

LRR

On the basis of your reading of the relevant literature, indicate whether the following statements are true or false and briefly document/justify your selection.

T It is easy to identify a table and/or figure in the paper by Qiao et al. (2015) in which the authors show and discuss "increased SO₄²⁻ adsorption".

⇒ "Chromatographic Wettability Test ..." (p8) ⇒ "area between the two breakthrough curves"

Yes... but not necessarily to understand (and be convinced)...

T/F Qiao et al. (2015) provide an explanation that justifies the inclusion of $-COOCa^+ = -COO^- + Ca^{2+}$ as a representative oil-water interface reaction.

"Darcy's law and chemical reaction equilibrium" ⇒ Ok! oil water (OK)

⇒ "Surface species $>CaOH_2^+$, $>CO_3^-$ and $-COO^-$ " ⇒ Ref? (⇒ Langmuir 1997 ????)
[Conventional cation ??] [O/W OK... but surface/oil ?!]

F Yu et al. (2014) discuss how the fraction of adsorbed gas is related to the properties of shale samples which they characterized by fitting the experimental results to either the BET or the Langmuir isotherm.

T.4 and T.5

T.1 and T.2

No! (Can we do this? Do results make sense?)
↳ "... characterizing... is important..." ⇒ And? !!

F Yu et al. (2014) explained the relationship between the results shown in Figure 6 and Figure 7.

No!
⇒ Should there be a relationship between scf/ton and m²/g ??
(even better(?) than between scf/ton and TOC!)