

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 166

DATE: FEBRUARY 1, 2016

PROJECT RP0297

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
Symbols deleted:	H01M	8/0291
	H01M	8/04261
	H01M	8/04962
	H01M	8/0497
	H01M	8/04977
	H01M	8/04985
	H01M	8/1002
	H01M	8/1206
Symbols deleted pending reclassification (frozen (F)):	H01M	8/2405
	H01M	8/2415
	H01M	8/2445
	H01M	8/245
	H01M	8/246
Symbols newly created:	H01M	8/04197
	H01M	8/04225
	H01M	8/04228
	H01M	8/043
	H01M	8/04302
	H01M	8/04303
	H01M	8/04949
	H01M	8/04951
	H01M	8/04952
	H01M	8/04953
	H01M	8/1007
	H01M	8/1231
	H01M	8/2404
	H01M	8/2418
	H01M	8/2428
	H01M	8/2432
	H01M	8/2457
	H01M	8/2459
	H01M	8/2483
	H01M	8/2484
Title wording change:	H01M	8/008
	H01M	8/02
	H01M	8/0202
	H01M	8/0204
	H01M	8/0206
	H01M	8/0208
	H01M	8/021

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	H01M	8/0213
	H01M	8/0215
	H01M	8/0217
	H01M	8/0221
	H01M	8/0223
	H01M	8/0226
	H01M	8/0228
	H01M	8/023
	H01M	8/0232
	H01M	8/0234
	H01M	8/0236
	H01M	8/0239
	H01M	8/0241
	H01M	8/0243
	H01M	8/0245
	H01M	8/0247
	H01M	8/025
	H01M	8/0252
	H01M	8/0254
	H01M	8/0256
	H01M	8/0258
	H01M	8/026
	H01M	8/0263
	H01M	8/0265
	H01M	8/0267
	H01M	8/0271
	H01M	8/0273
	H01M	8/0276
	H01M	8/028
	H01M	8/0282
	H01M	8/0284
	H01M	8/0286
	H01M	8/0289
	H01M	8/0293
	H01M	8/0295
	H01M	8/0297
	H01M	8/04
	H01M	8/04007
	H01M	8/04014
	H01M	8/04029
	H01M	8/04044
	H01M	8/04074
	H01M	8/04082
	H01M	8/04089
	H01M	8/04111
	H01M	8/04119
	H01M	8/04186
	H01M	8/04223
	H01M	8/04276

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	H01M	8/04291
	H01M	8/04298
	H01M	8/04305
	H01M	8/04313
	H01M	8/0432
	H01M	8/0438
	H01M	8/0444
	H01M	8/04492
	H01M	8/04537
	H01M	8/04664
	H01M	8/04694
	H01M	8/04701
	H01M	8/04746
	H01M	8/04791
	H01M	8/04828
	H01M	8/04858
	H01M	8/04955
	H01M	8/04992
	H01M	8/06
	H01M	8/0606
	H01M	8/0612
	H01M	8/0631
	H01M	8/0637
	H01M	8/065
	H01M	8/0656
	H01M	8/0662
	H01M	8/0668
	H01M	8/083
	H01M	8/086
	H01M	8/1004
	H01M	8/1006
	H01M	8/1009
	H01M	8/1011
	H01M	8/1013
	H01M	8/1016
	H01M	8/1018
	H01M	8/102
	H01M	8/1023
	H01M	8/1025
	H01M	8/1027
	H01M	8/103
	H01M	8/1032
	H01M	8/1034
	H01M	8/1037
	H01M	8/1039
	H01M	8/1041
	H01M	8/1044
	H01M	8/1046
	H01M	8/1048

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	H01M	8/1051
	H01M	8/1053
	H01M	8/1058
	H01M	8/106
	H01M	8/1062
	H01M	8/1065
	H01M	8/1067
	H01M	8/1069
	H01M	8/1072
	H01M	8/1081
	H01M	8/1086
	H01M	8/1088
	H01M	8/1097
	H01M	8/1213
	H01M	8/122
	H01M	8/1226
	H01M	8/1233
	H01M	8/124
	H01M	8/1246
	H01M	8/1253
	H01M	8/126
	H01M	2008/128
	H01M	8/1286
	H01M	8/24
	H01M	8/241
	H01M	8/2415
	H01M	8/242
	H01M	8/2425
	H01M	8/243
	H01M	8/2435
	H01M	8/244
	H01M	8/2445
	H01M	8/245
	H01M	8/246
	H01M	8/2465
	H01M	8/247
	H01M	8/2475
	H01M	8/248
	H01M	8/2485
	H01M	8/249
	H01M	8/2495
Indent change:	H01M	8/0293
	H01M	8/0295
	H01M	8/04223
	H01M	8/04231
	H01M	8/04238
	H01M	8/04246
	H01M	8/04253

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	H01M	8/04268
	H01M	8/04955
	H01M	8/1004
	H01M	8/1006
	H01M	8/1013
	H01M	8/1213
	H01M	8/122
	H01M	8/1226
	H01M	8/241
	H01M	8/2415
	H01M	8/242
	H01M	8/2425
	H01M	8/243
	H01M	8/2435
	H01M	8/244
	H01M	8/2445
	H01M	8/245
	H01M	8/246
	H01M	8/2485
Scheme Warning Notices to be added/modified/deleted:	H01M	8/0258
	H01M	8/026
	H01M	8/0267
	H01M	8/0271
	H01M	8/0273
	H01M	8/0276
	H01M	8/0297
	H01M	8/04223
	H01M	8/04225
	H01M	8/043
	H01M	8/24
	H01M	8/2404
	H01M	8/2405
	H01M	8/241
	H01M	8/2415
	H01M	8/2418
	H01M	8/242
	H01M	8/2425
	H01M	8/2428
	H01M	8/243
	H01M	8/2432
	H01M	8/2435
	H01M	8/2445
	H01M	8/2428
	H01M	8/243
	H01M	8/2432
	H01M	8/2435
	H01M	8/244

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	H01M	8/2445
	H01M	8/245
	H01M	8/2457
	H01M	8/2459
	H01M	8/246
	H01M	8/2465
	H01M	8/2483
	H01M	8/2484
	H01M	8/2485
Scheme Notes to be added:	H01M	8/04

No other subclasses/groups are impacted by this Notice of Changes.

