

**IPC REVISION PROJECTS/
PROJETS DE RÉVISION DE LA CIB**

**ELECTRICAL FIELD/
DOMAINE DE L'ÉLECTRICITÉ**



IPC/C 373/96 Rev.7
ORIGINAL: English/French
DATE: January 10, 2001

WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE
GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	EP	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 01 N
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 373/96	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		EP	11.01.96
2	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	GB	02.10.96
3	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	CA	18.10.96
4	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	FR	-11.96
5	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.2	DE	18.02.97
6	Rapporteur report / Rapport du rapporteur	Rev.2	EP	27.03.97
7	Modified proposal / Proposition modifiée	Rev.3	EP	22.05.97
8	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	07.99
9	Comments / Observations	Rev.4	DE	07.99
10	Comments / Observations	Rev.4	CA	10.99
11	Comments / Observations	Rev.4	EP	10.99
12	Comments / Observations	Rev.4	RO	10.99
13	Comments / Observations	Rev.4	GB	11.99
14	Comments / Observations	Rev.4	SE	11.99

RAPPORTEUR : EP **TECHNICAL FIELD/DOMAINE TECHNIQUE :** E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 373/96	ORIGIN/ ORIGINE	DATE
15	French version of approved amendments / Version française des modifications approuvées	Rev.4	EP	11.99
16	Rapporteur report / Rapport du rapporteur	Rev.4	EP	11.99
17	Rapporteur proposal / Proposition du rapporteur	Rev.4	EP	11.99
18	Decision of the Working Group / Décision du groupe de travail	Rev.5	WG	12.99
19	Comments / Observations	Rev.5	EP	03.00
20	Comments / Observations	Rev.5	JP	03.00
21	Comments / Observations	Rev.5	CA	03.00
22	Comments / Observations	Rev.5	SE	03.00
23	Comments / Observations	Rev.5	RO	03.00
24	Comments / Observations	Rev.5	DE	04.00
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27	French version of approved amendments / Version française des modifications approuvées	Rev.5	EP	04.00
28	Decision of the Working Group / Décision du groupe de travail	Rev.6	WG	06.00
29	French version of approved amendments / Version française des modifications approuvées	Rev.6	EP	11.00
30	Decision of the Working Group / Décision du groupe de travail	Rev.7	WG	01.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

ANNEXE	21	G 01 N	[Project-Rapporteur : 373/EP] (T:EP) - SC/03/3	<SC04025F> <SC03056E>
C	29/06	• •	<i>Visualisation de l'intérieur, p.ex. microscopie acoustique</i>	
N	29/34	•	<i>Génération des ondes ultrasonores, sonores ou infrasonores</i>	
N	29/36	•	<i>Détection du signal de réponse</i>	
N	29/38	• •	<i>par filtrage temporel, p.ex. en utilisant des fenêtres temporelles</i>	
N	29/40	• •	<i>par filtrage en amplitude, p.ex. par application d'un seuil</i>	
N	29/42	• •	<i>par filtrage en fréquence</i>	
N	29/44	•	<i>Traitement du signal de réponse détecté</i>	
N	29/46	• •	<i>par analyse spectrale, p.ex. par analyse de Fourier</i>	
N	29/48	• •	<i>par comparaison d'amplitude</i>	
N	29/50	• •	<i>en utilisant des techniques d'autocorrélation ou des techniques d'intercorrélation</i>	
N	29/52	• •	<i>en utilisant des procédés d'inversion autres que l'analyse spectrale, p.ex. inversion conjuguée de gradient</i>	



IPC/C 379/96 Rev.7
ORIGINAL: English/French
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1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		GB	25.01.96
2	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	GB	02.10.96
3	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	CA	13.09.96
4	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	EP	29.10.96
5	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	FR	-11.96
6	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.1	DE	14.11.96
7	Rapporteur report / Rapport du rapporteur	Rev.2	GB	30.05.97
8	Comments (re Annex 1) / Observations (réf. annexe 1)	Rev.2	JP	30.05.97
9	Comments / Observations	Rev.3	JP	02.99
10	Proposal / Proposition	Rev.3	EP	02.99
11	Comments / Observations	Rev.3	EP	02.99
12	Comments / Observations	Rev.3	FR	02.99
13	Comments / Observations	Rev.3	RO	05.99

RAPPORTEUR : GB **TECHNICAL FIELD/DOMAINE TECHNIQUE :** E

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14	Rapporteur report / Rapport du rapporteur	Rev.4	GB	05.99
15	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	07.99
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21	Comments / Observations	Rev.4	DE	10.99
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25	Comments / Observations	Rev.5	GB	03.00
26	Comments / Observations	Rev.5	RO	03.00
27	Comments / Observations	Rev.5	EP	03.00
28	Comments / Observations	Rev.5	JP	03.00
29	Comments / Observations	Rev.5	CA	03.00
30	Rapporteur report / Rapport du rapporteur	Rev.5	GB	05.00
31	Decision of the Working Group / Décision du groupe de travail	Rev.6	WG	06.00
32	Proposal / Proposition	Rev.6	EP	07.00
33	Comments / Observations	Rev.6	JP	09.00
34	Comments / Observations	Rev.6	FR	09.00
35	Comments / Observations	Rev.6	RO	09.00
36	Comments / Observations	Rev.6	GB	09.00
37	Comments / Observations	Rev.6	SE	10.00
38	Rapporteur report / Rapport du rapporteur	Rev.6	GB	10.00
39	Rapporteur proposal / Proposition du rapporteur	Rev.6	GB	10.00
40	Decision of the Working Group / Décision du groupe de travail	Rev.7	WG	01.01
41	Rapporteur proposal / Proposition du rapporteur	Rev.7	GB	04.01
42	Comments / Observations	Rev.7	RO	04.01

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 379/96	ORIGIN/ ORIGINE	DATE
43	Comments / Observations	Rev.7	FR	05.01
44	Comments / Observations	Rev.7	SE	05.01
45	Comments / Observations	Rev.7	EP	05.01
46	Comments / Observations	Rev.7	DE	05.01
47	Rapporteur report / Rapport du rapporteur	Rev.7	GB	05.01
48	Rapporteur proposal / Proposition du rapporteur	Rev.7	GB	05.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 379 (electrical) – The Working Group agreed that the revision proposal under consideration (see Annex 39 to the project file) should be modified with a view to developing a hierarchical structure in the field in question and providing its better integration with the existing part of group H 01 H 13/70. It was noted that this objective could be achieved by eliminating some proposed entries with too broad and ambiguous scope and by incorporating some other proposed entries under existing groups, for example, H 01 R 13/702 and 13/705. It was also questioned whether the proposed groups H 01 H 13/770 to 13/774 were specific enough to be subordinated to the existing group H 01 H 13/70, or whether amendments should be made to groups introduced in the seventh edition of the IPC under the same Project.

The United Kingdom was invited to submit, in cooperation with the EPO, a modified proposal based on the proposal reproduced in Annex 39 to the project file, taking into account the remarks by the Working Group mentioned above.

Comments were invited on the proposal to be submitted.

Projet C 379 (électricité) – Le groupe de travail a convenu que la proposition de révision à l'examen (voir l'annexe 39 du dossier de projet) devra être modifiée en vue d'établir une structure hiérarchisée dans le domaine en question et d'assurer une meilleure intégration avec la partie existante du groupe H 01 H 13/70. Il a été noté que cet objectif pourra être atteint en supprimant certaines entrées proposées dont la portée est trop vaste ou trop ambiguë et en incorporant d'autres entrées proposées dans les groupes existants, par exemple H 01 R 13/702 et 13/705. On s'est également interrogé sur la question de savoir si les groupes H 01 H 13/770 à 13/774 proposés sont suffisamment spécifiques pour être subordonnés au groupe existant H 01 H 13/70 ou s'il convient d'apporter des modifications aux groupes introduits dans la septième édition de la CIB dans le cadre du même projet.

Le Royaume-Uni a été invité à présenter, en coopération avec l'OEB, une proposition révisée sur la base de la proposition reproduite à l'annexe 39 du dossier de projet, compte tenu des observations du groupe de travail indiquées ci-dessus.

Des observations ont été demandées sur la proposition devant être présentée.

UK Patent Office

Date: 15 March 2001

Rapporteur Proposal for Project C379, Subclass H01H**Introduction**

At the fourth meeting of the Revision Working Group it was concluded that it would be better to try to fit the previous EP proposal more into the existing scheme for this area, i.e. that part of the project adopted for Edition 7 (See IPC/WG/4/5). The following proposal attempts to do that.

H01H

	13/702	. . ---
N	13/703	. . . characterised by the layers e.g. material, structure
N	13/704	. . . characterised by spacers between contact carrying layers
	13/705	. ---
N	13/7052	. . . characterised by key modules, e.g. assembling separate key modules
N	13/7054	. . . characterised by springs e.g. Euler spring
N	13/7056	. . . characterised by the mechanism between keys and layered keyboards
N	13/770	. . characterised by the material of the contacts, e.g. conductive polymer
N	13/772	. . characterised by the form of the contacts, e.g. interspersed fingers, helical networks
N	13/775	. . characterised by the manner of cooperation of the contacts, e.g. bounceless, both contacts movable
N	13/776	. . characterised by electrical connections to external devices
N	13/782	. . characterised by contact space venting means
N	13/784	. . characterised by tactile feedback features
N	13/786	. . characterised by means to facilitate operation, e.g. for miniature keyboards, for ergonomic or safety purposes
N	13/788	. . characterised by legends, e.g. liquid crystal displays, light emitting or optical elements

N	13/792	. . characterised by the casing, e.g. sealed casing, casing reducible in size
N	13/794	. . characterised by the location of the switch sites, e.g. superimposed
N	13/796	. . characterised by the manufacturing process (for electric switches in general 11/00)
C	11/00	- - - processes especially adapted for the manufacture of rectilinearly movable switches having a operating memebers associated with different sets of contacts, e.g. keyboards, 13/796)

Groups to be deleted from previous proposal:

13/774
13/778
13/780
13/790
13/798
13/800
13/802
13/804
Jim Calvert

OFICIUL DE STAT PENTRU RO COMMENTS

Date: April 2001

INVENTII SI MARCI

Page: 1 of 1

PROJECT **C379**

CLASS/SUBCLASS **H01H**

- on the proposal to be submitted:

We agree in principle with the revised proposal. (UK proposal on 15 March 2001).

L. Cornea

Projet IPC / C 379/96

Sous-classe H 01 H

Réf. : Annexe 32 du dossier de projet (proposition OEB)

Réf. : Annexe 39 du dossier de projet (proposition du rapporteur UK)

Des observations ont été demandées sur la proposition présentée par le Royaume-Uni.

Nous sommes d'accord avec la proposition d'incorporer certaines entrées dans les groupes existants en vue d'établir une structure hiérarchique.

Il est souhaitable de créer les nouvelles entrées (sous-groupes à trois points) H01H 13/703 et 13/704 en dépendance du sous-groupe existant à deux points H01H 13/702.

Le schéma proposé avec le sous-groupe existant à trois points 13/705 devrait être clarifié.

Si les sous-groupes à trois points 13/7052, 13/7054, 13/7056 caractérisent les boutons-poussoirs, il faudrait qu'ils dépendent hiérarchiquement du 13/705, donc devenir des sous-groupes à quatre points.

Pour les exemples donnés dans les sous-groupes 13/775 et 13/794, il faudrait spécifier les noms auxquels les adjectifs "bounceless (contacts?) et "superimposed" (sites?) se rapportent.

Le terme 'legends' est-il suffisamment clair compte tenu des exemples: "liquid crystal displays or light emitting or optical elements " qui concernent des moyens indicateurs visuels.

Des précisions sont demandées sur le premier exemple du sous-groupe 13/786 "miniature keyboards" et sur le second exemple du sous-groupe 13/775 'both contacts movable'

Le groupe principal 11/00 se rapporte à la 'fabrication des interrupteurs électriques', aussi le renvoi proposé devrait être complété par 'fabrication des claviers 13/796'

Swedish Patent and Registration Office

IPC Revision Project C 379, subclass H01H

24 April, 2001

COMMENTS relating to Annex 40

Comments were invited on the proposal of GB and EP (Annex 41):

13/703	X	"characterised by the layers, e.g. by their material or structure "
13/704	+	
13/705	?	This (existing) group should still have three dots?
13/7052	X	The word "modules" is unclear - does it mean a module containing several keys or does it mean a module containing the key and its related switches etc.?
13/7054	X	- - - e.g. Euler springs
13/7056	X	This group should contain a reference to 13/7054, since springs are mechanisms and can be located between keys and keyboards
13/770		
13/772	X	- - - fingers <u>or</u> helical networks
13/775	X	- - - e.g. with both contacts movable or with bounceless contacts
13/776	+	
13/782	+	
13/784	X	This group should be a subgroup to 13/786
13/786	X	The title is very unclear and must be clarified - we propose " characterised by ergonomic or operational sensory functions ", which would cover both 13/784 and 13/788
13/788	X	This group should be a subgroup to 13 786
13/792	X	The examples should be in plural
13/794	?	Is the expression "switch sites" clear? We only get 17 hits in H01H 13/00 using this expression in WPI.
13/796	X	This should be a process place: " Processes specially adapted for manufacture of rectilinearly movable switches having a plurality of operating members associated with different sets of contacts, e.g. keyboards "
11/00	X	"- - - ; processes <u>specially adapted for manufacture</u> of rectilinearly movable switches having a <u>plurality of operating members</u> associated with different sets of contacts, e.g. keyboards, 13/796)"

We still think groups 13/770-13/775 should be covered by a hierarchically higher group, for example titled "**characterised by the contacts**".

Given that the proposal contains so many groups for details under 13/70, should we add a reference to 13/02, saying "**pecially adapted for rectilinearly movable switches having a operating members associated with different sets of contacts, e.g. keyboards, 13/70**"?

Some of the group numbers have unnecessarily many digits.

Sture Elnäs
Anders Bruun

Project: C 379 Subclass: H01H

Re: IPC/WG/4/5

Comments have been invited on the Rapporteur's proposal.

We agree with the proposal as submitted.

P. Foglia

Deutsches Patent- und Markenamt			Class/Subcl.: H01H
German Patent and Trademark Office			Date : 14.05.01
IPC group or place	proposed by	+, x, -	DE - Comments — C 379

relating to Annex 40

We go along with some of the swedish comments and mark this by "see SE":

13/703		X	see SE
13/704		+	Should this group have 4 dots? Spacers are often layers or at least part of the layered structure.
13/705		X	2 dots would be appropriate
13/7052		X	The word "modules" is unclear - does it mean a module containing several keys or does it mean a module containing the key and its related switches etc.?
13/7054		X	See SE
13/7056		X	This group should contain a reference to 13/7054, since springs are mechanisms and can be located between keys and keyboards
13/770			Is there overlap with 13/703?
13/772		+	See SE
13/775		X	See SE
13/776		+	
13/782		+	
13/784		X	See SE
13/786		X	We are neither very happy with this title; however, see 13//86 below. We propose: ..Characterised by ergonomic means, i.e. means for facilitating operation.
13/788		+	We do not favour this becoming a subgroup of 13/786 as proposed by SE. Legends provide necessary information on the function of the key while ergonomic means are designed to facilitate or ease operation. 13/788 and 13/786 should cover different subjects.
13/792		X	See SE
13/794		?	-- by the location of the switch – (?)
13/796		X	See SE
11/00		X	See SE

We would still prefer to have many of these details specified above in the "details section" following 13/02 as many of them do not apply to keyboards only. However, as this idea which was proposed by several other countries before was not pursued we support the SE suggestion of adding a reference to 13/02.

UK Patent Office**Date: 10 May 2001**

Rapporteur Report on Project C379, Subclass H01H

Background

Comments were invited on a proposal submitted by GB in cooperation with EPO. This proposal was intended to integrate more the previous proposal (Annex 39) with the existing groups under 13/70 adopted at Edition 7.

Comments

Comments were received from EP, RO, FR and SE.

EP and RO supported the proposal.

SE had detailed comments regarding the wording of many of the groups and also suggest changes in the hierarchy.

FR would like to introduce new groups 13/703 and 13/704 at three dots under 13.702 to make the hierarchy more logical and have detailed comments as regards the wording of some of the groups.

Rapporteur-s opinion

As far as possible the proposals from FR and SE for amendments to the detailed wording of the groups have been included in the Rapporteur-s modified proposal. There were also several requests for clarification which are probably best answered by EPO as the entries derive from an ECLA scheme.

The changes in hierarchy proposed seem to be more difficult and therefore R proposes that these be discussed at the Revision Working Group, apart from those relating to groups 13/7052 to 13/7054 which were intended to be subgroups of 13/705 and the number of dots has been altered to make that clear.

