A radical cation is a positively charged species that has an atom bearing an unpaired electron.

eg: 

\[
\begin{align*}
\text{CH}_3\text{OH}^+ & \quad \text{CH}_3\text{CH}_2\text{NH}_2^+ \\
\end{align*}
\]

Some radical cations are resonance stabilized.

eg: 

\[
\begin{align*}
\text{CH}_3\text{CH} &= \rightarrow \text{CH}_3\text{C} \quad \text{CH}_3\text{C} = \rightarrow \text{CH}_3\text{CH} \\
\end{align*}
\]

Radical cations are common intermediates in reactions occurring in the mass spectrometer.

see also radical anion

Contributors

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