High-Temperature Resistant Solar Containers for Cement Plants

Can solar clinker be used for cement production?
For the first time ever,CEMEX and Synhelion successfully connected the clinker production process with the Synhelion solar receiver,producing solar clinker. This revolutionary innovation is an initial step to develop fully solar-driven cement plants.

What is a solar clinker?
This revolutionary innovation is an initial step to develop fully solar-driven cement plants. CEMEX,S.A.B. de C.V. ("CEMEX") and Synhelion announced today the successful production of the world's first solar clinker,the key component of cement,a significant step towards developing fully solar-driven cement plants.

How clinker can be produced from concentrated solar radiation?
The Synhelion and CEMEX R&D teams set up a pilot batch production unit to produce clinker from concentrated solar radiation by connecting the clinker production process with the Synhelion solar receiver. The pilot was installed at the Very High Concentration Solar Tower of IMDEA Energy,located in Spain.

Can clinker concrete be made without fossil fuels?
Ambrosetti said that the facility will provide enough heat to produce "clinker" concrete without using fossil fuels. "Clinker is produced in a rotary kiln at temperatures nearing 1,500 C. Fossil fuels are typically used to heat the kiln and are responsible for approximately 40% of direct CO 2 emissions," the company claims.

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An innovative and efficient solar power plant solution has been developed for cement factories. On an annual basis, solar PV systems in cement plants may save 22,941 tonnes of CO2.

Synhelion''s solar tower technology harnesses energy from a field of solar mirrors and concentrates it onto a receiver. The receiver converts the solar radiation into high ...

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Concentrating Solar Power for Cement Decarbonization Solar-Thermal Mixed-Media Enhancement and Decarbonization of Clinker Formation (Solar MEAD)

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