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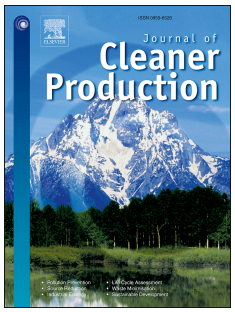

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Abstract

The cement production industry worldwide is one of the largest CO_2 emitting industrial sectors. It accounts for a considerable amount of total global greenhouse gas (GHG) emissions. Due to the increasing awareness of global warming, more energy efficient cement production is increasingly being emphasized. One of the priorities is to reduce the energy demand and innovate the production process to move towards the cleaner production as: Energy efficiency improvements; Waste heat recovery; Reduction of clinker/cement ratio and use of alternative raw materials; Substitution of fossil fuels with alternative energy sources. When the GHG emissions at source opportunities are close to being exhausted, the other mitigations options should be considered such as: CO_2 capture and storage. This is however in most cases not the final solution from the point of Life cycle assessment (LCA). In recent years various mitigation measures are gaining on the importance and the cement industry is more and more shifting to cleaner production. Among the others, there are two measures,