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.

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

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

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

\(a > b\)

**Contributors**

- Gamini Gunawardena from the OChemPal site (Utah Valley University)