Both the MO and VB theories are used to help determine the structure of a molecule. Unlike the VB theory, which is largely based off of valence electrons, the MO theory describes structure more in depth by taking into consideration, for example, the overlap and energies of the bonding and antibonding electrons residing in a particular molecular orbital. While MO theory is more involved and difficult, it results in a more complete picture of the structure of a chosen molecule. Despite various shortcomings, complete disregard of one theory and not the other would hinder our ability to describe the bonding in molecules.

Contributors and Attributions

- Tony Chhom