The dipole moment of water is higher than that of methanol; water is more polar than methanol. One practical consequence is a covalent solute dissociates into ions to a greater extent in water than in methanol.

\[
\begin{array}{c|c}
\text{solvent} & \varepsilon \\
\hline
\text{water} & 80 \\
\text{methanol} & 30 \\
\end{array}
\]

The dipole moment of water is higher than that of methanol; water is more polar than methanol. One practical consequence is a covalent solute dissociates into ions to a greater extent in water than in methanol.

\[
\text{M} + \text{X} \rightleftharpoons \text{M}^+ + \text{X}^- \]

equilibrium constant for dissociation of MX : \( K_{\text{dis}} \)

\[
\begin{array}{c|c}
\text{solvent} & K_{\text{cis}} \\
\hline
\text{water} & a \\
\text{methanol} & b \\
\end{array}
\]

\[a > b\]

**Contributors**

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