EPFULL (European Patents Full-Text)

Subject Coverage	All patent-relevant areas of science and technology, i.e., all classes of the International Patent Classification.
File Type	Full-Text
Features	Thesaurus: International Patent Classification (/IPC) and Cooperative Patent Classification (/CPC) Alerts (SDIs): Weekly Keep & Share: ☑ SLART: ☑
Record Content	• Bibliographic data and full-text of published European patent applications, examined granted European patents and European patents with unitary effect since 1978. • Records contain bibliographic data including patent applicant and inventor, patent, application, priority, and related application data, IPC, CPC, and EPC/ICO classification codes, abstract, and full-text of description and claims. • Patent Status Indicator is searchable in the field /STI • Ultimate Owners are searchable in the field /UO and /UOS. • 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. • Keyterms, 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. • Database records comprise all documents published for one application. • Some of the full-text has been created by Optical Character Recognition (OCR) software. Therefore, characters may be misinterpreted, or portions of the text may be incomplete.
File Size	• More than 4.68 million family records with more than 9.05 million publications (02/2026) • More than 3.2 million front page images (02/2026)
Coverage	Bibliographic data and full-text of published European patent applications, examined granted European patents and European patents with unitary effect since 1978.
Updates	Weekly
Languages	English, French, German Records contain titles in English, French and German, and the original abstract plus the English translation of German and French abstracts. Detailed descriptions and claims available in German or French are machine translated to English or from equivalent documents.

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Sources

Patent applications and granted patents published by the European Patent Office.

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- Help for patent status indicator: HELP STI
- Help for numeric property search: HELP NPS
- Help for key terms: HELP KEYTERMS
- Help for normalized patent assignee names: HELP PAN
- STNGUIDE

Clusters

- AEROTECH
- ALLBIB
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- ENGINEERING
- FULLTEXT
- HPATENTS
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- PATENTS
- PNTTEXT

STN Database Cluster information

Search and Display Field Codes

If multiple search terms are linked with the Boolean 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 HOLOGRA?(S)?LASER? (L) EPA1/PK limits the search to European applications EPA1.
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 (TI), abstract (AB), claims (CLM), detailed description (DETD), and key terms (KT) fields)	None or /BI	S PRINTED-CIRCUIT BOAR S STRIPPING DEVICE/BI S HOLOGRA?(S)?LASER?	TI, TIEN, TIDE, TIFR ABDE, ABEN, ABFR, MCLM, MCLMEN, MCLMFR, MCLMDE, CLM, CLMDE, CLMEN, CLMFR, DETD, DETDDE, DETDEN, DETDFR, KT
Abstract*	/AB	S PLATIN? CATALYST?/AB	AB, ABDE, ABEN, ABFR
Abstract (English)	/ABEN	S PLATIN? CATALYST?/ABEN	ABEN, AB
Abstract (French)	/ABFR	S BICYCLETTE/ABFR	ABFR, AB
Abstract (German)	/ABDE	S DAEMPFUNGSKENNLINIEN/ABDE	ABDE, AB
Accession Number	/AN	S 4249691/AN	AN
Agent **(2)**	/AG	S ROBERT WEYDERT/AG	AG
Agent Address **(2)**	/AGA	S MANNHEIM/AGA	AG
Agent, City **(2)**	/AG.CTY	S AACHEN/AG.CTY	AG
Agent, Country (WIPO code and text)	/AG.CNY	S AUSTRIA/AG.CNY	AG
Agent, Total **(2)**	/AG.T	S LONDON/AGA	AG
Agent Number	/AGN	S 101867331/AGN	AG, AGN
Application Country (WIPO code and text)	/AC	S EP/AC	AI
Application Date **(1)**	/AD	S AD=JAN 2003	AI
Application Kind Code	/AK	S EPA/AK	AI
Application Number **(3)**	/AP	S EP1996-300599/AP	AI
Application Number Original	/APO	S EP99101870/APO	APO
Application Year **(1)**	/AY	S 1999-2000/AY	AI
Claims*	/CLM	S OFFICE CHAIR/CLM S BUEROSTUHL/CLM S PROCEDE DE TEINTURE/CLM	CLM, CLMEN, CLMFR, CLMDE
Claims (English)	/CLMEN	S OFFICE CHAIR/CLMEN	CLMEN, CLM
Claims (French)	/CLMFR	S PROCEDE DE TEINTURE/CLMFR	CLMFR, CLM
Claims (German)	/CLMDE	S BUEROSTUHL/CLMDE	CLMDE, CLM
Claims, Claim Groups	/CLM.CG	S OFFICE CHAIR/CLM.CG	CLM.CG, CLMEN, CLM
Claims, Independent Claims	/CLM.IC	S OFFICE CHAIR/CLM.IC	CLM.IC, CLMEN, CLM
Cooperative Patent Classification **(4)**	/CPC	S C12N0009/CPC	CPC
CPC, Action Date **(1)**	/CPC.ACD	S 20121113/CPC.ACD	CPC.TAB
CPC, Keyword	/CPC.KW	S C12N0009/CPC (S) I/CPC.KW	CPC.TAB
CPC, Version	/CPC.VER	S 20130101/CPC.VER	CPC.TAB
Data Entry Date	/DED	S 20210121/DED	DED
Detailed Description (English)	/DETDEN	S OFFICE CHAIR/DETDEN	DETDEN, DETD
Data Update Date **(1)**	/DUPD	S DUPD=MAR 2007	DUPD

