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BIOGRAPHY

Alessandro Navarra is an Assistant Professor at the *Universidad Católica del Norte* (Chile), with expertise in discrete event simulation, scheduling algorithms, and computational optimization, having a particular interest in copper smelter operations. He has industrial experience, most notably with Air Liquide and Glencore. Concurrently with his Master's degree in Applied Mathematics, Navarra completed a Joint Major in Physics and Computer Science, from McGill University, Canada. In 2013, he completed a Ph.D. in Operations Research from the *École Polytechnique de Montréal*, Canada. Navarra was recently awarded the *Fondecyt-Iniciación* fellowship from the Chilean government, to promote his research in copper smelting.

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Boyd Davis is a principal of Kingston Process Metallurgy Inc., a contract research and development company based in Kingston, Ontario, Canada. He graduated with a Ph.D. in Chemical Metallurgy at Queen's University in Kingston, Ontario, Canada. After consulting for a few years in applied thermochemistry, he formed KPM with his partner, Alain Roy. The company, currently with 20 employees, specializes in client driven chemical process development – both at the lab and pilot scale. It also develops its own processes in extractive metallurgy. Dr. Davis is active with both MetSoc and the TMS Extractive and Processing Division.

Frank Mucciardi is an Associate Professor in the Department of Mining and Materials Engineering at McGill University in Montreal, Canada. Dr. Mucciardi completed a Ph.D. in Process Engineering at McGill University in 1981. His research career began with the extractive metallurgy of iron and copper and then evolved to the processing of molten aluminum and the casting of aluminum alloys. During the last decade his focus has shifted to energy, sustainability and the recovery of waste heat. Some of the subjects he has taught on the undergraduate level include heat transfer, fluid mechanics, thermodynamics, process design and sustainability.