

## KRFULL (Korean Patents Full-Text)

<b>File Subject Coverage</b>	All patent-relevant areas of science and technology, i.e., all classes of the International Patent Classification		
<b>File Type</b>	Full-text		
<b>Features</b>	Thesauri	International Patent Classification (/IPC), Cooperative Patent Classification (/CPC)	
	<a href="#">Alerts (SDIs)</a>	Weekly or monthly (weekly is the default)	
	CAS Registry Number® Identifiers	<input type="checkbox"/>	Page Images <input type="checkbox"/> STN® AnaVist™ <input type="checkbox"/>
	<a href="#">Keep &amp; Share</a>	<input checked="" type="checkbox"/>	<a href="#">SLART</a> <input checked="" type="checkbox"/> STN Easy® <input type="checkbox"/>
	Learning Database	<input type="checkbox"/>	Structures <input type="checkbox"/>
<b>Record Content</b>	<ul style="list-style-type: none"> <li>• Full-text of patent applications, granted patents, and utilities models published by the Korean Intellectual Property Office in the Republic of Korea from 1978 onwards.</li> <li>• Records are available about six days after publication date with the complete content</li> <li>• Records contain bibliographic data including patent applicant and inventor, patent, application, priority, and related application data, IPC and CPC classification codes, abstract, and full-text of description and claims.</li> <li>• Abstracts, detailed descriptions and claims are machine translated to English, the titles human translated.</li> <li>• Title, abstract, detailed description, and claims as well as patent assignees, inventors and agents are displayable in Korean characters.</li> <li>• Standardized and normalized patent assignee names are searchable in their own fields /PAS and /PAN.</li> <li>• Numeric values of 59 physical and chemical properties are searchable in about 20,000 variants of the base and additional units within all full text fields in English.</li> <li>• Key terms, indexed and displayed in the field /KT, enhance retrieval of relevant results, and make the evaluation of results more efficient. They are useful to broaden search scope more precisely than Basic Index searches.</li> <li>• Database records comprise all documents published for one application.</li> <li>• Legal status data, patent and non-patent citations, and family display formats from the INPADOCDB database are available.</li> <li>• Some of the full-text has been created by Optical Character Recognition (OCR) software. Therefore, a small number of characters may have been misinterpreted, or portions of the text may have been incompletely recognized.</li> </ul>		
<b>File Size</b>	<ul style="list-style-type: none"> <li>• More than 4.47 million family records with more than 6.23 million publications (12/2019)</li> <li>• More than 3.77 million front page images from 1978 to present (12/2019)</li> </ul>		
<b>Coverage</b>	1978 - present		
<b>Updates</b>	Weekly		
<b>Language</b>	English, Korean		

**Database  
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**Database  
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Fax: +49-7247-808-259  
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**Sources**

Patent applications, granted patents, and utilities models published by the

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**User Aids**

- Online Helps (HELP DIRECTORY lists all help messages available)
  - STNGUIDE
- 

**Clusters**

- AEROTECH
  - ALLBIB
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  - CORPSOURCE
  - ENGINEERING
  - FULLTEXT
  - HPATENTS
  - NPS
  - PATENTS
  - PNTTEXT
- [STN Database Clusters](#) information (PDF)
- 

**Pricing**

Enter HELP COST at an arrow prompt.

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## Search and Display Field Codes

If multiple search terms are linked with and AND-operator, all terms are searched in the complete database record, i.e. in all publications referring to one application. For a search in a specific publication of the record, connect the search term and the patent kind code with the (L)-proximity operator, e.g. S BOREHOLE/AB, TI, CLM (L) KRA/PK limits the search to Japanese applications KRA.

Fields that allow left truncation are indicated by an asterisk (\*).

### General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from title (TIEN), abstract (AB), detailed description (DETD), claims (CLM), main claims (MCLM) fields), and keyterms (KT)	None or /BI	S TRANSISTOR AND ELECTRODE S ACOUSTIC SENSOR S ?TRANSFER?	TIEN, AB, ABEN, DETD, DETDEN, CLM, CLMEN, MCLM, MCLMEN, KT AB
Abstract*	/AB, /ABEN	S BOREHOLE/AB	AN AI
Accession Number	/AN	S 599999/AN	AI
Application Country (WIPO code and text)	/AC	S KR/AC	AI
Application Date (1)	/AD	S AD=JAN 2011	
Application Number (2)	/AP (or /APPS)	S KR2012-100038/AP	AI
Application Number, Original	/APO	S KR2019760001984/APO	AI
Application Year (1)	/AY	S AY>=2005	CLM
Claims*	/CLM	S DERIVATION/CLM	
Claims (English)	/CLMEN	S DERIVATION/CLMEN	
Cooperative Patent Classification (3)	/CPC	S C12N0009/CPC	CPC CPC.TAB
Cooperative Patent Classification, Action Date	/CPC.ACD	S 20121113/CPC.ACD	
Cooperative Patent Classification, Keyword	/CPC.KW	S C12N0009/CPC (S) I/CPC.KW	CPC.TAB
Cooperative Patent Classification, Version	/CPC.VER	S 20130101/CPC.VER	CPC.TAB
Data Entry Date (1)	/DED	S 20190930-20191031/DED	DED
Data Update Date (1)	/DUPD	S 20190827/DUPD	DUPD
Document Type (code and text)	/DT (or /TC)	S PATENT/DT	DT
Entry Date (1)	/ED	S ED=DEC 2013	ED
Entry Date of Fulltext (1)	/EDTX	S EDTX>20191130	EDTX
Field Availability	/FA	S AB/FA	FA
Graphic Image Type	/GI	S PNG/GIT	GI
International Patent Classification (ICM, ICS, IPCI, IPCR) (3)	/IPC	S A01B0001-16/IPC	ICM, ICS, IPCI, IPCR
International Patent Classification (ICM, ICS)	/IC	S A47J051-06/IC	IC, ICM, ICS
Inventor	/IN (or /AU)	PARK A REUM/IN	IN
Inventor, Country (WIPO code and text)	/IN.CNY	S KR/IN.CNY	IN, IN.CNY
Inventor, Total	/IN.T	S MILLER ALFRED/IN.T	IN
IPC, Initial	/IPCI	S B21B0001/IPCI	IPCI, IPC
IPC, Keyword Terms	/IPC.KW	S INITIAL/IPC.KW	IPC.TAB
IPC, Main	/ICM (or IPCM)	S B29B001-06/ICM	ICM, IC
IPC, Reclassified	/IPCR	S B21D0007-08/IPCR	IPCR, IPC
IPC, Reform	/IPC.REF	S A01B0001-16/IPC.REF	IPC.TAB
IPC, Secondary	/ICS (or IPCS)	S B29H003-00/ICS	ICS, IC