Jim Calvert

UK Patent Office	Date: 10 May 2001
Rapporteur Proposal for Project C379, Subclass H01H	

H01H

	13/702	..	---
N	13/703	...	characterised by the layers e.g. by their material or structure
N	13/704	...	characterised by spacers between contact carrying layers
	13/705	...	---
N	13/7052	characterised by key modules, e.g. assembling separate key modules
N	13/7054	characterised by springs, e.g. Euler springs
N	13/7056	characterised by the mechanism between keys and layered keyboards
N	13/770	..	characterised by the material of the contacts, e.g. conductive polymers
N	13/772	..	characterised by the form of the contacts, e.g. interspersed fingers or helical networks
N	13/775	..	characterised by the manner of cooperation of the contacts, e.g. with both contacts movable or with bounceless contacts
N	13/776	..	characterised by electrical connections to external devices
N	13/782	..	characterised by contact space venting means
N	13/784	..	characterised by tactile feedback features
N	13/786	..	characterised by ergonomic or operational sensory functions, e.g. for miniature keyboards, for ergonomic or safety purposes
N	13/788	..	characterised by legends, e.g. liquid crystal displays, light emitting or optical elements

N	13/792	..	characterised by the casing, e.g. sealed casings, casings reducible in size
N	13/794	..	characterised by the location of the switch sites, e.g. superimposed sites
N	13/796	..	Processes specially adapted for manufacture of rectilinearly movable switches having a plurality of operating members associated with different sets of contacts, e.g. keyboards (for electric switches in general 11/00)

C 11/00 - - -, Processes specially adapted for manufacture of rectilinearly movable switches having a plurality of operating members associated with different sets of contacts, e.g. keyboards 13/796)

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Jim Calvert



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14	Comments	/ Observations	Rev.1	GB	11.99

RAPPORTEUR : GB

TECHNICAL FIELD/DOMAINE TECHNIQUE : E

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ANNEXE 24	G 01 C	[Project-Rapporteur : 397/GB] (T:CH) - SC/03/3	<SC04026F> <SC03059E>
<i>C</i>	<i>3/10</i>	• --- dans l'instrument (systèmes de triangulation active, c. à d. utilisant la transmission et la réflexion d'ondes électromagnétiques autres que les ondes radio, G 01 S 17/48)	
<i>C</i>	<i>3/22</i>	• --- l'objet lui-même (systèmes de triangulation active, c. à d. utilisant la transmission et la réflexion d'ondes électromagnétiques autres que les ondes radio, G 01 S 17/48)	
<i>C</i>	<i>3/24</i>	• --- dans l'instrument (systèmes de triangulation active, c. à d. utilisant la transmission et la réflexion d'ondes électromagnétiques autres que les ondes radio, G 01 S 17/48)	
<i>C</i>	<i>3/26</i>	• --- l'objet lui-même (systèmes de triangulation active, c. à d. utilisant la transmission et la réflexion d'ondes électromagnétiques autres que les ondes radio, G 01 S 17/48)	

ANNEXE 25	G 01 S	[Project-Rapporteur : 397/GB] (T:CH) - SC/03/3	<SC04027F> <SC03058E>
<i>C</i>	<i>17/08</i>	• • • --- indirecte 17/46 ; systèmes de triangulation active 17/48 ; systèmes passifs utilisant un ---	
<i>N</i>	<i>17/48</i>	• • • • Systèmes de triangulation active, c. à d. utilisant la transmission et la réflexion d'ondes électromagnétiques autres que les ondes radio (systèmes passifs utilisant un triangle parallactique G 01 C 3/10, 3/22, 3/24, 3/26 ; systèmes actifs pour la génération automatique de signaux de mise au point G 02 B 7/32)	



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COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	EP	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 06 F
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR C 402/97	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal	/ Demande de révision avec proposition détaillée		EP	17.01.97
2	Comments	/ Observations		EP	08.98
3	Comments	/ Observations		JP	08.98
4	Comments	/ Observations		DE	08.98
5	Comments	/ Observations		JP	08.98
6	Rapporteur report	/ Rapport du rapporteur		EP	02.99
7	Rapporteur proposal	/ Proposition du rapporteur		EP	02.99
8	Decision of the Working Group	/ Décision du groupe de travail	Rev.1	WG	07.99
9	Comments	/ Observations	Rev.1	EP	10.99
10	Comments	/ Observations	Rev.1	CA	10.99
11	Comments	/ Observations	Rev.1	RO	10.99
12	Comments	/ Observations	Rev.1	FR	10.99
13	Comments	/ Observations	Rev.1	DE	10.99
14	Rapporteur report	/ Rapport du rapporteur	Rev.1	EP	11.99

RAPPORTEUR : EP

TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 402/97	ORIGIN/ ORIGINE	DATE
15	French version of approved amendments / Version française des modifications approuvées	Rev.1	EP	11.99
16	Comments / Observations	Rev.2	JP	12.99
17	Decision of the Working Group / Décision du groupe de travail	Rev.3	WG	06.00
18	French version of approved amendments / Version française des modifications approuvées	Rev.3	EP	11.00
19	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	01.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

ANNEXE	26	G 06 F	[Project-Rapporteur : 402/EP] (T:EP) - SC/01/2	<SC04028F> <SC01024E>
	7/42	• • •	Addition; Soustraction	
	7/44	• • •	Multiplication; Division	
N	7/483	• • •	<i>Calculs avec des nombres représentés par une combinaison non linéaire de nombres codés, p.ex. nombres rationnels, système de numération logarithmique, nombres à virgule flottante (conversion en, ou à partir de codes à virgule flottante H 03 M 7/24)</i>	
N	7/485	• • • •	Addition; Soustraction	
N	7/487	• • • •	Multiplication; Division	
N	7/491	• • •	Calculs avec des nombres décimaux	
N	7/492	• • • •	utilisant une représentation à pondération binaire à l'intérieur de chaque position	
N	7/493	• • • • •	la représentation étant la représentation codée binaire naturelle, c. à d. le code 8421	
N	7/494	• • • • •	Addition; Soustraction	
N	7/495	• • • • • •	en mode série numérique, c. à d. ayant un seul circuit de traitement de chiffre traitant toutes les positions l'une après l'autre	
N	7/496	• • • • • •	Multiplication; Division	
N	7/498	• • • •	utilisant des accumulateurs de type compteur	
N	7/499	• • •	Traitement de valeur ou d'exception, p.ex. arrondi, dépassement	
C	7/50	• • •	Addition; Soustraction (7/483 à 7/491 , 7/544 à – – –	
N	7/501	• • • •	Semi-additionneurs ou additionneurs complets, c. à d. cellules élémentaires d'addition pour une position (circuits OU EXCLUSIF H 03 K 19/21)	
N	7/502	• • • • •	Semi-additionneurs; Additionneurs complets composés de deux semi-additionneurs en cascade	
N	7/503	• • • • •	utilisant la commutation de retenue, c. à d. la retenue entrante étant connectée directement, ou seulement par un inverseur, à la sortie de retenue, sous commande d'un signal de propagation de retenue	

- N 7/504 • • • • *en mode série binaire, c. à d. ayant un seul circuit de traitement de chiffre, traitant toutes les positions l'une après l'autre*
- N 7/505 • • • • *en mode parallèle binaire, c. à d. ayant un circuit de traitement de chiffre différent pour chaque position (semi-additionneurs ou additionneurs complets 7/501)*
- N 7/506 • • • • • *avec génération simultanée de retenue pour plusieurs étages ou propagation simultanée de retenue sur plusieurs étages*
- N 7/507 • • • • • • *utilisant la sélection entre deux valeurs de retenue ou de somme calculées de façon conditionnelle*
- N 7/508 • • • • • • *utilisant des circuits à retenue anticipée*
- N 7/509 • • • • • *pour opérandes multiples, p.ex. intégrateurs numériques*
- C 7/52 • • • *Multiplication; Division (7/483 à 7/491, 7/544 à – – –*
- N 7/523 • • • • *Multiplication uniquement*
- N 7/525 • • • • • *en mode série-série, c. à d. les deux opérandes étant introduits en série (7/533 a priorité)*
- N 7/527 • • • • • *en mode série-parallèle, c. à d. l'un des opérandes étant introduit en série et l'autre en parallèle (7/533 a priorité)*
- N 7/53 • • • • • *en mode parallèle-parallèle, c. à d. les deux opérandes étant introduits en parallèle (7/533 a priorité)*
- N 7/533 • • • • • *Réduction du nombre d'étapes ou d'étages d'itération, p.ex. utilisant l'algorithme de Booth, sommation logarithmique, parité-imparité*
- N 7/535 • • • • *Division uniquement*
- N 7/537 • • • • • *Réduction du nombre d'étapes ou d'étages d'itération, p.ex. utilisant l'algorithme de Sweeney-Robertson-Tocher (SRT)*
- D 7/54 (transféré en 7/52 - 7/537)
- N 7/57 • • • *Unités arithmétiques et logiques (UAL), c. à d. dispositions ou dispositifs pour accomplir plusieurs des opérations couvertes par les groupes 7/483 à 7/556 ou pour accomplir des opérations logiques (exécution des instructions 9/30)*
- N 7/575 • • • • *Unités arithmétiques et logiques de base, c. à d. dispositifs pouvant être sélectionnés pour accomplir soit l'addition, soit la soustraction, soit une parmi plusieurs opérations logiques, utilisant, au moins partiellement, les mêmes circuits*



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IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	GB	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 11 B
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 404/97	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		GB	30.01.97
2	Comments (re Annex 1) / Observations (réf. annexe 1)		DE	27.08.97
3	Comments / Observations		EP	08.98
4	Counter- proposal / Contre-proposition		EP	08.98
5	Comments / Observations		SE	08.98
6	Comments / Observations		CA	08.98
7	Comments / Observations		JP	08.98
8	Rapporteur report / Rapport du rapporteur		GB	02.99
9	Decision of the Working Group / Décision du groupe de travail	Rev.1	WG	07.99
10	Comments / Observations	Rev.1	EP	10.99
11	Comments / Observations	Rev.1	CA	10.99
12	Comments / Observations	Rev.1	RO	10.99
13	Comments / Observations	Rev.1	FR	10.99
14	Comments / Observations	Rev.1	DE	10.99

RAPPORTEUR : GB

TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 404/97	ORIGIN/ ORIGINE	DATE
15	French version of approved amendments / Version française des modifications approuvées	Rev.1	FR	11.99
16	Rapporteur report / Rapport du rapporteur	Rev.2	GB	12.99
17	Decision of the Working Group / Décision du groupe de travail	Rev.2	WG	12.99
18	Comments / Observations	Rev.2	GB	03.00
19	Comments / Observations	Rev.2	EP	03.00
20	Comments / Observations	Rev.2	RO	03.00
21	Rapporteur report / Rapport du rapporteur	Rev.2	GB	05.00
22	Decision of the Working Group / Décision du groupe de travail	Rev.3	WG	06.00
23	Comments / Observations	Rev.3	DE	09.00
24	Comments / Observations	Rev.3	GB	09.00
25	Comments / Observations	Rev.3	JP	09.00
26	Comments / Observations	Rev.3	EP	09.00
27	Comments / Observations	Rev.3	FR	09.00
28	Comments / Observations	Rev.3	RO	09.00
29	Rapporteur report / Rapport du rapporteur	Rev.3	GB	10.00
30	French version of approved amendments / Version française des modifications approuvées	Rev.3	FR	10.00
31	Comments / Observations	Rev.3	CA	11.00
32	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	01.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 404 (electrical) – It was confirmed that the Note following group G 11 B 7/252 (see Annex 22 to the project file) correctly defined rules for multiple classification in subgroups of that group. The Working Group agreed that extension of that Note to group G 11 B 7/242 was not desirable.

Projet C 404 (électricité) – Il a été confirmé que la note suivant le groupe G 11 B 7/252 (voir l'annexe 22 du dossier de projet) définit correctement les règles de classement multiple dans les sous-groupes de ce groupe. Le groupe de travail a convenu que l'élargissement de la note relative au groupe G 11 B 7/242 n'est pas souhaitable.

ANNEXE	27	G 11 B	[Project-Rapporteur : 404/GB] (T:FR) - SC/03/3	<SC04017F> <SC03061E>
N	7/241	• •	<i>caractérisés par le choix des matériaux</i>	
N	7/242	• • •	<i>des couches d'enregistrement</i>	
N	7/243	• • • •	<i>comprenant uniquement des matériaux inorganiques, p.ex. des couches ablatives</i>	
N	7/244	• • • •	<i>comprenant uniquement des matériaux organiques</i>	
N	7/245	• • • • •	<i>contenant un composé polymère</i>	
N	7/246	• • • • •	<i>contenant des colorants</i>	
N	7/247	• • • • • •	<i>Colorants de méthine ou de polyméthine</i>	
N	7/248	• • • • • •	<i>Porphines; Azaporphines, p.ex. phtalocyanines</i>	
N	7/249	• • • • • •	<i>contenant des composés organo-métalliques (7/246 a priorité)</i>	
N	7/25	• • • • •	<i>contenant des cristaux liquides</i>	
N	7/251	• • • •	<i>comprenant des matériaux inorganiques dispersés dans une matrice organique</i>	
N	7/252	• • •	<i>des couches autres que les couches d'enregistrement</i>	

N Note(s)
après 7/252

Dans le groupe 7/252, le classement selon plusieurs aspects est appliqué de sorte que, si la matière est caractérisée par des aspects couverts par plus d'un des sous-groupes, elle doit être classée dans chacun de ces sous-groupes.

- N 7/253 • • • • Couches de base
- N 7/254 • • • • Couches supérieures de protection
- N 7/256 • • • • Couches améliorant l'adhérence entre couches
- N 7/257 • • • • Couches avec des propriétés intervenant lors de l'enregistrement ou de la reproduction, p.ex. couches d'interférence optique ou couches de sensibilisation
- N 7/258 • • • • Couches réfléchissantes



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IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	EP	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 11 C
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR C 406/97	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal	/ Demande de révision avec proposition détaillée		EP	06.01.97
2	Comments	/ Observations		DE	08.98
3	Comments	/ Observations		EP	08.98
4	Comments	/ Observations		JP	08.98
5	Rapporteur report	/ Rapport du rapporteur		EP	02.99
6	Rapporteur proposal	/ Proposition du rapporteur		EP	02.99
7	Comments	/ Observations	Rev.1	JP	07.99
8	Decision of the Working Group	/ Décision du groupe de travail	Rev.2	WG	12.99
9	Comments	/ Observations	Rev.2	EP	03.00
10	Comments	/ Observations	Rev.2	CA	03.00
11	Comments	/ Observations	Rev.2	SE	03.00
12	Comments	/ Observations	Rev.2	RO	03.00
13	Comments	/ Observations	Rev.2	DE	04.00
14	Rapporteur report	/ Rapport du rapporteur	Rev.2	EP	04.00

RAPPORTEUR : EP

TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 406/97	ORIGIN/ ORIGINE	DATE
15	Rapporteur proposal / Proposition du rapporteur	Rev.2	EP	04.00
16	Decision of the Working Group / Décision du groupe de travail	Rev.3	WG	06.00
17	Proposal / Proposition	Rev.3	EP	07.00
18	Comments / Observations	Rev.3	DE	09.00
19	Comments / Observations	Rev.3	GB	09.00
20	Comments / Observations	Rev.3	JP	09.00
21	Comments / Observations	Rev.3	EP	09.00
22	Comments / Observations	Rev.3	GB	09.00
23	Comments / Observations	Rev.3	FR	09.00
24	Comments / Observations	Rev.3	RO	09.00
25	French version of approved amendments / Version française des modifications approuvées	Rev.3	EP	10/00
26	Rapporteur report / Rapport du rapporteur	Rev.3	EP	10/00
27	Comments / Observations	Rev.3	CA	11/00
28	Comments / Observations	Rev.3	FR	11.00
29	French version of approved amendments / Version française des modifications approuvées	Rev.3	EP	11.00
30	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	01.01
31	French version of approved amendments / Version française des modifications approuvées	Rev.4	EP	05.01
32	Comments / Observations	Rev.4	FR	05.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

ANNEXE	28	G 06 F	[Project-Rapporteur : 406/EP] (T:EP) - SC/03/3	<SC04019F> <SC03069E>
	11/00	--- mémoires statiques G 11 C 29/00; codage, décodage ---		
C	17/50	<ul style="list-style-type: none"> • <i>Conception assistée par ordinateur (pour la conception de circuits de test pour les mémoires statiques G 11 C 29/54)</i> 		
ANNEXE	29E	G 11 C	[Project-Rapporteur : 406/EP]	<SC04018E>
	Note(s) after the title			
N	(3)	<i>In this subclass, the following terms are used with the meaning indicated:</i>		
N		<ul style="list-style-type: none"> – <i>"storage element" is an element which can hold at least one item of information and is provided with means for writing-in and reading-out this information;</i> 		
N		<ul style="list-style-type: none"> – <i>"memory" is a device, including storage elements, which can hold information to be extracted when desired.</i> 		
	11/4078	<Delete former note (3)>		
		<ul style="list-style-type: none"> • • • • • --- Test cells (protection of memory contents during checking or testing 29/52) 		
ANNEXE	29F	G 11 C	[Project-Rapporteur : 406/EP] (T:EP) - SC/03/3	<SC04020F> <SC03070E>
C	29/00	--- <i>correct des mémoires; Test de mémoires lors d'opération en mode de veille ou hors-ligne</i>		
N	29/02	<ul style="list-style-type: none"> • <i>Détection ou localisation de circuits auxiliaires défectueux, p.ex. compteurs de rafraîchissement défectueux</i> 		
N	29/04	<ul style="list-style-type: none"> • <i>Détection ou localisation d'éléments d'emmagasinage défectueux</i> 		
N	29/06	<ul style="list-style-type: none"> • • <i>Test de prévieillissement</i> 		

- N 29/08 • • *Test fonctionnel, p.ex. test lors d'un rafraîchissement, auto-test à la mise sous tension (POST) ou test réparti*
- N 29/10 • • • *Algorithmes de test, p.ex. algorithmes par balayage de mémoire (MScan); Configurations de test, p.ex. configurations en damier*
- N 29/12 • • • *Dispositions intégrées pour les tests, p.ex. auto-test intégré (BIST)*
- N 29/14 • • • • *Mise en œuvre d'une logique de commande, p.ex. décodeurs de mode de test*
- N 29/16 • • • • • *utilisant des unités microprogrammées, p.ex. machines à états logiques*
- N 29/18 • • • • *Dispositifs pour la génération d'adresses; Dispositifs pour l'accès aux mémoires, p.ex. détails de circuits d'adressage*
- N 29/20 • • • • • *utilisant des compteurs ou des registres à décalage à rétroaction linéaire (LFSR)*
- N 29/22 • • • • • *Accès à des mémoires série*
- N 29/24 • • • • • *Accès à des cellules additionnelles, p.ex. cellules factices ou cellules redondantes*
- N 29/26 • • • • • *Accès à des réseaux multiples (29/24 a priorité)*
- N 29/28 • • • • • • *Réseaux multiples dépendants, p.ex. réseaux multi-bits*
- N 29/30 • • • • • *Accès à des réseaux uniques*
- N 29/32 • • • • • • *Accès séquentiel; Test par balayage*
- N 29/34 • • • • • • *Accès simultané à plusieurs bits*
- N 29/36 • • • • *Dispositifs de génération de données, p.ex. inverseurs de données*
- N 29/38 • • • • *Dispositifs de vérification de réponse*
- N 29/40 • • • • • *utilisant des techniques de compression*
- N 29/42 • • • • • *utilisant des codes correcteurs d'erreurs (ECC) ou un contrôle de parité*
- N 29/44 • • • • *Indication ou identification d'erreurs, p.ex. pour la réparation*
- N 29/46 • • • • *Logique de déclenchement de test*
- N 29/48 • • • *Dispositions dans les mémoires statiques spécialement adaptées au test par des moyens externes à la mémoire, p.ex. utilisant un accès direct à la mémoire (DMA) ou utilisant des chemins d'accès auxiliaires (équipement externe pour tests 29/56)*
- N 29/50 • • *Test marginal, p.ex. test de vitesse, de tension ou de courant*

- N 29/52 • *Protection du contenu des mémoires; Détection d'erreurs dans le contenu des mémoires*
- N 29/54 • *Dispositions pour concevoir les circuits de test, p.ex. outils de conception pour le test (DFT)*
- N 29/56 • *Équipements externes pour test de mémoires statiques, p.ex. équipement de test automatique (ATE); Interfaces correspondantes*

Projet: C 406

Sous-classe: G 11 C

Version Française

G11C

Note(s) après le titre

- N (3) Dans cette sous-classe, les termes suivants sont utilisés avec la signification indiquée :
- N - 'élément de stockage' est un élément qui peut maintenir au moins un morceau d'information et comprend des moyens de lecture et écriture de cette information
- N - 'mémoire' est un dispositif, incluant des éléments de stockage, qui peut maintenir de l'information qui peut être extraite à la demande
- <Effacer la note précédente (3)>
- 11/4078 --- Cellules de test (protection du contenu de la mémoire lors du contrôle ou du test 29/52)

P. Foglia

Projet IPC / C 406
Sous-classe G 11 C

OBSERVATIONS SUR LA PROPOSITION DE VERSION FRANÇAISE

(ref : annexe 29E du document IPC/WG/4/5)

Après étude de la proposition de l'OEB contenue dans le fichier 406EP13F, nous proposons quelques amendements de forme afin d'introduire les expressions usuelles de la CIB, ainsi que quelques changements rédactionnels. Par ailleurs nous aimerions apporter les modifications suivantes :

- Note (3) "emmagasinement" est le terme déjà utilisé dans la CIB 7 comme équivalent de "storage"
11/4078 "vérification" est utilisé dans le groupe 29/00.

