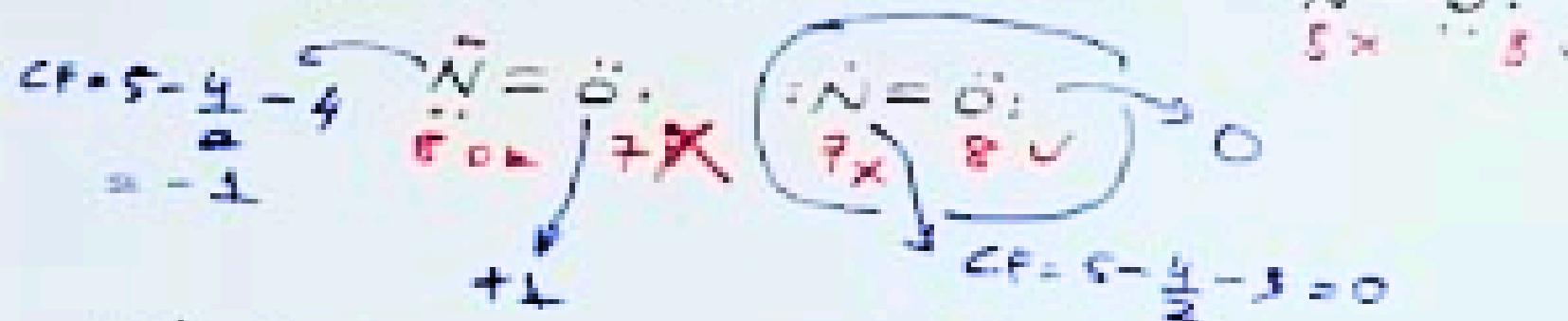


## EXCEPÇÕES À REGRAS DE LEWIS

### a) Não ativar



### b) Octeto incompleto: Be, B



### c) Octeto expandido: $\text{PF}_5^{+}$



## GEOMETRIA MOLECULAR

Lewis: Conjuguidade, tipo de ligação, faixa de formas? faixa de moléculas?

