substantiated in experiments using pesticides as pure chemicals.
- In liquid mixtures of DIMP in pesticide formulations (pesticide concentration at a thousand-fold excess and above), it was possible to clearly identify DIMP from head space samples of these mixtures several hours after preparation of the mixtures.

Examples of the IMS spectra generated in these experiments are presented in figures 1 to 4.

1.2.2. DIMP identification from rubber material

In order to investigate the memory effect to be expected by absorption of chemicals in organic material used for joint packings etc., a piece of rubber tube was inserted into a parathion-methyl formulation containing approximately 0.1 per cent DIMP, for 16 hours. The sample was wiped off and placed under a laboratory hood. For measurement, it was placed into the diffusion chamber connected to the IMS and replaced under the hood again after measurement. Signal recording was conducted at 120 hours, 240 hours, 410 hours, and 580 hours after initial sample preparation.

As can be seen from figure 5, even 580 hours after the initial sample preparation identification of DIMP remained possible with sufficient reliability.

1.2.3. Development of wipe tests

In order to evaluate the detection limits for wipe tests on metal surfaces potentially contaminated with schedule-1-chemicals, between 10 and 100 microliters of a solution containing 10 micrograms per ml DIMP in n-hexane were transferred onto aerosol filter paper (diameter 2 cm). The samples were air-dried for 2 minutes and placed into the IMS sampling chamber for subsequent analysis. The detection limit thus established was approximately 1 microgram DIMP. The test was then repeated with a DIMP - pesticide mixture (parathion-methyl formulation). This test confirmed the detection limit.

In a subsequent experiment, a steal surface was contaminated with the DIMP-pesticide mixture (1 microgram DIMP was thus applied onto a surface of approximately 5 square centimeters). After 2 minutes, the steal surface was wiped off with filter paper which was then placed into the IMS inlet chamber. The signals recorded did confirm the detection limit estimated in the first experiment.

For illustration, the recorded spectra are presented in figures 6 and 7.