

JOURNALS DATA XML

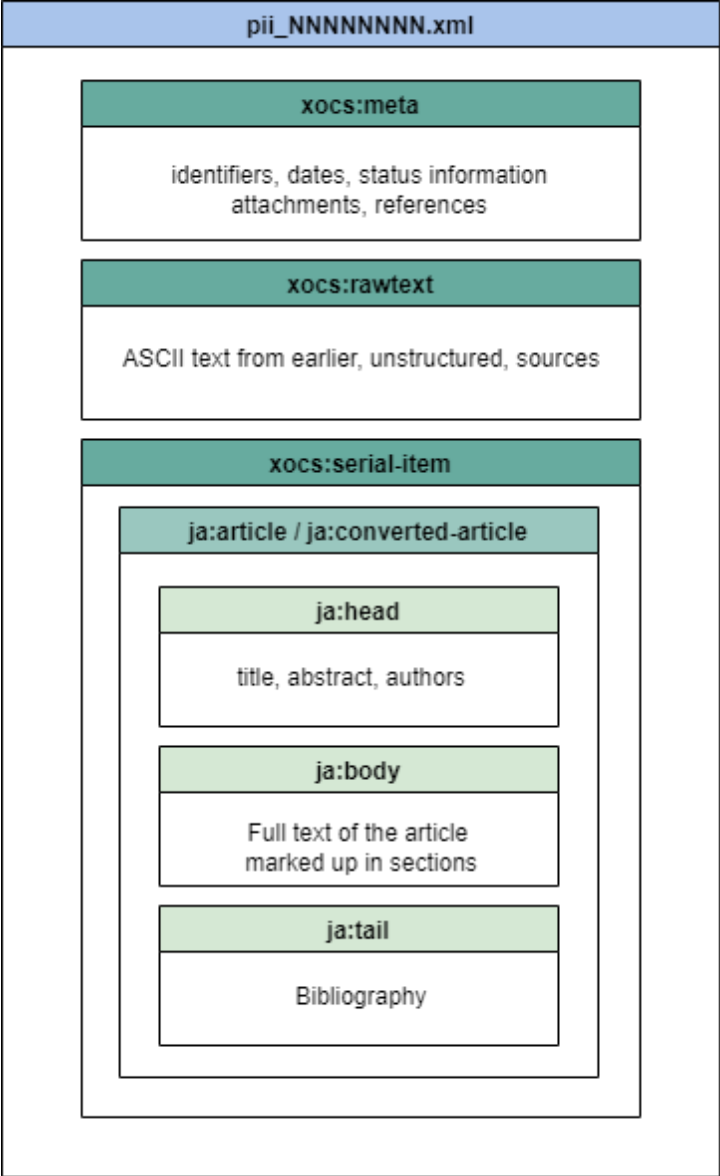
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Introduction

The Journals Data XML is in a format called xocs (XML Online Content System). The xocs format is designed to model content of any sort appearing in Elsevier journals or Elsevier books. The full xocs schema can be found at <http://schema.elsevier.com/dtds/document/fulltext/xcr/xocs-article.xsd>. In this delivery, ***we have excluded book content and filtered the journal content to full length articles and other articles of scientific importance***, excluding e.g. book reviews, quizzes, obituaries and editorials. A full list of possible journal content types in xocs can be found in Appendix A.

The xocs format is summarized in this diagram:



The **xocs:** namespace includes a comprehensive set of metadata fields, under the element **meta**. The content of a full-length article is modeled using a standard journal annotation format with namespace **ja:**

Namespaces

The included namespaces in a xocs article are:

Namespace	Comments
<code>xmlns="http://www.elsevier.com/xml/ja/dtd"</code>	Default namespace is the Journal Article DTD
<code>xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd"</code>	The XOCS DTD provides a lot of metadata fields

	and wraps the Journal Article DTD
xmlns:tb =" http://www.elsevier.com/xml/common/table/dtd "	Elsevier extensions to CALS
xmlns:sb =" http://www.elsevier.com/xml/common/struct-bib/dtd "	Structured bibliographic element markup
xmlns:mml =" http://www.w3.org/1998/Math/MathML "	Standard MathML markup DTD
xmlns:ce =" http://www.elsevier.com/xml/common/dtd "	Common Elements shared across multiple sub-DTDs, e.g. across books and journals
xmlns:cals =" http://www.elsevier.com/xml/common/cals/dtd "	Standard CALS table DTD

There are additional namespaces declared in the article content:

Namespace	Comments
xmlns:sa =" http://www.elsevier.com/xml/common/struct-aff/dtd "	Markup for affiliations

Document Encoding

The Science Direct XML is UTF-8 encoded. There is a set of **glyph** elements in the **ce:** namespace to support Elsevier-specific characters such as double bonds, phonetic signs, etc.