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 Notice(s)
 - C. New, Modified or Deleted Note(s)
 - D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS (New or Modified)
 - A. DEFINITIONS (Full definition template)
 - B. DEFINITIONS (Definitions Quick Fix)
3. REVISION CONCORDANCE LIST (RCL)
4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)**SUBCLASS H01M - PROCESSES OR MEANS, e.g. BATTERIES, FOR THE DIRECT CONVERSION OF CHEMICAL INTO ELECTRICAL ENERGY**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title (new or modified)</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
U	H01M 8/00	0	Fuel cells; Manufacture thereof	
U	H01M8/006	2	{Flat}	
M	H01M 8/008	1	Disposal or recycling of fuel cells	
M	H01M 8/02	1	Details (electrodes H01M4/86 - H01M4/98)	
M	H01M 8/0202	2	Collectors; Separators, e.g. bipolar separators; Interconnectors	
M	H01M 8/0204	3	Non-porous and characterised by the material	
M	H01M 8/0206	4	Metals or alloys	
M	H01M 8/0208	5	Alloys	
M	H01M 8/021	6	Alloys based on iron	
M	H01M 8/0213	4	Gas-impermeable carbon-containing materials	
M	H01M 8/0215	4	Glass; Ceramic materials	
M	H01M 8/0217	5	Complex oxides, optionally doped, of the type AMO ₃ , A being an alkaline earth metal or rare earth metal and M being a metal, e.g. perovskites	
U	H01M8/0219	6	{Chromium complex oxides}	
M	H01M 8/0221	4	Organic resins; Organic polymers	
M	H01M 8/0223	4	Composites	
M	H01M 8/0226	5	in the form of mixtures	
M	H01M 8/0228	5	in the form of layered or coated products	
M	H01M 8/023	3	Porous and characterised by the material	
M	H01M 8/0232	4	Metals or alloys	
M	H01M 8/0234	4	Carbonaceous material	
M	H01M 8/0236	4	Glass; Ceramics; Cermets	
M	H01M 8/0239	4	Organic resins; Organic polymers	
M	H01M 8/0241	4	Composites	
M	H01M 8/0243	5	in the form of mixtures	
M	H01M 8/0245	5	in the form of layered or coated products	
M	H01M 8/0247	3	characterised by the form (characterised by a channel configuration H01M8/0258)	
M	H01M 8/025	4	semicylindrical	
M	H01M 8/0252	4	tubular	
M	H01M 8/0254	4	corrugated or undulated	
M	H01M 8/0256	4	Vias, i.e. connectors passing through the separator material	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
C	H01M 8/0258	3	characterised by the configuration of channels, e.g. by the flow field of the reactant or coolant	H01M8/0258 H01M8/2483
E	H01M 8/026	4	characterised by grooves, e.g. their pitch or depth	
E	H01M 8/0263	4	having meandering or serpentine paths	
E	H01M 8/0265	4	the reactant or coolant channels having varying cross sections	
C	H01M 8/0267	3	having heating or cooling means, e.g. heaters or coolant flow channels	H01M8/0267 H01M8/0258 H01M8/026 H01M8/0263 H01M8/0265 H01M8/2483
U	H01M8/0269	3	{Separators, collectors or interconnectors including a printed circuit board}	
E	H01M 8/0271	2	Sealing or supporting means around electrodes, matrices or membranes	
E	H01M 8/0273	3	with sealing or supporting means in the form of a frame	
C	H01M 8/0276	3	Sealing means characterised by their form (H01M8/0273 takes precedence)	H01M8/0276 H01M8/0273
U	H01M8/0278	4	{O-rings}	
M	H01M 8/028	3	Sealing means characterised by their material	
M	H01M 8/0282	4	Inorganic material	
M	H01M 8/0284	4	Organic resins; Organic polymers	
M	H01M 8/0286	3	Processes for forming seals	
E	H01M 8/0289	2	Means for holding the electrolyte (solid polymer electrolytes H01M8/1018)	
D	H01M 8/0291	3	{Diaphragms; Membranes}	<administrative transfer to H01M8/0289>
M	H01M 8/0293	3	Matrices for immobilising electrolyte solutions	
M	H01M 8/0295	3	Matrices for immobilising electrolyte melts	
C	H01M 8/0297	2	Arrangements for joining electrodes, reservoir layers, heat exchange units or bipolar separators to each other (H01M8/0271 takes precedence)	H01M 8/0297 H01M 8/0271
M	H01M 8/04	1	Auxiliary arrangements, e.g. for control of pressure or for circulation of fluids	
M	H01M 8/04007	2	related to heat exchange	
M	H01M 8/04014	3	Heat exchange using gaseous fluids; Heat exchange by combustion of reactants	
U	H01M8/04022	4	{Heating by combustion}	
M	H01M 8/04029	3	Heat exchange using liquids	
U	H01M8/04037	3	{Electrical heating}	
M	H01M 8/04044	3	Purification of heat exchange media	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	H01M8/04074	4	{Heat exchange unit structures specially adapted for fuel cell (heat exchanger for fuel cells F28D2021/0043)}	
M	H01M 8/04082	2	Arrangements for control of reactant parameters, e.g. pressure or concentration	
M	H01M 8/04089	3	of gaseous reactants	
U	H01M8/04104	4	{Regulation of differential pressures}	
M	H01M 8/04111	4	using a compressor turbine assembly	
M	H01M 8/04119	4	with simultaneous supply or evacuation of electrolyte; Humidifying or dehumidifying	
U	H01M8/04179	6	{by purging or increasing flow or pressure of reactants}	
M	H01M 8/04186	3	of liquid-charged or electrolyte-charged reactants	
U	H01M8/04194	4	{Concentration measuring cells}	
N	H01M8/04197	3	{Preventing means for fuel crossover}	
U	H01M8/04216	4	{characterised by the choice for a specific material, e.g. carbon, hydride, absorbent}	
C	H01M 8/04223	2	during start-up or shut-down; Depolarisation or activation, e.g. purging; Means for short-circuiting defective fuel cells	H01M8/04223 H01M8/04225 H01M8/04228 H01M8/043 H01M8/04302 H01M8/04303
N	H01M 8/04225	3	during start-up	
N	H01M 8/04228	3	during shut-down	
M	H01M8/04231	3	{Purging of the reactants}	
M	H01M8/04238	3	{Depolarisation}	
M	H01M8/04246	3	{Short circuiting means for defective fuel cells (detection of defective fuel cells H01M8/04664, methods for shunting fuel cells H01M8/04955)}	
M	H01M8/04253	3	{Means for solving freezing problems}	
D	H01M8/04261	4	{Preventing means for fuel crossover}	<administrative transfer to H01M8/04197>
M	H01M8/04268	3	{Heating of fuel cells during the start-up of the fuel cells}	
M	H01M8/04276	2	Arrangements for managing the electrolyte stream, e.g. heat exchange	
U	H01M8/04283	3	{Supply means of electrolyte to or in matrix-fuel cells}	
M	H01M8/04291	2	Arrangements for managing water in solid electrolyte fuel cell systems (H01M8/04119 takes precedence)	
M	H01M8/04298	2	Processes for controlling fuel cells or fuel cell systems	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to[#]
N	H01M8/043	3	applied during specific periods	
N	H01M8/04302	4	applied during start-up	
N	H01M8/04303	4	applied during shut-down	
M	H01M8/04305	3	{Modeling, demonstration models of fuel cells, e.g. for training purposes}	
M	H01M8/04313	3	characterised by the detection or assessment of variables; characterised by the detection or assessment of failure or abnormal function	
M	H01M8/0432	4	Temperature; Ambient temperature	
U	H01M8/04373	5	{of auxiliary devices, e.g. reformers, compressors, burners}	
M	H01M8/0438	4	Pressure; Ambient pressure; Flow	
U	H01M8/04432	5	{Pressure differences, e.g. between anode and cathode}	
M	H01M8/0444	4	Concentration; Density (H01M8/04492 takes precedence)	
U	H01M8/04485	5	{of the coolant}	
M	H01M 8/04492	4	Humidity; Ambient humidity; Water content	
U	H01M8/04529	5	{of the electrolyte}	
M	H01M8/04537	4	Electric variables	
U	H01M8/04656	6	{of auxiliary devices , e.g. batteries, capacitors}	
M	H01M8/04664	4	Failure or abnormal function	
U	H01M8/04686	5	{of auxiliary devices , e.g. batteries, capacitors}	
M	H01M8/04694	3	characterised by variables to be controlled	
M	H01M8/04701	4	Temperature	
U	H01M8/04738	5	{of auxiliary devices, e.g. reformer, compressor, burner}	
M	H01M8/04746	4	Pressure; Flow	
U	H01M8/04783	5	{Pressure differences, e.g. between anode and cathode}	
M	H01M 8/04791	4	Concentration; Density (H01M8/04828 takes precedence)	
U	H01M8/0482	5	{of the electrolyte}	
M	H01M8/04828	4	Humidity; Water content	
U	H01M8/0485	5	{of the electrolyte}	
M	H01M8/04858	4	Electric variables	
U	H01M8/04947	6	{of auxiliary devices, e.g. batteries, capacitors}	
N	H01M8/04949	5	{other electric variables, e.g. resistance or impedance}	
N	H01M8/04951	6	{of the individual fuel cell}	
N	H01M8/04952	6	{of fuel cell stacks}	
N	H01M8/04953	6	{ of auxiliary devices, e.g. batteries, capacitors}	
M	H01M8/04955	4	Shut-off or shut-down of fuel cells	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to[#]
D	H01M8/04962	5	{other electric variables, e.g. resistance or impedance}	<administrative transfer to H01M8/04949>
D	H01M8/0497	6	{of the individual fuel cell}	<administrative transfer to H01M8/04951>
D	H01M8/04977	6	{of fuel cell stacks}	<administrative transfer to H01M8/04952>
D	H01M8/04985	6	{of auxiliary devices, e.g. batteries, capacitors}	<administrative transfer to H01M8/04953>
M	H01M8/04992	3	characterised by the implementation of mathematical or computational algorithms, e.g. feedback control loops, fuzzy logic, neural networks or artificial intelligence	
M	H01M8/06	1	Combination of fuel cells with means for production of reactants or for treatment of residues (regenerative fuel cells H01M8/18)	
M	H01M8/0606	2	with means for production of gaseous reactants	
M	H01M8/0612	3	from carbon-containing material	
M	H01M8/0631	5	{Reactor construction specially adapted for combination reactor/fuel cell (hydrogen C01B3/00; reactors for physicochemical processes B01J19/00)}	
M	H01M8/0637	4	Direct internal reforming at the anode of the fuel cell	
U	H01M8/0643	4	{Gasification of solid fuel}	
M	H01M 8/065	3	by dissolution of metals or alloys; by dehydrating metallic substances	
M	H01M8/0656	3	by electrochemical means (H01M8/065 takes precedence)	
M	H01M8/0662	2	Treatment of gaseous reactants or gaseous residues, e.g. cleaning	
M	H01M8/0668	3	Removal of carbon monoxide or carbon dioxide	
U	H01M8/0693	2	{Treatment of the electrolyte residue, e.g. reconcentrating}	
U	H01M8/08	1	Fuel cells with aqueous electrolytes	
M	H01M8/083	2	Alkaline fuel cells	
M	H01M8/086	2	Phosphoric acid fuel cells [PAFC]	
U	H01M8/10	1	Fuel cells with solid electrolytes	
D	H01M8/1002	2	{with anode and cathode gas-diffusion electrodes or electrode layers, e.g. using gaseous or vaporised reactants (H01M8/12 takes precedence)}	<administrative transfer to H01M8/1007>
M	H01M 8/1004	2	characterised by membrane-electrode assemblies [MEA] (H01M8/12 takes precedence)	

