

**APPLICATION OF IR SPECTROSCOPY FOR IDENTIFICATION
OF SMALL QUANTITIES OF HAZARDOUS TOXICANTS AND
PRODUCTS OF THEIR DESTRUCTION**

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Some means of IR-spectroscopy, which may be used for identification of hazardous toxicants in the environment objects, applying during the acts of chemical terrorism, are considered. As one of the toxic chemicals sarin and its destruction product O-isopropylmethylphosphonate, on which the toxicant may be indirectly identified after a long time of its application, are studied. Some other methylphosphonic acid derivatives are investigated as well. The samples of soil, water and some other surfaces were studied as objects exposed to danger. As a result it was found that all mentioned substances extracted from appointed media by extraction or washing-off, may be quickly and rather exactly identified by characteristic features (by absorption bands on IR-spectra). The method allows to detect the investigated substances in soil at the level $\sim 0,1$ mg/g, in water at the level ~ 2 mg/ml and on the surface at the level $\sim 0,2$ mg/cm².