## Answer on Question #71324 - Chemistry - General Chemistry

## Question:

Using Lewis symbols depict the formation of Li+ and S2- ions from the atoms, and determine the formula of the compound

## Answer:

Let's define the electronic and Lewis structure of simple elements:

Li – [He] 2s <sup>1</sup> –	Li•

S – [Ne] 3s²3p⁴ –	<b>S</b> •
	•

The electronic and Lewis structures for ions:

$$Li - [He] 2s^0 - [Li]^+$$

$$S - [Ne] 3s^2 3p^6 - [S:]^{2-}$$

The formula of compound is:

 $[Li]^+$  +  $[iSi]^{2-}$  +  $[Li]^+$  =  $Li_2S$