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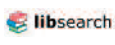
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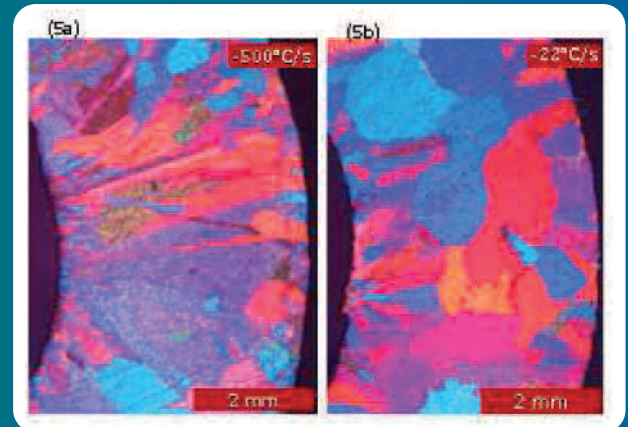


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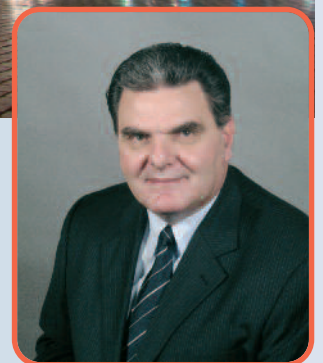
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The materials sections represented by A. J. Gesing, J. H. Sokolowski, P. C. Marchwica, C. Blawert, J. Jekl, M. Kozdras, M. Kasprzak, J. Wood on "Cooling curve and microchemical phase analysis of rapidly quenched magnesium AM60B and AE44 alloys" on a **page 59** describes the development of the understanding of the effect of the solidification rate with the alloy microstructures for the structural AM60B and the creep resistant AE44 Mg casting alloys. Tubular macro test samples of magnesium alloys AM60B and AE44 were melted and quenched at maximum instantaneous cooling rates ranging from -5°C/s to -500°C/s in the Universal Metallurgical Simulator and Analyzer (UMSA) Technology Platform while recording the temperature-time traces. Such rapid cooling rates are typical in water-cooled dies used in high pressure die casting (HPDC). Characteristic reactions on these curves corresponding to the formation of individual phases during solidification were quantified based on cooling curve analysis combined with metallographic and micro-chemical analysis, with the aid of literature data. A combination of cooling curve analysis with microstructural and microchemical results yields a wealth of information on the phases formed, sequence of events, the enthalpies of formation of component phases and evolution of residual melt composition during solidification. In this research the authors significantly extended the thermal analysis methodology. The specific results obtained on the structural and creep-resistant Mg casting alloys are of significant value to the development of automotive light metal structures and power train components as well as further development of solidification codes for the commercial HPDC process.

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Dear Readers,

Cracow, Poland is the second largest and one of the oldest cities in Poland, situated on the Vistula River. Cracow has traditionally been one of the leading centres of Polish academic, cultural, and artistic life. It was the capital of Poland from 1038 to 1569 and the Polish-Lithuanian Commonwealth from 1569 to 1596. In 1978 UNESCO approved the Cracow's Historic Centre to the new World Heritage List. I would like to announce that on 23rd–26th June 2013 the 21st International Scientific Conference on "Achievements in Mechanical and Materials Engineering" AMME'2013 will be organised by the World Academy of Materials and Manufacturing Engineering WAMME in Cracow, Poland. In the Conference which will be accompanied by various other scientific events the participation of over 200 delegates is foreseen. I invite all the persons who are interested with the hope of nicely and usefully spent time in one of the most beautiful European cities, full of historical monuments and at present one of the main scientific and economic centres in Poland. I invite to take part in AMME'2013 Conference and wish a nice stay in Poland.

I do recommend a scientific papers presented in this Issue of the Journal. I hope that they will be interesting for you and wish a nice reading and as always encourage PT Authors to publish their papers in next issues of our journal.

Gliwice, in May 2013

Prof. Leszek A. Dobrzanski M Dr hc
Editor-in-Chief of the JAMME
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