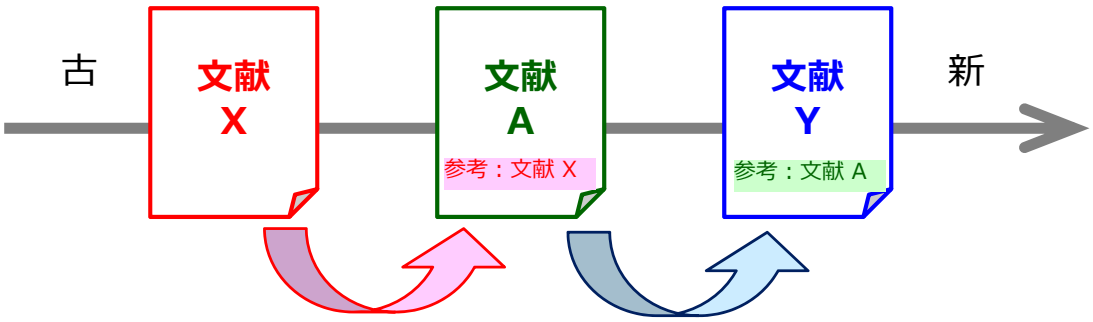
STN インターネットセミナー

引用文献調査

本日の内容

- 引用文献調査とは
- STN データベースにおける引用文献情報
- 引用・被引用文献の検索方法
- 引用文献調査 - 応用編
  - 引用文献の解析
  - 共引用文献の調査

引用文献と被引用文献



文献 A から見て…

- **文献 X ： 引用文献 (Cited Reference)**
- **文献 Y ： 被引用文献 (Citing Reference)**

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引用文献調査の目的

幅広い文献調査

キーワード検索等では
得られない関連文献

研究の基礎である文献

引用文献の解析

技術動向や論文の
評価指標として利用

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引用文献情報を収録するデータベース

	SciSearch	CAplus /CA	MEDLINE
分野	科学技術分野全般	化学および周辺分野	生物医薬分野
収録年代	1974 年~	1808 年~	1946 年~
件数	3,900 万件以上	4,200 万件以上	2,500 万件以上
引用情報収録件数	3,000 万件以上	1,300 万件以上	240 万件以上
引用情報収録状況	全年代にわたって収録	1997 年~ (非特許文献) 1982 年~ (特許文献)	2010 年より収録開始
特長	・古い年代から引用情報を収録	・レコード間で引用情報がリンクされている	
		・特許の引用情報も検索，表示できる	

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ファイル選択の指針

- 化学関連分野の引用文献検索
  - CAplus/CA　SciSearch
- 医薬分野の引用文献検索
  - MEDLINE　CAplus/CA　SciSearch
- 古い年代からの被引用文献検索
  - SciSearch
- 全分野にわたる被引用文献検索
  - SciSearch

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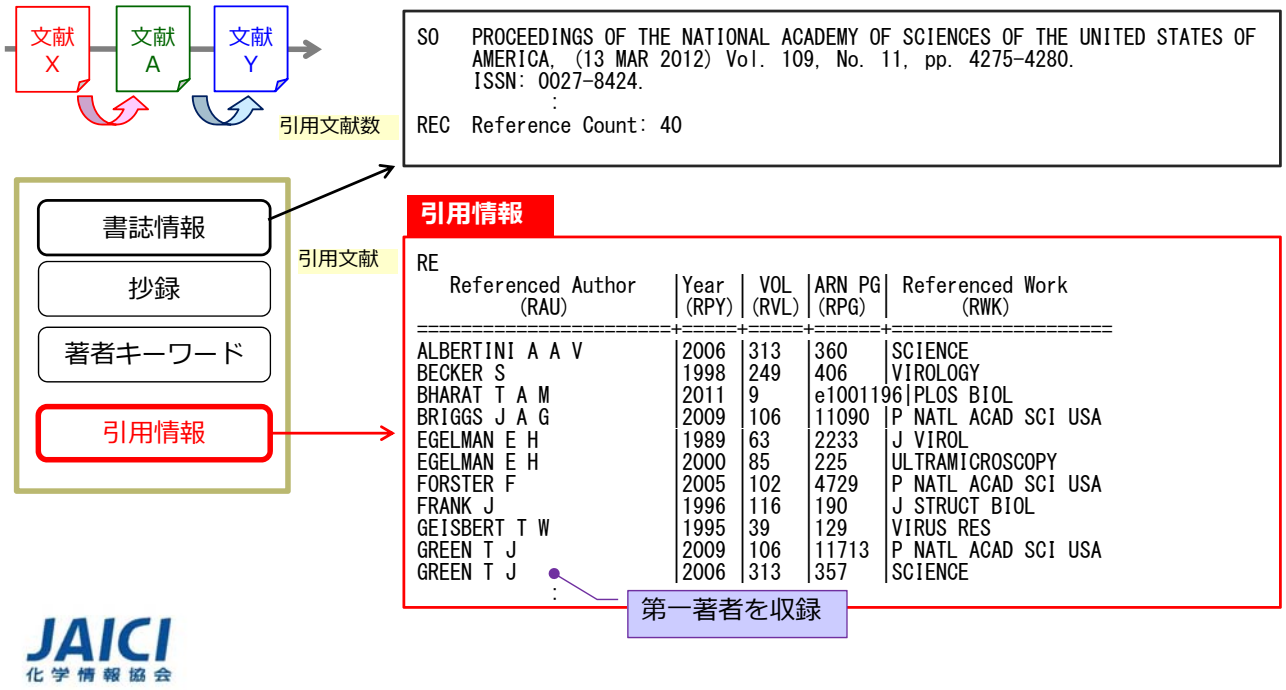
引用情報の収録 SciSearch



