COMPARISON OF CALCULATED WORK FUNCTION OF ELEMENTS EXPRESSED IN TERM OF FERMI ENERGY AND DENSITY OF FREE ELECTRON WITH OTHER METHODS

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ABSTRACT

The purpose of this project is to derive an expression for work function expressed in terms of Fermi energy and electron density parameter. This approach is referred to as the Metallic Plasma Model. After calculating the work function of metals using this approach, the result gotten are then analyzed and compared to the experimental values of work function for these metals. Also, the results gotten from this approach for each metal is compared to that which was gotten using other approaches such as SJM- Simple Jellium Model and Ab- initio method.