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Cyanomethanimine

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Synonyms

HCN dimer; HNCHCN

Definition

Cyanomethanimine is an organic molecule that is a less saturated relative of ► [aminoacetonitrile](#) (glycine nitrile, $\text{NH}_2\text{CH}_2\text{CN}$). It has three ► [isomers](#), N-, E-, and Z-cyanomethanimine. Cyanomethanimine has been proposed as an intermediary in the prebiotic synthesis of the purine nucleobase adenine.

History

Both E-Cyanomethanimine and Z-Cyanomethanimine have been detected by radio

astronomers in the interstellar medium (Zaleski et al. [2013](#); Rivilla [2019](#)). Cyanomethanimine has been suggested to be a possible precursor to adenine.

See Also

- [Adenine](#)
- [Aminoacetonitrile](#)
- [Glycine](#)
- [Molecules in Space](#)

References

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- Zaleski DP, Seifert NA, Steber AL, Muckle MT, Loomis RA, Corby JF, Martinez O, Crabtree KN, Jewell PR, Hollis JM, Lovas FJ, Vasquez D, Nyiramahirwe J, Sciortino N, Johnson K, McCarthy MC, Remijan AJ, Pate BH (2013) Detection of E-cyanomethanimine toward Sagittarius B2(N) in the green bank telescope PRIMOS survey. *Astrophys J* 765:L10–L15