

# 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

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">A61N 1/34</a>	covered by	<a href="#">A61N 1/36021</a> , <a href="#">A61N 1/36071</a>
<a href="#">A61N 2/04</a>	covered by	<a href="#">A61N 2/02</a>
<a href="#">A61N 2/08</a>	covered by	<a href="#">A61N 2/06</a>
<a href="#">A61N 2/10</a>	covered by	<a href="#">A61N 2/06</a>
<a href="#">A61N 5/067</a>	covered by	<a href="#">A61N 5/06</a> , <a href="#">A61N 2005/067</a>
<a href="#">A61N 5/073</a>	covered by	<a href="#">A61N 5/06</a> , <a href="#">A61N 2005/073</a>
<a href="#">A61N 5/08</a>	covered by	<a href="#">A61N 5/06</a>

- 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.

<b>1/00</b>	<b>Electrotherapy; Circuits therefor</b> ( <a href="#">A61N 2/00</a> takes precedence; irradiation apparatus <a href="#">A61N 5/00</a> )	1/0456	. . . . .	{Specially adapted for transcutaneous electrical nerve stimulation [TENS]}
1/02	. Details	1/046	. . . . .	{Specially adapted for shock therapy, e.g. defibrillation}
1/025	. . {Digital circuitry features of electrotherapy devices, e.g. memory, clocks, processors}	1/0464	. . . . .	{Specially adapted for promoting tissue growth}
1/04	. . Electrodes {(electrosurgical electrodes <a href="#">A61B 18/14</a> )}	1/0468	. . . . .	{Specially adapted for promoting wound healing}
1/0404	. . . {for external use ( <a href="#">A61N 1/06</a> takes precedence)}	1/0472	. . . . .	{Structure-related aspects}
1/0408	. . . . {Use-related aspects}	1/0476	. . . . .	{Array electrodes (including any electrode arrangement with more than one electrode for at least one of the polarities)}
1/0412	. . . . . {Specially adapted for transcutaneous electroporation, e.g. including drug reservoirs}	1/048	. . . . .	{Electrodes characterised by a specific connection between lead and electrode}
1/0416	. . . . . {Anode and cathode}	1/0484	. . . . .	{Garment electrodes worn by the patient}
1/042	. . . . . {Material of the electrode}	1/0488	. . . . .	{Details about the lead}
1/0424	. . . . . {Shape of the electrode}	1/0492	. . . . .	{Patch electrodes ( <a href="#">A61N 1/0412</a> , <a href="#">A61N 1/0428</a> take precedence)}
1/0428	. . . . . {Specially adapted for iontophoresis, e.g. AC, DC or including drug reservoirs}	1/0496	. . . . .	{characterised by using specific chemical compositions, e.g. hydrogel compositions, adhesives}
1/0432	. . . . . {Anode and cathode}	1/05	. . .	for implantation or insertion into the body, e.g. heart electrode ( <a href="#">A61N 1/06</a> takes precedence)
1/0436	. . . . . {Material of the electrode}	1/0502	. . . . .	{Skin piercing electrodes}
1/044	. . . . . {Shape of the electrode}	1/0504	. . . . .	{Subcutaneous electrodes}
1/0444	. . . . . {Membrane}			
1/0448	. . . . . {Drug reservoir}			
1/0452	. . . . . {Specially adapted for transcutaneous muscle stimulation [TMS]}			

