site developments

Owing to changes within the committee a web-editor has been needed for most of 2014. A new web-site editor was appointed in November and updating of the web-site page is pending.
3.3. Engagement with technical community and/or local societies

The committee is involved with the French SF2M and German DGM counter parts in arranging the Eurosuper Alloy Conferences. The committee will be the lead organiser for the conference in 2018 and will be working with both these institutes.

The committee has engaged with the Materials & Characterisation Group within the Institute of Physics (IOP) on co-sponsoring an event. The committee has also developed contacts with AWE Technical Outreach who have agreed to provide sponsorship of a conference in 2015 and have shown interest in supporting future programmes.

3.4. Contributions to IoM3 house journals

The committee has not made any contributions to IOM3 house journals this year.

3.5. Other

Nothing to report.

4. Strategy and Objectives for 2015 and Beyond

4.1. Opportunities and constraints

The committee has had a difficult couple of years prior to January 2014, with the absence and subsequent withdrawal of the former leadership team. A new leadership team was appointed early in the year. The committee has subsequently increased it membership and has taken the opportunity to engage with other IOM3 committees and other Institutes and establishments.

4.2. Specific targets for 2015

Specific targets for 2015 include:

(1) Cross committee collaboration with the Materials Chemistry Committee will be continued to be nurtured. An area of interest has been found and a document on future development of thermodynamic aspects; covering education (training) in fundamental heat treatment, material compatibility, service life prediction of materials. The driver for industry on this subject has been identified such as maximising material performance especially important in the nuclear new build.

(2) SPAM³ Conference at the MTC Coventry, co-sponsored with IOP & AWE in April/May 2015 is currently being organised (IOM3 Events Department have now agreed to support this event) and a date will be finalised shortly. The target is for an attendance of 80 delegates supported with presentations from a number of universities and companies.
4.3. Outline plans for the 4 years beyond 2015

The future of the committee looks bright as it plans to expand its collaboration with other technical committees and establishments in arranging and supporting events. This will include:

(1) Continued collaboration with the MCC in arranging conferences, seminars and training workshops; a document providing the forward plan for the next 4 years will be produced (Early 2015). It will also explore the possibility of establishing working relationships with European and American institutes.

(2) The committee will be the host and main organiser of the Eurosuper Alloy Conference in 2018, co-sponsored with SF2M & DGM. This is an opportunity to develop a closer relationship with these two institutes.

(3) Continued collaboration with IOP Materials & Characterisation Group. The Materials Characterisation Group has a number of similar interests to the SPMC.

(4) Continued support from AWE Technical Outreach on programmes will be developed. AWE Technical Outreach can help sponsors and provide technical assistance on a number of programmes of interest to it.

(5) The committee will also be involved in the 3rd OPTIMoM conference currently proposed for 2017.

Other matters

No other matters to report.

Appendix: Technical Programme as of December 2014

<table>
<thead>
<tr>
<th>Date (YY/MM/YYYY)</th>
<th>Status (Held/Progressing/Planned)</th>
<th>Title</th>
<th>Location</th>
<th>Organising Division(s)/Committee(s)/Collaborators</th>
<th>Financial Underwriter (IOM3/Local/Other)</th>
<th>100% Target No's</th>
<th>Actual No's</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th-16th May 2014</td>
<td>Held</td>
<td>Eurosuper Alloys 2014</td>
<td>Giens, France</td>
<td>IoM³-SPMC, SF2M &amp; DGM</td>
<td>IoM³/SF2 M/DGM</td>
<td>55</td>
<td>55</td>
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<tr>
<td>14th-16th Sept. 2014</td>
<td>Held</td>
<td>2nd OPTIMoM</td>
<td>Pembroke College, Oxford, UK</td>
<td>IoM³-SPMC/HTMC</td>
<td>IoM³</td>
<td>75</td>
<td>75</td>
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<tr>
<td>April/May 2015</td>
<td>Currently being planned with IOM3 Events Dept.</td>
<td>Structure &amp; Properties of Additive Manufactured Metallic Materials (SPAM3) Conference</td>
<td>MTC Coventry</td>
<td>IOM³-SPMC</td>
<td>IOM³, IOP, AWE</td>
<td>80</td>
<td>N/A</td>
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</tbody>
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