# CPC COOPERATIVE PATENT CLASSIFICATION

## A HUMAN NECESSITIES

### HEALTH; AMUSEMENT

## A61 MEDICAL OR VETERINARY SCIENCE; HYGIENE

### A61N ELECTROTHERAPY; MAGNETOTHERAPY; RADIATION THERAPY;

ULTRASOUND THERAPY (measurement of bioelectric currents A61B; surgical instruments, devices or methods for transferring non-mechanical forms of energy to or from the body A61B 18/00; anaesthetic apparatus in general A61M; incandescent lamps H01K; infra-red radiators for heating H05B)

**NOTE**

In this subclass, the following term is used with the meaning indicated: In this subclass, the following term is used with the meaning indicated:

- “therapy” implies that the treatment, when it aims at destroying sick or abnormal cells, is performed within the limits of healthy cell life, the destruction thereof being undesired, contrary to that which takes place with instruments, devices or methods covered by group A61B 18/00.

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
   - A61N 1/34 covered by A61N 1/36021, A61N 1/36071
   - A61N 2/04 covered by A61N 2/02
   - A61N 2/08 covered by A61N 2/06
   - A61N 2/10 covered by A61N 2/06
   - A61N 5/067 covered by A61N 5/06, A61N 2005/067
   - A61N 5/073 covered by A61N 5/06, A61N 2005/073
   - A61N 5/08 covered by A61N 5/06

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

### 1/00 Electrotherapy; Circuits therefor

- **1/00** Electrotherapy; Circuits therefor (A61N 2/00 takes precedence; irradiation apparatus A61N 5/00)
  - **1/02** Details
  - **1/025** [Digital circuitry features of electrotherapy devices, e.g. memory, clocks, processors]
  - **1/04** Electrodes (electrosurgical electrodes A61B 18/14)
  - **1/0404** [for external use (A61N 1/06 takes precedence)]
  - **1/0408** [Use-related aspects]
  - **1/0412** [Specially adapted for transcutaneous electroporation, e.g. including drug reservoirs]
  - **1/0416** [Anode and cathode]
  - **1/042** [Material of the electrode]
  - **1/0424** [Shape of the electrode]
  - **1/0428** [Specially adapted for iontophoresis, e.g. AC, DC or including drug reservoirs]
  - **1/0432** [Anode and cathode]
  - **1/0436** [Material of the electrode]
  - **1/044** [Shape of the electrode]
  - **1/0444** [Membrane]
  - **1/0448** [Drug reservoir]
  - **1/0452** [Specially adapted for transcutaneous muscle stimulation [TMS]]

