EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1068

DATE: MAY 1, 2021

PROJECT RP0599

The following classification changes will be effected by this Notice of Changes:

Action	**Subclass**	**Group(s)**
SCHEME:		
Symbols Deleted:	H05H	2001/2412, 2001/2418, 2001/2425, 2001/2431, 2001/2437, 2001/2443, 2001/245, 2001/2456, 2001/2462, 2001/2468, 2001/2481, 2001/2487, 2001/2493, 2001/3415, 2001/3421, 2001/3426, 2001/3431, 2001/3436, 2001/3442, 2001/3447, 2001/3452, 2001/3457, 2001/3463, 2001/3468, 2001/3473, 2001/3478, 2001/3484, 2001/3489, 2001/3494, 2001/4607, 2001/4615, 2001/4622, 2001/463, 2001/4637, 2001/4645, 2001/4652, 2001/466, 2001/4667, 2001/4675, 2001/4682, 2001/469, 2001/4692, 2001/4695, 2001/4697, 2001/481, 2001/483, 2001/485, 2001/486, 2001/488
	H05H	2242/1005
	H05H	2245/104, 2245/12, 2245/121, 2245/1215, 2245/122, 2245/1225, 2245/123, 2245/1235, 2245/124, 2245/125
Symbols New:	H05H	1/01, 1/2418, 1/2425, 1/2431, 1/2437, 1/2439, 1/2441, 1/2443, 1/245, 1/246, 1/2465, 1/247, 1/2481, 1/2487, 1/2493, 1/3421, 1/3423, 1/3425, 1/3431, 1/3436, 1/3442, 1/3447, 1/3452, 1/3457, 1/3463, 1/3468, 1/3473, 1/3478, 1/3484, 1/3489, 1/3494, 1/461, 1/4615, 1/4622, 1/463, 1/4637, 1/4645, 1/4652, 1/466, 1/4697, 1/47, 1/471, 1/473, 1/475, 1/477, 1/481, 1/482, 1/484, 1/486, 1/488
	H05H	2242/20, 2242/22, 2242/24, 2242/26
	H05H	2245/10, 2245/15, 2245/17, 2245/20, 2245/30, 2245/32, 2245/34, 2245/36, 2245/40, 2245/42, 2245/50, 2245/60, 2245/70, 2245/80
Titles Changed:	H05H	1/0006, 1/0012, 1/0037, 1/005, 1/0056, 1/0062, 1/0068, 1/0081, 1/0087, 1/0093, 1/24, 1/2406, 1/2475, 1/26, 1/34, 1/3405, 1/341
	H05H	13/10
	H05H	15/00
	H05H	2240/00

CPC NOTICE OF CHANGES 1068

DATE: MAY 1, 2021

PROJECT RP0599

Action	Subclass	Group(s)
	H05H	2245/00
	H05H	2277/00, 2277/13, 2277/1405
Warnings New:	H05H	1/00, 1/01, 1/24, 1/2406, 1/2439, 1/2441, 1/247, 1/34, 1/3423, 1/3425, 1/4697, 1/48, 1/481, 1/482, 1/484, 1/486, 1/488
	H05H	2242/20, 2242/22, 2242/24, 2242/26
	H05H	2245/30, 2245/32, 2245/34
DEFINITIONS:		
Definitions Deleted: (no frozen (F) symbol definitions should be deleted)	H05H	2001/481
Definitions New:	H05H	1/47
Definitions Modified:	H05H	1/0006, 1/0037, 1/005, 1/0056, 1/0062, 1/0068, 1/0081, 1/0087, 1/0093, 1/24, 1/2406, 1/2475, 1/26, 1/30, 1/32, 1/34, 1/3405, 1/341, 1/46, 1/48

The following subclasses/groups are also impacted by this Notice of Changes (indicate subclasses/groups outside of the project scope, such as those listed in the CRL):
H03H7/00

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES

   ☒   A. New, Modified or Deleted Group(s)

   ☒   B. New, Modified or Deleted Warning(s)

   ☐   C. New, Modified or Deleted Note(s)

   ☐   D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

   ☒   A. New or Modified Definitions (Full definition template)

   ☒   B. Modified or Deleted Definitions (Definitions Quick Fix)

3. ☒   REVISION CONCORDANCE LIST (RCL)

4. ☒   CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. ☒   CHANGES TO THE CROSS-REFERENCE LIST (CRL)

DATE: MAY 1, 2021

PROJECT RP0599

1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS H05H – PLASMA TECHNIQUE (…); PRODUCTION OF ACCELERATED ELECTRICALLY-CHARGED PARTICLES OR OF NEUTRONS (…); PRODUCTION OR ACCELERATION OF NEUTRAL MOLECULAR OR ATOMIC BEAMS (…)