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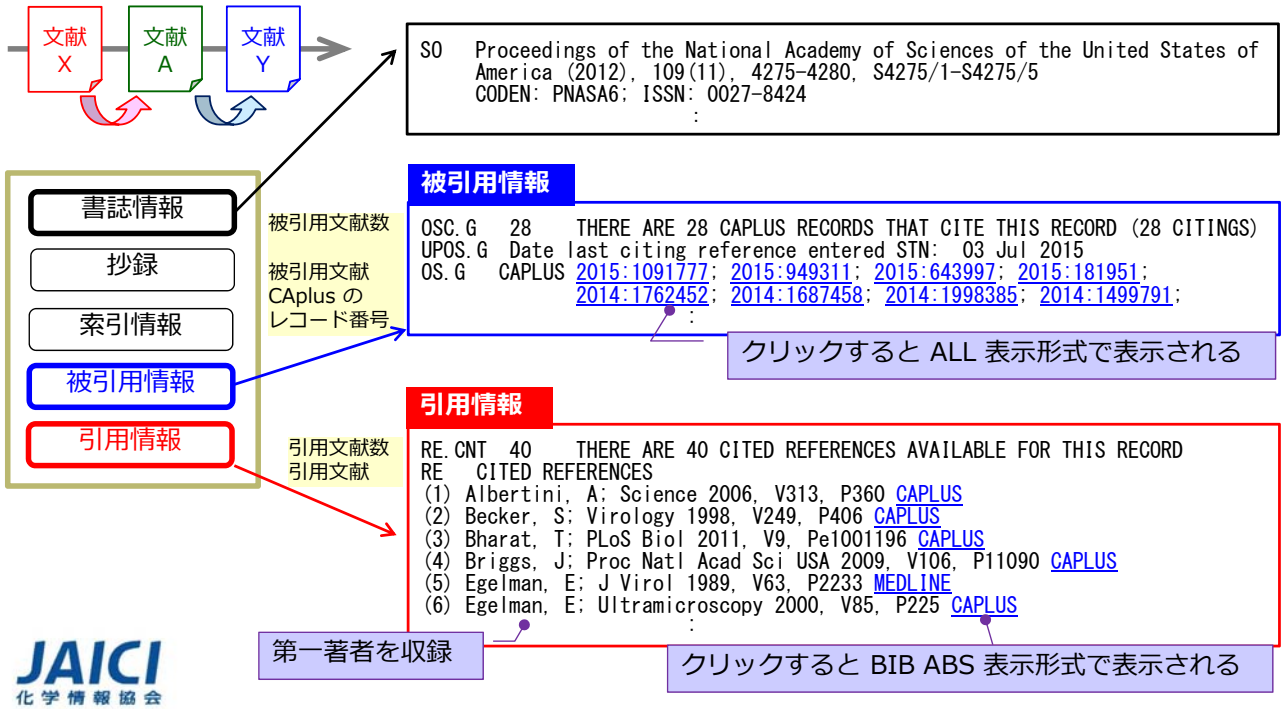
引用・被引用情報の収録 CAplus/CA



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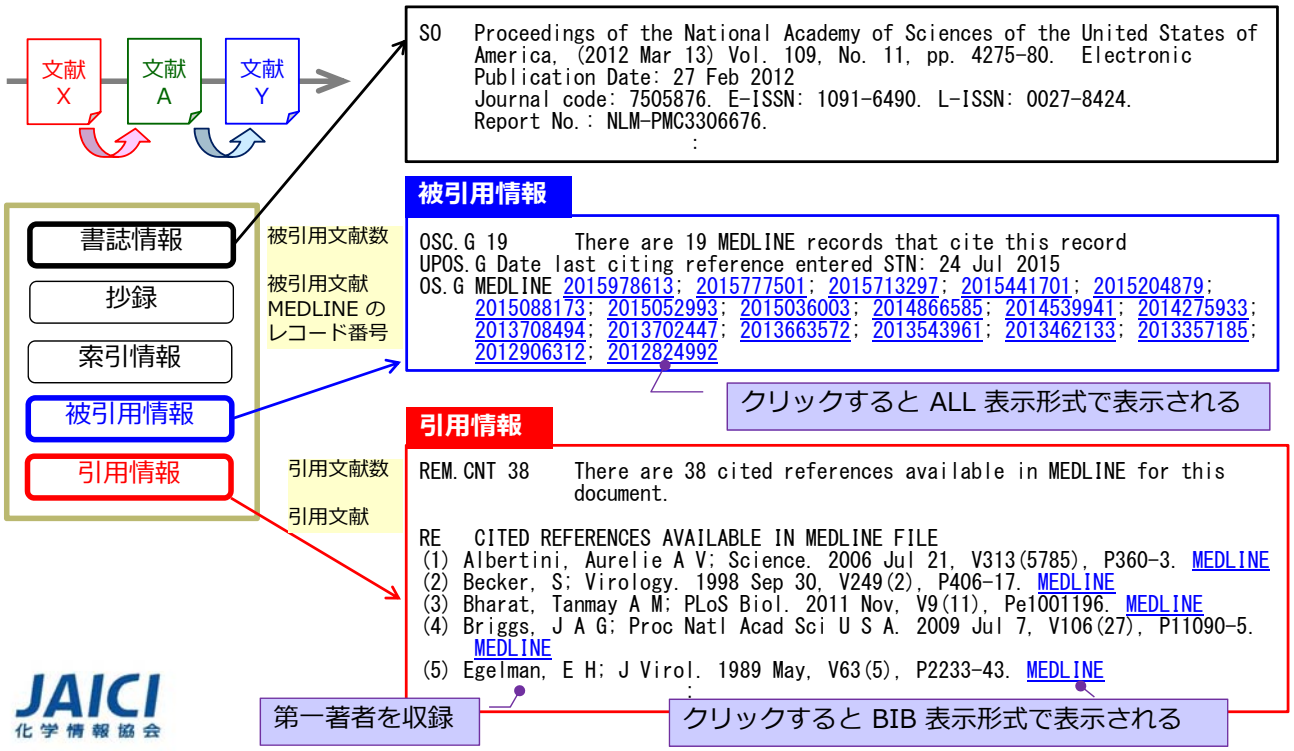
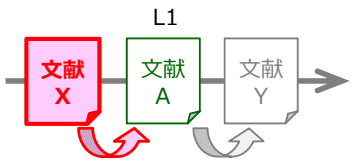
引用・被引用情報の収録 MEDLINE



引用文献の検索

CAplus/CA MEDLINE

引用情報の**レコード番号**を抽出して，
/AN (レコード番号) フィールドで検索



- **RAN.CAPLUS**：CAplus ファイルのレコード番号 (引用情報)
- **RAN.MED**　　：MEDLINE ファイルのレコード番号 (引用情報)

・ SELECT コマンド使用

```
=> SEL L1 RAN.CAPLUS    または    => SEL L1 RAN.MED
E1 THROUGH E40 ASSIGNED

=> S E1-E40/AN
L2          40 ("1996:133586"/AN ...
```

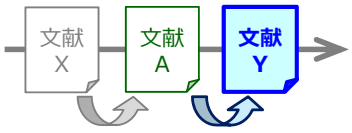
・ TRANSFER コマンド使用

```
=> TRA L1 RAN.CAPLUS /AN    または    => TRA L1 RAN.MED /AN
L2          TRANSFER L1 1- RAN.CAPLUS : 40 TERMS
L3          40 L2/AN
```

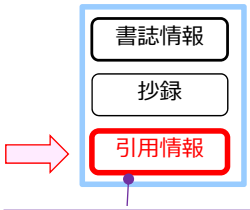
被引用文献の検索 – 1

SciSearch CAplus/CA MEDLINE

検索フィールドを指定して検索



検索フィールド	内容
/RE	引用情報 (第一著者名，発行年，巻，ページ，雑誌名など)
/RAU	著者名，引用情報
/RPY	発行年，引用情報
/RVL	巻，引用情報
/RPG	開始ページ，引用情報
/RWK	雑誌名 (特許番号)，引用情報



