



Poster 12

Use of sinter pot pilot facility to optimise sinter plant performance



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ABSTRACT:

Using the sinter pot to trial blends has economic and environmental benefits and for this reason is important to Tata Steel. It has the potential to reduce the production costs on the large scale, by using the pilot pot to trial different experiments which may give rise to more efficient ways of operating. Maximising the quality of the product would mean identifying key operating positions for the sinter pot. This project looks at a mineralogical focussed study of high temperature reactions during iron ore sintering. Specifically, when varying the level of basicity, silica, MgO and flux particle size to see gains in productivity and quality. Laboratory testing, thermodynamic prediction using FactSage, materials characterisation using optical microscopy & machine learning driven image analysis via a software called Intellesis. As well as this, chemical analysis through XRF and XRD data will also be investigated.



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