

# Nanoclays for industrial decontamination applications

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## Abstract

Removal of emerging contaminants is one of the most significant and difficult environmental problems to treat since many of these substances are of synthetic origin and a complex molecular structure, making them more stable and difficult to biodegrade. Drinking water is an increasingly scarce commodity, especially in the countries with the lowest human development index, where millions of people do not have any access to sources of clean water to meet their basic needs and often becomes vehicle diseases. That is why water pollution is an issue of vital importance to be solved. Sorption techniques produce high quality treated effluent and sorption processes have been investigated as a method of removing emerging contaminants wastewater. Our work has been to study the adsorption of different emerging contaminants from pharmaceutical and food industries by nanoclays, both natural and modified ones. Results show a strong interaction between clays and the emerging contaminants because of the Van der Waals bonds between the organic substances and the adsorbent when the adsorption takes place.

## References

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## Figures

