

ELECTRON IMPACT IONIZATION OF ETHYLENE GLYCOL MOLECULE

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S u m m a r y

Mass spectrometric studies of the positive ion yield due to the electron impact ionization of ethylene glycol molecules in the gas phase have been carried out. The ionization energy of a molecule and the energies of appearance of basic fragment ions have been obtained based on the ionization efficiency curves. The value of the ionization energy for a $C_2H_6O_2$ molecule has been determined experimentally to be (10.21 ± 0.25) eV. The experimental values of the energies of appearance for the basic fragment ions with $m/z = 31, 33,$ and 29 have been found to be $(11.13 \pm 0.25), (10.56 \pm 0.25),$ and (17.79 ± 0.25) eV, respectively.