VSEPR: modelo de repulsão dos eletromônios da valência

Dominio Eletrônico

Regras com  
alta densidade  
eletônica no  
redor de um  
átomo



Dominio com eletrons livres

Dominio neutro:  
eletrons compartilhados



$$\text{DE} = \text{DL} + \text{DN}$$

DE

### Geometria



2



180°

LÍNEAR



BENT

3



120°

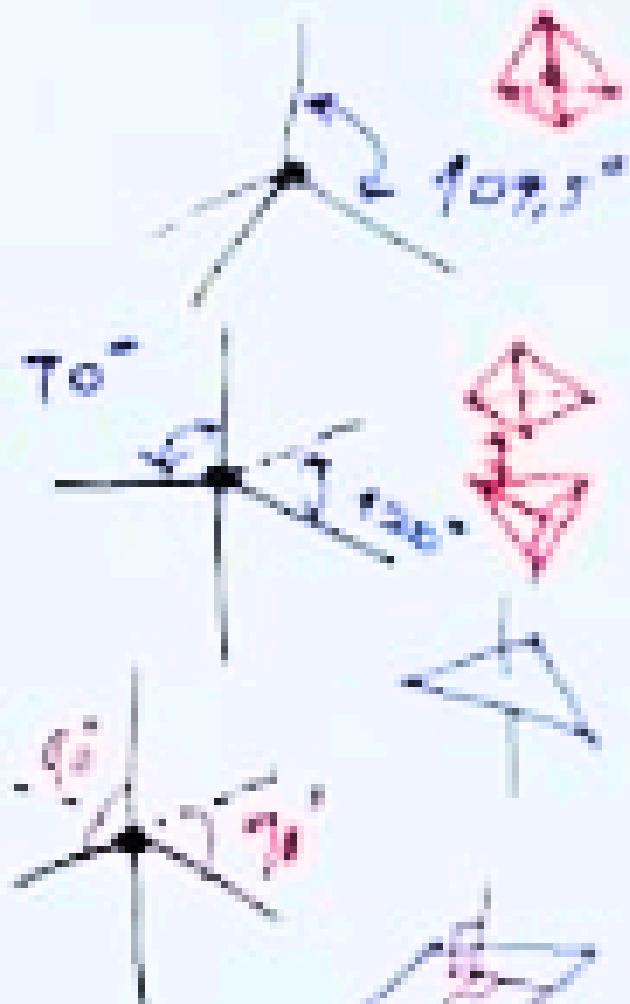
TRIGONAL  
PLANA



BENT

4

TETRAHEDR



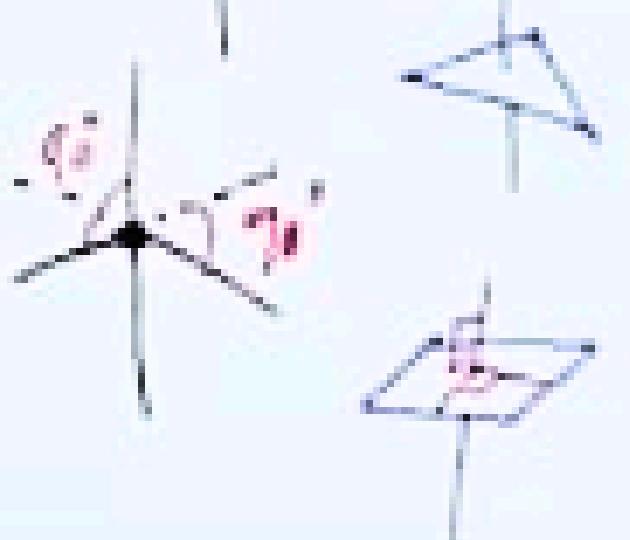
109,5°

TETRAEDR



TRIGONAL  
BIPYRAMID

5



90°

OCTAEDR

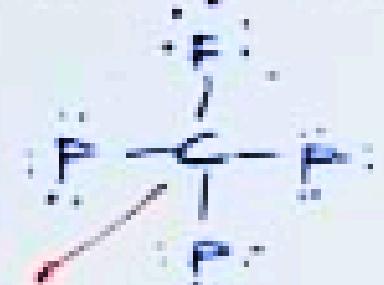