1/0507	. . . . {Electrodes for the digestive system}	1/08	. . Arrangements or circuits for monitoring, protecting, controlling or indicating { <a href="#">for external stimulators A61N 1/3603</a> ; <a href="#">for implantable neurostimulators A61N 1/36128</a> ; <a href="#">for heart stimulators A61N 1/37</a> ; <a href="#">for defibrillators A61N 1/3925</a> }
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 ( <a href="#">A61N 1/0551</a> 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}	2001/083	. . . {Monitoring integrity of contacts, e.g. by impedance measurement}
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}	1/086	. . . {Magnetic resonance imaging [MRI] compatible leads}
1/0556	. . . . . {Cuff electrodes}	1/10	. Applying static electricity ( <a href="#">applying ionised gases or vapours A61N 1/44</a> )
1/0558	. . . . . {Anchoring or fixation means therefor}	1/14	. Leading-off electric charges, e.g. by earthing { <a href="#">(carrying-off electrostatic charges, in general H05F 3/00)</a> }
1/056	. . . . . {Transvascular endocardial electrode systems}	1/16	. Screening or neutralising undesirable influences from { <a href="#">or using,</a> } atmospheric or terrestrial radiation or fields { <a href="#">(using atmospheric electricity or earth currents H05F 3/00)</a> }
1/0563	. . . . . {specially adapted for defibrillation or cardioversion}	1/18	. Applying electric currents by contact electrodes
1/0565	. . . . . {Electrode heads}	1/20	. . continuous direct currents
1/0568	. . . . . {with drug delivery}	1/205	. . . { <a href="#">for promoting a biological process</a> }
1/057	. . . . . {Anchoring means; Means for fixing the head inside the heart}	1/22	. . . Electromedical belts {, e.g. neck chains, armbands}
1/0573	. . . . . {characterised by means penetrating the heart tissue, e.g. helix needle or hook}	1/24	. . . . with built-in power source
1/0575	. . . . . {with drug delivery}	1/26	. . . Electromedical brushes; Electromedical massage devices { <a href="#">(massage devices in general A61H)</a> ; Combs}
2001/0578	. . . . . {having means for removal or extraction}	1/28	. . . Apparatus for applying thermoelectric currents
2001/058	. . . . . {Fixing tools}	1/30	. . . Apparatus for iontophoresis, {i.e. transfer of media in ionic state by an electromotoric force into the body}, or cataphoresis
2001/0582	. . . . . {Suture sleeves}	1/303	. . . . {Constructional details ( <a href="#">electrodes for external use A61N 1/0428</a> )}
2001/0585	. . . . . {Coronary sinus electrodes}	1/306	. . . . . {Arrangements where at least part of the apparatus is introduced into the body}
1/0587	. . . . . {Epicardial electrode systems; Endocardial electrodes piercing the pericardium}	1/32	. . alternating or intermittent currents { <a href="#">(applying electric fields by inductive or capacitive coupling A61N 1/40</a> ; <a href="#">microwave apparatus A61N 5/02</a> )}
1/059	. . . . . {Anchoring means}	1/321	. . . {Electromedical belts}
1/0592	. . . . . {Introducing the lead through the pericardium with a needle}	1/322	. . . {Electromedical brushes, combs, massage devices}
1/0595	. . . . . {Temporary leads}	1/323	. . . {Interference currents, i.e. treatment by several currents summed in the body}
1/0597	. . . . . {Surface area electrodes, e.g. cardiac harness}	1/325	. . . {for iontophoresis, i.e. transfer of media in ionic state by an electromotoric force into the body ( <a href="#">electrodes for external use A61N 1/0428</a> )}
1/06	. . . for high-frequency therapy	1/326	. . . {for promoting growth of cells, e.g. bone cells}

- 1/327 . . . {for enhancing the absorption properties of tissue, e.g. by electroporation}  
 1/328 . . . {for improving the appearance of the skin, e.g. facial toning or wrinkle treatment}  
 1/36 . . . 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.

- 1/36002 . . . {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

- 1/36003 . . . {of motor muscles, e.g. for walking assistance}  
 1/36007 . . . {of urogenital or gastrointestinal organs, e.g. for incontinence control}  
 1/3601 . . . {of respiratory organs}  
 1/36014 . . . {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.

- 1/36017 . . . {with leads or electrodes penetrating the skin}  
 1/36021 . . . {for treatment of pain}  
 1/36025 . . . {for treating a mental or cerebral condition}  
 1/36028 . . . {for aversion therapy}  
 1/3603 . . . {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.

- 1/36031 . . . {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.

- 1/36034 . . . {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.

- 1/36036 . . . {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.

- 1/36038 . . . {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.

