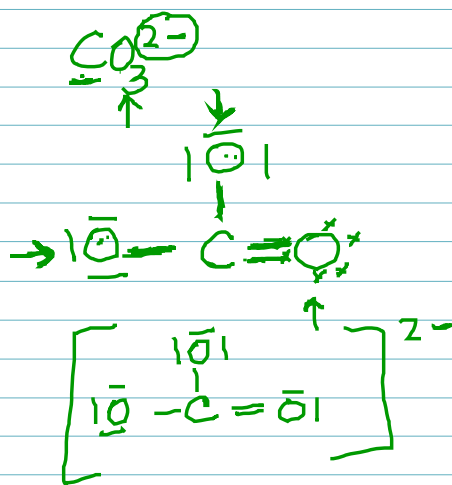
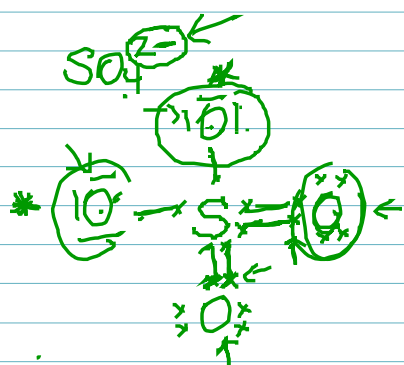


# Sapna Singh Lewis Structure - Polyatomic Ions ①

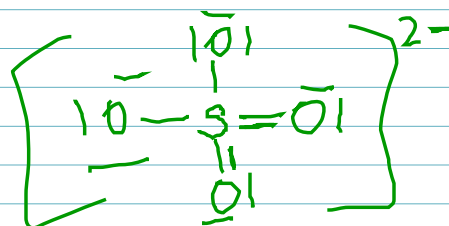


electronic bookkeeping

|                              |                      |
|------------------------------|----------------------|
| C has 4e <sup>-</sup>        | = 4                  |
| 3(O) has 3 × 6e <sup>-</sup> | = 18                 |
| 2- charge                    | = 2                  |
|                              | <hr/>                |
|                              | 24e <sup>-</sup>     |
| 3 single bonds               | - 6e <sup>-</sup>    |
|                              | <hr/>                |
|                              | 18e <sup>-</sup>     |
| 1 more bond as               | - 2e <sup>-</sup>    |
|                              | <hr/>                |
|                              | 16e <sup>-</sup>     |
| 4e <sup>-</sup> in =O        | - 4                  |
|                              | <hr/>                |
|                              | 12e <sup>-</sup> / 2 |
|                              | <hr/>                |
|                              | = 6e <sup>-</sup>    |



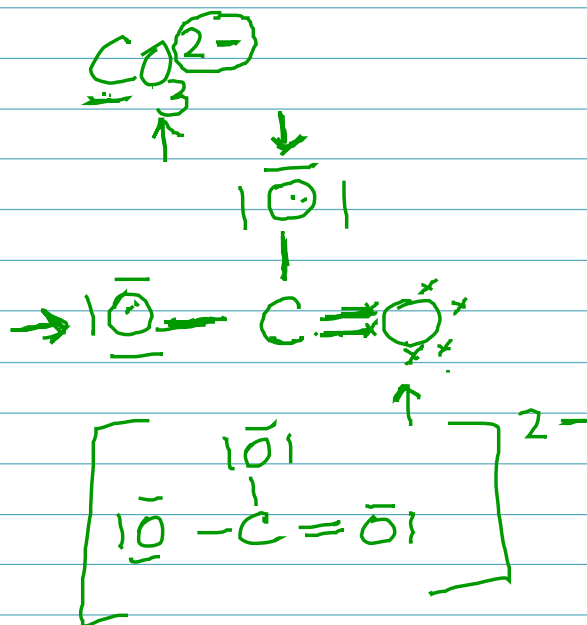
Sulfur has expanded shell.



|                                            |                      |
|--------------------------------------------|----------------------|
| S                                          | = 6e <sup>-</sup>    |
| 4 (O)                                      | = 24e <sup>-</sup>   |
| 2 -                                        | = 2e <sup>-</sup>    |
|                                            | <hr/>                |
|                                            | 32e <sup>-</sup>     |
| 4 single bonds                             | - 8                  |
|                                            | <hr/>                |
|                                            | 24e <sup>-</sup>     |
| 2 bonds w/ S & O                           | - 4                  |
|                                            | <hr/>                |
|                                            | 20e <sup>-</sup>     |
| filled valence shell for double bonded (O) | - 8e <sup>-</sup>    |
|                                            | <hr/>                |
|                                            | 12e <sup>-</sup> / 2 |
|                                            | <hr/>                |
|                                            | = 6e <sup>-</sup>    |

# Sapna Rya

## Lewis Structure - Polyatomic Ions ①



electronic bookkeeping

C has 4e<sup>-</sup> = 4

3(O) has 3 × 6e<sup>-</sup> = 18

2- = 2

24e<sup>-</sup>

3 single bonds - 6e<sup>-</sup>

18e<sup>-</sup>

1 more bond on C - 2e<sup>-</sup>

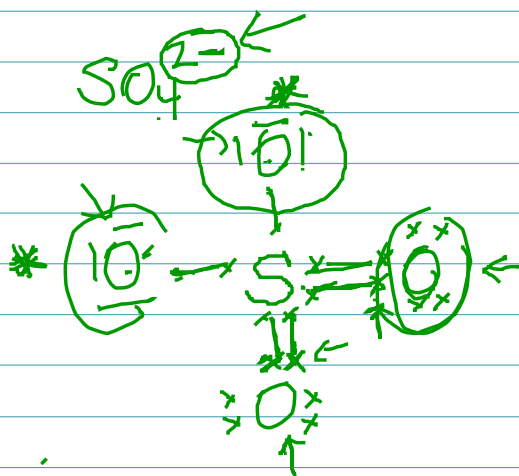
16e<sup>-</sup>

4e<sup>-</sup> on O = 0

- 4

12e<sup>-</sup> / 2

= 6e<sup>-</sup>



S = 6e<sup>-</sup>

4(O) = 24e<sup>-</sup>

2- = 2e<sup>-</sup>

32e<sup>-</sup>

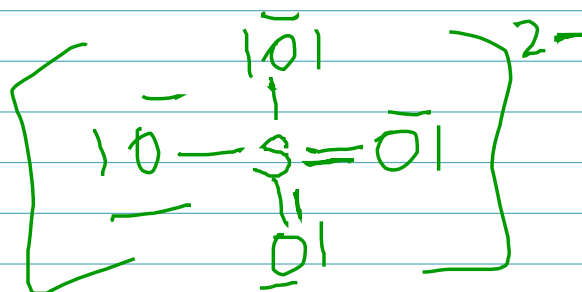
4 single bonds - 8

24e<sup>-</sup>

2 bonds on S = 0 - 4

20e<sup>-</sup>

Sulfur has expanded shell.



filled valence shell for double bonded (O)

4 × 2 = 8

12e<sup>-</sup> / 2

= 6e<sup>-</sup>