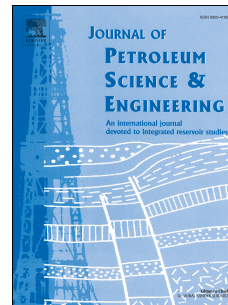


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Improving wellbore stability of shale by adjusting its wettability

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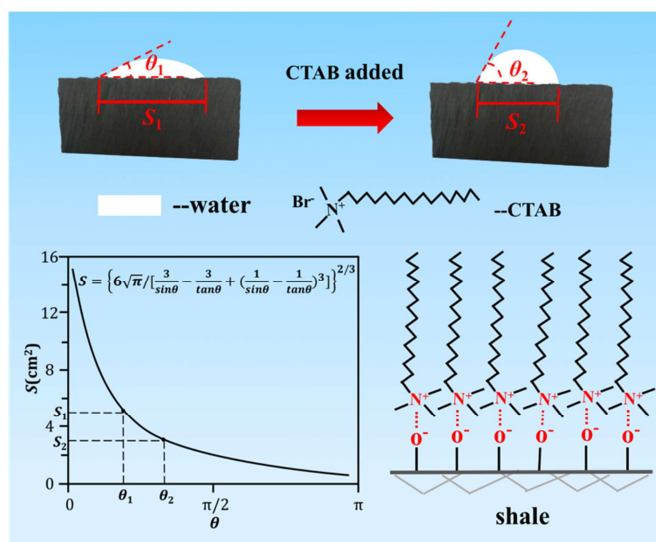
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After adding CTAB to the WBM or water, CTA⁺ is easy to adsorb on the surface of shale via an ionic bond (the red dotted line), forming a hydrophilic base toward the shale and a lipophilic base toward the WBM or water, thus, increasing the contact angle and decreasing the contact area with shale.

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