## General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
IPC, Version	/IPC.VER (or IC.VER)	S 7/IPC.VER	IPC.TAB
Key Terms	/KT	S (LASER(3A)SOURCE?)/KT	KT
Language (code and text)	/LA	S KO/LA	LA
Language, Filing (code and text)	/LAF	S KO/LAF	LAF
Main Claim*	/MCLM	S LASER/MCLM	MCLM
Number of Claims (1)	/CLMN	S 5-10/CLMN	CLMN
Number of Paragraphs in DETD (Detailed Description) (1)	/DETN	S 20-30/DETN	DETN
Patent Assignee(4)	/PA (or /CS)	S SAMSUNG/PA	PA
Patent Assignee, Country	/PA.CNY	S KR/PA.CNY	PA, PA.CNY
Patent Assignee, Total	/PA.T	SAMSUNG AEROSPACE IND. CO., LTD./PA	PA
Patent Applicant Normalized	/PAN	S SAMSUNG/PAN	PAN
Patent Applicant Standardized	/PAS	S SAMSUNG AEROSPACE INDUSTRIES/PAS	PAS
Patent Country (WIPO code and text)	/PC	S KR/PC	PI
Patent Information Publication Type	/PIT	S KRA OFFICIAL GAZETTE OF THE UNEXAMINED PATENTS/PIT	PIT
Patent Kind Code	/PK	S KRA1/PK	PI
Patent Number (2)	/PN (or /PATS)	S KR210004U/PN	PI
Patent Number, Original	/PNO	S KR300381757/PNO	PNO
Patent Number/Kind Code	/PNK	S KR210005 Y1/PNK	PI
Physical Properties	/PHP	S PHV/PHP (S) BUFFER/BI	KWIC
Priority Country	/PRC	S KR/PRC	PRN
(WIPO code and text)		S KOREA, REPUBLIC OF/PRC	
Priority Date (1)	/PRD	S PRD=MAY, 20 2003 S 20030520/PRD	PRN
Priority Date, First (1)	/PRDF	S 20010704/PRDF	PRN
Priority Number (2)	/PRN	SAT1982-2545/PRN	PRN
Priority Number, Original	/PRNO	S AT0100016/PRNO	PRNO, PRAO
Priority Year (1)	/PRY	S 1999/PRY	PRN
Priority Year, First (1)	/PRYF	S 1999/PRYF	PRN
Publication Date (1)	/PD	S 19990108/PRD	PI
Publication Year (1)	/PY	S 2017/PY	PI
Related Patent Country	/RLC	S WO/RLC	RLI
Related Application Number	/RLN	S WO1982-JP96/RLN	RLI
Related Application Date (1)	/RLD	S 20120109/RLD	RLI
Related Application Type	/RLT	S PCT APPLICATION/RLT	RLI
Related Application Year (1)	/RLY	S 2017/RLY	RLI
Related Patent Number	/RLPN	S WO2000000071/RLPN	RLI
Title (English)*	/TI, /TIEN	S LASER/TI	TI, TIEN
Update Date (1)	/UP	S 20191113/UP	UP
Update Date Text (1)	/UPTX	S 20191030/UPTX	UPTX

(1) Numeric search field that may be searched using numeric operators or ranges.

(2) By default, patent numbers, application and priority numbers are displayed in STN Format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset display to STN Format, enter SET PATENT STN.

(3) An online thesaurus is available in this field.

(4) Search with implied (S) proximity is available in this field.

## Super Search Fields

Enter a super search code to execute a search in one or more fields that may contain the desired information. Super search fields facilitate crossfile and multifile searching. EXPAND may not be used with super search fields. Use EXPAND with the individual field codes instead.

Search Field Name	Search Code	Fields Searched	Search Examples	Display Codes
Application Number Group	/APPS	AP, PRN	S KR2012-100038/APPS	AI, PRAI, APPS
Patent Assignee Group	/PASS	PA, PA.T, PAS, PAN	S SAMSUNG/PASS	PA, PAS, PAN, PASS
Patent Number Group	/PATS	PN, RLPN	S KR 1399575/PATS	PN, RLPN, PATS

## Property Fields<sub>1)</sub>

In KRFULL a numeric search for a specific set of physical properties (/PHP) is available within the full-text fields (TI, AB, DETD, CLM, BI). The numeric values are not displayed as single fields, but highlighted within the hit displays.

Use EXPAND/PHP to search for all available physical properties. A search with the respective field codes will be carried out in all database fields with English text. The /PHP index contains a complete list of codes and related text for all physical properties available for numeric search.

Field Code	Property	Unit	Symbol	Search Examples
/AOS	Amount of substance	Mol	mol	S 10 /AOS
/BIR	Bit Rate	Bit/Second	bit/s	S 8000-10000/BIR
/BIT	Stored Information	Bit	Bit	S BIT > 3 MEGABIT
/CAP	Capacitance	Farad	F	S 1-10 MF/CAP
/CDN	Current Density	Ampere/Square Meter	A/m <sup>2</sup>	S CDN>10 A/M**2
/CMOL	Molarity, Molar Concentration	Mol/Liter	mol/L	S UREA/BI (S) 8/CMOL
/CON	Conductance	Siemens	S	S 1S-3/CON
/DB	Decibel	Decibel	dB	S DB>50
/DEG	Degree	Degree	°	S CYLINDER/BI (S) 45/DEG
/DEN (/C)	Density (Mass Concentration)	Kilogram/Cubic Meter	kg/m <sup>3</sup>	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOS (/LD50)	Dosage	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal * Second	Pa * s	S DV>5000
/ECD	Electric Charge Density	Coulomb/Square Meter	C/m <sup>2</sup>	S ECD>10
/ECH (/CHA)	Electric Charge	Coulomb	C	S 0.0001-0.001/ECH
/ECO (/ECND)	Electrical Conductivity	Siemens/Meter	S/m	S ECO>800 S/M (15A) AQUEOUS
/ELC (/ECC)	Electric Current	Ampere	A	S 1-10/ELC
/ELF (/ECF)	Electric Field	Volt/Meter	V/m	S 200/ELF