La version française de l'annexe 29E (reprise ci-dessous dans son intégralité) se présenterait alors sous la forme :

G 11 C

ANNEX	29E	G 11 C	[Project-Rapporteur : 406/EP]	<SC04018E>
	Note(s) après le titre			
N		(3)	<i>Dans la présente sous-classe, les termes suivants sont utilisés avec la signification ci-dessous indiquée :</i>	
N			– "élément d'emmagasinement" est un élément qui peut maintenir au moins un morceau d'information et qui comprend des moyens d'écriture et de lecture de cette information;	
N			– "mémoire" est un dispositif, incluant des éléments d'emmagasinement, qui peut maintenir de l'information susceptible d'être extraite à la demande.	
			<Supprimer l'ancienne note (3)>	
	11/4078	• • • • •	– – – Cellules de test (protection du contenu de la mémoire lors des vérifications ou des tests 29/52)	

N. B. :

Note (3) nous nous demandons s'il ne faudrait pas écrire :

- – – d'écriture **ou** de lecture de cette information
– – – writing-in **or** reading-out this information

La version anglaise serait alors à corriger également.



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IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	RU	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	H 01 B
KIND OF REVISION: TYPE DE RÉVISION :	Creation of an indexing scheme Création d'un schéma d'indexation		

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR C 407/97	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal	/ Demande de révision avec proposition détaillée		RU	--.01.97
2	Comments	/ Observations		SE	08.98
3	Comments	/ Observations		EP	08.98
4	Comments	/ Observations		FR	08.98
5	Comments	/ Observations		GB	08.98
6	Rapporteur report	/ Rapport du rapporteur		RU	02.99
7	Rapporteur proposal	/ Proposition du rapporteur		RU	02.99
8	Comments	/ Observations		DE	05.99
9	Rapporteur report	/ Rapport du rapporteur	Rev.1	RU	11.99
10	Rapporteur proposal	/ Proposition du rapporteur	Rev.1	RU	11.99
11	Decision of the Working Group	/ Décision du groupe de travail	Rev.2	WG	06.00
12	Comments	/ Observations	Rev.2	DE	09.00
13	Comments	/ Observations	Rev.2	GB	09.00
14	Comments	/ Observations	Rev.2	EP	09.00

RAPPORTEUR : RU TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 407/97	ORIGIN/ ORIGINE	DATE
15	Comments / Observations	Rev.2	JP	09.00
16	Comments / Observations	Rev.2	FR	09.00
17	Comments / Observations	Rev.2	RO	09.00
18	Rapporteur report / Rapport du rapporteur	Rev.2	RU	10.00
19	French version of approved amendments / Version française des modifications approuvées	Rev.2	FR	10.00
20	Comments / Observations	Rev.2	CA	11.00
21	Decision of the Working Group / Décision du groupe de travail	Rev.3	WG	01.01
22	French version of approved amendments / Version française des modifications approuvées	Rev.3	FR	05.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

ANNEX	30E	H 01 B	[Project-Rapporteur : 407/RU]	<SC04021E>
	Note(s) after the title			
N	(3)		<i>In groups 1/00 to 7/00 and 17/00, multi-aspect classification is applied to conductors, conductive bodies, insulators or insulating bodies, with regard to their form and to their material, so that if both the form and the material are of interest, the subject matter is classified in each of the relevant groups.</i>	
ANNEXE	30F	H 01 B	[Project-Rapporteur : 407/RU] (T:FR) - SC/03/3	<SC04022F> <SC03062E>
	3/30		• • Matières plastiques; Résines; Cires	
N	Note(s) après 3/30			
			<i>Le groupe 3/47 a priorité sur les groupes 3/32 à 3/46.</i>	
N	3/47		• • • <i>Matières plastiques renforcées de fibres, p.ex. matières plastiques renforcées de verre</i>	
C	3/48		• • <i>Matériaux fibreux (matières plastiques renforcées de fibres 3/47)</i>	

Projet IPC / C **407**
Sous-classe **H 01 B**

VERSION FRANÇAISE

Ce document a été établi sur la base de notre proposition, après consultation des autres offices et du Bureau international.

(ref : annexe 30E du document IPC/WG/4/5)

H 01 B

ANNEX	30E	H 01 B	[Project-Rapporteur : 407/RU]	<SC04021E>
	Note(s) après le titre			
N	(3)		<i>Dans les groupes 1/00 à 7/00 et 17/00, le classement selon plusieurs aspects est appliqué aux conducteurs, aux corps conducteurs, aux isolateurs ou aux corps isolants en ce qui concerne leur forme et leur matériau, de façon que si la forme et le matériau présentent tous deux un intérêt, la matière soit classée dans chacun des groupes pertinents.</i>	



IPC/C 408/97 Rev.4
ORIGINAL: English/French
DATE: May 21, 2001

WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE
GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	DE	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	H 01 L
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR C 408/97	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal	/ Demande de révision avec proposition détaillée		DE	04.02.97
2	Comments	/ Observations		SE	08.98
3	Comments	/ Observations		JP	08.98
4	Comments	/ Observations		CA	08.98
5	Comments	/ Observations		EP	08.98
6	Comments	/ Observations		US	08.98
7	Comments	/ Observations		FR	08.98
8	Comments	/ Observations		GB	08.98
9	Comments	/ Observations		JP	08.98
10	Rapporteur report	/ Rapport du rapporteur	Rev.1	NO	05.99
11	Comments	/ Observations	Rev.2	JP	03.00
12	Decision of the Working Group	/ Décision du groupe de travail	Rev.3	WG	06.00
13	Proposal	/ Proposition	Rev.3	EP	07.00
14	Comments	/ Observations	Rev.3	DE	09.00

RAPPORTEUR : NO TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 408/97	ORIGIN/ ORIGINE	DATE
15	Comments / Observations	Rev.3	GB	09.00
16	Comments / Observations	Rev.3	JP	09.00
17	Comments / Observations	Rev.3	RO	09.00
18	Comments / Observations	Rev.3	FR	09.00
19	Comments / Observations	Rev.3	SE	10/00
20	Rapporteur report / Rapport du rapporteur	Rev.3	NO	10/00
21	Decision of the Working Group / Décision du groupe de travail	Rev.4	WG	01/01
22	Rapporteur proposal / Proposition du rapporteur	Rev.4	NO	04.01
23	Comments / Observations	Rev.4	EP	04.01
24	Comments / Observations	Rev.4	JP	04.01
25	Comments / Observations	Rev.4	CA	04.01
26	Comments / Observations	Rev.4	RO	04.01
27	Comments / Observations	Rev.4	FR	05/01
28	Comments / Observations	Rev.4	DE	05/01
29	Comments / Observations	Rev.4	SE	05/01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 408 (electrical) – Norway was invited to submit, in cooperation with the EPO and Germany, a consolidated proposal on the basis of the initial proposal submitted by Germany (see Annex 1 to the project file) and counter-proposals submitted by the EPO, the United Kingdom, Japan and Sweden (see Annexes 13, 15, 16 and 19, respectively, to the project file).

Comments were invited on:

- the proposal to be submitted;
- whether the term “container” should be replaced by the term “housing” throughout subclass H 01 L.

Projet C 408 (électricité) – La Norvège a été invitée à présenter, en coopération avec l’OEB et l’Allemagne, une proposition de synthèse sur la base de la proposition initiale soumise par l’Allemagne (voir l’annexe 1 du dossier de projet) et des contre-propositions présentées par l’OEB, le Royaume-Uni, le Japon et la Suède (voir respectivement les annexes 13, 15, 16 et 19 du dossier de projet).

Des observations ont été demandées :

- sur la proposition devant être présentée;
- sur le point de savoir s’il n’y aurait pas lieu de remplacer le terme “container” par le terme “housing” dans l’ensemble de la sous-classe H 01 L.

IPC Revision Project C 408, subclass H 01 L
Rapporteurs consolidated proposal
Date: 2001-01-25

Introduction

At the fourth session of the IPC Revision Working Group Rapporteur was invited to submit, in cooperation with the EPO and DE, a consolidated proposal on the basis of the initial proposal, counterproposals submitted and all other comments in the project file.

Rapporteurs revised short proposal is included herewith.

Supplementary comments

It is the opinion of Rapporteur that the inclusion of an explanation of the word “wafer” in the Notes section under H 01 L would be useful. The suggested definition of the term “wafer” is taken from: *“Electronic Materials Handbook, Volume 1, Packaging”, prepared by ASM International handbook committee, published 1989, Materials Park, OH, USA, ISBN 0-87170-285-1)*

Such an explanation may be necessary as the word “wafer” has a particular meaning within this technical field and may have a more general meaning in other technical fields. In Rapporteurs opinion such an explanatory definition help define the scope of the groups under consideration.

Jan Ove Askautrud

IPC Revision Project C 408, subclass H 01 L
Rapporteurs consolidated proposal
Date: 2001-01-25

H 01 L

“housing” replaces “container throughout the whole subclass H 01 L.

C Note(2) (after the subclass title H 01 L)

In this subclass, the following terms or expressions are used with the meaning indicated:

- “wafer” means a slice of semiconductor or crystalline substrate material modified by the addition, as applicable, of impurity diffusion (doping), ion implantation, epitaxy and so forth, and whose active surface is or has been processed into arrays of discrete devices or integrated circuits by metallization, passivation, glassification, or other means.
- “solid state body” means -----

C Note (after group title 21/00)
---- groups 21/02 to 21/67.

- N 21 / 67** • Apparatus adapted for handling, e.g. conveying, supporting and positioning semiconductor or electric solid state devices during manufacturing or treatment thereof; Apparatus particularly adapted for handling wafers during manufacture or treatment of semiconductor or electric solid state devices or components or of parts thereof;
- N 21 / 672** • • using specially adapted carriers or containers (transport or storage containers for wafers or finished devices B 65 D 85/30 and B 65 D 85/86)
- N 21 / 674** • • for conveying, e.g. using air tracks
- N 21 / 676** • • for supporting or gripping
- N 21 / 678** • • • using chucks, clamps or pinches
- C 21 / 68** • • for positioning, orientation or alignment

B 65 G

- C 49 / 07** • • for semiconductor wafers (conveying of semiconductor wafers during manufacturing of semiconductor or electric solid state devices H 01 L 21/67)

Project: C408
Subclass: H01L
Ref.: Annex 21 of the project file
Ref.: NO=Rapporteur's Consolidated Proposal dated 25 January 2001

' On NO=R's consolidated proposal

We support the consolidated proposal in its entirety, included the suggested definition for the term "**wafer**".

' On whether the term "housing" should replace the term "container" throughout subclass H01L

We agree with the replacement.

Roberto Iasevoli

Japan Patent Office

10 April 2001

Project:C-408Subclass:H01L

1. JP Comments on Rapporteur's consolidated proposal (dated Jan.25 2001)

1) We are opposed to "the term 'housing' replaces 'container' throughout the whole subclass H01L" for the following reasons.

(Reasons)

1. If "separate containers" in H01L 25/04 and 25/10 would be changed into "separate housings", the meaning might be unclear. Sometimes one container has a plural of housings (see examples below), and "separate containers" do not always mean "separate housings".

Examples: ① JP8-250651, A ② JP62-145747, A

2. H01S 5/022 includes many "housings" to contain the whole optical device made by combining "complete device" and other optical components, etc., and these housings are different from "containers" in H01L. (See our counterproposal).

2) Note (after group title 21/00), 21/672 "using specially adapted carriers or containers (transport or storage containers for wafers or finished devices B65D85/30 and B65D 85/86)"

We do not support the reference above for the following reasons.

(Reasons)

This description means that only transport or storage containers for wafers, from among carriers and containers used during manufacturing, are to be covered in B65D ("for finished devices" could be properly excluded from H01L, since they are not used during manufacture).

1. It is not clear to us why classify only transport or storage *containers* for *wafers* in B65D.

2. Usually, containers for wafers are not used for other purposes than transport or storage, and there would be few containers to be covered in H01L 21/672.

3. It would be ineffective to classify "carrier" and "containers" separately, in spite of both having same function of transport or storage, into H01L 21/672 and B65D respectively. (See our counterproposal below).

2. JP Counterproposal

1) We propose to add the following note after the title of 21/672
21/672 · · using specially adapted carriers or containers (containers used for packing of wafers or finished devices B65D 85/30 and B65D 85/86)
Note In this subgroup, “containers” are not the one defined in Note after subclass title of H01L, but “transport or storage containers”.

2) H01L Notes (2)

As the material before processing could be wafers, we propose that the Note (2) should be modified as follows (underlined part):

- “wafer” means a slice of semiconductor or crystalline substrate material modified by the addition, as applicable, of impurity diffusion (doping), ion implantation, epitaxy and so forth, and whose active surface will be, is, or has been processed into arrays of discrete devices or integrated circuits by metallization, passivation, glassification, or other means.

3) Note (after 21/00), 21/67

We propose to delete “or components” from the title of 21/67 as follows, in order to harmonize with the title of 21/00 “manufacture or treatment of semiconductor or solid state devices”.

21/67 Apparatus adapted for handling, e.g. conveying, supporting and positioning semiconductor or electric solid state devices during manufacturing or treatment thereof; Apparatus particularly adapted for handling wafers during manufacture or treatment of semiconductor or electric solid state devices or of parts thereof;

4) Note (after group title 21/00), 21/672

Basically, containers used for conveying or storage for wafer during manufacture should be covered by 21/672, and that used for packing for wafers or finished devices should be covered in B65D 85/30 and 85/86. We propose as follows:

21/672 · · using specially adapted carriers or containers for transport or storage (containers used for packing for wafers or finished devices B65D 85/30 and B65D 85/86)

5) B65G 49/07

We propose to modify the wording as follows to be consistent with the wording of H01L 21/67.

49/07 · · for semiconductor wafers (conveying of semiconductor wafers during manufacture or treatment of semiconductor or electric solid state devices or of parts thereof H01L 21/67)

The Canadian Intellectual
Property Office

CIPO



OPIC

L'Office de la propriété
intellectuelle du Canada

Project Number: 408

Date: April 4, 2001

Class/Subclass: H01L

Page 1 of 1

CA agrees with the Rapporteur's Report as submitted. In particular, the definition of >wafer= is a good idea due to its particular meaning in the semiconductor industry.

With regard to the terms >container= and >housing=, various searches on our Canadian database were performed in H01L using these terms as well as >package= and >packaging=. The results show that the least used term was >container= and >packag(e/ing)= were the most used. The reason I would like to include >package/ing= in the discussion is because this is the term that I've heard used most often by the semiconductor industry -it is even in the title of the book referenced by Rapporteur in the consolidated proposal of 2001/01/25. The results of the searches are:

H01L (all)	5852 documents
w/ housing	491
w/ container	300
w/ packaging	456
w/ package	723 (packaging or package 886)

H01L 23/02 to 23/10	122
w/ housing	35
w/ container	17
w/ packaging	57
w/ package	98 (packaging or package 99)

It must be noted that the words may appear in some documents in a different context than what is being discussed here, but the predominant usage is related to the encapsulation of integrated circuit devices.

CA prefers the word >package=, rather than either >container= or >housing=, since this is the industry standard term.

John Dowding

OFICIUL DE STAT PENTRU RO COMMENTS

Date: April 2001

INVENTII SI MARCI

Page: 1 of 1

PROJECT **C408**

CLASS/SUBCLASS **H01L**

- on consolidated proposal:
- whether the term **A housing@** replace the term **Acontainer@** throughout subclass **H01L**:

We fully support the consolidated proposal.

We think that the term **A housing@ should replace the term **Acontainer@** throughout subclass **H01L**.**

L. Cornea

Projet IPC / C 408
Sous-classe H 01 L

Réf : Annexes 1, 13, 15, 16, 19 du dossier de projet

- sur la proposition de synthèse présentée ;

- Nous sommes d'accord avec la définition proposée pour le terme 'wafer' devant être introduite dans la note (2).

Cependant, l'expression " arrays of discrete devices or integrated circuits " pourrait être précisée de la manière suivante : " arrays of discrete **components** or integrated circuits " (voir la définition de 'component', annexe 13, page 3)

- Concernant le schéma proposé :

Il diffère de celui présenté à l'annexe 19, page 3, notamment par la création de deux sous-groupes à deux points 21/676 " for supporting or gripping " et 21/68 " for positioning, orientation or alignment "

Un schéma avec un seul sous-groupe à deux points était mentionné dans l'annexe 19 pour 'supporting or positioning'

N 21/674 . . for supporting or positioning

N 21/676 . . . using chucks, clamps or pinches

Des précisions sont demandées sur la matière couverte par 'positioning'.

- Concernant les endroits identifiés pour 'wafer'

B65G 49/07 - nous sommes d'accord avec le renvoi proposé

B65J – un renvoi informatif vers le H01L serait nécessaire 'Appareils pour manipuler ou positionner des plaquettes semiconductrices pendant leur fabrication' H01L 21/68 '.