- **1/0456** [Specially adapted for transcutaneous electrical nerve stimulation [TENS]]
- **1/046** [Specially adapted for shock therapy, e.g. defibrillation]
- **1/0464** [Specially adapted for promoting tissue growth]
- **1/0468** [Specially adapted for promoting wound healing]
- **1/0472** [Structure-related aspects]
- **1/0476** [Array electrodes (including any electrode arrangement with more than one electrode for at least one of the polarities)]
- **1/048** [Electrodes characterised by a specific connection between lead and electrode]
- **1/0484** [Garment electrodes worn by the patient]
- **1/0488** [Details about the lead]
- **1/0492** [Patch electrodes (A61N 1/0412, A61N 1/0428 take precedence)]
- **1/0496** [characterised by using specific chemical compositions, e.g. hydrogel compositions, adhesives]
- **1/05** for implantation or insertion into the body, e.g. heart electrode (A61N 1/06 takes precedence)
- **1/0502** [Skin piercing electrodes]
- **1/0504** [Subcutaneous electrodes]
1/0507 . . . [Electrodes for the digestive system]
1/0509 . . . . [Stomach and intestinal electrodes]
1/0512 . . . [Anal electrodes]
1/0514 . . . [Electrodes for the urinary tract]
1/0517 . . . [Esophageal electrodes]
1/0519 . . . [Endotracheal electrodes]
1/0521 . . . [Genital electrodes]
1/0524 . . . [Vaginal electrodes]
1/0526 . . . [Head electrodes (A61N 1/0551 takes precedence)]
1/0529 . . . . [Electrodes for brain stimulation]
1/0531 . . . . [Brain cortex electrodes]
1/0534 . . . . [Electrodes for deep brain stimulation]
1/0536 . . . . [Preventing neurodegenerative response or inflammatory reaction]
1/0539 . . . . [Anchoring of brain electrode systems, e.g. within burr hole]
1/0541 . . . . [Cochlear electrodes]
1/0543 . . . . [Retinal electrodes]
1/0546 . . . . [Nasal electrodes]
1/0548 . . . . [Oral electrodes]
1/0551 . . . . [Spinal or peripheral nerve electrodes]
1/0553 . . . . [Paddle shaped electrodes, e.g. for laminotomy]
1/0556 . . . . [Cuff electrodes]
1/0558 . . . . [Anchoring or fixation means therefor]
1/056 . . . . [Transvascular endocardial electrode systems]
1/0563 . . . . [specially adapted for defibrillation or cardioversion]
1/0565 . . . . [Electrode heads]
1/0568 . . . . [with drug delivery]
1/057 . . . . [Anchoring means; Means for fixing the head inside the heart]
1/0573 . . . . [chacterised by means penetrating the heart tissue, e.g. helix needle or hook]
1/0575 . . . . [with drug delivery]
2001/0578 . . . . [having means for removal or extraction]
2001/058 . . . . [Fixing tools]
2001/0582 . . . . [Suture sleeves]
2001/0585 . . . . [Coronary sinus electrodes]
1/0587 . . . . [Epicardial electrode systems; Endocardial electrodes piercing the pericardium]
1/059 . . . . [Anchoring means]
1/0592 . . . . [Introducing the lead through the pericardium with a needle]
1/0595 . . . . [Temporary leads]
1/0597 . . . . [Surface area electrodes, e.g. cardiac harness]
1/06 . . . for high-frequency therapy

1/08 . . . Arrangements or circuits for monitoring, protecting, controlling or indicating [(for external stimulators A61N 1/3603; for implantable neurostimulators A61N 1/36128; for heart stimulators A61N 1/37; for defibrillators A61N 1/3925)]

**WARNING**

Group A61N 1/08 is impacted by reclassification into group A61N 1/3603
Groups A61N 1/08 and A61N 1/3603 should be considered in order to perform a complete search.

2001/083 . . . . . [Monitoring integrity of contacts, e.g. by impedance measurement]

**WARNING**

Group A61N 2001/083 is impacted by reclassification into group A61N 1/3603.
Groups A61N 2001/083 and A61N 1/3603 should be considered in order to perform a complete search.

1/086 . . . . . [Magnetic resonance imaging [MRI] compatible leads]
1/10 . . . . . . Applying static electricity (applying ionised gases or vapours A61N 1/44)
1/14 . . . . . . Leading-off electric charges, e.g. by earthing [(carrying-off electrostatic charges, in general H05F 3/00)]
1/16 . . . . . . Screening or neutralising undesirable influences from (or using,) atmospheric or terrestrial radiation or fields [(using atmospheric electricity or earth currents H05F 3/00)]
1/18 . . . . . . Applying electric currents by contact electrodes
1/20 . . . . . . continuous direct currents
1/205 . . . . . . (for promoting a biological process)
1/22 . . . . . . Electromedical belts [, e.g. neck chains, armbands]
1/24 . . . . . . with built-in power source
1/26 . . . . . . Electromedical brushes; Electromedical massage devices [(massage devices in general A61H); Combs]
1/28 . . . . . . Apparatus for applying thermoelectric currents
1/30 . . . . . . Apparatus for iontophoresis, [i.e. transfer of media in ionic state by an electromotoric force into the body], or cataphoresis
1/303 . . . . . . (Constructional details (electrodes for external use A61N 1/0428))
1/306 . . . . . . (Arrangements where at least part of the apparatus is introduced into the body)
1/32 . . . . . . alternating or intermittent currents [(applying electric fields by inductive or capacitive coupling A61N 1/40; microwave apparatus A61N 5/02)]
1/321 . . . . . [Electromedical belts]
1/322 . . . . . [Electromedical brushes, combs, massage devices]
1/323 . . . . . (Interference currents, i.e. treatment by several currents summed in the body)
1/325 . . . . . (for iontophoresis, i.e. transfer of media in ionic state by an electromotoric force into the body (electrodes for external use A61N 1/0428))
1/326 . . . . . (for promoting growth of cells, e.g. bone cells)
[for enhancing the absorption properties of tissue, e.g. by electroporation]