Property Fields<sub>1</sub> (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/ENE	Energy	Joule	J	S DROPLETS (10A) 40 JOULE - 70 JOULE /ENE S ERE>0.1
/ERE (/ERES)	Electrical Resistivity	Ohm * Meter	Ohm * m	
/FOR	Force	Newton	N	S 50 N /FOR
/FRE (/F)	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE
/IU	International Unit	none	IU	S IU>1000 (P) VITAMIN A
/KV	Viscosity, kinematic	Square Meter/Second	m <sup>2</sup> /s	S METHYLPOLYSILOXANES/BI (10A) 200-300 CST /KV S 1-4/LEN
/LEN (/SIZ)	Length, Size	Meter	m	
/LUME	Luminous Emittance, Illuminance	Lux	lx	S 10-50/LUME
/LUMF	Luminous Flux	Lumen	Lm	S LUMF>1000
/LUMI	Luminous Intensity	Candela	cd	S LUMI<4
/M	Mass	Kilogram	kg	S ALLOY/BI (30A) 1E-10-1E-5/M
/MCH	Mass to Charge Ratio	none	m/z	S MCH=1
/MFD (/MFS)	Magnetic Flux	Tesla	T	S MFD>102
/MFR (/MFL)	Density	Kilogram/Second	kg/s	S MFR<0.1
/MM (/MW, /MOM)	Mass Flow Rate	Kilogram/Second	kg/s	
/MOLS	Molar Mass	Gram/Mol	g/mol	S 2000-3000 G/MOL/MM
/MOLS	Molality of Substance	Mol/Kilogram	mol/kg	S 01.-10 MOL/KG/MOLS
/MVR	Melt Volume Rate, Melt Flow Rate	none	g/10 min	S 3/MVR
/NUC (/NUTC)	Nutrition Content	none	g/100 kcal	S NUC/PHP
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/PERA	Permittivity, Absolute	Farad/Meter	F/m	S 1-10/PERA
/PERR	Permittivity, Relative	none		S 1500-2000/PERR
/PHV (/PH)	pH Value	pH	pH	S 7.4-7.6/PHV
/POW (/PW)	Power	Watt	W	S "HG-XE-?"/BI (S) 100-200 WATT/POW
/PPM	Parts per million	Ppm	ppm	S 100 PPM /PPM (10A) ADDITIVE/BI
/PRES (/P)	Pressure	Pascal	Pa	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD	Radioactivity	Becquerel	Bq	S RAD/PHP
/RES	Electrical Resistance	Ohm	Ohm	S SENSOR /BI (S) 10- 100/RES
/RI	Refractive Index	none		S 3-4/RI
/RSP	Rotational Speed	Revolution/Minute	rpm	S 2 RPM - 100 RPM /RSP (S) ENGINE/BI
/SAR	Area /Surface Area	Square Meter	m <sup>2</sup>	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB)	Solubility	Gram/100 gram	g/100 g	S SOL>20 G/100G (5A) WATER
/STSC (/ST)	Surface Tension	Joule /Square Meter	J/m <sup>2</sup>	S 60 J/M**2/STSC
/TCO (/TCND)	Thermal Conductivity	Watt/Meter * Kelvin	W/m * K	S 1/TCO (S) HEAT?
/TEMP (/T)	Temperature	Kelvin	K	S 20-25/TEMP
/TIM	Time	Second	s	S ?INCUB?/BI (10A) 50 S - 150 S /TIM

## Property Fields<sub>1</sub> (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/VEL (/V) /VELA /VLR	Velocity Velocity, angular Volumetric Flow Rate	Meter per Second Radian/Second Cubic Meter/Second	m/s rad/s m <sup>3</sup> /s	S REDUC?/BI (S) 1E-3-5E-3/VEL S VELA>10 S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL /VOLT	Volume Voltage	Cubic Meter Volt	m <sup>3</sup> V	S 1E-8-2E-8/VOL.EX S TENSION/BI (10A) 5E-3 V <VOLT<7E-3 V S WAC/PHP
/WAC	Water Activity	none		

(1) Exponential format is recommended for the search of particularly high or low values, e.g. 1.8E+7 or 1.8E7 (for 18000000) or 9.2E-8 (for 0.000000092).

## International Patent Classification (/IPC) Thesaurus

The classifications, validity and catchwords for the main headings and subheadings from the current (8th) edition of the WIPO International Patent Classification (IPC) manual are available. The classifications from the previous editions (1-7) are also available as separate thesauri. To EXPAND and SEARCH in the thesauri for editions 1–7, use the field code followed by the edition number, e.g., /IPC2, for the 2nd edition. Catchwords are included only in the thesauri for the 8th, 7th, 6th, and 5th editions.

Code	Content	Examples
ADVANCED (ADV)	Advanced Codes for the Core Level IPC Code	E A61K0006-06+ADVANCED/IPC
ALL	All Associated Terms (BT, SELF, NT, RT)	E C01C003-00+ALL/IPC
BRO (MAN)	Complete Class	E C01C+BRO/IPC
BT	Broader Term (BT, SELF)	E C01F001-00+BT/IPC
CORE (COR)	Core Codes for the Advanced Level IPC Code	E G08C0019-22+CORE/IPC
ED	Complete title of the SELF term and IPC manual edition	E C01F001-00+ED/IPC
HIE	Hierarchy Term (Broader and Narrower Term) (BT, SELF, NT)	E C01B003-00+HIE/IPC
INDEX	Complete title of the SELF term	E C01F001-00+INDEX/IPC
KT	Keyword Term (catchwords) (SELF, KT)	E CYANOGEN+KT/IPC
NEXT	Next Classification	E C01C001-00+NEXT5/IPC
NT	Narrower Terms (SELF, NT)	E C01C+NT/IPC
PREV	Previous Classification	E C01C001-12+PREV10/IPC
RT (SIB)	Related Terms (SELF, RT)	E C01C003-20+RT/IPC
TI	Complete Title of the SELF Term and Broader Terms (BT, SELF)	E C01F001-00+TI/IPC

## CPC Thesaurus

This thesaurus is available in the /CPC search field. All relationship codes can be used with both the EXPAND and SEARCH commands.