- 1/36039 . . . {fitting procedures}  
 1/3604 . . . {for correcting spinal deformities, e.g. scoliosis}  
 1/36042 . . . {of grafted tissue, e.g. skeletal muscle}  
 1/36046 . . . {of the eye}  
 1/3605 . . . {Implantable neurostimulators for stimulating central or peripheral nerve system}  
 1/36053 . . . {adapted for vagal stimulation ([A61N 1/36114](#) takes precedence)}  
 1/36057 . . . {adapted for stimulating afferent nerves}

1/3606 . . . . . {adapted for a particular treatment}

**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.

1/36062 . . . . . {Spinal stimulation}

**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.

1/36064 . . . . . {Epilepsy}

1/36067 . . . . . {Movement disorders, e.g. tremor or Parkinson disease (stimulating motor muscle [A61N 1/36003](#))}

1/36071 . . . . . {Pain}

1/36075 . . . . . {Headache or migraine}

1/36078 . . . . . {Inducing or controlling sleep or relaxation (non-implantable stimulator [A61M 21/00](#))}

1/36082 . . . . . {Cognitive or psychiatric applications, e.g. dementia or Alzheimer's disease}

1/36085 . . . . . {Eating disorders or obesity}

1/36089 . . . . . {Addiction or withdrawal from substance abuse such as alcohol or drugs}

1/36092 . . . . . {Mental training}

1/36096 . . . . . {Mood disorders, e.g. depression, anxiety or panic disorder}

1/361 . . . . . {Phantom sensations, e.g. tinnitus}

1/36103 . . . . . {Neuro-rehabilitation; Repair or reorganisation of neural tissue, e.g. after stroke}

1/36107 . . . . . {Sexual dysfunction (stimulating genital organs [A61N 1/36007](#))}

1/3611 . . . . . {Respiration control (stimulating respiratory organs [A61N 1/3601](#))}

1/36114 . . . . . {Cardiac control, e.g. by vagal stimulation (stimulating the heart [A61N 1/362](#))}

1/36117 . . . . . {for treating hypertension}

1/36121 . . . . . {Production of neurotransmitters; Modulation of genes expression}

1/36125 . . . . . {Details of circuitry or electric components}

1/36128 . . . . . {Control systems}

1/36132 . . . . . {using patient feedback}

1/36135 . . . . . {using physiological parameters}

**WARNING**

Group [A61N 1/36135](#) is impacted by reclassification into group [A61N 1/3614](#).

Groups [A61N 1/36135](#) and [A61N 1/3614](#) should be considered in order to perform a complete search.

1/36139 . . . . . {with automatic adjustment}

1/3614 . . . . . {based on impedance measurement}

**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.

1/36142 . . . . . {for improving safety}

1/36146 . . . . . {specified by the stimulation parameters}

1/3615 . . . . . {Intensity}

1/36153 . . . . . {Voltage ([A61N 1/3616](#) takes precedence)}

**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.

1/36157 . . . . . {Current ([A61N 1/3616](#) takes precedence)}

**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.

1/3616 . . . . . {Voltage density or current density}

**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.

- 1/36164 . . . . . {Sub-threshold or non-excitatory signals ([non-excitatory signals to the heart A61N 1/3628](#))}
- 1/36167 . . . . . {Timing, e.g. stimulation onset}
- 1/36171 . . . . . {Frequency}
- 1/36175 . . . . . {Pulse width or duty cycle}
- 1/36178 . . . . . {Burst or pulse train parameters}
- 1/36182 . . . . . {Direction of the electrical field, e.g. with sleeve around stimulating electrode}
- 1/36185 . . . . . {Selection of the electrode configuration}
- 1/36189 . . . . . {using modulation techniques}
- 1/36192 . . . . . {Amplitude modulation}
- 1/36196 . . . . . {Frequency modulation}
- 1/362 . . . . . 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 co-operating 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 co-operating 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](#))}



1/3704 . . . . . {Circuits specially adapted therefor, e.g. for sensitivity control}

1/3706 . . . . . {Pacemaker parameters (stimulation threshold [A61N 1/371](#))}

1/3708 . . . . . {for power depletion}

1/371 . . . . . {Capture, i.e. successful stimulation}

1/3712 . . . . . {Auto-capture, i.e. automatic adjustment of the stimulation threshold}

1/3714 . . . . . {Atrial capture}

1/3716 . . . . . {with reduction of residual polarisation effects}

1/3718 . . . . . {Monitoring of or protection against external electromagnetic fields or currents}

1/372 . . . . . Arrangements in connection with the implantation of stimulators

1/37205 . . . . . {Microstimulators, e.g. implantable through a cannula}

1/37211 . . . . . {Means for communicating with stimulators}

1/37217 . . . . . {characterised by the communication link, e.g. acoustic or tactile}

1/37223 . . . . . {Circuits for electromagnetic coupling}

1/37229 . . . . . {Shape or location of the implanted or external antenna}

1/37235 . . . . . {Aspects of the external programmer}

1/37241 . . . . . {providing test stimulations}

1/37247 . . . . . {User interfaces, e.g. input or presentation means}

1/37252 . . . . . {Details of algorithms or data aspects of communication system, e.g. handshaking, transmitting specific data or segmenting data}

**WARNING**

Group [A61N 1/37252](#) is impacted by reclassification into group [A61N 1/37254](#).

