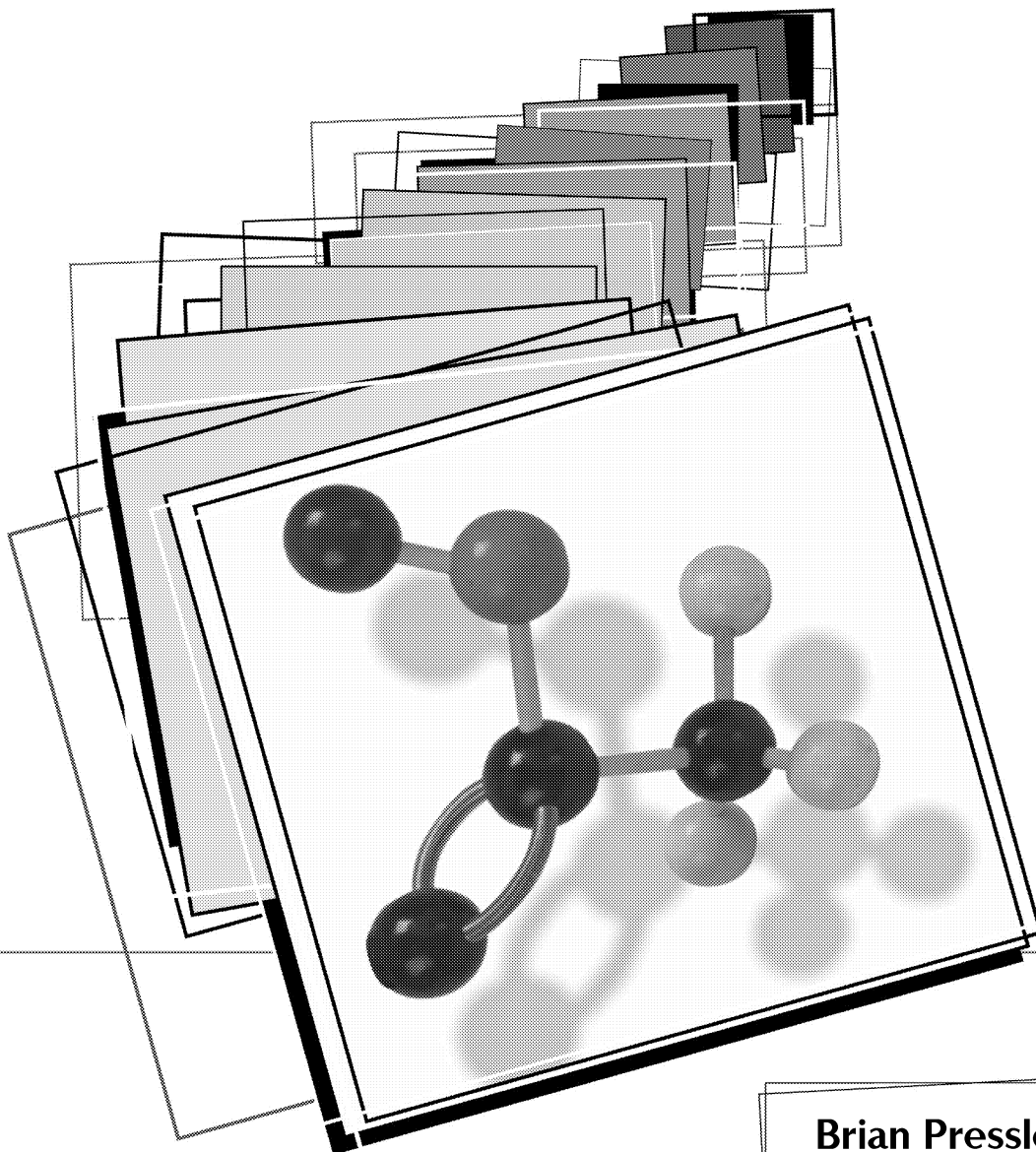


Chemistry

JEOPARDY



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2

Atoms and Ions Section 8

ATOMIC STRUCTURE DEVELOPMENT OF ATOMIC THEORY MASS AND CHARGE CHEMISTS AND THE ATOM MODELS

5

The smallest sample of an element

The view that matter can be infinitely divided into smaller parts

The charge on an electron

This scientist is credited with the discovery of cathode rays.

J.J. Thomson's model of the atom

10

The subatomic particle that has a negative charge

The view that there is a smallest particle of matter that cannot be divided

The charge on a proton

This scientist is credited with the discovery of the electron.

In this model the electrons move in a fixed path around the nucleus.

15

The subatomic particle that has a positive charge

The idea that when elements form a compound, they always react in a specific proportion by mass

The charge on a neutron

This scientist is credited with discovering protons, which he initially referred to as hydrogen nuclei.

In this model the electrons are scattered in a cloud around the nucleus.



20

The subatomic particle that has no charge

The idea that elements combine in simple, whole-number ratios in compounds

The mass of an electron in kg

This scientist is best known for the law of multiple proportions.

A picture or representation that helps people envision objects that are too big or too small to observe easily

25

The central portion of an atom that contains the protons and neutrons

The idea that matter is neither gained nor lost in a chemical reaction

The mass of a proton in kg

This scientist is best known for calculating the charge on an electron.

The idea that it is impossible to know both the location and the velocity of a subatomic particle

B O N U S

Particles thought to make up neutrons and protons

The English chemist who first proposed the law of multiple proportions

The mass of a neutron in kg

The name of the ratio that J.J. Thomson calculated that allowed another scientist to determine the charge on an electron

In the quantum mechanical model, the smallest area where electrons are found

N O T E S



5

The Periodic Nature of Chemistry

Section 30

	PERIODICITY	BONDING	OTHER BONDS	VSEPR	OTHER BOND BEHAVIORS
5	The energy needed to remove the most loosely held electron in an atom in the gas phase	The force of attraction that holds atoms together in molecules and crystals	The type of bond formed by the sharing of electrons	VSEPR stands for this phrase.	A way to describe a molecule by averaging several Lewis structures
10	The ability of an atom, already combined with another atom, to attract electrons to itself	The type of bond formed by the transfer of electrons	Substances that contain covalent bonds	The shape of a molecule with a bond angle of 180°	Asymmetric molecules that act as if they have partial charges on opposite ends
15	Half the distance between two bonded atoms, or two atoms that are as close as can be without bonding	The arrangement of two s electrons and six p electrons in an atom	A covalent substance that contains only two kinds of elements	A three-atom shape with bond angles of $\leq 120^\circ$	Molecules where all charges are symmetrically distributed



20

The distance from the nucleus of an ion to its outer shell of electrons

A diagram that shows the valence electrons for an atom or ion as dots around the chemical symbol for the element

A covalent bond where one atom supplies both electrons in a bond

A four-atom shape with bond angles of $\leq 120^\circ$

The force that holds molecules together by a temporary shifting of charge

25

The repulsion between kernel electrons and valence electrons

The electrons in an atom that are not valence electrons

The bond between two atoms that share two pairs of electrons

A four-atom shape with bond angles of $\leq 109.47^\circ$

The bond formed when a hydrogen atom in a molecule acts as an exposed proton

B O N U S

The statement that elements placed in order by atomic number show repeating periodic properties

Another term for ionic bonds

The bond between two atoms that share three pairs of electrons

A five-atom shape with bond angles of 109.47°

A substance with two oppositely charged ends

N O T E S