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M	H01M8/1006	3	Corrugated, curved or wave-shaped MEA	
N	H01M8/1007	2	with both reactants being gaseous or vaporised (H01M8/12 takes precedence)	
M	H01M8/1009	2	with one of the reactants being liquid, solid or liquid-charged (H01M8/12 takes precedence)	
M	H01M8/1011	3	Direct alcohol fuel cells [DAFC], e.g. direct methanol fuel cells [DMFC]	
M	H01M8/1013	4	{Other direct alcohol fuel cells [DAFC] (DMFCs H01M8/1011)}	
M	H01M 8/1016	2	characterised by the electrolyte material (H01M8/12 takes precedence)	
M	H01M 8/1018	3	Polymeric electrolyte materials	
M	H01M 8/102	4	characterised by the chemical structure of the main chain of the ion-conducting polymer	
M	H01M 8/1023	5	having only carbon, e.g. polyarylenes, polystyrenes or polybutadiene-styrenes	
M	H01M 8/1025	5	having only carbon and oxygen, e.g. polyethers, sulfonated polyetheretherketones [S-PEEK], sulfonated polysaccharides, sulfonated celluloses or sulfonated polyesters	
M	H01M 8/1027	5	having carbon, oxygen and other atoms, e.g. sulfonated polyethersulfones [S-PES]	
M	H01M 8/103	5	having nitrogen, e.g. sulfonated polybenzimidazoles [S-PBI], polybenzimidazoles with phosphoric acid, sulfonated polyamides [S-PA] or sulfonated polyphosphazenes [S-PPh]	
M	H01M 8/1032	5	having sulfur, e.g. sulfonated-polyethersulfones [S-PES]	
M	H01M 8/1034	5	having phosphorus, e.g. sulfonated polyphosphazenes [S-PPh]	
M	H01M 8/1037	5	having silicon, e.g. sulfonated crosslinked polydimethylsiloxanes	
M	H01M 8/1039	4	halogenated, e.g. sulfonated polyvinylidene fluorides	
M	H01M 8/1041	4	Polymer electrolyte composites, mixtures or blends	
M	H01M 8/1044	5	Mixtures of polymers, of which at least one is ionically conductive	
M	H01M 8/1046	5	Mixtures of at least one polymer and at least one additive	
M	H01M 8/1048	6	Ion-conducting additives, e.g. ion-conducting particles, heteropolyacids, metal phosphate or polybenzimidazole with phosphoric acid	
M	H01M 8/1051	6	Non-ion-conducting additives, e.g. stabilisers, SiO ₂ or ZrO ₂	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	H01M 8/1053	5	consisting of layers of polymers with at least one layer being ionically conductive	
U	H01M8/1055	5	{Inorganic layers on the polymer electrolytes, e.g. inorganic coatings}	
M	H01M 8/1058	4	characterised by a porous support having no ion-conducting properties	
M	H01M 8/106	5	characterised by the chemical composition of the porous support	
M	H01M 8/1062	5	characterised by the physical properties of the porous support, e.g. its porosity or thickness	
M	H01M 8/1065	4	characterised by the form, e.g. perforated or wave-shaped	
M	H01M 8/1067	4	characterised by their physical properties, e.g. porosity, ionic conductivity or thickness	
M	H01M 8/1069	4	characterised by the manufacturing processes	
M	H01M 8/1072	5	by chemical reactions, e.g. in situ polymerisation or in situ crosslinking	
U	H01M8/1079	5	{Inducing porosity into non porous precursors membranes, e.g. leaching, pore stretching}	
M	H01M 8/1081	5	starting from solutions, dispersions or slurries exclusively of polymers	
U	H01M8/1083	5	{Starting from polymer melts other than monomer melts}	
M	H01M 8/1086	5	After-treatment of the membrane other than by polymerisation	
M	H01M 8/1088	6	Chemical modification, e.g. sulfonation	
U	H01M2008/1095	2	{Fuel cells with polymeric electrolytes}	
M	H01M 8/1097	2	Fuel cells applied on a support, e.g. miniature fuel cells deposited on silica supports	
U	H01M 8/12	2	operating at high temperature, e.g. with stabilised ZrO ₂ electrolyte	
D	H01M8/1206	3	{with the anode and the cathode in the form of gas diffusion electrodes}	<administrative transfer to H01M8/1231>
M	H01M 8/1213	3	characterised by the electrode/electrolyte combination or the supporting material	
M	H01M 8/122	4	Corrugated, curved or wave-shaped MEA	
M	H01M 8/1226	4	characterised by the supporting layer	
N	H01M 8/1231	3	with both reactants being gaseous or vaporised	
M	H01M 8/1233	3	with one of the reactants being liquid, solid or liquid-charged	
M	H01M 8/124	3	characterised by the process of manufacturing or by the material of the electrolyte	
M	H01M 8/1246	4	the electrolyte consisting of oxides	
M	H01M 8/1253	5	the electrolyte containing zirconium oxide	
M	H01M 8/126	5	the electrolyte containing cerium oxide	

