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Combination sets in the CPC: a powerful search method



Purpose of the Workshop

- How to use Combination Sets for the retrieval of Documents by searching

Outline

1.Introduction: Definition of Combination Sets

2.Comparison C-set/ single symbol

3.Fields concerned

4.Practical examples

5.Conclusions

1. Introduction

- **Definition of Combination-sets:**
- **Special classification/search technique**
- **Combination of two or more technical features**

1. Introduction

- **Definition of Combination-sets:**
- Adding information by the combination of one or more other features
- Example: specific Polymer (C08L) + specific additive (C08K)
- ➔ (C08K3/04, C08L9/00) (composition of carbon black and polybutadiene)

1. Introduction

- **Definition of Combination-sets:**
- **First symbol: Base symbol**
- **Possible use of Combination set with Additional symbols**

1. Introduction

- Definition of Combination-sets:
- Limited number of fields make official use of the technique, though (*in principle no limitation*)
- Use of Combination Sets in a field identified from the **Notes in the Scheme and/or from Definitions**

1. Introduction

- **Use of C-Sets:**
- **Search in Patent Databases like CAPLUS/STN**
- **All valid classification symbols used**
- **Search of technical features "together" or "taken in combination"**

Outline

1. Introduction: Definition of Combination Sets

2. Comparison C-set/ single symbol

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2. Comparison C-Set/ single symbol

- **Why Combination sets instead of single symbols ?**
 - **More precised search**
 - **Less time consuming searches**

2. Comparison C-Set/ single symbol

- **Single symbols**
classifying technical features on their own

C08G63/183

- **Linked symbols**
classifying technical features "together"

(C08K5/098,C08L67/02)

2. Comparison C-Set/ single symbol

- **Searching with single symbol**
 - **PET+metal stearate**
 - **EPODOC: SS 4] /c C08I67/02**
Results in EPODOC 23.050
 - **[SS 5] /c C08K5/098**
Results in EPODOC 13.809
 - **[SS 6] 4 and 5**
Results in EPODOC 663
- **Searching with linked symbol**
 - **PET+metal stearate**
 - **[SS 10] /cl (C08K5/098 s**
C08I67/02)
 - **Results in EPODOC 753**

2. Comparison C-Set/ single symbol

- | | |
|--|--|
| <ul style="list-style-type: none">▪ Searching with single symbol▪ Statistic:▪ Documents not relevant▪ 376 | <ul style="list-style-type: none">▪ Searching with linked symbol▪ Statistic:▪ Documents not relevant▪ 0 |
|--|--|

Outline

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3. Fields

- **Where to find Combination Sets ?**

Sections A, B, C,D, G, H

3. Fields

- **Combination Sets in a specific field ?**



- **Notes in the Scheme and/or from Definitions of the field concerned**

Outline

1. Introduction: Definition of Combination Sets

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4. Practical examples

- How does it work ?



- **Use of Patent databases**

4. Practical examples

- ROAD MAP

- 1. Identification of the combined features:

- 2. Combination set in my field ?

- 3. If **YES** then **CPC Schemes /definition**

4. Practical examples

- **Polymers: US2014378583**
- 1. A composition comprising at least:
 - (a) **a thermoplastic polyamide resin;**
 - (b) **a thermoplastic polyester resin;**
 - (c) **a reinforcing or bulking filler; and**
 - (d) **a fire retardant,**
- **the composition not comprising any compatibilizer for the polyamide and the polyester**

4. Practical examples

- **Polymers: US2014378583**
- 4 Components
- (a) a thermoplastic polyamide resin; (C08L77/00)
- (b) a thermoplastic polyester resin; (C08L67/02)
- (c) a reinforcing or bulking filler; and (C08K7/02)
- (d) a fire retardant (C08K5/51)

4. Practical examples

- **Polymers: US2014378583**
- **1) 4 symbols for 4 elements**
- **2) Combination set for blend of polymer(s) with additive(s)**
- **3) CPC scheme: (C08L77/00, C08L67/02, C08K7/02, C08K5/51)**

4. Practical examples (US2014378583)

Epodoc:

[EPODOC: SS 16] /cl
(C08L77/00 s c08L67/02 s
C08K7/02 s c08K5/51)

Results in EPODOC 6

- **CAPLUS**
- **S**
(C08L77/00/cpc)(s)(C08L67/02
/cpc)(s)(C08K7/02/cpc)(s)(C08
K5/51/cpc)
- **L11** **1** **(C08L77/00/CPC)**
(S) (C08L67/02/CPC) (S)
(C08K7/02/CPC) (S) (C08K
▪ **5/51/CPC)**

4. Practical examples

- **Organic chemistry: US2014378713**
- **A method of producing 1-(2-t-butylcyclohexyloxy)-2-butanol, comprising:**
- **Hydrogenating 1-(2-t-butylphenyloxy)-2-butanol**

4. Practical examples

- **Organic chemistry: US2014378713**

- **Target compound: 1-(2-t-butylcyclohexyloxy)-2-butanol (C07C43/196)**

- **Method:**

Hydrogenating 1-(2-t-butylphenyloxy)-2-butanol (C07C41/20)

- **Combination set: (C07C41/20, C07C43/196)**

4. Practical examples (**US2014 378713**)

Epodoc:

[EPODOC: SS 5] /cl
(C07C41/20 s C07c43/196)

Results in EPODOC: **26**

- **CAPLUS**
- s (C07C41/20/CPC) s
(C07C43/196/CPC)
- L1 **8** (C07C41/20/CPC)
(S) (C07C43/196/CPC)

4. Practical examples

- **Medicine: US2014378524**
- A method for treating a disorder of uncontrolled cellular proliferation in a subject, comprising the step of **co-administering** to the subject
- **an Akt therapeutic agent (A61K31/713)**
- **and a phospholipase D inhibitor (A61K31/454), (A61K31/438), (A61K31/435)**

4. Practical examples

- **Medicine: US2014378524**
- **co-administering** to the subject (mixture of active agents)
- (A61K31/xx, A61K31/2300)
- **an Akt therapeutic agent (A61K31/713)**
- **phospholipase D inhibitor (A61K31/454), (A61K31/438), (A61K31/435)**

4. Practical examples

- **Medicine: US2014378524**
- **Combination sets:**
 - (A61K31/454, A61K2300),
 - (A61K31/438, A61K2300),
 - (A61K31/435, A61K2300)
 - (A61K31/713, A61K2300)

4. Practical examples

- **Medicine: US2014378524**

- **EPODOC:**

SS 13] /cl (a61k31/435 s a61k2300/00); 1527

[SS 14] /cl (a61k31/438 s a61k2300/00);247

[SS 15] /cl (a61k31/454 s a61k2300/00); 1928

[SS 16] /cl (a61k31/713 s a61k2300/00); 492

[SS 17] 16 and (13 or 14 or 15); 5

4. Practical examples

- **Medicine: US2014378524**

- **CAPLUS:**

- L3 226 (A61K31/435/CPC) (S) (A61K2300/00/CPC)

- L4 48 (A61K31/438/CPC) (S) (A61K2300/00/CPC)

- L5 371 (A61K31/454/CPC) (S) (A61K2300/00/CPC)

- L6 195 (A61K31/713/CPC) (S) (A61K2300/00/CPC)

- **6 (L3 OR L4 OR L5) AND L6**

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5. Conclusions

1. More concise search

2. Finding more quickly relevant Patents

3. Reduction of “noise”