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size of the carbon particles become smaller with sonication time. A series of transition-metal dichalcogenide nanodots (TMD-NDs) were synthesized by combination of grinding and sonication top-down techniques from their bulk crystals. It was revealed that almost all the TMD-NDs with sizes < 10 nm show an excellent dispersion due to narrow size distribution (Zhang et al., 2015). Lately, highly photoactive active

外文文献检索的一般方法

安徽理工大学图书馆

引言 Introduction

科研是一个知识积累和创新的过程。

作为一名奋斗在科研一线的研究生，对专业知识的理解和掌握决定着研究成果的产出速度。

对专业知识的掌握，必须建立在大量文献阅读的基础上。因此，对外文文献的阅读与检索是研究生阶段必须要掌握的技能。

外文文献的检索与中文文献的检索有相似之处，也有自己的**特点**。



常用检索方法/RETRIEVAL METHOD

01

逻辑检索

02

字段检索

03

截词检索

04

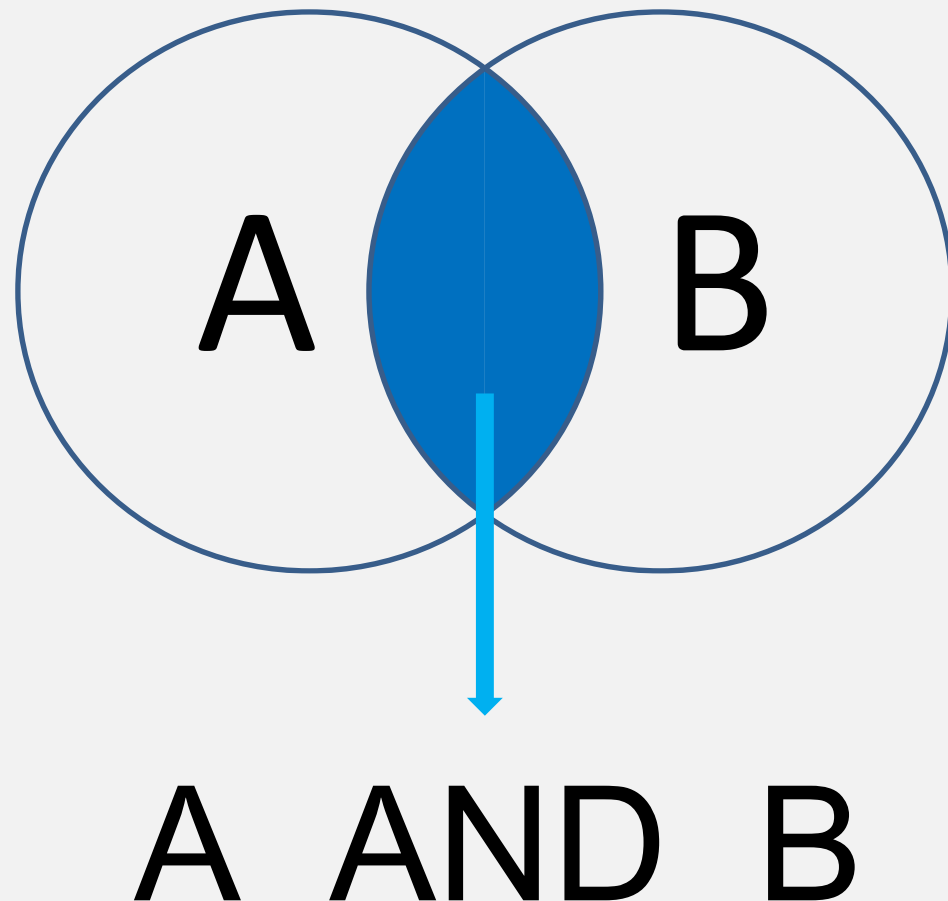
使用检索式

常用的布尔逻辑运算符包括

逻辑“与 (AND)”

- 运算符为“AND”或*。用于交叉概念或限定关系的组配，实现检索词概念范围的交集，可以缩小检索范围，提高查准率。
- 如检索式为：A AND B 或者 A*B，表示检出