- sur le point de savoir s'il y a lieu de remplacer container' par 'housing' dans H01L ;

Nous pensons que le terme 'container' devrait être remplacé par 'housing' dans l'ensemble de la sous-classe H01L afin de préciser le type de logement des dispositifs semiconducteurs.

Il faut noter qu'une différenciation existe déjà en français : dans la sous-classe B65D 'container' est traduit par 'réceptacle' et dans la sous-classe H01L par 'conteneur'.

Deutsches Patent- und Markenamt German Patent and Trademark Office	Class/Subcl.: H01L
	Date : 20.04.2001
DE - Comment — C 408	

Re: IPC/WG/4/5

Comments were requested

- on the proposal submitted by the Rapporteur (NO), dated 2001-01-25:

DE support the proposal

- whether the term 'container' should be replaced by the term 'housing' throughout subclass H01L:

DE is in favour of replacing 'container' by 'housing'

Remark on the JP-comment, dated 10. April 2001:

DE cannot follow the JP-objections against the term 'housing'. We have studied the english abstracts of the documents cited by JP (JP08250651AA and JP62145747AA). The term 'housing' occurring in these documents is -in our opinion- consistent with the subject matter we are trying to find the correct expression. Specially concerning group 25/10 we have no problems imaging some separate inner housings enclosed by a outer housing of the whole device.

Concerning the JP-objections against the proposed reference in the proposed new group 21/672: In our opinion transport containers for wafers or semiconductor devices for a use outside of the manufacturing process (eg transport of wafers from the wafer fab to the semiconductor-fab or transport of devices from the semiconductor fab to the warehouse) are classified in subclass B65D. Transport containers or carriers for wafers or devices for a use inside the manufacturing process (eg from one production step to the next) are classified in subclass H01L.

The JP-amendment to the text of the proposed new note concerning the meaning of the term 'wafer' is supported by DE.

Remark on the CA-comment, dated April 4, 2001:

DE fully agree that 'package' and 'packaging' are the most common expressions for the subject matter in question used by a person skilled in the art. But we are not entirely sure whether really every imaginable housing for a semiconductor or solid state device (eg a module with an array of power thyristors filled with protective gas) can be designated as package.

Perhaps 'housing, eg package' could be a reasonable solution.

Rainer Anders

Swedish Patent and Registration Office

IPC Revision Project C 408, subclass H01L

24 April, 2001

COMMENTS relating to Annex 21

Comments were invited on:

- **rapporteur's consolidated proposal (Annex 22);**

A definition of the word "wafer" is desirable, but the proposed definition is a bit unclear and appears too narrow.

The expression "as applicable" does not make it clear whether the following limitations are optional or not. The words "and so forth" are unclear and not standard IPC language. The expression "is or has been" appears grammatically incorrect and presumably also relates to an optional part of the definition.

As the definition of wafer should also cover raw material and not only wafers that have already been treated, the definition preferably should read only:

- **"wafer" means a slice of semiconductor or crystalline substrate material**

Given that the definition is only valid in subclass H01L this would seem to be enough.

If further explanation is needed this could be added as examples:

- - - , **e.g. modified by impurity diffusion, ion implantation or epitaxy, and whose active surface can be processed into arrays of active devices, e.g. by metallisation, passivisation or glassification.**

H01L 21/67	X	The standard expression "specially adapted" should be used instead of "adapted" and "particularly adapted". The examples "conveying, supporting and positioning" are unnecessary, since this matter is covered in the subgroups.
H01L 21/672	X	We think the reference is too wide and refers out matter that we want to keep in H01L. We propose "(containers merely intended for transport or storage of wafers or finished devices B65D 85/30, B65D 85/86)".
H01L 21/674	+	
H01L 21/676	X	We think this group overlaps with 21/68, since "positioning, orientation and alignment" will require "supporting". 21/676 should contain a reference to 21/68, saying "(for positioning, orientation or alignment 21/68)".
H01L 21/678	X	We would prefer a more functional language, such as " using mechanical gripping means, e.g. chucks, clamps or pinches ".

H01L 21/68	+	
B65G 49/07	X	We think the reference is a bit too wide. We propose " (specially adapted for conveying of - - -) "

- **whether the term “container” should be replaced by the term “housing” throughout subclass H01L.**

"Housing" may replace "container" throughout H01L, namely in the following places:

Note (2)5, Note (2)7, 21/48, 21/52, 21/54, 23/02, 23/043, 23/053, 23/06, 23/10, 23/16, 23/42, 25/04, 25/10, 31/0203, 39/04

The word "housing" is already used in H01L 31/048. It is probably not used there with the same meaning as the present definition of "container", so it should probably be replaced by something else, perhaps "**encapsulated or equipped with protective covering**".

Sture Elnäs
Anders Bruun



IPC/C 410/97 Rev.4
ORIGINAL: English/French
DATE: June 5, 2001

WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE
GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	DE	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	H 02 P
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR C 410/97	ORIGIN/ ORIGINE	DATE
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13	Decision of the Working Group	/ Décision du groupe de travail	Rev.1	WG	07.99
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RAPPORTEUR : DE TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 410/97	ORIGIN/ ORIGINE	DATE
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17	Comments / Observations	Rev.1	RO	10.99
18	Comments / Observations	Rev.1	EP	11.99
19	Decision of the Working Group / Décision du groupe de travail	Rev.2	WG	12.99
20	Comments / Observations	Rev.2	GB	03.00
21	Comments / Observations	Rev.2	EP	03.00
22	Comments / Observations	Rev.2	JP	03.00
23	Comments / Observations	Rev.2	CA	03.00
24	Comments / Observations	Rev.2	SE	03.00
25	Comments / Observations	Rev.2	RO	03.00
26	Comments / Observations	Rev.2	DE	04.00
27	Rapporteur report / Rapport du rapporteur	Rev.2	DE	04.00
28	Rapporteur proposal / Proposition du rapporteur	Rev.2	DE	04.00
29	Rapporteur proposal / Proposition du rapporteur	Rev.2	DE	04.00
30	Decision of the Working Group / Décision du groupe de travail	Rev.3	WG	06.00
31	Comments / Observations	Rev.3	DE	09.00
32	Comments / Observations	Rev.3	JP	09.00
33	Comments / Observations	Rev.3	EP	09.00
34	Comments / Observations	Rev.3	FR	09.00
35	Comments / Observations	Rev.3	RO	09.00
36	Comments / Observations	Rev.3	SE	10/00
37	Comments / Observations	Rev.3	CA	11/00
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EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 410 (electrical) – Main groups H 02 P 21/00, 23/00, 25/00 and 27/00 were provisionally approved (see Annex 31 to this report). It was indicated that the new subgroups, proposed by the Rapporteur (see Annex 39 to the project file), should be placed in the said main groups in the following way:

- in main group 21/00: subgroups 21/01 to 21/14;
- in main group 23/00: subgroups 23/64 to 23/88 with one dot removed;
- in main group 25/00: subgroups 23/02 to 23/30;
- in main group 27/00: subgroups 23/32 to 23/52 with one dot removed.

Germany was invited to submit a detailed proposal on the basis of the approved main groups and subgroup placement therein indicated above.

Comments were invited on:

- the proposal to be submitted;
- the correctness of the wordings of the approved main groups, in particular main group 25/00;
- the relationship between main groups 21/00 and 23/00 and whether any references were needed between those groups;
- whether subject matter covered by the proposed subgroups 23/02 and 23/14 (see Annex 39 to the project file) could be combined under main group 25/00 or creation of two respective main groups would be desirable;
- the wording of a Note specifying multiple classification in the area of main groups 21/00 to 27/00;
- classification of subject matter relating to “vector control of electric machines other than ac motors,” in the light of the amended wording of main group H 02 P 21/00 (see Annex 31 to this report).

Projet C 410 (électricité) – Les groupes principaux H 02 P 21/00, 23/00, 25/00 et 27/00 ont été approuvés à titre provisoire (voir l’annexe 31 du présent rapport). Il a été précisé que les nouveaux sous-groupes proposés par le rapporteur (voir l’annexe 39 du dossier de projet) doivent être répartis dans ces groupes principaux de la manière suivante :

- dans le groupe principal 21/00 : sous-groupes 21/01 à 21/14;
- dans le groupe principal 23/00 : sous-groupes 23/64 à 23/88, avec suppression d'un point;
- dans le groupe principal 25/00 : sous-groupes 23/02 à 23/30;
- dans le groupe principal 27/00 : sous-groupes 23/32 à 23/52, avec suppression d'un point.

L'Allemagne a été invitée à présenter une proposition détaillée sur la base des groupes principaux approuvés et de la répartition des sous-groupes indiquée ci-dessus.

Des observations ont été demandées :

- sur la proposition devant être présentée;
- sur l'exactitude du libellé des groupes principaux approuvés, en particulier le groupe principal 25/00;
- sur le lien entre les groupes principaux 21/00 et 23/00 et sur le point de savoir s'il convient d'insérer des renvois entre ces deux groupes;
- sur le point de savoir si la matière couverte par les sous-groupes 23/02 et 23/14 proposés (voir l'annexe 39 du dossier de projet) peut être combinée dans le groupe principal 25/00 ou s'il est préférable de créer deux groupes principaux;
- sur le libellé d'une note précisant le classement multiple dans le secteur des groupes principaux 21/00 à 27/00;
- sur le classement de la matière relative au "vector control of electric machines other than ac motors" compte tenu du libellé modifié du groupe principal H 02 P 21/00 (voir l'annexe 31 du présent rapport).

ANNEX	31	H 02 P	[Project-Rapporteur : 410/DE]	<SC04036E>
C	21/00	<i>Arrangements or methods for the control of electric machines by vector control, e.g. by control of field orientation</i>		
N	23/00	<i>Arrangements or methods for the control of ac-motors characterised by the control method (6/00, 8/00 and 21/00 take precedence)</i>		
N	25/00	<i>Arrangements or methods for the control of ac-motors characterised by structural details</i>		
N	27/00	<i>Arrangements or methods for the control of ac-motors characterised by the kind of supply voltage</i>		

DEUTSCHES PATENT- UND MARKENAMT German Patent and Trademark Office	Class/Subclass: H 02 P
	Date: 22. January 2001
DE – Rapporteur-Report - C 410	

Re.: IPC/WG/4/5

Last meeting Working Group provisionally approved a rough scheme including main groups 21/00, 23/00, 25/00 and 27/00. It was indicated that the new subgroups, proposed by the Rapporteur in annex 39, should be placed in the said main groups in the following way:

- in main group 21/00: subgroups 21/01 to 21/14 (from said annex 39)
- in main group 23/00: subgroups 23/64 to 23/88 with one dot removed (from annex 39)
- in main group 25/00: subgroups 23/02 to 23/30 (from said annex 39)
- in main group 27/00: subgroups 23/32 to 23/52 with one dot removed (from annex 39)

Rapporteur was invited to submit a detailed proposal on the basis of the approved main groups and subgroup placement therein indicated above.

In the attached proposal Rapporteur has included the said subgroups onto the right place in the scheme and has renumbered the subgroups in the usual way. In main group 23/00 the sequence of subgroups (former groups 23/64 to 23/88) was changed.

The proposal only covers the scheme of the new groups 21/00 to 27/00. Not yet done are the transfer notes and some necessary adaptations in main groups 5/00 and 7/00 as well as references and/or precedence notes to other main groups of subclass H02P.

Rainer Anders

DEUTSCHES PATENT- UND MARKENAMT German Patent and Trademark Office	Class/Subclass: H 02 P
	Date: 22. January 2001
Rapporteur Proposal -- C 410	

H02P

Note: Usage of multiple classification is desirable in groups 21/00 (before 21/00) to 27/00.

Classification on the control of *ac-motors* should be made in group 21/00 for vector control or in group 23/00 for other than vector control. If the kind of motor, the kind of wiring or circuit arrangement, or the kind of supply voltage is of interest, classification should also be made in groups 25/00 and 27/00, respectively.

- C 21/00 Arrangements or methods for the control of electric machines by vector control, e.g. by control of field orientation**
- N 21/02 . Rotor flux based control
 - N 21/04 . . Indirect field-orientated control, e.g. field phase angle calculation based on rotor voltage equation by adding slip frequency and speed proportional frequency [US 4 818 927, US 4 677 361]
 - N 21/06 . . Direct field-oriented control
 - N 21/10 . Stator flux based control
 - N 21/12 . Estimation or adaptation of motor parameters, e.g. rotor time constant, flux, speed, current or voltage [EP 330 188, EP 436 138] [DE 42 35 607, US 5 498 945, EP 47 900]
 - N 21/12 . specially adapted for very low speeds
 - N 21/14 . specially adapted for optimising the efficiency at low load
- N 23/00 Arrangements or methods for the control of ac-motors characterised by the control method**
- N 23/02 . Controlling the motor in four quadrants [WO 88/8221, US 4 787 021, GB 2 200 259]

- N 23/04 . Controlling by a given slip frequency, e.g. adding slip frequency and speed proportional frequency
[US 4 825 131, US 4 723 201, EP 93 929]
- N 23/06 . Controlling by adding a dc current (dc current braking 3/24)
[GB 958 231, US 2 847 630, US 3 786 327]
- N 23/08 . Estimation of motor parameters e.g. rotor time constant flux, speed, current or voltage
- N 23/10 . Observer control, e.g. using Luenberger observer, Kalman filter
[US 4 442 393, EP 680 138]
- N 23/12 . specially adapted for damping motor oscillations, e.g. reducing hunting
- N 23/14 . specially adapted for optimising the efficiency at low load
[US 4 590 413, EP 615 336, US 4 800 326]

- N 25/00 Arrangements or methods for the control of ac-motors characterised by structural details**
- N 25/02 . characterised by the kind of the motor
- N 25/04 . . Single phase motors, e.g. capacitor motors
[US 3 504 255, US 4 117 383]
- N 25/06 . . Linear motors *[US 3 549 966, GB 1 269 159, US 4 013 014]*
- N 25/08 . . Reluctance motors
- N 25/10 . . Commutator motors, e.g. universal motors, repulsion motors
- N 25/12 . . . Shifting the brushes of a commutator motor

- N 25/14 . characterised by the kind of wiring or circuit arrangement
- N 25/16 . . with arrangements for switching the windings, e.g. with mechanical switches or relays *[DE 43 35 917, US 5 341 080]*
- N 25/18 . . . for pole-changing
- N 25/20 . . Multiple windings or windings for more than three phases
[US 4 814 964, US 4 743 828]
- N 25/22 . . Variable impedance in stator or rotor circuit
- N 25/24 . . . with arrangements for controlling secondary impedance
- N 25/26 . . using magnetic devices with controllable degree of saturation, e.g. transducers
- N 25/28 . . using an ac generator to supply the motor, the motor being controlled by a control effected upon the generator

- N 25/30 . . using discharge tubes

- N 27/00 **Arrangements or methods for the control of ac-motors characterised by the kind of supply voltage**
(power supply systems H02M)

- N 27/02 . using supply voltage with constant frequency and variable amplitude

- N 27/04 . . of single phase motors, e.g. of capacitor motors (commutator motors 23/10) *[US 5 091 686, US 5 276 392]*

- N 27/08 . using variable-frequency supply voltage, e.g. inverter or converter supply voltage

- N 27/10 . . using dc to ac converters or inverters

- N 27/12 . . . with pulse width modulation *[EP358225, EP413966]*

- N 27/14 using bang-bang controllers *[EP 541 253, US 4 306 182]*

- N 27/16 pulsing by guiding the flux-, current-, or voltage-vector on a circle or a closed curve, e.g. direct torque control *[US 4 763 060]*

- N 27/18 with three or more levels of voltage *[US 5 155 675, EP 571 755]*

- N 27/20 . . using ac to ac converters without intermediate conversion to dc

- N 27/22 . . . varying the frequency by omitting half waves *[EP 250 008, EP 311 031, US 4 300 077]*

- N 27/24 . using ac supply for both rotor and stator circuits, the frequency of supply to a least one circuit being variable

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Date: April 2001

INVENTII SI MARCI

Page: 1 of 1

PROJECT **C410**

CLASS/SUBCLASS **H02P**

- on the proposal to be submitted;
- on the correctness of the wording of the approved main groups, in particular main group 25/00;
- on the relationship between main group 21/00 and 23/00 and whether any references were needed between those groups;
- whether subject matter covered by the proposed subgroups 23/02 and 23/14 could be combined under main group 25/00 or creation of two respective main groups would be desirable;
- the wording of a Note specifying multiple classification in the area of main groups 21/00 to 27/00;

- on classification of subject matter relating to vector control of electric machines in the light of the amended wording of main group H02P 21/00.

We support the DE proposal, and we think that the wordings of the approved main group 25/00 is correct.

L. Cornea

Projet IPC / C 410
Sous-classe H 02 P

Réf. : Annexe 31 du présent rapport
Réf. : Annexe 39 du dossier de projet

Des observations ont été demandées :

– **sur la proposition présentée;**

Nous sommes d'accord avec la proposition de créer 4 groupes principaux (21/00, 23/00, 25/00, 27/00) dans la sous-classe H02P.

– **sur l'exactitude du libellé des groupes principaux approuvés, en particulier le groupe principal 25/00;**

Le libellé du groupe principal 25/00 ne nous semble pas suffisamment explicite .
Des précisions sont demandées sur les *détails de structure*, à quoi se rapportent-ils ?

– **sur le lien entre les groupes principaux 21/00 et 23/00 et sur le point de savoir s'il convient d'insérer des renvois entre ces deux groupes;**

Nous pensons qu'un renvoi en 23/00 n'est pas nécessaire si une note telle que celle rédigée dans l'annexe 39 est adoptée.

– **sur le libellé d'une note précisant le classement multiple dans le secteur des groupes principaux 21/00 à 27/00;**

D'après le libellé de la note présentée (annexe 42), 'les moteurs ac à commande vectorielle' ne peuvent être classés qu'en 21/00, ce qui semble opposé à l'esprit du classement multiple.

Nous pensons que la note précédemment proposée (voir annexe 39) permettrait de couvrir les différents aspects des moteurs sur lesquels la commande vectorielle est appliquée.

When classifying in this group, it is desirable to also classify in other relevant groups of this subclass if the type of apparatus where vector control is applied is of interest, e.g. the kind of ac-motor (25/02), the kind of wiring or circuit arrangement of ac-motors (25/14), the kind of supply voltage of ac-motors (27/00)

– **sur le point de savoir si la matière couverte par les sous-groupes 23/02 et 23/14 proposés (voir l'annexe 39 du dossier de projet) peut être combinée dans le groupe principal 25/00 ou s'il est préférable de créer deux groupes principaux;**

Les groupes tels que proposés semblent convenir.