Child Elements of xocs:doc

In this data supply, the following child elements of the root are permitted:

Element Name	Description
meta	Metadata
rawtext	ASCII text generated by OCRing the original PDF source. Present for older (pre-2000) content only
serial-item	The article itself. Older content, where the text is in rawtext is normally modeled as ja:converted-article . Newer content is modeled as ja:article . The xocs format allows for ja:simple-article but that isn't used for the full length articles (indicated by the docsubtype attribute: "fla")

Document Metadata

The metadata fields, under the meta element, are as follows:

Element	Description	Example
content-family	Indicates if a document is serial or non-serial (i.e. book) content	<code><xocs:content-family></code> serial <code></xocs:content-family></code>
content-type	Will always be "JL" in this feed	<code><xocs:content-type></code> JL <code></xocs:content-type></code>
cid	Collection ID - indicates the broad subject collection ID of the journal	<code><xocs:cid></code> 271126 <code></xocs:cid></code>
ssids	Subject IDs - indicate the journal classifications e.g. 291683 is "surgery" and 291896 is "Cardiology and Cardiovascular Medicine". See <i>Subject Hierarchy</i>	<code><xocs:ssids></code> <code><xocs:ssid</code> <code>type="alllist"></code> 291210 <code></xocs:ssid></code> <code><xocs:ssid</code> <code>type="subj"></code> 291683 <code></xocs:ssid></code> <code><xocs:ssid</code> <code>type="subj"></code> 291896 <code></xocs:ssid></code> <code><xocs:ssid</code> <code>type="content"></code> 31 <code></xocs:ssid></code> <code></xocs:ssids></code>
srctitle	Publication name	<code><xocs:srctitle></code> The Annals of Thoracic Surgery <code></xocs:srctitle></code>
orig-load-date	The original date that the article was processed. If this is the first time of processing, this is the same as the Available On-line date.	<code><xocs:orig-load-date</code> <code>yyyymmdd="20190627"></code> 2019-06-27 <code></xocs:orig-load-date></code>
available-online-date	The date that the article was first made available online.	<code><xocs:available-online-date</code> <code>yyyymmdd="20211203"></code> 2021-12-03 <code></xocs:available-online-date></code>
vor-load-date	The date that the final version (Version of Record) of the article was loaded.	<code><xocs:vor-load-date</code> <code>yyyymmdd="20220321"></code> 2022-03-21 <code></xocs:vor-load-date></code>
vor-available-online-date	The date that the final version (Version of Record) of the article was made available online. Only present for more recent documents	<code><xocs:vor-available-online-date</code> <code>yyyymmdd="20220321"></code> 2022-03-21 <code></xocs:vor-available-online-date></code>

ew-transaction-id	Internal tracking timestamp from the Electronic Warehouse system in Elsevier. Updated each time an article is delivered on a new dataset. Format is YYYY-MM-DD'T'HH:MM:SS{timezone}, where timezone is [+_]nn:nn.	<pre><xocs:ew-transaction-id> 2019-12-17T17:11:43 </xocs:ew-transaction-id></pre>
eid	Elsevier internal Electronic Database Identifier	<pre><xocs:eid> 1-s2.0-S0003497519308963 </xocs:eid></pre>
doi	Document Object Identifier	<pre><xocs:doi> 10.1016/j.athoracsur.2019.04.125 </xocs:doi></pre>
pii-formatted	Formatted version of the Publication Item Identifier	<pre><xocs:pii-formatted> S0003-4975(19)30896-3 </xocs:pii-formatted></pre>
pii-unformatted	Normalized version of the Publication Item Identifier	<pre><xocs:pii-unformatted> S0003497519308963 </xocs:pii-unformatted></pre>
item-stage	Production stage of the issue hub. • S5 – The author's input material, accepted by the editorial board. • S100 – The uncorrected proof. • S200 – The final, corrected article; still "in press". • S250 – The final, corrected article, with final publication details (of an issue in progress). • S280 – The final, corrected article, to support virtual collection (VSI). • S300 – The article with final publication details.	<pre><xocs:item-stage> S300 </xocs:item-stage></pre>