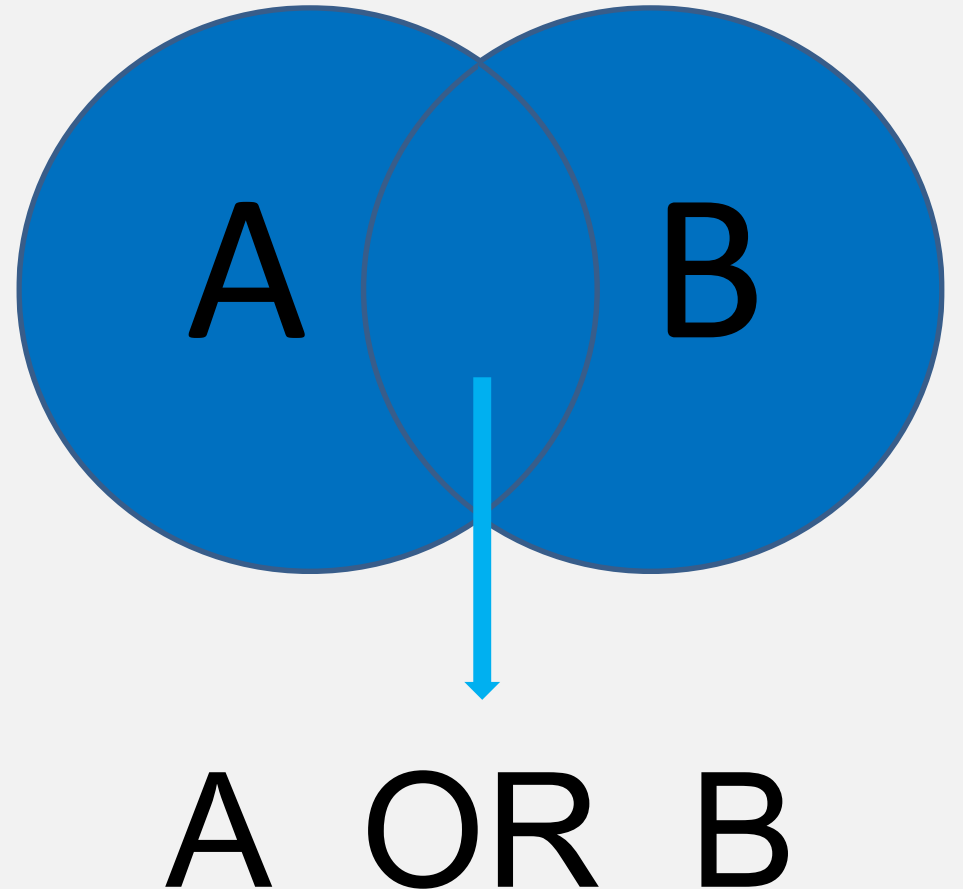
同时含有检索词A和检索词B的记录。



常用的布尔逻辑运算符包括

逻辑“或(OR)”

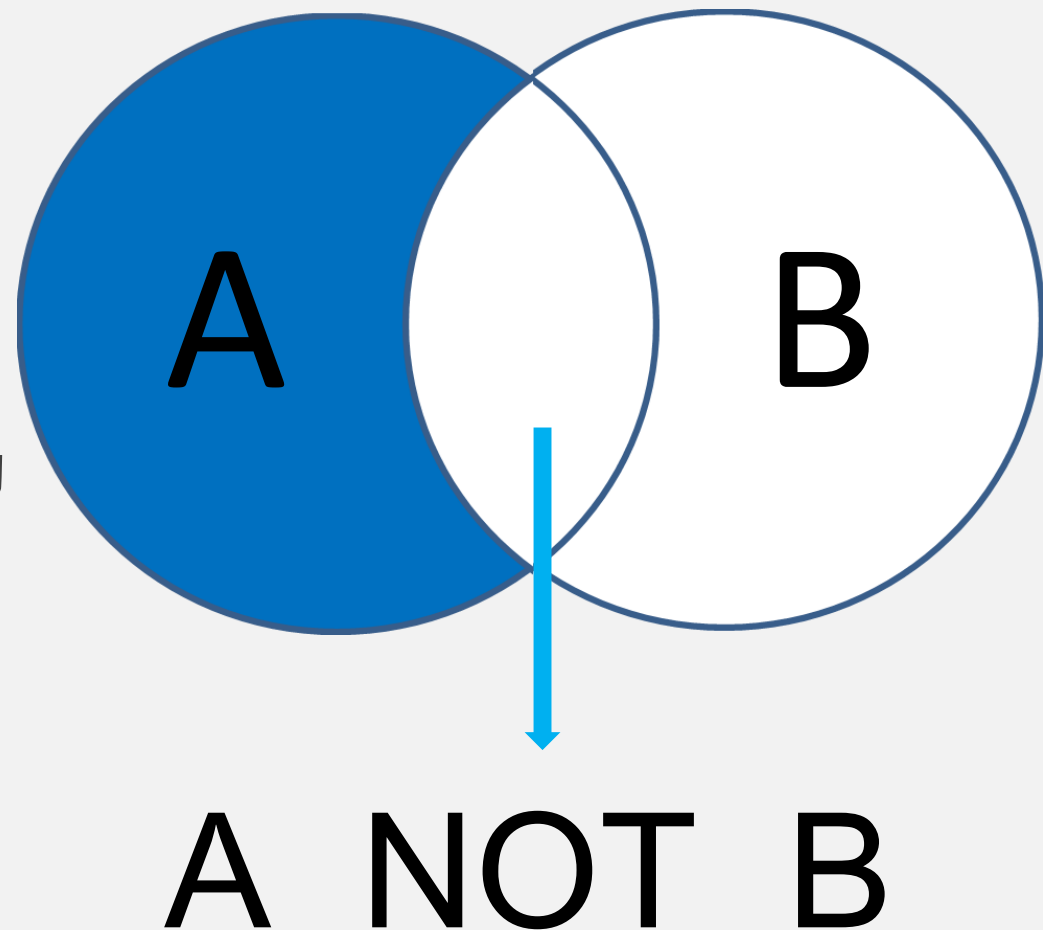
- 运算符为“OR”或“+”。用于检索词并列关系（同义词、近义词）的组配，实现检索概念范围的并集，它可以扩大检索范围，防止漏检，有利于提高查全率。
- 如检索式为：A OR B或者A + B，表示检出所有含有检索词A或检索词B的记录。
- 在一篇文献记录中只要含有检索词A和检索词B中的任何一个既算命中。