– **sur le classement de la matière relative au 'vector control of electric machines other than ac motors' compte tenu du libellé modifié du GP H02P 21/00**

Le libellé modifié tient compte des remarques et est en l'état satisfaisant.

Swedish Patent and Registration Office

IPC Revision Project C 410, subclass H02P

24 April, 2001

COMMENTS relating to Annex 40

Comments were invited on:

- the proposal to be submitted (Annex 42);

We do not want to comment on the subgroups in detail at this point.

- the correctness of the wordings of the approved main groups, in particular main group 25/00;
- whether subject matter covered by the proposed subgroups 23/02 and 23/14 (see Annex 39 to the project file) could be combined under main group 25/00 or creation of two respective main groups would be desirable;
- the relationship between main groups 21/00 and 23/00 and whether any references were needed between those groups;

We think the title of 25/00 is incorrect. The "kind of wiring or circuit arrangement" can perhaps be considered a structural detail, but "the kind of motor" is exactly the opposite of a detail - it is a general concept. 25/02 can therefore not be a subgroup of 25/00. There are several possible solutions:

- 25/00 could be replaced by two main groups, corresponding to the one-dot groups. This depends on whether there are any inventions that would be classified in 25/00 only and not in its subgroups - are there any example documents for this?
- If there is anything that should be classified in 25/00 only and not in its subgroups, 25/02 could be made a separate main group, retaining 25/00 and 25/14 as they are proposed.
- A third alternative would be to give 25/00 a three-part title, saying "**Arrangements or methods for the control of ac-motors characterised by structural details; Arrangements or methods for the control of ac-motors characterised by the kind of the motor; Arrangements or methods for the control of ac-motors characterised by the kind of wiring or circuit arrangement**". Although long and awkward, it would at least be formally correct.

Vector control must be referred out of 23/00.

- **the wording of a Note specifying multiple classification in the area of main groups 21/00 to 27/00;**

We think the note has to be as explicit as possible on how classification should be done, and perhaps even cite an example. We strongly recommend postponing the final wording of a note until final decisions have been taken on general rules for multi-aspect classification and on rules for classification of "additional information". However, as food for thought while we are waiting for these decisions, we would suggest something on the following lines:

In this subclass, more than one aspect of control and regulation can be indicated by classification. The following classification rules apply:

- **If an invention relates to vector control, classification is made in main group 21/00**
- **If the invention relates to a control method other than vector control, classification is made in the appropriate place in groups 1/00 to 19/00 and 23/00**
- **Additional aspects of control of ac-motors, such as the purpose of control or the type of motor controlled, can be indicated by classification in groups 25/00 to 27/24**

The note would also have to be completed to take into account the other main groups where vector control of electric machines is applicable.

- **classification of subject matter relating to "vector control of electric machines other than ac motors," in the light of the amended wording of main group H02P 21/00 (see Annex 31 to this report).**

Vector control would have to be referred out of several other main groups. We are not in a position to make a detailed analysis of this, apart from sharing this statistical data:

```
? .. fi epodoc

? /ec h02p21: Results 2.026
? ..lim * Search limited to 2026 documents

? /ec h02p1: Results 9
? /ec h02p3: Results 3
? /ec h02p5: Results 84
? /ec h02p6: Results 64
? /ec h02p7: Results 88
? /ec h02p8: Results 2
? /ec h02p9: Results 2
? /ec h02p11: Results 0
? /ec h02p13: Results 0
? /ec h02p15: Results 0
? /ec h02p17: Results 0
? /ec h02p19: Results 0
? /ec h02p21: Results 2026

? ..lim all
? vector(w)control: Results 373
? ..lim * Search limited to 373 documents
```

? /ec h02p1: Results 1
? /ec h02p3: Results 0
? /ec h02p5: Results 6
? /ec h02p6: Results 3
? /ec h02p7: Results 4
? /ec h02p8: Results 0
? /ec h02p9: Results 0
? /ec h02p11: Results 0
? /ec h02p13: Results 0
? /ec h02p15: Results 0
? /ec h02p17: Results 0
? /ec h02p19: Results 0
? /ec h02p21: Results 90

It seems there is some overlap, and it has also to be taken into account that the coverage of 21/00 has been widened considerably.

Anders Bruun
Sture Elnäs

Project: C 410 Subclass: H02P

Re: IPC/WG/4/5

Comments have been invited on the following items:

Rapporteur's proposal

We agree with the Proposal as submitted.

We only have some minor remarks, respectively concerning the correction of the numbering of two subgroups of 21/00 and the reintroduction of the precedence in main group 23/00 as already approved and published in Annex 40 pg.2 to the project file.

Furthermore, as expressed in previous occasions, we would have a preference for using the word "winding" instead of "wiring" in the title of group 25/14, as statistics in the H02P documentation show that the first term is much more common (in a ratio 45:1) than the one currently proposed.

Wording of approved groups, in particular 25/00

We agree with the wording of all approved groups

Relationship between main groups 21/00 and 23/00

We believe that a reference is needed, and we agree with the formulation approved in Annex 40 pg.2 to the project file.

Combination of subject matters under 25/00

We agree with the structure as proposed and don't deem it necessary to create two new main groups for the subject matter at present respectively covered by groups 25/02 and 25/14.

Wording of Note

We agree with the wording of the note as proposed.

As a minor suggestion, we could propose the following: "Classification of the control --- in group 23/00 for methods other than vector control. ---"

Classification of subject matter relating to "Vector Control"

As the technique of vector control seems to be applicable to various kinds of machines, we sustain the extension of the scope of group 21/00 as from Annex 31 to the project file.

Consequently, we believe that subject matter relating to vector control of electric machines other than ac motors should also be classified in 21/00.

P. Foglia

DEUTSCHES PATENT- UND MARKENAMT German Patent and Trademark Office	Class/Subclass: H 02 P
	Date: 22. May 2001
DE – Rapporteur-Report - C 410	

Re.: IPC/WG/4/5

Comments were received by RO, FR, SE, EP and DE.

- WG invited DE to submit a detailed proposal on the basis of the approved main groups (see annex 40, page 2 to the project file) and subgroup placement therein indicated in said annex 40 page 1.

A detailed proposal (annex 42 to the project file) was submitted by Germany as an early action already in January 2001. Unfortunately by a error the proposal was mailed at this time to the WIPO only but not to the commenting offices. So, until April 2001 the proposal was only available on the listbox-server of the WIPO internet location and most offices were not aware of it. Therefor the major parts of the comments obviously were written without having knowledge of the detailed proposal.

In answering the questions raised by the WG in IPC/WG/4 the offices commented

- on the correctness of the wordings of the approved main groups, in particular main group 25/00

RO and EP agree with the approved wording. FR and SE have objections against the wording of 25/00.

Rapporteur takes up the objections and proposes an improved title of group 25/00:

"25/00 Arrangements or methods for the control of ac-motors characterised by the kind of the ac-motor or by structural details, eg the kind of the internal wiring or the external circuitry of the ac-motor".

- whether subject matter covered by the proposed subgroups 23/02 and 23/14 (see annex 39 to the project file) could be combined under main group 25/00 or creation of two respective main groups would be desirable.

RO, FR and EP agree with the combination of groups under 25/00. SE discuss the different possibilities and give an examples for an at least formally correct title of 25/00.

Rapporteur proposes to retain the combined group 25/00 with the improved title indicated above. This allows to classify further details subject matter under 25/00 which do not belong to one of the one-dot-groups.

Rapporteur is not in favour of the EP-proposal to substitute the word 'wiring' by 'winding'. 'Wiring' is much more general and not restricted to the wires of coils as 'winding' does. To make things clear Rapporteur proposes to improve 25/14:

"25/14 . characterised by the kind of the internal wiring or the external circuitry of the ac-motor".

- on the relationship between main groups 21/00 and 23/00 and whether any references were needed between those groups

Rapporteur states in -agreement with FR, SE and EP- that it must be clear that methods with vector control are classified in 21/00 and methods without vector control in 23/00. Rapporteur proposes to bring this argument into the title of 23/00:

"23/00 Arrangements or methods for the control of ac-motors characterised by a control method *other than vector control*".

- on the wording of a Note specifying multiple classification in the area of main groups 21/00 to 27/00

EP is in favour of the proposed Note given by the Rapporteur in annex 42 with a minor improvement. SE strongly recommend to postpone the final wording of the Note until final discussions on this matter are done by the Reform Group. On the other hand SE give some advice what the Note could contain.

Rapporteur agrees in general with the SE opinion as long as the formally exact wording is concerned. But it seems necessary to discuss already the technical content of the note. Rapporteur proposes to restrict the multiple classification area to control methods of ac-motors (main groups 21/00 to 27/00) which is the technical area of this revision project. A draft version of the respective Note -including the EP-amendment- could be as follows.

"Note (before H02P 21/00):

Usage of multiple classification is desirable in main groups 21/00 to 27/00.

Classification of the control of *ac-motors* should be made in group 21/00 for vector control and in group 23/00 for methods other than vector control. If the kind of the ac-motor, structural details as the kind of the internal wiring or the external circuitry of the ac-motor, or the kind of supply voltage of the ac-motor is of interest, classification should also be made in main groups 25/00 and 27/00, respectively."

- on classification of subject matter relating to 'vector control of electric machines other than ac-motors', in the light of the amended wording of main group 21/00 (see annex 40 page 2 to the project file)

RO, FR and EP are in favour of the amended wording of 21/00. SE give statistical data from the 'epodoc' database of the EPO demonstrating the actual classification praxis.

Rapporteur proposes that vector control, i.e. group 21/00, should take precedence over all main groups of H02P with the exception of main groups 13/00, 15/00, 17/00 which subject matters are not applicable for vector control.

Rapporteur suggest that WG could start discussing the items above and than continuing with the detailed proposal from annex 42, keeping in mind the minor changes originating from this paper and printed in bold.

Rainer Anders

Projet IPC / C **410**
Sous-classe **H 02 P**

VERSION FRANÇAISE

Ce document a été établi sur la base de notre proposition, après consultation des autres offices et du Bureau international.

(ref : annexe 30 du document IPC/WG/4/5)

H 02 P

ANNEX	31	H 02 P	[Project-Rapporteur : 410/DE]	<SC04036E>
C	21/00	<i>Dispositions ou procédés pour la commande de machines électriques par commande par vecteur, p.ex. par commande de l'orientation du champ</i>		
N	23/00	<i>Dispositions ou procédés pour la commande de moteurs à courant alternatif caractérisés par le procédé de commande (6/00, 8/00 et 21/00 ont priorité)</i>		
N	25/00	<i>Dispositions ou procédés pour la commande de moteurs à courant alternatif caractérisés par des détails de structure</i>		
N	27/00	<i>Dispositions ou procédés pour la commande de moteurs à courant alternatif caractérisés par le type de tension d'alimentation</i>		



IPC/C 419/98 Rev.2
ORIGINAL: English/French
DATE: June 5, 2001

**WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**

GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	RU	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 01 M
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 419/98	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		RU	12.98
2	Comments / Observations		EP	05.99
3	Comments / Observations		SE	05.99
4	Comments / Observations		CA	05.99
5	Comments / Observations		RO	05.99
6	Comments / Observations		JP	07.99
7	Comments / Observations		GB	07.99
8	Comments / Observations		DE	09.99
9	Rapporteur report / Rapport du rapporteur		RU	09.99
10	Rapporteur proposal / Proposition du rapporteur		RU	09.99
11	Decision of the Working Group / Décision du groupe de travail	Rev.1	WG	09.00
12	Comments / Observations	Rev.1	EP	09.00
13	Comments / Observations	Rev.1	JP	09.00

RAPPORTEUR : RU TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 419/98	ORIGIN/ ORIGINE	DATE
14	French version of approved amendments / Version française des modifications approuvées	Rev.1	FR	09.00
15	Comments / Observations	Rev.1	FR	09.00
16	Comments / Observations	Rev.1	CA	09.00
17	Comments / Observations	Rev.1	RO	09.00
18	Comments / Observations	Rev.1	SE	11.00
19	Rapporteur report / Rapport du rapporteur	Rev.1	RU	11.00
20	Rapporteur proposal / Proposition du rapporteur	Rev.1	RU	11.00
21	French version of approved amendments / Version française des modifications approuvées	Rev.1	FR	11.00
22	Decision of the Working Group / Décision du groupe de travail	Rev.2	WG	01/01
23	Comments / Observations	Rev.2	EP	04.01
24	French version of approved amendments / Version française des modifications approuvées	Rev.2	FR	04.01
25	Comments / Observations	Rev.2	JP	06.01
26	Comments / Observations	Rev.2	RO	06.01
27	Comments / Observations	Rev.2	FR	06.01
28	Comments / Observations	Rev.2	SE	06.01
29	Rapporteur report / Rapport du rapporteur	Rev.2	RU	06.01
30	Rapporteur proposal / Proposition du rapporteur	Rev.2	RU	06.01
31	Comments / Observations	Rev.2	FR	06.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 419 (electrical) – Comments were invited on the desirability of a subgroup covering “combined monitoring of two or more engine parameters” specified in different subgroups of the new group G 01 M 15/04 (see Annex 11 to the project file and Annex 53E to this report), taking into account the respective proposal of the Rapporteur (see Annex 20 to the project file).

Projet C 419 (électricité) – Des observations ont été demandées sur l’opportunité de créer un sous-groupe couvrant “combined monitoring of two or more engine parameters” visé dans différents sous-groupes du nouveau groupe G 01 M 15/04 (voir l’annexe 11 du dossier de projet et l’annexe 53E du présent rapport), compte tenu de la proposition correspondante du rapporteur (voir l’annexe 20 du dossier de projet).

ANNEX	53E	G 01 M	[Project-Rapporteur : 419/RU]	<SC04023E>
N	15/08	• •	<i>by monitoring pressure in cylinders</i>	R
N	15/09	• •	<i>by monitoring pressure in fluid ducts, e.g. in lubrication or cooling parts</i>	
N	15/11	• •	<i>by detecting misfire</i>	
ANNEXE	53F	G 01 M	[Project-Rapporteur : 419/RU] (T:FR) - SC/03/3	<SC04024F> <SC03078E>
N	15/02	•	<i>Détails ou accessoires pour appareils d'essai</i>	
N	15/04	•	<i>Essai des moteurs à combustion interne, p.ex. essai de diagnostic des moteurs à piston</i>	
N	15/06	• •	<i>par contrôle des positions des pistons ou des manivelles</i>	
N	15/08	• •	<i>par contrôle de la pression dans les cylindres</i>	
N	15/10	• •	<i>par contrôle des gaz d'échappement</i>	
N	15/12	• •	<i>par contrôle des vibrations</i>	
N	15/14	•	<i>Essai des ensembles fonctionnels de turbines à gaz ou de propulsion par réaction</i>	

Project: C419
Subclass: G01M
Ref.: Annex 53E of the document IPC/WG/4/5
Ref.: Annex 60 of the document IPC/WG/3/3
Ref.: Annexes 20, 22 of the project file

‘ **On the desirability of a subgroup covering "combined monitoring of two or more engine parameters" as specified in the subgroups of the new group 15/04**

We support the creation of this subgroup of 15/04.

We find also that it could be useful to stress in its title that the combined monitoring does relate to **different engine parameters** as specified by the other subgroups of 15/04.

Namely:

N Note after
15/04 Group 15/05 takes precedence over groups 15/06 to 15/12

N 15/05 § § by combined monitoring of two or more different engine parameters as specified in the groups 15/06 to 15/12

Roberto Iasevoli

Projet IPC / C **419**
Sous-classe **G 01 M**

PROPOSITION DE VERSION FRANÇAISE

(ref : annexe 53E du document IPC/WG/4/5)

G 01 M

ANNEX	53E	G 01 M	[Project-Rapporteur : 419/RU]	<SC04023E>
N	15/09	• • <i>par contrôle de la pression dans les conduits de fluide, p.ex.dans des parties de lubrification ou de refroidissement</i>		
N	15/11	• • <i>par détection des défauts d'allumage</i>		

La version française du groupe 15/08 a été adoptée dans l'annexe 53F de IPC/WG/4/5

Japan Patent Office

10 April 2001

Project:C-419**Subclass:G01M**

We have no objection to create “combined monitoring of two or more engine parameters” under G01M 15/04. However, as we proposed before, we think the new group should be located in the last place under G01M 15/04, as G01M 15/13, for example.

Also, we have no special objections to the proposed groups in Annex 53E to cover “cylinders” (15/08) and “fluid ducts” (15/09) separately, and to the changed wording, “by detecting misfire”.

OFICIUL DE STAT PENTRU
Date: April 2001
INVENȚII ÎN MĂRCI

RO COMMENTS

Page: 1 of 1

PROJECT **C419**

CLASS/SUBCLASS **G01M**

- on the desirability of a subgroup covering
A combined monitoring of two or more engine
parameters as specified in the subgroups of the
new group 15/04;

We support the proposed group G01M 15/04.

L. Cornea

Projet IPC / C 419
Sous-classe G01M

Réf. : Annexe 53 E du document IPC/WG/4/5

Réf. : Annexes 11 et 20 du dossier de projet

Réf. : Annexe 22 du dossier de projet

Des observations ont été demandées sur l'opportunité de créer un sous-groupe couvrant 'combined monitoring of two or more engine parameters' visé dans différents sous-groupes du nouveau groupe G01M 15/04.

Nous sommes d'accord avec la création du sous-groupe 15/05.

Un libellé tel que rédigé dans l'annexe 22 est satisfaisant puisque ce sont les paramètres du moteur qui sont contrôlés (position des pistons, pression, vibrations....) sans limitation aux seuls paramètres énoncés dans les sous-groupes 15/06 à 15/12.

La note sous 15/04 spécifiant que le sous-groupe 15/05 a priorité sur les sous-groupes 15/06 à 15/12, étant maintenue.

Swedish Patent and Registration Office

IPC Revision Project C 419, subclass G01M

24 April, 2001

COMMENTS relating to Annex 22

Comments were invited on:

- **the desirability of a subgroup covering “combined monitoring of two or more engine parameters” specified in different subgroups of the new group G01M 15/04, taking into account the respective proposal of the Rapporteur**

We support group 15/05 and the corresponding note after 15/04. We support limiting it to combinations of parameters specified in groups 15/06 - 15/12 as suggested in the EP comments, but the wording should be slightly modified:

**N 15/05 ? ? by combined monitoring of two or more different engine
parameters covered by groups 15/06 to 15/12**

As regards the position of the group it should, according to our recently adopted rules to order the groups from complex to simple, be placed before the groups covering monitoring of single parameters.