	S350 – A scanned copy of the printed article.	
item-version-number	Version number from the issue hub, e.g S300.2 is the 2nd version of the article with final publication details.	<pre><xocs:item-version-number> S300.2 </xocs:item-version-number></pre>
item-weight	Indicates the amount of information present in the document	<pre><xocs:item-weight> FULL-TEXT </xocs:item-weight></pre>
hub-eid	Electronic ID from the issue hub	<pre><xocs:hub-eid> 1-s2.0-S0003497518X00125 </xocs:hub-eid></pre>
timestamp	Date and time that the file is processed	<pre><xocs:timestamp yyyyymmdd="20201204"> 2020-12-04T04:48:28.180027Z </xocs:timestamp></pre>
dco	Data Check Out. For pre-release testing. No longer used	<pre><xocs:dco>0</xocs:dco></pre>
tomb	Anything other than 0 indicates a withdrawn article	<pre><xocs:tomb>0</xocs:tomb></pre>
date-search-begin	Beginning cover date of the volume/issue. Formatted YYYYMMDD for search	<pre><xocs:date-search-begin> 20200101 </xocs:date-search-begin></pre>
date-search-end	End cover date of the volume/issue. Formatted YYYYMMDD for search	<pre><xocs:date-search-end> 20200131 </xocs:date-search-end></pre>
year-nav	There can be multiple occurrences of the <xocs:year-nav> element. Contains all the years in the cover-date range for a volume issue from the cover-date start to cover-date end.	<pre><xocs:year-nav> 2020 </xocs:year-nav></pre>
indexeddate	DateTime when the article was indexed in ScienceDirect.com	<pre><xocs:indexeddate epoch="1561624165"> 2019-06-27T08:29:25.064929Z </xocs:indexeddate></pre>
articleinfo	Fields present in the article, space delimited	<pre><xocs:articleinfo> articleinfo articletitlenorm authfirstinitialnorm authfirstsurnamenorm cid cids contenttype copyright crossmark dateloaded dateloadedtxt datesearch datesort dateupdated dco docsubtype doctype doi eid ewtransactionid hubeid indexeddate issfirst issn issnnorm issuelist itemstage itemtransactionid</pre>

		itemweight openaccess openarchive pg pgfirst pglast pii piinorm pubdateend pubdatestart pubdatetxt pubyr sectiontitle sortorder srctitle srctitlenorm srctype ssids alllist content subj subheadings tomb volfirst volissue volumelist webpdf webpdfpagecount yearnav figure table e- component body affil appendices articletitle auth authfirstini authfull authlast presentedby primabst pubtype ref </xocs:articleinfo>
issns	International Standard Serial Number (formatted and unformatted)	<xocs:issns> <xocs:issn-primary-formatted>0003-4975</xocs:issn-primary-formatted> <xocs:issn-primary-unformatted>00034975</xocs:issn-primary-unformatted> </xocs:issns>
crossmark	CrossMark is a service from CrossRef intended to show researchers that publishers are committed to maintaining their scholarly content and to enable readers to verify that they are using the most recent and reliable version of a document. (See http://www.crossref.org/crossmark/ .)	<xocs:crossmark is-crossmark="1"> true </xocs:crossmark>
vol-first	Volume Number or first volume number if part of a range	<xocs:vol-first> 109 </xocs:vol-first>
volume-list	List of volume numbers	<xocs:volume-list> <xocs:volume>109</xocs:volume> </xocs:volume-list>
iss-first	Issue number or first issue number if part of a range	<xocs:iss-first> 1 </xocs:iss-first>
issue-list	List of issue numbers:	<xocs:issue-list> <xocs:issue>1</xocs:issue> </xocs:issue-list>
vol-iss-suppl-text	Volume Issue display value	<xocs:vol-iss-suppl-text> Volume 109, Issue 1 </xocs:vol-iss-suppl-text>

sort-order	Sort order of this article within a volume/issue	<xocs:sort-order> 25 </xocs:sort-order>
first-fp	First page of the article	<xocs:first-fp> 102 </xocs:first-fp>
last-lp	Last page of the article	<xocs:last-lp> 109 </xocs:last-lp>
pages	First and last pages of the article	<xocs:pages> <xocs:first-page>102</xocs:first-page> <xocs:last-page>109</xocs:last-page> </xocs:pages>
cover-date-orig	Original cover date	<xocs:cover-date-orig> <xocs:start-date>202001</xocs:start-date> </xocs:cover-date-orig>
cover-date-text	Display format for the cover date	<xocs:cover-date-text> January 2020 </xocs:cover-date-text>
cover-date-start	Beginning cover date for the volume/issue	<xocs:cover-date-start> 2020-01-01 </xocs:cover-date-start>
cover-date-end	End cover date for the volume/issue	<xocs:cover-date-end> 2020-01-31 </xocs:cover-date-end>
cover-date-year	Year for the cover date	<xocs:cover-date-year> 2020 </xocs:cover-date-year>
hub-sec	A grouping of articles belonging to a vol/issue under a common heading/title	<xocs:hub-sec> <xocs:hub-sec-title>Original Articles: Adult Cardiac</xocs:hub-sec-title> </xocs:hub-sec>
document-type	Will always be article or converted-article in this supply	<xocs:document-type> article </xocs:document-type>
document-subtype	See Appendix A for a list of subtypes in xocs. This supply only contains “fla” = full length articles	<xocs:document-subtype> fla </xocs:document-subtype>
copyright-line	The copyright notice	<xocs:copyright-line> © 2020 by The Society of Thoracic Surgeons Published by Elsevier </xocs:copyright-line>