Groups [A61N 1/37252](#) and [A61N 1/37254](#) should be considered in order to perform a complete search.

1/37254 . . . . . {Pacemaker or defibrillator security, e.g. to prevent or inhibit programming alterations by hackers or unauthorised individuals}

**WARNING**

Group [A61N 1/37254](#) is incomplete pending reclassification of documents from group [A61N 1/37252](#).

Groups [A61N 1/37254](#) and [A61N 1/37252](#) should be considered in order to perform a complete search.

1/37258 . . . . . {Alerting the patient}

1/37264 . . . . . {Changing the program; Upgrading firmware}

1/3727 . . . . . {characterised by the modulation technique}

1/37276 . . . . . {characterised by means for reducing power consumption during telemetry}

1/37282 . . . . . {characterised by communication with experts in remote locations using a network}

1/37288 . . . . . {Communication to several implantable medical devices within one patient}

2001/37294 . . . . . {Means for testing medical devices within the package prior to implantation}

1/375 . . . . . Constructional arrangements, e.g. casings

**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.

1/37512 . . . . . {Pacemakers}

**WARNING**

Group [A61N 1/37512](#) is incomplete pending reclassification of documents from group [A61N 1/375](#).

Groups [A61N 1/37512](#) and [A61N 1/375](#) should be considered in order to perform a complete search.

1/37514 . . . . . {Brain implants}

**WARNING**

Group [A61N 1/37514](#) is incomplete pending reclassification of documents from group [A61N 1/375](#).

Groups [A61N 1/37514](#) and [A61N 1/375](#) should be considered in order to perform a complete search.

1/37516 . . . . . {Intravascular implants}

**WARNING**

Group [A61N 1/37516](#) is incomplete pending reclassification of documents from group [A61N 1/375](#).

Groups [A61N 1/37516](#) and [A61N 1/375](#) should be considered in order to perform a complete search.

1/37518 . . . . . {Anchoring of the implants, e.g. fixation}

**WARNING**

Group [A61N 1/37518](#) is incomplete pending reclassification of documents from group [A61N 1/375](#).

Groups [A61N 1/37518](#) and [A61N 1/375](#) should be considered in order to perform a complete search.

1/3752 . . . . . {Details of casing-lead connections}

1/3754 . . . . . {Feedthroughs}

1/3756 . . . . . {Casings with electrodes thereon, e.g. leadless stimulators}

- 1/3758 . . . . . {Packaging of the components within the casing}
- 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}

- 1/3962 . . . . . {in combination with another heart therapy}

**WARNING**

Group [A61N 1/3962](#) is impacted by reclassification into groups [A61N 1/39622](#) and [A61N 1/39624](#).

Groups [A61N 1/3962](#), [A61N 1/39622](#) and [A61N 1/39624](#) should be considered in order to perform a complete search.

- 1/39622 . . . . . {Pacing therapy}

**WARNING**

Group [A61N 1/39622](#) is incomplete pending reclassification of documents from group [A61N 1/3962](#).  
Groups [A61N 1/39622](#) and [A61N 1/3962](#) should be considered in order to perform a complete search.

- 1/39624 . . . . . {Pain reduction therapy}

**WARNING**

Group [A61N 1/39624](#) is incomplete pending reclassification of documents from group [A61N 1/3962](#).  
Groups [A61N 1/39624](#) and [A61N 1/3962](#) should be considered in order to perform a complete search.

