KATHERINE A. ACORD  
*University of California Irvine*  
*Irvine, California*

I want to express my utmost gratitude to the Axel Madsen/CPMT Grant Committee for affording me the opportunity to attend POWDERMET2017 held in Las Vegas, Nevada. Presenting my work on resultant mechanical property gradients within additively manufactured components was an exciting opportunity. Taking part in the poster session allowed me to develop further the communication skills necessary for my future educational and professional career. I enjoyed meeting with experts in my field who provided critical feedback and offered key perspectives which gave way to lively discussions on potential routes for overcoming current challenges within the fields of powder metallurgy (PM) and additive manufacturing (AM).

POWDERMET2017 was an incredibly dynamic conference; it provides industry and academia a unique and welcoming environment in which new collaborations and ideas may be fostered. Versatile technical proceedings encompassed a wide range of subjects from novel high-temperature solders to in-situ imaging aimed towards inhibiting process defects. With each technical session came intriguing discussions that left the audience with a glance into the developments and challenges still ahead. These discussions continued in the Bellagio hallways at the close of each session as new connections were fostered and the current state of the field further unveiled. I enjoyed meeting others in sessions and getting to continue our discussion at the networking events held throughout the conference. These interactions were vital in expanding my understanding of the crossover between PM and AM. The suitability of each technique for fabricating application-specific parts became clearer as my understanding of PM and AM benefits and challenges was expanded at this conference. Technical sessions expanded my understanding of benefits and challenges within PM and AM; revealing the unique interplay between various fabrication approaches, as well as unveiling factors that make a technique preferential for specific applications. Speaking with representatives during the exhibition further shaped my understanding of where AM fits into the vast field of advanced fabrication technologies. I plan to use all of these findings to shape my future research.

As my first experience attending POWDERMET, the opening night reception provided a wonderful opportunity to get acclimated and acquainted with the diverse group of attendees. It was exciting to finally put a face to the names of those I had worked with remotely or read their published work in the past. Overall, the POWDERMET group was extremely welcoming to newcomers, which made the entire conference that much more enjoyable. By the closing night reception, I found myself frequently stopping to catch up with those I had spoken with at my poster session, spent time with at the Industry luncheon, or...
met in the halls after a technical session.

Thank you again for the Axel Madsen/CPMT Grant, which enabled my attendance at POWDERMET2017. I would also like to thank my advisor, Julie M. Schoenung, for providing my recommendation and making this opportunity possible.

BRYCE CHRISTENSEN  
Dalhousie University  
Halifax, Canada

I must first thank the Axel Madsen/CPMT Grant Committee for giving me the amazing opportunity to attend the POWDERMET2017 conference in Las Vegas. The scale and content of the conference was far beyond what I had imagined. The chance to be surrounded by academics and industry professionals of the PM world was incredible, and it gave me a better look inside the PM community.

I had the chance to attend many different presentations on topics relevant to my research field, as well as some interesting topics outside of my field. I got to see all the interesting research that is going on in powder metallurgy and, as someone who is fairly new to the PM community, it’s good to see so much forward progress happening. Not only were there excellent presentations on PM topics, but there was a lot of beneficial information on additive manufacturing. Since AM is such a hot research topic lately, it was nice to be able to sit in on some of the presentations and take in all the new techniques and applications for AM.

The luncheons and social events were excellent forums for open discussion on PM. During the industry luncheon, it was wonderful to be seated with people who have spent years in the PM industry. I was able to talk with them about their personal experiences in PM, the direction the industry is headed, and receive advice on my own career path. It was a great chance to participate in meaningful conversations about PM and get to know some industry professionals. The poster display was also an excellent chance to talk with people in the PM community. During this time, I was able to discuss my research and provide some insight into the work our group does at Dalhousie University. Everyone that came by my poster had interesting questions and comments on the subject matter, which allowed for further discussion on various PM topics.

Altogether, my experience at POWDERMET2017 was overwhelmingly positive. I learned so much about the PM industry and the exciting new directions it’s heading in. Hopefully I was able to contribute to the sharing of ideas and knowledge that occurred during the conference. I hope I get the chance to return to the conference in the future and continue to be involved actively in the PM community.

JEAN NICOLAS ROUSSEAU  
Université Laval  
Quebec, Canada

First of all, I would like to thank the selection committee of the Axel Madsen/CPMT Grant for this wonderful opportunity and making me part of POWDERMET2017 in Las Vegas. I would also like to thank my supervisor and co-supervisor, Carl Blais and Alexandre Bois-Brochu, as well as everyone who made the presentation of my poster possible. I am truly grateful about the overall generosity of everyone.

During this conference, I had the chance to attend many very interesting presentations on both additive manufacturing and powder metallurgy. Some were about powder atomization processes, the effect of powder recycling in AM, and others were on more focused talks like neutron-absorbing PM material. Attending the conference allowed me to present a poster entitled “Effect of Powder Recycling on Oxygen Pick-Up and Mechanical Properties of Ti-6Al-4V Parts Produced by Direct Energy Deposition,” which received the Outstanding Poster Award! Many thanks to the Poster Committee for selecting my poster.

People from all over the world were there to talk proudly about their field of research and their latest projects. It was an absolute treasure of information. The friendly atmosphere was excellent for networking, making it even easier during the luncheons. Everyone there had a strong passion for this industry, and were open to talking about it and sharing their knowledge. You could not ask for better! Everything was well organised, from start to finish, giving you the opportunity to attend different technical sessions and interact with presenters. Another great characteristic of POWDERMET was the presence of the exhibit hall, where many companies were available for questions. This conference was also an excellent opportunity to meet well-known people and have a sneak peak at where the industry is going in years to come. Apart from the technical sessions, POWDERMET2017 held great surprises as well, besides the fact that we were already in Las Vegas. One of them was an awesome cocktail reception in the luxurious hotel’s bar: The Hyde, with a direct view on the Bella

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I would like to start off by thanking the Axel Madsen/CPMT Grant Committee for choosing me as one of this year’s recipients. This award really means a lot to me both personally and professionally. I am privileged to have been able to attend the POWDERMET2017 conference in the beautiful city of Las Vegas, Nevada. It’s surely a week and an experience that I will never forget.

This year, in addition to a poster for which I received a “Poster of Merit” Award, I presented a talk about my current work on “Functionally Graded Materials Produced by Additive Manufacturing.” As a first-year Master student, it really was an honor to share my research in front of such a large audience of scientists and engineers in one of Bellagio’s incredible conference rooms. It was a thrilling experience and was certainly worth all the hours put into it.

Furthermore, I would like to thank the staff that organized this conference for their incredible job. Everything was on point, from the conference room setup to the exhibit hall. Moreover, thanks to this year’s National Science Foundation (NSF) grant, more students attended this conference than ever before. This addition to the conference was really appreciated since it allowed us to share different ideas and points of view with many more students who are at a similar stage in their career. Thanks to the NSF, this year’s poster display section was more diversified and entertaining than in the past.

I was really amazed by the high quality of all the talks that I attended. I would particularly like to point out the Powder Characterization II technical session where I learned a lot of new and interesting concepts. A special mention to the team from Carnegie Mellon University for their incredible Synchroton-Based Micro-Computed Tomography of powder being melted by a laser in real-time. This video was amazingly instructive.

Finally, I would like to thank my director and co-director, Carl Blais and Alexandre Bois-Brochu, for their guidance, their support, and their trust in me for representing Laval University at POWDERMET2017. I hope to be lucky enough to meet you all in San Antonio, Texas, next year! ☝️