Experimental report

24/05/2020

Proposal: 9-10-1555 **Council:** 4/2018

Title: Action of demulsifiers used in water-in-crude oil emulsions

Research area: Chemistry

This proposal is a new proposal

Main proposer: Julian EASTOE

Experimental team: Craig DAVIES
Georgina MOODY

Local contacts: Isabelle GRILLO

Samples: water-surfactants-oil-polymer

Instrument	Requested days	Allocated days	From	To
D33	2	1	05/07/2019	06/07/2019

Abstract:

The project is to understand fundamental structure-performance relationships of chemical demulsifiers in water-in-crude oil (w/o) systems. In particular, to understand how different polymers (demulsifiers) affect structural behaviour and stability of model well-characterised w/o microemulsions. Studies of crude oil demulsifier performance in the literature are limited, and there are no examples of SANS being used for this purpose. SANS is the ideal technique, especially when employing contrast matching to highlight different domains, components and layers. This SANS proposal forms an important part of a PhD project which is fully-funded by Croda Europe Ltd.

9-10-1555

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Instrument: D33

Dates: 05/07/2019 – 06/07/2019 (1 day)

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The experiment was run as planned, and I (Julian E) recalls seeing very promising data from this run.

After the runs these data were analysed by the PhD student.

However, the PhD student on this project has lost contact with the university, despite numerous attempts to contact him, though different channels.

This means we no longer have ready access to the fitted data for reporting.

Obviously, this is a disappointing and regrettable situation.

We will continue efforts to be in touch to recover the interpreted data.

As soon as we have that we can post an update on this report