Anders Bruun

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU rapporteur report	
Project: C 419	Date: 5.06.01 11:26 AM
Class/subclass: G01M	Page 1 of 2

The fourth session of IPC/WG invited comments on the following question:

- on the desirability of a subgroup covering "combined monitoring of two or more engine parameters" specified in different subgroups of the new group G01M 15/04 (see Annex 11 to the project file and Annex 53E to this report), taking into account the respective proposal of the Rapporteur (see Annex 20 to the project file).

Comments were received from EP, FR, JP ,RO, SE.

All the commenting offices welcome the proposed subgroup G01M 15/05.

EP, SE think that subgroup G01M 15/05 should relate to combined monitoring of two or more engine parameters as specified by the other subgroups of 15/04.

FR think that subgroup 15/05 should relate to combined monitoring of two or more engine parameters without any limitation.

JP propose to locate G01M15/05 in the last place under G01M15/04.

In R's opinion the scope of the new subgroup G01M 15/05 could be limited by subject matter related to monitoring engine parameters covered by subgroups 15/06 to 15/12, e.g. US 43225251, US 4252013, US 4215404.

However there are documents related to subject matter for diagnosis of internal combustion engine where two or more parameters to be measured are not specified by subgroups 15/06 to 15/12, e.g. throttle valve opening, the water temperature, the change rate of the throttle valve opening (US 5111686) or engine speed, coolant temperature etc. (GB 2295464).

Since similar ECLA group exists and size of this group contains more than 250 documents, we propose to create both following subgroups:

- N 15/05 .. by combined monitoring of two or more different engine parameters
- N 15/055 ... by combined monitoring of two or more different engine parameters as specified in the groups 15/06 to 15/12

As regards to opinion of JP that new subgroup should be located in the last place, R agrees with SE opinion that according to standardized sequence, subgroups should be located from the most complex to less complex subject matter, i.e. subgroup 15/05 should be located before groups 15/06 - 15/12.

R's proposal enclosed.

V. Nyukhovsky

RU RAPPORTEUR PROPOSAL

Project: C 419 Class/Sub-class: G01M Office: RU Date: 5.06.01 11:32 am

Type of amendment: C = Change of scope Translation of:

D = Deletion of the entry

N = Creation of the entry

Type	Place	Wording
	15/00	Testing of engine
N	Note after the title of group 15/00	<p><u>Informative note</u> References listed below indicate IPC places which could also be of interest when carrying out a search in respect of the subject matter covered by preceding group:</p> <p>G01H Measurement of mechanical vibrations in general</p> <p>G01N Analysing gases in general</p> <p>G01R31/00 Arrangements for testing electrical properties; Arrangements for locating electric faults; Arrangements for electrical testing characterised by what is being tested not provided for elsewhere.</p>
N	Note after the title of group 15/04	<p><u>Informative note</u> References listed below indicate IPC places which could also be of interest when carrying out a search in respect of the subject matter covered by preceding group:</p> <p>F 01N 11/00 Monitoring or diagnostic devices for exhaust-gas treatment apparatus</p> <p>F 02B 77/08 Indicating or supervising devices of internal-combustion engines</p> <p>F 02B 79/00 Running in of internal-combustion engines</p> <p>F02D Controlling combustion engines</p>

F 02M 19/01 Apparatus for testing, tuning or
synchronising carburettors, e.g.
carburettor flow stands.

F02M 65/00 Testing fuel-injection apparatus

F 02P 17/00 Testing internal-combustion engine
ignition, e.g. timing

G01L 3/24 Devices for determining the value of value
of power, e.g. by measuring and
simultaneously multiplying the values of
torque and revolutions per unit of time, by
multiplying the values of tractive or
propulsive force and velocity.

G01L 5/26 Determining the characteristic of torque in
relation to revolutions per unit of time

G 01L 23/22 Devices for detecting or indicating knocks
in internal-combustion engines

G 01L 23/24 Devices for measuring pressure in inlet or
exhaust ducts of internal combustion
engines

G 01L 23/30 Means for indicating positions of pistons
or cranks of internal-combustion engines
by measuring pressure

N Note after
15/04 Groups 15/05, 15/055 take precedence over groups
15/06-15/12

N 15/05 . . by combined monitoring of two or more different
engine parameters

N 15/055 . . . by combined monitoring of two or more different
engine parameters as specified in the groups 15/06
to 15/12

N Note after the
title of group
15/14 Informative note
References listed below indicate IPS places which
could also be of interest when carrying out a search in
respect of the subject matter covered by preceding
group:
F02K 9/96 Rocket-engine plants characterised by
specially adopted arrangements for testing
or measuring

V.Nyukhovskiy

Projet IPC / C **419**
Sous-classe **G 01 M**

VERSION FRANÇAISE

Ce document a été établi sur la base de notre proposition, après consultation des autres offices et du Bureau international.

(ref : annexe 53E du document IPC/WG/4/5)

G 01 M

ANNEX 53E G 01 M [Project-Rapporteur : 419/RU] <SC04023E>

- | | | |
|----------|--------------|--|
| <i>N</i> | <i>15/09</i> | <ul style="list-style-type: none"> • • <i>par contrôle de la pression dans les conduits de fluide,</i> <li style="padding-left: 20px;"><i>p.ex.dans des parties de lubrification ou de refroidissement</i> |
| <i>N</i> | <i>15/11</i> | <ul style="list-style-type: none"> • • <i>par détection des défauts d'allumage</i> |

La version française du groupe 15/08 a été adoptée dans l'annexe 53F de IPC/WG/4/5



IPC/C 421/98 Rev.2
ORIGINAL: English/French
DATE: June 5, 2001

WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE
GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	RU	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	G 21 B
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 421/98	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		RU	12.98
2	Comments / Observations		EP	05.99
3	Comments / Observations		SE	05.99
4	Comments / Observations		CA	05.99
5	Comments / Observations		RO	05.99
6	Comments / Observations		DE	07.99
7	Comments / Observations		GB	09.99
8	Rapporteur report / Rapport du rapporteur		RU	09.99
9	Rapporteur proposal / Proposition du rapporteur		RU	09.99
10	Comments / Observations	Rev.1	JP	12.99
11	Decision of the Working Group / Décision du groupe de travail	Rev.1	WG	09.00
12	Comments / Observations	Rev.1	EP	09.00
13	Proposal / Proposition	Rev.1	EP	09.00
14	Comments / Observations	Rev.1	DE	09.00

RAPPORTEUR : RU TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 421/98	ORIGIN/ ORIGINE	DATE
15	Comments / Observations	Rev.1	JP	09.00
16	Comments / Observations	Rev.1	CA	09.00
17	Comments / Observations	Rev.1	RO	09.00
18	Comments / Observations	Rev.1	FR	09.00
19	Rapporteur report / Rapport du rapporteur	Rev.1	RU	11.00
20	Rapporteur proposal / Proposition du rapporteur	Rev.1	RU	11.00
21	French version of approved amendments / Version française des modifications approuvées	Rev.1	CH	11.00
22	Decision of the Working Group / Décision du groupe de travail	Rev.2	WG	01/01
23	French version of approved amendments / Version française des modifications approuvées	Rev.2	CH	04.01
24	French version of approved amendments / Version française des modifications approuvées	Rev.2	CH	06.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

ANNEX	54	G 21 B	[Project-Rapporteur : 421/RU]	<SC04034E>
<i>C</i>	<i>1/00</i>	<i>Thermonuclear fusion reactors</i>		R
<i>N</i>	<i>1/01</i>	<Becomes G 21 B 1/03 >		R
<i>D</i>	<i>1/02</i>	(transferred to <i>1/00, 3/00</i>)		R
<i>N</i>	<i>1/03</i>	<Becomes G 21 B 1/05 >		R
<i>N</i>	<i>1/05</i>	<Becomes G 21 B 1/01 >		R
<i>N</i>	<i>1/13</i>	• • <i>First wall; Blanket; Divertors</i>		R
<i>N</i>	<i>1/17</i>	• • <i>Vacuum chambers; Vacuum systems</i>		R
<i>N</i>	<i>1/25</i>	• <i>Maintenance, e.g. repair or remote inspection</i>		
ANNEX	55	H 05 H	[Project-Rapporteur : 421/RU]	<SC04035E>
Title	1/00	PLASMA TECHNIQUE (ion-beam tubes H 01 J 27/00 ; – – – Generating plasma; Handling plasma (application of plasma technique in thermonuclear fusion reactors G 21 B 1/00)		

Session:	IPC/WG
Subclass:	G 21 B
Project(s):	C 421
Language:	F
Translator office:	CH (Proposition de traduction & rem. EP)
Translation source session:	IPC/WG/3; IPC/WG/4
Translation source annex filename:	Annex 61; Annex 54

Mod. type	IPC entry (interval)	Text or Instruction
C	1/00	Réacteurs de fusion thermonucléaire
N	1/01	• <i>Réacteurs nucléaires hybrides fission-fusion</i>
D	1/02	<i>(transféré en 1/00, 3/00)</i>
N	1/03	• <i>avec confinement inertiel du plasma</i> (Rem. EP)
N	1/05	• <i>avec confinement magnétique ou électrique du plasma</i> (Rem. EP)
N	1/11	• <i>Détails</i>
N	1/13	•• <i>Première paroi; Paroi de couverture; Divertor</i> (Rem. EP; "divertor" à mettre au singulier également dans V. angl.) (Rem: diverteur ou défecteur apparaissent plus plausibles; il semble cependant que divertor soit le terme officiel)
N	1/15	•• <i>Injecteurs de particules pour la génération de réactions de fusion thermonucléaire, p.ex. injecteurs de pastilles</i>
N	1/17	•• <i>Chambres à vide; Installations de vide</i>
N	1/19	•• <i>Cibles pour la production de réactions de fusion thermonucléaire</i>
N	1/21	•• <i>Systèmes d'alimentation en courant électrique, p.ex. pour les systèmes magnétiques</i>

- N 1/23 .. Systèmes optiques, p.ex. pour l'irradiation de cibles, pour le chauffage du plasma ou pour le diagnostic du plasma*
- N 1/25 . Maintenance, p.ex. réparation ou inspection à distance*
- N 3/00 Réacteurs de fusion nucléaire à basse température, p.ex. réacteurs de fusion dite froide*

Session:	IPC/WG
Subclass:	G 21 C
Project(s):	C 421
Language:	F
Translator office:	CH (Proposition de traduction & rem. EP)
Translation source session:	IPC/WG/3
Translation source annex filename:	Annex 62

Mod. IPC entry Text or Instruction
type (interval)

Titre --- G 06 G 7/54; réacteurs de fusion, réacteurs hybrides fission-fusion G 21 B; ---

Session:	IPC/WG
Subclass:	H 05 H
Project(s):	C 421
Language:	F
Translator office:	CH (Proposition de traduction & rem. EP)
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 55

Mod. IPC entry Text or Instruction
type (interval)

Titre **TECHNIQUE DU PLASMA** (tubes à faisceau ionique H01J 27/00;---
1/00 Production du plasma; Mise en œuvre du plasma (application de la technique du plasma dans les réacteurs de fusion thermonucléaire G 21 B 1/00)

Session:	IPC/WG
Subclass:	G 21 B
Project(s):	C 421
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/3; IPC/WG/4
Translation source annex filename:	Annex 61; Annex 54

Mod. type	IPC entry (interval)	Text or Instruction
C	1/00	Réacteurs de fusion thermonucléaire
N	1/01	• Réacteurs nucléaires hybrides fission-fusion
D	1/02	(transféré en 1/00, 3/00)
N	1/03	• avec confinement inertiel du plasma
N	1/05	• avec confinement magnétique ou électrique du plasma
N	1/11	• Détails
N	1/13	•• Première paroi; Paroi de couverture; Divertor
N	1/15	•• Injecteurs de particules pour la génération de réactions de fusion thermonucléaire, p.ex. injecteurs de pastilles
N	1/17	•• Chambres à vide; Installations de vide
N	1/19	•• Cibles pour la production de réactions de fusion thermonucléaire
N	1/21	•• Systèmes d'alimentation en courant électrique, p.ex. pour les systèmes magnétiques
N	1/23	•• Systèmes optiques, p.ex. pour l'irradiation de cibles, pour le chauffage du plasma ou pour le diagnostic du plasma
N	1/25	• Entretien, p.ex. réparation ou inspection à distance
N	3/00	Réacteurs de fusion nucléaire à basse température, p.ex. réacteurs de fusion dite froide

Session:	IPC/WG
Subclass:	G 21 C
Project(s):	C 421
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/3
Translation source annex filename:	Annex 62

Mod. IPC entry Text or Instruction
type (interval)

Titre --- G 06 G 7/54; réacteurs de fusion, réacteurs hybrides fission-fusion G 21 B; ---

Session:	IPC/WG
Subclass:	H 05 H
Project(s):	C 421
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 55

Mod. IPC entry Text or Instruction
type (interval)

Titre **TECHNIQUE DU PLASMA** (tubes à faisceau ionique H01J 27/00;---
1/00 Production du plasma; Mise en œuvre du plasma (application de la technique du plasma dans les réacteurs de fusion thermonucléaire G 21 B 1/00)



IPC/C 423/00 Rev.1
ORIGINAL: English/French
DATE: June 5, 2001

WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE
GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REVISION PROJECT FILE/DOSSIER DE PROJET DE RÉVISION DE LA CIB

PROPOSAL BY: PROPOSITION DE :	DE	REVISION OF IPC AREA: RÉVISION DU DOMAINE DE LA CIB :	H 01 L
KIND OF REVISION: TYPE DE RÉVISION :	Creation of subgroups Création de sous-groupes		

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 423/00	ORIGIN/ ORIGINE	DATE
1	Revision request with detailed proposal / Demande de révision avec proposition détaillée		DE	12.98
2	Decision of the Working Group / Décision du groupe de travail		WG	09.00
3	Comments / Observations		EP	09.00
4	Proposal / Proposition		EP	09.00
5	Comments / Observations		DE	09.00
6	Comments / Observations		JP	09.00
7	Comments / Observations		CA	09.00
8	Comments / Observations		RO	09.00
9	Comments / Observations		RU	09.00
10	Comments / Observations		FR	09.00
11	Rapporteur report / Rapport du rapporteur		DE	11.00
12	Rapporteur proposal / Proposition du rapporteur		DE	11.00
13	Decision of the Working Group / Décision du groupe de travail	Rev.1	WG	01/01
14	French version of approved amendments / Version française des modifications approuvées	Rev.1	CH	04.01

RAPPORTEUR : DE TECHNICAL FIELD/DOMAINE TECHNIQUE : E

ANNEX/ ANNEXE	CONTENT/CONTENU	SEE/VOIR C 423/00	ORIGIN/ ORIGINE	DATE
15	Comments / Observations	Rev.1	EP	04.01
16	Comments / Observations	Rev.1	JP	06.01
17	Comments / Observations	Rev.1	CA	06.01
18	Comments / Observations	Rev.1	RU	06.01
19	Comments / Observations	Rev.1	RO	06.01
20	Comments / Observations	Rev.1	FR	06.01
21	Comments / Observations	Rev.1	SE	06.01
22	French version of approved amendments / Version française des modifications approuvées	Rev.1	CH	06.01
23	Rapporteur proposal / Proposition du rapporteur	Rev.1	DE	06.01

EXCERPT FROM DOCUMENT IPC/WG/4/5/
EXTRAIT DU DOCUMENT IPC/WG/4/5

Project C 423 (electrical) – Comments were invited on:

- whether the wordings of the new groups H 01 L 27/30, 51/05 and 51/42 (see Annex 56 to this report) could be modified in order to make them easier to read and, if this were the case, whether the same modifications should be made throughout subclass H 01 L, in particular in groups 27/00, 29/00, 31/00 and 33/00;
- the need for precedence references between the subgroups of group H 01 S 5/30, in the light of the created subgroup H 01 S 5/36 (see Annex 57 to this report);
- whether the borderline between groups H 01 L 51/50 and H 05 B 33/00 was clear with regard to subject matter relating to “organic light emitting diodes” and “organic electroluminescent devices” and, if that were not the case, how it could be clarified in the light of the reference to group H 01 L 51/50 introduced in group H 05 B 33/00 (see Annex 58 to this report).

Projet C 423 (électricité) – Des observations ont été demandées :

- sur le point de savoir si le libellé des nouveaux groupes H 01 L 27/30, 51/05 et 51/42 (voir l’annexe 56 du présent rapport) peut être modifié en vue d’une plus grande facilité de lecture et, dans l’affirmative, si les mêmes modifications doivent être apportées dans l’ensemble de la sous-classe H 01 L, et en particulier dans les groupes 27/00, 29/00, 31/00 et 33/00;
- sur la nécessité de renvois de priorité entre les sous-groupes du groupe H 01 S 5/30, compte tenu du sous-groupe H 01 S 5/36 qui a été créé (voir l’annexe 57 du présent rapport);
- sur la question de savoir si la démarcation entre les groupes H 01 L 51/50 et H 05 B 33/00 est claire en ce qui concerne la matière se rapportant aux “diodes émettrices de lumière organiques” et aux “dispositifs électroluminescents organiques” et, dans la négative, sur les moyens de la préciser compte tenu du renvoi au groupe H 01 L 51/50 introduit dans le groupe H 05 B 33/00 (voir l’annexe 58 du présent rapport).

