

Sept 10, 2019

- Review terms from yesterday
- Periodic Table explained

Warm-Up

1. Classify each of the following as a pure substance or mixture.
 - a) soapy water
 - b) sodium chloride
2. Classify each of the following as a physical or chemical property.
 - a) gasoline is a clear pink solution
 - b) water boils at 100°C
 - c) gasoline burns in air
3. Classify each of the following as an element or compound.
 - a) hydrogen
 - b) potassium carbonate
 - c) Mg

The Periodic Table of Elements



Periodic table - a structured arrangement of elements that help us explain and predict physical and chemical properties.

Metals are generally located on the left, while the non-metals are located on the right side of the table.

(staircase line)

Periodic Table of the Elements																O																									
1	IA	1	H													10	He																								
2		3	Li	4	Be													5	B	6	C	7	N	8	O	9	F	10	Ne												
3		11	Na	12	Mg	IIIB	IVB	VB	VIB	VII B	VII	IB	IIB	13	Al	14	Si	15	P	16	S	17	Cl	18	Ar																
4		19	K	20	Ca	21	Sc	22	Ti	23	V	24	Cr	25	Mn	26	Fe	27	Co	28	Ni	29	Cu	30	Zn	31	Ga	32	Ge	33	As	34	Se	35	Br	36	Kr				
5		37	Rb	38	Sr	39	Y	40	Zr	41	Nb	42	Mo	43	Tc	44	Ru	45	Rh	46	Pd	47	Ag	48	Cd	49	In	50	Sn	51	Sb	52	Te	53	I	54	Xe				
6		55	Cs	56	Ba	57	*La	72	Hf	73	Ta	74	W	75	Re	76	Os	77	Ir	78	Pt	79	Au	80	Hg	81	Tl	82	Pb	83	Bi	84	Po	85	At	86	Rn				
7		87	Fr	88	Ra	89	+Ac	104	Rf	105	Ha	106	Sg	107	Ns	108	Hs	109	Mt	110	110	111	111	112	112	113	113														
* Lanthanide Series		58	Ce	59	Pr	60	Nd	61	Pm	62	Sm	63	Eu	64	Gd	65	Tb	66	Dy	67	Ho	68	Er	69	Tm	70	Yb	71	Lu												
+ Actinide Series		90	Th	91	Pa	92	U	93	Np	94	Pu	95	Am	96	Cm	97	Bk	98	Cf	99	Es	100	Fm	101	Md	102	No	103	Lr												



**Periodic Table
of the Elements**

1	IA	H	IIA																	0	He			
2		Li	Be											III A	B	IV A	C	V A	N	VI A	O	VII A	F	Ne
3		Na	Mg	III B	IV B	V B	VI B	VII B	VIII	VII	IB	IIB	Al	Si	P	S	Cl	Ar						
4		K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr					
5		Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe					
6		Cs	Ba	*La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn					
7		Fr	Ra	+Ac	Rf	Ha	Sg	Ns	Hs	Mt	110	111	112	113										

* Lanthanide Series
+ Actinide Series

Elements in the same column (down) are called a group. Ex: Li, Na, K, Rb, Cs and Fr are in a group.

Rows on a periodic table (across) are called periods. Ex. Going across from lithium to neon

In your textbook periodic table, gases (g) are red, liquids (l) are blue and solids (s) are black.

What state are most elements on the periodic table??

Important Groups to know:

Alkali metals (group 1) *Alkaline earth metals* (group 2)

The *halogens* (group 17) *Noble gases* (group 18)

Alkali Metals		Alkaline Earth												Noble Gases					
														Halogens					
H																			He
Li	Be											B	C	N	O	F		Ne	
Na	Mg											Al	Si	P	S	Cl		Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br		Kr	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I		Xe	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At		Rn	
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub								

Group 1 are the most reactive and Group 18 are the least reactive elements on the periodic table.

Periodic Table Worksheet

Attachments

S10 answers pg 187 #1-4.doc

answers pg 187 #1,2,4.doc