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Geopolymer・ Alkali-activated materialsIII/Polymer-cement concrete

座長:麓隆行(土木),今本啓一(建築)
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[1211]SOLIDIFICATION OF ORGANIC OIL WASTE IN METAKAOLIN-BASED GEOPOLYMER USING GRAPHENE OXIDE STABILISED PICKERING EMULSION

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Keywords: Organic oil waste、 Solidification、 Pickering emulsion、 Geopolymer

This research focuses on incorporating and solidifying organic oil waste into metakaolin-based geopolymer using a pre-emulsification technique. Graphene oxide has been utilised as Pickering particles to stabilize the emulsion during the pre-emulsification of oil with an alkali activator solution. The prepared samples carried out various experimental procedures, and the creaming index was determined to evaluate the stability of Pickering emulsions. The results demonstrated that the graphene oxide-stabilised Pickering emulsion exhibited excellent stability, and the emulsified organic waste oil could be successfully incorporated within a metakaolin-based geopolymer .

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