- 1/3968 . . . . . {Constructional arrangements, e.g. casings ([A61N 1/375](#) takes precedence)}
- 1/3975 . . . . . {Power supply ([A61N 1/378](#) takes precedence)}
- 1/3981 . . . . . {High voltage charging circuitry}
- 1/3987 . . . . . {characterised by the timing or triggering of the shock}
- 1/3993 . . . . . {User interfaces for automatic external defibrillators}
- 1/40 . . . . . Applying electric fields by inductive or capacitive coupling ([microwave apparatus A61N 5/00](#));  
{Applying radio-frequency signals}
- 1/403 . . . . . {for thermotherapy, e.g. hyperthermia}
- 1/406 . . . . . {using implantable thermoseeds or injected particles for localized hyperthermia (preparations of seeds and particles [A61K 41/0052](#))}
- 1/44 . . . . . Applying ionised fluids {(ion generators [H01J 37/00](#))}
- 1/445 . . . . . {Hydro-electric baths}

**2/00 Magnetotherapy**

- 2/002 . . . . . {in combination with another treatment}
- 2/004 . . . . . {specially adapted for a specific therapy}
- 2/006 . . . . . {for magnetic stimulation of nerve tissue}
- 2/008 . . . . . {for pain treatment or analgesia}
- 2/02 . . . . . using magnetic fields produced by coils, including single turn loops or electromagnets ([A61N 2/12](#) takes precedence)

- 2/06 . . . using magnetic fields produced by permanent magnets ([A61N 2/12 takes precedence](#))
- 2/12 . . . using variable magnetic fields obtained by mechanical movement
- 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](#))
- 5/02 . . . using microwaves
- 5/022 . . . {Apparatus adapted for a specific treatment}
- 5/025 . . . {Warming the body, e.g. hyperthermia treatment}
- 2005/027 . . . {using a phased array}
- 5/04 . . . Radiators for near-field treatment
- 5/045 . . . {specially adapted for treatment inside the body}
- 5/06 . . . using light
- 5/0601 . . . {Apparatus for use inside the body}
- 2005/0602 . . . {for treatment of blood vessels}
- 5/0603 . . . {for treatment of body cavities}
- 2005/0604 . . . {Lungs and/or airways}
- 2005/0605 . . . {Ear}
- 2005/0606 . . . {Mouth}
- 2005/0607 . . . {Nose}
- 2005/0608 . . . {Rectum}
- 2005/0609 . . . {Stomach and/or esophagus}
- 2005/061 . . . {Bladder and/or urethra}
- 2005/0611 . . . {Vagina}
- 2005/0612 . . . {using probes penetrating tissue; interstitial probes}
- 5/0613 . . . {Apparatus adapted for a specific treatment}
- 5/0614 . . . {Tanning}
- 2005/0615 . . . {using UV light sources having a specific spectrum}
- 5/0616 . . . {Skin treatment other than tanning}
- 5/0617 . . . {Hair treatment}
- 5/0618 . . . {Psychological treatment}
- 5/0619 . . . {Acupuncture}
- 5/062 . . . {Photodynamic therapy, i.e. excitation of an agent}
- 5/0621 . . . {Hyperbilirubinemia, jaundice treatment}
- 5/0622 . . . {Optical stimulation for exciting neural tissue}
- 5/0624 . . . {for eliminating microbes, germs, bacteria on or in the body}
- 5/0625 . . . {Warming the body, e.g. hyperthermia treatment}
- 2005/0626 . . . {Monitoring, verifying, controlling systems and methods}
- 2005/0627 . . . {Dose monitoring systems and methods}