[for improving the appearance of the skin, e.g. facial toning or wrinkle treatment]

for stimulation

**WARNING**

Group A61N 1/36 is impacted by reclassification into group A61N 1/36002.
Groups A61N 1/36 and A61N 1/36002 should be considered in order to perform a complete search.

{Cancer treatment, e.g. tumour}

**WARNING**

Group A61N 1/36002 is incomplete pending reclassification of documents from group A61N 1/36.
Groups A61N 1/36002 and A61N 1/36 should be considered in order to perform a complete search.

{of motor muscles, e.g. for walking assistance}

{of urogenital or gastrointestinal organs, e.g. for incontinence control}

{of respiratory organs}

{External stimulators, e.g. with patch electrodes (external pacemakers A61N 1/3625)}

**WARNING**

Group A61N 1/36014 is impacted by reclassification into groups A61N 1/3603, A61N 1/36031 and A61N 1/36034.
All groups listed in this Warning should be considered in order to perform a complete search.

{with leads or electrodes penetrating the skin}

{for treatment of pain}

{for treating a mental or cerebral condition}

{for aversion therapy}

{Control systems}

**WARNING**

Group A61N 1/3603 is incomplete pending reclassification of documents from groups A61N 1/08, A61N 2001/083 and A61N 1/36014.
All groups listed in this Warning should be considered in order to perform a complete search.

{using physiological parameters for adjustment}

**WARNING**

Group A61N 1/36031 is incomplete pending reclassification of documents from group A61N 1/36014.
Groups A61N 1/36031 and A61N 1/36014 should be considered in order to perform a complete search.

{specified by the stimulation parameters}

**WARNING**

Group A61N 1/36034 is incomplete pending reclassification of documents from group A61N 1/36014.
Groups A61N 1/36034 and A61N 1/36014 should be considered in order to perform a complete search.

{of the outer, middle or inner ear}

**WARNING**

Group A61N 1/36036 is impacted by reclassification into groups A61N 1/36038 and A61N 1/36039.
Groups A61N 1/36036, A61N 1/36038 and A61N 1/36039 should be considered in order to perform a complete search.

{Cochlear stimulation}

**WARNING**

Groups A61N 1/36038 and A61N 1/36039 are incomplete pending reclassification of documents from group A61N 1/36036.
Groups A61N 1/36036, A61N 1/36038 and A61N 1/36039 should be considered in order to perform a complete search.

{fitting procedures}

{for correcting spinal deformities, e.g. scoliosis}

{of grafted tissue, e.g. skeletal muscle}

{of the eye}

{Implantable neurostimulators for stimulating central or peripheral nerve system}

{adapted for vagal stimulation (A61N 1/36114 takes precedence)}

{adapted for stimulating afferent nerves}
WARNING

Group A61N 1/3606 is impacted by reclassification into group A61N 1/36062.
Groups A61N 1/3606 and A61N 1/36062 should be considered in order to perform a complete search.

WARNING

Group A61N 1/36062 is incomplete pending reclassification of documents from group A61N 1/3606.
Groups A61N 1/36062 and A61N 1/3606 should be considered in order to perform a complete search.

WARNING

Group A61N 1/3614 is incomplete pending reclassification of documents from group A61N 1/36135.
Groups A61N 1/3614 and A61N 1/36135 should be considered in order to perform a complete search.

WARNING

Group A61N 1/36153 is impacted by reclassification into group A61N 1/3616.
Groups A61N 1/36153 and A61N 1/3616 should be considered in order to perform a complete search.

WARNING

Group A61N 1/36157 is impacted by reclassification into group A61N 1/3616.
Groups A61N 1/36157 and A61N 1/3616 should be considered in order to perform a complete search.