- Determinante a geometria de moléculas

CF<sub>4</sub>

NH<sub>3</sub>

COF<sub>2</sub>

- Fator estrutura do ionis



A TRÊS  
COSTAS



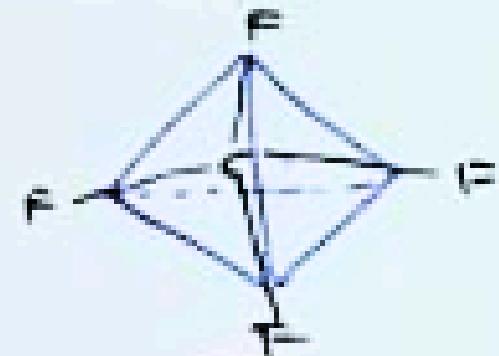
H-N-H



F-C-F

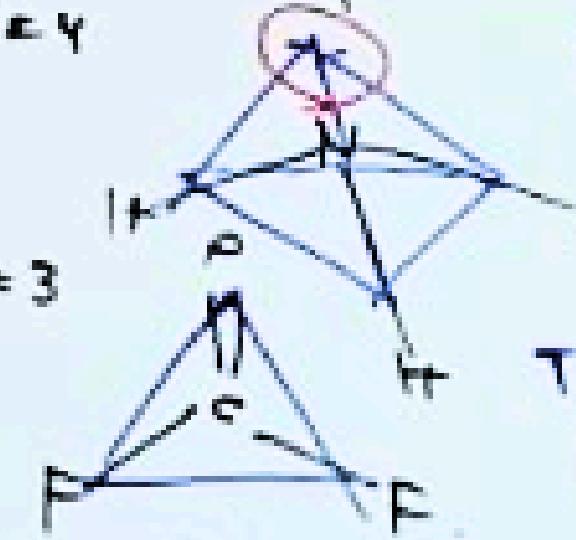
- Dominios eletrônicos

CF<sub>4</sub>: DE=4



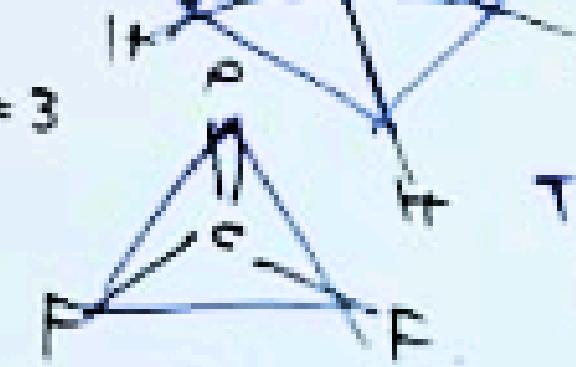
TERNADE

NH<sub>3</sub>: DE=4



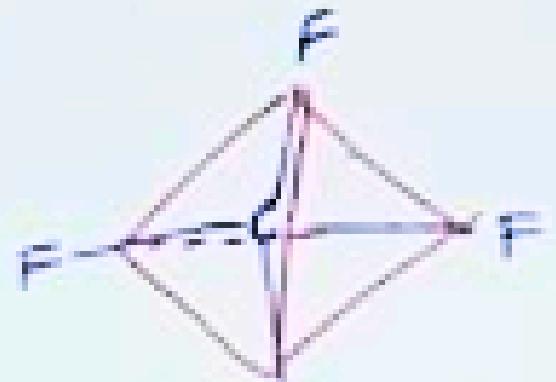
TERNADE

COF<sub>2</sub>: DE=3



TRIANGULAR  
PLANA

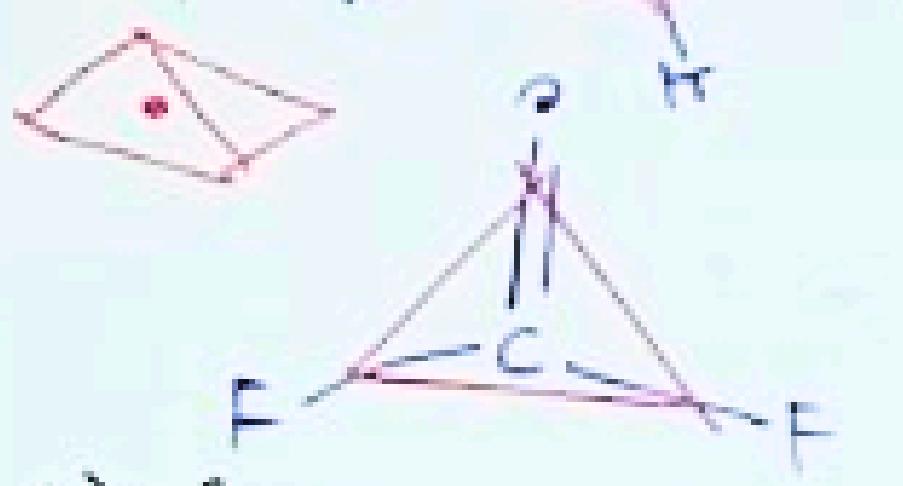
### 3) Diametros ligante vs geometria molécula