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to[#]
M	H01M2008/128	3	{Fuel cells with solid halide electrolytes (solid halide electrolyte H01M2300/008)}	
M	H01M 8/1286	3	Fuel cells applied on a support, e.g. miniature fuel cells deposited on silica supports	
U	H01M 8/14	1	Fuel cells with fused electrolytes	
U	H01M 8/16	1	Biochemical fuel cells, i.e. cells in which micro-organisms function as catalysts	
U	H01M 8/22	1	Fuel cells in which the fuel is based on materials comprising carbon or oxygen or hydrogen and other elements; Fuel cells in which the fuel is based on materials comprising only elements other than carbon, oxygen or hydrogen	
C	H01M 8/24	1	Grouping of fuel cells, e.g. stacking of fuel cells	H01M8/24 H01M8/2404
N	H01M 8/2404	2	Processes or apparatus for grouping fuel cells	
F	H01M8/2405	2	{comprising spaced diffusion electrodes or electrode layers with interposed electrolyte layer or electrolyte compartment}	H01M8/2457 H01M8/2459
C	H01M 8/241	2	with solid or matrix-supported electrolytes	H01M8/241 H01M8/2404 H01M8/2418
F	H01M8/2415	3	{External manifolded battery stock}	H01M8/2484 H01M8/2485
N	H01M 8/2418	3	Grouping by arranging unit cells in a plane (H01M8/2425, H01M8/244 take precedence)	
C	H01M 8/242	3	comprising framed electrodes or intermediary frame-like gaskets (H01M8/2425, H01M8/244 take precedence)	H01M8/242 H01M8/2404
C	H01M 8/2425	3	High-temperature cells with solid electrolytes	H01M8/2425 H01M8/2428 H01M8/2432 H01M8/2404
N	H01M 8/2428	4	Grouping by arranging unit cells on a surface of any form, e.g. planar or tubular	
C	H01M 8/243	4	Grouping of unit cells of tubular or cylindrical configuration	H01M8/243 H01M8/2404
N	H01M 8/2432	4	Grouping of unit cells of planar configuration	
C	H01M 8/2435	4	with monolithic core structure, e.g. honeycombs	H01M8/2435 H01M8/2404
C	H01M 8/244	3	with matrix-supported molten electrolyte	H01M8/2404 H01M8/244
F	H01M8/2445	2	{comprising spaced diffusion electrodes or electrode layers with interposed electrolyte compartment with possible electrolyte supply or circulation}	H01M8/2457 H01M8/2459

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Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to[#]
F	H01M8/245	3	{comprising framed electrodes or intermediary frame-like gaskets}	H01M8/242 H01M8/2425 H01M8/2404 H01M8/2428 H01M8/2432
M	H01M 8/2455	2	with liquid, solid or electrolyte-charged reactants	
N	H01M 8/2457	2	with both reactants being gaseous or vaporised	
N	H01M8/2459	2	{Comprising electrode layers with interposed electrolyte compartment with possible electrolyte supply or circulation}	
F	H01M8/246	2	{having liquid, solid or electrolyte-charged reactants with framed electrodes or intermediary frame-like gaskets}	H01M8/242 H01M8/2425 H01M8/2404 H01M8/2428 H01M8/2432
C	H01M 8/2465	2	Details of groupings of fuel cells	H01M8/2465 H01M8/2483
M	H01M 8/247	3	Arrangements for tightening a stack, for accommodation of a stack in a tank or for assembling different tanks	
M	H01M 8/2475	4	Enclosures, casings or containers of fuel cell stacks	
M	H01M 8/248	4	Means for compression of the fuel cell stacks	
N	H01M 8/2483	3	characterised by internal manifolds	
N	H01M 8/2484	3	characterised by external manifolds	
C	H01M 8/2485	4	Arrangements for sealing external manifolds; Arrangements for mounting external manifolds around a stack	H01M8/2484 H01M8/2485
M	H01M 8/249	2	comprising two or more groupings of fuel cells, e.g. modular assemblies	
M	H01M 8/2495	3	of fuel cells of different types	

*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; E= 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 subclasses, 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} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. Always include the symbol, indent level and title of the U group in the table above.

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- 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 except “D” which requires only a symbol.
- #“Transferred to” column must 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>” or “<administrative transfer to XX and YY simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be “invention information”, unless otherwise indicated, and to 2000 series groups is assumed to be “additional information”.

