

# I

# HYDROGEN



Hydrogen is the smallest, lightest, and most abundant element in the universe.

# H

2

# HELIUM



Helium is a nonreactive element and the lightest of the noble gases.

He

3

# LITHIUM



The metal form of Lithium is so soft  
it can be cut with a knife.

Li

4

# BERYLLIUM



Beryllium can be found in the forms  
of aquamarine and emerald.

Be

# 5

# BORON



Boron is a subdued element that produces a bright green flame.

# B

## 6

## CARBON



Carbon can take the forms of charcoal, graphite, and diamond.

C

7

# NITROGEN



Some forms of Nitrogen are toxic and other forms cause light-headedness.

N

## 8

## OXYGEN



Pure Oxygen comes in  
the paired form of O<sub>2</sub>.

9

# FLUORINE



Fluorine gas is so reactive it will ignite anything it touches.

F

10

NEON



Neon glows red-orange when an electric charge runs through it.

Ne

II

# SODIUM



Sodium is found in the ocean, but the pure metal reacts violently with water.

Na

12

# MAGNESIUM



The only way to put out a Magnesium fire is with sand.

Mg

13

# ALUMINUM



Aluminum is a strong yet lightweight metal commonly found in soda cans.

Al

14

# SILICON



Silicon is often found in computer microchips and other electronics.

Si

# 15 PHOSPHORUS



It is the red Phosphorus in match tips that makes it ignite.

P

16

# SULFUR



Sulfur is a smelly, combative element found in grenades and gunpowder.

S

17

# CHLORINE



Inhaling Chlorine gas can cause  
burning in the eyes and sinuses.

Cl

18

# ARGON



Argon's name means "inactive" and is commonly found in lightbulbs.

Ar

19

# POTASSIUM



Potassium is a very reactive element that burns with a lilac flame.

K

20

# CALCIUM



The Calcium in milk helps to strengthen the skeleton.

Ca

21

# SCANDIUM



Rumors arose that baseball bats containing Scandium had remarkable striking power.

Sc

22

# TITANIUM



Titanium is non-allergenic and can be used in body piercings.

Ti

23

# VANADIUM



Vanadium is added to steel to make it stronger, and is found in many tools.

V

24

# CHROMIUM



Cars from the 1950's and 60's were often decked out with Chromium.

Cr

# 25

# MANGANESE



Manganese can lead to manganism, a toxic state causing hallucinations and violence.

Mn

26

IRON



Iron rusts by itself, which is why a lot of elements are added to it to make steel.

Fe

27

# COBALT



Cobalt helps create one of the strongest magnets in the world.

Co

28

NICKEL



Nickel's name means "devil's copper" and adds a green color to glass.

Ni

29

# COPPER



Copper is a red-colored metal that is a good conductor of electricity.

Cu

30

ZINC



Because it corrodes quickly, Zinc is added to steel to increase longevity.

Zn

31

# GALLIUM



Gallium spoons melt when served in hot beverages.

Ga

32

# GERMANIUM



Germanium is a semiconductor used in cell phones and other electronics.

Ge

33

# ARSENIC



Arsenic is a highly toxic element commonly used in rat poisons.

As

34

# SELENIUM



Selenium, when consumed by cows, can cause them to go into blind staggers.

Se

35

# BROMINE



Bromine is one of only two elements that is liquid at room temperature.

Br



The noble gas Krypton is commonly known for its role in Superman comics.

Kr

37

# RUBIDIUM



Rubidium's name means "red" and the metal explodes on impact with water.

Rb

38

# STRONTIUM



Strontium, named after the Scottish village  
Strontian, gives fireworks a red color.

Sr

39

# YTTRIUM



Yttrium was rumored to have had strange and mystical properties.

Y

40

# ZIRCONIUM



Cubic Zirconium is a common form of this element.

Zr

41

# NIOBium



Niobium is named after a Greek goddess who was punished for her vanity.

Nb

42

# MOLYBDENUM



Molybdenum is a tough metal used in many types of power tools.

Mo

# 43 TECHNETIUM



Technetium is used in x-ray procedures to locate bone cancer.

Tc

44

# RUTHENIUM



Ruthenium is a rare metal used to give jewelry a dark finish.

Ru

45

# RHODIUM



Rhodium is one of the shiniest metals on the periodic table.

Rh

46

# PALLADIUM



Palladium banishes harmful chemicals and is found in catalytic converters of cars.

Pd

47

SILVER



Silver is the best conductor of electricity of all the metals.

Ag

48

# CADMIUM



Cadmium can be found in some paint pigments.

Cd

49

# INDIUM



When bent rapidly, the metal Indium gives off a loud shrieking sound.

In

50

TIN



Tin was once widely used, but has largely been replaced by Aluminum in metal cans.

Sn

51

# ANTIMONY



Antimony is a brittle, toxic metal that is added as a hardening agent to lead bullets.

Sb

52

# TELLURIUM



Tellurium has the odor  
of rotten garlic.

Te

53

# IODINE



Iodine gives off a violet gas and is used by doctors to disinfect wounds.