normalized-article-title	Stripped ASCII version of the title	<pre> <xocs:normalized-article-title> MATCHMAKINGJUSTGOTEASIERIMPACTPHENOTYPICD ONORRECIPIENTLIKENESSINHEARTTRANSPLANTATI ON </xocs:normalized-article-title> </pre>
normalized-first-auth-surname	Stripped ASCII version of the surname of the first author	<pre> <xocs:normalized-first-auth-surname> LO </xocs:normalized-first-auth-surname> </pre>
normalized-first-auth-initial	Stripped ASCII version of the sinitial(s) of the first author	<pre> <xocs:normalized-first-auth-initial> B </xocs:normalized-first-auth-initial> </pre>
item-toc	Table of contents	<pre> <xocs:item-toc> <xocs:item-toc-entry ref- elem="ce:sections"> <xocs:item-toc-section-title> Patients and Methods </xocs:item-toc-section-title> </xocs:item-toc-entry> <xocs:item-toc-entry ref- elem="ce:sections"> <xocs:item-toc-section- title>Results</xocs:item-toc-section- title> </xocs:item-toc-entry> <xocs:item-toc-entry ref- elem="ce:sections"> <xocs:item-toc-section- title>Comment</xocs:item-toc-section- title> <xocs:item-toc-entry ref- elem="ce:sections"> <xocs:item-toc-section- title>Limitations</xocs:item-toc-section- title> </xocs:item-toc-entry> <xocs:item-toc-entry ref- elem="ce:sections"> <xocs:item-toc-section- title>Conclusion</xocs:item-toc-section- title> </xocs:item-toc-entry> </xocs:item-toc-entry> <xocs:item-toc-entry ref- elem="ce:appendices"> </pre>

		<pre><xocs:item-toc-section- title>Supplementary Data</xocs:item-toc- section-title> </xocs:item-toc-entry> <xocs:item-toc-entry ref- elem="ce:bibliography"> <xocs:item-toc-section- title>References</xocs:item-toc-section- title> </xocs:item-toc-entry> </xocs:item-toc></pre>
references	References	<pre><xocs:references> <xocs:ref-info refid="sref1"> <xocs:ref-normalized- surname>BUI</xocs:ref-normalized-surname> <xocs:ref-pub- year>2011</xocs:ref-pub-year> <xocs:ref-first-fp>30</xocs:ref- first-fp> <xocs:ref-last-lp>41</xocs:ref- last-lp> <xocs:ref-normalized- initial>A</xocs:ref-normalized-initial> </xocs:ref-info> <xocs:ref-info refid="sref2"> <xocs:ref-normalized- surname>LUND</xocs:ref-normalized- surname> <xocs:ref-pub- year>2017</xocs:ref-pub-year> <xocs:ref-first- fp>1037</xocs:ref-first-fp> <xocs:ref-last-lp>1046</xocs:ref- last-lp> <xocs:ref-normalized- initial>L</xocs:ref-normalized-initial> </xocs:ref-info> <xocs:ref-info refid="sref23"> <xocs:ref-normalized- surname>WEISS</xocs:ref-normalized- surname> <xocs:ref-pub- year>2012</xocs:ref-pub-year> <xocs:ref-first-fp>266</xocs:ref- first-fp></pre>