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
C	H05H 1/00	0	Generating plasma; Handling plasma	H05H 1/00, H05H1/01
M	H05H 1/0006	1	{Investigating plasma, e.g. measuring the degree of ionisation or the electron temperature}	
M	H05H 1/0012	2	{using electromagnetic or particle radiation, e.g. interferometry}	
M	H05H 1/0037	3	{by spectrometry}	
M	H05H 1/005	3	{by using X-rays or alpha rays}	
M	H05H 1/0056	3	{by using neutrons}	
M	H05H 1/0062	3	{by using microwaves}	
M	H05H 1/0068	2	{by thermal means}	
M	H05H 1/0081	2	{by electric means}	
M	H05H 1/0087	2	{by magnetic means}	
M	H05H 1/0093	2	{by acoustic means, e.g. ultrasonic}	
N	H05H 1/01	1	{Handling plasma, e.g. of subatomic particles}	
C	H05H 1/24	1	Generating plasma {(nuclear fusion reactors G21B1/00; gas-filled discharge reactors H01J37/32)}	H05H 1/24, H05H 1/247, H05H 1/4697
C	H05H 1/2406	2	{using dielectric barrier discharges, i.e. with a dielectric interposed between the electrodes}	H05H 1/2406, H05H 1/2439, H05H 1/2441
D	H05H 2001/2412	3	{the dielectric being interposed between the electrodes}	<administrative transfer to H05H 1/2406 INV>
D	H05H 2001/2418	3	{the electrodes being embedded in the dielectric}	<administrative transfer to H05H 1/2418 INV>
N	H05H 1/2418	3	{the electrodes being embedded in the dielectric}	
D	H05H 2001/2425	3	{the electrodes being flush with the dielectric}	<administrative transfer to H05H 1/2425 INV>
N	H05H 1/2425	3	{the electrodes being flush with the dielectric}	
D	H05H 2001/2431	3	{Cylindrical electrodes}	<administrative transfer to H05H 1/2431 INV>
N	H05H 1/2431	3	{using cylindrical electrodes, e.g. rotary drums}	
D	H05H 2001/2437	3	{Multilayer systems}	<administrative transfer to H05H 1/2437 INV>

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	H05H 1/2437	3	{Multilayer systems}	
N	H05H 1/2439	3	{Surface discharges, e.g. air flow control}	
N	H05H 1/2441	3	{characterised by the physical-chemical properties of the dielectric, e.g. porous dielectric}	
D	H05H 2001/2443	3	{Flow through, i.e. the plasma fluid flowing in a dielectric tube}	<administrative transfer to H05H 1/2443 INV>
N	H05H 1/2443	3	{the plasma fluid flowing through a dielectric tube}	
D	H05H 2001/245	4	{Internal electrodes}	<administrative transfer to H05H 1/245 INV>
N	H05H 1/245	4	{the plasma being activated using internal electrodes}	
D	H05H 2001/2456	4	{External electrodes}	<administrative transfer to H05H 1/246 INV>
N	H05H 1/246	4	{the plasma being activated using external electrodes (H05H 1/245 takes precedence)}	
D	H05H 2001/2462	4	{Ring electrodes}	<administrative transfer to H05H 1/2465 INV>
D	H05H 2001/2468	4	{Spiral electrodes}	<administrative transfer to H05H 1/2465 INV>
N	H05H 1/2465	4	{the plasma being activated by inductive coupling, e.g. using coiled electrodes}	
N	H05H 1/247	2	{using discharges in liquid media}	
M	H05H 1/2475	2	{using acoustic pressure discharges}	
D	H05H 2001/2481	3	{Piezoelectric actuators}	<administrative transfer to H05H 1/2481 INV>
N	H05H 1/2481	3	{the plasma being activated using piezoelectric actuators}	
D	H05H 2001/2487	3	{Mechanical actuators}	<administrative transfer to H05H 1/2487 INV>
N	H05H 1/2487	3	{the plasma being activated using mechanical actuators}	
D	H05H 2001/2493	3	{Horns}	<administrative transfer to H05H 1/2493 INV>
N	H05H 1/2493	3	{the plasma being activated using horns}	
M	H05H 1/26	2	Plasma torches	
U	H05H 1/32	3	using an arc (H05H 1/28 takes precedence)	
C	H05H 1/34	4	Details, e.g. electrodes, nozzles	H05H 1/34, H05H 1/3423, H05H 1/3425
M	H05H 1/3405	5	{Arrangements for stabilising or constricting the arc, e.g. by an additional gas flow}	
M	H05H 1/341	5	{Arrangements for providing coaxial protecting fluids}	
D	H05H 2001/3415	5	{indexing scheme associated with H05H 1/34}	<administrative transfer to H05H 1/34 INV>

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
D	H05H 2001/3421	6	{transferred arc mode}	<administrative transfer to H05H 1/3421 INV>
N	H05H 1/3421	5	{Transferred arc or pilot arc mode}	
N	H05H 1/3423	5	{Connecting means, e.g. electrical connecting means or fluid connections}	
N	H05H 1/3425	5	{Melting or consuming electrodes}	
D	H05H 2001/3426	6	{pilot arc}	<administrative transfer to H05H 1/3421 INV>
D	H05H 2001/3431	6	{coaxial cylindrical electrodes}	<administrative transfer to H05H 1/3431 INV>
N	H05H 1/3431	5	{Coaxial cylindrical electrodes}	
D	H05H 2001/3436	6	{hollow cathode with internal coolant flow}	<administrative transfer to H05H 1/3436 INV>
N	H05H 1/3436	5	{Hollow cathodes with internal coolant flow}	
D	H05H 2001/3442	6	{cathode with inserted tip}	<administrative transfer to H05H 1/3442 INV>
N	H05H 1/3442	5	{Cathodes with inserted tip}	
D	H05H 2001/3447	6	{rod-like cathode}	<administrative transfer to H05H 1/3447 INV>
N	H05H 1/3447	5	{Rod-like cathodes}	
D	H05H 2001/3452	6	{supplementary electrodes between cathode and anode, e.g. cascade}	<administrative transfer to H05H 1/3452 INV>
N	H05H 1/3452	5	{Supplementary electrodes between cathode and anode, e.g. cascade}	
D	H05H 2001/3457	6	{nozzle protection devices}	<administrative transfer to H05H 1/3457 INV>
N	H05H 1/3457	5	{Nozzle protection devices}	
D	H05H 2001/3463	6	{oblique nozzle}	<administrative transfer to H05H 1/3463 INV>
N	H05H 1/3463	5	{Oblique nozzles}	
D	H05H 2001/3468	6	{vortex generator}	<administrative transfer to H05H 1/3468 INV>
N	H05H 1/3468	5	{Vortex generators}	
D	H05H 2001/3473	6	{safety means}	<administrative transfer to H05H 1/3473 INV>
N	H05H 1/3473	5	{Safety means}	
D	H05H 2001/3478	6	{geometrical details}	<administrative transfer to H05H 1/3478 INV>
N	H05H 1/3478	5	{Geometrical details}	
D	H05H 2001/3484	6	{convergent/divergent nozzle}	<administrative transfer to H05H 1/3484 INV>
N	H05H 1/3484	5	{Convergent-divergent nozzles}	
D	H05H 2001/3489	6	{contact starting}	<administrative transfer to H05H 1/3489 INV>
N	H05H 1/3489	5	{Means for contact starting}	

