

TALLER

1) ¿Cuántos electrones poseen los átomos de criptón (kr), de número atómico 36, en su capa o nivel de energía más externo?

CRIPCIÓN (kr)

$$e^- = 36.$$

$$1 \ s^2$$

$$2 \ s^2 \ p^6$$

$$3 \ s^2 \ p^6 \ d^{10}$$

$$4 \ s^2 \ p^6 \ d^{10} \ f^{14}$$

$$5 \ s^2 \ p^6 \ d^{10} \ f^{14}$$

$$6 \ s^2 \ p^6 \ d^{10}$$

$$7 \ s^2 \ p^6$$

$$1s^2 \ 2s^2 \ 2p^6 \ 3s^2 \ 3p^6 \ \underline{4s^2} \ 3d^{10} \ \underline{4p^6}$$

$$8e^-$$

electrones de valencia

Periodo 4.

2) ¿Cuál de las siguientes configuraciones electrónicas corresponde al átomo de cobalto (Co), de número atómico 27?

RESPUESTAS.

1. S^2

☐

2. $S^2 P^6$

☐

3. $S^2 P^6 d^{10}$

☐

4. $S^2 P^6 d^{10} f^{14}$

☒

5. $S^2 P^6 d^{10} f^{14}$

6. $S^2 P^6 d^{10}$

7. $S^2 P^6$

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^7$

3) Encuentra al elemento que corresponden las siguientes configuraciones electrónicas.

a) Elemento cuya distribución electrónica es:

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^5$

1. S^2

2. $S^2 P^6$

3. $S^2 P^6 d^{10}$

4. $S^2 P^6 d^{10} f^{14}$

5. $S^2 P^6 d^{10} f^{14}$

6. $S^2 P^6 d^{10}$

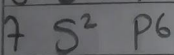
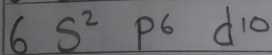
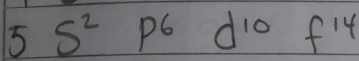
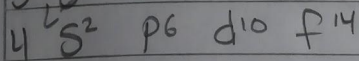
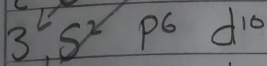
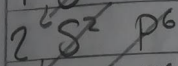
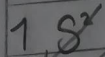
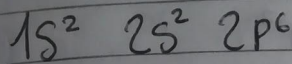
7. $S^2 P^6$

Símbolo = Mn

Nombre = Magnesio

$e^- = 25$

b) Elemento cuya distribución electrónica es:

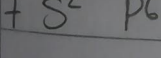
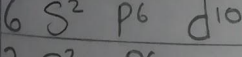
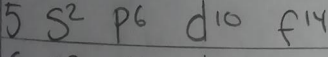
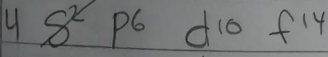
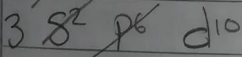
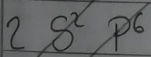
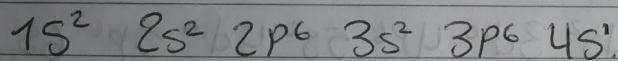


Símbolo: Co

Nombre: Cobalto

e-: 10

c) Elemento cuya distribución electrónica es:

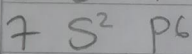
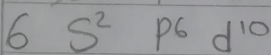
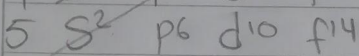
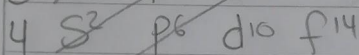
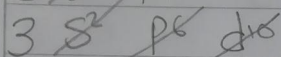
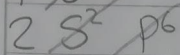
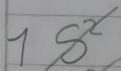
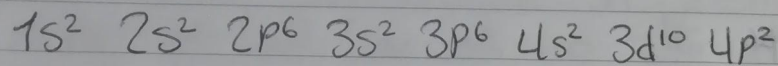


Símbolo: K

Nombre: Potasio

e-: 19

d) Elemento cuya distribución electrónica es:

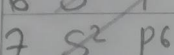
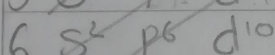
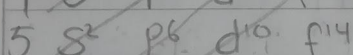
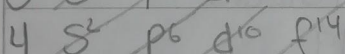
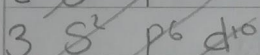
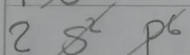
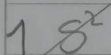
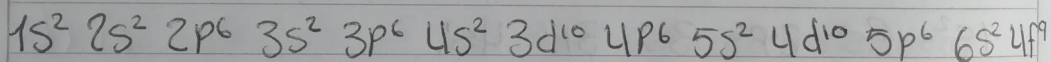


