

Name:

Period:

The Periodic Law

Objectives

In this experiment, you will use your knowledge of periodic properties and a list of clues to correctly label the elements on an empty periodic table.

Procedure

1. Each block on Table I represents a different element from Groups 1 A - 8A. Use the clues that follow to label the blanks on the following periodic table.
2. Use the following clues and label the elements in their proper order in the table in the center of the blanks. The following sets of elements belong together in groups: ZRD, PSIF, JXBE, LHT, QKA, WOV, GUN, YMC.

J has an atomic number three times that of T

U has a total of six electrons

P is less dense than S

S is an alkali metal

E is a noble gas.

B has ten protons

W is a liquid

F is a gas

Z has the smallest atomic mass in its set

O has an atomic number larger than V

D has the largest atomic mass in its set

C has five electrons in its outer energy level

X has an atomic number one higher than F

L is an alkaline earth element with atomic mass of 40

Y is a metalloid

O is a halogen

The atomic mass of T is more than that of H

Q has an atomic mass 2 times that of A

The electrons of atom N are distributed over three energy levels

The atomic weight of K is the largest of the set

The atoms of I have more energy levels than those of S

M has an atomic number one less than that of A

3. After you have labeled each blank on your table, write the actual element's atomic symbol in the upper left corner of the blank and actual element's atomic number in the upper right corner of the blank.

1A

2A

3A

4A

5A

6A

7A

8A

1

F

X

2

P

H

Z

U

M

A

V

B

3

S

T

R

N

C

Q

O

E

4

I

L

D

G

Y

K

W

J