Relationship Code	Content	Search Examples
ALL	All usually required terms (BT, SELF, CODE, DEF)	E C12M0001-005+ALL/CPC
AUTO (1)	Automatic relationship (BT, SELF, CODE, DEF)	E G01J003-443+AUTO/CPC
BT	Broader terms (BT, SELF)	E G01J0003-443+BT/CPC
CODE	Classification Code (SELF, CODE)	E CARTRIDGES+CODE/CPC
DEF	Definition (SELF, DEF)	E B65G0045-16+DEF/CPC
HIE	Hierarchy terms (all broader and narrower terms) (BT, SELF, DEF, NT)	E A01B0001+HIE/CPC
KT	Keyword terms (SELF, KT)	E LASER+KT/CPC
MAX	All associated terms	E G01J0003-44+MAX/CPC
NEXT	Next classification within the same class (SELF, NEXT)	E A01B0001-24+NEXT/CPC
NEXT(n)	Next n classification within the same class	E A01B0001-24+NEXT3/CPC
NT	Narrower terms	E G05B0001-04+NT/CPC
PREV	Previous Code within the same class (SELF, PREV)	E G05B0019-00+PREV/CPC
PREV(n)	Previous n classifications within the same class	E G05B0019-00+PREV2/CPC
TI	Complete Title of SELF Term and Broader Terms (BT, SELF)	E G05B0001-03+TI/CPC

(1) Automatic Relationship is SET OFF. In case of SET REL ON, the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

## DISPLAY and PRINT Formats

Any combination of formats may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI PA. The fields are displayed or printed in the order requested.

The information of the latest publication is displayed by default. To display the content for all levels of the record you can combine all display fields and formats with the qualifier .M except FA, FAM, CFAM, LS, LS2, RE, SCAN, and TRIAL.

For displaying a particular publication of a database record, you can simply add for certain display field the kind code to the appropriate display format, e.g. ALL.A. Fields that allow this are indicated by a number (3).

Hit-term highlighting is available for all fields. Highlighting must be ON during SEARCH to use the HIT, KWIC, and OCC formats.

The default display format is STD.M, i.e., all publication levels of one family in the STD format.

Format	Content	Examples
AB (ABS)	Abstract	D TI AB 1-5
ABEN	Abstract (English)	D ABEN
ABKO	Abstract (Korean)	D ABKO
AGKO (2)	Agent (Korean characters)	D AGKO
AI (AP) (1)	Application Information	D AI
AN	Accession Number	D L3 AN
CLM (3)	Claims	D CLM
CLMEN	Claims (English)	D CLMEN
CLMKO	Claims (Korean)	D CLMKO
CLMN (2)	Number of Claims	D CLMN
CPC	Cooperative Patent Classification	D CPC
CPC.TAB	CPC, Tabular	D CPC.TAB
DETDEN (3)	Detailed Description	D DETD
DETDKO	Detailed Description (Korean)	D DETDKO
DETN (2)	Number of Paragraphs in DETD	D DETN



**DISPLAY and PRINT Formats (cont'd)**

Format	Content	Examples
DT (TC)	Document Type	D DT
ED	Entry Date	D ED
EDTX	Entry Date of Fulltext	D EDTX
FA	Field Availability (for all publication levels)	D FA
GI	Graphic Image	D GI
GIS (2)	Graphic Image, Size	D GIS
GIT (2)	Graphic Image, Type	D GIT
IC	IPC (format contains ICM, ICS)	D IC
ICM	IPC, Main	D IC
ICS	IPC, Secondary	D ICS
IN (AU)	Inventor (in English)	D IN
IN.CNY	Inventor, Country	D IN.CNY
INKO	Inventor (in Korean)	D INKO
IPCI	IPC, Initial	D IPCI
IPCR	IPC, Reclassified	D IPCR
LA	Language	D LA
LAF	Language of Filing	D LAF
MCLM	Main Claim	D MCLM
MCLMEN	Main Claim (in Korean)	D MCLMEN
MCLMKO	Main Claim (in Korean)	D MCLMKO
PA (CS)	Patent Applicant/Patentee (in English)	D PA
PA.CNY	Patent Applicant, Country	D PA.CNY
PAKO	Patent Applicant/Patentee (in Korean)	D PAKO
PAN	Patent Applicant Normalized	D PAN
PAS	Patent Applicant Standardized	D PAS
PI (PN, PATS) (1)	Patent Information	D PI
PIT	Patent Information Publication Type	D PIT
PNO	Patent Number, Original Format	D PNO
PRN (PRAI) (1,5)	Priority Information	D PRN
PRNO (PRAO) (2)	Priority Number, Original Format	D PRNO
RLI (RLN)	Related Patent Information	D RLI
TIEN (TI)	Title (in English)	D TIEN
TIKO	Title (in Korean)	D TIKO
UP	Update Date	D UP
UPTX	Update Date Text	D UPTX