		<pre> <xocs:ref-last-lp>273</xocs:ref- last-lp> <xocs:ref-normalized- initial>E</xocs:ref-normalized-initial> </xocs:ref-info> </xocs:references> </pre>
attachment- metadata-doc	Locations of attachments, e.g. PDFs (IMAGE-WEB- PDF, AAM-PDF), thumbnails (IMAGE-THUMBNAIL), images (IMAGE- DOWNSAMPLED, IMAGE- HIGH-RES), documents (APPLICATION)	<pre> <xocs:attachment-metadata-doc> <xocs:attachment-set- type>item</xocs:attachment-set-type> <xocs:pii-formatted>S0003- 4975(19)30896-3</xocs:pii-formatted> <xocs:pii- unformatted>S0003497519308963</xocs:pii- unformatted> <xocs:eid>1-s2.0- S0003497519308963</xocs:eid> <xocs:doi>10.1016/j.athoracsur.2019.0 4.125</xocs:doi> <xocs:cid>271126</xocs:cid> <xocs:timestamp>2020-12- 04T04:48:28.180027Z</xocs:timestamp> <xocs:path>/271126/1-s2.0- S0003497518X00125/1-s2.0- S0003497519308963/</xocs:path> <xocs:cover-date-start>2020-01- 01</xocs:cover-date-start> <xocs:cover-date-end>2020-01- 31</xocs:cover-date-end> <xocs:attachments> <xocs:web-pdf> <xocs:attachment-eid>1-s2.0- S0003497519308963- main.pdf</xocs:attachment-eid> <xocs:ucs- locator>https://s3.amazonaws.com/prod- ucs-content-store-us- east/content/pii:S0003497519308963/MAIN/a pplication/pdf/cbb419c6f505be0770e0feebd7 cf8b22/main.pdf</xocs:ucs-locator> <xocs:filename>main.pdf</xocs :filename> <xocs:extension>pdf</xocs:ext ension> <xocs:pdf- optimized>true</xocs:pdf-optimized> </pre>

```
<xocs:filesize>795906</xocs:filesize>
<xocs:web-pdf-purpose>MAIN</xocs:web-pdf-purpose>
<xocs:web-pdf-page-count>8</xocs:web-pdf-page-count>
<xocs:web-pdf-images>
  <xocs:web-pdf-image>
    <xocs:attachment-eid>1-s2.0-S0003497519308963-main_1.png</xocs:attachment-eid>
    <xocs:ucslocator>https://s3.amazonaws.com/prod-ucs-content-store-us-east/content/pii:S0003497519308963/PREVIEW/image/png/8a296150a9bb1a699740a265a6f95d02/main_1.png</xocs:ucslocator>
    <xocs:filename>main_1.png</xocs:filename>
    <xocs:extension>png</xocs:extension>
    <xocs:filesize>81334</xocs:filesize>
    <xocs:pixel-height>849</xocs:pixel-height>
    <xocs:pixel-width>656</xocs:pixel-width>
    <xocs:attachment-type>IMAGE-WEB-PDF</xocs:attachment-type>
    <xocs:pdf-page-num>1</xocs:pdf-page-num>
  </xocs:web-pdf-image>
</xocs:web-pdf-images>
</xocs:web-pdf>
<xocs:attachment>
  <xocs:attachment-eid>1-s2.0-S0003497519308963-gr3.sm1</xocs:attachment-eid>
  <xocs:ucslocator>https://s3.amazonaws.com/prod-ucs-content-store-us-east/content/pii:S0003497519308963/gr3/THUMBNAIL/image/gif/eab91a2271fe378484b699c69ff76b2a/gr3.sm1</xocs:ucslocator>
```

		<pre> <xocs:file- basename>gr3</xocs:file-basename> <xocs:filename>gr3.sml</xocs: filename> <xocs:extension>sml</xocs:e xtension> <xocs:filesize>7302</xocs:fil esize> <xocs:pixel- height>144</xocs:pixel-height> <xocs:pixel- width>219</xocs:pixel-width> <xocs:attachment-type>IMAGE- THUMBNAIL</xocs:attachment-type> </xocs:attachment> </xocs:attachments> </xocs:attachment-metadata-doc> </pre>
refkeys	Indexing keys generated from elements such as first-author-surname, cover-date-year, first page etc. used for linking articles across platforms	<pre> <xocs:refkeys> <xocs:refkey3>LOX2020X102</xocs:refkey3> > <xocs:refkey4lp>LOX2020X102X109</xocs:r efkey4lp> <xocs:refkey4ai>LOX2020X102XB</xocs:ref key4ai> <xocs:refkey5>LOX2020X102X109XB</xocs:r efkey5> </xocs:refkeys> </pre>
open-access	Open access information, may include sponsor/funding information oa-article-status = 1 for open access material	<pre> <xocs:open-access> <xocs:oa-article-status is-open- access="1" is-open- archive="0">Full</xocs:oa-article-status> <xocs:oa-access-effective-date>2022- 05-10T23:52:25Z</xocs:oa-access- effective-date> <xocs:oa-sponsor> <xocs:oa-sponsor- type>FundingBody</xocs:oa-sponsor-type> <xocs:oa-sponsor-name>Thailand: LE Tracking</xocs:oa-sponsor-name> </xocs:oa-sponsor> <xocs:oa-user- license>http://creativecommons.org/licens es/by-nc-nd/4.0/</xocs:oa-user-license> </xocs:open-access> </pre>