引用情報を検索して，被引用文献 (文献 Y) を得る

```
SO   PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
     AMERICA, (13 MAR 2012) Vol. 109, No. 11, pp. 4275-4280.
     ISSN: 0027-8424.
           :

RE
   Referenced Author    |Year | VOL |ARN PG| Referenced Wor
         (RAU)          |(RPY)|(RVL)|(RPG) |       (RWK)
=======================+=====+=====+======+=============
ALBERTINI A A V         |2006 |313  |360   |SCIENCE
BECKER S                |1998 |249  |406   |VIROLOGY
           :
```

=> S ALBERTINI A?/RAU (S) 2006/RPY (S) 360/RPG (S) SCIENCE/RWK

=> S "ALBERTINI A, 2006, V313, P360"?/RE

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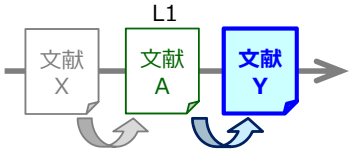
被引用文献の検索 - 2

SciSearch CAplus/CA MEDLINE



CIT (引用文献検索用のフィールド *) を抽出して検索

* 書誌情報を /RE の検索式にする

・ SELECT コマンド使用

```
=> SEL  L1  CIT
E1 THROUGH E1 ASSIGNED

=> S E1
L2          30 "BHARAT T A M, 2012, V109, P4275,?"/RE
```

・ TRANSFER コマンド使用

```
=> TRA  L1  CIT
L2          TRANSFER L1 1- CIT : 40 TERMS
L3          30 L2
```

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・ STN on the Web の場合，レコードの上部に表示される Citing References を クリックすると， 自動的に被引用文献の検索 (SEL CIT および検索) が実行される.

引用・被引用文献検索のまとめ

	抽出フィールド	検索フィールド	SciSearch	CAplus/CA	MEDLINE
引用文献	RAN.CAPLUS	/AN	×	○	×
	RAN.MED	/AN	×	×	○
被引用文献	-	/RAU, /RPY など	○	○	○
	CIT	(/RE)	○	○	○

検索例

- 下記の文献を引用している文献を調査する (被引用文献検索)

  CAplus/CA　SciSearch

  – Science，2012 年，335 巻，308 ページ
    Yoshikuni, Yasuo 氏

検索例　ある特定文献の被引用文献調査

```
=> FILE CAPLUS                                          ← CAplus ファイルに入ります

=> S SCIENCE?/JT AND YOSHIKUNI Y?/AU AND 2012/PY AND 335/SO AND 308/SO     ← 目的の文献の書誌情報を検索します
L1            1 SCIENCE?/JT AND WARGACKI A?/AU AND 2012/PY AND 335/SO AND 308/SO

=> D                                                    ← 書誌情報を確認します

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2015 ACS on STN
AN   2012:73527  CAPLUS  Full-text
DN   156:255515
TI   An Engineered Microbial Platform for Direct Biofuel Production from Brown
     Macroalgae
TIJP ブラウンMacroalgaeからの直接生物燃料生産のための人工の微生物のプラットフォ
     ーム［機械翻訳］
AU   Wargacki, Adam J.; Leonard, Effendi; Win, Maung Nyan; Regitsky, Drew D.;
     Santos, Christine Nicole S.; Kim, Peter B.; Cooper, Susan R.; Raisner,
     Ryan M.; Herman, Asael; Sivitz, Alicia B.; Lakshmanaswamy, Arun;
     Kashiyama, Yuki; Baker, David; Yoshikuni, Yasuo
CS   Bio Architecture Lab, Berkeley, CA, 94710, USA
SO   Science (Washington, DC, United States) (2012), 335(6066), 308-313
     CODEN: SCIEAS; ISSN: 0036-8075
DOI  10.1126/science.1214547
PB   American Association for the Advancement of Science
DT   Journal
LA   English
OSC.G   135   THERE ARE 135 CAPLUS RECORDS THAT CITE THIS RECORD (136 CITINGS)
RE.CNT  43    THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> SEL L1 CIT                                           ← 引用文献検索用のフィールド（CIT）を抽出します
E1 THROUGH E1 ASSIGNED

=> D SEL                                                ← 抽出した項目を確認します
E1            1     WARGACKI A J, 2012, V335, P308,?/RE
```

第一著者の情報を抽出します

```
=> FILE CAPLUS SCISEARCH                                ← CAplus と SciSearch ファイルに入ります


=> S E1                                                 ← 被引用文献を検索します
L2          276 "WARGACKI A J, 2012, V335, P308,?"/RE

=> SET DUP FILE                                         ← 重複文献除去後のレコードがファイル毎にまとまる設定
SET COMMAND COMPLETED

=> DUP REM L2                                           ← 重複文献除去を実行します
PROCESSING COMPLETED FOR L2
L3          173 DUP REM L2 (103 DUPLICATES REMOVED)
                ANSWERS '1-130' FROM FILE CAPLUS
                ANSWERS '131-173' FROM FILE SCISEARCH
```

=> D BIB HIT 1 130 131 173 ← 書誌情報とヒット部分を表示します

L3 ANSWER 1 OF 173 CAPLUS COPYRIGHT 2015 ACS on STN DUPLICATE 1
AN 2015:768042 CAPLUS Full-text
TI Synthesis of chemicals by metabolic engineering of microbes
TIJP 微生物の代謝工学による化学物質の合成 [機械翻訳]
AU Sun, Xinxiao; Shen, Xiaolin; Jain, Rachit; Lin, Yuheng; Wang, Jian; Sun, Jing; Wang, Jia; Yan, Yajun; Yuan, Qipeng
CS State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, 100029, Peop. Rep. China
SO Chemical Society Reviews (2015), 44(11), 3760-3785
CODEN: CSRVBR; ISSN: 0306-0012
DOI 10.1039/C5CS00159E
PB Royal Society of Chemistry
DT Journal; (online computer file)
LA English
RE.CNT 256 THERE ARE 256 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
RE CITED REFERENCES
(225) Wargacki, A; Science 2012, V335, P308 CAPLUS

L3 ANSWER 130 OF 173 CAPLUS COPYRIGHT 2015 ACS on STN
AN 2012:655291 CAPLUS Full-text
TI Algal bioenergy, ecosystem services and the Algal Bioenergy Special Interest Group
TIJP 藻類の生体エネルギー, 生態系サービス, および藻類の生体エネルギー特殊利益集団. [機械翻訳]
AU Stanley, Michele; MacDonald, Joanne; Jenkins, Tom
CS MMB Department, Scottish Association for Marine Science, Scottish Marine Institute, Oban, PA37 1QA, UK
SO Biofuels (2012), 3(3), 255-258
CODEN: BIOFGO; ISSN: 1759-7269
DOI 10.4155/bfs.12.16
PB Future Science Ltd.
DT Journal; (online computer file)
LA English
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
RE CITED REFERENCES
(11) Wargacki, A; Science 2012, V335(6066), P308 CAPLUS