WARNING

Group A61N 1/3616 is incomplete pending reclassification of documents from groups A61N 1/36153 and A61N 1/36157.
Groups A61N 1/3616, A61N 1/36153, and A61N 1/36157 should be considered in order to perform a complete search.
Heart stimulators (heart defibrillators A61N 1/39)

**WARNING**

Group A61N 1/362 is impacted by reclassification into group A61N 1/3629.
Groups A61N 1/362 and A61N 1/3629 should be considered in order to perform a complete search.

1/3621 . . . . . [for treating or preventing abnormally high heart rate]
1/3622 . . . . . [comprising two or more electrodes cooperating with different heart regions]
1/3624 . . . . . [occurring in the atrium, i.e. atrial tachycardia]
1/3625 . . . . . [External stimulators]
1/3627 . . . . . [for treating a mechanical deficiency of the heart, e.g. congestive heart failure or cardiomyopathy]
1/3628 . . . . . [using sub-threshold or non-excitatory signals]
1/3629 . . . . . [in combination with non-electric therapy]

**WARNING**

Group A61N 1/3629 is incomplete pending reclassification of documents from group A61N 1/362.
Groups A61N 1/3629 and A61N 1/362 should be considered in order to perform a complete search.

1/365 . . . . . controlled by a physiological parameter, e.g. heart potential \{(evoked response A61N 1/371)\}
1/36507 . . . . . [controlled by gradient or slope of the heart potential]
1/36514 . . . . . [controlled by a physiological quantity other than heart potential, e.g. blood pressure (controlled by two or more physical parameters A61N 1/36585)]
1/36521 . . . . . [the parameter being derived from measurement of an electrical impedance]
1/36528 . . . . . [the parameter being measured by means of ultrasound]
1/36535 . . . . . [controlled by body position or posture]
1/36542 . . . . . [controlled by body motion, e.g. acceleration]

1/3655 . . . . . [controlled by body or blood temperature]
1/36557 . . . . . [controlled by chemical substances in blood]
1/36564 . . . . . [controlled by blood pressure]
1/36571 . . . . . [controlled by blood flow rate, e.g. blood velocity or cardiac output]
1/36578 . . . . . [controlled by mechanical motion of the heart wall, e.g. measured by an accelerometer or microphone]
1/36585 . . . . . [controlled by two or more physical parameters]
1/36592 . . . . . [controlled by the heart rate variability]
1/368 . . . . . comprising more than one electrode cooperating with different heart regions \{(A61N 1/3622, A61N 1/3627 take precedence)\}
1/3682 . . . . . [with a variable atrioventricular delay]
1/3684 . . . . . [for stimulating the heart at multiple sites of the ventricle or the atrium]

**WARNING**

Group A61N 1/3684 is impacted by reclassification into groups A61N 1/36842 and A61N 1/36843.
Groups A61N 1/3684, A61N 1/36842 and A61N 1/36843 should be considered in order to perform a complete search.

1/36842 . . . . . [Multi-site stimulation in the same chamber]

**WARNING**

Group A61N 1/36842 is incomplete pending reclassification of documents from group A61N 1/3684.
Groups A61N 1/36842 and A61N 1/3684 should be considered in order to perform a complete search.

1/36843 . . . . . [Bi-ventricular stimulation]

**WARNING**

Group A61N 1/36843 is incomplete pending reclassification of documents from group A61N 1/3684.
Groups A61N 1/36843 and A61N 1/3684 should be considered in order to perform a complete search.

1/3686 . . . . . [configured for selecting the electrode configuration on a lead (A61N 1/3688 takes precedence)]
1/3688 . . . . . [configured for switching the pacing mode, e.g. from AAI to DDD]
1/37 . . . . . Monitoring; Protecting
1/3702 . . . . . [Physiological parameters (A61N 1/365 takes precedence; evoked response A61N 1/371)]
Circuits specially adapted therefor, e.g. for sensitivity control