open-research	Open research information	<pre> <xocs:open-research> <xocs:or-embargo-opening-date>2020-12- 13T00:00:00.000Z</xocs:or-embargo- opening-date> </xocs:open-research> </pre>
self-archiving	Self archiving is a right that we grant to authors to deposit their accepted manuscript in a repository / personal website. The self-archiving embargo varies by journal - for example for mathematics it is 3 years. The self-archiving embargo date is hard-coded in the article XML. See https://www.elsevier.com/about/policies/sharing for more details.	<pre> <xocs:self-archiving> <xocs:sa-start-date>2020-12- 13T00:00:00.000Z</xocs:sa-start-date> <xocs:sa-user- license>http://creativecommons.org/licens es/by-nc-nd/4.0/</xocs:sa-user-license> </xocs:self-archiving> </pre>
copyright-info	Copyright Notices	<pre> <xocs:copyright-info> <xocs:cp-notices> <xocs:cp-notice lang="en">© 2020 by The Society of Thoracic Surgeons Published by Elsevier</xocs:cp-notice> </xocs:cp-notices> </xocs:copyright-info> </pre>
funding-list	Funding information appears in the acknowledgement section of the article	<pre> <xocs:funding-list has-funding-info="1"> <xocs:funding-addon-generated- timestamp>2019-08- 08T10:41:34.605Z</xocs:funding-addon- generated-timestamp> <xocs:funding-addon- type>http://vtw.elsevier.com/data/voc/Add OnTypes/50.7/nlp</xocs:funding-addon- type> </xocs:funding-list> </pre>

Raw Text

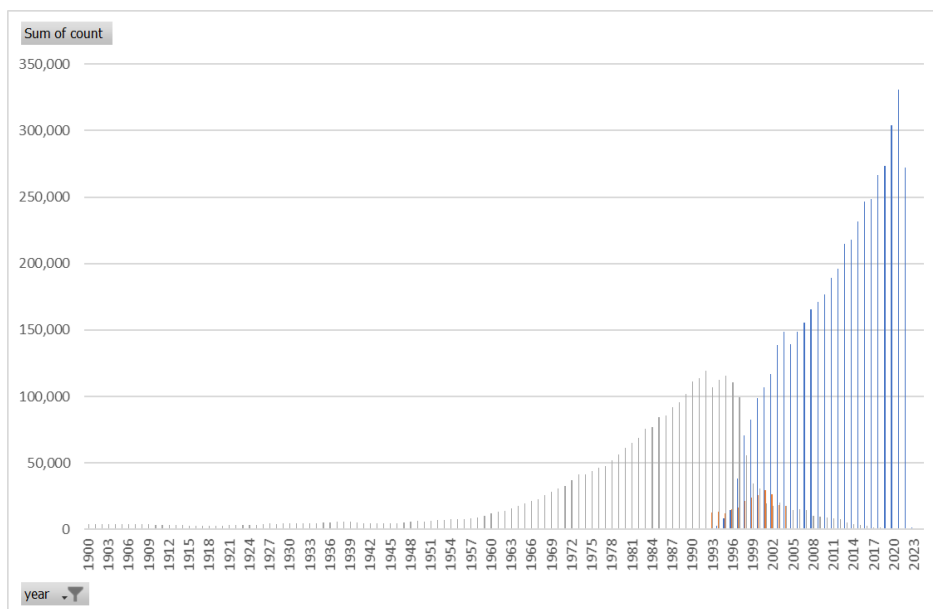
The body of an OCR'd article is given in a **rawtext** child of the doc root element e.g.

```

<xocs:rawtext>Acta Tropica, 47(1990)255-268 255 Elsevier ACTROP 00085 Comparison of the
cuticular structure of parasitic nematodes recognized by immunocytochemical and lectin binding
studies Werner Rudin Swiss Tropical Institute, Basel, Switzerland The cuticle structure of
some nematode species was studied by immunogold and lectin-gold techniques. The gold labelling
made it possible to distinguish the cuticle layers by the distribution and/or the density of

```

the marker. On the other hand, no labelling pattern was found which led to a clear grouping of the layers into larger...



Serial Item

There are two types of article mark-up in the Science Direct DaaS delivery: **article** (~60%) and **converted-article** (~40%). Most articles (~85%) have a fully marked up XML **body** element. Converted-articles are captured from some other source. ~70% by OCR in which case they have a **rawtext** element.

To distinguish whether the article body is fully marked up, use `/xocs:doc/xocs:meta/xocs:articleinfo`. The content of this element is a space-delimited list of fields present in the record, `rawtext` and/or `body` will appear there.

