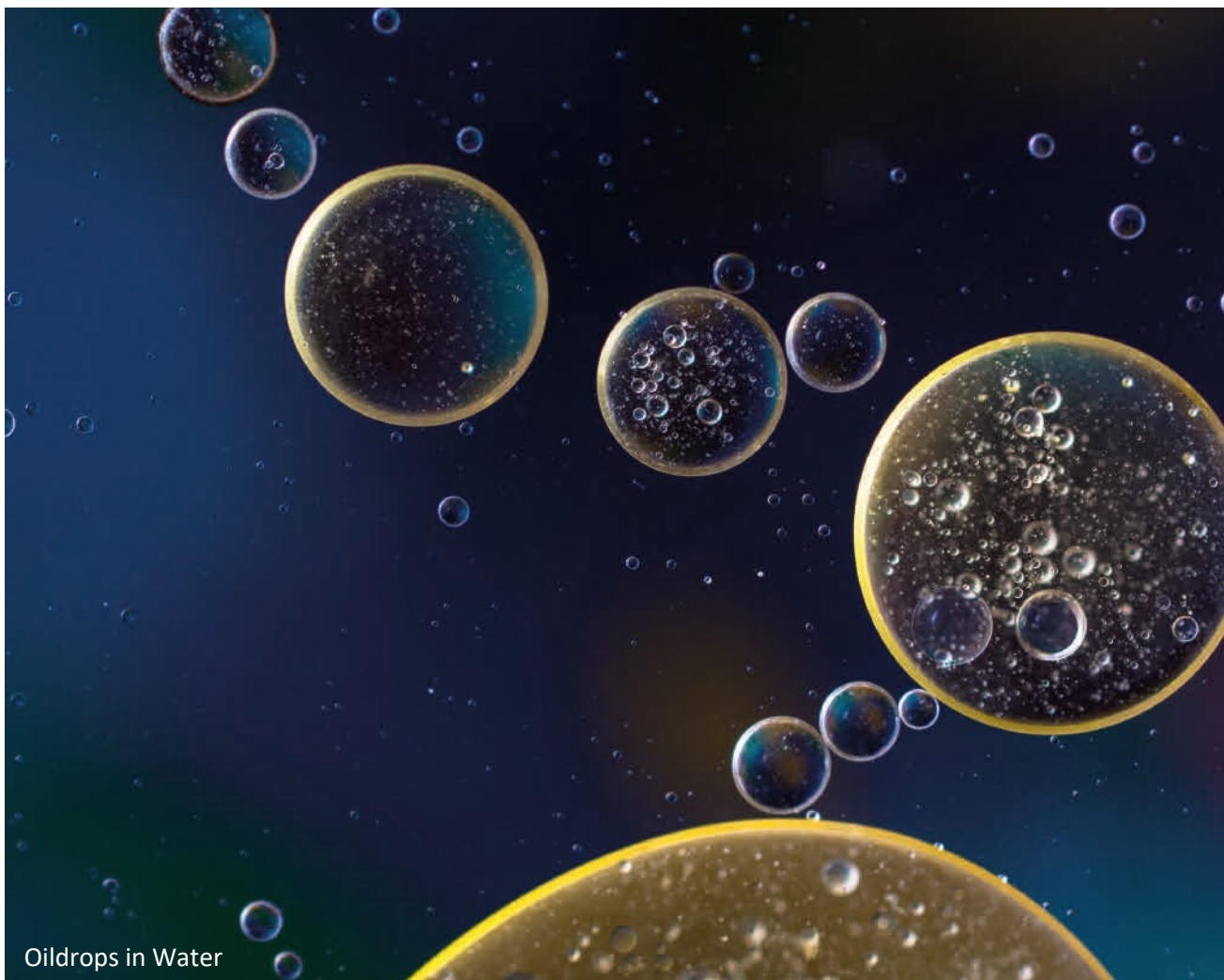


HIGHLY EFFICIENT DEMULSIFIERS: New in ACAT Product Range

PHOTO: DIFFERENT PERSPECTIVE/PIXABAY

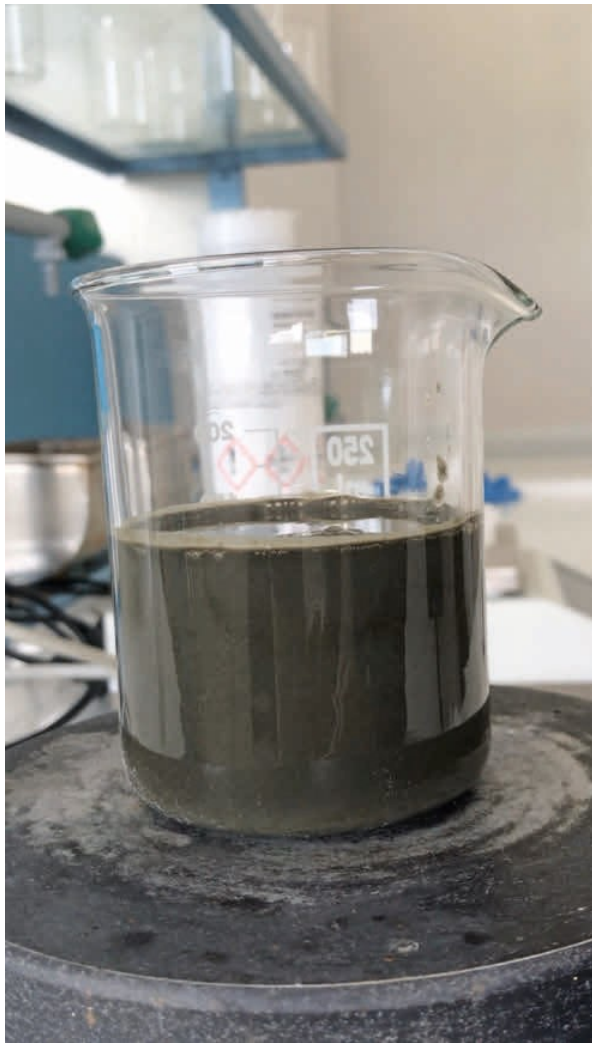


Oildrops in Water

Since the beginning of this year ACAT has included in its product range a new line of highly efficient Demulsifiers. But first of all what is an emulsion? An emulsion is a system of two immiscible liquids in which one of the liquids is dispersed as small droplets into the second liquid.

The liquid that is dispersed is called the internal phase. The liquid into which it is dispersed is called the external phase. There are two

types of emulsions that are common in industry: Water-in-oil emulsions (lean emulsion) and oil-in-water emulsions (fat emulsion). The most common emulsion is the oil-in-water emulsion: it is formed during treatments such as metal processing of iron and steel and therefore mainly in wire drawing mills, or it is generally formed when tools are used to process metals with cutting oils.



Original emulsion

It is almost impossible to realize oil separation without an effective system for breaking the emulsion. Demulsifiers are specific products for the separation (breakage) of the oily emulsions and there are two types of these products, demulsifiers for the treatment of „lean“ emulsions (oil in water) and demulsifiers for the treatment of „fat“ emulsions (water in oil). The most common types are the lean emulsions. For this emulsions the ACAT product line „green“ is used. „Green“, because it consists of cationic and non-cationic polymers and no environmentally harmful products are released during treatment. Their use is very simple: they are used with „batch“ treatments under agitation (no turbo) or with air insufflation. Simple laboratory tests (Jar-Test) determine the optimal dosage.



Emulsion after treatment

Fat emulsions (water in oil) are treated with completely different demulsifiers than those mentioned above, both as formulation and as application. These products are mainly used in the refineries (for the treatment of tank sloops) and they are classified as ADR products. These demulsifiers are used independently of the type of treatment - static (batch) or dynamic (continuous) - with centrifuges at a temperature between 75 and 80°C.

The liquid to be treated is in fact very thick and viscous and it needs high temperatures to reduce its viscosity and this facilitates mixing with our demulsifier. Also in this field of application, the product suitable for the treatment is identified by previous laboratory tests.