常用的布尔逻辑运算符包括

逻辑“非 (NOT)”

- 运算符为“NOT”或“-”。它是一种排斥关系的组配，用来从原来的检索范围中排除不需要的概念。
- 如检索式为：A NOT B或者A - B，表示检出含有检索词A,但同时不含检索词B的记录。





- 与逻辑“与”和逻辑“或”不同，在进行逻辑“非”运算时，“A NOT B”和“B NOT A”表达的是两种完全不同的检索要求，相应的检索结果也不相同。
- 逻辑算符AND、OR、NOT大小写都可以，三个算符前后与检索词之间必须有一个空格。



字段检索/FIELD LIMITING



- 作者
- 标题
- 机构
- 地址
- 主题
- 来源出版物
- DOI号

.....



字段检索/FIELD LIMITING



ScienceDirect

Journals & Books

Advanced Search

[Search tips](#)

Find articles with these terms

In this journal or book title

Year(s)

Author(s)

Author affiliation

Volume(s)

Issue(s)

Page(s)

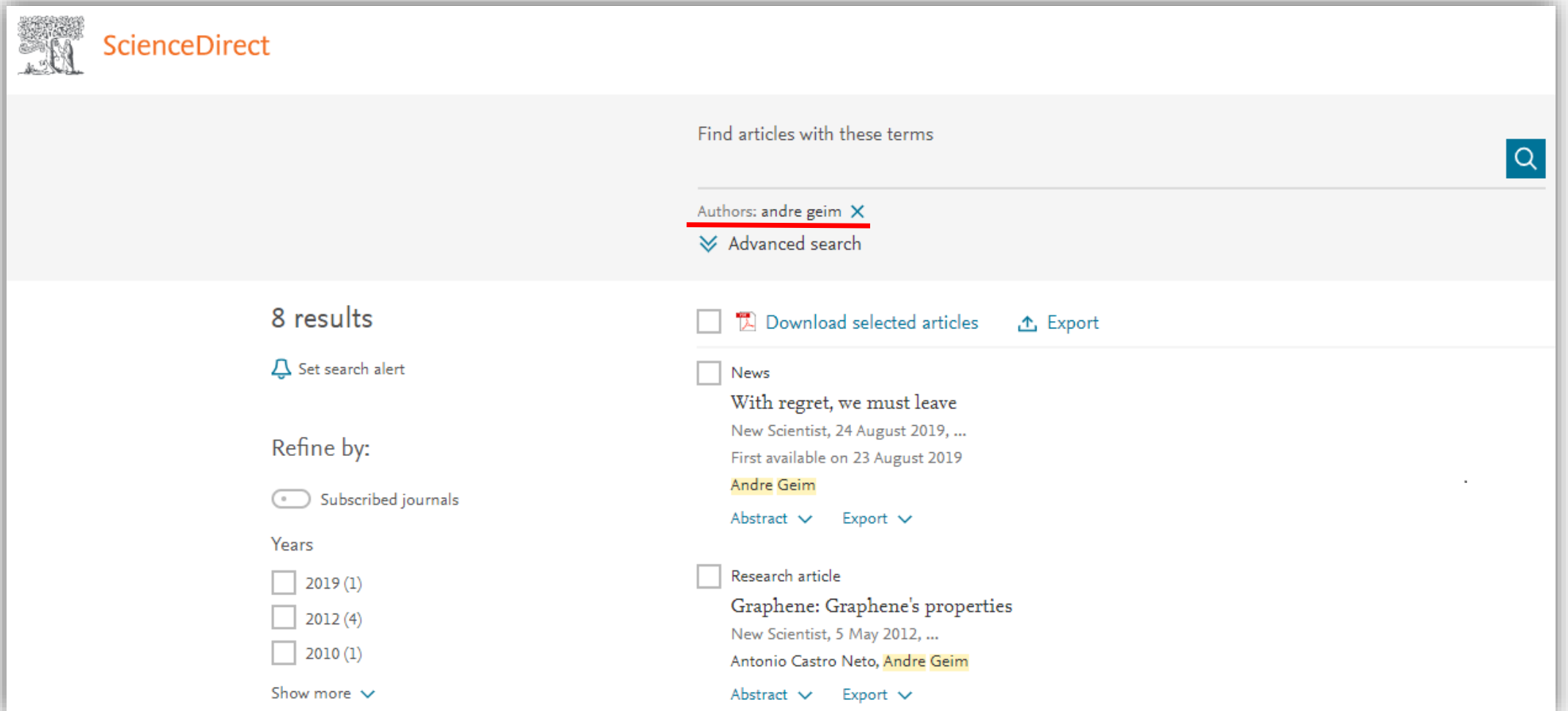
Title, abstract or author-specified keywords