- 2005/0628 . . . {including a radiation sensor}
- 2005/0629 . . . {Sequential activation of light sources}
- 2005/063 . . . {comprising light transmitting means, e.g. optical fibres}
- 2005/0631 . . . {using crystals}
- 2005/0632 . . . {Constructional aspects of the apparatus}
- 2005/0633 . . . {Arrangements for lifting or hinging the frame which supports the light sources}
- 2005/0634 . . . {Mechanisms that allow a space saving storage of the apparatus}
- 2005/0635 . . . {characterised by the body area to be irradiated}
- 2005/0636 . . . {Irradiating the whole body}
- 2005/0637 . . . {in a horizontal position}
- 2005/0638 . . . {with a specially adapted support surface}
- 2005/0639 . . . {with additional sources directed at, e.g. the face or the feet}
- 2005/064 . . . {in a vertical position}
- 2005/0641 . . . {with rotation of the patient}
- 2005/0642 . . . {Irradiating part of the body at a certain distance}
- 2005/0643 . . . {Applicators, probes irradiating specific body areas in close proximity}
- 2005/0644 . . . {Handheld applicators}
- 2005/0645 . . . {Applicators worn by the patient}
- 2005/0647 . . . {the applicator adapted to be worn on the head}
- 2005/0648 . . . {the light being directed to the eyes}
- 2005/0649 . . . {using suction to fix the applicator to the tissue}
- 2005/065 . . . {Light sources therefor}
- 2005/0651 . . . {Diodes}
- 2005/0652 . . . {Arrays of diodes}
- 2005/0653 . . . {Organic light emitting diodes}
- 2005/0654 . . . {Lamps}
- 2005/0655 . . . {Tubes}
- 2005/0656 . . . {Chemical light sources}
- 2005/0657 . . . {Natural light sources, e.g. captured sunlight}
- 2005/0658 . . . {characterised by the wavelength of light used}
- 2005/0659 . . . {infra-red}
- 2005/066 . . . {far infrared}
- 2005/0661 . . . {ultra-violet}
- 2005/0662 . . . {Visible light}
- 2005/0663 . . . {Coloured light}
- 2005/0664 . . . {Details}
- 2005/0665 . . . {Reflectors}
- 2005/0666 . . . {for redirecting light to the treatment area}
- 2005/0667 . . . {Filters}
- 2005/0668 . . . {Apparatus adapted for operation in a moist environment, e.g. bath or shower}
- 2005/067 . . . {using laser light}
- 2005/073 . . . {using polarised light}
- 5/10 . . . X-ray therapy; Gamma-ray therapy; Particle-irradiation therapy ([A61N 5/01 takes precedence](#))
- 5/1001 . . . {using radiation sources introduced into or applied onto the body; brachytherapy}
- 5/1002 . . . {Intraluminal radiation therapy}
- 2005/1003 . . . {having means for centering a radioactive source within the lumen, e.g. balloons}
- 2005/1004 . . . {having expandable radiation sources}
- 2005/1005 . . . {with asymmetrical radiation pattern}
- 5/1007 . . . {Arrangements or means for the introduction of sources into the body}
- 2005/1008 . . . {Apparatus for temporary insertion of sources, e.g. afterloaders}
- 2005/1009 . . . {Apparatus for loading seeds into magazines or needles}
- 2005/101 . . . {Magazines or cartridges for seeds}
- 2005/1011 . . . {Apparatus for permanent insertion of sources}
- 2005/1012 . . . {Templates or grids for guiding the introduction of sources}



