

PT3 EI mass spectra of derivatives of thiophenols.

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Fragmentation of thiophenol derivatives under EI is studied.

Common derivatives for series of isomeric mercaptobenzoic acid, methoxythiophenol, (methylthio)phenol, hydroxythiophenol, benzenedimethanethiol, isopropylbenzenethiol, methylbenzenethiol, benzenedithiol, aminothiophenol and dimethylbenzenethiols are investigated by EI mass spectrometry. Standard methods for derivative preparation are employed for the synthesis of methyl, trimethylsilyl, tert.-butydimethylsilyl, acetyl, trifluoroacetyl, pentafluoropropionyl, heptafluorobutyryl and perfluoroacyl/fluoroalkyl derivatives of the above compounds. While the EI spectra of the positional isomers of the initial compounds are similar, the fragmentation patterns of the derivatives dramatically change. The fragmentation pathways and the origin of important ions in the spectra of derivatives will be discussed.