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
D	H05H 2001/3494	6	{discharge parameter control}	<administrative transfer to H05H 1/3494 INV>
N	H05H 1/3494	5	{Means for controlling discharge parameters}	
D	H05H 2001/4607	3	{Microwave discharges}	<administrative transfer to H05H 1/461 INV>
N	H05H 1/461	3	{Microwave discharges}	
D	H05H 2001/4615	4	{Surface waves}	<administrative transfer to H05H 1/4615 INV>
N	H05H 1/4615	4	{using surface waves}	
D	H05H 2001/4622	4	{Waveguides}	<administrative transfer to H05H 1/4622 INV>
N	H05H 1/4622	4	{using waveguides}	
D	H05H 2001/463	4	{Antennas or applicators}	<administrative transfer to H05H 1/463 INV>
N	H05H 1/463	4	{using antennas or applicators}	
D	H05H 2001/4637	4	{Cables}	<administrative transfer to H05H 1/4637 INV>
N	H05H 1/4637	4	{using cables}	
D	H05H 2001/4645	3	{Radiofrequency discharges}	<administrative transfer to H05H 1/4645 INV>
N	H05H 1/4645	3	{Radiofrequency discharges}	
D	H05H 2001/4652	4	{Inductively coupled}	<administrative transfer to H05H 1/4652 INV>
N	H05H 1/4652	4	{using inductive coupling means, e.g. coils}	
D	H05H2001/466	5	{Electrodes}	<administrative transfer to H05H 1/466 INV>
N	H05H 1/466	4	{using capacitive coupling means, e.g. electrodes}	
D	H05H 2001/4667	5	{Coiled antennas}	<administrative transfer to H05H 1/4652 INV>
D	H05H 2001/4675	4	{Capacitively coupled}	<administrative transfer to H05H 1/466 INV>
D	H05H 2001/4682	4	{Associated power generators, e. G. Circuits, matching networks}	<administrative transfer to H05H2242/20>
D	H05H 2001/469	3	{Flow through, i.e. the plasma fluid flowing in a non-dielectric vessel}	<administrative transfer to H05H 1/46 INV>
D	H05H 2001/4692	4	{dielectric barrier discharge (H05H 1/2406 takes precedence)}	<administrative transfer to H05H 1/2406 INV>
D	H05H 2001/4695	4	{Arc discharge}	<administrative transfer to H05H 1/48 INV>
D	H05H 2001/4697	4	{Glow discharge}	<administrative transfer to H05H 1/4697 INV>
N	H05H 1/4697	2	{using glow discharges}	
N	H05H 1/47	2	{using corona discharges}	
N	H05H 1/471	3	{Pointed electrodes}	
N	H05H 1/473	3	{Cylindrical electrodes, e.g. rotary drums}	

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	H05H 1/475	3	{Filamentary electrodes}	
N	H05H 1/477	3	{Segmented electrodes}	
C	H05H 1/48	2	using an arc (H05H1/26 takes precedence)	H05H 1/48, H05H 1/481, H05H 1/482, H05H 1/484, H05H 1/486, H05H 1/488
D	H05H 2001/481	3	{Corona discharges}	<administrative transfer to H05H 1/47 INV>
D	H05H 2001/483	4	{Pointed electrodes}	<administrative transfer to H05H 1/471 INV>
D	H05H 2001/485	4	{Cylindrical electrodes, e.g. Rotary drums electrodes}	<administrative transfer to H05H 1/473 INV>
D	H05H 2001/486	4	{Filamentary electrodes}	<administrative transfer to H05H 1/475 INV>
D	H05H 2001/488	4	{Segmented electrodes}	<administrative transfer to H05H 1/477 INV>
N	H05H 1/481	3	{Hollow cathodes}	
N	H05H 1/482	3	{Arrangements to provide gliding arc discharges}	
N	H05H 1/484	3	{Arrangements to provide plasma curtains or plasma showers}	
N	H05H 1/486	3	{Arrangements to provide capillary discharges}	
N	H05H 1/488	3	{Liquid electrodes}	
M	H05H 13/10	1	Accelerators comprising one or more linear accelerating sections and bending magnets or the like to return the charged particles in a trajectory parallel to the first accelerating section, e.g. microtrons {or rhodotrons}	
M	H05H 15/00	0	Methods or devices for acceleration of charged particles not otherwise provided for{, e.g. wakefield accelerators}	
M	H05H 2240/00	0	Testing	
U	H05H 2242/00	0	Auxiliary systems	
U	H05H 2242/10	1	Cooling arrangements	
D	H05H 2242/1005	2	Power supply other than for plasma torches	<administrative transfer to H05H 2242/20>
Q	H05H 2242/20	1	Power circuits	H05H 2242/20, H05H 2242/22, H05H 2242/24, H05H 2242/26
N	H05H 2242/22	2	DC, AC or pulsed generators	
N	H05H 2242/24	2	Radiofrequency or microwave generators	
N	H05H 2242/26	2	Matching networks	
T	H05H 2245/00	0	Applications of plasma devices	
N	H05H 2245/10	1	Treatment of gases	
D	H05H 2245/104	1	spiral electrodes	<administrative transfer to H05H 1/4652 INV>