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Designated States (WIPO code and text)	/DS	S BELGIUM/DS S BE/DS S U BE/DS	DS
Document Type (code and text)	/DT	S P/DT	DT
Entry Date **(1)**	/ED	S 20210416/ED	ED
Entry Date Full Text **(1)**	/EDTX	S 20210429/EDTX	EDTX
EPC, Keyword Terms	/EPC.KW	S B22F3-00/EPC.KW	EPC
European Patent Classification	/EPC	S A01B0001-02B/EPC	EPC
Field Availability	/FA	S IPCR/FA	FA
ICO (in-computer-only) Classification	/ICO	S T04L0001-18D/ICO	ICO
International Patent Classification (Version 1-8; (ICA, ICI, ICM, ICS, IPCI, IPCR) **(4)**	/IPC	S A01B0001-02/IPC S H05B0006-36+NT/IPC S H05B0006-36-H05B0006-44/IPC	IPC
International Patent Classification (Version 1-7; ICA, ICI, ICM, ICS) **(4)**	/IC	S A47J051-06/IC	IC
Inventor	/IN (/AU)	S MAYER ADOLF/IN	IN
Inventor Address	/INA	S MUENCHEN MURNAUER/INA	IN
Inventor, City **(2)**	/IN.CTY	S WIEN/IN.CTY	IN
Inventor, Country (WIPO code and text)	/IN.CNY	S DE/IN.CNY	IN
Inventor, Total **(2)**	/IN.T	S LONDON/IN.T	IN
IPC Edition **(1)**	/IC.VER	S 7/IC.VER	IC.VER
IPC, Action Date **(1)**	/IPC.ACD	S 13 JAN 2006/IPC.ACD	IPC.TAB
IPC, Additional	/ICA (/IPCA)	S F16H061-14/ICA	ICA, IC
IPC, Index (complementary)	/ICI (/IPCIN)	S B29K105-08/ICI S A61K0031:40/ICI	ICI, IC
IPC, Initial	/IPCI	S H01L0023-29/IPCI	IPCI, IPC
IPC, Keyword Terms	/IPC.KW	S C12N0009/IPC (S) I/IPC.KW	IPC.TAB
IPC, Main	/ICM (/IPCM)	S A01B0043-00/ICM	ICM
IPC, Reclassified	/IPCR	S B21D0007-08/IPCR	IPCR, IPC
IPC, Reform	/IPC.REF	S A01B0001-16/IPC.REF	IPC.TAB
IPC, Secondary	/ICS (/IPCS)	S D21C0011-04/ICS	ICS, IC
IPC, Version	/IPC.VER	S 200601/IPC.VER	IPC.TAB
Key Terms	/KT	S (LASER(3A)SOURCE?)/KT	KT
Language (Code and Text)	/LA	S EN/LA	LA
Language, Filing (Code and Text)	/LAF	S GERMAN/LAF	LAF
Main Claim*	/MCLM	S KUNSTSTOFFABFALL?/MCLM	MCLM
Main Claim (English) *	/MCLMEN	S ?FRACTURE?/MCLMEN	MCLMEN, MCLM
Main Claim (French) *	/MCLMFR	S EQUIPEMENT/MCLMFR	MCLMFR, MCLM
Main Claim (German) *	/MCLMDE	S FRAESEN/MCLMDE	MCLMDE, MCLM
Number of Claims **(1)**	/CLMN	S CLMN<=10	CLMN
Number of Paragraphs in DETD **(1)**	/DETN	S DETN>1000	DETN
Patent Assignee **(2)**	/PA (/CS)	S BASF LACKE/PA	PA
Patent Assignee Address **(2)**	/PAA	S IRELAND/PAA	PA
Patent Assignee Number	/PA.NO	S 100073752/PA.NO	PA.NO, PA
Patent Assignee, City **(2)**	/PA.CTY	S MANCHESTER/PA.CTY	PA
Patent Assignee, Country (WIPO code and text)	/PA.CNY	S NL/PA.CNY	PA
Patent Assignee, Total **(2)**	/PA.T	S BASF/PA.T	PA
Patent Applicant Normalized **(2)**	/PAN	S BASF/PAN	PAN
Patent Applicant Standardized **(2)**	/PAS	S BASF COATINGS/PAS	PAS

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Patent Country (WIPO code and text)	/PC	S EP/PC	PI
Patent Information Type	/PIT	S EPB1 GRANTED PATENT/PIT	PIT
Patent Kind Code	/PK	S EPB1/PK	PI
Patent Number **(3)**	/PN (or /PATS)	S EP140038/PN	PI
Patent Number/Kind Code	/PNK	S EP23429 A3/PNK	PI
Patent Number, Original	/PNO	S EP1700004/PNO	PNO
Patent Status Established Date	/STED	S 20251002/STED	STED
Patent Status Indicator	/STI	S ALIVE/STI S A/STI	STI
Physical Properties	/PHP	S LEN/PHP (3W) LASER/ABEN	TIEN, ABEN, CLMEN, DETDEN
Priority Country (WIPO code and text)	/PRC	S AUSTRALIA/PRC	PRAI
Priority Date **(1)**	/PRD	S JP/PRC AND 19880101-19880331/PRD	PRAI
Priority Date First **(1)**	/PRDF	S 20030109/PRDF	PRAI
Priority Number **(3)**	/PRN	S US1986-817951/PRN	PRAI
Priority Number Original	/PRNO	S KR19980015882/PRNO	PRAO
Priority Year **(1)**	/PRY	S PRY=2003	PRAI
Priority Year First **(1)**	/PRYF	S PRYF=2003	PRAI
Publication Date **(1)**	/PD	S PD=5 FEB 2014	PI
Publication Year **(1)**	/PY	S 2019-2020/PY	PI
Related Application Country (WIPO code and text)	/RLC	S EP/RLC	RLI
Related Application Date **(1)**	/RLD	S RLD>JAN 2013	RLI
Related Application Number	/RLN	S EP1987-100215/RLN	RLI
Related Application Type	/RLT	S PARENT APPLICATION/RLT	RLI
Related Patent Number	/RLPN	S WO2006068428 /RLPN	RLI
Related Patent Country	/RLPC	S WO/RLPC	RLI
Related Publication Date	/RLPD	S 20150205/RLPD	RLI
Related Publication Year	/RLPY	S 2015/RLPY	RLI
Related Application Year **(1)**	/RLY	S 2015/RLY	RLI
Title (contains TIEN, TIDE, TIFR)*	/TI	S ABISOLIERGERAET/TI S DISPOSITIF DE DENUDAGE/TI	TI, TIEN, TIFR, TIDE
Title (English) *	/TIEN	S LASER/TIEN	TIEN
Title (French) *	/TIFR	S DISPOSITIF DE DENUDAGE/TIFR	TIFR
Title (German) *	/TIDE	S ABISOLIERGERAET/TIDE	TIDE
Ultimate Owner **(2)**	/UO	S BASF/UO	UO
Ultimate Owner Standardized **(2)**	/UOS	S BASF/UOS	UOS
Update Date **(1)**	/UP	S UP=APR 2022	UP
Update Date Full-Text **(1)**	/UPTX	S 20210311/UPTX	UPTX

(1) Numeric search field that may be searched with numeric operators or ranges.
(2) Search with implied (S) proximity is available in this field.
(3) Either STN or Derwent format may be used.
(4) A thesaurus is available in this field.

Super Search Fields

Enter a super search field to execute a search in one or more fields that may contain the desired information. Super search fields facilitate cross-file and multi-file 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, /RLN	S EP1995-104274/APPS	AI, PRAI
Patent Assignee Group	/PASS	/PA, /PA.T, /PAS, /PAN, /UO	S BASF/PASS	PA, PAS, PAN, UO
Patent Number Group	/PATS	/PN, /RLPN	S EP140038/PN	PI, RLI
Patent Countries	/PCS	/DS, /PC	S DE/PCS	PI, DS

Property Fields(1)

In EPFULL a numeric search for a specific set of physical properties (/PHP) is available within the full-text fields in English (TIEN, ABEN, DETDEN, CLMEN as well as English text in TI, AB, CLM, DETD, BI). The numeric values are not displayed as single fields but are instead 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
/CATA	Catalytic Activity	Katal	kat	S 1-10/CATA
/CDN	Current Density	Ampere/Square Meter	A/m^2	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^3	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOA	Dosage	Milligram/Kilogram/Day	mg/kg/day	S 100-300/DOA
/DOS (/LD50)	Dose	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal * Second	Pa*s	S DV>5000
/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
/ENE	Energy	Joule	J	S DROPLETS (10A) 40 JOULE - 70 JOULE /ENE
/ERE (/ERES)	Electrical Resistivity	Ohm*Meter	Ohm*m	S ERE>0.1
/FOR	Force	Newton	N	S 50 N /FOR
/FRE (/F)	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE

Property Fields (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/IU	International Unit	none	IU	S IU>1000 (P) VITAMIN A
/KV	Viscosity, kinematic	Square Meter/Second	m2/s	S METHYLPOLYSILOXANES/BI (10A) 200-300 CST /KV
/LEN (/SIZ)	Length, Size	Meter	m	S 1-4/LEN
/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 Density	Tesla	T	S MFD>102
/MFR (/MFL)	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MFST	Magnetic Field Strength	Ampere/Meter	A/m	S 40-100/MFST
/MM (/MW, /MOM)	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
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/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 0-20/BQ
/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	m2	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB)	Solubility	Gram/100 gram	g/100g	S SOL>20 G/100G (5A) WATER
/SSAM	Specific Surface Area, Mass	Square Meter/ Kilogram	m2/kg	S 1-10/SSAM
/STSC	Surface Tension	Joule /Square Meter	J/m2	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
/TEX	Tex	Gram/Kilometer	g/km	S 1-5/TEX
/TIM	Time	Second	s	S ?INCUB?/BI (10A) 50 S - 150 S /TIM
/VEL (/V)	Velocity	Meter per Second	m/s	S REDUC?/BI (S) 1E-3-5E-3/VEL
/VELA	Velocity, angular	Radian/Second	rad/s	S VELA>10
/VLR	Volumetric Flow Rate	Cubic Meter/Second	m3/s	S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL	Volume	Cubic Meter	m3	S 1E-8-2E-8/VOL.EX
/VOLT	Voltage	Volt	V	S TENSION/BI (10A) 5E-3 V <VOLT<7E-3 V

(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).

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 A61K0006-02+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
PREVn	Previous Classification (n=1,2…)	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 A01B0001-00+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 AU. 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, SCAN, and TRIAL.

For displaying a particular publication level of a database record, you can simply add the kind code to the appropriate display format, e.g., ALL.A1. Fields that allow this are indicated by a number (2).

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 (German, English, French) for all publication levels	D AB.M
ABDE	Abstract (German)	D ABDE.M
ABEN	Abstract (English)	D ABEN.M
ABFR	Abstract (French)	D ABFR.M
AG	Agent	D AG
AG.CNY	Agent, Country	D AG.CNY
AG.CTY	Agent, City	D AG.CTY
AGN	Agent Number	D AGN
AI (AP, APPS) **(1)**	Application Information	D AI
AN	Accession Number	D AN
APO	Application Number Original	D APO
CLM **(2)**	Claims	D CLM
CLM.CG	Claims, Claim Groups	D CLM.CG
CLM.IC	Claims, Independent Claims	D CLM.IC
CLMDE **(2)**	Claims (German)	D CLMDE
CLMEN **(2)**	Claims (English)	D CLMEN
CLMFR **(2)**	Claims (French)	D CLMFR
CLMN	Number of Claims	D CLMN
CPC	Cooperative Patent Classification	D CPC
CPC.TAB	CPC, Tabular	D CPC.TAB
DETD **(2)**	Detailed Description	D DETD
DETDDE **(2)**	Detailed Description (German)	D DETDDE
DETDEN **(2)**	Detailed Description (English)	D DETDEN
DETDFR **(2)**	Detailed Description (French)	D DETDFR
DETN	Number of Paragraphs in DETD	D DETN
DED	Data Entry Date	D DED
DS	Designated States	D DS
DT (TC)	Document Type	D DT
DUPD	Data Update Date	D DUPD
ED	Entry Date	D ED 1-10 L3
EDP	Entry Date Patent	D EDP
EDTX	Entry Date Full-text	D EDTX
EPC	European Patent Classification	D EPC
FA	Field Availability for all Publication Levels	D FA 1-20
GI	Graphic Image	D GI
IC	IPC	D IPC
IC.VER	IPC Edition	D IPC.VER
ICA	IPC Additional	D ICA
ICI	IPC Index	D ICI
ICM	IPC Main	D ICM
ICO	ICO (in-computer-only) Classification	D ICO
ICS	IPC Secondary	D ICS
IN	Inventor	D TI IN 5
IN.CNY	Inventor, Country	D IN.CNY
IN.CTY	Inventor, City	D IN.CTY

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
IPC	International Patent Classification	D IPC
IPCI	IPC Initial	D IPCI
IPCR	IPC Reclassified	D IPCR
KT	Key Terms	D KT
LA	Language	D LA
LAF	Language of Filing	D LAF
MCLM **(2,3)**	Main Claim	D MCLM
MCLMDE **(2)**	Main Claim (German)	D MCLMDE
MCLMEN **(2)**	Main Claim (English)	D MCLMEN
MCLMFR **(2)**	Main Claim (French)	D MCLMFR
PA	Patent Assignee	D PA
PA.CNY	Patent Assignee, Country	D PA.CNY
PA.CTY	Patent Assignee, City	D PA.CTY
PA.NO	Patent Assignee, Number	D PA.NO
PAN	Patent Assignee Normalized	D PAN
PAS	Patent Assignee Standardized	D PAS
PI (PN) **(1)**	Patent Information	D PI
PIT	Patent Information Type	D PIT
PNO	Patent Number Original	D PNO
PRAI (PRN) **(1)**	Priority Information	D PRAI
PRNO (PRAO)	Priority Number Original	D PRNO
RLI	Related Document Information	D RLI
STED	Patent Status Established Date	D STED
STI	Patent Status Indicator	D STI
TI	Title (contains TIEN, TIFR, TIDE)	D TI
TIDE	Title (German)	D TIDE
TIEN	Title (English)	D TIEN
TIFR	Title (French)	D TIFR
UO	Ultimate Owner	D UO
UOS	Ultimate Owner Standardized	D UOS
UP	Update Date	D UP
UPTX	Update Date Full-text	D UPTX
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ALLG **(1)**	ALL, plus graphic image	D ALLG
IALL **(1)**	ALL, indented with text labels	D IALL
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APPS **(1)**	AI, PRAI	D APPS
BIB **(1)**	AN, EDP, ED, UP, EDTX, UPTX, DED, DUPD, TI, IN, PA, PA.NO, PAS, PAN, UO, UOS, AG, AGN, LAF, LA, DT, PI, DS, PIT, STI, AI, PRAI, RLPI, RLI,	D BIB
BIBG **(1)**	BIB, plus graphic image	D BIBG
IBIB **(1)**	BIB, indented with text labels	D IBIB
IBIBG **(1)**	IBIB, plus graphic image	D IBIBG
BRIEF **(1)**	AN, EDP, ED, UP, EDTX, UPTX, DED, DUPD, TI, IN, PA, PA.NO, PAS, PAN, UO, UOS, AG, AGN, DT, PI, DS, PIT, STI, AI, PRAI, RLPI, RLI, IPC, CPC, EPC, ICO, AB, MCLM, KT	D BRIEF
BRIEFG **(1)**	BRIEF, plus graphic image	D BRIEFG
IBRIEF **(1)**	BRIEF, indented with text labels	D IBRIEF
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CPC.TAB	CPC, CPC.KW, CPC.ACD, CPC.VER in tabular format	D IPC.TAB
IC	ICM, ICS, ICA, ICI	D IC
IND	ICM, ICS, ICA, ICI, IPCI, IPCR, CPC, EPC, ICO	D IND
IPC	ICM, ICS, ICA, ICI, IPCI, IPCR	D IPC

