

## Interaction between methyl glyoxal and ascorbic acid: experimental and theoretical aspects.

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The absorption spectral change of methyl glyoxal (MG) due to the interaction with ascorbic acid (AA or Vitamin C) has been investigated using steady-state spectroscopic technique. A plausible explanation for the spectral change has been discussed on the basis of hydrogen bonding interaction between the two interacting species. The equilibrium constant for the complex formation due to hydrogen bonding interaction between MG and AA has been obtained from absorption spectral changes. Ab initio calculations with DFT B3LYP/6/31G (d,p) basis sets have been used to find out the molecular structure of the hydrogen bonded complex. The O...H distance found in the O-H...O hydrogen bond turns out to be quite short (1.974 Å) which is in conformity with the large value of the equilibrium constant determined experimentally.

### Adres publiczny

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### Strona internetowa wydawcy

<http://www.elsevier.com>