L3 ANSWER 131 OF 173 SCISEARCH COPYRIGHT (c) 2015 The Thomson Corporation on STN
AN 2015:412519 SCISEARCH Full-text
GA The Genuine Article (R) Number: CB3RY
TI Alginate Lyases from Alginate-Degrading Vibrio splendidus 12B01 Are Endolytic
AU Badur, Ahmet H.; Jagtap, Sujit Sadashiv; Yalamanchili, Geethika; Zhao, Huimin; Rao, Christopher V. (Reprint)
CS Univ Illinois, Dept Chem & Biomol Engn, Urbana, IL 61820 USA (Reprint)
E-mail: chris@scs.uiuc.edu
AU Jagtap, Sujit Sadashiv; Lee, Jung-Kul
CS Konkuk Univ, Dept Chem Engn, Seoul, South Korea
CYA USA; South Korea
SO APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (MAR 2015) Vol. 81, No. 5, pp. 1856-1864.
ISSN: 0099-2240.
DOI 10.1128/AEM.03460-14
PB AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.
DT Article; Journal
LA English
REC Reference Count: 57
ED Entered STN: 16 Mar 2015
Last Updated on STN: 16 Mar 2015
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

GF This material is based upon work supported by the U.S. Department of Energy, Office of Science, Office of Biological and Environmental Research, under award number ER65474. S.S.J. was partly supported by WTU Joint Research Grants from Konkuk University.
GO U.S. Department of Energy, Office of Science, Office of Biological and Environmental Research
GN ER65474
GO WTU Joint Research Grants from Konkuk University

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
WARGACKI A J	2012	335	308	SCIENCE <--

L3 ANSWER 173 OF 173 SCISEARCH COPYRIGHT (c) 2015 The Thomson Corporation on STN
AN 2012:722906 SCISEARCH Full-text
GA The Genuine Article (R) Number: 940HT
TI Fungal endophytes: an untapped source of biocatalysts
AU Suryanarayanan, Trichur S. (Reprint); Govindarajulu, Meenavalli B.
CS RKM Vidyapith, Vivekananda Inst Trop Mycol VINSTROM, Madras 600004, Tamil Nadu, India (Reprint)
E-mail: t_sury2002@yahoo.com
AU Thirunavukkarasu, Nagamani
CS RKM Vivekananda Coll, Dept Plant Biol & Plant Biotechnol, Chennai 600004, Tamil Nadu, India
AU Suryanarayanan, Trichur S. (Reprint); Gopalan, Venkat
CS Ohio State Univ, Dept Biochem, Columbus, OH 43210 USA
E-mail: t_sury2002@yahoo.com
AU Suryanarayanan, Trichur S. (Reprint); Gopalan, Venkat
CS Ohio State Univ, Ctr RNA Biol, Columbus, OH 43210 USA
E-mail: t_sury2002@yahoo.com
CYA India; USA
SO FUNGAL DIVERSITY, (MAY 2012) Vol. 54, No. 1, Sp. iss. SI, pp. 19-30. ISSN: 1560-2745.
DOI 10.1007/s13225-012-0168-7
PB SPRINGER, 233 SPRING ST, NEW YORK, NY 10013 USA.
DT General Review; Journal
LA English
REC Reference Count: 112
ED Entered STN: 28 May 2012
Last Updated on STN: 21 May 2013
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
GF We are grateful to Drs. E. J. Behrman and T. Ezeji (OSU) for comments on the manuscript, and to Andrew Wallace (OSU) for preparing Fig. 1. TSS thanks the United States-India Educational Foundation (USIEF), New Delhi and the Fulbright Scholar Program (USA) for the award of a Fulbright-Nehru Senior Researcher grant to characterize fungal endophyte enzymes in VG's laboratory at OSU, and the Department of Biotechnology, Government of India for funding the Indo-German Research Project BT/IN/FRG/09/TSS/2007 on endophyte enzymes. VG gratefully acknowledges funding support from the Northeast Sun Grant Initiative Award 52110-9615 from US Department of Transportation (via a sub-contract from Cornell University to T. Ezeji and V. Gopalan, OSU).
GO United States-India Educational Foundation (USIEF), New Delhi
GO Fulbright Scholar Program (USA)
GO Department of Biotechnology, Government of India
GN BT/IN/FRG/09/TSS/2007
GO US Department of Transportation via Cornell University, OSU
GN 52110-9615

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
WARGACKI A J	2012	335	308	SCIENCE <--

STN の引用文献調査 – 応用編

様々な**検索機能**や**解析機能**を
駆使した**引用調査**が可能

- **引用文献の解析**
- **共引用文献の調査**

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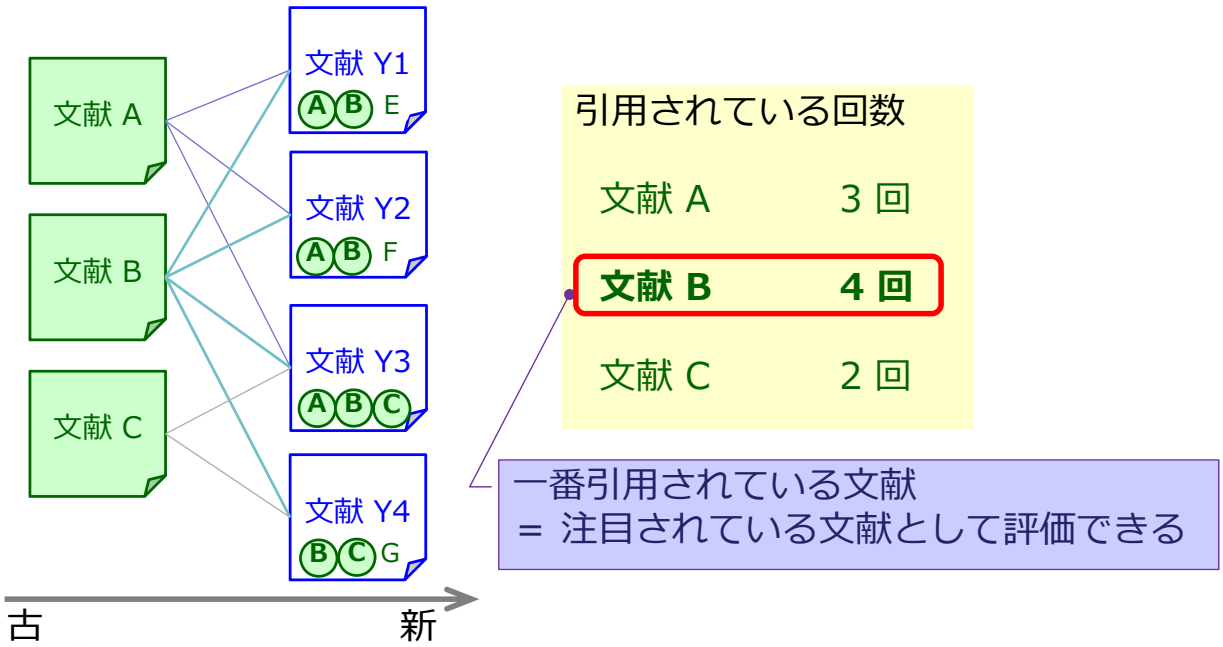
引用文献の解析



