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Bibliography of Studies in Electron Transmission Spectroscopy

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Bibliography of Studies in Electron Transmission Spectroscopy

A variety of techniques can be used to locate temporary negative ion states in atoms and molecules. One of the most efficient methods passes an electron beam through a gas cell and observes structure appearing in the attenuated "transmitted" electron current as a function of the electron energy. In 1971 L. Sanche and G.J. Schulz introduced a scheme whereby the derivative with respect to energy of the transmitted current was measured. Combining this with the trochoidal electron monochromator devised by A. Stamatovic and G.J. Schulz in 1968 produced a compact, sensitive and easily used apparatus for the detection of short-lived anion states that has given rise to the field of Electron Transmission Spectroscopy (ETS).

This bibliography contains all the references I am aware of that incorporate ETS or its components. Other early references that utilized similar modulation schemes are also given. For purposes of attribution, it is important to note that there are a number of studies of temporary negative ion states using other techniques, and in some cases the first observations of particular "resonances" were not made by ETS. An earlier version of the bibliography was included as an appendix in *Chem. Rev.* **87**, 557 (1987) by K.D. Jordan and P.D. Burrow. At the time it was compiled, an effort was made to include a number of papers that utilized other electron transmission methods to locate temporary negative ion states even though they did not incorporate the derivative scheme. With only a few exceptions, these have been removed from the current bibliography to retain its focus on the derivative scheme.

Readers are encouraged to let me know of any omissions or errors.

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