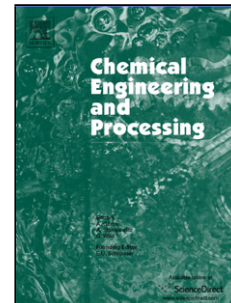


## Accepted Manuscript

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# Pilot scale production of novel calcium sulfoaluminate cement clinkers and development of thermal model

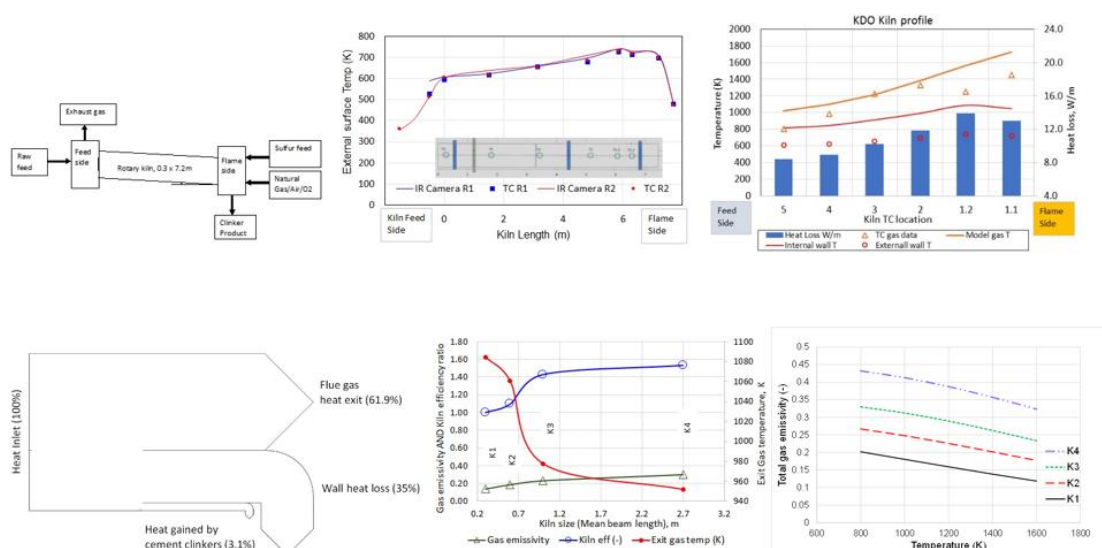
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## Graphical Abstract

Pilot scale production of novel calcium sulfoaluminate cement clinkers and development of thermal model



## Highlights

The original research work included in the manuscript has demonstrated the following key findings:

- Pilot trials were performed on the production of novel calcium sulfoaluminate clinker
- Elemental sulfur was used as a source of fuel and a substitute for conventional gypsum.
- A well-mixed kiln model predicts influence of gas emissivity on heat transfer of several kilns.
- The model identifies the impact of changing fuel source on gas emissivity and overall heat transfer.
- Larger kilns with high optical path length needs modification on the existing gray gas models.

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