Pacemaker parameters (stimulation threshold A61N 1/371)

for power depletion

Capture, i.e. successful stimulation

Auto-capture, i.e. automatic adjustment of the stimulation threshold

Atrial capture

with reduction of residual polarisation effects

Monitoring of or protection against external electromagnetic fields or currents

Arrangements in connection with the implantation of stimulators

Microstimulators, e.g. implantable through a cannula

Means for communicating with stimulators

characterised by the communication link, e.g. acoustic or tactile

Circuits for electromagnetic coupling

Shape or location of the implanted or external antenna

Aspects of the external programmer

providing test stimulations

User interfaces, e.g. input or presentation means

Details of algorithms or data aspects of communication system, e.g. handshaking, transmitting specific data or segmenting data

characterised by the communication link, e.g. acoustic or tactile

Pacemakers

Brain implants

Intravascular implants

Anchoring of the implants, e.g. fixation

Alerting the patient

Changing the program; Upgrading firmware

characterised by the modulation technique

characterised by means for reducing power consumption during telemetry

characterised by communication with experts in remote locations using a network

implantable medical devices within one patient

Means for testing medical devices within the package prior to implantation

Constructional arrangements, e.g. casings

Pacemaker or defibrillator security, e.g. to prevent or inhibit programming alterations by hackers or unauthorised individuals

Details of casing-lead connections

Feedthroughs

Casings with electrodes thereon, e.g. leadless stimulators

WARNING

Group A61N 1/375 is impacted by reclassification into groups A61N 1/37512, A61N 1/37514, A61N 1/37516 and A61N 1/37518. All groups listed in this Warning should be considered in order to perform a complete search.

Pacemakers

Brain implants

Intravascular implants

Anchoring of the implants, e.g. fixation

Details of casing-lead connections

Feedthroughs

Casings with electrodes thereon, e.g. leadless stimulators
1/378 . . . . Electrical supply
1/3782 . . . . [producing a voltage above the power source level]
1/3785 . . . . [generated by biological activity or substance, e.g. body movement]
1/3787 . . . . [from an external energy source]
1/38 . . . . for producing shock effects
1/385 . . . . [Devices for inducing an abnormal cardiac function, e.g. fibrillation]
1/39 . . . . Heart defibrillators

**WARNING**

Group A61N 1/39 is impacted by reclassification into groups A61N 1/3904, A61N 1/39044 and A61N 1/39046.

All groups listed in this Warning should be considered in order to perform a complete search.

1/3904 . . . . [External heart defibrillators (EHD)]

**WARNING**

Group A61N 1/3904 is incomplete pending reclassification of documents from group A61N 1/39.

Groups A61N 1/3904 and A61N 1/39 should be considered in order to perform a complete search.

1/39044 . . . . [in combination with cardiopulmonary resuscitation (CPR) therapy]

**WARNING**

Group A61N 1/39044 is incomplete pending reclassification of documents from group A61N 1/39.

Groups A61N 1/39044 and A61N 1/39 should be considered in order to perform a complete search.

1/39046 . . . . [User protection from shock]

**WARNING**

Group A61N 1/39046 is incomplete pending reclassification of documents from group A61N 1/39.

Groups A61N 1/39046 and A61N 1/39 should be considered in order to perform a complete search.

1/3906 . . . . [characterised by the form of the shockwave]
1/3912 . . . . [Output circuitry therefor, e.g. switches]
1/3918 . . . . [characterised by shock pathway, e.g. by electrode configuration]
1/3925 . . . . [Monitoring; Protecting]
1/3931 . . . . [Protecting, e.g. back-up systems]
1/3937 . . . . [Monitoring output parameters]
1/3943 . . . . [for threshold determination]
1/395 . . . . [for treating atrial fibrillation]
1/3956 . . . . [Implantable devices for applying electric shocks to the heart, e.g. for cardioversion]
5/00 Radiation therapy (ultrasound therapy A61N 7/00; devices or apparatus applicable to both therapy and diagnosis A61B 6/00)

2005/002 . {Cooling systems}
2005/005 . [for cooling the radiator]
2005/007 . [for cooling the patient]
5/01 . Devices for producing movement of radiation source during therapy {(A61N 5/1077 takes precedence)
Monitoring, verifying, controlling systems and within the treatment head