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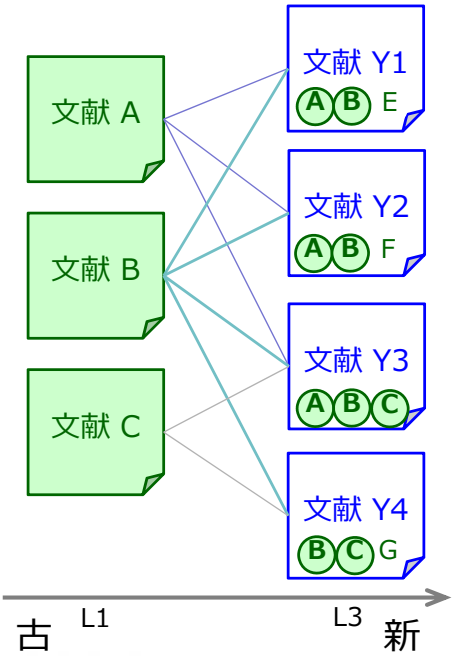
引用文献の解析方法



Ⓐ ヒットした引用情報

```
SO   PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
     AMERICA, (13 MAR 2012) Vol. 109, No. 11, pp. 4275-4280.
               :
SO   LANCET, (11 OCT 2014) Vol. 384, No. 9951, pp. 1347-1348.
               :
SO   BMC INFECTIOUS DISEASES, (28 DEC 2011) Vol. 11.
               :
```

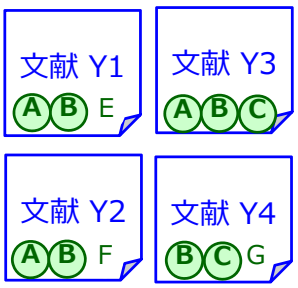
引用されている回数を調べたい集合 (L1) から
CIT (引用文献検索用のフィールド) を抽出して検索

```
=> TRA L1 CIT
L2          TRANSFER L1 1- CIT : 3 TERMS
L3          35 L2
```

```
RE
   Referenced Author    |Year | VOL |ARN PG| Referenced Work
          (RAU)         |(RPY)|(RVL)|(RPG) |      (RWK)
========================+=====+=====+======+==================
               :
BHARAT T A M            |2012 |109  |4275  |P NATL ACAD SCI USA  <--
BORCHERT M              |2011 |11   |357   |BMC INFECT DIS       <--
BORIO L                 |2002 |287  |2391  |JAMA-J AM MED ASSOC
BURNOUF T               |2014 |384  |1347  |LANCET               <--
               :
```

ヒットタームの付いている引用情報 (RE) が
何回引用されているかを解析する

引用文献の解析方法



Ⓐ ヒットした引用情報

引用されている回数
(多い順)

文献 B 4 回
文献 A 3 回
文献 C 2 回

注目した引用文献の
ランキングを作成する

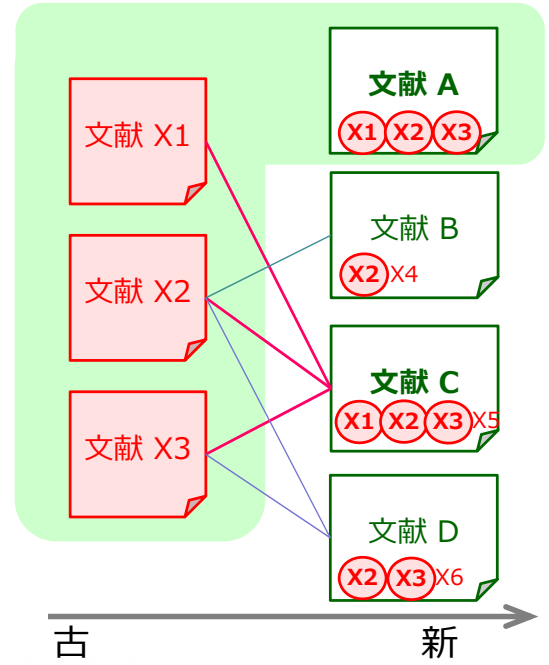
ヒットした引用情報 (RE) を解析する

```
=> ANA L3 HIT RE
L4          ANALYZE L3 1- RE HIT :  3 TERMS

=> D L4
=> D L4 TOP 3
```

```
L28          ANALYZE L27 1- RE HIT :       3 TERMS

TERM #   # OCC  # DOC  % DOC RE
------ ------- ------ ------ ---------------
     1      33     33  49.25 BORCHERT M, 2011, V11, P357, BMC INFECT DIS
     2      30     30  44.78 BHARAT T A M, 2012, V109, P4275, P NATL ACAD SCI US
     3       6      6   8.96 BURNOUF T, 2014, V384, P1347, LANCET
*********  END OF L28***
```

一番引用されている文献

共引用文献の調査



A の引用文献 (X1，X2，X3) と共通する引用文献をもつ文献

文献 B	1 件
文献 C	**3 件**
文献 D	2 件

A と同じ引用文献を有する
＝ 同じような技術分野の文献である
可能性が高い

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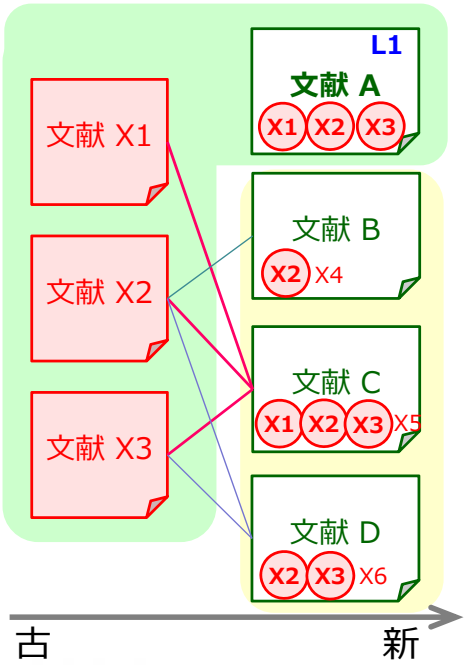
共引用文献の調査方法