**DISPLAY and PRINT Formats (cont'd)**

Format	Content	Examples
ALL (1)	AN, ED, UP, EDTX, UPTX, DED, DUPD, TIEN, TIKO, IN, PA, PAS, PAN, LAF, LA, DT, PIT, PI, AI or APO (only if no AI), RLI, PRAI or PRAO (only if no PRAI), ICM, ICS, IPCI, IPCR, CPC, ABEN, DETDEN, CLMEN, KT	D ALL
IALL (1)	ALL, indented with text labels	D IALL
DALL (1)	ALL, delimited for post processing	D DALL
APPS (1)	AI, RLN, PRAI	D APPS
BIB (1)	AN, ED, EDTX, UP, UPTX, DED, DUPD, TIEN, TIKO, IN, PA, PAS, PAN, LAF, LA, DT, PIT, PI, AI, RLI, PRAI	D BIB
IBIB (1)	BIB, indented with text labels	D IBIB
BIBO	AN, ED, EDTX, UP, UPTX, TIEN, TIKO, IN, INKO, PA, PAS, PAN, PAKO, AGKO, LAF, LA, DT, PIT, PI, AI, RLI, PRAI	D BIBO
BRIEF (1)	AN, ED, EDTX, UP, UPTX, DED, DUPD, TIEN, TIKO, IN, PA, PAS, PAN, LAF, LA, DT, PIT, PI, AI, RLI, PRAI, ICM, ICS, IPCI, IPCR, CPC, ABEN, MCLMEN, KT	D BRIEF
IBRIEF (1)	BRIEF, indented with text labels	D IBRIEF
BRIEFO	AN, ED, EDTX, UP, UPTX, TIEN, TIKO, IN, INKO, PA, PAS, PAN, PAKO, AGKO, LAF, LA, DT, PIT, PI, AI, RLI, PRAI, ICM, ICS, IPCI, IPCR, CPC, ABEN, ABKO, MCLMEN, MCLMKO, KT	D BRIEFO
FAM (1)	AN, table of patent family information (from INPADOCDB)	D FAM
CFAM (1)	AN, Condensed family format (from INPADOCDB)	D CFAM
IND	ED, IPC (ICM, ICS, IPCI, IPCR), CPC	D IND
IPC	International Patent Classification (ICM, ICS, IPCI, IPCR)	D IPC
IPC.TAB	IPC, IPC.KW, IPC.VER, in tabular version	D IPC.TAB
CPC.TAB	CPC, in tabular version	D CPC.TAB
LS	Legal Status (from INPADOCDB)	D LS
LS2	Legal Status (from NPADOCDB), detailed version with display headers	D LS2
MAX (ALL.M) (1)	AN, ED, EDTX, UP, UPTX, DED, DUPD, TIEN, TIKO, IN, PA, PAS, PAN, LAF, LA, DT, PIT, PI, AI, RLI, PRAI, ICM, ICS, IPCI, IPCR, CPC, ABEN, DETDEN, CLMEN, KT, FA for all levels of publication	D MAX
IMAX (IALL.M) (1)	MAX, indented with text labels	D IMAX
MAXO	AN, ED, EDTX, UP, UPTX, TIEN, TIKO, IN, IN.CNY, INKO, PA, PA.CNY, PAS, PAN, PAKO, AGKO, LAF, LA, DT, PIT, PI, AI, RLI, PRAI, ICM, ICS, IPCI, IPCR, CPC, ABEN, ABKO, DETDEN, DETDKO, CLMEN, CLMKO, KT, FA for all levels of publication	D MAXO
RE	Citations (from INPADOCDB)	D RE
SCAN (4)	TI (random display without answer numbers)	D SCAN
STD (1)	AN, ED, EDTX, UP, UPTX, DED, DUPD, TIEN, TIKO, IN, PA, PAS, PAN, LAF, LA, DT, PIT, PI, AI, RLI, PRAI, ICM, ICS, IPCI, IPCR, CPC (STD.M is default)	D STD
ISTD (1)	STD, indented with text labels	D ISTD
TRIAL (TRI, SAM, SAMPLE, FREE)	ED, EDTX, UP, UPTX, TIEN, FA, DETN, CLMN	D TRIAL
TX	DETDEN, CLMEN	D TX
TXO	DETDKO, CLMKO	D TXO
HIT	Hit term(s) and field(s)	D HIT
KWIC	Up to 50 words before and after hit term(s) (KeyWord-In-Context)	D KWIC
OCC	Number of occurrences of hit term(s) and field(s) in which they occur	D OCC

(1) By default, patent numbers, application and priority numbers are displayed in STN Format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset display to STN Format, enter SET PATENT STN.

(2) Custom display only.

(3) You can combine this display field with the qualifier .PK (Patent Kind Code) to display the content for a certain publication level of a record, e.g. CLM.B2.

(4) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

(5) If priority information is not available for a certain document, this information is taken from the application information of this document and marked with an asterisk (\*).

## SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

You can combine all fields except FA with the qualifier .M to SELECT/ANALYZE the content of all publication levels.

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y	Y
Accession Number	AN	Y	Y
Application Country	AC	Y	Y
Application Date	AD	Y	Y
Application Information	AI (AP, APPS)	Y (2)	Y
Application Year	AY	Y	Y
Claims	CLM	Y	N
CPC Classification	CPC	Y	Y
Detailed Description	DETD	Y (3)	N
Document Type	DT	Y	Y
Entry Date	ED	Y	Y
Entry Date Full-Text	EDTX	Y	Y
Field Availability	FA	Y	N
International Patent Classification	IC	Y	N
Inventor	IN (AU)	Y	Y
Inventor, Country	IN.CNY	Y	
IPC (ICM, ICS, IPCI, IPCR)	IPC	Y	Y
IPC, Advanced Level Symbols	IPC.A	Y (4)	N
IPC, Advanced Level Symbols for Invention	IPC.AI	Y (4)	N
IPC, Initial	IPCI	Y	Y
IPC, Main	ICM	Y	Y
IPC, Reclassified	IPCR	Y	Y
IPC, Reform	IPC.REF	Y	N
IPC, Secondary	ICS	Y	Y
Key Terms	KT	Y	N
Language	LA	Y	Y
Language of Filing	LAF	Y	Y
Main Claim	MCLM	Y	N
Number of Claims	CLMN	Y	Y
Number of Paragraphs in DETD	DETN	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
Patent Assignee/Patentee	PA (CS)	Y	Y
Patent Assignee, Country	PA.CNY	Y	Y
Patent Applicant Normalized	PAN	Y	Y
Patent Applicant Standardized	PAS	Y	Y
Patent Country	PC	Y	Y
Patent Information Publication Type	PIT	Y	Y
Patent Kind Code	PK	Y	Y
Patent Number	PI (PN, PATS)	Y (default)	Y
Patent Number, Original	PNO	Y	Y
Patent Number/Kind Code	PNK	Y	Y
Pre-IPC8 Symbols from the ICM and first IPC8 values from 2006-present	IPC.F	Y (4)	Y

**SELECT, ANALYZE, and SORT Fields (cont'd)**

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Priority Country	PRC	Y	Y
Priority Date	PRD	Y	Y
Priority Date, First	PRDF	Y	Y
Priority Number	PRN (PRAI)	Y	Y
Priority Number, Original	PRNO	Y	Y
Priority Year	PRY	Y	Y
Priority Year, First	PRYF	Y	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Related Patent Country	RLC	Y	Y
Related Application Number	RLN	Y	Y
Related Application Date	RLD	Y	Y
Related Application Type	RLT	Y	Y
Related Application Year	RLY	Y	Y
Related Patent Number	RLPN	Y	Y
Title	TIEN	Y	Y
Update Date	UP	Y	Y
Update Date Text	UPTX	Y	Y

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT TI.