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
MAX (ALL.M) **(1)**	AN, EDP, ED, UP, EDTX, UPTX, DED, DUPD, TI, IN, PA, PA.NO, PAS, PAN, UO, UOS, AG, AGN, LAF, LA, DT, PI, DS, PIT, STI, AI, PRAI, RLPI, RLI, IPC, CPC, EPC, ICO, AB, DETD, CLM, KT (for all Publication Levels)	D MAX
MAXG (ALLG.M) **(1)**	MAX, plus graphic image	D MAXG
IMAX (IALL.M) **(1)**	MAX, indented with text labels	D IMAX
IMAXG (IALLG.M) **(1)**	IMAX, plus graphic image	D IMAXG
TRIAL (TRI, SAMPLE, SAM, FREE)	AN, EDP, ED, UP, EDTX, UPTX, DED, DUPD, TIEN, TIDE, TIFR, FA, DETN, CLMN (for all Publication Levels)	D TRIAL
SCAN **(4)**	TI (random display without answer number)	D SCAN
STD **(1)**	BIB plus IND (STD.M is the default)	D STD
STDG **(1)**	STD, plus graphic image	D STDG
ISTD **(1)**	STD, indented with text labels	D ISTD
ISTDG **(1)**	ISTD, plus graphic image	D ISTDG
TX	DETD, CLM	D TX
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) Application and patent numbers are available in STN and Derwent format. The format for DISPLAY, PRINT, SELECT, and SORT is set using the SET PATENT command. STN is the default format. Enter SET PAT DERWENT to change to the Derwent format. To reset to the STN format, enter SET PAT STN.
(2) 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., STD.A1
(3) Custom display only.
(4) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

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	N
Abstract (English)	ABEN	Y	N
Abstract (French)	ABFR	Y	N
Abstract (German)	ABDE	Y	N
Accession Number	AN	Y	Y
Agent	AG	Y	Y
Agent, Country	AG.CNY	Y	Y
Agent, City	AG.CTY	Y	Y
Agent Address	AGA	Y	Y
Agent Number	AGN	Y	Y
Agent, Total	AG.T	Y	Y
Application Number Original	APO	Y	Y
Application Country	AC	Y	Y
Application Date	AD	Y	Y
Application Information	AI (AP, APPS) **(2)**	Y	Y
Application Kind Code	AK	Y	Y
Application Year	AY	Y	Y
Cooperative Patent Classification	CPC	Y	Y
Data Entry Date	DED	Y	Y
Data Update Date	DUPD	Y	Y
Designated States	DS	Y	Y
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	Y
Entry Date Full-text	EDTX	Y	Y
European Patent Classification	EPC	Y	Y
Field Availability	FA	Y	N
ICO (in-computer-only) Classification	ICO	Y	Y
Inventor	IN (AU)	Y	Y
Inventor Address	INA	Y	Y
Inventor, Country	IN.CNY	Y	Y
Inventor, City	IN.CTY	Y	Y
Inventor, Total	IN.T	Y	Y
IPC (ICM, ICS, ICA, ICI, IPCI, IPCR)	IPC	Y	N
IPC (Main and Secondary)	IC	Y	N
IPC Additional	ICA	Y	Y
IPC Edition	IC.VER	Y	N
IPC, Advanced Level Symbols	IPC.A	Y	N
IPC, Advanced Level Symbols for Invention	IPC.AI	Y **(2)**	N
IPC, Core Level Symbols	IPC.C	Y **(2)**	N
IPC, Core Level Symbols for Invention	IPC.CI	Y **(2)**	N
IPC, Reform	IPC.REF	Y	N
IPC Index	ICI	Y	Y
IPC Initial	IPCI	Y **(2)**	Y
IPC Main	ICM	Y	Y
IPC,Reclassified	IPCR	Y	Y
IPC Secondary	ICS	Y	Y

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

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Key Terms	KT	Y	Y
Language	LA	Y	Y
Language of Filing	LAF	Y	Y
Number of Claims	CLMN	Y	Y
Number of Paragraphs in DETD	DETN	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
Patent Assignee	PA (CS)	Y	Y
Patent Assignee Address	PAA	Y	Y
Patent Assignee, Country	PA.CNY	Y	Y
Patent Assignee, City	PA.CTY	Y	Y
Patent Assignee, Number	PA.NO	Y	Y
Patent Assignee, Total	PA.T	Y	Y
Patent Assignee Normalized	PAN	Y	Y
Patent Assignee Standardized	PAS	Y	Y
Patent Country	PC	Y	Y
Patent Countries	PCS	Y	Y
Patent Information Type	PIT	Y	Y
Patent Kind Code	PK	Y	Y
Patent Number	PN (PI)	Y	Y
Patent Number Original	PNO	Y	Y
Patent Number Group	PATS	Y	Y
Patent Status Established Date	STED	Y	Y
Patent Status Indicator	STI	Y	Y
Pre-IPC8 Symbols from the ICM and first IPC8 values from 2006-present	IPC.F	Y **(2)**	Y
Patent Number/Kind Code	PNK	Y	N
Priority Country	PRC	Y	Y
Priority Date	PRD	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 Application Country	RLC	Y	Y
Related Application Date	RLD	Y	Y
Related Application Number	RLN	Y	Y
Related Application Type	RLT	Y	N
Related Application Year	RLY	Y	Y
Related Patent Country	RLPC	Y	Y
Related Publication Date	RLPD	Y	Y
Related Patent Number	RLPN	Y	Y
Related Publication Year	RLPY	Y	Y
Title	TI	Y **(3)** (default)	Y
Title (English)	TIEN	Y	Y
Title (French)	TIFR	Y	Y
Title (German)	TIDE	Y	Y
Ultimate Owner	UO	Y	Y
Ultimate Owner Standardized	UOS	Y	Y
Update Date	UP	Y	Y
Update Date Full-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) Appends /IPC to the terms created by SELECT.
(3) Selects or analyzes TIEN, TIDE, and TIFR with /TI appended to the terms created by SELECT.