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
D	H05H 2245/12	1	Applications	<administrative transfer to H05H 2245/00>
D	H05H 2245/121	2	treatment of exhaust gas, e.g. Ambient air, ozonizers	<administrative transfer to H05H 2245/15>
D	H05H 2245/1215	3	Exhaust gas	<administrative transfer to H05H 2245/17>
D	H05H 2245/122	2	medical applications {, e.g. plasma scalpels, blades, bistouri}	<administrative transfer to H05H 2245/30>
D	H05H 2245/1225	3	Sterilization of objects	<administrative transfer to H05H 2245/36>
D	H05H 2245/123	2	surface treatments	<administrative transfer to H05H 2245/40>
D	H05H 2245/1235	3	coating of large volume items	<administrative transfer to H05H 2245/42>
D	H05H 2245/124	2	production of nanostructures	<administrative transfer to H05H 2245/50>
D	H05H 2245/125	2	portable devices	<administrative transfer to H05H 2245/60>
N	H05H 2245/15	2	Ambient air; Ozonisers	
N	H05H 2245/17	2	Exhaust gases	
N	H05H 2245/20	1	Treatment of liquids	
Q	H05H 2245/30	1	Medical applications	H05H 2245/30, H05H 2245/32, H05H 2245/34
N	H05H 2245/32	2	Surgery, e.g. scalpels, blades or bistoury; Treatments inside the body	
N	H05H 2245/34	2	Skin treatments, e.g. disinfection or wound treatment	
N	H05H 2245/36	2	Sterilisation of objects, liquids, volumes or surfaces	
N	H05H 2245/40	1	Surface treatments	
N	H05H 2245/42	2	Coating or etching of large items	
N	H05H 2245/50	1	Production of nanostructures	
N	H05H 2245/60	1	Portable devices	
N	H05H 2245/70	1	Automotive applications, e.g. engines	
N	H05H 2245/80	1	Burners or furnaces for heat generation, for fuel combustion or for incineration of wastes	
M	H05H 2277/00	0	Applications of particle accelerators	
M	H05H 2277/13	1	Nuclear physics, e.g. spallation sources, accelerator driven systems, search or generation of exotic elements	
M	H05H 2277/1405	2	Detection systems, e.g. for safety	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from

C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only <u>subclasses</u>, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} <u>are</u> used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required "anchor" symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types .
- "Transferred to" column <u>must</u> be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("Transferred to") symbol, however it is required to specify "<no transfer>" in the "Transferred to" column for such cases.
- For finalisation projects, the deleted "F" symbols should have <no transfer> in the "Transferred to" column.
- For more details about the types of scheme change, see CPC Guide.

B.   New, Modified or Deleted Warning(s)

SUBCLASS H05H – PLASMA TECHNIQUE (…); PRODUCTION OF ACCELERATED   ELECTRICALLY-CHARGED PARTICLES OR OF NEUTRONS (…); PRODUCTION OR ACCELERATION OF NEUTRAL MOLECULAR OR ATOMIC BEAMS (…)

Type*	Location	Old Warning	New/Modified Warning
N	H05H 1/00		Group H05H 1/00 is impacted by reclassification into group H05H 1/01. Groups H05H 1/00 and H05H 1/01 should be considered in order to perform a complete search.
N	H05H 1/01		Group H05H 1/01 is incomplete pending reclassification of documents from group H05H 1/00. Groups H05H 1/00 and H05H 1/01 should be considered in order to perform a complete search.
N	H05H 1/24		Group H05H 1/24 is impacted by reclassification into groups H05H 1/247 and H05H 1/4697. Groups H05H 1/24, H05H 1/247 and H05H 1/4697 should be considered in order to perform a complete search.
N	H05H 1/2406		Group H05H 1/2406 is impacted by reclassification into groups H05H 1/2439 and H05H 1/2441. Groups H05H 1/2406, H05H 1/2439 and H05H 1/2441 should be considered in order to perform a complete search.
N	H05H 1/2439		Group H05H 1/2439 is incomplete pending reclassification of documents from group H05H 1/2406. Groups H05H 1/2406 and H05H 1/2439 should be considered in order to perform a complete search.
N	H05H 1/2441		Group H05H 1/2441 is incomplete pending reclassification of documents from group H05H 1/2406. Groups H05H 1/2406 and H05H 1/2441 should be considered in order to perform a complete search.
N	H05H 1/247		Group H05H 1/247 is incomplete pending reclassification of documents from group H05H 1/24. Groups H05H 1/24 and H05H 1/247 should be considered in order to perform a complete search.
N	H05H 1/34		Group H05H 1/34 is impacted by reclassification into groups H05H 1/3423 and H05H 1/3425. Groups H05H 1/34, H05H 1/3423 and H05H 1/3425 should be considered in order to perform a complete search.
N	H05H 1/3423		Group H05H 1/3423 is incomplete pending reclassification of documents from group H05H 1/34. Groups H05H 1/34 and H05H 1/3423 should be considered in order to perform a complete search.
N	H05H 1/3425		Group H05H 1/3425 is incomplete pending reclassification of documents from group H05H 1/34. Groups H05H 1/34 and H05H 1/3425 should be considered in order to perform a complete search.
N	H05H 1/4697		Group H05H 1/4697 is incomplete pending reclassification of documents from group H05H 1/24. Groups H05H 1/24 and

