

Innovative Fundamental Technology Development for Cement Making in Japan

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ABSTRACT

The cement clinker burning process is one of the key industrial processes, not only for Ube Industries but worldwide.

It is therefore important to investigate the major and minor reactions in this process with respect to both their influence on the final product and the energy balance of the process. Especially the investigation of innovative fuels for the process has a high environmental impact.

It is shown that such investigations can be largely supported by the use of simulation tools, especially if these permit the simultaneous treatment of the chemical reactions and the heat balances involved.

KilnSimu and ChemApp in conjunction with computational fluid dynamics code on the one hand and FactSage as a database provider on the other have been used as core tools. Some successful applications will be discussed.