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## NTU Singapore study develops biocement from sludge and urea

Written by Global Cement staff  
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**Signapore:** Researchers at the Nanyang Technological University in Singapore (NTU Singapore) have successfully used bacteria to combine two abundant waste streams into clinker-free biocement. NDTV news has reported that the scientists developed the material from by combining calcium ions with urea in a mixture of industrial carbide sludge and urine. The process takes place at room temperature, reducing CO<sub>2</sub> emissions while also offering waste management benefits.

The NTU Singapore team is presently testing the biocement on artificial beaches. It will subsequently investigate other possible large-scale applications around Singapore.

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