

KARBON

Klim Type Foundry

Karbon Hairline 70 Point

SARTORIOUS

Karbon Thin 70 Point

CARBONÉSO

Karbon Light 70 Point

ISOTOPIOUS

Karbon Regular 70 Point

SUPERNOVA

Karbon Medium 70 Point

ELECTRONS

Karbon Semibold 70 Point

CHEMICALS

Karbon Bold 70 Point

HYDROGEN

Klim Type Foundry

Karbon Hairline Italic 70 Point

NANOFOAM

Karbon Thin Italic 70 Point

ELEKTRONES

Karbon Light Italic 70 Point

MOLEKÜLEN

Karbon Regular Italic 70 Point

HIDROGENA

Karbon Medium Italic 70 Point

ORGANIQUE

Karbon Semibold Italic 70 Point

ELEMENTIO

Karbon Bold Italic 70 Point

VAPORIZEN

Klim Type Foundry

Karbon Hairline 70 Point

Thérmogrein

Karbon Thin 70 Point

Microskopial

Karbon Light 70 Point

Nucleosynth

Karbon Regular 70 Point

Hygroscope

Karbon Medium 70 Point

Elektrónica

Karbon Semibold 70 Point

Chémistriia

Karbon Bold 70 Point

Protoplasm

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Klim Type Foundry

Karbon Hairline Italic 70 Point

Radioisotope

Karbon Thin Italic 70 Point

Thermochim

Karbon Light Italic 70 Point

Ferromagno

Karbon Regular Italic 70 Point

Exothermiik

Karbon Medium Italic 70 Point

Sublimation

Karbon Semibold Italic 70 Point

Atommasse

Karbon Bold Italic 70 Point

Gráphisimo

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Klim Type Foundry

Karbon Hairline 32 Point

MEGAKELVIN TEMPERATURE
Allylpalladium Chloride Dimer

Karbon Thin 32 Point

PLASTIC & PETROCHEMICALS
Containing 92–98% Carbon

Karbon Light 32 Point

CARBONACEOUS MATERIAL
Cyclopentadienyl Ligands

Karbon Regular 32 Point

3.94 MILLION KILOGRAMS
Organometallic Compounds

Karbon Medium 32 Point

**ROTATIONAL TRANSITION
Crystallographic Structure**

Karbon Semibold 32 Point

**SUPERNOVA EXPLOSION
8,070 Carbene Complexes**

Karbon Bold 32 Point

**ELEVATED TEMPERATURE
Electron Configurations**

Klim Type Foundry

Karbon Hairline Italic 32 Point

INCOMPLETE COMBUSTION
Simultaneous Triple Collision

Karbon Thin Italic 32 Point

NEUTRON MODERATORS
Drilling, Grinding & Polishing

Karbon Light Italic 32 Point

30% OF MINED DIAMONDS
Nonmetallic and Tetravalent

Karbon Regular Italic 32 Point

COMPLETE COMBUSTION
A Temperature of 5800 K

Karbon Medium Italic 32 Point

NUCLEI OF NITROGEN-14
Linear Acetylenic Carbon

Karbon Semibold Italic 32 Point

ORBITAL HYBRIDIZATION
Resistance to Scratching

Karbon Bold Italic 32 Point

ELECTRODE PRODUCTION
Multi-Atomic Structures

Karbon Light, Italic & Medium 10/12 Point

Pure carbon has extremely low toxicity and can be handled and even ingested safely in the form of graphite or charcoal. It is resistant to dissolution or chemical attack, even in the acidic contents of the digestive tract, for example. Consequently once it enters into the body's tissues it is likely to remain there indefinitely. **Carbon black** was probably one of the first pigments to be used for tattooing, and Ötzi the Iceman was found to have carbon tattoos that survived during his life and for 5200 years after his death. However, the inhalation of coal dust or soot or carbon black in large quantities can be dangerous, irritating lung tissues and causing the congestive lung disease coalworker's pneumoconiosis. Similarly, diamond dust used as an abrasive can do harm if ingested or inhaled. Microparticles of carbon are produced in *diesel engine exhaust* fumes, and may accumulate in the lungs. In these examples, the harmful effects may result from contamination of the particles, with organic chemicals or heavy metals for example, rather than from the carbon itself. Carbon may also burn vigorously and brightly in the presence of air at high temperatures, as in the Windscale fire, which was caused by sudden release of stored Wigner energy in the graph

