عنوان فارسی مقاله:
بازیابی فلز از سرباره فولاد با کمک روش احیای کربوترمیک BOF

عنوان انگلیسی مقاله:
Metal Recovery from BOF Steel Slag by Carbo-thermic Reduction

توجه!
این فایل تنها قسمتی از ترجمه می‌باشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
4. Conclusions

Metal recovery from a typical BOF slag with high basicity has been studied by carbothermic reduction. The reduction of Fe oxides and P oxides has been discussed, and optimized process conditions to recover high-grade metallic iron (>98 wt%) have been proposed. The formation and growth of the extracted metallic Fe has been observed, and the effects of Al₂O₃ on the reduction have been investigated. With increasing C addition, the P-rich phase changes from slag to metal. By controlling C addition, it is possible to avoid contamination of metallic Fe by P during carbothermic reduction. It is suggested to keep the mole ratio of C to P in the iron oxides as 1:1, in order to minimize the P content in the metallic Fe.