

April 11, 2019

- answers pg 175 #1,2,4,5
- Periodic Table explained

Answers p. 175 #1, 2, 4, 5

#1. a) soapy water = mixture because it contains more than one substance
b) hydrogen gas = pure substance because it is the name of an element
c) sodium chloride = pure substance because it is the name of a compound, which contains two elements which are pure.

#2. a) hydrogen = element
b) potassium carbonate = compound because it contains more than one kind of element (potassium, carbon and oxygen)
c) water = compound because it contains more than one kind of element (hydrogen and oxygen)
d) Mg = element

#4. a) gasoline is a clear pink solution = physical property
b) gasoline burns in air = chemical property
c) water boils at 100°C = physical property
d) electric current can split water into hydrogen and oxygen gases = chemical property

#5. a) chemical change
b) reactants = aluminum metal, hydrobromic acid
products = hydrogen gas, aluminum bromide

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

1	IA	1	H	2	He																																			
2	IIA	3	Li	4	Be	5	B	6	C	7	N	8	O	9	F	10	Ne																							
3	IIIB	11	Na	12	Mg	13	Al	14	Si	15	P	16	S	17	Cl	18	Ar																							
4	IVB	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	VB	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	VIB	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	VIIA	87	Fr	88	Ra	89	+Ac	104	Rf	105	Ha	106	Sg	107	Ns	108	Hs	109	Mt	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130

* Lanthanide Series	58	59	60	61	62	63	64	65	66	67	68	69	70	71
	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
+ Actinide Series	90	91	92	93	94	95	96	97	98	99	100	101	102	103
	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr



**Periodic Table
of the Elements**

1	IA	H	IIA	Be	III A	B	IVA	C	VA	N	VIA	O	VIIA	F	He			
2	Li	Be	B	C	N	O	F	Ne										
3	Na	Mg	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)

The diagram shows a periodic table with four groups highlighted in different colors. Labels with lines pointing to the groups are: 'Alkali Metals' (Group 1, red), 'Alkaline Earth' (Group 2, orange), 'Halogens' (Group 17, purple), and 'Noble Gases' (Group 18, pink). The periodic table includes elements from Hydrogen (H) to Oganesson (Og), with some elements like Uun, Uuu, and Uub represented by their symbols.

Group 1 ¹⁷ 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