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X1 ヒットした引用情報

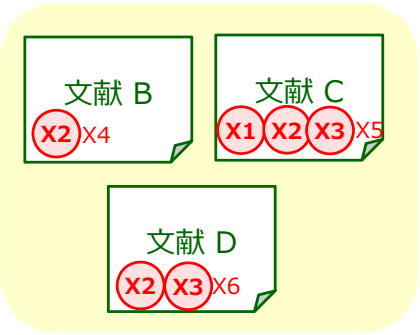
```
REC  Reference Count: 9
                :
RE
   Referenced Author     |Year | VOL  |ARN PG| Referenced Work
          (RAU)          |(RPY)|(RVL) |(RPG) |      (RWK)
=========================+=====+======+======+==================
BASU R N                 |2004 |39    |1335  |MATER RES BULL
BEVILACQUA M             |2006 |177   |2957  |SOLID STATE IONICS
BRUNAUER S               |1938 |60    |309   |J AM CHEM SOC
CHEN J Y                 |2011 |192   |424   |SOLID STATE IONICS
CHIBA R                  |1999 |124   |281   |SOLID STATE IONICS
KAKIHANA M               |1996 |6     |7     |J SOL-GEL SCI TECHN
NIWA E                   |     |      |      |J AM CERAM IN PRESS
NIWA E                   |2011 |201   |87    |SOLID STATE IONICS
OHZEKI T                 |2010 |181   |1771  |SOLID STATE IONICS
```

RE (引用情報) を抽出して検索し，もとの集合を除く

=> **SEL L1 RE**
E1 THROUGH E9 ASSIGNED

=> **S E1-E9 NOT L1**
L2 11740 ("BASU R N, 2004, V39, P1335, MATER RES BULL"/RE OR ...) NOT L1

共引用文献の調査方法



共通の引用文献を
有する文献 (多い順)

文献 C 3 件
文献 D 2 件
文献 B 1 件

X1 ヒットした引用情報

OCC (ヒットタームの出現頻度) の降順に
並べ替える

```
=> SORT L2 1- OCC
PROCESSING COMPLETED FOR L2
L3        11740 SORT L2 1- OCC
```

```
L3   ANSWER 1 OF 11740  SCISEARCH  COPYRIGHT (c) 2015 The Thomson Corporation
     on STN
 Referenced Author      |Year | VOL |ARN PG| Referenced Work
         (RAU)          |(RPY)|(RVL)|(RPG) |       (RWK)
========================+=====+=====+======+====================
BEVILACQUA M            |2006 |177  |2957  |SOLID STATE IONICS    <--
BRUNAUER S              |1938 |60   |309   |J AM CHEM SOC         <--
CHIBA R                 |1999 |124  |281   |SOLID STATE IONICS    <--
KAKIHANA M              |1996 |6    |7     |J SOL-GEL SCI TECHN   <--
NIWA E                  |2011 |201  |87    |SOLID STATE IONICS    <--
OHZEKI T                |2010 |181  |1771  |SOLID STATE IONICS    <--

L3   ANSWER 2 OF 11740  SCISEARCH  COPYRIGHT (c) 2015 The Thomson Corporation
     on STN

 Referenced Author      |Year | VOL |ARN PG| Referenced Work
         (RAU)          |(RPY)|(RVL)|(RPG) |       (RWK)
========================+=====+=====+======+====================
BASU R N                |2004 |39   |1335  |MATER RES BULL        <--
BEVILACQUA M            |2006 |177  |2957  |SOLID STATE IONICS    <--
CHIBA R                 |1999 |124  |281   |SOLID STATE IONICS    <--
NIWA E
```

文献 A と共通する引用文献が多い順に回答を
並びかえることができる

検索例

- **海藻を用いた燃料技術のうち,**
  引用されている回数の多い上位 10 件の
  文献を解析する

  CAplus/CA　SciSearch

- **最も多く引用されている文献と**
  共通の引用情報を持つ文献を確認する

  SciSearch

検索例　引用文献の解析，共引用文献の調査

```
=> FILE CAPLUS SCISEARCH                          ← CAplus, SciSearch ファイルに入ります

=> SET PLU ON;SET SPE ON;SET ABB ON               ← 複数形，綴り違い，略語を自動的に含む設定
SET COMMAND COMPLETED
          :

=> S SEAWEED AND ?FUEL?                           ← キーワードで検索します
L1          615 SEAWEED AND ?FUEL?

=> SET DUP FILE                                   ← 重複文献除去後のレコードがファイル毎にまとまる設定
SET COMMAND COMPLETED

=> DUP REM L1                                     ← 重複文献除去を実行します
PROCESSING COMPLETED FOR L1
L2          531 DUP REM L1 (84 DUPLICATES REMOVED)
                ANSWERS '1-439' FROM FILE CAPLUS
                ANSWERS '440-531' FROM FILE SCISEARCH

=> FILE SCISEARCH                                 ← SciSearch ファイルに入ります

=> TRA L2 CIT                                     ← 引用文献検索用のフィールド（CIT）を抽出して検索します
L3          TRANSFER L2 1- CIT :     533 TERMS
L4         3800 L3

=> ANA HIT RE                                     ← 上記の式でヒットした引用情報（RE）を解析します
L5          ANALYZE L4 1- RE HIT :    2683 TERMS

=> D TOP 10                                       ← 上位 10 件を確認します
L5          ANALYZE L4 1- RE HIT :    2683 TERMS

TERM #   # OCC  # DOC  % DOC RE
------ ------- ------ ------ ---------------
     1     200    199   5.24 JOHN R P, 2011, V102, P186, BIORESOURCE TECHNOL   ← 一番多く引用されている文献
     2     159    159   4.18 ROSS A B, 2008, V99, P6494, BIORESOURCE TECHNOL
     3     146    146   3.84 WARGACKI A J, 2012, V335, P308, SCIENCE
     4     101    101   2.66 ANASTASAKIS K, 2011, V102, P4876, BIORESOURCE TECHN
     5      88     88   2.32 PACKER M, 2009, V37, P3428, ENERG POLICY
     6      87     86   2.26 ABBASI T, 2010, V14, P919, RENEW SUST ENERG REV
     7      84     84   2.21 HORN S J, 2000, V25, P249, J IND MICROBIOL BIOT
     8      73     73   1.92 RAISBECK G M, 1995, V6, P561, J MARINE SYST
     9      64     64   1.68 ROSS A B, 2009, V85, P3, J ANAL APPL PYROL
    10      63     63   1.66 YIOU F, 1994, V92, P436, NUCL INSTRUM METH B
```

=> S JOHN R?/AU AND 2011/PY AND 102/SO AND 186/SO AND BIORESOURCE TECHNOL?/JT
← 一番多く引用されている文献の書誌情報を検索します