(2) Selects or analyzes application numbers with /AP appended to the terms created by SELECT.

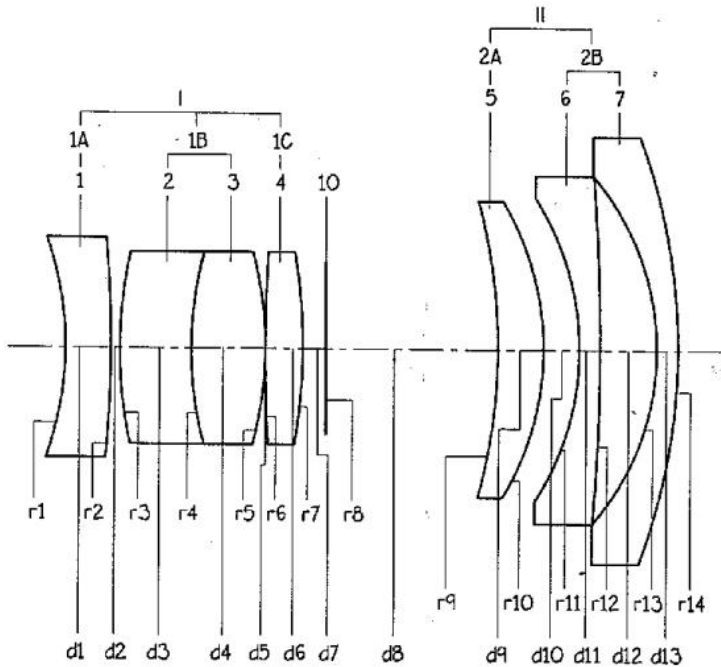
(3) Appends /BI to the terms created by SELECT.

(4) Appends /IPC to the terms created by SELECT.

**Sample Records****DISPLAY BIBG**

L3 ANSWER 2 OF 17 KRFULL COPYRIGHT 2019 LNU on STN.  
AN 887596 KRFULL ED 20191022 UP 20191022 EDTX 20191022  
DUPD 20190806  
TIEN WIDE ANGLE ZOOM LENS OF SMALL SIZE  
TIKO 소형 광각 줌렌즈  
IN KANG, GEON MO, KR  
PA SAMSUNG TECHWIN CO., LTD., 경상남도 창원시 성주동 28번지, 641120  
PAS SAMSUNG TECHWIN  
PAN SAMSUNG  
LAF Korean  
LA Korean  
DT Patent; (Fulltext)  
PIT KRB1 PATENT SPECIFICATION  
PI KR 189064 B1 19990114  
AI KR 1996-36723 19960830  
PRAI KR 1996-36723 19960830

GI



## DISPLAY ISTD.M

L4 ANSWER 1 OF 17 KRFULL COPYRIGHT 2019 LNU on STN.

ACCESSION NUMBER: 889200 KRFULL  
 ENTRY DATE: 20191022  
 UPDATE DATE: 20191022  
 ENTRY DATE (FULLTEXT): 20191022  
 DATA ENTRY DATE: 20120208  
 DATA UPDATE DATE: 20190516  
 TITLE (ENGLISH): Device tool for etching silicon wafer  
 TITLE (KOREAN): 자동 색온도 조절 장치  
 PATENT APPLICANT(S): SAMSUNG AEROSPACE IND  
 PATENT APPL. STANDARD.: SAMSUNG AEROSPACE INDUSTRIES  
 PATENT APPL. NORMAL.: SAMSUNG  
 LANGUAGE OF FILING: Korean  
 LANGUAGE OF PUBL.: Korean  
 DOCUMENT TYPE: Patent; (Fulltext)  
 PATENT INFORMATION TYPE: KRA OFFICIAL GAZETTE OF THE UNEXAMINED PATENTS  
 PATENT INFORMATION: KR 98017371 A 19980605  
 APPLICATION INFO.: KR 1996-37147 A 19960830  
 PRIORITY INFO.: KR 1996-37147 19960830  
 INT. PATENT CLASSIF.:  
 MAIN: H04N0009-07  
 IPC ORIGINAL: H04N0009-07 [I,A]

**KRFULL**

ACCESSION NUMBER: 889200 KRFULL  
 ENTRY DATE: 20191022  
 UPDATE DATE: 20191022  
 ENTRY DATE (FULLTEXT): 20191022  
 DATA UPDATE DATE: 20190515  
 TITLE (ENGLISH): AUTOMATIC COLOR TEMPERATURE CONTROL DEVICE  
 TITLE (KOREAN): 자동 색온도 조절 장치  
 INVENTOR(S): CHO, JAE HAN, KR  
 PATENT APPLICANT(S): SAMSUNG TECHWIN CO., LTD., 경상남도 창원시 성주동 28번지, 641120  
 PATENT APPL. STANDARD.: SAMSUNG TECHWIN  
 PATENT APPL. NORMAL.: SAMSUNG  
 LANGUAGE OF FILING: Korean  
 LANGUAGE OF PUBL.: Korean  
 DOCUMENT TYPE: Patent; (Fulltext)  
 PATENT INFORMATION TYPE: KRB1 PATENT SPECIFICATION  
 PATENT INFORMATION: KR 235456 B1 19990927  
 APPLICATION INFO.: KR 1996-37147 19960830  
 PRIORITY INFO.: KR 1996-37147 19960830  
 INT. PATENT CLASSIF.:  
 MAIN: H04N0009-07 (6)  
 IPC ORIGINAL: H04N0009-07 [I,A]

