

Figure 1. Mass spectra by electron impact ionization (EI) and chemical ionization (CI) of peaks L and M detected in the reaction of 3-methylfuran with Cl atoms: Fig. 1A. EI and CI MS of peak L (Fig. 3A) and Fig. 1B. EI and CI MS of peak M (Fig. 3A) assigned to the isomers 5-hydroxy-3-methyl-2(5H)-furanone and 5-hydroxy-4-methyl-2(5H)-furanone, respectively.

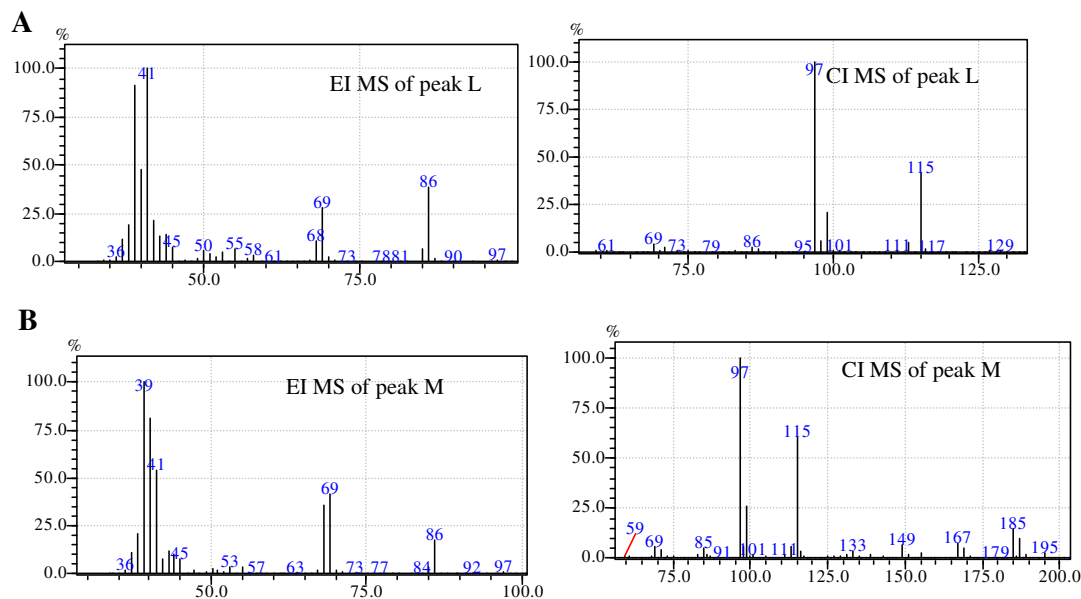


Figure 2. Mass spectra by electron impact ionization (EI) and chemical ionization (CI) of two reaction products of the reaction of 3-methylfuran with Cl atoms: Fig. 2A. EI and CI MS of peak J (Fig. 3A) and Fig. 2B. EI and CI MS of peak K (Fig. 3A) assigned to a molecular formula $C_5H_5O_2Cl$.

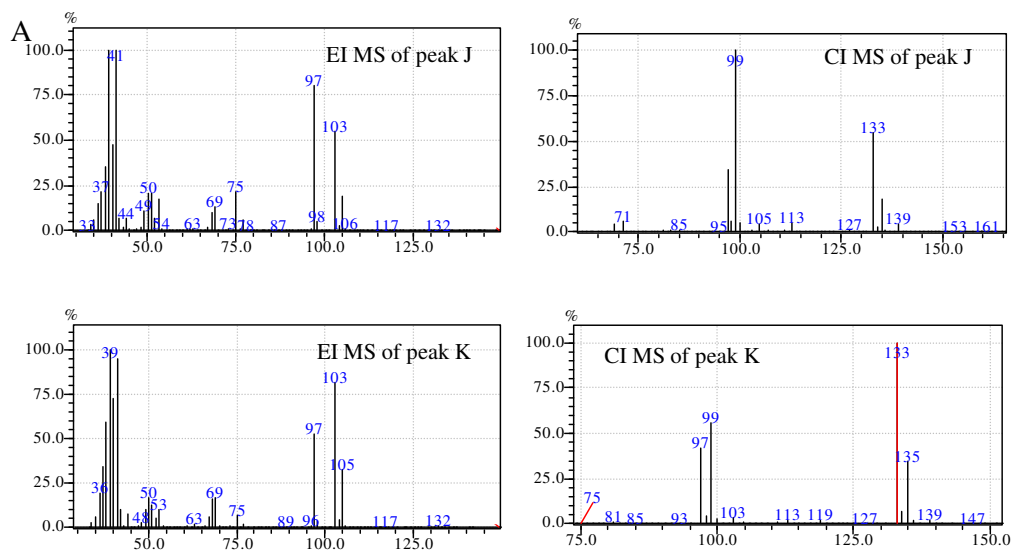


Figure. 3. Concentration-time profiles of 3-methylfuran and products identified in the reaction of 3-methylfuran with Cl atoms analyzed by SPME-GC-FID: (■) 3-methylfuran, (◆) 3-furaldehyde, (◊) furanone isomer, C₅H₆O₂, (▲) 2-methylbutenedial, (◈) 3-methyl-2(3H)-furanone, (◉) 3-methyl-2,5-furanodione, (▲) chlorinated methylfuranone (20.9 min), (●) chlorinated methylfuranone (23.9 min).