I

54

# XENÓN



Xenon is a rare noble gas with an alien-sounding name.

Xe

55

# CAESIUM



Caesium is one of the most reactive elements, exploding violently in water.

Cs

56

# BARIUM



Barium is a reactive metal  
that burns easily in air.

Ba

57

# LANTHANUM



Lanthanum is the first of the Rare Earth elements and is used in studio lights.

La

58

# CERIUM



Cerium helps prevent the buildup of cooking residues and can be found in some ovens.

Ce

59

# PRASEODYMIUM



Praseodymium has a green oxide and its Greek name translates to “green twin”.

Pr

# 60 NEODYMIUM



Neodymium's name means "new twin" and has rose-colored oxides.

Nd

61

# PROMETHIUM



Promethium is named after the god Prometheus, who gifted fire to mankind.

Pm

62

# SAMARIUM



Samarium can sometimes be found in electric guitar pickups.

Sm

63

# EUROPIUM



Europium, named after Europe, improves the red color in TV and computer screens.

Eu

64

# GADOLINIUM



There aren't many uses for Gadolinium, but its alloys can be found in data CDs.

Gd

65

# TERBIUM



Terbium is added to TV and computer screens to improve the green phosphor.

Tb

66

# DYSPROSIUM



Dysprosium's name is Greek and translates to "hard to get at".

Dy

67

# HOLMIUM



Holmium is one of the several elements discovered in Stockholm, Sweden.

Ho

68

# ERBIUM



Erbium's oxides are added to make a pink color in glazes and glass jewelry.

Er

69

# THULIUM



Thulium has few uses but it is one of the most rare and expensive elements.

Tm

70

# YTTERBIUM



Ytterbium, another Swedish element, is named after the village of Ytterby.

Yb

71

# LUTETIUM



Lutetium was originally to be named after the constellation Cassiopeia.

Lu

72

# HAFNIUM



Hafnium has an almost identical chemistry to its cousin, Zirconium.

Hf

73

# TANTALUM



Tantalum is named after a Greek god, taunted by food he could not reach.

Ta

74

# TUNGSTEN



Tungsten, once known as “Wolfram” is used in a variety of cutting materials.

W

75

# RHENIUM



Rhenium is used in fighter jet engines  
and other aircraft parts.

Re

76

# OSMIUM



One of Osmium's main applications  
is its use in fountain pen tips.

Os

77

# IRIDIUM



Iridium can be found in many asteroids that landed on earth.

Ir

78

# PLATINUM



Platinum is one of the most precious and valued metals in the world.

Pt

79

GOLD



Gold, a very soft and beautiful metal, has been coveted for thousands of years.

Au

80

# MERCURY



Mercury is a deadly liquid element that causes damage to the nervous system.

Hg

81

# THALLIUM



The surface of Thallium constantly corrodes like a snake shedding its skin.

Tl



Although poisonous, people used to drink from Lead tankards in medieval times.

Pb

83

# BISMUTH



Bismuth is a prominent  
ingredient in Pepto Bismol.

Bi

84

# POLONIUM



Polonium is extremely radioactive and one of the deadliest known substances.

Po

85

# ASTATINE



Astatine, an extremely rare element, has a half-life of only 8.3 hours.

At

86

# RADON



Radon causes lung cancer and is often found in granite bedrock.

Rd

87

# FRANCIUM



Francium is so radioactive that it tends to dissolve itself.

Fr

88

# RADIUM



Radium was frequently used until people discovered it was radioactive.

Ra

89

# ACTINIUM



Actinium is so radioactive its glow can be seen without the use of a special screen.

Ac

90

# THORIUM



Thorium was found in toothpastes before people knew it was radioactive.

Th

91

# PROTACTINIUM



Protactinium is very scarce and only a small amount is available for testing.

Pa

92

# URANIUM



Uranium's most famous application was its use in a nuclear bomb in WWII.