**DISPLAY BRIEFO**

L21 ANSWER 1 OF 1 KRFULL COPYRIGHT 2019 LNU on STN.  
 AN 3744609 KRFULL ED 20191022 UP 20191022 EDTX 20191022  
 DED 20151009 DUPD 20181113  
 TIEN Apparatus for cutting an electrode using laser and electrode supply method of the same  
 TIKO 레이저를 이용한 전극 커팅 장치 및 그  
 전극 공급 방법  
 IN MIN, KI HONG, KR;  
 AHN, CHANG BUM, KR;  
 YANG, YOUNG JOO, KR  
 INKO 민기홍, 대전광역시 유성구 문지로 188 LG화학  
 기술연구원 내, KR  
 안창범, 대전광역시 유성구 문지로 188 LG화학  
 기술연구원 내, KR  
 양영주, 대전광역시 유성구 문지로 188 LG화학  
 기술연구원 내, KR  
 PA LG CHEM. LTD., 서울특별시 영등포구 여의대로 128  
 (여의도동), 07336  
 PAKO 주식회사 엘지화학, 서울특별시 영등포구  
 여의대로 128 (여의도동), KR  
 PAS LG CHEM  
 PAN LG  
 AGKO 특허법인태평양  
 LAF Korean  
 LA Korean  
 DT Patent; (Fulltext)  
 PIT KRA OFFICIAL GAZETTE OF THE UNEXAMINED PATENTS  
 PI KR 2015102771 A 20150908  
 AI KR 2013-129785 20131030  
 PRAI KR 2013-129785 20131030  
 IPCR B23K0026-10 [I,A]; B23K0026-38 [I,A]; B23K0026-70 [I,A]  
 CPC B23K0037-04; B23K0026-38; B23K0026-083; B23K0026-142; B23K2101-40

ABEN

An apparatus for cutting an electrode using a laser is disclosed. According to an embodiment of the present invention, the apparatus for cutting an electrode using a laser comprises: a laser cutter for irradiating a laser beam; a transfer gripper which transfers an electrode sheet to a position to be irradiated with a laser beam and fixates the electrode sheet during the irradiation of the laser beam; and a rear gripper which transfers a unit electrode body cut by the laser beam and fixates the electrode sheet during the irradiation of the laser beam. COPYRIGHT KIPO 2015

ABKO

본 실시예는 레이저를 이용한 전극 커팅 장치를 개시한다. 본 실시예에 따른 레이저를 이용한 전극 커팅 장치는 레이저빔을 조사하는 레이저 커터, 전극시트를 상기 레이저빔이 조사되는 위치까지 이송시키며, 상기 레이저빔이 조사되는 동안 상기 전극시트를 고정시켜주는 이송 그립퍼 및 상기 레이저빔에 의해 절단된 단위 전극체를 이송시키며, 상기 레이저빔이 조사되는 동안 상기 전극시트를 고정시켜주는 후방 그립퍼를 포함한다.

MCLMEN

Laser beam emitting device laser cutter; said electrode sheets the transfer to a position in which the wall irradiation laser beam, said laser beam/drain region are formed said electrode sheets gripper transfer the body has a concave insertion hole; and thus cut off may be gas stream classifier and process said unit electrode are conveyed the, said laser beam/drain region are formed said electrode sheets the holders rear the body has a concave insertion hole including an electrode laser cutting device.

MCLMKO

레이저빔을 조사하는 레이저 커터; 전극시트를 상기 레이저빔이 조사되는 위치까지 이송시키며, 상기 레이저빔이 조사되는 동안 상기 전극시트를 고정시켜주는 이송 그립퍼; 및 상기 레이저빔에 의해 절단된 단위 전극체를 이송시키며, 상기 레이저빔이 조사되는 동안 상기 전극시트를 고정시켜주는 후방 그립퍼를 포함하는 레이저를 이용한 전극 커팅 장치.

KT

secondary battery electrode assembly; laser beam; electrode sheet; bars grip transfer; laser cutter; electrode transfer method; transfer gripper; copyright kipo; electrode body; device cutting electrode; laser electrode; electrode transfer structure; positive electrode; device method; gas stream classifier and process; auxiliary power or energy source; laser cutting system; telephone number recording book; electrode len; negative electrode; crank throw roll state; dust collection; water-electrode sheet; rear cutting position; low valve lift condition; laser power box; mobile device device; dust collecting section; probe substrate surface; suction piping

## DISPLAY ALL (STN format)

L1 ANSWER 1 OF 1 KRFULL COPYRIGHT 2019 LNU on STN.  
AN 3744609 KRFULL ED 20191022 UP 20191022 EDTX 20191022  
DED 20151009 DUPD 20181113  
TIEN Apparatus for cutting an electrode using laser and electrode supply method of the same  
TIKO 레이저를 이용한 전극 커팅 장치 및 그 전극 공급 방법  
IN MIN, KI HONG, KR;  
AHN, CHANG BUM, KR;  
YANG, YOUNG JOO, KR  
PA LG CHEM. LTD., 서울특별시 영등포구 여의대로 128 (여의도동), 07336  
PAS LG CHEM  
PAN LG  
LAF Korean  
LA Korean  
DT Patent; (Fulltext)  
PIT KRA OFFICIAL GAZETTE OF THE UNEXAMINED PATENTS  
PI KR 2015102771 A 20150908  
AI KR 2013-129785 20131030  
PRAI KR 2013-129785 20131030  
IPCR B23K0026-10 [I,A]; B23K0026-38 [I,A]; B23K0026-70 [I,A]  
CPC B23K0037-04; B23K0026-38; B23K0026-083; B23K0026-142; B23K2101-40

ABEN

An apparatus for cutting an electrode using a laser is disclosed. According to an embodiment of the present invention, the apparatus for cutting an electrode using a laser comprises: a laser cutter for irradiating a laser beam; a transfer gripper which transfers an electrode sheet to a position to be irradiated with a laser beam and fixates the electrode sheet during the irradiation of the laser beam; and a rear gripper which transfers a unit electrode body cut by the laser beam and fixates the electrode sheet during the irradiation of the laser beam. COPYRIGHT KIPO 2015

DETD

The present invention refers to cutting electrode is provided to device, more specifically be cut electrode is in a novel manner to prevent the movement of material is to suppress telephone number recording book device, a laser power box and accessible therein electrode is installed is (spatter) to prevent the flow of oil to cutting is an electrode capable of relates to device.