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B. New, Modified or Deleted Warning notice(s)**SUBCLASS H01M - PROCESSES OR MEANS, e.g. BATTERIES, FOR THE DIRECT CONVERSION OF CHEMICAL INTO ELECTRICAL ENERGY**

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	H01M8/0258 (destination)		Group H01M8/0258 is incomplete pending reclassification of documents from group H01M8/0267 and impacted by reclassification into H01M8/2483. Groups H01M8/0258, H01M8/0267 and H01M8/2483 should be considered in order to perform a complete search.
N	H01M8/026 (destination)		Groups H01M8/026-H01M8/0265 are incomplete pending reclassification of documents from group H01M8/0267. Group H01M8/0267 should be considered when searching any group of the range H01M8/026-H01M8/0265 in order to perform a complete search.
N	H01M 8/0267 (source)		Group H01M8/0267 is impacted by reclassification into groups H01M8/0258 - H01M8/0265 and H01M8/2483. Group H01M8/0267 should be considered when searching any group of the range H01M8/0258 - H01M8/0265 or group H01M8/2483 in order to perform a complete search.
N	H01M 8/0271 (destination)		Group H01M8/0271 is incomplete pending reclassification of documents from group H01M8/0297. Groups H01M8/0297 and H01M8/0271 should be considered in order to perform a complete search.
N	H01M 8/0273 (destination)		Group H01M8/0273 is incomplete pending reclassification of documents from group H01M 8/0276. Groups H01M8/0276 and H01M8/0273 should be considered in order to perform a complete search.
N	H01M 8/0276 (source)		Group H01M8/0276 is impacted by reclassification into group H01M8/0273. Groups H01M8/0276 and H01M8/0273 should be considered in order to perform a complete search.
N	H01M 8/0297 (source)		Group H01M8/0297 is impacted by reclassification into group H01M8/0271. Groups H01M8/0297 and H01M8/0271 should be considered in order to perform a complete search.
N	H01M 8/04223 (source)		Group H01M8/04233 is impacted by reclassification into groups H01M8/04225-H01M8/04228 and H01M8/043-H01M8/04303. Group H01M8/04223 should be considered when searching any group of the ranges H01M 8/04225 - H01M 8/04228 and H01M 8/043-H01M8/04303 in order to perform a complete search.
N	H01M8/04225 (destination1)		Groups H01M 8/04225-H01M 8/04228 are incomplete pending reclassification of documents from group H01M 8/04223. Group H01M8/04223 should be considered when searching any group of the range H01M8/04225-H01M8/04228.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	H01M8/043 (destination2)		Groups H01M 8/043-H01M 8/04303 are incomplete pending reclassification of documents from group H01M 8/04223. Group H01M8/04223 should be considered when searching any group of the range H01M8/043-H01M8/04303 in order to perform a complete search..
N	H01M8/24 (source)		Group H01M8/24 is impacted by reclassification into group H01M8/2404. Groups H01M8/24 and H01M8/2404 should be considered in order to perform a complete search.
N	H01M8/2404 (destination)		Group H01M8/2404 is incomplete pending reclassification of documents from groups H01M8/24, H01M8/241, H01M8/242, H01M8/2425, H01M8/243, H01M8/2435, H01M8/244, H01M8/245 and H01M8/246. All groups listed in this warning should be considered when searching H01M 8/2404 to perform a complete search.
N	H01M8/2405		Group H01M8/2405 is no longer used for classification of documents as of February 1, 2016. The content of this group is being classified into groups H01M8/2457 and H01M8/2459. Group H01M8/2405 should be considered when searching group H01M8/2457 or H01M8/2459 in order to perform a complete search..
N	H01M8/241 (source)		Group H01M8/241 is impacted by reclassification into groups H01M8/2404 and H01M8/2418. Groups H01M8/241 should be considered when searching group H01M 8/2404 or group H01M8/2418 in order to perform a complete search.
N	H01M8/2415 (source)		Group H01M8/2415 is no longer used for classification of documents as of February 1, 2016. The content of this group is being classified into groups H01M8/2484 and H01M8/2485. Group H01M8/2415 should be considered when searching group H01M8/2484 or H01M8/2485.
N	H01M8/2418 (destination)		Groups H01M8/2418 is incomplete pending reclassification of documents from group H01M8/241. H01M8/241and H01M8/2418 should be considered in order to perform a complete search.
N	H01M8/242 (destination)		Group H01M8/242 is incomplete pending reclassification of documents from groups H01M8/245 and H01M8/246, and impacted by reclassification into group H01M8/2404. Groups H01M8/242, H01M8/2404, H01M8/245, and H01M8/246 should be considered in order to perform a complete search.
N	H01M8/2425 (destination)		Group H01M8/2425 is incomplete pending reclassification of documents from groups H01M8/245 and H01M8/246, and impacted by reclassification into groups H01M8/2428, H01M8/2432 and H01M8/2404. Groups H01M8/2425, H01M8/2428, H01M8/2432, H01M8/2404, H01M 8/245 and H01M8/246 should be considered in order to perform a complete search.
N	H01M8/2428 (destination)		Groups H01M8/2428 is incomplete pending reclassification of documents from groups H01M8/2425, H01M8/245 and H01M8/246. Groups H01M 8/2425, H01M8/245, H01M8/246 and H01M8/2428 should be considered in order to perform a complete search.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	H01M8/243 (source)		Group H01M8/243 is impacted by reclassification into group H01M8/2404. Groups H01M8/243 and H01M8/2404 should be considered in order to perform a complete search.
N	H01M8/2432 (destination)		Groups H01M8/2432 is incomplete pending reclassification of documents from group H01M8/2425, H01M8/245 and H01M8/246. Groups H01M8/2425, H01M8/245, H01M8/246 and H01M8/2432 should be considered in order to perform a complete search.
N	H01M 8/2435 (source)		Group H01M8/2435 is impacted by reclassification into group H01M8/2404. Groups H01M8/2435 and H01M8/2404 should be considered in order to perform a complete search.
N	H01M8/244 (source)		Group H01M8/244 is impacted by reclassification into group H01M8/2404. Groups H01M8/244 and H01M8/2404 should be considered in order to perform a complete search.
N	H01M8/2445 (source)		Group H01M8/2445 is no longer used for classification of documents as of February 1, 2016. The content of this group is being classified into groups H01M8/2457 and H01M8/2459. During reclassification group H01M8/2445 should be considered when searching group H01M8/2457 or H01M8/2459 in order to perform a complete search.
N	H01M8/245 (source)		Group H01M8/245 is no longer used for classification of documents as of February 1, 2016. The content of this group is being classified into groups H01M8/2404, H01M8/2428, H01M8/2432, H01M8/242 and H01M8/2425. Group H01M8/245 should be considered when searching any of the listed groups of this warning in order to perform a complete search.
N	H01M8/2457 (destination)		Group H01M8/2457 is incomplete pending reclassification of documents from groups H01M8/2405 and H01M8/2445. Groups H01M8/2405, H01M8/2445 and H01M8/2457 should be considered in order to perform a complete search.
N	H01M8/2459 (destination)		Group H01M8/2459 is incomplete pending reclassification of documents from groups H01M8/2405 and H01M8/2445. Groups H01M8/2405, H01M8/2445 and H01M8/2459 should be considered in order to perform a complete search.
N	H01M8/246 (source)		Group H01M8/246 is no longer used for classification of documents as of February 1, 2016. The content of this group is being classified into groups H01M8/2404, H01M8/2428, H01M8/2432, H01M8/242 and H01M8/2425. Group H01M8/246 should be considered when searching any of the listed groups of this warning in order to perform a complete search.
N	H01M8/2465 (source)		Group H01M8/2465 is impacted by reclassification into group H01M8/2483. Groups H01M8/2465 and H01M8/2483 should be considered in order to perform a complete search.
N	H01M 8/2483 (destination)		Group H01M8/2483 is incomplete pending reclassification of documents from groups H01M8/0258 and H01M8/2465. Groups H01M8/0258, H01M8/2465 and H01M8/2483 should be considered in order to perform a complete search.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	H01M8/2484 (destination)		Group H01M8/2484 is incomplete pending reclassification of documents from group H01M8/2415 and H01M8/2485. Groups H01M8/2415, H01M8/2485 and H01M8/2484 should be considered in order to perform a complete search.
N	H01M8/2485 (destination)		Group H01M8/2485 is incomplete pending reclassification of documents from group H01M8/2415 and impacted by reclassification into group H01M8/2484. Groups H01M8/2415, H01M8/2485 and H01M8/2484 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.