Tetraédrica

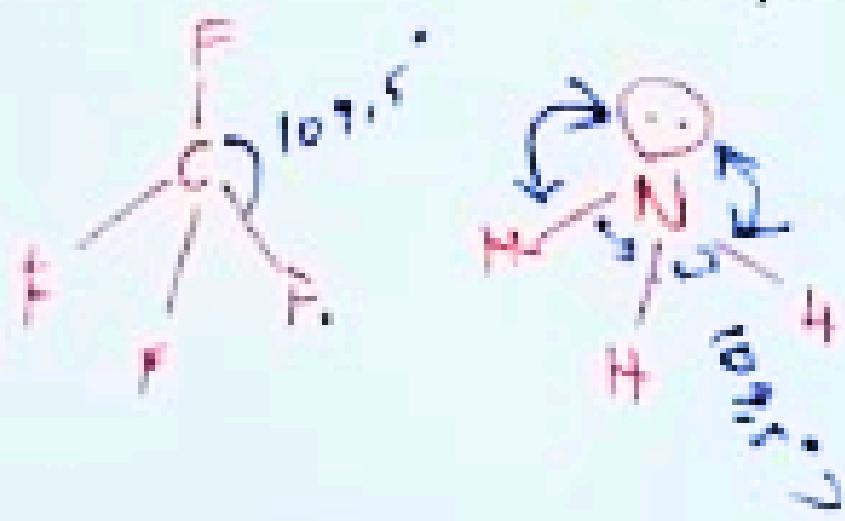


Trígonio  
Piramidal

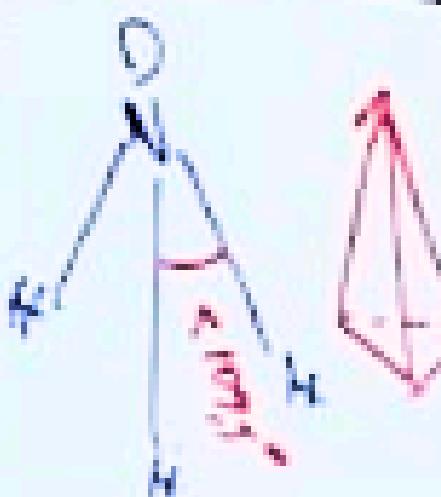


Trígonio  
Plana

### 4) Ángulos de ligación



Reunión  
lateral



Esféricas  
ligeras

Esféricas  
pesadas



### 5) Momento de dipolo de molécula



$$\mu_e = \mu_H \neq 0$$

Momento polar

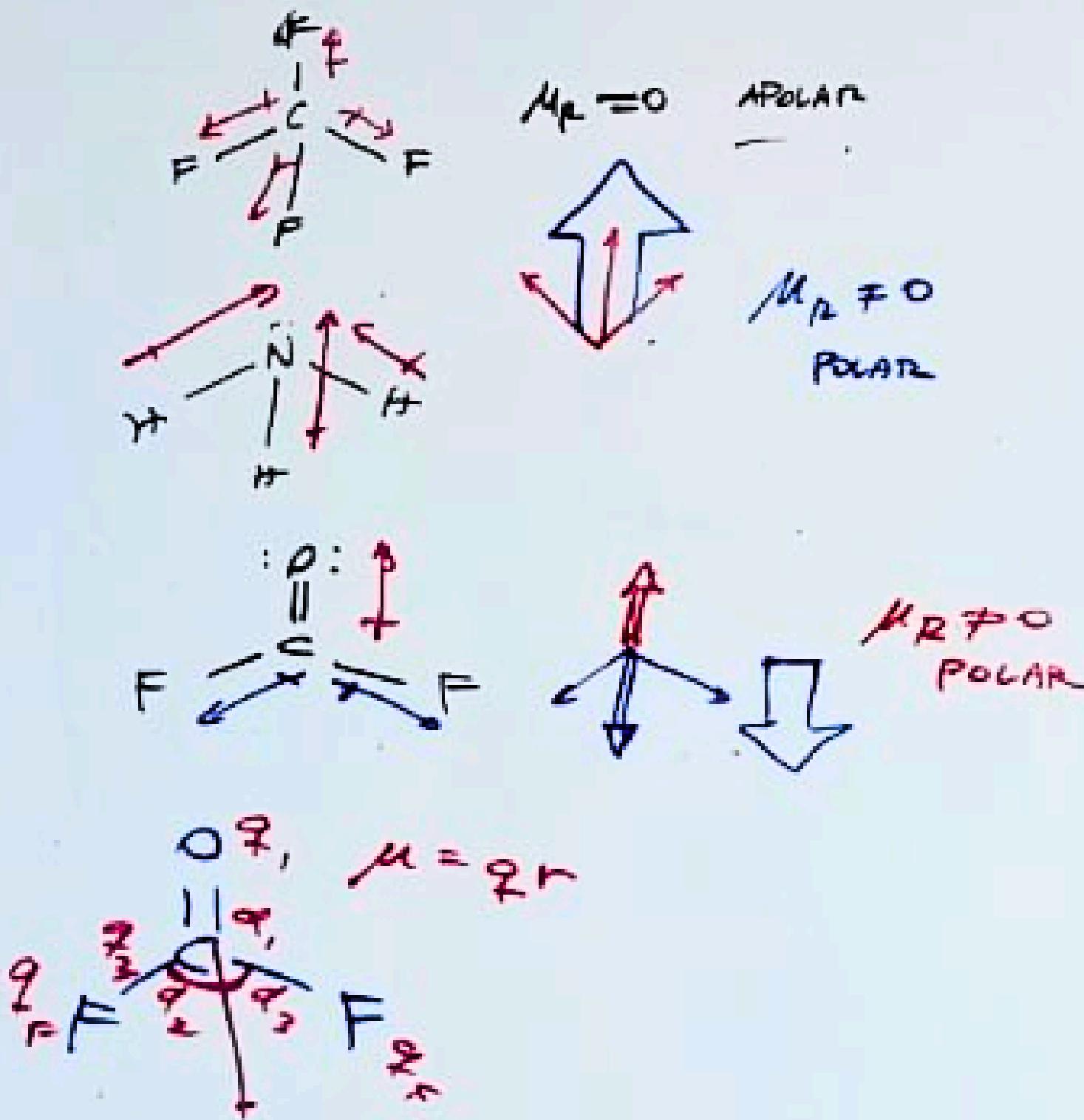


$$\mu_B \neq 0$$

Momento dipolar



Momento  
molecular total



6) MOTS DE UM ATÔMO CENTRAL



ETANO



ETENO



ETINO