L6 1 JOHN R?/AU AND 2011/PY AND 102/SO AND 186/SO AND BIORESOURCE TEC
HNOL?/JT

=> D ALL *← ALL 表示形式で確認します*

L6 ANSWER 1 OF 1 SCISEARCH COPYRIGHT (c) 2015 The Thomson Corporation on STN
AN 2011:135017 SCISEARCH Full-text
GA The Genuine Article (R) Number: 699IY
TI Micro and macroalgal biomass: A renewable source for bioethanol
AUPB John, Rojan P.; Anisha, G. S. (Reprint); Nampoothiri, K. Madhavan; Pandey, Ashok
AU Anisha, G. S. (Reprint)
CS Govt Coll, Dept Zool, Palakkad, Kerala, India (Reprint)
E-mail: anisgrace@yahoo.co.in
AU John, Rojan P.
CS Inst Natl Rech Sci Eau Terre Environm, Quebec City, PQ G1K 9A9, Canada
AU Nampoothiri, K. Madhavan; Pandey, Ashok
CS Natl Inst Interdisciplinary Sci Aznd Technol, Div Biotechnol, Trivandrum 695019, Kerala, India
CYA India; Canada
SO BIORESOURCE TECHNOLOGY, (JAN 2011) Vol. 102, No. 1, Sp. iss. SI, pp. 186-193.
ISSN: 0960-8524.
DOI 10.1016/j.biortech.2010.06.139
PB ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
DT Article; Journal
LA English
REC Reference Count: 66
ED Entered STN: 28 Feb 2011
Last Updated on STN: 28 Feb 2011
AB Population outburst together witzh increased motorization has led to an overwhelming increase in the demand for fuel. In the milieu of economical and environmental concern, algae capable of accumulating high starch/cellulose can serve as an excellent alternative to food crops for bioethanol production, a green fuel for sustainable future. Certain species of algae can produce ethanol during dark-anaerobic fermentation and thus serve as a direct source for ethanol production. Of late, oleaginous microalgae generate high starch/cellulose biomass waste after oil extraction, which can be hydrolyzed to generate sugary syrup to be used as substrate for ethanol production. Macroalgae are also harnessed as renewable source of biomass intended for ethanol production. Currently there are very few studies on this issue, and intense research is required in future in this area for efficient utilization of algal biomass and their industrial wastes to produce environmentally friendly fuel bioethanol.
CC AGRICULTURAL ENGINEERING; BIOTECHNOLOGY & APPLIED MICROBIOLOGY; ENERGY & FUELS
ST Author Keywords: Bioethanol; Biomass; Microalgae; Macroalgae; Bioconversion
STP KeyWords Plus (R): ETHANOL-PRODUCTION; BIOENERGY RESOURCE; BIOFUEL PRODUCTION; ANIMAL MANURE; FERMENTATION; CONVERSION; WASTE; GREEN; SEAWEED; ENERGY
RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
*US DOE	2006			C INT EN WAT
ADAMS J M	2009	21	569	J APPL PHYCOL
BOROWITZKA M A	2008	136	S7	J BIOTECHNOL
BOROWITZKA M A	2005		205	ALGAL CULTURING TECH
BRENNAN L	2010	14	557	RENEW SUST ENERG REV
CARLSSON A S	2007			OUTPUTS EPOBIO PROJE
CHAMPAGNE P	2007	50	211	RESOUR CONSERV RECY
CHEN S	2003		50	ASAE PUBL
CHEN S	2004		135	VALUE ADDED CHEM ANI
CHEN P	2009	2	1	INT J AGR BIOL ENG
CHIARAMONTI D	2007		209	IMPROVEMENT CROP PLA
CHISTI Y	2007	25	294	BIOTECHNOL ADV

DEMIRBAS A	2001	42	1357	ENERG CONVERS MANAGE
DEMORAIS G M	2007	129	439	J BIOTECHNOL
DENG M	1999	65	428	APPL ENVIRON MICROB
DISMUKES C G	2008	19	235	CURR OPIN BIOTECH
DONNER S D	2008	105	4513	P NATL ACAD SCI USA
FALKOWSKI P G	2004	305	354	SCIENCE
FAN Z L	2003	26	93	BIOPROC BIOSYST ENG
FARGIONE J	2008	319	1235	SCIENCE
HARUN R	2010	85	199	J CHEM TECHNOL BIOT
HILL J	2009	106	2077	P NATL ACAD SCI USA
HIRANO A	1997	22	137	ENERGY
HORN S J	2000	24	51	J IND MICROBIOL BIOT
HORN S J	2000	25	249	J IND MICROBIOL BIOT
HOSSAIN A B M S	2008	21	300	IFMBE PROC
HUNTLEY M	2007	12	573	MITIGATION ADAPTATIO
KADAR Z	2004	20	103	IND CROP PROD
KIM Y S	2010	131	511	B KOREAN CHEM SOC
KIM S	2004	26	361	BIOMASS BIOENERG
KIM M S	2006	31	812	INT J HYDROGEN ENERG
LANDIS D A	2008	105	20552	P NATL ACAD SCI USA
LEE Y K	2001	13	307	J APPL PHYCOL
LISSENS G	2004	79	889	J CHEM TECHNOL BIOT
MATA T M	2010	14	217	RENEW SUST ENERG REV
MATSUMOTO M	2003	105	247	APPL BIOCHEM BIOTECH
MATTHIJS H C P	1996	50	98	BIOTECHNOL BIOENG
MCKENDRY P	2002	83	47	BIORESOURCE TECHNOL
MTUI G	2005	16	493	BIODEGRADATION
NIGAM P S	2011	37	52	PROG ENERG COMBUST
NOBE R	2003	67	1349	BIOSCI BIOTECH BIOCH
PACKER M	2009	37	3428	ENERG POLICY
PETROU C E	2009	23	1055	ENERG FUEL
RAFIQUL I M	2003	6	648	PAK J BIOL SCI
RATLEDGE C	2008	20	155	LIPID TECHNOL
RODJAROEN S	2007	41	570	J NAT SCI
ROSENBERG J N	2008	19	430	CURR OPIN BIOTECH
RUBIN E M	2008	454	841	NATURE
SEARCHINGER T	2008	319	1238	SCIENCE
SHEEHAN J	2009	27	1128	NAT BIOTECHNOL
SHEN Y	2009	52	1275	T ASABE
SHERIDAN C	2009	27	1074	NAT BIOTECHNOL
SHILTON A N	2008	58	253	WATER SCI TECHNOL
SPOLAORE P	2006	101	87	J BIOSCI BIOENG
SUBHADRA B	2010	38	4897	ENERG POLICY
TILMAN D	2006	314	1598	SCIENCE
UENO Y	1998	86	38	J FERMENT BIOENG
UGWU C U	2008	99	4021	BIORESOURCE TECHNOL
VUNJAKNOVAKOVIC G	2005	44	6154	IND ENG CHEM RES
WAHLUND T M	1996	41	1403	AM CHEM SOC DIV FUEL
WALTZ E	2009	27	15	NAT BIOTECHNOL
WEN Z Y	2004	91	31	BIORESOURCE TECHNOL
WI S G	2009	100	6658	BIORESOURCE TECHNOL
YOON J J	2010	93	463	ADV MAT RES

STN Patent No. (RPN)	Year (RPY)	Ref. Inventor/Assignee (RIN)	Type	Ref. Patent No. (RPN)
US 5578472	1996	UEDA R		US 5578472
US 7135308	2006	BUSH R A		US 7135308