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C. New, Modified or Deleted Note(s)**SUBCLASS H01M - PROCESSES OR MEANS, e.g. BATTERIES, FOR THE DIRECT CONVERSION OF CHEMICAL INTO ELECTRICAL ENERGY**

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
N	H01M8/04	-	In this group, multi-aspect classification is applied, so that subject matter characterised by aspects covered by more than one of its subgroups should be classified in each of those subgroups.
M	H01M8/102	Multiple classification is done when two or more heteroatoms from O, P, N, S, Si are present	When classifying in this group, structures having two or more heteroatoms belonging to the groups O, P, N, S or Si must be completely identified by classification in all relevant subgroups.

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

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

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3. REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
C	H01M 8/0258	H01M8/0258 H01M8/2483
C	H01M 8/0267	H01M8/0267 H01M8/0258 H01M8/026 H01M8/0263 H01M8/0265 H01M8/2483
C	H01M 8/0276	H01M8/0276 H01M8/0273
D	H01M8/0291	<administrative transfer to H01M8/0289>
C	H01M 8/0297	H01M8/0297 H01M8/0271
C	H01M 8/04223	H01M8/04223 H01M8/04225 H01M8/04228 H01M8/043 H01M8/04302 H01M8/04303
D	H01M8/04261	<administrative transfer to H01M8/04197>
D	H01M8/04962	<administrative transfer to H01M8/04949>
D	H01M8/0497	<administrative transfer to H01M8/04951>
D	H01M8/04977	<administrative transfer to H01M8/04952>
D	H01M8/04985	<administrative transfer to H01M8/04953>
D	H01M8/1002	<administrative transfer to H01M8/1007>
D	H01M8/1206	<administrative transfer to H01M8/1231>
C	H01M8/24	H01M8/24 H01M8/2404
F	H01M8/2405	H01M8/2457 H01M8/2459
C	H01M 8/241	H01M8/241 H01M8/2404 H01M8/2418
F	H01M8/2415	H01M8/2484 H01M8/2485
C	H01M 8/242	H01M8/242 H01M8/2404
C	H01M 8/2425	H01M8/2425 H01M8/2428 H01M8/2432 H01M8/2404
C	H01M 8/243	H01M8/243 H01M8/2404
C	H01M 8/2435	H01M8/2435 H01M8/2404
C	H01M 8/244	H01M8/244 H01M8/2404

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Type*	From CPC Symbol (existing)	To CPC Symbol(s)
F	H01M8/2445	H01M8/2457 H01M8/2459
F	H01M8/245	H01M8/2404 H01M8/242 H01M8/2425 H01M8/2428 H01M8/2432
F	H01M8/246	H01M8/2404 H01M8/242 H01M8/2425 H01M8/2428, H01M8/2432
C	H01M 8/2465	H01M8/2465 H01M8/2483
C	H01M 8/2485	H01M8/2484 H01M8/2485

* 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.

NOTES:

- Only C, D, F and Q type entries are included in the table above.
- When multiple symbols are included in the “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>” or “<administrative transfer to XX and YY simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be “invention information”, unless otherwise indicated, and to 2000 series groups is assumed to be “additional information”.

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

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
H01M 8/008	H01M 8/008	UPDATED
H01M 8/0202	H01M 8/0202	UPDATED
H01M 8/0204	H01M 8/0204	UPDATED
H01M 8/0206	H01M 8/0206	UPDATED
H01M 8/0208	H01M 8/0208	UPDATED
H01M 8/021	H01M 8/021	UPDATED
H01M 8/0213	H01M 8/0213	UPDATED
H01M 8/0215	H01M 8/0215	UPDATED
H01M 8/0217	H01M 8/0217	UPDATED
H01M8/0219	H01M8/0217	UPDATED
H01M 8/0221	H01M 8/0221	UPDATED
H01M 8/0223	H01M 8/0223	UPDATED
H01M 8/0226	H01M 8/0226	UPDATED
H01M 8/0228	H01M 8/0228	UPDATED
H01M 8/023	H01M 8/023	UPDATED
H01M 8/0232	H01M 8/0232	UPDATED
H01M 8/0234	H01M 8/0234	UPDATED
H01M 8/0236	H01M 8/0236	UPDATED
H01M 8/0239	H01M 8/0239	UPDATED
H01M 8/0241	H01M 8/0241	UPDATED
H01M 8/0243	H01M 8/0243	UPDATED
H01M 8/0245	H01M 8/0245	UPDATED
H01M 8/0247	H01M 8/0247	UPDATED
H01M 8/025	H01M 8/025	UPDATED
H01M 8/0252	H01M 8/0252	UPDATED
H01M 8/0254	H01M 8/0254	UPDATED
H01M 8/0256	H01M 8/0256	UPDATED
H01M 8/0258	H01M 8/0258	UPDATED
H01M 8/026	H01M 8/026	UPDATED
H01M 8/0263	H01M 8/0263	UPDATED
H01M 8/0265	H01M 8/0265	UPDATED
H01M 8/0267	H01M 8/0267	UPDATED
H01M8/0269	H01M8/0202	UPDATED
H01M 8/0271	H01M 8/0271	UPDATED
H01M 8/0273	H01M 8/0273	UPDATED
H01M 8/0276	H01M 8/0276	UPDATED
H01M8/0278	H01M8/0276	UPDATED
H01M 8/028	H01M 8/028	UPDATED
H01M 8/0282	H01M 8/0282	UPDATED
H01M 8/0284	H01M 8/0284	UPDATED
H01M 8/0286	H01M 8/0286	UPDATED

