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GOLD - Au



Gold is a dense shiny yellow precious metal of Period 6, Group 11 (Ib). Gold has the highest degree of malleability of any metal. It can be drawn into a single-atom-wide wire and then stretched significantly before breaking. Russia overtook the United States as the world's leading producer of gold in the late 1800s. Gold is the only material that is universally accepted in exchange for goods and services. Russia overtook the United States as the world's leading producer of gold in the early 20th century.

Gold is chemically bonded with silver, copper, and zinc to create various shades of yellow gold. Gold is the softest, most malleable, and ductile element. It is not attacked by oxygen or sulfur, but it readily reacts with halogens. Gold is chemically bonded with silver, copper, and a trace of zinc to create various shades of yellow gold. Russia overtook the United States as the world's leading producer of gold in 2000 while China was the world leader in gold production in the early twenty-first century.



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BROMINE - Br



Bromine is the third halogen and a nonmetal in Periodic Table Group 17. Bromine dissolves in aqueous alkali hydroxide solutions and forms bromides, hypobromites, or bromates. Bromination frequently produces higher oxidation states than iodination. Bromine is one of the most reactive elements in the periodic table. Bromination frequently produces higher oxidation states than iodination.

Bromine is found in nature only in compounds known as soluble and insoluble bromides. The mass of bromine in the oceans is roughly one-third that of chlorine. Bromine is one of the most reactive elements, with a reactivity equivalent between chlorine and iodine. Bromination frequently produces higher oxidation states than iodination. Bromine is found in nature in the form of colorless soluble crystalline mineral halide salts, similar to table salt.



WHAT TYPE OF CHEMICAL BONDING IS

AuBr - GOLD(I) BROMIDE?



The Gold Bromide is ionic bonding because Gold is metal while Bromine(Bromide) is Non-Metal. Most metal bromide compounds are water-soluble for use in water treatment, chemical analysis, and ultra-high purity for crystal growth applications. Gold(I)Bromide (AuBr) is a highly water-soluble crystalline Gold source for uses compatible with bromides. At high temperatures, it will also melt. Ionic bonds are soluble in water when dissolved in water, which means they can conduct electricity.

ELECTRON CONFIGURATION:

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^9$

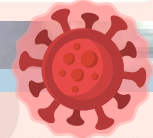
VALENCE SHELL:

6



VALENCE ELECTRON:

-2



ELECTRON CONFIGURATION:

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^5$

VALENCE SHELL:

4



VALENCE ELECTRON:

-7

FUNCTIONS AND USES OF THE COMPOUND FORMED



Jewelry consumes approximately 75% of all gold produced. Chrysotherapy, a treatment based on gold, is used to treat rheumatoid arthritis. Gold(I) and gold(III) compounds have been studied as potential anti-cancer drugs. Bromide is a trace element that humans require. Bromide was even used as an anticonvulsant and sedative at doses of up to 6 grams per day. Severe bromide poisoning causes severe muscle pain, generalized weakness, ataxia, hyporeflexia, and CNS sedation. Bromide has not been as effective in treating seizure disorders in cats as it has in dogs. Because cats have more negative effects and are less well-controlled, bromide is very seldom recommended as a treatment for them and because of its long half-life, bromide is best suited for non-compliant owners. In plasma, cell membrane, and cytoplasmic fluid, bromide replaces chloride ions. Gold for jewelry can be colored in a variety of ways depending on the metal with which it is alloyed. Gold electroplating is used to protect copper components and improve solderability. Gold biodegradation is expected to be very poor, and there is no evidence that it causes ecological problems.