Samples of article and converted-article can be found at [Sample XOCS record with article mark-up \(body\)](#) and [Sample XOCS record with rawtext](#)

An article/converted article may have a **head**, **body** and/or **tail**. The content of any given article is given by the **item-weight** element. Item-weights in this data supply are:

item-weight	Content	Percentage of records
FULL-TEXT	head, body and tail	60%
HEAD-AND-TAIL	head, rawtext and tail	30%
HEAD-ONLY	head, rawtext	2%
CONTENTS-ENTRY-ONLY	rawtext	8%

Article/Converted-article

An article comprises the following top-level elements: **item-info** (bibliography), **floats** (e.g. tables), **head** (title, abstract, biblio), **body** (the article text) and **tail** (references). The content of any xocs record can be looked up using the **xocs:item-weight** element.

An article also has a **lang** (language: ISO 639) attribute and a **docsubtype** attribute, indicating the type of article (see Appendix A).

Item-info

The item-info element contains document identifiers, e.g.

```
<item-info>
  <jid>ATS</jid>
  <aid>32744</aid>
  <ce:pii>S0003-4975(19)30896-3</ce:pii>
  <ce:doi>10.1016/j.athoracsur.2019.04.125</ce:doi>
  <ce:copyright type="society" year="2020">The Society of Thoracic Surgeons</ce:copyright>
</item-info>
```

The Elsevier system code and article number are present in **jid** and **aid**. A second article ID can be present in **ce:article-number**. This is followed by the PII and optionally the DOI, **ce:pii** and **ce:doi**. The DOI

is not always present, since it may be assigned only to items that will be published online. A relationship with other articles can be made using **ce:document-thread**, e.g. to link an erratum to the original article or to create a discussion thread.

The mandatory **ce:copyright** contains the copyright owner and status of the item. It may be followed by **ce:copyright-line** that contains the complete copyright line.

The **ce:doctopics** can be used to place the article in a topic hierarchy. Finally, the subelements **ce:preprint** and **ce:associated-resource** are to link the item with a preprint of the article residing on a preprint server and its associated research data, respectively.

floats

The element **ce:floats** is a container element for floating figures, tables, textboxes and e-components. The approximate position of the floating object is indicated by a **ce:float-anchor** element. This anchor is often, but not always, placed near the first cross-reference to that object.

Floats include figures, e.g.


```

<ce:figure id="fig1">
  <ce:label>Figure 1</ce:label>
  <ce:caption id="cap0010">
    <ce:simple-para id="fspara0010" view="all">Total population size of adult patients
    undergoing openheart transplantation after stratification into phenotypically like and unlike
    matching. Organ Procurement and Transplantation Network Files, 2006-2016. (UNOS, United
    Network for Organ Sharing.)</ce:simple-para>
  </ce:caption>
  <ce:link locator="gr1" xlink:type="simple"
  xlink:role="http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
  xlink:href="pii:S0003497519308963/gr1"/>
</ce:figure>

```

And tables. e.g.

```

<ce:table id="tbl1" frame="topbot" colsep="0" rowsep="0"
  xmlns="http://www.elsevier.com/xml/common/cals/dtd">
  <ce:label>Table 1</ce:label>
  <ce:caption id="cap0030">
    <ce:simple-para id="tspara0010" view="all">Recipient Characteristics of Phenotypically Like and Phenotypically
    Unlike Matched Patients Undergoing OpenHeart Transplantation Between 2006 and 2016 (N = 20,052)</ce:simple-para>
  </ce:caption>
  <tgroup cols="4">
    <colspec colnum="1" colname="col1"/>
    <colspec colnum="2" colname="col2"/>
    <colspec colnum="3" colname="col3"/>
    <colspec colnum="4" colname="col4"/>
    <thead>
      <row rowsep="1" valign="top">
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">Recipient Characteristic</entry>
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">Phenotypically Like (n = 9595)</entry>
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">Phenotypically Unlike (n = 10,457)</entry>
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">
          <italic>P</italic> Value</entry>
      </row>
    </thead>
    <tbody>
      <row valign="top">
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">Age, y</entry>
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">51.2 ± 13.0</entry>
        <entry xmlns="http://www.elsevier.com/xml/common/dtd">53.6 ± 12.5</entry>
        <entry align="char" char=".">
          <entry xmlns="http://www.elsevier.com/xml/common/dtd">&lt;.001</entry>
        </entry>
      </row>
      <tr>
        <td>.....</td>
      </tr>
    </tbody>
  </tgroup>
</ce:table>

```

```
</ce:table>
```

Floats can also be textboxes or e-components (embedded audio, video, etc.)

head

NB simple-articles have **simple-head** in place of **head**

The head of an article includes notes that are commonly displayed at the title, and that contain information relevant to the whole article (**ce:article-footnote**), markers, which are small icons which mark a special property of an article such as 'Fast track article', (**ce:markers**), the document heading (**ce:dochead**) and an optional label (e.g., "Chapter 7") (**ce:label**).

```
<ce:dochead id="dhead0010">
  <ce:textfn>Original article</ce:textfn>
  <ce:dochead id="dhead0015">
    <ce:textfn>Adult cardiac</ce:textfn>
  </ce:dochead>
</ce:dochead>
```