Recent, wireless secondary battery capable of charging/discharging auxiliary power or energy source in a mobile device device carried out at a wide variety of uses or the like. Furthermore, secondary battery, there is provided a fossil fuel using conventional gasoline vehicle, diesel catalyst-air pollution sending telephone number displayed to the other limit is calculated measures (EV) electric vehicle, hybrid electric vehicle (HEV), plug-in hybrid electric vehicle power source such as at least substantially co-extensive in the spotlight (Plug-In HEV).

Such secondary battery electrode assembly is electrolyte solution and together in a embedded battery case is produced. The, electrode assembly comprises the anode assembly units with respect to two non isolation and binder which can be to the source portion and the. Medium oil for such electrode assembly supports an anode and a cathode. it is required that a prepared first.

Positive electrode and the negative electrode units, such as ones for manufacturing electrodes first electrode active revitalization material is attached, is set on one side or both sides a continuous electrode electrode sheets by fixing the entire steering during the course of the cutting interval, roll (Roll) the transmission terminal transmits linkage rotationally connects the crank throw are used for manufacturing scheme is feeding of wet liquid to flow down.

Linkage rotationally connects the crank throw roll state of the SP heads and is removed so that the electrode transferring electrode (material) end, the speed of conveyance of and coating/uncoated thickened regions of difference that is fed to electrode having a thermal expansion rate similar to generating vibration, can be cut off cooling zone a laser Pilet welding such cutting electrode in response to focal distance between the lens and laser position which causes made when such. problem the inputted telephone number recording book.

In addition (spatter) sputtering accessible laser cooling zone can be cut off in such which which has the same number as the electrode surface n: 0.0050 mass and low-voltage short failure to enter, there is the problem that the protrusion and..

Thus this problem electrode the collision with the objects' traces to in need of cutting device.

Gripper (Gripper) of the present invention embodiment for an electrode transfer relate an electrode transfer structure of characters while transferring electrode lens includes a zoom does not form a lump [...] generated at the laser cutting coming into the electrode to effectively prevent is an electrode capable of cutting device provides.

...  
CLMEN

Laser beam emitting device laser cutter; said electrode sheets the transfer to a position in which the wall irradiation laser beam, said laser beam/drain region are formed said electrode sheets gripper transfer the body has a concave insertion hole; and thus cut off may be gas stream classifier and process said unit electrode are conveyed the, said laser beam/drain region are formed said electrode sheets the holders rear the body has a concave insertion hole including an electrode laser cutting device.

According to Claim 1, said transfer grip it ladles, minute description electrode sheet based on the direction of progress of said laser cutter lies in front of an electrode laser characterized by to cutting device.

According to Claim 2, said transfer grip it ladles, minute description electrode sheet partially etched to form a lower surface after pressurization of the number 1 to number 1 lower the holders upper grip pitch correction laser characterized by including an electrode cutting device.

According to Claim 3, pitch correction grip upper said number 1 said number 1 lower grip it ladles, respectively the vertically moving the opposite to each other, are pressed together with said electrode sheets are secured to the laser characterized by an electrode cutting device.

According to Claim 3, said multicomponent said transfer grip which is illuminated arising during the laser beam [...] suction of dust collection by number 1 to characterized by including an electrode laser cutting device.

According to Claim 5, said number 1 number 1 60a dust collector upper gripper and gripper of the invention is that the lower said number 1 characterized by cutting an electrode laser device.

According to Claim 5, said transfer grip it ladles, the outside suction sputtering accessible from a piping is connected to the part number 1 to characterized by including an electrode laser cutting device.

According to Claim 1, said rear grip it ladles, minute description electrode sheet based on the direction of progress of said laser cutter located at the rear of a device cutting an electrode laser characterized by.

According to Claim 8, said rear grip it ladles, minute description after pressurization of the partially etched to form a lower surface electrode sheet number 2 number 2 lower the holders to upper grip pitch correction laser characterized by including an electrode cutting device.

...

According to Claim 18, lower pitch correction grip upper gripper transfer 300 step said number 4 the holders modulator said therebetween in an oblique-line direction easily and to carry and handle easily the rotating cutter front toward the cast position to a liquid phase silicon compound characterized by including an electrode transfer of device cutting electrode method.

KT

secondary battery electrode assembly; laser beam; electrode sheet; bars grip transfer; laser cutter; electrode transfer method; transfer gripper; copyright kipo; electrode body; device cutting electrode; laser electrode; electrode transfer structure; positive electrode; device method; gas stream classifier and process; auxiliary power or energy source; laser cutting system; telephone number recording book; electrode len; negative electrode; crank throw roll state; dust collection; water-electrode sheet; rear cutting position; low valve lift condition; laser power box; mobile device device; dust collecting section; probe substrate surface; suction piping



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**In North America**

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Columbus, Ohio 43210-0012 U.S.A.

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614-447-3700 (worldwide)  
Fax: 614-447-3751  
Email: [help@cas.org](mailto:help@cas.org)  
Internet: [www.cas.org](http://www.cas.org)

**In Europe**

FIZ Karlsruhe  
STN Europe  
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Fax: +49-7247-808-259  
Email: [helpdesk@fiz-karlsruhe.de](mailto:helpdesk@fiz-karlsruhe.de)  
Internet: [www.stn-international.com](http://www.stn-international.com)

**In Japan**

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6-25-4 Honkomagome, Bunkyo-ku  
Tokyo 113-0021, Japan  
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+81-3-5978-3621 (Customer Service)  
Fax: +81-3-5978-3600  
Email: [support@jaici.or.jp](mailto:support@jaici.or.jp) (Technical Service)  
[customer@jaici.or.jp](mailto:customer@jaici.or.jp) (Customer Service)  
Internet: [www.jaici.or.jp](http://www.jaici.or.jp)