Title

References

ISSN or ISBN

在SD中使用 “authors” 字段检索 “andre geim”

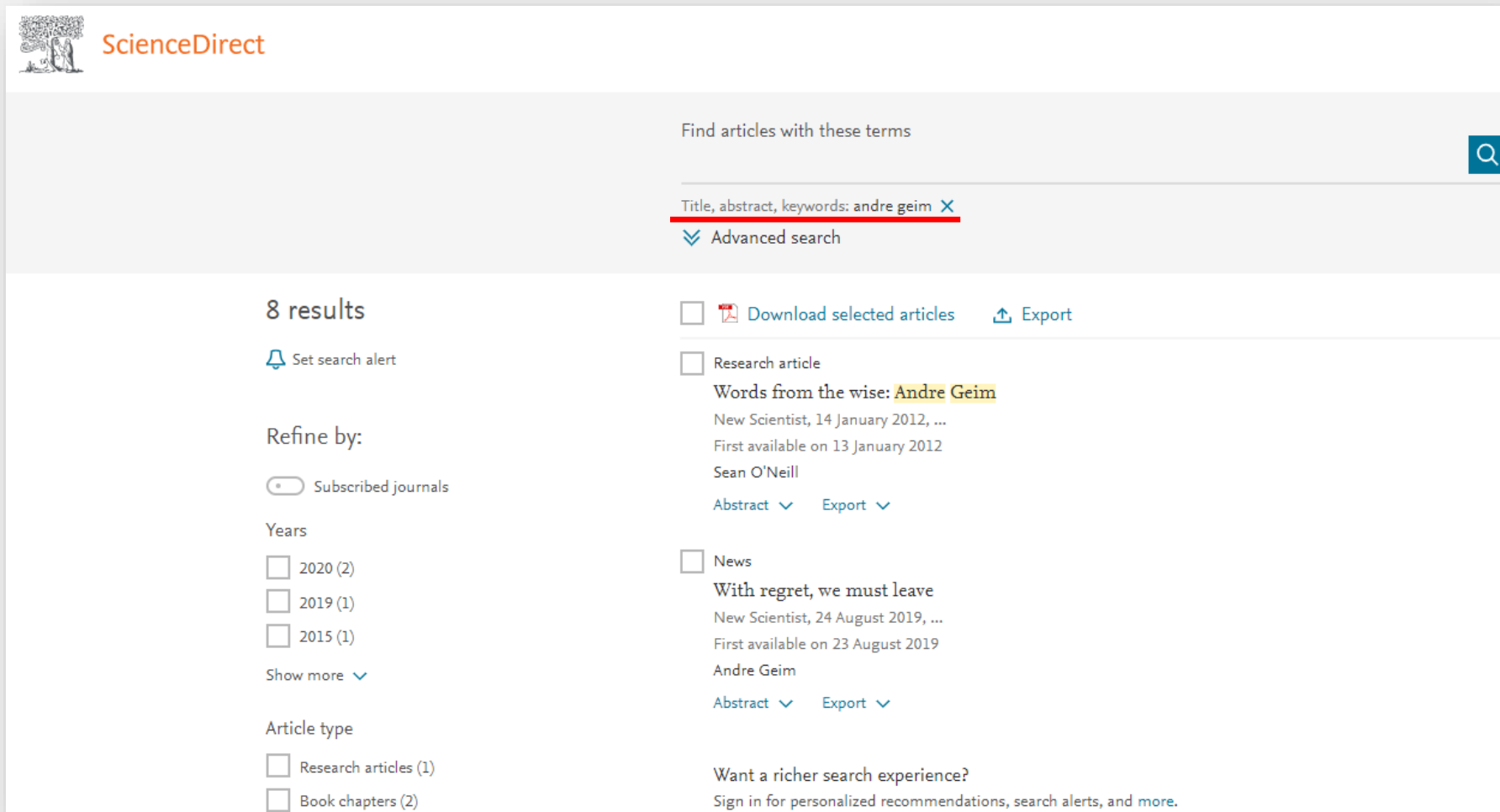


The screenshot shows the ScienceDirect search interface. At the top left is the ScienceDirect logo. The search bar contains the text "Find articles with these terms" and a search icon. Below the search bar, the search criteria are displayed as "Authors: andre geim" with a red underline and a close button (X). Below this, there is a link for "Advanced search".

The search results are displayed in two columns. On the left, there are 8 results. Below the results count, there is a link to "Set search alert". Under "Refine by:", there is a toggle for "Subscribed journals" and a section for "Years" with checkboxes for 2019 (1), 2012 (4), and 2010 (1), and a "Show more" link.

On the right, there are two article entries. The first is a "News" article titled "With regret, we must leave" from "New Scientist", dated 24 August 2019. The author is "Andre Geim". Below the title and date, there are links for "Abstract" and "Export". The second entry is a "Research article" titled "Graphene: Graphene's properties" from "New Scientist", dated 5 May 2012. The authors are "Antonio Castro Neto, Andre Geim". Below the title and date, there are links for "Abstract" and "Export".