Sample Records

DISPLAY STD.M (default)

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AN      4137043      EPFULL EDP 20230216  ED 20230216 UP 20230811 EDTX 20230316
        DED 20230215 DUPD 20230809 Full-text
TIEN    CONNECTED WATCH WITH ROTATING BEZEL
TIFR    MONTRE CONNECTEE AVEC LUNETTE ROTATIVE
TIDE    VERBUNDENE UHR MIT DREHBAREM AUSSENRING
IN      Donnet, Pierre-Arnaud, 92130 Issy-les-Moulineaux, FR
        Navellou, Manon, 92130 Issy-les-Moulineaux, FR
        Clerc, Samuel, 92130 Issy-les-Moulineaux, FR
PA      Withings, 2, rue Maurice Hartmann, 92130 Issy-les-Moulineaux, FR
PAS     WITHINGS
PA.NO   101800173
UO      WITHINGS SAS
        VISENSE
UOS     Withings
        VISENSE
AG      Plagnard, Thomas Eric et al, Withings SA 2, rue Maurice Hartmann, 92130
        Issy-Les-Moulineaux, FR
AGN     101957054
LAF     French
LA      French
DT      Patent; (Fulltext)
PI      EP 4134005               A1    20230215
DS      R:  AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU
            LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
        XS: BA ME
        VS: KH MA MD TN
PIT     EPA1 PUBLICATION OF APPLICATION WITH SEARCH REPORT
STI     INDETERMINATE
AI      EP 2022-186501                 20220722
PRAI    FR 2021-8606                   20210810
IPCI    A61B0005-282 [I,A]; A61B0005-00 [I,A]; A61B0005-024 [I,A]; A61B0005-0245
        [I,A]; A61B0005-332 [I,A]; G04G0017-04 [I,A]; G04G0017-08 [I,A];
        G04G0021-02 [I,A]
CPC     G04B0019-283; A61B0005-282; G04G0017-04; A61B0005-681; A61B0005-02438;
        A61B0005-332; A61B2560-0468; G04G0021-025; A61B0005-0245; G04G0017-08

AN      4137043    EPFULL EDP 20230216  ED 20230608 UP 20230811 EDTX 20230608
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TIEN    SMARTWATCH WITH ROTATING BEZEL
TIFR    MONTRE CONNECTEE AVEC LUNETTE ROTATIVE
TIDE    SMARTWATCH MIT DREHBARER LUeNETTE
IN      Donnet, Pierre-Arnaud, 92130 Issy-les-Moulineaux, FR
        Navellou, Manon, 92130 Issy-les-Moulineaux, FR
        Clerc, Samuel, 92130 Issy-les-Moulineaux, FR
PA      Withings, 2, rue Maurice Hartmann, 92130 Issy-les-Moulineaux, FR
PAS     WITHINGS
PA.NO   101800173
UO      VISENSE
        WITHINGS SAS
UOS     VISENSE
        Withings
AG      Plagnard, Thomas Eric et al, Withings SA 2, rue Maurice Hartmann, 92130
        Issy-Les-Moulineaux, FR
AGN     101957054
LAF     French
LA      French
DT      Patent; (Fulltext)
PI      EP 4134005               B1    20230607
DS      R:  AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU
            LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
        U: AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI
PIT     EPB1 GRANTED PATENT
STI     INDETERMINATE
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AI     EP 2022-186501                20220722
PRAI   FR 2021-8606                  20210810
IPCI   A61B0005-282 [I,A]; A61B0005-00 [I,A]; A61B0005-024 [I,A]; A61B0005-0245
       [I,A]; A61B0005-332 [I,A]; G04G0017-04 [I,A]; G04G0017-08 [I,A];
       G04G0021-02 [I,A]
CPC    G04B0019-283; A61B0005-282; G04G0017-04; A61B0005-681; A61B0005-02438;
       A61B0005-332; A61B2560-0468; G04G0021-025; A61B0005-0245; G04G0017-08

AN     4137043    EPFULL EDP 20230216  ED 20230727 UP 20230811 EDTX 20230727
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TIFR   MONTRE CONNECTEE AVEC LUNETTE ROTATIVE
TIDE   SMARTWATCH MIT DREHBARER LUeNETTE
IN     DONNET PIERRE-ARNAUD, FR
       NAVELLOU MANON, FR
       CLERC SAMUEL, FR
PA     WITHINGS, FR
PAS    WITHINGS
AG     Withings IP et al, 2, rue Maurice Hartmann, 92130 Issy-les-Moulineaux,
       FR
AGN    101969226
LAF    French
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DT     Patent; (Fulltext)
PI     EP 4134005              C0    20230607
DS     R:  AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU
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STI    ALIVE
AI     EP 2022-186501          A     20220722
PRAI   FR 2021-8606                  20210810
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CPC    G04B0019-283; A61B0005-282; G04G0017-04; A61B0005-681; A61B0005-02438;
       A61B0005-332; A61B2560-0468; G04G0021-025; A61B0005-0245; G04G0017-08
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DISPLAY IBRIEF

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ACCESSION NUMBER:       3193146   EPFULL
ENTRY DATE PATENT:      20210308 Full-text
ENTRY DATE:             20210308
UPDATE DATE:            20240912
ENTRY DATE (FULLTEXT):  20210308
DATA ENTRY DATE:        20190626
DATA UPDATE DATE:       20240911
TITLE (ENGLISH):        PNEUMATIC TIRE AND USE OF A TWISTED YARN COMPRISING
                        POLYAMID 6.6
TITLE (FRENCH):         PNEUMATIQUE ET L'UTILISATION D'UN FIL RETORDU EN
                        MATERIEL POLYAMID 6.6
TITLE (GERMAN):         FAHRZEUGLUFTREIFEN UND VERWENDUNG EINES GETWISTETEN
                        GARNES AUS POLYAMID 6.6
PATENT APPLICANT(S):    Continental Reifen Deutschland GmbH, Vahrenwalder
                        Strasse 9, 30165 Hannover, DE
PATENT APPL. STANDARD.: CONTINENTAL REIFEN
PATENT APPL. NORMAL.:   CONTINENTAL
PATENT APPLICANT NUMBER:101127122
ULTIMATE OWNER:         CONTINENTAL AG
ULTIMATE OWNER STANDARD:Continental
AGENT:                  Finger, Karsten, Continental Aktiengesellschaft Patente
                        und Lizenzen Postfach 169, 30001 Hannover, DE
AGENT NUMBER:           100043632
DOCUMENT TYPE:          Patent; (Fulltext)
PATENT INFORMATION:     EP 3147138            B1      20190626
PATENT INFORMATION TYPE:EPB1 GRANTED PATENT
PATENT STATUS INDICATOR:INDETERMINATE
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APPLICATION INFO.: EP 2016-190732 20140415
PRIORITY INFO.: DE 2013-102013105163 20130521
EP 2014-718553 20140415
WO 2014-EP57564 20140415
RELATED PATENT INFO.: WO 2014187615 20141127

RELATED DOC. INFO.: WO 2014-EP57564 20140415 PCT Application
EP 2014-718553 20140415 Parent Application
IPC ORIGINAL: B60C0009-00 [I,A]; B29D0030-38 [I,A]; B60C0009-20 [I,A]; B60C0009-22 [I,A]; D02G0003-48 [I,A]
CPC CLASSIF.: D10B2331-02; D10B2331-021; D10B2331-04; D02G0003-48; B60C2009-0092; B29D0030-38; B60C2009-0071; B60C2009-2083; B60C2009-2074; B60C2009-2096; B60C0009-2009; B60C2009-2257; B60C2009-2214; B60C0009-2003; B60C0009-0042; B60C0009-0064

ABSTRACT (ENGLISH):
Equivalent from US2016068020A1
Radial-type pneumatic tires for vehicles having a radial carcass, a profiled tire tread, a belt and a single-layer or multi-layer bandage covering the belt, which bandage has reinforcements extending in the circumferential direction of the tire and includes at least one thread made of a textile material, such as polyamide, polyester or rayon. The thread has a fineness of X2270700 dtex.

