

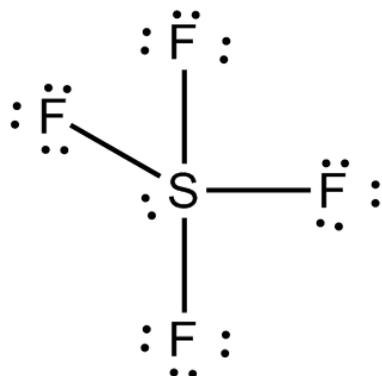
## Answer on the question #56738 - Chemistry - General Chemistry

### Question:

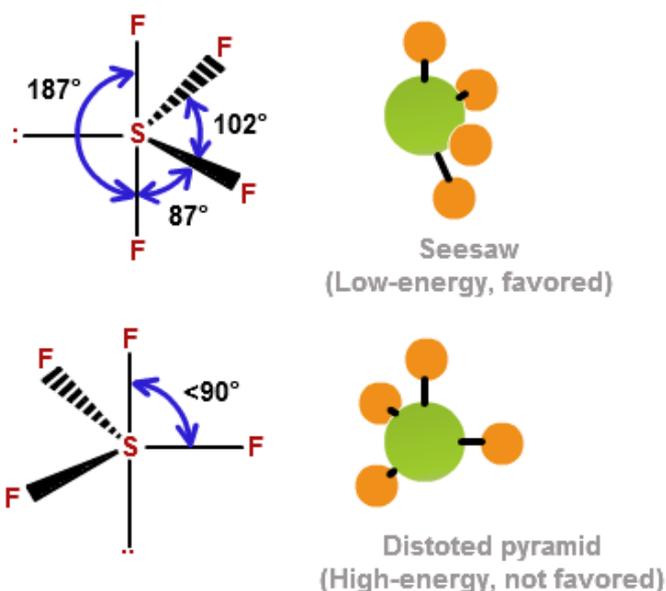
SF<sub>4</sub> what would be the Lewis dot, EPG (electron-pair geometry), MG( molecular geometry), Hybridization, bond angle(s), noble gas orbital box notation and Is the molecule polar

### Answer:

Lewis dot scheme represents the electronic structure of the compound:



The EPG is shown on the left of the image, and molecular geometry is shown on the right (the principal difference is that lone pairs are not shown on the molecular geometry chart). Also, the bond angles are shown.



The hybridization of Sulfur is sp<sup>3</sup>d, resulting in the formation of the 5 coordinate bonds.

Noble gas orbital box notation: S: [Ne] 3s<sup>2</sup>3p<sup>4</sup>

As the molecule contains different atoms and it is not symmetric, it is polar.