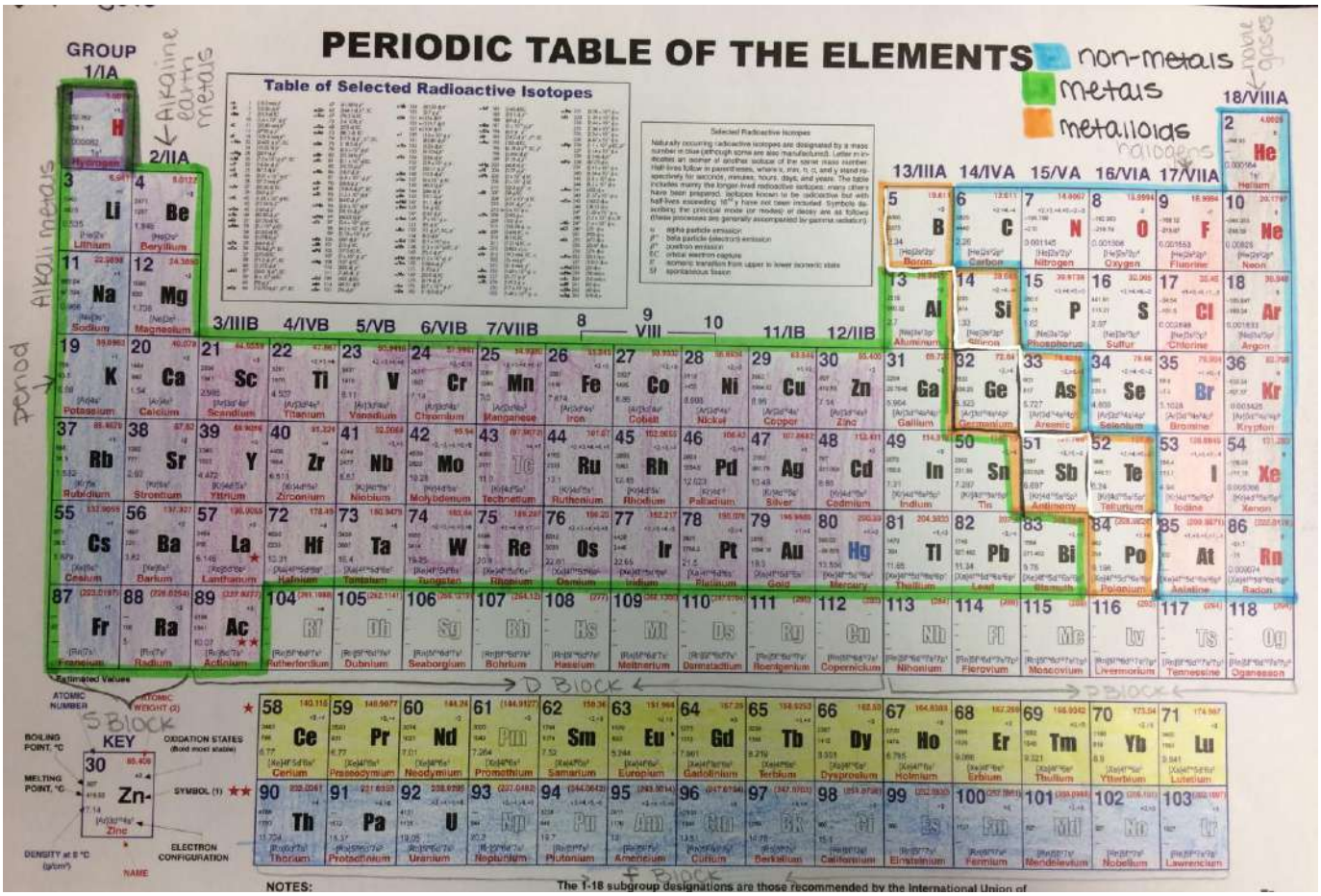
PERIODIC TABLE OF THE ELEMENTS
non-metals
metals
metalloids
noble gases
halogens
GROUP
1/IA
2/IIA
alkaline earth metals
alkali metals
period
18/VIIIA
13/IIIA
14/IVA
15/VA
16/VIA
17/VIIA
3/IIIB
4/IVB
5/VB
6/VIB
7/VIIB
8
9 VIII 10
11/IB
12/IIB
Table of Selected Radioactive Isotopes
Selected Radioactive Isotopes
Naturally occurring radioactive isotopes are designated by a mass number in close (although some are also manufactured). Letter in parentheses indicates an isomer of another isotope of the same mass number. Half-lives follow in parentheses, where s, min, h, d, and y stand respectively for seconds, minutes, hours, days, and years. The table includes mainly the longer-lived radioactive isotopes; many others have been prepared. Isotopes known to be radioactive but with half-lives exceeding 10^{15} y have not been included. Symbols describing the principal mode (or modes) of decay are as follows (these processes are generally accompanied by gamma radiation):
α alpha particle emission
β⁻ beta particle (electron) emission
β⁺ positron emission
EC orbital electron capture
IT isomeric transition from upper to lower isomeric state
SF spontaneous fission
Hydrogen
Helium
Lithium
Beryllium
Boron
Carbon
Nitrogen
Oxygen
Fluorine
Neon
Sodium
Magnesium
Aluminum
Silicon
Phosphorus
Sulfur
Chlorine
Argon
Potassium
Calcium
Scandium
Titanium
Vanadium
Chromium
Manganese
Iron
Cobalt
Nickel
Copper
Zinc
Gallium
Germanium
Arsenic
Selenium
Bromine
Krypton
Rubidium
Strontium
Yttrium
Zirconium
Niobium
Molybdenum
Technetium
Ruthenium
Rhodium
Palladium
Silver
Cadmium
Indium
Tin
Antimony
Tellurium
Iodine
Xenon
Cesium
Barium
Lanthanum
Hafnium
Tantalum
Tungsten
Rhenium
Osmium
Iridium
Platinum
Gold
Mercury
Thallium
Lead
Bismuth
Polonium
Astatine
Radon
Francium
Radium
Actinium
Rutherfordium
Dubnium
Seaborgium
Bohrium
Hassium
Meitnerium
Darmstadtium
Roentgenium
Copernicium
Nihonium
Flerovium
Moscovium
Livermorium
Tennessine
Oganesson
Cerium
Praseodymium
Neodymium
Promethium
Samarium
Europium
Gadolinium
Terbium
Dysprosium
Holmium
Erbium
Thulium
Ytterbium
Lutetium
Thorium
Protactinium
Uranium
Neptunium
Plutonium
Americium
Curium
Berkelium
Californium
Einsteinium
Fermium
Mendelevium
Nobelium
Lawrencium
S Block
D Block
F Block
P Block
KEY
ATOMIC NUMBER
ATOMIC WEIGHT (g)
SYMBOL (†)
NAME
OXIDATION STATES (Most most stable)
BOILING POINT, °C
MELTING POINT, °C
DENSITY at 0 °C (g/cm³)
ELECTRON CONFIGURATION
Estimated Values
NOTES:
The 1-18 subgroup designations are those recommended by the International Union of