Type*	Location	Old Warning	New/Modified Warning
			H05H 1/4697 should be considered in order to perform a complete search.
N	H05H 1/48		Group H05H 1/48 is impacted by reclassification into groups H05H 1/481, H05H 1/482, H05H 1/484, H05H 1/486 and H05H 1/488. All groups listed in this Warning should be considered in order to perform a complete search.
N	H05H 1/481		Group H05H 1/481 is incomplete pending reclassification of documents from group H05H 1/48. Groups H05H 1/48 and H05H 1/481 should be considered in order to perform a complete search.
N	H05H 1/482		Group H05H 1/482 is incomplete pending reclassification of documents from group H05H 1/48. Groups H05H 1/48 and H05H 1/482 should be considered in order to perform a complete search.
N	H05H 1/484		Group H05H 1/484 is incomplete pending reclassification of documents from group H05H 1/48. Groups H05H 1/48 and H05H 1/484 should be considered in order to perform a complete search.
N	H05H 1/486		Group H05H 1/486 is incomplete pending reclassification of documents from group H05H 1/48. Groups H05H 1/48 and H05H 1/486 should be considered in order to perform a complete search.
N	H05H 1/488		Group H05H 1/488 is incomplete pending reclassification of documents from group H05H 1/48. Groups H05H 1/48 and H05H 1/488 should be considered in order to perform a complete search.
N	H05H 2242/20		Group H05H 2242/20 is impacted by reclassification into groups H05H 2242/22, H05H 2242/24 and H05H 2242/26. All groups listed in this Warning should be considered in order to perform a complete search.
N	H05H 2242/22		Group H05H 2242/22 is incomplete pending reclassification of documents from group H05H 2242/20. Groups H05H 2242/20 and H05H 2242/22 should be considered in order to perform a complete search.
N	H05H 2242/24		Group H05H 2242/24 is incomplete pending reclassification of documents from group H05H 2242/20. Groups H05H 2242/20 and H05H 2242/24 should be considered in order to perform a complete search.
N	H05H 2242/26		Group H05H 2242/26 is incomplete pending reclassification of documents from group H05H 2242/20. Groups H05H 2242/20 and H05H 2242/26 should be considered in order to perform a complete search.
N	H05H 2245/30		Group H05H 2245/30 is impacted by reclassification into groups H05H 2245/32 and H05H 2245/34. Groups H05H 2245/30, H05H 2245/32 and H05H 2245/34 should be considered in order to perform a complete search.
N	H05H 2245/32		Group H05H 2245/32 is incomplete pending reclassification of documents from group H05H 2245/30. Groups H05H 2245/30 and

DATE: MAY 1, 2021

PROJECT RP0599

Type*	Location	Old Warning	New/Modified Warning
			H05H 2245/32 should be considered in order to perform a complete search.
N	H05H 2245/34		Group H05H 2245/34 is incomplete pending reclassification of documents from group H05H 2245/30. Groups H05H 2245/30 and H05H 2245/34 should be considered in order to perform a complete search.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

2. A. DEFINITIONS (new)

<u>Insert</u>: The following new Definition.

H05H1/47

Definition statement

This place covers:

Plasma systems, other than torches, for treatment of object surfaces, wherein plasma is generated by a corona discharge (i.e. the discharge occurs when the strength of the electric field around the electrode is high enough to form a conductive region, but not high enough to cause electrical breakdown or arcing to the object).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dielectric barrier discharge devices	H05H1/2406

2. B. DEFINITIONS QUICK FIX

Symbol	Location of change (e.g., section title)	Existing reference symbol or text	Action; New symbol; New text
H05H 1/0006	Limiting References		Delete the entire section.
H05H 1/0006			Insert a new Informative references section with the following reference: Measuring the arc parameters in a plasma arc torch H05H 1/34, H05H 1/36
H05H 1/0037	Limiting References		Delete the entire section.
H05H 1/0037	Informative References		Insert the following new reference in the Informative references section: Mass spectrometry H01J 49/00
H05H 1/005	Limiting References		Delete the entire section.
H05H 1/005			Insert a new Informative references section with the following reference: Investigating materials by particle or neutron radiation G01N 23/00
H05H 1/0056	Limiting References		Delete the entire section.
H05H 1/0056			Insert a new Informative references section with the following reference: Investigating materials by particle or neutron

			radiation G01N 23/00
H05H 1/0062	Limiting References		<u>Delete</u> the entire section.
H05H 1/0062			<u>Insert</u> a new Informative references section with the following reference: Investigating materials by use of microwaves G01N 22/00
H05H 1/0068	Limiting References		<u>Delete</u> the entire section.
H05H 1/0068			<u>Insert</u> a new Informative references section with the following reference: Investigating materials by use of thermal means G01N 25/00
H05H 1/0081	Limiting References		<u>Delete</u> the entire section.
H05H 1/0081			<u>Insert</u> a new Informative references section with the following references: Investigating materials by use of electric or magnetic means G01N 27/00 Measuring electric or magnetic variables G01R
H05H 1/0087	Limiting References		<u>Delete</u> the entire section.
H05H 1/0087			<u>Insert</u> a new Informative references section with the following references:

			Investigating materials by use of electric or magnetic means G01N 27/00 Measuring electric or magnetic variables G01R
H05H 1/0093	Limiting References		<u>Delete</u> the entire section.
H05H 1/0093			<u>Insert</u> a new Informative references section with the following reference: Investigating materials by use of ultrasonic, sonic or infrasonic waves G01N 29/00
H05H 1/24	Limiting References		<u>Delete</u> the following two references from the Limiting references table: Ohmic heating H05H 1/20 Injection heating H05H 1/22
H05H 1/24			<u>Insert</u> a new Informative references section with the following references: Ohmic heating H05H 1/20 Injection heating H05H 1/22
H05H 1/2406	Limiting References		<u>Delete</u> the entire section.
H05H 1/2406			<u>Insert</u> a new Informative references section with the following reference:

			Dielectric-barrier discharges in gas-filled discharge tubes H01J 37/32
H05H 1/2475	Limiting References		<u>Delete</u> the entire section.
H05H 1/2475			<u>Insert</u> a new Informative references section with the following reference: Plasma generated by shock-waves H05H 1/52
H05H 1/26	Limiting References		<u>Delete</u> the entire section.
H05H 1/26	Informative references		<u>Insert</u> the following references in the Informative references table: Generation of plasma by RF or microwaves H05H 1/46 Devices external to, and connected to, the plasma generating torch B23K 10/00 Generation of plasma in a gas-filled tube H01J 37/32
H05H 1/30	Limiting References		<u>Delete</u> the entire section.
H05H 1/30	Informative references		<u>Insert</u> the following reference in the Informative references table: Arrangements for arc stabilization by means of externally applied magnetic fields H05H 1/40

H05H 1/32	Limiting References		Delete the entire section.
H05H 1/32	Informative references		Insert the following references in the Informative references table: Generation of plasma by RF or microwaves H05H 1/46 Devices external to, and connected to, the plasma generating torch B23K 10/00 Generation of plasma in a gas-filled tube H01J 37/32
H05H 1/34	Limiting References		Delete the entire section.
H05H 1/34			Insert a new Informative references section with the following references: Circuits for supplying power to the torch H05H 1/36 Features related to welding or cutting electrodes B23K 9/24
H05H 1/3405	Limiting References		Delete the entire section.
H05H 1/3405			Insert a new Informative references section with the following references: Arrangements providing protecting fluids coaxial with the plasma jet H05H 1/341 Arrangements for arc stabilization by means of externally applied

			magnetic fields H05H 1/40
H05H 1/341	Limiting References		Delete the entire section.
H05H 1/341			Insert a new Informative references section with the following reference: Arrangements for controlling the plasma jet H05H 1/3405
H05H 2001/481			Delete the entire Definition.
H05H 1/46	Limiting References		Delete the following references from the Limiting references table: Dielectric barrier discharge devices H05H 1/2406 Plasma devices using an arc H05H 1/48
H05H 1/46	Informative References		Insert the following references in the Informative references table: Dielectric barrier discharge devices H05H 1/2406 Plasma devices using an arc H05H 1/48
H05H 1/48	Limiting References		Delete the following reference from the Limiting references table: Systems with plasma generated by EM fields H05H 1/46
H05H 1/48	Informative references		Insert a new Informative references section with the following reference:

			Systems with plasma generated by EM fields H05H 1/46

NOTES:
- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

DATE: MAY 1, 2021

PROJECT RP0599

3.   REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
C	H05H 1/00	H05H 1/00, H05H 1/01
C	H05H 1/24	H05H 1/24, H05H 1/247, H05H 1/4697
C	H05H 1/2406	H05H 1/2406, H05H 1/2439, H05H 1/2441
D	H05H 2001/2412	<administrative transfer to H05H 1/2406 INV>
D	H05H 2001/2418	<administrative transfer to H05H 1/2418 INV>
D	H05H 2001/2425	<administrative transfer to H05H 1/2425 INV>
D	H05H 2001/2431	<administrative transfer to H05H 1/2431 INV>
D	H05H 2001/2437	<administrative transfer to H05H 1/2437 INV>
D	H05H 2001/2443	<administrative transfer to H05H 1/2443 INV>
D	H05H 2001/245	<administrative transfer to H05H 1/245 INV>
D	H05H 2001/2456	<administrative transfer to H05H 1/246 INV>
D	H05H 2001/2462	<administrative transfer to H05H 1/2465 INV>
D	H05H 2001/2468	<administrative transfer to H05H 1/2465 INV>
D	H05H 2001/2481	<administrative transfer to H05H 1/2481 INV>
D	H05H 2001/2487	<administrative transfer to H05H 1/2487 INV>
D	H05H 2001/2493	<administrative transfer to H05H 1/2493 INV>
C	H05H 1/34	H05H 1/34, H05H 1/3423, H05H 1/3425
D	H05H 2001/3415	<administrative transfer to H05H 1/34 INV>
D	H05H 2001/3421	<administrative transfer to H05H 1/3421 INV>
D	H05H 2001/3426	<administrative transfer to H05H 1/3421 INV>
D	H05H 2001/3431	<administrative transfer to H05H 1/3431 INV>
D	H05H 2001/3436	<administrative transfer to H05H 1/3436 INV>
D	H05H 2001/3442	<administrative transfer to H05H 1/3442 INV>
D	H05H 2001/3447	<administrative transfer to H05H 1/3447 INV>
D	H05H 2001/3452	<administrative transfer to H05H 1/3452 INV>
D	H05H 2001/3457	<administrative transfer to H05H 1/3457 INV>
D	H05H 2001/3463	<administrative transfer to H05H 1/3463 INV>
D	H05H 2001/3468	<administrative transfer to H05H 1/3468 INV>
D	H05H 2001/3473	<administrative transfer to H05H 1/3473 INV>
D	H05H 2001/3478	<administrative transfer to H05H 1/3478 INV>
D	H05H 2001/3484	<administrative transfer to H05H 1/3484 INV>
D	H05H 2001/3489	<administrative transfer to H05H 1/3489 INV>
D	H05H 2001/3494	<administrative transfer to H05H 1/3494 INV>
D	H05H 2001/4607	<administrative transfer to H05H 1/461 INV>
D	H05H 2001/4615	<administrative transfer to H05H 1/4615 INV>
D	H05H 2001/4622	<administrative transfer to H05H 1/4622 INV>
D	H05H 2001/463	<administrative transfer to H05H 1/463 INV>
D	H05H 2001/4637	<administrative transfer to H05H 1/4637 INV>
D	H05H 2001/4645	<administrative transfer to H05H 1/4645 INV>
D	H05H 2001/4652	<administrative transfer to H05H 1/4652 INV>
D	H05H 2001/466	<administrative transfer to H05H 1/466 INV>
D	H05H 2001/4667	<administrative transfer to H05H 1/4652 INV>
D	H05H 2001/4675	<administrative transfer to H05H 1/466 INV>
D	H05H 2001/4682	<administrative transfer to H05H 2242/20>
D	H05H 2001/469	<administrative transfer to H05H 1/46 INV>
D	H05H 2001/4692	<administrative transfer to H05H 1/2406 INV>
D	H05H 2001/4695	<administrative transfer to H05H 1/48 INV>

DATE: MAY 1, 2021

PROJECT RP0599

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
D	H05H 2001/4697	<administrative transfer to H05H 1/4697 INV>
C	H05H 1/48	H05H 1/48, H05H 1/481, H05H 1/482, H05H 1/484, H05H 1/486, H05H 1/488
D	H05H 2001/481	<administrative transfer to H05H 1/47 INV>
D	H05H 2001/483	<administrative transfer to H05H 1/471 INV>
D	H05H 2001/485	<administrative transfer to H05H 1/473 INV>
D	H05H 2001/486	<administrative transfer to H05H 1/475 INV>
D	H05H 2001/488	<administrative transfer to H05H 1/477 INV>
D	H05H 2242/1005	<administrative transfer to H05H 2242/20>
Q	H05H 2242/20	H05H 2242/20, H05H 2242/22, H05H 2242/24, H05H 2242/26
D	H05H 2245/104	<administrative transfer to H05H 1/4652 INV>
D	H05H 2245/12	<administrative transfer to H05H 2245/00>
D	H05H 2245/121	<administrative transfer to H05H 2245/15>
D	H05H 2245/1215	<administrative transfer to H05H 2245/17>
D	H05H 2245/122	<administrative transfer to H05H 2245/30>
D	H05H 2245/1225	<administrative transfer to H05H 2245/36>
D	H05H 2245/123	<administrative transfer to H05H 2245/40>
D	H05H 2245/1235	<administrative transfer to H05H 2245/42>
D	H05H 2245/124	<administrative transfer to H05H 2245/50>
D	H05H 2245/125	<administrative transfer to H05H 2245/60>
Q	H05H 2245/30	H05H 2245/30, H05H 2245/32, H05H 2245/34

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:
- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the "To" column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("To") symbol, however it is required to specify "<no transfer>" in the "To" column for such cases.
- RCL is not needed for finalisation projects.

DATE: MAY 1, 2021

PROJECT RP0599

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

CPC	**IPC**	**Action***
H05H 1/01	H05H 1/00	NEW
H05H 2001/2412		DELETE
H05H 2001/2418		DELETE
H05H 1/2418	H05H 1/24	NEW
H05H 2001/2425		DELETE
H05H 1/2425	H05H 1/24	NEW
H05H 2001/2431		DELETE
H05H 1/2431	H05H 1/24	NEW
H05H 2001/2437		DELETE
H05H 1/2437	H05H 1/24	NEW
H05H 1/2439	H05H 1/24	NEW
H05H 1/2441	H05H 1/24	NEW
H05H 2001/2443		DELETE
H05H 1/2443	H05H 1/24	NEW
H05H 2001/245		DELETE
H05H 1/245	H05H 1/24	NEW
H05H 2001/2456		DELETE
H05H 1/246	H05H 1/24	NEW
H05H 2001/2462		DELETE
H05H 1/2465	H05H 1/24	NEW
H05H 2001/2468		DELETE
H05H 1/247	H05H 1/24	NEW
H05H 2001/2481		DELETE
H05H 1/2481	H05H 1/24	NEW
H05H 2001/2487		DELETE
H05H 1/2487	H05H 1/24	NEW
H05H 2001/2493		DELETE
H05H 1/2493	H05H 1/24	NEW
H05H 2001/3415		DELETE
H05H 2001/3421		DELETE
H05H 1/3421	H05H 1/34	NEW
H05H 1/3423	H05H 1/34	NEW
H05H 1/3425	H05H 1/34	NEW
H05H 2001/3426		DELETE
H05H 2001/3431		DELETE
H05H 1/3431	H05H 1/34	NEW
H05H 2001/3436		DELETE
H05H 1/3436	H05H 1/34	NEW
H05H 2001/3442		DELETE
H05H 1/3442	H05H 1/34	NEW
H05H 2001/3447		DELETE
H05H 1/3447	H05H 1/34	NEW

