

EXHIBIT

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CHAMBERS

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**Burkitt lymphoma** (*Immun, Med*) A malignant tumour of B-cells, esp affecting the jaw and the gut, common in children in hot humid regions of Africa but not confined to these regions. **Epstein-Barr virus** is present and may be responsible for malignant transformation occurring in a B-cell population subject to constant antigenic stimulation. Associated with a specific chromosomal rearrangement affecting chromosome 8q24.

**burl** (*For*) See **burr**.

**burlap** (*Textiles*) A coarse jute, hemp or flax fabric.

**Burma lancewood** (*For*) A durable wood from the genus *Homalium*, used in India for the making of agricultural implements as well as being a structural timber.

**burmite** (*Min*) An amber-like mineral occurring in the upper Hukong Valley, Burma, differing from ordinary amber by containing no succinic acid. A variety of retinite.

**burn** (*Electronics*) See **ion burn**.

**burn** (*Space*) Controlled firing of rocket engine for adjusting course and re-entry initiation.

**burnable poison** (*NucEng*) Neutron absorber introduced into a reactor system to reduce initial reactivity but becoming progressively less effective as burn-up proceeds. This helps to counteract the fall in reactivity as the fuel is used up. Boron-10, which is transmuted into helium by neutron capture, has been used in the form of borosilicate glass placed in empty control-rod guides.

**burner firing block** (*Eng*) Unit made from refractory material that fits into a furnace wall at the burner position, having a nozzle-protecting recess at back and a tunnel on the firing side. It is called *quarf* in oil-firing practice.

**burner loading** (*Eng*) Potential heat that can be liberated efficiently from a burner. Expressed in kilowatts or Btu h<sup>-1</sup>.

**burner turndown factor** (*Eng*) Minimum gas rate at which a burner is capable of stable flame propagation without the flame flashing back to the air-gas mixing point or blowing off from the burner nozzle or head.

**burning** (*Eng*) The heating of an alloy to too high a temperature, causing local fusion or excessive penetration of oxide, and rendering the alloy weak and brittle.

**burning** (*MinExt*) Changing the colour of certain precious stones by exposing them to heat.

**burning-in kiln** (*Glass*) A kiln in which stain or enamel colour painted on glass-ware or sheet-glass is fired to cause it to adhere more or less permanently; usually of muffle type.

**burnishing** (*Print*) The operation of applying a brilliant finish to gilt or coloured edges by means of a burnishing tool, which is applied under great pressure.

**burn mark** (*Eng*) Moulding defect found on polymer surfaces caused by adiabatic compression of gas trapped in mould cavity by advancing melt front.

**burnout** (*Electronics*) Sudden failure of any device, caused by excessive current, leading in turn to overheating; may also be due to failure of artificial cooling in any electronic assembly or sub-assembly.

**burnout mask** (*Print*) See **print-out mask**.

**burnout velocity** (*Space*) The maximum velocity achieved by a rocket when all the propellant has been consumed.

**burnt coal** (*Min*) Sooty product of weathering of a coal outcrop.

**burnt lime** (*Build, Chem*) See **lime**.

**burnt metal** (*Eng*) Metal which has become oxidized by overheating, and so is rendered useless for engineering purposes.

**burn-up** (*NucEng*) (1) In nuclear fuel, amount of fissile material burned up as a percentage of total fissile material originally present. (2) Of fuel element performance, the amount of heat released from a given amount of fuel, expressed as megawatt- or gigawatt-days per tonne.

**burr** (*Bot*) A fruit covered with hooks to aid in dispersal by animals.

**burr** (*For*) A knob or knot in a tree which, when sliced, produces strong contrasts in the form and colour of the markings which are prized for their decorative effect in edge veneers. Also *bur, burl*.

**burr mill** (*MinExt*) See **buhr mill**.

**burrs** (*Build*) Lumps of brick, often mis-shapen, which have fused together in burning.

**bursa** (*Med*) A synovial sac located at points of friction in the body.

**bursa** (*Zool*) Any sac-like cavity; particularly, in vertebrates, a sac of connective tissue containing a viscid, lubricating fluid, and interposed at points of friction between skin and bone and between muscle, ligament and bone.

**bursa copulatrix** (*Zool*) A special genital pouch of various animals acting generally as a female copulatory organ.

**bursa inguinalis** (*Zool*) The cavity of the scrotal sac in mammals.

**bursa of Fabricius** (*Immun*) A sac-like structure arising as a diverticulum from the cloaca of young birds, composed of primary follicles containing B lymphocyte precursors. The bursa is the only source of these cells in birds and removal of the bursa at hatching (or by certain viral infections) results in a severe B-cell deficiency.

**bursa omentalis** (*Zool*) In mammals, a sac formed by the epiploon or great omentum.

**bursattee, bursati** (*Vet*) *Cutaneous habronemiasis*. A disease of the skin of horses caused by nematode larvae of the genus *Habronema*; characterized by granulomatous nodules in the skin.

**bursicon** (*Zool*) In insects, a hormone produced by neurosecretory cells of the brain and released by neurochaermal organs in the thoracic and abdominal ganglia. It affects many post-ecdysal processes such as cuticular tanning.

**bursiform** (*Bot*) Resembling a bag or pouch.

**bursitis** (*Med*) An inflammation of a bursa.

**burst** (*ImageTech*) See **colour burst**.

**burst** (*NucEng*) A defect, often very small, in fuel cladding or sheathing which allows fission products to escape.

**burst** (*Phys*) Unusually large pulse arising in an ionization chamber caused by a cosmic-ray shower.

**burst** (*Telecomm*) (1) Short period of intense activity on an otherwise quiet data channel. (2) Sudden increase in strength of received radio signals caused by sudden changes in the ionosphere.

**burst binding** (*Print*) Unsewn binding where the spine of the section is 'burst', or slit, at intervals, during the folding or web printing operation to allow adhesive to reach all the pages without trimming off the back. See **notch binding**.

**burst-can detector** (*NucEng*) An instrument for the early detection of ruptures of the sheaths of fuel elements inside a reactor. Also *burst-cartridge detector, leak detector*.

**burst cartridge** (*NucEng*) Fuel element with a small leak, emitting fission products. Also *burst slug*.

**burst-cartridge detector** (*NucEng*) See **burst-can detector**.

**burstiness** (*Telecomm*) A measure used to characterize traffic for planning purposes. It indicates the extent to which a given level of traffic occurs as short periods at a high data rate separated by longer periods at a lower rate.

**bursting** (*Comp*) Separating continuous stationery.

**bursting disk** (*ChemEng*) A protective device for process vessels in which hazardous operations are performed, consisting of a thin disk of noble or corrosion resisting metal, carefully controlled as to thickness, and designed to burst in event of excess internal pressure, giving a large opening for rapid release of the pressure.

**burst slug** (*NucEng*) See **burst cartridge**.

**burst test** (*Paper*) A physical test method to determine the limiting pressure (applied normally to the paper surface by means of a rubber diaphragm) that a test piece will