在SD中使用 “title, abstract, keywords” 字段检索 “andre geim”



The screenshot shows the ScienceDirect search interface. At the top left is the ScienceDirect logo. The search bar contains the text "Find articles with these terms" and a search icon. Below the search bar, the search criteria are displayed: "Title, abstract, keywords: andre geim" with a red underline and a close button (X). Below this, there is a link for "Advanced search".

The search results are displayed in two columns. On the left, there are 8 results. A "Set search alert" button is visible. Under "Refine by:", there are options for "Subscribed journals", "Years" (2020 (2), 2019 (1), 2015 (1)), and "Article type" (Research articles (1), Book chapters (2)).

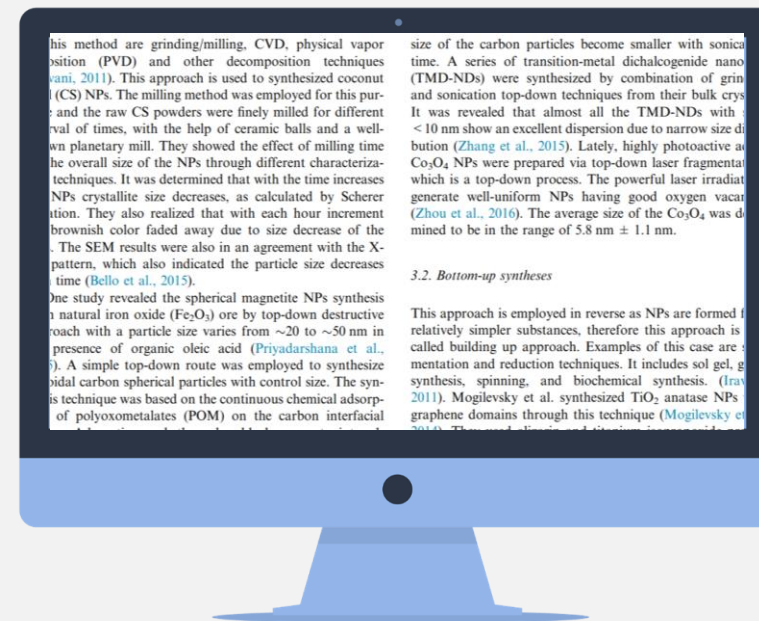
On the right, the search results are listed. The first result is a "Research article" titled "Words from the wise: Andre Geim" by Sean O'Neill, published in New Scientist on 14 January 2012. The second result is a "News" article titled "With regret, we must leave" by Andre Geim, published in New Scientist on 24 August 2019. Both results have "Abstract" and "Export" options.