- Treatment planning systems
- Using functional images, e.g. PET or MRI
- Using a library of previously administered radiotherapy plans applied to the same patient, i.e. adaptive radiotherapy
- Using an active marker (markers in general A61B 17/22)
- Leaf sequencing algorithms
- Taking into account the movement of the target, e.g. 4D-image based planning
- Taking into account previously administered plans applied to the same patient, i.e. adaptive radiotherapy
- Using functional images, e.g. PET or MRT
- Using a library of previously administered radiation treatment applied to other patients
- With spatial modulation of the radiation beam within the treatment head
- Scanning the radiation beam, e.g. spot scanning or raster scanning
- With multiple repetitions of the scanning pattern
- Using a multi-leaf collimator, e.g. for intensity modulated radiation therapy or IMRT
- With movement of the radiation beam during application of radiation, e.g. for intensity modulated arc therapy or IMAT
- Monitoring, verifying, controlling systems and methods
- For verifying the position of the patient with respect to the radiation beam
- Using a laser alignment system
- Using an active marker (markers in general A61B 90/39)
- Using positron emission tomography [PET] single photon emission computer tomography [SPECT] imaging
- Using a portal imaging system
- Using magnetic resonance imaging [MRI]
- By projecting a visible image of the treatment field
- Monitoring flexing of the patient support or the radiation treatment apparatus
- Using ultrasound imaging
- Using cameras imaging the patient

7/00 Ultrasound therapy (lithotripsy A61B 17/22, A61B 17/25; massage using supersonic vibration A61H 23/00; using ultrasound for introducing media into the body A61M 37/0092)

- Applications of ultrasound therapy
- Destruction of nerve tissue
- Destruction of fat cells
- Fracture healing
- Wound healing
- Neural system treatment
- Stimulation of nerve tissue

