PREFACE

Special issue on continuous casting

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Continuous casting is considered to be one of the most important innovations in steel industry since it is first propagated by Henry Bessemer in 1846. It has many benefits, including (I) increased yield, (II) improved product quality, (III) energy saving, (IV) less pollution, (V) reduced costs, (VI) better working conditions, etc. Nowadays, more than 98% of crude steel output in the world is produced through the continuous casting process.

This process involves multiphase flow, heat and mass transfer, interfacial reaction, solidification, and so on. It is one of the most critical steps during high-quality steel production. The social development puts forward improved requirements on physical and mechanical properties of steel. This in turn requires a strict control in steel casting process with respect to steel composition, cleanliness, homogenization, solidification structure, and various defects of steel semi-product. In addition, it is necessary to further improve the production efficiency and to lower the production cost, which is important for the sustainable competitiveness of steel. To achieve above aims, technological progress in continuous casting is of great significance.

Therefore, a special issue for the *Journal of Iron and Steel Research International* focused on continuous casting has been organized, including seventeen papers from universities and industries. We want to express our gratitude to all the editors, reviewers, and authors who contributed to the special issue. Hopefully, this special issue could be helpful to researchers and readers who are interested in continuous casting.

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