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

3. Fields concerned

4. Practical examples

5. Conclusions
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 C08l67/02
    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 C08l67/02)
    Results in EPODOC 753
2. Comparison C-Set/ single symbol

- Searching with single symbol
  - Statistic:
    - Documents not relevant
      - 376

- Searching with linked symbol
  - Statistic:
    - Documents not relevant
      - 0
Outline

1. Introduction: Definition of Combination Sets

2. Comparison C-set/ single symbol

3. Fields concerned

4. Practical examples

5. Conclusions
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

2. Comparison C-set/ single symbol

3. Fields concerned

4. Practical examples

5. Conclusions
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
Outline

1. Introduction: Definition of Combination Sets

2. Comparison C-set/ single symbol

3. Fields concerned

4. Practical examples

5. Conclusions
5. Conclusions

1. More concise search

2. Finding more quickly relevant Patents

3. Reduction of “noise”