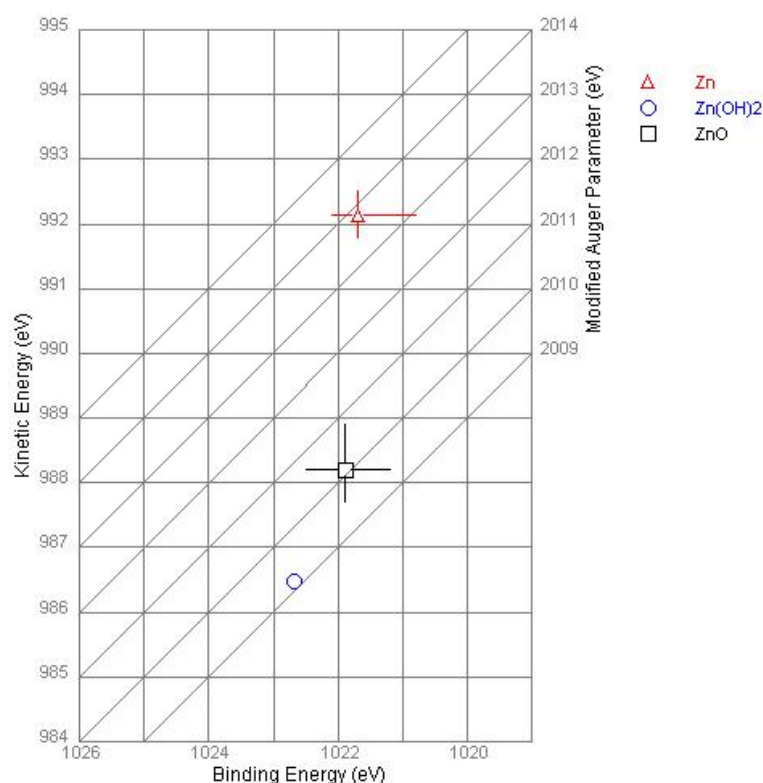


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Wagner plot of binding energies, Auger kinetic energies, and modified Auger parameters for materials containing Zn (principal photoelectron line: 2p_{3/2}; principal Auger-electron line: L3M45M45(1G))



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A Wagner plot shows measured values of kinetic energies of a specified Auger peak versus the measured binding energies of a specified photoelectron peak for different compounds containing the same element, as initially suggested by C. D. Wagner (Anal. Chem. 44, 967 (1972)). The diagonal lines indicate values of the modified Auger parameter, the sum of the Auger kinetic energy and the binding energy (G. Moretti, J. Electron Spectrosc. Relat. Phenom. 95, 95 (1998)).

The Wagner plot is analytically useful because it displays, in a compact form, the photoelectron binding energies, Auger-electron kinetic energies, and modified Auger parameters for a selected element in different compounds (and for the elemental solid, if available). The magnitudes of chemical shifts of these energies can assist in the identification of chemical state. The modified Auger parameter is valuable because it is insensitive to charging of a non-conducting specimen (if this charging is uniform).

Median values are plotted for materials for which two or more binding energies or two or more Auger kinetic energies are available in the database. The lines indicate the ranges of the available data (if the ranges are greater than the sizes of the plotted symbols).

The available binding-energy and kinetic-energy data for a particular compound can be displayed by selecting a compound in the menu at the bottom of the plot and then clicking Submit.

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