Simbolo: Ge

Nombre: Germanio

e^- : 32

e) Elemento cuya distribución electrónica es:



Simbolo: Tb

Nombre: Terbio

e^- : 65

4) Realice la configuración electrónica de los siguientes elementos.

a) Mn:

1 s^2

2 $s^2 p^6$

3 $s^2 p^6 d^{10}$

4 $s^2 p^6 d^{10} f^{14}$

5 $s^2 p^6 d^{10} f^{14}$

6 $s^2 p^6 d^{10}$

7 $s^2 p^6 d^{10}$

Simbolo: Mn

Nombre: Manganes

e^- : 25

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^5$

b) In:

1 s^2

2 $s^2 p^6$

3 $s^2 p^6 d^{10}$

4 $s^2 p^6 d^{10} f^{14}$

5 $s^2 p^6 d^{10} f^{14}$

6 $s^2 p^6 d^{10}$

7 $s^2 p^6$

Simbolo: In

Nombre: Indio

e^- : 49

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^1$

c) Pb:

1 ~~S²~~

2 ~~S² p⁶~~

3 ~~S² p⁶ d¹⁰~~

4 ~~S² p⁶ d¹⁰ f¹⁴~~

5 ~~S² p⁶ d¹⁰ f¹⁴~~

6 ~~S² p⁶ d¹⁰~~

7 ~~S² p⁶~~

Simbolo: Pb

Nombre: Plomo

e⁻: 82

1S² 2S² 2P⁶ 3S² 3P⁶ 4S² 3d¹⁰ 4P⁶ 5S² 4d¹⁰ 5P⁶ 6S²
4f¹⁴ 5d¹⁰ 6P²

d) I:

1 ~~S²~~

2 ~~S² p⁶~~

3 ~~S² p⁶ d¹⁰~~

4 ~~S² p⁶ d¹⁰ f¹⁴~~

5 ~~S² p⁶ d¹⁰ f¹⁴~~

6 ~~S² p⁶ d¹⁰~~

7 ~~S² p⁶~~

Simbolo: I

Nombre: Yodo

e⁻: 53.

1S² 2S² 2P⁶ 3S² 3P⁶ 4S² 3d¹⁰ 4P⁶ 5S² 4d¹⁰ 5P⁵

e) Sc:

1 ~~s^2~~
2 ~~$s^2 p^6$~~
3 ~~$s^2 p^6 d^{10}$~~
4 ~~$s^2 p^6 d^{10} f^{14}$~~
5 ~~$s^2 p^6 d^{10} f^{14}$~~
6 ~~$s^2 p^6 d^{10}$~~
7 $s^2 p^6$

Simbolo: Sc

Nombre: Escandio

e^- : 21

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10}$

f) Rb:

1 ~~s^2~~
2 ~~$s^2 p^6$~~
3 ~~$s^2 p^6 d^{10}$~~
4 ~~$s^2 p^6 d^{10} f^{14}$~~
5 ~~$s^2 p^6 d^{10} f^{14}$~~
6 ~~$s^2 p^6 d^{10}$~~
7 $s^2 p^6$

Simbolo: Rb

Nombre: Rubidio

e^- : 37

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1$

3) Li :

1 s^2
2 s^2 p^6
3 s^2 p^6 d^{10}
4 s^2 p^6 d^{10} f^{14}
5 s^2 p^6 d^{10} f^{14}
6 s^2 p^6 d^{10}
7 s^2 p^6

Símbolo: Li
Nombre: Litio
 e^- : 3

$1s^2 2s^1$

5) De los elementos del punto anterior establezca: Período y electrones de valencia.

a) Nombre: Manganes
Símbolo: Mn
 e^- : 25
Período: 4
E.V.: 2

b) Nombre: Indio
Símbolo: In
 e^- : 49
Período: 5
E.V.: 3

c) Nombre: Plomo

Simbolo: Pb

e⁻: 82

Periodo: 6

E.V: 4

d) Nombre: Yodo

Simbolo: I

e⁻: 53

Periodo: 5

E.V: 7

e) Nombre: Escandio

Simbolo: Sc

e⁻: 21

Periodo: 4

E.V: 2

f) Nombre: Rubidio

Simbolo: Rb

e⁻: 37

Periodo: 5

E.V: 1

g) Nombre: Litio

Simbolo: Li

e⁻: 3

Periodo: 2

E.V: 1