Karbon Regular, Italic & Semibold 10/12 Point

The market for industrial-grade diamonds operates much differently from its gem-grade counterpart. Industrial diamonds are valued mostly for their hardness and heat conductivity, making many of the *gemological characteristics of diamond*, including clarity and color, mostly irrelevant. This helps explain why 80% of mined diamonds (equal to about 100 million carats or 20,000 kg annually), unsuitable for use as gemstones and known as bort, are destined for industrial use. In addition to mined diamonds, synthetic diamonds found industrial applications almost immediately after their invention in the 1950s; another 3 billion carats or 600 metric tons of **synthetic diamond** is produced annually for industrial use. The dominant industrial use of diamond is in drilling, grinding, and polishing. Most uses of diamonds in these technologies do not require large diamonds; in fact, most diamonds that are gem-quality except for their small size, can find an industrial use. Diamonds are embedded in drill tips or saw blades, or ground into a powder for use in polishing applications. Specialized applications include use in laboratories as containment for high pressure experiments, high-performance bearings, and lim

Karbon Medium, Italic & Bold 10/12 Point

Carbon is essential to all known living systems, and without it life as we know it could not exist. The major economic use of carbon other than food and wood is in the form of hydrocarbons, most notably the fossil fuel *methane gas* and *crude oil* (petroleum). Crude oil is used by the petrochemical industry to produce, amongst others, gasoline and kerosene, through a distillation process, in refineries. Cellulose is a natural, carbon-containing polymer produced by plants in the form of cotton, linen and hemp. Cellulose is mainly used for **maintaining structure in plants. Commercially valuable carbon polymers of animal origin include wool, cashmere and silk. Plastics are made from *synthetic carbon polymers*, often with oxygen and nitrogen atoms included at regular intervals in the main polymer chain. The raw materials for many of these synthetic substances come from crude oil. The uses of carbon and its derivative compounds are extremely varied. It can form alloys with iron, of which the most common is carbon steel. Graphite is combined with clays to form the 'lead' used in pencils used for writing and drawing. It is also used as a lubricant and a pigment, as a mol**

Karbon Light, Italic & Medium 9/11 Point

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Karbon Light, Italic & Medium 8/10 Point +10

Carbon sublimates in a carbon arc which has a temperature of about 5800 K. Thus, irrespective of its allotropic form, carbon remains solid at higher temperatures than the highest melting point metals such as tungsten or rhenium. Although *thermodynamically prone to oxidation*, carbon resists oxidation more effectively than elements such as iron and copper that are weaker reducing agents at room temperature. Carbon compounds form the basis of all known life on Earth and the carbon-nitrogen cycle provides some of the energy produced by the Sun and other stars. Although it forms an extraordinary variety of compounds, most forms of carbon are comparatively unreactive under normal conditions. At standard temperature and pressure, it resists all but the strongest oxidizers. It does not react with sulfuric acid, **hydrochloric acid** or any alkalis. At elevated temperature carbon reacts with oxygen to form carbon oxides, and will reduce such metal oxides as iron

oxide to the metal. Carbon can combine with some metals at high temperatures to form metallic carbides, such as the iron carbide cementite in steel, and tungsten carbide, widely used as an abrasive and for making hard tips for cutting tools. As of 2009, graphene appears to be the strongest material ever tested. However, the process of separating it from graphite requires some *technological development* before it is economical enough to be used in industrial processes. Carbon is the fourth most abundant chemical element in the universe by mass after hydrogen, helium, and oxygen. Carbon is abundant in the Sun, comets and in the atmospheres of most planets. Several meteorites still contain microscopic diamonds formed when the solar system was still a protoplanetary disk. Microscopic diamonds may also be formed by the intense pressures and high temperature at the sites of meteorite impacts. In combination with oxygen in carbon dioxide, carbon is fo

Karbon Regular, Italic & Semibold 8/10 Point +10

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ustrial use. Diamonds are embedded in drill tips and saw blades, or ground into a powder for use in grinding and polishing applications. Specialized applications include use in laboratories as containment for high pressure experiments, *high-performance bearings*, and limited use in specialized windows. With the **continuing advances** being made in the production of synthetic diamonds future applications are beginning to become feasible. Garnering much excitement is the possible use of diamond as a semiconductor suitable to build microchips from or the use of diamond as a heat sink in electronics. Under terrestrial conditions, conversion of one element to another is very rare. Therefore, the amount of carbon on Earth is effectively constant. Processes that use carbon must obtain it somewhere and dispose of it somewhere else. The paths that carbon follows in the environment make up the carbon cycle. For example, plants draw ca