ANNEX	56	H 01 L	[Project-Rapporteur : 423/DE]	<SC04037E>
C	21/00	---	<i>31/00 to 51/00 or of parts thereof, see ---</i>	
C	21/02	•	--- <i>parts thereof</i>	
	Note(s) after 23/00		<ul style="list-style-type: none"> - <== by that group; - --- <i>31/00 to 51/00, which details ---</i> 	
C	27/00	---	<i>31/00 to 51/00; details thereof 23/00, 29/00 to 51/00; assemblies consisting ---</i>	
	Note(s) after 27/00	(1)	In this group, in the absence ---	
N	27/28	•	<i>including components using organic materials as the active part, or using a combination of organic materials with other materials as the active part</i>	
N	27/30	• •	<i>with components specially adapted for sensing infra-red radiation, light, electromagnetic radiation of shorter wavelength, or corpuscular radiation; with components specially adapted for either the conversion of the energy of such radiation into electrical energy or for the control of the electrical energy by such radiation</i>	
N	27/32	• •	<i>with components specially adapted for light emission, e.g. flat-panel displays using organic light-emitting diodes</i>	
C	29/00	---	<i>to 47/00, 51/05 take precedence; ---</i>	
C	31/00	---	Details thereof (<i>51/42 takes precedence; ---</i>)	
C	33/00	---	Details thereof (<i>51/50 takes precedence; devices consisting of a plurality of components formed in or on a common substrate 27/00; couplings of light guides ---</i>)	
C	49/00	---	<i>47/00 and 51/00 and not provided for in any ---</i>	
C	51/00		Solid state devices using organic --- with other materials as the active part; Processes --- parts thereof (<i>devices consisting of a plurality of components formed in or on a common substrate 27/28</i>)	
N	51/05	•	<i>specially adapted for rectifying, amplifying, oscillating or switching or capacitors or resistors with at least one potential-jump barrier or surface barrier</i>	
C	51/10		<Add 1 dot>	
D	51/20		(<i>transferred to 51/05</i>)	
C	51/30		<Add 1 dot>	
C	51/40	• •	--- <i>treatment of such devices or ---</i>	

- N 51/42 • *pecially adapted for sensing infra-red radiation, light, electromagnetic radiation of shorter wavelength, or corpuscular radiation; specially adapted either for the conversion of the energy of such radiation into electrical energy or for the control of the electrical energy by such radiation*
- N 51/44 • • *Details of devices*
- N 51/46 • • *Selection of materials*
- N 51/48 • • *Processes or apparatus specially adapted for the manufacture or treatment of such devices or of parts thereof*
- N 51/50 • *specially adapted for light emission, e.g. organic light emitting diodes (OLED) or polymer light emitting devices (PLED) (organic semiconductor lasers H 01 S 5/36)*
- N 51/52 • • *Details of devices*
- N 51/54 • • *Selection of materials (organic electroluminescent materials C 09 K 11/06)*
- N 51/56 • • *Processes or apparatus specially adapted for the manufacture or treatment of such devices or of parts thereof*

ANNEX 57 H 01 S [Project-Rapporteur : 423/DE] <SC04038E>

- 5/30 • --- region; Materials used for the active region
- N 5/36 • • *comprising organic materials (dye lasers 3/213)*

ANNEX 58 H 05 B [Project-Rapporteur : 423/DE] <SC04039E>

- C 33/00 --- emission *H 01 L 33/00*; organic light emitting diodes *H 01 L 51/50*; lasers *H 01 S 3/00, 5/00*; compositions per ---

Session:	IPC/WG
Subclass:	H 01 L
Project(s):	C 423
Language:	F
Translator office:	CH (Proposition de traduction)
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 56

Mod. type	IPC entry (interval)	Text or Instruction
C	21/00	--- les groupes H 01 L 31/00 à 51/00, ou de leurs parties ---
C	21/02	<ul style="list-style-type: none"> ▪ --- leurs parties constitutives
	Note(s) après 23/00	<ul style="list-style-type: none"> - < = = par ledit groupe; - --- des groupes H 01 L 31/00 à 51/00, qui sont couverts ---
C	27/00	--- leurs parties constitutives H 01 L 21/70, 31/00 à 51/00; détails 23/00, 29/00 à 51/00; ensembles consistant en ---
	Note(s) après 27/00	(1) Dans le présent groupe, sauf indication contraire ---
N	27/28	<ul style="list-style-type: none"> ▪ <i>comprenant des composants qui utilisent des matériaux organiques comme partie active, ou qui utilisent comme partie active une combinaison de matériaux organiques et d'autres matériaux</i>
N	27/30	<ul style="list-style-type: none"> ▪ ▪ <i>avec des composants spécialement adaptés pour détecter les rayons infrarouges, la lumière, le rayonnement électromagnétique d'ondes plus courtes, ou le rayonnement corpusculaire; avec des composants spécialement adaptés, soit comme convertisseurs de l'énergie dudit rayonnement en énergie électrique, soit comme dispositifs de commande de l'énergie électrique par ledit</i>

rayonnement

- N 27/32 ▪ ▪ *avec des composants spécialement adaptés pour l'émission de lumière, p.ex. panneaux d'affichage plats utilisant des diodes émettrices de lumière organiques*
- C 29/00 --- (H01L 31/00 à 47/00, 51/05 ont priorité; ---)
- C 31/00 --- **Leurs détails** (51/05 a priorité; dispositifs ---)
- C 33/00 --- **Détails** (51/05 a priorité; dispositifs consistant en une pluralité de composants formés dans ou sur un substrat commun 27/00; dispositifs de couplage ---)
- C 49/00 --- H01L 27/00 à 47/00 et 51/00, et non couverts ---
- C 51/00 **Dispositifs à l'état solide qui utilisent des matériaux organiques --- et d'autres matériaux; Procédés --- leurs parties constitutives** (dispositifs consistant en une pluralité de composants formés dans ou sur un substrat commun 27/28)
- N 51/05 ▪ *spécialement adaptés au redressement, à l'amplification, à la génération d'oscillations ou à la commutation, ou bien condensateurs ou résistances à l'état solide, ayant au moins une barrière de potentiel ou une barrière de surface*
- C 51/10 <ajouter un point>
- D 51/20 (transféré en 51/05)
- C 51/30 <ajouter un point>
- C 51/40 ▪ ▪ --- ou au traitement de tels dispositifs ou de leurs ---
- N 51/42 ▪ *spécialement adaptés pour détecter les rayons infrarouges, la lumière, le rayonnement électromagnétique d'ondes plus courtes, ou le rayonnement corpusculaire; spécialement adaptés, soit comme convertisseurs de l'énergie dudit rayonnement en énergie électrique, soit comme dispositifs de commande de l'énergie électrique par ledit rayonnement*

- N 51/44 ▪ ▪ *Détails des dispositifs*
- N 51/46 ▪ ▪ *Emploi de matériaux spécifiés*
- N 51/48 ▪ ▪ *Procédés ou appareils spécialement adaptés à la fabrication ou au traitement de tels dispositifs ou de leurs parties constitutives*
- N 51/50 ▪ *spécialement adaptés pour l'émission de lumière, p.ex. diodes émettrices de lumière organiques (OLED) ou dispositifs émetteurs de lumière à base de polymères (PLED) (lasers à semi-conducteurs organiques H 01 S 5/36)*
- N 51/52 ▪ ▪ *Détails des dispositifs*
- N 51/54 ▪ ▪ *Emploi de matériaux spécifiés (matériaux organiques électroluminescents C 09 K 11/06)*
- N 51/56 ▪ ▪ *Procédés ou appareils spécialement adaptés à la fabrication ou au traitement de tels dispositifs ou de leurs parties constitutives*

Session:	IPC/WG
Subclass:	H 01 S
Project(s):	C 423
Language:	F
Translator office:	CH (Proposition de traduction)
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 57

Mod. IPC entry Text or Instruction
type (interval)

	5/30	(est déjà correct dans la VF de la CIB 7)
<i>N</i>	5/36	• • <i>comportant des matériaux organiques (lasers à colorant 3/213)</i>

Session:	IPC/WG
Subclass:	H 05 B
Project(s):	C 423
Language:	F
Translator office:	CH (Proposition de traduction)
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 58

Mod. IPC entry Text or Instruction
type (interval)

C	33/00	--- de lumière H01L 33/00; diodes émettrices de lumière organiques H 01 L 51/50; lasers H 01 S 3/00, 5/00; compositions en soi ---
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Project: C423
Subclass: H01L
Ref.: Annex 13 of the project file and there-referred Annexes 56, 57, 58 of the document IPC/WG/4/5
Ref.: IEEE Journal of Selected Topics in Quantum Electronics 4(1) (1998), dedicated to "Organic Electroluminescence", an issue already referred to in the original DE proposal (Annex 1 of the project file)

' **On whether the borderline between groups H01L 51/50 and H05B 33/00 was clear with regard to subject matter relating to "organic light emitting diodes" and "organic electroluminescent devices" or how that could be clarified in the reference to group H01L 51/50 introduced in the group H05B 33/00 (Annex 58)**

The following reference was suggested (Annex 58):

H05B

C 33/00 --- organic light emitting **diodes** H01L 51/50 ---

We believe that the suggested reference would be too restrictive and that the borderline would not be clear enough, the problem stemming from the use of the term **diode**.

There are electroluminescent (EL) devices.

The EL effect involves the high electric field (normally by DC or AC voltages of 100-200 V) excitation of electrons of a molecule in a higher state. Transition back to the original ground level is accompanied by the emission of bright light.

There are organic EL devices.

Besides, there are organic (polymer) light emitting diodes (LEDs).

Some conjugated polymers have a bandgap between valence band and conduction band of a few eV, just like conventional inorganic semiconductors (Ge and Si). Therefore they are referred to as semiconductive polymers or organic semiconductors. By transporting holes from an anode and electrons from a cathode into the semiconductive polymer layer an electron-hole pair can recombine and generate visible light. The combination of the semiconductive polymer layer with the adjacent hole transporting/injection layer and the adjacent electron transporting/injection layer forms a typical "diode", which is forward-biased with a low DC voltage (normally 5 V).

Strictly speaking, only the category of devices described above should be referred to as organic LEDs.

There are organic light emitting devices, e.g. of the EL type, which are not organic LEDs.

An organic EL device emitting light under the application of a few hundred AC volts would be a representative example.

Confusion arises since sometimes organic LEDs are also described as "low electric-field" organic EL devices, to distinguish them from the conventional "high electric-field" organic EL devices.

Even in the scientific literature the distinction between EL- and LED-effect is not clearly marked. For example, the above-referred IEEE issue is officially dedicated to "Organic Electroluminescence", yet several of its articles relate to organic LEDs.

All that is quite confusing and a simplification is needed with regard to classifying this subject matter.

We strongly recommend the use of the term **device** in the suggested reference, namely:

H05B

C 33/00 --- organic light emitting **devices** H01L 51/50 ---

By that, all organic light emitting devices would be classified under H01L 51/50, no matter whether of the EL- or LED-type. The classifier's work would be much more simplified in that the only distinctive feature to be recognized would be the use of organic materials (together with the property of electric-field induced light emission).

By way of example, all the devices disclosed in the above-referred IEEE issue could all be easily and directly classified into the new group H01L 51/50.

We believe that this is really a necessary simplification.

' **On the need for precedence references between the subgroups of the group H01S 5/30 (Annex 57)**

We find that precedence rules are needed, namely:

H01S

C 5/32 --- (5/34 and 5/36 take precedence)

C 5/34 --- (5/36 takes precedence)

N 5/36 . . comprising organic materials (dye lasers 3/213)

' **On whether the wordings of H01L new groups 51/05, 51/42 and corresponding ones under 27/00, 29/00, 31/00, 33/00 could be modified to make them easier to read**

Regretfully, our experts in the field cannot at the moment suggest a sensible modification to the existing wordings.

Roberto Iasevoli

Japan Patent Office

10 April 2001

Project:C-423

Subclass:H01L

1. OLED

In our opinion, OLED should be read as “organic light emitting devices” in H01L 27/32, 51/50, and H05B 33/00, instead of “organic light emitting diodes”.

- As the definition of H01L 51/00 is “Solid state devices...”, OLED should be defined as “organic light emitting devices”.
- There actually exist those organic light emitting devices which are not diodes.
- OLED should be harmonized with PLED (which are read as “polymer light emitting devices”).

2. H01S 5/36 organic semiconductor lasers (dye lasers 3/213)

We do not support the above definition of 5/36, especially the word “semiconductor”.

- If a group is necessary to classify organic lasers, we think it should not be limited to “organic semiconductor lasers” under H01S 5/00 (Semiconductor lasers). As OLED are not necessarily “semiconductors”, we could not classify all the OLED lasers in the proposed H01S 5/36. Other classification is also necessary to cover OLED lasers.

3. References in H05B 33/00, “(---emission H01L 33/00; organic light emitting diodes H01L 51/50; lasers H01S 3/00, 5/00; compositions per---)”

We think technology belongs to H01L 51/50 should be clarified by using both terms of OLED and organic EL, such as “organic light emitting devices, organic electroluminescent devices H01L 51/50”.

- As the both terms are often used together at the same time without any technical distinction, we think it is more appropriate to use both in the reference to H01L 51/50 in H05B 33/00. Because, “electroluminescent” is used in the title of H05B 33/00, and “light emission” is used in H01L 51/50.

4. References in H01L 51/54, “(organic electroluminescent materials C09K 11/06)

We would like to know which part of the device is meant by “organic electroluminescent material”.

(We guess it means materials of “light emitting part” of OLED in H01L 51/50, which would be hardly distinguishable from H05B 33/00 “electroluminescent light sources”. It should be clarified what “organic electroluminescent materials” exactly mean in the reference.)

We would rather use both words together at the same time than intermingled use of “electroluminescent” or “light emit” in the related fields including C09K. If one is used in the title of a group, and the other is used in the title of the referred group, it would cause confusion.

5. Priority relation of H01L 51/- with other groups under H01L

Although there are precedence notes in 29/00, 31/00, and 33/00 as “51/- takes precedence”, it is not clear which would take precedence between H01L 51/- and other groups under H01L, e.g. such “organic”-related groups as H01L 35/24, 41/193 and 41/24.



Project Number: C423

Date: April 4, 2001

Class/Subclass: H01L

Page 1 of 1

Comments were invited regarding:

- wording of groups 27/30, 51/05 and 51/42

- 27/30 - The last lines should read: >--- for the control of electrical energy ---> rather than >--- for the control of the electrical energy ---> The use of the word >the= implies that the electrical energy being controlled is that which was converted, which contradicts the phrase >--- adapted for either --->

- 51/05 - The wording here is clear and should not be modified.

- 51/42 - As with 27/30, the word >the= should be removed: >--- for the control of electrical energy --->

- **CA** believes that the wording of 27/00, 29/00, 31/00 and 33/00 is easy enough to read right now and any modifications may introduce confusion which does not exist at this time.

- need for precedence reference between subgroups of H01S 5/30

- precedence reference notes are not needed in this area as the division of subject matter is straightforward.

- borderline between H01L 51/50 and H05B 33/00

- with the new notes in H01L 51/50 and H05B 33/00, the boundary between these two areas should be clear enough.

John Dowding

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU comments	
Project: C 423	Date: 5.06.01 11:49 AM
Class/subclass: H01L	Page 1 of 2

Re: Annex 13 of the project file and Annexes 56,57,58 of the document IPC/WG/4/5.

Comments were invited on:

- whether the wordings of the new groups H01L 27/30, 51/05 and 51/42 (see Annex 56 to the report) could be modified in order to make them easier to read and, if this were the case, whether the same modifications should be made throughout subclass H01L, in particular in groups 27/00, 29/00, 31/00 and 33/00.

We agree with the wordings of new groups H01L27/30, 51/05 and 51/42.

However we have doubts concerning that group 51/20 should be completely transferred to 51/05. E.g.:

WO 00/65670 H01L 51/20

WO 00/70691 H01L 51/20

can't be classified in H01L51/05.

We propose the following amendments:

D 51/20 (transferred to 51/05, 51/42, 51/50).

- the need for precedence references between the subgroups of group H01S 5/30, in the light of the created subgroup H01S 5/36 (see Annex 57 to this report).

We are in favour for precedence of new group H01S 5/36 (organic semiconductor lasers) over group 5/32, 5/34.

- whether the borderline between groups H01L 51/50 and H05 B33/00 was clear with regard to subject matter relating to "organic light emitting diodes" and "organic electroluminescent devices" and, if that were not the case, how it could be clarified in the light of the reference to group H01L 51/50 introduced in group H05B 33/00 (see Annex 58 to this report).

In our opinion, a borderline between groups H01L 51/20 and H05B 33/00 is not clear since the wordings of subgroups of H05B 33/00 are fitted both for organic and inorganic light emitting diodes. It could be clarified, e.g. by including the following notes after H05B33/00.

N Note(s) after H05B 33/00.

This group covers:

- devices with prebreakdown (prestrike) luminescence in solid states materials (e.g. ZnS:Cu, Mn, ZnSe:Mn).

This group does not cover:

- devices with injection luminescence occurring in semiconducting materials (e.g. GaAs, GaP, GaAsP, GaN, ZnSe, SiC) at a junction between p-type and n-type doped semiconducting regions which are covered by H01L 33/00 .
- an organic light emitting diodes (OLEDs) consist of one or more organic layers adapted for charge and/or light-emission sandwiched between two charge injecting electrodes, which are covered by group H01L51/50.

V.Nyukhovsky

OFICIUL DE STAT PENTRU RO COMMENTS

Date: April 2001

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Page: 1 of 1

PROJECT **C423**

CLASS/SUBCLASS **H01L**

- on whether the borderline between groups H01L51/50 and H05B33/00 was clear with regard to subject matter relating to Aorganic light emitting diodes@ and Aorganic electroluminescent devices@ and, if that were not the case, how it could be clarified in the light of reference to group H01L 51/50 introduced in group H05B 33/00.

We are opposed to the term A diode@ because would be too restrictive.

We are in favour for including Aorganic light emitting devices@ for simplification in the scope of main group 33/00.

**C 33/00 --- organic light emitting devices H01L
51/50--**

L.

Cornea

Projet IPC / C 423
Sous-classe H 01 L

Réf : Annexes 56, 57, et 58 du rapport IPC/WG/4/5

- sur le point de savoir si le libellé des nouveaux groupes peut être modifié afin d'en simplifier la lecture ;

Des modifications purement formelles afin d'éviter les répétitions sont envisageables pour les libellés des nouveaux groupes 27/30, 51/05 et 51/42. Par exemple, le groupe 27/30 pourrait reprendre le libellé du groupe 27/14 (suppression de 'specially adapted' et mise en forme).

Les libellés des groupes 27/00, 29/00, 31/00 et 33/00 semblent satisfaisants et suffisamment explicites. Nous n'avons pas de proposition quant à leur modification.

- sur la nécessité de renvois de priorité entre les sous-groupes du groupe H01S 5/30 ;

Un renvoi de priorité devrait être introduit dans le sous-groupe H01S 5/36 :

Dispositifs consistant en une pluralité de composants semiconducteurs---- utilisant comme partie active des matériaux organiques et adaptés à l'émission de lumière H01L 27/32

- sur la question de savoir si la démarcation entre les groupes H01L 51/50 et H05B 33/00 est claire ;

La démarcation entre ces deux sous-groupes n'est pas très nette actuellement.

