

GAS CHROMATOGRAM OF A MIXTURE OF TWO COMPOUNDS

THIS MIXTURE CONSISTS OF A RATIO OF 2 : 1 OF LOW-BOILING TO HIGH-BOILING LIQUID.

THE INJECTION POINT IS AT "START" AT THE TOP OF THE CHROMATOGRAM. THE PEAK LABELLED "A = 2" IS DUE TO THE LOW-BOILING LIQUID AND REACHES THE DETECTOR FIRST. THE PEAK LABELLED "A = 1" IS DUE TO THE HIGH-BOILING LIQUID AND REACHES THE DETECTOR LATER.

THE TIME BETWEEN "START" AND WHEN THE PEAK APPEARS IS KNOWN AS THE RETENTION TIME.

THE AREA OF THE PEAK, NOT THE HEIGHT, IS PROPORTIONAL TO THE RELATIVE AMOUNTS OF LIQUID 1 AND LIQUID 2. (A ON THE CHROMATOGRAM REFERS TO AREA)

IN OUR LAB, THE RELATIVE AREAS ARE REPORTED BY AN ELECTRONIC INTEGRATOR.

THIS CHROMATOGRAM WOULD LOOK SIMILAR TO THE CHROMATOGRAM OF A MIXTURE OF 2 PARTS CYCLOHEXENE TO 1 PART TOLUENE.