Karbon Medium, Italic & Bold 8/10 Point +10

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are extremely varied. It can form alloys with iron, of which the most common is carbon steel. Graphite is combined with clays to form the 'lead' used in pencils used for writing and drawing. It is used as a lubricant and a pigment, as a molding material in glass manufacture, in electrodes for dry batteries and electroplating and electroforming, in brushes for electric motors and as a neutron moderator in nuclear reactors. The market for industrial-grade diamonds operates differently from its gem-grade counterpart. Industrial diamonds are valuable mostly for their hardness & heat conductivity, making many of the *gemological characteristics* of diamond including clarity and color, mostly irrelevant. This helps to explain why 80% of mined diamonds (equal to about 100 million carats or 20,000 kg annually) unsuitable for use as gemstones and known as bort are destined for industrial use. In addition to mined diamonds, synthetic

Kohlenstoff (von altgerm. kulo(n) = „Kohle“), Symbol C (von lat. carbo „Holzkohle“, latinisiert Carboneum) ist ein chemisches Element der 4. Hauptgruppe. Es kommt in der Natur sowohl in reiner (gediegener) Form als auch chemisch gebunden vor. Aufgrund seiner besonderen Elektronenkonfiguration (halbgefüllte L-Schale) besitzt es die Fähigkeit zur Bildung von komplexen Molekülen und weist von allen chemischen Elementen die größte Vielfalt an chemischen Verbindungen auf. Kohlenstoffverbindungen bilden die molekulare Grundlage allen irdischen Lebens. Kohlenstoff ist ein essentielles Element der Biosphäre, es ist in allen Lebewesen—nach Sauerstoff (Wasser)—dem Gewicht nach das bedeutendste Element. Alles lebende Gewebe ist aus (organischen) Kohlenstoffverbindungen aufgebaut. Geologisch dagegen zählt es nicht zu den häufigsten Elementen.

Le carbone est un élément chimique de la famille des cristallogènes, de symbole C, de numéro atomique 6 et de masse atomique 12,0107. Le carbone est présent sur terre depuis la préhistoire : il a été produit par la combustion incomplète des matières organiques produisant du charbon. Il existait également sous sa forme diamant, les diamants naturels pouvant se trouver dans la kimberlite des cheminées d'anciens volcans, notamment en Afrique du Sud et dans l'Arkansas. On peut parfois trouver des diamants microscopiques dans certaines météorites. L'élément carbone n'est pas directement issu du Big Bang (nucléosynthèse primordiale), car les conditions de sa formation n'étaient pas réunies (la dilatation et le refroidissement de l'univers ont été trop rapides). Le carbone est en revanche produit en masse dans le cœur des étoiles très massives, dites de la branche horizontale, où trois

El carbono es un elemento químico de número atómico 6 y símbolo C. Es sólido a temperatura ambiente. Dependiendo de las condiciones de formación, puede encontrarse en la naturaleza en distintas formas alotrópicas, carbono amorfo y cristalino en forma de grafito o diamante. Es el pilar básico de la química orgánica; se conocen cerca de 10 millones de compuestos de carbono, y forma parte de todos los seres vivos conocidos. El carbono es un elemento notable por varias razones. Sus formas alotrópicas incluyen, sorprendentemente, una de las sustancias más blandas (el grafito) y la más dura (el diamante) y, desde el punto de vista económico, uno de los materiales más baratos (carbón) y uno de los más caros (diamante). Más aún, presenta una gran afinidad para enlazarse químicamente con otros átomos pequeños, incluyendo otros átomos de carbono con los que puede formar largas

Tali ibridizzazioni, componendosi in percentuali diverse possono dare vita a numerose forme allotropiche intermedie (come ad es. nei film nanostrutturati cluster assembled e nelle schwarziti). Il carbonio si trova in tutte le forme di vita organica ed è la base della chimica organica. Questo nonmetallo ha l'interessante caratteristica di essere in grado di legarsi con sé stesso e con una vasta gamma di elementi (producendo più di 10 milioni di composti). Unito all'ossigeno forma il biossido di carbonio che è assolutamente vitale per la crescita delle piante. Unito all'idrogeno forma vari composti chiamati idrocarburi che sono essenziali per l'industria in forma di combustibili fossili. Combinato a ossigeno e idrogeno forma vari gruppi di composti tra i quali gli acidi grassi, essenziali per la vita, e gli esteri, che danno il sapore a molti frutti. L'isotopo carbonio-14 è comunemente usato per la datazione radiometrica.