U

93

# NEPTUNIUM

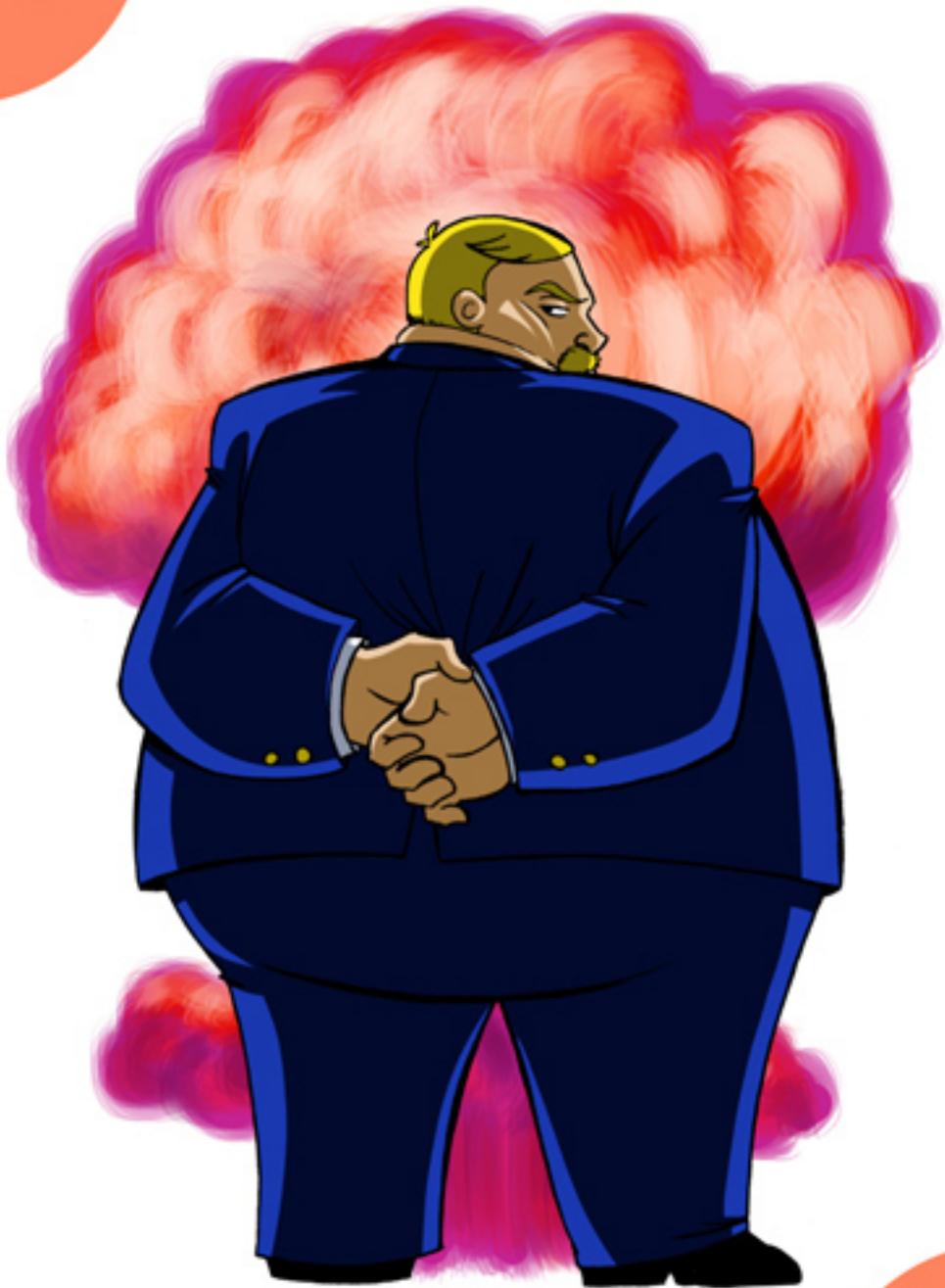


All elements beyond Uranium are made artificially, Neptunium being the first.

Np

94

# PLUTONIUM



Plutonium was the key ingredient in the second nuclear bomb detonated in WWII.

Pu

95

# AMERICIUM



Americium, named after America, can be found in home smoke detectors.

Am

96

# CURIUM



Curium is named after Marie Curie who discovered radium and polonium.

Cm

97

# BERKELIUM



Berkelium was created at and named after the University of California, Berkeley.

Bk

98

# CALIFORNIUM



Unsurprisingly, Californium was named after the state of California.

Cf

99

# EINSTEINIUM



Einsteinium was named after the famous physicist Albert Einstein.

Es

100

# FERMIUM



Fermium was named after Enrico Fermi, who did work on nuclear reactions.

Fm

# 101 MENDELEVIUM



Mendelevium was named for Dmitri Mendeleev, inventor of the periodic table.

Md

102

# NOBELIUM



Nobelium is named for Alfred Nobel, for whom the Nobel Prize is also named.

No

# 103 LAWRENCIUM



Lawrencium is named after Ernest O. Lawrence, the inventor of the cyclotron.

Lr

104

# RUTHERFORDIUM



Rutherfordium is named for Ernest Rutherford, who discovered that elements have nuclei.

Rf

105

# DUBNIUM



Dubnium is named for Dubna, Russia, home of the Joint Institute of Nuclear Research.

Db

106

# SEABORGIUM



Seaborgium is named for Glenn T. Seaborg, who helped discover many elements.

Sg

107

# BOHRIUM



Bohrium is named for Niels Bohr, who did groundbreaking research on the atom.

Bh

108

# HASSIUM



Hassium is named for Hesse, the German state where the element was discovered.

Hs

109

# MEITNERIUM



Meitnerium is named for Lise Meitner, who helped discover nuclear fusion.

Mt

# 110 DARMSTADTIUM



Darmstadtium is named for the German state of Darmstadt, the element's home.

Ds

# III ROENTGENIUM



Roentgenium is named for Wilhelm Conrad Rontgen, inventor of the x-ray.

Rg

# 112 COPERNICIUM



Copernicium is named after Nicolaus Copernicus, the famous astronomer.

Cn