The following group in an organic molecule is called the nitroso group.

\[ \text{N} = \text{O} \]

ey:

\[ \text{CH}_3\text{N} = \text{O} \quad \text{(1)} \quad \text{I(CH}_3\text{)C} = \text{N} = \text{O} \quad \text{(2)} \]

\[ \text{C}_6\text{H}_5\text{N} = \text{O} \quad \text{(3)} \]

The nitrosyl group is stable only if there are no alpha hydrogens to it. Thus, 1 is unstable, and 2 and 3 are stable. 1 exists mostly as the tautomer (4), which is an oxime.

\[ \text{CH}_3\text{N} = \text{O} \quad \leftrightarrow \quad \text{CH}_2\text{N} = \text{O} = \text{OH} \quad \text{(4)} \]

see also nitrosyl cation

Contributors

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