Nous sommes d'accord avec le renvoi proposé (diodes électroluminescentes organiques H01L 51/50) qui clarifie le domaine couvert par la matière en question.

Swedish Patent and Registration Office

IPC Revision Project C 423, subclass H01L

24 April, 2001

COMMENTS relating to Annex 13

Comments were invited on:

– whether the wordings of the new groups H01L 27/30, 51/05 and 51/42 could be modified in order to make them easier to read and, if this were the case, whether the same modifications should be made throughout subclass H01L, in particular in groups 27/00, 29/00, 31/00 and 33/00;

We see no need for changing the wordings of 27/30 or 51/42. 51/05 should be made a two-part title. The wordings of the new groups are improvements in relation to the existing groups. Therefore we propose to modify the titles of some existing groups of H01L, harmonising them with the new ones and the proposed two-part 51/05.

We think 51/00 should be added to the group intervals mentioned in 21/64, 25/03, 25/16 and 25/18 in the same manner as done in 21/00 and 27/00 - it was probably overlooked when 51/00 was introduced in IPC 6.

Subclass H01L contains some non-standard wording. In symmetry with the new parts, we propose using the standard wording "specially adapted for" instead of "adapted for" and "peculiar to".

Group numbers in the left margin in *italics* indicate groups touched by this project or modified as an immediate consequence of this project, other groups are part of the general clean-up.

- N *51/05* • specially adapted for rectifying, amplifying, oscillating or switching; *Capacitors* or resistors with at least one potential-jump barrier or surface barrier
- C 21/00 Processes or apparatus *specially* adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof (processes or apparatus *specially adapted for* the manufacture - - -
- C *21/64* • Manufacture or treatment of solid state devices other than semiconductor devices, or of parts thereof, not *specially adapted for* a single *type of* device provided for in groups 31/00 to *51/00*
- C *25/03* • all the devices being of a type provided for in the same subgroup of groups 27/00 to *51/00*, e.g. assemblies of rectifier diodes
- C *25/16* • the devices being of types provided for in two or more different main groups of groups 27/00 to *51/00*, e.g. forming hybrid circuits
- C *25/18* • the devices being of types provided for in two or more different subgroups of the same main group of groups 27/00 to *51/00*
- C 27/00 Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate (processes or apparatus *specially* adapted for the manufacture or treatment - - -
- 27/02* • including semiconductor components *specially* adapted for rectifying, oscillating, amplifying *or* switching; *including* integrated passive circuit elements with at least one potential-jump barrier or surface barrier

- 27/14 • including semiconductor components sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength **or corpuscular** radiation and **specialy** adapted **either** for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation (- - -
- 27/15 • including components with at least one potential-jump barrier or surface barrier, **specialy** adapted for light emission
- C 29/00 Semiconductor devices **specialy** adapted for rectifying, amplifying, oscillating **or** switching; **Capacitors** or resistors with at least one potential-jump barrier or surface barrier, e.g. - - - (31/00 to 47/00, 51/05 take precedence; processes or apparatus **specialy** adapted for the manufacture or treatment thereof or of parts thereof 21/00; - - -
- C 31/00 Semiconductor devices sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength, or corpuscular radiation and **specialy** adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 31/12 - - - (semiconductor devices with at least one potential barrier or surface barrier **specialy** adapted for light emission 33/00; - - -
- 31/18 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these devices or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**)
- C 33/00 Semiconductor devices with at least one potential-jump barrier or surface barrier **specialy** adapted for light emission, e.g. infra-red; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 35/00 Thermoelectric devices comprising a junction of dissimilar materials, i.e. exhibiting Seebeck or Peltier effect with or without other thermoelectric effects or thermomagnetic effects; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 35/34 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these devices or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**)
- 37/00 Thermoelectric devices without a junction of dissimilar materials; Thermomagnetic devices, e.g. using Nernst-Ettinghausen effect; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof (- - -
- 39/00 Devices using superconductivity or hyperconductivity; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof (- - -
- 39/24 • Processes or apparatus **specialy adapted for** the manufacture or treatment of devices provided for in group H01L 39/00 or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**; magnetic - - -
- 41/00 Piezo-electric elements in general; Electrostrictive elements in general; Magnetostrictive elements in general; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 41/22 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these elements or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**)
- 43/00 Devices using galvano-magnetic or similar magnetic effects; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof (- - -
- 43/12 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these

elements or of parts thereof (*for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00*)

- 45/00 Solid state devices *especially* adapted for rectifying, amplifying, oscillating, or switching without a potential-jump barrier or surface barrier, e.g. dielectric triodes; Ovshinsky-effect devices; Processes or apparatus *especially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- 47/00 Bulk negative resistance effect devices, e.g. Gunn-effect devices; Processes or apparatus *especially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- C 49/00 Solid state devices not provided for in groups 27/00 to 47/00 and 51/00 and not provided for in any other subclass; Processes or apparatus *especially adapted for* the manufacture or treatment thereof or of parts thereof (- - -

– the need for precedence references between the subgroups of group H01S 5/30, in the light of the created subgroup H01S 5/36;

In 5/32, a precedence reference pointing towards 5/36 should be added.

– whether the borderline between groups H01L 51/50 and H05B 33/00 was clear with regard to subject matter relating to “organic light emitting diodes” and “organic electroluminescent devices” and, if that were not the case, how it could be clarified in the light of the reference to group H01L 51/50 introduced in group H05 33/00.

We think the borderline is clear enough.

Anders Bruun
Sture Elnäs

Session:	IPC/WG
Subclass:	H 01 L
Project(s):	C 423
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 56

Mod. type	IPC entry (interval)	Text or Instruction
C	21/00	--- les groupes H 01 L 31/00 à 51/00, ou de leurs parties ---
C	21/02	<ul style="list-style-type: none"> ▪ --- leurs parties constitutives
	Note(s) après 23/00	<p>- < = = par ledit groupe;</p> <p>- --- des groupes H 01 L 31/00 à 51/00, qui sont couverts ---</p>
C	27/00	--- leurs parties constitutives H 01 L 21/70, 31/00 à 51/00; détails 23/00, 29/00 à 51/00; ensembles consistant en ---
	Note(s) après 27/00	(1) Dans le présent groupe, sauf indication contraire ---
N	27/28	<ul style="list-style-type: none"> ▪ <i>comprenant des composants qui utilisent des matériaux organiques comme partie active, ou qui utilisent comme partie active une combinaison de matériaux organiques et d'autres matériaux</i>
N	27/30	<ul style="list-style-type: none"> ▪ <i>avec des composants spécialement adaptés pour détecter les rayons infrarouges, la lumière, le rayonnement électromagnétique d'ondes plus courtes, ou le rayonnement corpusculaire; avec des composants spécialement adaptés, soit comme convertisseurs de l'énergie dudit rayonnement en énergie électrique, soit comme dispositifs de commande de l'énergie électrique par ledit</i>

rayonnement

- N 27/32 ▪ ▪ *avec des composants spécialement adaptés pour l'émission de lumière, p.ex. panneaux d'affichage plats utilisant des diodes émettrices de lumière organiques*
- C 29/00 --- (H01L 31/00 à 47/00, 51/05 ont priorité; ---)
- C 31/00 --- **Leurs détails** (51/05 a priorité; dispositifs ---)
- C 33/00 --- **Détails** (51/05 a priorité; dispositifs consistant en une pluralité de composants formés dans ou sur un substrat commun 27/00; dispositifs de couplage ---)
- C 49/00 --- H01L 27/00 à 47/00 et 51/00, et non couverts ---
- C 51/00 **Dispositifs à l'état solide qui utilisent des matériaux organiques --- et d'autres matériaux; Procédés --- leurs parties constitutives**
(dispositifs consistant en une pluralité de composants formés dans ou sur un substrat commun 27/28)
- N 51/05 ▪ *spécialement adaptés au redressement, à l'amplification, à la génération d'oscillations ou à la commutation, ou bien condensateurs ou résistances à l'état solide, ayant au moins une barrière de potentiel ou une barrière de surface*
- C 51/10 <ajouter un point>
- D 51/20 (transféré en 51/05)
- C 51/30 <ajouter un point>
- C 51/40 ▪ ▪ --- ou au traitement de tels dispositifs ou de leurs ---
- N 51/42 ▪ *spécialement adaptés pour détecter les rayons infrarouges, la lumière, le rayonnement électromagnétique d'ondes plus courtes, ou le rayonnement corpusculaire; spécialement adaptés, soit comme convertisseurs de l'énergie dudit rayonnement en énergie électrique, soit comme dispositifs de commande de l'énergie électrique par ledit rayonnement*

- N 51/44 ▪ ▪ *Détails des dispositifs*
- N 51/46 ▪ ▪ *Emploi de matériaux spécifiés*
- N 51/48 ▪ ▪ *Procédés ou appareils spécialement adaptés à la fabrication ou au traitement de tels dispositifs ou de leurs parties constitutives*
- N 51/50 ▪ *spécialement adaptés pour l'émission de lumière, p.ex. diodes émettrices de lumière organiques (OLED) ou dispositifs émetteurs de lumière à base de polymères (PLED) (lasers à semi-conducteurs organiques H 01 S 5/36)*
- N 51/52 ▪ ▪ *Détails des dispositifs*
- N 51/54 ▪ ▪ *Emploi de matériaux spécifiés (matériaux organiques électroluminescents C 09 K 11/06)*
- N 51/56 ▪ ▪ *Procédés ou appareils spécialement adaptés à la fabrication ou au traitement de tels dispositifs ou de leurs parties constitutives*

Session:	IPC/WG
Subclass:	H 01 S
Project(s):	C 423
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 57

Mod. IPC entry Text or Instruction
type (interval)

	5/30	(est déjà correct dans la VF de la CIB 7)
<i>N</i>	5/36	▪ ▪ <i>comportant des matériaux organiques (lasers à colorant 3/213)</i>

Session:	IPC/WG
Subclass:	H 05 B
Project(s):	C 423
Language:	F
Translator office:	CH
Translation source session:	IPC/WG/4
Translation source annex filename:	Annex 58

Mod. IPC entry Text or Instruction
type (interval)

C	33/00	--- de lumière H01L 33/00; diodes émettrices de lumière organiques H 01 L 51/50; lasers H 01 S 3/00, 5/00; compositions en soi ---
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Deutsches Patent- und Markenamt German Patent and Trademark Office	Class/Subcl.: H01L
	Date : 25.05.2001
DE Rapporteur Report — C 423	

Comments were received by EP, JP, CA, RU, RO, FR and SE.

Working Group (IPC/WG/4/5) invited comments on

- whether the wordings of the new groups H01L 27/30, 51/05 and 51/42 (see annex 13 to the project file) could be modified in order to make them easier to read and, if this were the case, whether the same modifications should be made throughout subclass H01L, in particular in groups 27/00, 29/00, 31/00 and 33/00;

Proposals for the amendment of titles were submitted by JP, CA, RU, FR and SE.

Rapporteur is not in favour of the JP proposal of changing in the new groups H01L 51/50 and 27/32 the words "organic light emitting diodes (OLED)" by "organic light emitting devices (OLED)", because on the one hand this is not the correct meaning of OLED and on the other hand the words are only used in an eg term. The further proposed change of wording in the reference of group H05B 33/00 is dealt with in an indent below.

Rapporteur support the proposal of CA

27/30 ---- for the control of electric energy by such radiation

51/42 ---- for the control of electric energy by such radiation

Rapporteur support the broadening of the transfer note proposed by RU

51/20 (transferred to 51/05, 51/42 or 51/50)

Rapporteur in general is in favour of the proposal by FR, but has problems with the practical realisation, since 27/14 is a one-dot group and 27/30 is a two-dot group under 27/28.

Rapporteur supports the list of amended group titles given by SE with a necessary modification in groups 51/05, 27/02 and 29/00.

- N **51/05** • specially adapted for rectifying, amplifying, oscillating or switching **and having at least one potential-jump barrier or surface barrier; Capacitors** or resistors with at least one potential-jump barrier or surface barrier
- C **21/00** Processes or apparatus **especially** adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof (processes or apparatus **especially adapted for** the manufacture - - -
- C **21/64** • Manufacture or treatment of solid state devices other than semiconductor devices, or of parts thereof, not **especially adapted for** a single **type of** device provided for in groups 31/00 to **51/00**
- C **25/03** • all the devices being of a type provided for in the same subgroup of groups 27/00 to **51/00**, e.g. assemblies of rectifier diodes

- C 25/16 • the devices being of types provided for in two or more different main groups of groups 27/00 to **51/00**, e.g. forming hybrid circuits
- C 25/18 • the devices being of types provided for in two or more different subgroups of the same main group of groups 27/00 to **51/00**
- C 27/00 Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate (processes or apparatus **specialy** adapted for the manufacture or treatment - - -
 - 27/02 • including semiconductor components **specialy** adapted for rectifying, oscillating, amplifying **or** switching **and having at least one potential-jump barrier or surface barrier; including** integrated passive circuit elements with at least one potential-jump barrier or surface barrier
 - 27/14 • including semiconductor components sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength **or corpuscular** radiation and **specialy** adapted **either** for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation (- - -
 - 27/15 • including components with at least one potential-jump barrier or surface barrier, **specialy** adapted for light emission
- C 29/00 Semiconductor devices **specialy** adapted for rectifying, amplifying, oscillating **or** switching **and having at least one potential-jump barrier or surface barrier; Capacitors** or resistors with at least one potential-jump barrier or surface barrier, e.g. - - - (31/00 to 47/00, 51/05 take precedence; processes or apparatus **specialy** adapted for the manufacture or treatment thereof or of parts thereof 21/00; - - -
- C 31/00 Semiconductor devices sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength, or corpuscular radiation and **specialy** adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
 - 31/12 - - - (semiconductor devices with at least one potential barrier or surface barrier **specialy** adapted for light emission 33/00; - - -
 - 31/18 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these devices or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**)
- C 33/00 Semiconductor devices with at least one potential-jump barrier or surface barrier **specialy** adapted for light emission, e.g. infra-red; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 35/00 Thermoelectric devices comprising a junction of dissimilar materials, i.e. exhibiting Seebeck or Peltier effect with or without other thermoelectric effects or thermomagnetic effects; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof; Details - - -
- 35/34 • Processes or apparatus **specialy adapted for** the manufacture or treatment of these devices or of parts thereof (**for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general 21/00**)
- 37/00 Thermoelectric devices without a junction of dissimilar materials; Thermomagnetic devices, e.g. using Nernst-Ettinghausen effect; Processes or apparatus **specialy adapted for** the manufacture or treatment thereof or of parts thereof (- - -

- 39/00 Devices using superconductivity or hyperconductivity; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- 39/24 • Processes or apparatus *specially adapted for* the manufacture or treatment of devices provided for in group H01L 39/00 or of parts thereof (*for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general* 21/00; magnetic - - -
- 41/00 Piezo-electric elements in general; Electrostrictive elements in general; Magnetostrictive elements in general; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof; Details - - -
- 41/22 • Processes or apparatus *specially adapted for* the manufacture or treatment of these elements or of parts thereof (*for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general* 21/00)
- 43/00 Devices using galvano-magnetic or similar magnetic effects; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- 43/12 • Processes or apparatus *specially adapted for* the manufacture or treatment of these elements or of parts thereof (*for manufacture or treatment of semiconductor or solid state devices or of parts thereof in general* 21/00)
- 45/00 Solid state devices *specially* adapted for rectifying, amplifying, oscillating, or switching without a potential-jump barrier or surface barrier, e.g. dielectric triodes; Ovshinsky-effect devices; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- 47/00 Bulk negative resistance effect devices, e.g. Gunn-effect devices; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof (- - -
- C 49/00 Solid state devices not provided for in groups 27/00 to 47/00 and 51/00 and not provided for in any other subclass; Processes or apparatus *specially adapted for* the manufacture or treatment thereof or of parts thereof (- - -

– *the need for precedence references between the subgroups of group H01S 5/30, in the light of the created subgroup H01S 5/36 (see annex 13 to the project file)*

EP, RU and SE propose precedence of the new group H01S 5/36 over 5/32; EP and RU precedence of 5/36 over 5/32 and 5/34.

FR propose precedence of H01L 27/32 over H01S5/36.

CA see no need for precedence notes.

JP do not support the introduction of group H01S 5/36 because of the restriction to organic semiconductor lasers.

Rapporteur recommend WG introduction of the precedence references

H01S 5/32 ---- (5/34 and 5/36 take precedence)
5/34 ---- (5/36 takes precedence)

and discussion on the FR and JP proposals.

– *whether the borderline between groups H01L 51/50 and H05B 33/00 was clear with regard to subject matter relating to "organic light emitting diodes" and "organic electroluminescent devices" and, if that were not the case, how it could be clarified in the light of the reference to group H01L 51/50 introduced in group H05 33/00 (see annex 13 to the project file)*

EP give a technical and physical definition of organic EL (electroluminescent) devices and OLED (organic light emitting diodes) and want to classify both of them in group H01L 51/50. This can in their opinion easily be realised by changing the title of the reference in H05B 33/00 from "organic light emitting diodes H01L 51/50" to "organic light emitting devices H01L 51/50". JP discuss the same problem and as a result propose the reference in H05B 33/00 being "organic light emitting devices, organic electroluminescent devices H01L 51/50". CA and FR have no objections against the actual reference in H05B 33/00. RO vote for having "device" instead of "diode" in the reference in H05B33/00, too. SE think the borderline to be clear enough.

Rapporteur propose to change "diode" by "device" as proposed by the majority of votes.

H05B 33/00 ---- H01L 33/00; organic light emitting devices H01L 51/50; lasers ----

Further topics from the JP comment

JP see a discrepancy between the title of H01L 51/54, which holds the words "organic light emitting" from the title of superior groups, and the wording of its reference, holding "organic electroluminescent".

Rapporteur propose to change the reference along the exact title of group C09K 11/06

H01L 51/54 . . Selection of materials (organic luminescent materials C09K 11/06)

JP state that there are precedence notes between main group 51/00 and main groups 29/00, 31/00 and 33/00, but groups H01L 35/24, 41/193 and 41/26 may be "organic"-related, too.

Rapporteur think that further precedence references are necessary, the direction being from 51/00 to 35/00, 37/00 and 41/00.

51/00 ---- parts thereof (35/00, 37/00 and 41/00 take precedence; devices consisting ----

Rainer Anders