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Extending surfactant-modified 2:1 clay minerals for the uptake and removal of diclofenac from water

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Highlights:

- Illite and montmorillonite modified by a cationic surfactant.
- Modification resulted in significant uptake of diclofenac (DC) upto 1 mmol/g.
- Specific surface area and the anion exchange not limiting factors for DC uptake.
- Partitioning into the hemimicelles and admicelles responsible for DC uptake.
- Results would extend application of modified clays for removal of anionic drugs.

Abstract

The presence and persistency of pharmaceuticals and personal care products

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