DATE: MAY 1, 2021

PROJECT RP0599

CPC	IPC	Action*
H05H 2001/3452		DELETE
H05H 1/3452	H05H 1/34	NEW
H05H 2001/3457		DELETE
H05H 1/3457	H05H 1/34	NEW
H05H 2001/3463		DELETE
H05H 1/3463	H05H 1/34	NEW
H05H 2001/3468		DELETE
H05H 1/3468	H05H 1/34	NEW
H05H 2001/3473		DELETE
H05H 1/3473	H05H 1/34	NEW
H05H 2001/3478		DELETE
H05H 1/3478	H05H 1/34	NEW
H05H 2001/3484		DELETE
H05H 1/3484	H05H 1/34	NEW
H05H 2001/3489		DELETE
H05H 1/3489	H05H 1/34	NEW
H05H 2001/3494		DELETE
H05H 1/3494	H05H 1/34	NEW
H05H 2001/4607		DELETE
H05H 1/461	H05H 1/46	NEW
H05H 2001/4615		DELETE
H05H 1/4615	H05H 1/46	NEW
H05H 2001/4622		DELETE
H05H 1/4622	H05H 1/46	NEW
H05H 2001/463		DELETE
H05H 1/463	H05H 1/46	NEW
H05H 2001/4637		DELETE
H05H 1/4637	H05H 1/46	NEW
H05H 2001/4645		DELETE
H05H 1/4645	H05H 1/46	NEW
H05H 2001/4652		DELETE
H05H 1/4652	H05H 1/46	NEW
H05H 2001/466		DELETE
H05H 1/466	H05H 1/46	NEW
H05H 2001/4667		DELETE
H05H 2001/4675		DELETE
H05H 2001/4682		DELETE
H05H 2001/469		DELETE
H05H 2001/4692		DELETE
H05H 2001/4695		DELETE
H05H 2001/4697		DELETE
H05H 1/4697	H05H 1/24	NEW
H05H 1/47	H05H 1/24	NEW
H05H 1/471	H05H 1/24	NEW
H05H 1/473	H05H 1/24	NEW

DATE: MAY 1, 2021

PROJECT RP0599

CPC	IPC	Action*
H05H 1/475	H05H 1/24	NEW
H05H 1/477	H05H 1/24	NEW
H05H 2001/481		DELETE
H05H 1/481	H05H 1/48	NEW
H05H 1/482	H05H 1/48	NEW
H05H 2001/483		DELETE
H05H 1/484	H05H 1/48	NEW
H05H 2001/485		DELETE
H05H 2001/486		DELETE
H05H 1/486	H05H 1/48	NEW
H05H 2001/488		DELETE
H05H 1/488	H05H 1/48	NEW
H05H 2242/1005		DELETE
H05H 2242/20	CPCONLY	NEW
H05H 2242/22	CPCONLY	NEW
H05H 2242/24	CPCONLY	NEW
H05H 2242/26	CPCONLY	NEW
H05H 2245/10	CPCONLY	NEW
H05H 2245/104		DELETE
H05H 2245/12		DELETE
H05H 2245/121		DELETE
H05H 2245/1215		DELETE
H05H 2245/122		DELETE
H05H 2245/1225		DELETE
H05H 2245/123		DELETE
H05H 2245/1235		DELETE
H05H 2245/124		DELETE
H05H 2245/125		DELETE
H05H 2245/15	CPCONLY	NEW
H05H 2245/17	CPCONLY	NEW
H05H 2245/20	CPCONLY	NEW
H05H 2245/30	CPCONLY	NEW
H05H 2245/32	CPCONLY	NEW
H05H 2245/34	CPCONLY	NEW
H05H 2245/36	CPCONLY	NEW
H05H 2245/40	CPCONLY	NEW
H05H 2245/42	CPCONLY	NEW
H05H 2245/50	CPCONLY	NEW
H05H 2245/60	CPCONLY	NEW
H05H 2245/70	CPCONLY	NEW
H05H 2245/80	CPCONLY	NEW

*Action column:
- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with "NEW."
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with "UPDATED."

DATE: MAY 1, 2021

PROJECT RP0599

- For a (D) CPC entry or indexing entry complete the Action column with "DELETE." IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with "NEW".
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with "CPCONLY" and complete the action column with "NEW".

NOTES:
- F symbols are not included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.

DATE: MAY 1, 2021

PROJECT RP0599

5. CROSS-REFERENCE LIST (CRL)

Definitions references impacted by this revision project

Location of reference to be changed	Referenced subclass or group to be changed	Section of definition	Action; New reference symbol; New text
H03H7/00	H05H2001/4682	Informative references	Delete the following reference from this section: Automatic impedance matching for plasma or ionization loads H05H2001/4682(B)

NOTES:
- The CRL tables above are used for changes to locations **outside** of the project scope. Changes to references in scheme titles or definitions inside the project scope will be reflected in the "scheme change" template or one of the "definition" templates.
- In addition to other changes proposed in the tables above, in the column titled "Referenced subclass or group to be changed," **referenced** D symbols should indicate an action of "delete" or should indicate a replacement symbol and **referenced** F symbols should indicate a replacement symbol.
- When a reference is deleted, text related to that reference will also be deleted unless other references or a range of references associated with the same text remain.