5/1014	. . .	{Intracavitary radiation therapy}	2005/1061	. . . .	{using an x-ray imaging system having a separate imaging source}
5/1015	. . . .	{Treatment of resected cavities created by surgery, e.g. lumpectomy}	2005/1062	. . . . .	{using virtual X-ray images, e.g. digitally reconstructed radiographs [DRR]}
5/1016	. . . .	{Gynaecological radiation therapy}	2005/1063	. . . .	{maintaining the position when the patient is moved from an imaging to a therapy system}
5/1017	. . . .	{Treatment of the eye, e.g. for "macular degeneration"}	5/1064	. . .	{for adjusting radiation treatment in response to monitoring}
2005/1018	. . . .	{with multiple channels for guiding radioactive sources}	5/1065	. . . .	{Beam adjustment}
2005/1019	. . .	{Sources therefor}	5/1067	. . . . .	{in real time, i.e. during treatment}
2005/1021	. . . .	{Radioactive fluid}	5/1068	. . . .	{Gating the beam as a function of a physiological signal}
2005/1022	. . . .	{Generators, e.g. X-ray tubes}	5/1069	. . . .	{Target adjustment, e.g. moving the patient support}
2005/1023	. . . .	{Means for creating a row of seeds, e.g. spacers}	5/107	. . . . .	{in real time, i.e. during treatment}
2005/1024	. . . .	{Seeds}	5/1071	. . .	{for verifying the dose delivered by the treatment plan}
2005/1025	. . . .	{Wires}	2005/1072	. . . .	{taking into account movement of the target}
5/1027	. . .	{Interstitial radiation therapy}	2005/1074	. . .	{Details of the control system, e.g. user interfaces}
5/1028	. . .	{using radiation sources applied onto the body}	5/1075	. . .	{for testing, calibrating, or quality assurance of the radiation treatment apparatus}
5/1029	. . . .	{Radioactive dressings}	2005/1076	. . . .	{using a dummy object placed in the radiation field, e.g. phantom}
5/103	. .	{Treatment planning systems}	5/1077	. .	{Beam delivery systems}
5/1031	. . .	{using a specific method of dose optimization}	5/1078	. . .	{Fixed beam systems}
2005/1032	. . . .	{Genetic optimization methods}	5/1079	. . .	{Sharing a beam by multiple treatment stations}
2005/1034	. . . .	{Monte Carlo type methods; particle tracking}	5/1081	. . .	{Rotating beam systems with a specific mechanical construction, e.g. gantries}
2005/1035	. . . .	{Simulated annealing}	5/1082	. . . .	{having multiple beam rotation axes}
5/1036	. . .	{Leaf sequencing algorithms}	5/1083	. . .	{Robot arm beam systems}
5/1037	. . .	{taking into account the movement of the target, e.g. 4D-image based planning}	5/1084	. . .	{for delivering multiple intersecting beams at the same time, e.g. gamma knives}
5/1038	. . .	{taking into account previously administered plans applied to the same patient, i.e. adaptive radiotherapy}	2005/1085	. .	{characterised by the type of particles applied to the patient}
5/1039	. . .	{using functional images, e.g. PET or MRI}	2005/1087	. . .	{Ions; Protons}
2005/1041	. . .	{using a library of previously administered radiation treatment applied to other patients}	2005/1088	. . . .	{generated by laser radiation}
5/1042	. .	{with spatial modulation of the radiation beam within the treatment head}	2005/1089	. . .	{Electrons}
5/1043	. . .	{Scanning the radiation beam, e.g. spot scanning or raster scanning}	2005/109	. . .	{Neutrons}
5/1044	. . . .	{with multiple repetitions of the scanning pattern}	2005/1091	. . .	{Kilovoltage or orthovoltage range photons}
5/1045	. . .	{using a multi-leaf collimator, e.g. for intensity modulated radiation therapy or IMRT}	2005/1092	. .	{Details}
5/1047	. . . .	{with movement of the radiation head during application of radiation, e.g. for intensity modulated arc therapy or IMAT}	2005/1094	. . .	{Shielding, protecting against radiation}
5/1048	. .	{Monitoring, verifying, controlling systems and methods}	2005/1095	. . .	{Elements inserted into the radiation path within the system, e.g. filters or wedges}
5/1049	. . .	{for verifying the position of the patient with respect to the radiation beam}	2005/1096	. . .	{Elements inserted into the radiation path placed on the patient, e.g. bags, bolus, compensators}
2005/105	. . . .	{using a laser alignment system}	2005/1097	. . .	{Means for immobilizing the patient}
2005/1051	. . . .	{using an active marker (markers in general <a href="#">A61B 90/39</a> )}	2005/1098	. . .	{Enhancing the effect of the particle by an injected agent or implanted device}
2005/1052	. . . .	{using positron emission tomography [PET] single photon emission computer tomography [SPECT] imaging}	<b>7/00</b>		<b>Ultrasound therapy (lithotripsy <a href="#">A61B 17/22</a>, <a href="#">A61B 17/225</a>; massage using supersonic vibration <a href="#">A61H 23/00</a> ; using ultrasound for introducing media into the body <a href="#">A61M 37/0092</a>)</b>
2005/1054	. . . .	{using a portal imaging system}	2007/0004	. .	{Applications of ultrasound therapy}
2005/1055	. . . .	{using magnetic resonance imaging [MRI]}	2007/0008	. .	{Destruction of fat cells}
2005/1056	. . . .	{by projecting a visible image of the treatment field}	2007/0013	. .	{Fracture healing}
2005/1057	. . . .	{monitoring flexing of the patient support or the radiation treatment apparatus}	2007/0017	. .	{Wound healing}
2005/1058	. . . .	{using ultrasound imaging}	2007/0021	. .	{Neural system treatment}
2005/1059	. . . .	{using cameras imaging the patient}	2007/0026	. . .	{Stimulation of nerve tissue}
			2007/003	. . .	{Destruction of nerve tissue}

- 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}