

**ELECTROSPRAY MASS SPECTRA OF DITHIANE SULPHOXIDES AND SULPHONES**

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Dithiane is commonly formed as a degradation product of sulphur mustard stored at ambient temperatures, and is often identified in environmental samples that have contained sulphur mustard. In environmental samples the sulphur atoms can oxidise to form sulphoxides and sulphones. The presence of two sulphur atoms for dithiane provides the potential for the formation of oxidation products containing various combinations of sulphoxide and sulphone groups. We have previously investigated the utility of using electrospray mass spectrometry as a screening technique to assist in the verification of the Chemical Weapons Convention.<sup>1,2</sup> In this study, a series of dithiane sulphoxides and sulphones are characterised using electrospray mass spectrometry to determine the effectiveness of including these compounds in a screening procedure aimed at determining the presence of chemicals relevant to the Chemical Weapons Convention.

1. Borrett, V.T., Colton, R, Traeger, J.C., *Eur. Mass Spectrom.*, 1995, 1, 131.
2. Borrett, V.T., Mathews, R.J., Colton, R, Traeger, J.C., *Rapid Commun. Mass Spectrom.*, 1996, 10, 114.