引用特許情報も収録されています

```
=> SEL L6 RE                                   ← 引用情報（RE）を抽出します
E1 THROUGH E66 ASSIGNED

=> S E1-E66 NOT L6                             ← 目的の文献の引用情報から共引用文献を検索し，
                                                  もとの文献（L6）を除きます
L7        8883 ("ADAMS J M, 2009, V21, P569, J APPL PHYCOL"/RE OR "BOROWITZKA M
                 :

=> SORT L7 1- OCC                              ← ヒットタームの出現頻度順に並び替えます
PROCESSING COMPLETED FOR L7
L8         8883 SORT L7 1- OCC

=> D BIB OCC REC HIT 1 2                       ← 書誌情報，ヒットタームの出現頻度，引用文献数，
                                                  ヒット部分（引用情報）を表示します（1，2 番目の回答）
L8   ANSWER 1 OF 8883  SCISEARCH  COPYRIGHT (c) 2015 The Thomson Corporation
AN   2011:1017166  SCISEARCH  Full-text
GA   The Genuine Article (R) Number: 793GM
TI   A critical review of biochemical conversion, sustainability and life cycle
     assessment of algal biofuels
AU   Singh, Anoop (Reprint); Olsen, Stig Irving
CS   Tech Univ Denmark, Dept Engn Management, DK-2800 Lyngby, Denmark (Reprint)
     E-mail: apsinghenv@gmail.com
CYA  Denmark
SO   APPLIED ENERGY, (OCT 2011) Vol. 88, No. 10, Sp. iss. SI, pp. 3548-3555.
     ISSN: 0306-2619.
DOI  10.1016/j.apenergy.2010.12.012
PB   ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5
     1GB, OXON, ENGLAND.
DT   Article; Journal
LA   English
REC  Reference Count: 105
ED   Entered STN: 3 Aug 2011
     Last Updated on STN: 3 Aug 2011
     *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
GF   The authors would like to acknowledge the funding from DTU Climate Center.
GO   DTU Climate Center
FIELD            COUNT
     HITRE           16
REC  Reference Count: 105
   Referenced Author    |Year | VOL |ARN PG| Referenced Work
         (RAU)          |(RPY)|(RVL)|(RPG) |       (RWK)
======================+=====+=====+======+====================
ADAMS J M              |2009 |21   |569   |J APPL PHYCOL          <--
CHISTI Y               |2007 |25   |294   |BIOTECHNOL ADV         <--
HORN S J               |2000 |24   |51    |J IND MICROBIOL BIOT   <--
MATA T M               |2010 |14   |217   |RENEW SUST ENERG REV   <--
MCKENDRY P             |2002 |83   |47    |BIORESOURCE TECHNOL    <--
NIGAM P S              |2011 |37   |52    |PROG ENERG COMBUST     <--
PACKER M               |2009 |37   |3428  |ENERG POLICY           <--
RATLEDGE C             |2008 |20   |155   |LIPID TECHNOL          <--
ROSENBERG J N          |2008 |19   |430   |CURR OPIN BIOTECH      <--
SHEEHAN J              |2009 |27   |1128  |NAT BIOTECHNOL         <--
SHILTON A N            |2008 |58   |253   |WATER SCI TECHNOL      <--
SUBHADRA B             |2010 |38   |4897  |ENERG POLICY           <--
VUNJAKNOVAKOVIC G      |2005 |44   |6154  |IND ENG CHEM RES       <--
WAHLUND T M            |1996 |41   |1403  |AM CHEM SOC DIV FUEL   <--
WI S G                 |2009 |100  |6658  |BIORESOURCE TECHNOL    <--

STN Patent No.     |Year |Ref.  Inventor/Assignee    |Type |Ref.  Patent No.
     (RPN)         |(RPY)|          (RIN)            |     |      (RPN)
==================+=====+=======================+=====+==================
US 5578472         |1996 |UEDA R                     |     |US 5578472         <--
```

L8 ANSWER 2 OF 8883 SCISEARCH COPYRIGHT (c) 2015 The Thomson Corporation
AN 2014:1679439 SCISEARCH Full-text
GA The Genuine Article (R) Number: AR6TC
TI Carbon dioxide bio-fixation and wastewater treatment via algae
    photochemical synthesis for biofuels production
AU Shen, Yafei (Reprint)
CS Tokyo Inst Technol, Interdisciplinary Grad Sch Sci & Engn, Dept Environm
    Sci & Technol, Midori Ku, G5-8, 4259 Nagatsuta, Yokohama, Kanagawa
    2268502, Japan (Reprint)
    E-mail: yafeisjtu@gmail.com
CS Tokyo Inst Technol, Interdisciplinary Grad Sch Sci & Engn, Dept Environm
    Sci & Technol, Midori Ku, Yokohama, Kanagawa 2268502, Japan
CYA Japan
SO RSC ADVANCES, (2014) Vol. 4, No. 91, pp. 49672-49722.
    ISSN: 2046-2069.
DOI 10.1039/c4ra06441k
PB ROYAL SOC CHEMISTRY, THOMAS GRAHAM HOUSE, SCIENCE PARK, MILTON RD,
    CAMBRIDGE CB4 OWF, CAMBS, ENGLAND.
DT General Review; Journal
LA English
REC Reference Count: 537
ED Entered STN: 24 Nov 2014
    Last Updated on STN: 30 Mar 2015
    ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
GF The authors would like to thank the Chinese Scholarship Council (CSC) for
    the financial support under grant no. 201206230168.
GO Chinese Scholarship Council (CSC)
GN 201206230168

FIELD	COUNT
HITRE	15

REC Reference Count: 537

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)	
BRENNAN L	2010	14	557	RENEW SUST ENERG REV	<--
CHISTI Y	2007	25	294	BIOTECHNOL ADV	<--
FARGIONE J	2008	319	1235	SCIENCE	<--
HARUN R	2010	85	199	J CHEM TECHNOL BIOT	<--
MATA T M	2010	14	217	RENEW SUST ENERG REV	<--
NIGAM P S	2011	37	52	PROG ENERG COMBUST	<--
PACKER M	2009	37	3428	ENERG POLICY	<--
ROSENBERG J N	2008	19	430	CURR OPIN BIOTECH	<--
SEARCHINGER T	2008	319	1238	SCIENCE	<--
SHEEHAN J	2009	27	1128	NAT BIOTECHNOL	<--
TILMAN D	2006	314	1598	SCIENCE	<--
UGWU C U	2008	99	4021	BIORESOURCE TECHNOL	<--
WALTZ E	2009	27	15	NAT BIOTECHNOL	<--
WI S G	2009	100	6658	BIORESOURCE TECHNOL	<--
YOON J J	2010	93	463	ADV MAT RES	<--

ファイル選択の指針

- 化学関連分野の引用文献検索
  - CAplus/CA　SciSearch
- 医薬分野の引用文献検索
  - MEDLINE　CAplus/CA　SciSearch
- 古い年代からの被引用文献検索
  - SciSearch
- 全分野にわたる被引用文献検索
  - SciSearch

JAICI 化学情報協会

参考

- 文献検索 – 応用 (D 章)

  http://www.jaici.or.jp/stn/ref-doc.pdf
- STN コマンド応用 (B 章)

  http://www.jaici.or.jp/stn/pdf/ref-oyo.pdf

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