

Nano Science, Technology and Industry Scoreboard

## **Nissan Chemical Corporation Registered Its First Oilfield-patent**

2019-09-02 Nissan Chemical Corporation has registered a US patent in the area of oilfield nano-additives. This product containing titanium dioxide nanoparticles is used to enhance oil and gas production.

Nissan Chemical America Corporation (NCA) had its first US Patent, "Hydrocarbon Formation Treatment Micellar Solutions," issued on Tuesday August 13, 2019 as U.S. Patent No. 10,377,942.

nanoActiv® EFT is the first micellar dispersion additive that harnesses the power of nanoparticle technology to increase initial oil and gas production. nanoActiv® EFT is a synergistic combination of Nissan's proprietary silicon dioxide nanoparticles, an organic solvent, and a blend of surfactants. These technologies work together to efficiently overcome problems presented by increases in water saturation and decreases in hydrocarbon mobility.

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"For the nanotechnology to do its job, the particles must be uniform in size and remain separate from each other. In the presence of brine, that is a very difficult thing to do," says NCA Technology Director John Southwell. "We solved this challenge by engineering highly surface-modified brine-resistant nanoActiv® particles with the ability to remain a colloidal dispersion in challenging downhole conditions."

nanoActiv® EFT reaches into small pore spaces—releasing more immobilized oil than ever before—delivering significantly more efficient and complete flowback of the treatment fluids over a shorter period of time.

The benefits of nanoActiv® EFT are amplified when used in combination with nanoActiv® HRT to syngergistically increase initial oil and gas production while reaching deeper into the fracture network creating pathways for sustained recovery.

"Nissan Chemical's nanoActiv® products are the only true nanoparticle solutions in the industry. This patent is a big step forward as the nanoActiv® brand continues to grow," adds NCA President William Smith. "Our innovative products for the Oil & Gas industry consistently give operators improved returns."

## About nanoActiv®

nanoActiv® solutions are high-efficiency intervention additives and methods—maximizing hydrocarbon production rates for production services (remediation and restimulation) and new completions.

Read the original article on PR Newswire.