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H01M 8/0289	H01M 8/0289	UPDATED
H01M 8/0291	-	DELETE
H01M 8/0293	H01M 8/0293	UPDATED
H01M 8/0295	H01M 8/0295	UPDATED
H01M 8/0297	H01M 8/0297	UPDATED
H01M 8/04007	H01M 8/04007	UPDATED
H01M 8/04014	H01M 8/04014	UPDATED
H01M8/04022	H01M8/04014	UPDATED
H01M 8/04029	H01M 8/04029	UPDATED
H01M8/04037	H01M8/04007	UPDATED
H01M 8/04044	H01M 8/04044	UPDATED
H01M8/04052	H01M8/04007	UPDATED
H01M8/04059	H01M8/04007	UPDATED
H01M8/04067	H01M8/04007	UPDATED
H01M8/04074	H01M8/04007	UPDATED
H01M 8/04082	H01M 8/04082	UPDATED
H01M 8/04089	H01M 8/04089	UPDATED
H01M8/04097	H01M8/04089	UPDATED
H01M8/04104	H01M8/04089	UPDATED
H01M 8/04111	H01M 8/04111	UPDATED
H01M 8/04119	H01M 8/04119	UPDATED
H01M8/04126	H01M8/04119	UPDATED
H01M8/04134	H01M8/04119	UPDATED
H01M8/04141	H01M8/04119	UPDATED
H01M8/04149	H01M8/04119	UPDATED
H01M8/04156	H01M8/04119	UPDATED
H01M8/04164	H01M8/04119	UPDATED
H01M8/04171	H01M8/04119	UPDATED
H01M8/04179	H01M8/04119	UPDATED
H01M 8/04186	H01M 8/04186	UPDATED
H01M8/04194	H01M8/04186	UPDATED
H01M8/04197	H01M8/04082	NEW
H01M8/04201	H01M8/04082	UPDATED
H01M8/04208	H01M8/04082	UPDATED
H01M8/04216	H01M8/04082	UPDATED
H01M 8/04223	H01M 8/04223	UPDATED
H01M 8/04225	H01M 8/04225	NEW
H01M 8/04228	H01M 8/04228	NEW
H01M8/04231	H01M8/04223	UPDATED
H01M8/04238	H01M8/04223	UPDATED
H01M8/04246	H01M8/04223	UPDATED
H01M8/04253	H01M8/04223	UPDATED
H01M 8/04261	-	DELETE
H01M8/04268	H01M8/04223	UPDATED
H01M 8/04276	H01M 8/04276	UPDATED
H01M8/04283	H01M8/04276	UPDATED

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H01M 8/04291	H01M 8/04291	UPDATED
H01M 8/04298	H01M 8/04298	UPDATED
H01M 8/043	H01M 8/043	NEW
H01M 8/04302	H01M 8/04302	NEW
H01M 8/04303	H01M 8/04303	NEW
H01M8/04305	H01M8/04298	UPDATED
H01M 8/04313	H01M 8/04313	UPDATED
H01M 8/0432	H01M 8/0432	UPDATED
H01M8/04328	H01M8/0432	UPDATED
H01M8/04335	H01M8/0432	UPDATED
H01M8/04343	H01M8/0432	UPDATED
H01M8/0435	H01M8/0432	UPDATED
H01M8/04358	H01M8/0432	UPDATED
H01M8/04365	H01M8/0432	UPDATED
H01M8/04373	H01M8/0432	UPDATED
H01M 8/0438	H01M 8/0438	UPDATED
H01M8/04388	H01M8/0438	UPDATED
H01M8/04395	H01M8/0438	UPDATED
H01M8/04402	H01M8/0438	UPDATED
H01M8/0441	H01M8/0438	UPDATED
H01M8/04417	H01M8/0438	UPDATED
H01M8/04425	H01M8/0438	UPDATED
H01M8/04432	H01M8/0438	UPDATED
H01M 8/0444	H01M 8/0444	UPDATED
H01M8/04447	H01M8/0444	UPDATED
H01M8/04455	H01M8/0444	UPDATED
H01M8/04462	H01M8/0444	UPDATED
H01M8/0447	H01M8/0444	UPDATED
H01M8/04477	H01M8/0444	UPDATED
H01M8/04485	H01M8/0444	UPDATED
H01M 8/04492	H01M 8/04492	UPDATED
H01M8/045	H01M8/04492	UPDATED
H01M8/04507	H01M8/04492	UPDATED
H01M8/04514	H01M8/04492	UPDATED
H01M8/04522	H01M8/04492	UPDATED
H01M8/04529	H01M8/04492	UPDATED
H01M 8/04537	H01M 8/04537	UPDATED
H01M8/04544	H01M8/04537	UPDATED
H01M8/04552	H01M8/04537	UPDATED
H01M8/04559	H01M8/04537	UPDATED
H01M8/04567	H01M8/04537	UPDATED
H01M8/04574	H01M8/04537	UPDATED
H01M8/04582	H01M8/04537	UPDATED
H01M8/04589	H01M8/04537	UPDATED
H01M8/04597	H01M8/04537	UPDATED
H01M8/04604	H01M8/04537	UPDATED

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H01M8/04611	H01M8/04537	UPDATED
H01M8/04619	H01M8/04537	UPDATED
H01M8/04626	H01M8/04537	UPDATED
H01M8/04634	H01M8/04537	UPDATED
H01M8/04641	H01M8/04537	UPDATED
H01M8/04649	H01M8/04537	UPDATED
H01M8/04656	H01M8/04537	UPDATED
H01M 8/04664	H01M 8/04664	UPDATED
H01M8/04671	H01M8/04664	UPDATED
H01M8/04679	H01M8/04664	UPDATED
H01M8/04686	H01M8/04664	UPDATED
H01M 8/04694	H01M 8/04694	UPDATED
H01M 8/04701	H01M 8/04701	UPDATED
H01M8/04708	H01M8/04701	UPDATED
H01M8/04716	H01M8/04701	UPDATED
H01M8/04723	H01M8/04701	UPDATED
H01M8/04731	H01M8/04701	UPDATED
H01M8/04738	H01M8/04701	UPDATED
H01M 8/04746	H01M 8/04746	UPDATED
H01M8/04753	H01M8/04746	UPDATED
H01M8/04761	H01M8/04746	UPDATED
H01M8/04768	H01M8/04746	UPDATED
H01M8/04776	H01M8/04746	UPDATED
H01M8/04783	H01M8/04746	UPDATED
H01M 8/04791	H01M 8/04791	UPDATED
H01M8/04798	H01M8/04791	UPDATED
H01M8/04805	H01M8/04791	UPDATED
H01M8/04813	H01M8/04791	UPDATED
H01M8/0482	H01M8/04791	UPDATED
H01M 8/04828	H01M 8/04828	UPDATED
H01M8/04835	H01M8/04828	UPDATED
H01M8/04843	H01M8/04828	UPDATED
H01M8/0485	H01M8/04828	UPDATED
H01M 8/04858	H01M 8/04858	UPDATED
H01M8/04865	H01M8/04858	UPDATED
H01M8/04873	H01M8/04828	UPDATED
H01M8/0488	H01M8/04828	UPDATED
H01M8/04888	H01M8/04828	UPDATED
H01M8/04895	H01M8/04828	UPDATED
H01M8/04902	H01M8/04828	UPDATED
H01M8/0491	H01M8/04828	UPDATED
H01M8/04917	H01M8/04828	UPDATED
H01M8/04925	H01M8/04828	UPDATED
H01M8/04932	H01M8/04828	UPDATED
H01M8/0494	H01M8/04828	UPDATED
H01M8/04947	H01M8/04828	UPDATED

