

EXHIBIT

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CHAMBERS

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dilute nitric acid upon arsenic, or by digesting arsenic (III) oxide with nitric acid. Also formed when arsenic (V) oxide is dissolved in water.

**arsenical copper** (*Eng*) Copper containing up to about 0.6% arsenic. This element slightly increases the hardness and strength and raises the recrystallization temperature.

**arsenical pyrites** (*Min*) See **arsenopyrite**.

**arsenic halides** (*Chem*) Group of compounds including: arsenic (V) fluoride,  $\text{AsF}_5$ ; arsenic (III) fluoride,  $\text{AsF}_3$ ; arsenic (III) chloride,  $\text{AsCl}_3$ ; arsenic (III) bromide,  $\text{AsBr}_3$ ; and arsenic (III) iodide,  $\text{AsI}_3$ .

**arsenides** (*Chem*) Compounds formed by arsenic with most metals, eg iron arsenide ( $\text{FeAs}_2$ ). Arsenides are decomposed by water or dilute acids with the formation of the hydride **arsine**. See **gallium arsenide**.

**arsenious acid** (*Chem*) Solution of arsenious oxide. See **arsenic**.

**arsenites** (*Chem*) Arsenates (III). Salts of arsenious acid.

**arseniuretted hydrogen** (*Chem*) See **arsine**.

**arsenolite** (*Min*) Arsenic oxide, a decomposition product of arsenical ores; occurring commonly as a white incrustation, rarely as octahedral crystals.

**arsenopyrite** (*Min*) Sulphide of iron and arsenic; the chief ore of arsenic. Also *arsenical pyrites*, *mispickel*.

**arsine** (*Chem*) Arsenic (III) hydride.  $\text{AsH}_3$ . Produced by the action of nascent hydrogen upon solutions of the element, or by the action of dilute sulphuric acid upon sodium or zinc arsenide. Very poisonous. Arsines are organic derivatives of  $\text{AsH}_3$  in which one or more hydrogen atoms is replaced by an alkyl radical; other hydrogen atoms may also be replaced by halogen etc. Also *arseniuretted hydrogen*.

**Art Deco** (*Arch*) A style of design which took its name from the Exposition des Arts Decoratifs, an international trade fair held in Paris in 1925. In the 1920s the style was characterized by curvilinear shapes and by stylized human and animal forms, but by the 1930s a commitment to industrial technology dictated shapes which tended to lend themselves to methods of mass production; hence the sleek, angular, linear forms in stainless steel, aluminium, chromed metals and colourful glazed tiles and plastics.

**artefact** (*Biol*) Any apparent structure which does not represent part of the actual specimen, but is due to faulty preparation. Particularly a microscope image which has no counterpart in reality. Also *artifact*.

**artefact** (*Genrl*) A man-made stone, wood or metal implement. Also *artifact*.

**arterial drainage** (*Build*) A system of drainage in which the flow from a number of branch drains is led into one main channel.

**arterial system** (*Zool*) That part of the vascular system which carries the blood from the heart to the body.

**arteriography** (*Radiol*) The radiological examination of arteries following direct injection of a **contrast medium**, eg coronary arteriography, renal arteriography, carotid arteriography.

**arteriole** (*Zool*) A small artery.

**arteriosclerosis** (*Med*) Hardening or stiffening of the arteries due to thickening and loss of elasticity of arterial walls. Commonly but incorrectly used to imply **atherosclerosis**.

**arteritis** (*Med*) Inflammation of an artery.

**artery** (*Zool*) One of the vessels of the **arterial system**. Adj *arterial*.

**artesian** (*Geol*) Term describing groundwater confined under hydrostatic pressure.

**artesian well** (*CivEng*) A well sunk into a permeable stratum which has impervious strata above and below it, and which outcrops at places higher than the place where the well is sunk, so that the hydrostatic pressure of the water in the permeable stratum is alone sufficient to force the water up out of the well. Named from Artois (France).

**arthralgia** (*Med*) Pain in a joint.

**arthrectomy** (*Med*) Excision of a joint.

**arthritic** (*Zool*) Pertaining to the joints; situated near a joint.

**arthritis** (*Med*) Inflammation of a joint.

**arthrodesis** (*Med*) The surgical immobilization of a joint by fusion of the joint surfaces.

**arthrodia** (*Zool*) A joint.

**arthrodial membranes** (*Zool*) In Arthropoda, flexible membranes connecting adjacent body sclerites and adjacent limb joints, and occurring also at the articulation of the appendages.

**arthrography** (*Radiol*) The radiological examination of a joint cavity after direct injection of air or other **contrast media**.

**Arthropophyta** (*Bot*) Division of the plant kingdom, the horsetails and allies, here treated as the class Sphenopsida.

**Arthropoda** (*Zool*) A phylum of metameric animals having jointed appendages (some of which are specialized for mastication) and a well-developed head; there is usually a hard chitinous exoskeleton; the coelom is restricted, the perivisceral cavity being haemocoelic. Contains the largest number of known species and includes many fossil groups eg trilobites, eurypterids, ostracods, ranging from the Lower Cambrian to the present day. Includes centipedes, millipedes, insects, crabs, lobsters, shrimps, spiders, scorpions, mites, ticks.

**arthrospore** (*Bot*) Spore resulting from hyphal fragmentation.

**arthrotomy** (*Med*) Surgical incision into a joint.

**Arthus reaction** (*Immun*) A type III allergic reaction named after the person who first described it.

**articular, articulare** (*Zool*) Pertaining to, or situated at, or near, a joint. In vertebrates, a small cartilage at the angle of the mandible, derived from the Meckelian, and articulating with the quadrate forming the lower half of the jaw hinge. Pl *articularia*.

**articulated** (*Bot*) Jointed or segmented; divided into portions that may easily be separated.

**articulated blade** (*Aero*) A rotorcraft blade which is mounted on one or more hinges to permit flapping and movement about the **drag axis**.

**articulation** (*Arch*) The means by which an architect gives definition to the individual elements of a building.

**articulation** (*Eng*) The connection of two parts in such a way (usually by a pin joint) as to permit relative movement.

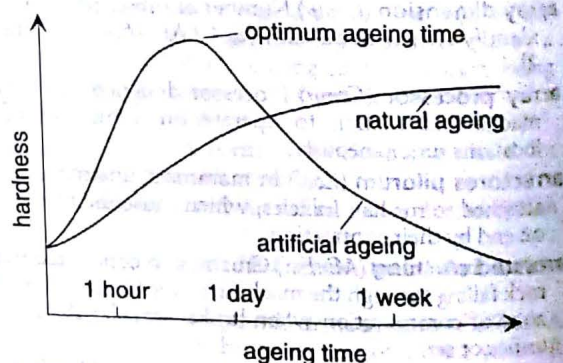
**articulation** (*Telecomm*) Percentage of specified speech components (usually **logatons**) received over a communication system. May be: (1) **word**: percentage of words correctly received; (2) **syllable**: percentage number of meaningless syllables correctly recognized; (3) **sound**: percentage number of fundamental speech-sounds (consonant, vowel, initial or final consonant) correctly recognized.

**articulation** (*Zool*) The movable or immovable connection between two or more bones.

**artifact** (*Genrl*) See **artefact**.

**artificial** (*FoodSci*) Term describing a raw material which is not naturally occurring or derived from a natural process. Also *synthetic*, *processed*.

**artificial ageing** (*Eng*) Method of accelerating the hardening of particularly aluminium alloys at slightly elevated temperatures. See **precipitation hardening**.



artificial ageing In aluminium alloys.