At the bottom right, there is a promotional message: "Want a richer search experience? Sign in for personalized recommendations, search alerts, and more."

截词检索/TRUNCATION WILDCAT

很多词义相同的英文词汇，词根相同，但后缀、前缀或局部字符不同。在检索中保留相同的部分，而把可以变化的部分用截词符（即通配符）*或者?去代替，即为**截词检索**。

- 截词符（即通配符）*通常代替0-n个字符
- 截词符（即通配符）?通常代替1个字符



相应的使用方法，应以具体的数据库平台为准。



截词检索/TRUNCATION WILDCAT

左截断

***ology**

geology
sociology
psychology
archaeology
.....

中间截断

wom?n

woman
women
womyn

右截断

econom*

economy
economic
economical
economize
.....

使用截词检索时，要特别注意截断的词干不能太短，词干一般应在4个字符以上。



- 检索式是计算机检索中用来表达检索提问的一种逻辑算式，又称检索表达式或检索提问式，它由检索词和检索系统允许使用的各种运算符组合而成。
- 构建检索式，就是用计算机检索技术中规定的各种算符，把多个检索词连接起来，组成计算机能识别的算式，以准确地表达信息需求。
- 在构造检索式时，要注意各种逻辑运算符，截词符等的使用方法，要考虑各个检索平台的特定算符与要求，还要会根据检索结果的多少、对错，对检索式不断进行调整，直到检索结果满意为止。
- 检索式不是唯一的，有时可以构建几个，应根据课题信息需求的不同，选择不同的构建策略。

检索式构建策略



最专指面优先策略

尽可能全面地选择概念组面以及最专指的检索词构建检索式，以获得最为准确的文献信息，查准率优先考虑。

逐次分馏策略

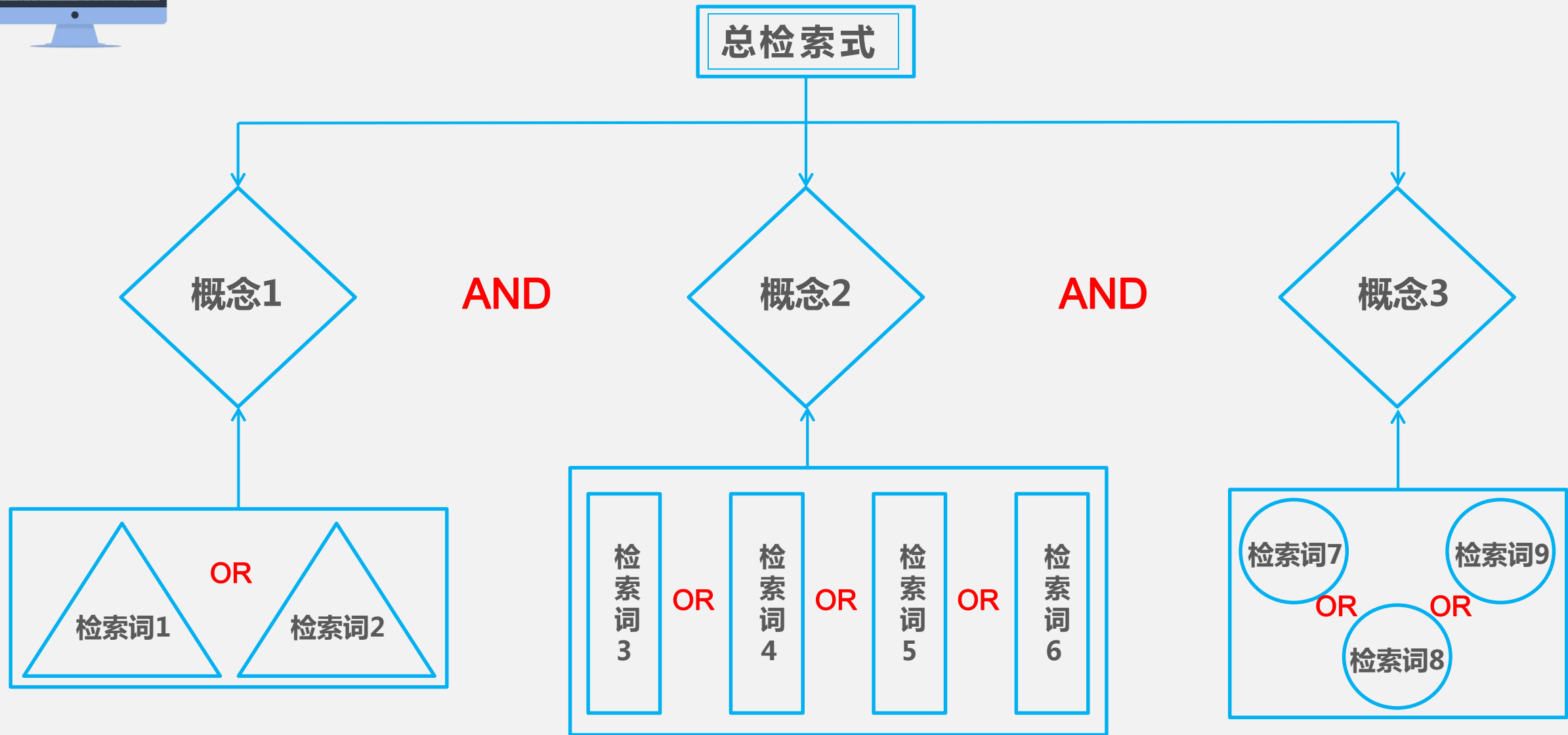
尽量选择最宽泛、最基本的概念组面构建检索式，用于组配的检索词较少，以获得一个较大的、范围较广的初始文献集，直到得到数量适宜、用户满意的文献集合为止。

