Investigation of Inclusions in Steel Ingot ($100,000) – Awarded

Investigator: Lifeng Zhang (zhanglife@mst.edu)

Founding source: NSF (Environmental Sustainability)

Project description: Ingot Metallurgy Forum
The current project is to lower inclusion entrapment by ingate and filling design during the bottom teeming process of steel ingots. Detailed work include the alteration of the ingate shape to control the vectors that affect flux/inclusion entrapment, and the adjustment to the fill rates to better represent actual filling conditions.

Fig.1 Steel dendrite (left) and inclusions in steel (right)

Publications: