How do silanols react with oxidized aluminum surfaces?

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Condensation reaction between two silanols

SiR₃

H₂O + SiR₃ → O + H₂O + SiR₃

*note: aluminum surface is oxidized upon exposure to the atmosphere or aqueous environment
\[ \Delta E < 0? \]

\[ \Delta E = E_{\text{surface}+\text{silanol}} + E_{\text{H}_2\text{O}} - E_{\text{surface}+\text{OH}} - E_{\text{silanol}} \]
\( \Delta E = E_{\text{products}} - E_{\text{reactants}} \)

\( \Delta E_{\text{gas}} \approx \Delta E_{\text{water}} \)

\( \Delta E = -0.3 \text{ eV} \)

\( \Delta E_{\text{gas}} = -0.8 \text{ eV} \)