5/014 . . . [Intracavitary radiation therapy]
5/015 . . . [Treatment of resected cavities created by surgery, e.g. lumpectomy]
5/016 . . . [Gynaecological radiation therapy]
5/017 . . . [Treatment of the eye, e.g. for "macular degeneration"]
2005/1018 . . . [with multiple channels for guiding radioacive sources]
2005/1019 . . . [Sources thereof]
2005/1021 . . . [Radioactive fluid]
2005/1022 . . . [Generators, e.g. X-ray tubes]
2005/1023 . . . [Means for creating a row of seeds, e.g. spacers]
2005/1024 . . . [Seeds]
2005/1025 . . . [Wires]
5/013 . . . [Intersitial radiation therapy]
5/028 . . . [using radiation sources applied onto the body]
5/029 . . . [Radioactive dressings]
5/013 . . . [Treatment planning systems]
5/013 . . . [using a specific method of dose optimization]
2005/1032 . . . [Genetic optimization methods]
2005/1034 . . . [Monte Carlo type methods; particle tracking]
2005/1035 . . . [Simulated annealing]
5/036 . . . [Leaf sequencing algorithms]
5/037 . . . [taking into account the movement of the target, e.g. 4D-image based planning]
5/038 . . . [taking into account previously administered plans applied to the same patient, i.e. adaptive radiotherapy]
5/039 . . . [using functional images, e.g. PET or MRT]
2005/1041 . . . [using a library of previously administered radiation treatment applied to other patients]
5/027 . . . [Interstitial radiation therapy]
5/027 . . . [using radiation sources applied onto the body]
5/029 . . . [Radioactive dressings]
5/031 . . . [Treatment planning systems]
5/093 . . . [using a specific method of dose optimization]
2005/1032 . . . [Genetic optimization methods]
2005/1034 . . . [Monte Carlo type methods; particle tracking]
2005/1035 . . . [Simulated annealing]
5/036 . . . [Leaf sequencing algorithms]
5/037 . . . [taking into account the movement of the target, e.g. 4D-image based planning]
5/038 . . . [taking into account previously administered plans applied to the same patient, i.e. adaptive radiotherapy]
5/039 . . . [using functional images, e.g. PET or MRT]
2005/1041 . . . [using a library of previously administered radiation treatment applied to other patients]
5/042 . . . [with spatial modulation of the radiation beam within the treatment head]
5/043 . . . [Scanning the radiation beam, e.g. spot scanning or raster scanning]
5/044 . . . [with multiple repetitions of the scanning pattern]
5/045 . . . [using a multi-leaf collimator, e.g. for intensity modulated radiation therapy or IMRT]
5/047 . . . [with movement of the radiation beam during application of radiation, e.g. for intensity modulated arc therapy or IMAT]
5/048 . . . [Monitoring, verifying, controlling systems and methods]
5/049 . . . [for verifying the position of the patient with respect to the radiation beam]
2005/105 . . . [using a laser alignment system]
2005/1051 . . . [using an active marker (markers in general A61B 90/39)]
2005/1052 . . . [using positron emission tomography [PET] single photon emission computer tomography [SPECT] imaging]
2005/1054 . . . [using a portal imaging system]
2005/1055 . . . [using magnetic resonance imaging [MRI]]
2005/1056 . . . [by projecting a visible image of the treatment field]
2005/1057 . . . [monitoring flexing of the patient support or the radiation treatment apparatus]
2005/1058 . . . [using ultrasound imaging]
2005/1059 . . . [using cameras imaging the patient]
2005/1061 . . . [using an x-ray imaging system having a separate imaging source]
2005/1062 . . . [using virtual X-ray images, e.g. digitally reconstructed radiographs [DRR]]
2005/1063 . . . [maintaining the position when the patient is moved from an imaging to a therapy system]
5/064 . . . [for adjusting radiation treatment in response to monitoring]
5/065 . . . [Beam adjustment]
5/067 . . . [in real time, i.e. during treatment]
5/068 . . . [Gating the beam as a function of a physiological signal]
5/069 . . . [Target adjustment, e.g. moving the patient support]
5/071 . . . [for verifying the dose delivered by the treatment plan]
2005/1072 . . . [taking into account movement of the target]
2005/1074 . . . [Details of the control system, e.g. user interfaces]
2005/1075 . . . [for testing, calibrating, or quality assurance of the radiation treatment apparatus]
2005/1076 . . . [using a dummy object placed in the radiation field, e.g. phantom]
5/077 . . . [Beam delivery systems]
5/078 . . . [Fixed beam systems]
5/079 . . . [Sharing a beam by multiple treatment stations]
5/081 . . . [Rotating beam systems with a specific mechanical construction, e.g. gantries]
5/082 . . . [having multiple beam rotation axes]
5/083 . . . [Robot arm beam systems]
5/084 . . . [for delivering multiple intersecting beams at the same time, e.g. gamma knives]
2005/1085 . . . [characterised by the type of particles applied to the patient]
2005/1087 . . . [Ions; Protons]
2005/1088 . . . [generated by laser radiation]
2005/1089 . . . [Electrons]
2005/109 . . . [Neutrons]
2005/1091 . . . [Kilovoltage or orthovoltage range photons]
2005/1092 . . . [Details]
2005/1094 . . . [Shielding, protecting against radiation]
2005/1095 . . . [Elements inserted into the radiation path within the system, e.g. filters or wedges]
2005/1096 . . . [Elements inserted into the radiation path placed on the patient, e.g. bags, bolus, compensators]
2005/1097 . . . [Means for immobilizing the patient]
2005/1098 . . . [Enhancing the effect of the particle by an injected agent or implanted device]
2007/0034 . {Skin treatment}
2007/0039 . [using microbubbles]
2007/0043 . [intra-cavitary]
2007/0047 . [interstitial]
2007/0052 . [using the same transducer for therapy and imaging]
2007/0056 . [Beam shaping elements]
2007/006 . {Lenses}
2007/0065 . {Concave transducers}
2007/0069 . {Reflectors}
2007/0073 . [using multiple frequencies]
2007/0078 . [with multiple treatment transducers]
2007/0082 . {Scanning transducers}
2007/0086 . {Beam steering}
2007/0091 . [with moving parts, e.g. transducers, lenses, reflectors]
2007/0095 . [by modifying an excitation signal]
7/02 . Localised ultrasound hyperthermia [(hyperthermia in general A61F 7/00)]
7/022 . [intracavitary]
2007/025 . [interstitial]
2007/027 . [with multiple foci created simultaneously]