MAIN CLAIM (ENGLISH):
[CLM0001] Pneumatic vehicle tyre of a radial type of construction comprising a radial carcass, a profiled tread, a breaker belt and a single-ply or multi-ply belt bandage covering the belt and comprising cords running in the circumferential direction of the tyre, which consist of a twisted yarn of polyamide 6.6 or a number of twisted yarns of polyamide 6.6,characterizedin that the yarn or the yarns has or have a fineness of 700 dtex and the cords have the construction 1.times.1, 1.times.2 or 1.times.3.

MAIN CLAIM (FRENCH):
[CLM0001] Pneumatique de vehicule de type radial avec une carcasse radiale, une bande de roulement profilee, une ceinture et un bandage de ceinture en une ou plusieurs couche(s) recouvrant celle-ci avec des cordes s'etendant dans la direction peripherique du pneumatique, qui se composent d'un fil retordu en polyamide 6.6 ou de plusieurs fils retordus en polyamide 6.6, caracterise en ce que le fil ou les fils presente/presentent une finesse de 700 dtex et les cordes presentent la construction 1x1, 1x2 ou 1x3.

MAIN CLAIM (GERMAN):
[CLM0001] Fahrzeugluftreifen in Radialbauart mit einer Radialkarkasse, einem profilierten Laufstreifen, einem Guertel und einer diesen bedeckenden ein- oder mehrlagigen Guertelbandage mit in Umfangsrichtung des Reifens verlaufenden Korden, welche aus einem getwisteten Garn aus Polyamid 6.6 oder aus mehreren getwisteten Garnen aus Polyamid 6.6 bestehen,dadurch gekennzeichnet,dass das Garn bzw. die Garne eine Feinheit von 700 dtex aufweist bzw. aufweisen und die Korde die Konstruktion 1x1, 1x2 oder 1x3 aufweisen.

KEYTERMS:
multi-layer bandage; pneumatic vehicle tyre; pneumatic tire; bandage ply; textile material; high density bandage cord; material strip; nylon cord; cord decitex yarn; twisted yarn; tread belt; belt bandage; twist factor; breaker belt; mono-filament yarn; cord impregnated tacky; reinforcement finalrotated multifilament yarn; bandage layer thickness; weight bandage layer; art bandage layer; superimposed layer bandage; high speed performance; art comparable bandage; bandage rubber; heat buildup; radial type; mechanical strength; wound bandage; ensure intimate rubber penetration; finished tire

DISPLAY MAXG (STN format)

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AN      3798903   EPFULL  EDP 20210406  ED 20210406 UP 20240919 EDTX 20210406
        DED 20210324 DUPD 20240918 Full-text
TIEN    METHOD FOR STORING FRESH FOOD PRODUCTS
TIFR    METHODE DE STOCKAGE DE PRODUITS ALIMENTAIRES FRAIS
TIDE    METHODE ZUR LAGERUNG VON FRISCHEN NAHRUNGSMITTELPRODUKTEN
IN      AVILES, Carlos, C/O CAMPUS INNOVATION PARIS - L AIR LIQUIDE S.A. 1
        chemin de la Porte des Loges, 78350 Les Loges-En-Josas, FR
        IBARRA, Dominique, C/O CAMPUS INNOVATION PARIS - L AIR LIQUIDE S.A. 1
        chemin de la Porte des Loges, 78350 Les Loges-En-Josas, FR
        COMBE, Charlotte, C/O L'AIR LIQUIDE S.A. 75 Quai d'Orsay, 75321 PARIS
        CEDEX 07, FR
        LLEDOS, Bernard, C/O PARIS INNOVATION CAMPUS - L'AIR LIQUIDE S.A. 1
        chemin de la Porte des Loges, 78350 Les Loges-En-Josas, FR
PA      L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES
        PROCEDES GEORGES CLAUDE, 75, Quai d'Orsay, 75007 Paris, FR
PAS     L'AIR LIQUIDE POUR L'ETUDE & L'EXPLOITATION DES PROCEDES GEORGES CLAUDE
PAN     AIR LIQUIDE
PA.NO   101749189
UO      L'AIR LIQUIDE
UOS     Air Liquide
AG      Air Liquide, L'Air Liquide S.A. Direction de la Propriete Intellectuelle
        75, Quai d'Orsay, 75321 Paris Cedex 07, FR
AGN     101872996
LAF     French
LA      French
DT      Patent; (Fulltext)
PI      EP 3794948               A1    20210324
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STI     DEAD
AI      EP 2020-195439                20200910
PRAI    FR 2019-10263                 20190917
IPCI    A23B0007-148 [I,A]; A23L0003-3418 [I,A]
CPC     A23B0007-148; A23L0003-3418
GI       (see next page)
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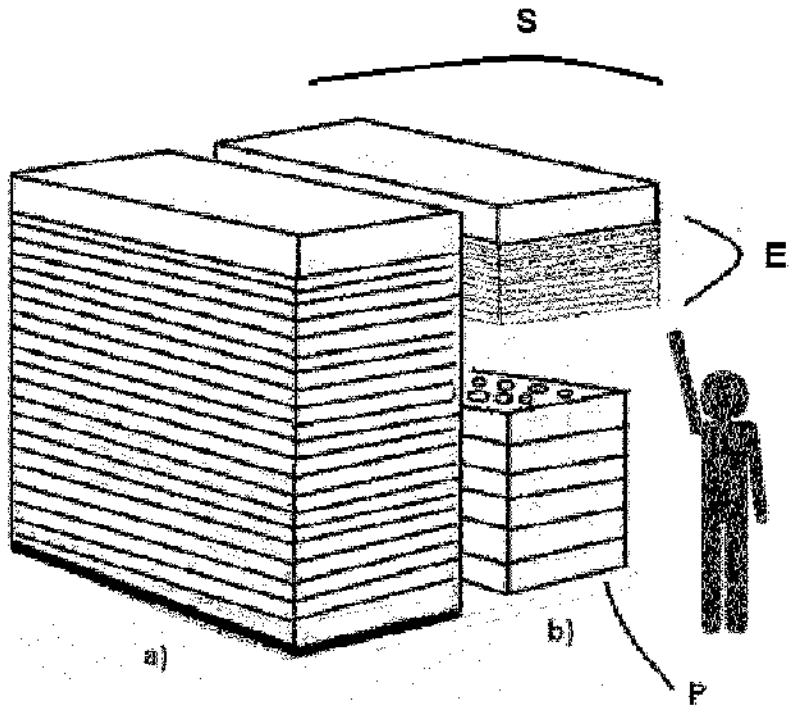
[Fig. 1]



