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Sustainable Concrete Alternatives: A Review of Zero Carbon Concrete

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Abstract: *Researchers seek sustainable materials for eco-friendly cement and concrete to reduce CO2 emissions. This paper offers an extensive overview of the research conducted on concrete technology with minimal to zero-carbon emissions. Carbon-neutral concrete offers a sustainable solution to reduce the construction industry's significant CO_2 emissions. By utilizing alternative binders, recycled materials, and carbon capture technologies, it minimizes the carbon footprint of traditional concrete production. This innovation supports global climate goals, promotes a circular economy, and enables eco-friendly construction practices. Carbon-neutral concrete is a vital step toward a greener, more sustainable built environment.*

Keywords: Zero carbon emission, Sustainable concrete, carbon footprints