As duas formas de grafite conhecidas, alfa (hexagonal) e beta (romboédrica), apresentam propriedades físicas idênticas. Os grafites naturais contêm mais de 30% de forma beta, enquanto o grafite sintético contém unicamente a forma alfa. A forma alfa pode transformar-se em beta através de procedimentos mecânicos, e esta recristaliza-se na forma alfa por aquecimento acima de 1000 °C. Devido ao deslocamento dos elétrons do orbital pi, o grafite é condutor de eletricidade, propriedade que permite seu uso em processos de eletrólise. O material é frágil e as diferentes camadas, separadas por átomos intercalados, se encontram unidas por forças de Van der Waals, sendo relativamente fácil que umas deslizem sobre as outras. Sob pressões elevadas, o carbono adota a forma de diamante, na qual cada átomo está unido a outros quatro átomos de carbono.

Kol har endast två stabila isotoper, kol-12 (vars massa atommassenheten u definierats utifrån) och kol-13. Av de radioaktiva isotoperna är kol-14 den klart viktigaste, eftersom dateringsmetoden C14-metoden baseras på dess sönderfall. Eftersom alla livsformer på jorden är kolbaserade, och kol-14 ständigt nybildas i atmosfären, så kommer det tas upp i allt levande och förhållandet mellan kol-14 och de stabila isotoperna kommer att vara någorlunda konstant under organismens livstid, med undantag för långlivade arter som träd (vilka å andra sidan kan användas för att kalibrera skalan). När organismen dör börjar kol-14 direkt sönderfalla till kväve. Eftersom kol-14:s halveringstid är 5730 år har det förutom att det ingår i alla levande organismer i någorlunda höga halter dessutom fördelen att det sönderfaller över en tidsskala som är lämplig för att mäta mänskliga aktiviteter, och är därför ett övä

Bij normale druk vormt koolstof grafiet. Hierbij vormt elk koolstofatoom bindingen met drie andere koolstofatomen. Deze bindingen liggen alle in hetzelfde vlak, dat bestaat uit gefuseerde hexagonale ringen, net als bij aromatische koolwaterstoffen. De twee bekende vormen van grafiet, alfa-hexagonaal en bèta-rombohedraal, hebben identieke fysische eigenschappen, maar verschillen in kristalstructuur. Natuurlijk grafiet kan tot 30% uit de bètavorm bestaan. Synthetisch grafiet bevat alleen de alfavorm. De alfavorm kan overgaan in de bètavorm door mechanische behandeling. Boven 1000 °C gaat de bètavorm weer over in de alfavorm. Grafiet geleidt elektriciteit (door de delokalisatie van het p-orbitaal). Grafiet is zeer zacht en bestaat uit lagen die makkelijk overal elkaar heen glijden, omdat de binding tussen de lagen alleen door vanderwaalskrachten wordt gevormd. De sterkte bin

Różne odmiany alotropowe węgla wykazują bardzo różne właściwości, np. diament jest najtwardszą naturalnie występującą substancją, grafit jest jedną z substancji o najmniejszej twardości. Ponadto węgiel ma powinowactwo do tworzenia wiązań chemicznych z innymi małymi atomami, włączając w to inne atomy węgla oraz tworzenia wielu wiązań kowalencyjnych z tymi atomami w wyniku czego związki zawierające węgiel w swojej strukturze stanowią znaczną część wszystkich znanych związków, liczba ich dochodzi do dziesięciu milionów. Węgiel posiada także najwyższe temperatury topnienia oraz sublimacji z wszystkich pierwiastków. Przy ciśnieniu atmosferycznym nie występuje w ogóle topnienie węgla, a jego punkt potrójny występuje przy 10 MPa (100 bar) więc sublimuje on powyżej 4000K. Węgiel sublimuje do tłu węglowego w temperaturze ok. 5800K. więc niezależnie od odmi

OpenType Features Deactivated

OpenType Features Activated

Ligatures

Kafka fishing flick

Kafka fishing flick

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Numerator, Denominator, Inferior

(x¹²) + (y₃₄) ÷ (z₅₆)

(x¹²) + (y₃₄) ÷ (z₅₆)

Fractions

1/2 Cup, 32/85 Inch

½ Cup, 32/85 Inch

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

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