ABEN

Machine translation

Method for preserving fresh food products, wherein a system is provided for creating an envelope around each loaded (P) pallet/carrier (E) into products, a system located within a storage chamber for storing the products, characterized in that the envelope creation system implements the following means:

- the envelope creation system comprises at least one (S) station located within the storage chamber for storing the products, a station which comprises a (E) (preferably reusable) envelope and which comprises means, automatic or manual, for lowering the envelope on a product loaded pallet/carrier and raising the envelope on demand, for example to allow access to products stored on the considered pallet/carrier (E).
- the system includes means for scanning the sealed enclosure so created within the enclosure with a selected gas mixture suitable for preservation of the products involved.

ABFR

Procede de conservation de produits alimentaires frais, selon lequel on dispose d'un systeme de creation d'une enveloppe autour de chaque palette/support (P) charge(e) en produits, systeme localise au sein d'une chambre de stockage destinee a stocker les produits, se caracterisant en ce que le systeme de creation d'une enveloppe met en oeuvre les moyens suivants :

- le systeme de creation d'une enveloppe comprend au moins une station (S), localisee au sein de la chambre de stockage destinee a stocker les produits, station qui comprend une enveloppe (E) (preferentiellement reutilisable) et qui comprend des moyens, automatiques ou manuels, pour

abaisser l'enveloppe sur une palette/support charge en produits et remonter l'enveloppe sur demande, par exemple pour permettre l'acces aux produits stockes sur la palette/support considere(e);
- le systeme comprend des moyens permettant de balayer l'enceinte hermetique ainsi creee a l'interieur de l'enveloppe avec un melange de gaz choisi adapte pour la conservation des produits concernes.

DETDEN

[DESC0001] The present invention relates to the field of agri-food.

[DESC0002] The agri-food market is full-mutation. Consumers currently display a willingness to consume more in addition to fresh produce, which are associated with the notion of vitality, wellness and health.

[DESC0003] This trend is also strengthened by a loss of confidence in the processed products ("processability") by the agri-food industry, in particular, due to the different food scanners which are sweetened in recent years (e.g., the known cases of the lasagne to the horse's meat are known, contaminated eggs and meats etc.). It is safe to the safety of a food or to estimate that the food has positive health effects even if quality criteria, which both exceed that of its simple gustatory dimension. Thus, the "fresh" has become an integral market, by demonstrating the success of the specialized signs in the past recent years, or the companies for delivering fresh produce whose development is dramatic.

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[DESC0017] As mentioned above, there is a state of the technique of interest to implement a modified atmosphere on a pallet via an envelope. But is included in the prior art, the present invention attaches to farthest, and provides a convenient, convenient and automated solution. For this purpose, the invention provides for the implementation of a station for creating an envelope, station located within the storage chamber, which station comprises means for lowering and raising the casing as necessary, and which comprises means for sweeping the inside of the casing with a suitable gas. A solution which is not evoked or suggested by the prior art.

[DESC0018] For example, the document may be examined. US - 5 438 917A a method of ripening fruit stored on a pallet, by bringing the fruits into contact with a cooled air atmosphere, with the presence of a partition ("partition"), enclosing the fruit boxes, the "partition" does not admit air and is sealingly attached to a.10 suction hood. In this document, there is no need for a station for actuating the movement of a fluid envelope, for lowering and raising as much as necessary around the pallet, the station further comprising means for scavenging gas from the inside of the envelope.

[DESC0019] Still illustratively, the document may be examined. WOOOOOOOOOO19/122603. (on the name of the applicant): this prior art shows the existence of previous methods and devices of interest to the establishment of controlled atmospheres within envelopes enclosing pallets, but this document does not implement a station in the direction of the present invention, for envelope management and gas injection.

CLMEN

[CLM0001] A method of preserving fresh food products, wherein the products are positioned on a support, for example on a (P) pallet or other carrier, or to the ground, pallets/supports for (e) s when loaded (E) s to be stored (E) S to be stored (E) S to be stored around each loaded pallet/carrier (E) by providing an envelope adapted to receive therein a preservation atmosphere of the products concerned, wherein a system is provided for creating an envelope around each loaded pallet/carrier (E) into products, a system located within the storage chamber. characterized by implementing the following measures: - the

envelope creation system comprises at least one (S) station located within the storage chamber for storing the products, a station which comprises a (E) envelope and which comprises means, automatic or manual, for lowering the envelope on a product loaded pallet/carrier and raising the envelope on demand, for example to allow access to products stored on the considered pallet/carrier (E). - the system includes means for scanning the sealed enclosure so created within the enclosure with a selected gas mixture suitable for preservation of the products involved.

[CLM0002] The method according to claim 1. characterized in that during scanning, air is sucked up by the station from above the structure to prevent overpressure in the enclosure, and discharged to the outside.

[CLM0003] Method according to claim 1 or 2. characterized in that one or more of the following parameters is regulated during a storage phase of the products under such an envelope: the oxygen content in the inner enclosure to the shell, the content of CO2 in the enclosure internal to the envelope, hygrometry in the enclosure internal to the envelope, and the temperature in the enclosure internal to the envelope.

[CLM0004] Method according to one of the preceding claims. characterized in that when it is necessary to access the products stored on a packaged pallet, the replacement is manually or automatically activated by air of the protective atmosphere in vigour in the lowered envelope, purged air which is blown outward is then manually or automatically actuated, for example when safety gas thresholds within the envelope are reached.

[CLM0005] Method according to one of the preceding claims. characterized in that the station is provided with a man-machine interface that includes conservation recipes for each product or category of products that may be stored on the pallets.

[CLM0006] Installation for preserving fresh food products, in which the products are positioned on a support, for example on a (P) pallet or other support or to the ground, pallets/supports for (e) s after being loaded (E) s to be stored (E) s in a refrigerated storage chamber, and wherein a casing is installed around each loaded pallet/carrier (E) into products, installation comprising a system for creating a (E) envelope around each pallet/carrier, a system located within the storage chamber. characterized in that the envelope creation system comprises the following means: - the envelope creation system comprises at least one (S) station located within the chamber for storing the products, a station which comprises a (E) envelope and which comprises means, automatic or manual, for lowering the envelope on a loaded pallet/carrier (E) by products and raising the envelope on demand, for example to allow access to products stored on the considered pallet/carrier (E). - the system includes means for scanning the sealed enclosure so created within the enclosure with a selected gas mixture, suitable for preservation of the products concerned.

DETDFR

[DESC0001] La presente invention concerne le domaine de l'agroalimentaire.