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H01M8/04949	H01M8/04858	NEW
H01M8/04951	H01M8/04858	NEW
H01M8/04952	H01M8/04858	NEW
H01M8/04953	H01M8/04858	NEW
H01M 8/04955	H01M 8/04955	UPDATED
H01M 8/04962	-	DELETE
H01M 8/0497	-	DELETE
H01M 8/04977	-	DELETE
H01M 8/04985	-	DELETE
H01M 8/04992	H01M 8/04992	UPDATED
H01M 8/0606	H01M 8/0606	UPDATED
H01M 8/0612	H01M 8/0612	UPDATED
H01M8/0618	H01M8/0612	UPDATED
H01M8/0625	H01M8/0612	UPDATED
H01M8/0631	H01M8/0612	UPDATED
H01M 8/0637	H01M 8/0637	UPDATED
H01M8/0643	H01M8/0612	UPDATED
H01M 8/065	H01M 8/065	UPDATED
H01M 8/0656	H01M 8/0656	UPDATED
H01M 8/0662	H01M 8/0662	UPDATED
H01M 8/0668	H01M 8/0668	UPDATED
H01M8/0675	H01M8/0662	UPDATED
H01M8/0681	H01M8/0662	UPDATED
H01M8/0687	H01M8/0662	UPDATED
H01M 8/083	H01M 8/083	UPDATED
H01M 8/086	H01M 8/086	UPDATED
H01M 8/1002	-	DELETE
H01M 8/1004	H01M 8/1004	UPDATED
H01M 8/1006	H01M 8/1006	UPDATED
H01M 8/1007	H01M 8/1007	NEW
H01M 8/1009	H01M 8/1009	UPDATED
H01M 8/1011	H01M 8/1011	UPDATED
H01M8/1013	H01M8/1011	UPDATED
H01M 8/1016	H01M 8/1016	UPDATED
H01M 8/1018	H01M 8/1018	UPDATED
H01M 8/102	H01M 8/102	UPDATED
H01M 8/1023	H01M 8/1023	UPDATED
H01M 8/1025	H01M 8/1025	UPDATED
H01M 8/1027	H01M 8/1027	UPDATED
H01M 8/103	H01M 8/103	UPDATED
H01M 8/1032	H01M 8/1032	UPDATED
H01M 8/1034	H01M 8/1034	UPDATED
H01M 8/1037	H01M 8/1037	UPDATED
H01M 8/1039	H01M 8/1039	UPDATED
H01M 8/1041	H01M 8/1041	UPDATED
H01M 8/1044	H01M 8/1044	UPDATED

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H01M 8/1046	H01M 8/1046	UPDATED
H01M 8/1048	H01M 8/1048	UPDATED
H01M 8/1051	H01M 8/1051	UPDATED
H01M 8/1053	H01M 8/1053	UPDATED
H01M8/1055	H01M8/1041	UPDATED
H01M 8/1058	H01M 8/1058	UPDATED
H01M 8/106	H01M 8/106	UPDATED
H01M 8/1062	H01M 8/1062	UPDATED
H01M 8/1065	H01M 8/1065	UPDATED
H01M 8/1067	H01M 8/1067	UPDATED
H01M 8/1069	H01M 8/1069	UPDATED
H01M 8/1072	H01M 8/1072	UPDATED
H01M8/1074	H01M8/1072	UPDATED
H01M8/1076	H01M8/1069	UPDATED
H01M8/1079	H01M8/1069	UPDATED
H01M 8/1081	H01M 8/1081	UPDATED
H01M8/1083	H01M8/1069	UPDATED
H01M 8/1086	H01M 8/1086	UPDATED
H01M 8/1088	H01M 8/1088	UPDATED
H01M8/109	H01M8/1086	UPDATED
H01M8/1093	H01M8/1086	UPDATED
H01M2008/1095	H01M8/1018	UPDATED
H01M 8/1097	H01M 8/1097	UPDATED
H01M 8/1206	-	DELETE
H01M 8/1213	H01M 8/1213	UPDATED
H01M 8/122	H01M 8/122	UPDATED
H01M 8/1226	H01M 8/1226	UPDATED
H01M 8/1231	H01M 8/1231	NEW
H01M 8/1233	H01M 8/1233	UPDATED
H01M 8/124	H01M 8/124	UPDATED
H01M 8/1246	H01M 8/1246	UPDATED
H01M 8/1253	H01M 8/1253	UPDATED
H01M 8/126	H01M 8/126	UPDATED
H01M8/1266	H01M8/1246	UPDATED
H01M8/1273	H01M8/124	UPDATED
H01M 8/1286	H01M 8/1286	UPDATED
H01M2008/1293	H01M8/124	UPDATED
H01M 8/2404	H01M 8/2404	NEW
H01M 8/241	H01M 8/241	UPDATED
H01M8/2415	H01M8/241	UPDATED
H01M 8/2418	H01M 8/2418	NEW
H01M 8/242	H01M 8/242	UPDATED
H01M 8/2425	H01M 8/2425	UPDATED
H01M 8/2428	H01M 8/2428	NEW
H01M 8/243	H01M 8/243	UPDATED
H01M 8/2432	H01M 8/2432	NEW

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H01M 8/2435	H01M 8/2435	UPDATED
H01M 8/244	H01M 8/244	UPDATED
H01M 8/2455	H01M 8/2455	UPDATED
H01M 8/2457	H01M 8/2457	NEW
H01M8/2459	H01M8/24	NEW
H01M 8/2465	H01M 8/2465	UPDATED
H01M 8/247	H01M 8/247	UPDATED
H01M 8/2475	H01M 8/2475	UPDATED
H01M 8/248	H01M 8/248	UPDATED
H01M 8/2483	H01M 8/2483	NEW
H01M 8/2484	H01M 8/2484	NEW
H01M 8/2485	H01M 8/2485	UPDATED
H01M 8/249	H01M 8/249	UPDATED
H01M 8/2495	H01M 8/2495	UPDATED

*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.”
- 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.
- E and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.

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5. CROSS-REFERENCE LIST (CRL)

Definitions references impacted by this revision project

<u>Location of reference to be changed</u>	<u>Referenced subclass or group to be changed</u>	<u>Section of definition</u>	<u>Action; New reference symbol; New text</u>
H01M8/00	H01M8/04261	Special rules of classification within this group	H01M8/04197

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.