积木型概念组面策略

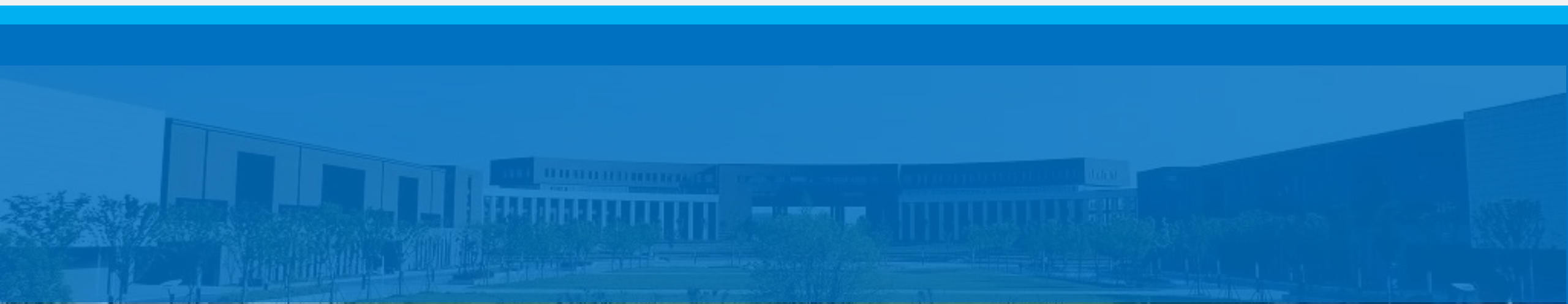
把检索课题分解成若干个子课题，每个子课题分别构建子检索式，最后用布尔逻辑算符把所有概念组面的子检索式构成一个总检索式。



积木型检索式构造



检索词的确定





什么是检索词？

检索词就是检索标识，是指能表达检索课题主题概念和信息需求的名词术语、分类号、名称及代码等的总称。包括主题词、关键词、名称、分类号、分子式、专利号及各种号码等。按照表达文献信息特征的形式不同，检索词可分为4种类型。

4

表示主题的检索词，如标题词、叙词、关键词等。

表示分类的检索词，如分类号等。

表示责任者的检索词，如作者姓名、机构、出版物等。

表示特定意义的检索词，如分子式、专利号、DOI号等。

如何选择与确定检索词？



- 必须反映课题内容和信息需求。有规范词表就直接从词表中选择检索词。否则，选择关键词/自由词作为检索词。
- 从课题名称、摘要、子课题和研究内容中找出的实词，是具有实质意义的，是在揭示和表达检索课题内容上起关键作用的实词或词组，其词性通常为名词。
- 有的自由词虽是实词，但是意义过于宽泛，不能表达课题实质意义，比如研究、发展、前景、技术、创新等，不能作为检索词。虚词通常不能作为检索词。
- 检索词为关键词/自由词时，还应选取该词的同义词、近义词、广义词、狭义词、分子式、分类号、专利号等。