[DESC0002] Le marche de l'agroalimentaire est en pleine mutation. Les consommateurs affichent aujourd'hui une volonte de consommer de plus en plus de produits frais, qui sont associes a la notion de vitalite, de bien-etre et de sante.

[DESC0003] Cette tendance est egalement renforcee par une perte de confiance dans les produits transformes (ﾅ processes ﾓ) par l'industrie agroalimentaire, due en particulier aux differents scandales alimentaires qui se sont succedes ces dernieres annees (on citera les cas bien connus des lasagnes a la viande de cheval, des oeufs et viandes contamines etc...). Etre sur de l'innocuite d'un aliment ou estimer que ce dernier a des effets positifs pour la sante sont meme devenus des criteres de qualite, qui, a eux deux, depassent celui de sa simple

dimension gustative. Le ≠ frais ≠ est ainsi devenu un marche a part entiere, en temoignent le succes des enseignes specialisees dans le frais apparues ces dernieres annees, ou encore les entreprises de livraison de produits frais dont le developpement est spectaculaire.

[DESC0004] Mais si les consommateurs veulent manger frais, 82% d'entre eux sont aujourd'hui insatisfaits de la qualite des fruits et legumes qu'ils achetent en grande et moyenne surface de distribution. Ces clients notent tout particulierement le manque de gout et de maturite des produits, la presence de produits abimes sur les etals et leur courte duree de vie.

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[DESC0018] On pourra par exemple examiner le document US-5 438 917A qui decrit un procede de murissement de fruits stockes sur une palette, par mise en contact des fruits avec une atmosphere d'air refroidi, avec la presence d'une cloison (≠ partition ≠), enserrant les boites de fruits, cloison ≠ n'admettant aucun air et etant fixee de maniere etanche a une hotte d'aspiration.... ≠. En aucune maniere ce document ne decrit la presence d'une station d'actionnement du mouvement d'une enveloppe fluide, pour l'abaisser et la remonter autant que necessaire autour de la palette, station comprenant de plus des moyens de balayage gazeux de l'interieur de l'enveloppe.

[DESC0019] Toujours a titre illustratif on pourra examiner le document WO2019/122603A1 (au nom de la Demanderesse) : Ici encore cet art anterieur montre l'existence de procedes et dispositifs anterieurs s'interessant a la mise en place d'atmospheres controlees a l'interieur d'enveloppes enserrant des palettes, mais ce document ne met pas en oeuvre de station au sens de la presente invention, pour la gestion de l'enveloppe et de l'injection de gaz.

CLMFR

[CLM0001] Procede de conservation de produits alimentaires frais, selon lequel les produits sont positionnes sur un support, par exemple sur une palette (P) ou autre support voire au sol, palettes/supports destine(e)s une fois charge(e)s a etre stocke(e)s dans une chambre de stockage qui peut etre refrigeree, et ou l'on met en place autour de chaque palette/support charge(e) en produits une enveloppe apte a recevoir en son interieur une atmosphere de conservation des produits concernes, selon lequel on dispose d'un systeme de creation d'une enveloppe autour de chaque palette/support charge(e) en produits, systeme localise au sein de la chambre de stockage, se caracterisant par la mise en oeuvre des mesures suivantes :

- le systeme de creation d'une enveloppe comprend au moins une station (S), localisee au sein de la chambre de stockage destinee a stocker les produits, station qui comprend une enveloppe (E) et qui comprend des moyens, automatiques ou manuels, pour abaisser l'enveloppe sur une palette/support charge en produits et remonter l'enveloppe sur demande, par exemple pour permettre l'acces aux produits stockes sur la palette/support considere(e);
- le systeme comprend des moyens permettant de balayer l'enceinte hermetique ainsi creee a l'interieur de l'enveloppe avec un melange de gaz choisi adapte pour la conservation des produits concernes.

[CLM0002] Procede selon la revendication 1 , se caracterisant en ce que durant le balayage, l'air est aspire par la station par le haut de la structure pour eviter toute surpression dans l'enceinte, et evacue vers l'exterieur.

[CLM0003] Procede selon la revendication 1 ou 2 , se caracterisant en ce que l'on regule l'un ou plusieurs des parametres suivants au cours d'une phase de stockage des produits sous une telle enveloppe : la teneur en oxygene dans l'enceinte interne a l'enveloppe, la teneur en CO

2 dans l'enceinte interne a l'enveloppe, l'hygrometrie dans l'enceinte interne a l'enveloppe, et la temperature dans l'enceinte interne a l'enveloppe.

[CLM0004] Procede selon l'une des revendications precedentes , se caracterisant en ce que lorsqu'il est necessaire d'acceder aux produits stockes sur une palette sous enveloppe, on actionne, manuellement ou automatiquement, le remplacement par de l'air de l'atmosphere protectrice en vigueur dans l'enveloppe abaissee, air purge qui est souffle vers l'exterieur, puis l'on actionne, manuellement ou automatiquement, la remontee de l'enveloppe, par exemple quand des seuils gazeux de securite a l'interieur de l'enveloppe sont atteints.

[CLM0005] Procede selon l'une des revendications precedentes , se caracterisant en ce que la station est munie d'un Interface Homme Machine qui comporte des recettes de conservation pour chaque produit ou categorie de produits pouvant etre stockes sur les palettes.

[CLM0006] Installation de conservation de produits alimentaires frais, conservation au cours de laquelle les produits sont positionnes sur un support, par exemple sur une palette (P) ou autre support voire au sol, palettes/supports destine(e)s une fois charge(e)s a etre stocke(e)s dans une chambre de stockage pouvant etre refrigeree, et ou une enveloppe est installee autour de chaque palette/support charge(e) en produits, installation comprenant un systeme de creation d'une enveloppe (E) autour de chaque palette/support, systeme localise au sein de la chambre de stockage, se caracterisant en ce que le systeme de creation d'une enveloppe comporte les moyens suivants :
- le systeme de creation d'une enveloppe comprend au moins une station (S), localisee au sein de la chambre destinee a stocker les produits, station qui comprend une enveloppe (E) et qui comprend des moyens, automatiques ou manuels, pour abaisser l'enveloppe sur une palette/support charge(e) en produits et remonter l'enveloppe sur demande, par exemple pour permettre l'acces aux produits stockes sur la palette/support considere(e);
- le systeme comprend des moyens permettant de balayer l'enceinte hermetique ainsi creee a l'interieur de l'enveloppe avec un melange de gaz choisi, adapte pour la conservation des produits concernes.

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storage chamber; fresh fruit; envelope creation system; selected gas mixture; vegetable storage solution; storage hood; sealed enclosure; packaged pallet; preservation atmosphere; storage parameter; fresh food product; relevant fruit; storage phase; storage condition; storage location; gas injection; envelope management; safety gas threshold. storage store; red fruit; fruit box; storage area; long-term storage; conservation recipe: product loaded; preservation parameter; oxygen content; protective atmosphere; man-machine interface; cooled air atmosphere