检索词的选择与确定



切分

01

置换

03

02

删除

04

增补



切分

以词为单位，对课题
语句进行拆分。

impact of land desertification

land
desertification

environmental monitoring and assessment

environmental monitoring
environmental assessment

删除

去除禁用词及不具检索意义的词汇。

common general surgical procedures

surg*
procedures

Electrochemical properties of
different polymer electrolytes

electrochemical properties
polymer electrolytes

置换

用含义明确的词汇替换原课题用语。

container **detection**

container
radiation
image

eco-friendly food packaging

food packaging
photo-degradable

增补

分析隐含概念，挖掘潜在的主题词。

building design

architectural design
sustainable design
optimal design

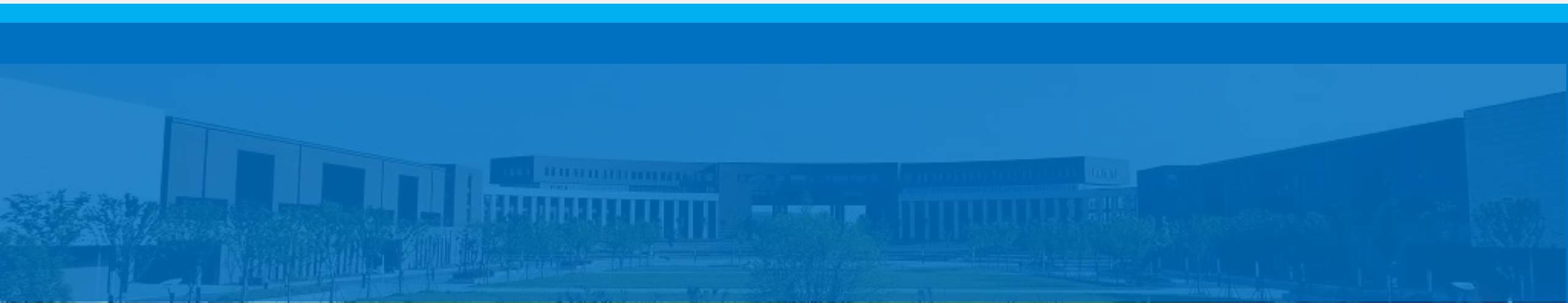
waste disposal

waste
recycling
harmless treatment

选择检索词的常见问题

- 忽视了同一主题概念有多个不同形式的词，造成漏检。
- 使用不规范的主题词或某些产品的商品名或俗称作为检索词，造成漏检。
- 忽略了英文中同一关键词有不同的拼写形式，造成漏检。
- 检索词的专指程度过高，没有进一步选择一些上位词或相关词检索，以致漏检。
- 由于检索词过于宽泛，以致检索结果过多而误检。
- 没有分辨一词多义，即同一关键词代表多个不同的含义而造成误检。
- 由于对检索词的截词截得过短造成误检。

检索策略的调整



检索策略的调整



检索结果较少

- 将检索词的上位词、近义词等补充进去。
- 调整逻辑算符，如改 and 为 or 。
- 精确检索改“模糊检索”。
- 取消或放宽检索限定，如检索年限，检索期刊等。
- 修改检索入口，如增加文摘、全文、全字段检索等。



检索结果过多

- 缩检：方法与扩检相反。
- 在结果中检索（精炼检索/二次检索）。

These methods are grinding/milling, CVD, physical vapor deposition (PVD) and other decomposition techniques (Iravani, 2011). This approach is used to synthesize coconut shell (CS) NPs. The milling method was employed for this purpose and the raw CS powders were finely milled for different interval of times, with the help of ceramic balls and a well-known planetary mill. They showed the effect of milling time on the overall size of the NPs through different characterization techniques. It was determined that with the time increases the NPs crystallite size decreases, as calculated by Scherer equation. They also realized that with each hour increment the brownish color faded away due to size decrease of the

size of the carbon particles become smaller with sonication time. A series of transition-metal dichalcogenide nanodots (TMD-NDs) were synthesized by combination of grinding and sonication top-down techniques from their bulk crystals. It was revealed that almost all the TMD-NDs with sizes < 10 nm show an excellent dispersion due to narrow size distribution (Zhang et al., 2015). Lately, highly photoactive active Co_3O_4 NPs were prepared via top-down laser fragmentation, which is a top-down process. The powerful laser irradiations generate well-uniform NPs having good oxygen vacancies (Zhou et al., 2016). The average size of the Co_3O_4 was determined to be in the range of 5-9 nm (Zhou et al., 2016).

感谢聆听

联系我们

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电话：6601320