The head contains the article title and subtitle (**ce:title** and **ce:subtitle**) and optionally a sequence of titles and subtitles in an alternative language (**ce:alt-title** and **ce:alt-subtitle**)

```
<ce:title id="title0010">Matchmaking Just Got Easier: Impact of Phenotypic Donor-Recipient
Likeness in Heart Transplantation</ce:title>
```

Author and related info is found in presented-by and dedicated-to information (**ce:presented** and **ce:dedication**)

```
<ce:presented id="present0010">Presented at the Thirty-ninth Annual Meeting and Scientific
Sessions of the International Society for Heart and Lung Transplantation, Orlando, FL, April
3-6, 2019.</ce:presented>
```

and in the author groups (**ce:author-group**). NB author groups contain **ce:affiliation** and **ce:correspondence address** data

```
<ce:author-group id="augrp0010">
  <ce:author id="au1" author-id="S0003497519308963-9b1f217d685a823e6c7d1690f9f4288c">
    <ce:given-name>Brian D.</ce:given-name>
    <ce:surname>Lo</ce:surname>
    <ce:degrees>BS</ce:degrees>
    <ce:cross-ref refid="aff1" id="crosref0010">
      <ce:sup loc="post">a</ce:sup>
    </ce:cross-ref>
  </ce:author>
```

```

<ce:author id="au2" author-id="S0003497519308963-ae108eb3d33d5f7c8b3a6cf530bb70e5">
  <ce:given-name>Alejandro</ce:given-name>
  <ce:surname>Suarez-Pierre</ce:surname>
  <ce:degrees>MD</ce:degrees>
  <ce:cross-ref refid="aff1" id="crosref0015">
    <ce:sup loc="post">a</ce:sup>
  </ce:cross-ref>
</ce:author>
<ce:affiliation id="aff1" affiliation-id="S0003497519308963-3ce2128ebc9a95f0dfeff3a44bef9bcd">
  <ce:label>a</ce:label>
  <ce:textfn>Division of Cardiac Surgery, Johns Hopkins University School of Medicine, Baltimore, Maryland</ce:textfn>
  <sa:affiliation>
    <sa:organization>Division of Cardiac Surgery</sa:organization>
    <sa:organization>Johns Hopkins University School of Medicine</sa:organization>
    <sa:city>Baltimore</sa:city>
    <sa:state>Maryland</sa:state>
  </sa:affiliation>
  <ce:source-text id="srct0010">Division of Cardiac Surgery, Johns Hopkins University School of Medicine, Baltimore, Maryland</ce:source-text>
</ce:affiliation>
<ce:correspondence id="cor1">
  <ce:label>**</ce:label>
  <ce:text>Address correspondence to Dr Kilic, The Johns Hopkins Hospital, Division of Cardiac Surgery, 1800 Orleans St, Zayed 7107, Baltimore, MD 21287.</ce:text>
  <sa:affiliation>
    <sa:organization>The Johns Hopkins Hospital</sa:organization>
    <sa:organization>Division of Cardiac Surgery</sa:organization>
    <sa:address-line>1800 Orleans St, Zayed 7107</sa:address-line>
    <sa:city>Baltimore</sa:city>
    <sa:state>MD</sa:state>
    <sa:postal-code>21287</sa:postal-code>
  </sa:affiliation>
</ce:correspondence>
</ce:author-group>

```

Note the **sa:** namespace used to markup the affiliation information

Authors may have ORCID IDs and/or email addresses, e.g.

```

<ce:author id="au0002"
  author-id="S2772753X22000314-35638d44918c12a5d0fe3ec6f825937f"
  orcid="0000-0003-1097-8822">

```

```

<ce:given-name>Pharkphoom</ce:given-name>
<ce:surname>Panichayupakaranant</ce:surname>
<ce:cross-ref id="crf0002" refid="aff0001"><ce:sup loc="post">a</ce:sup></ce:cross-ref>
<ce:cross-ref id="crf0003" refid="aff0002"><ce:sup loc="post">b</ce:sup></ce:cross-ref>
<ce:cross-ref id="crf0004" refid="cor0001"><ce:sup loc="post">*</ce:sup></ce:cross-ref>
<ce:e-address id="ead0001" type="email"
    xlink:href="mailto:pharkphoom.p@psu.ac.th">pharkphoom.p@psu.ac.th</ce:e-
address>
</ce:author>

```

Author groups may also contain **ce:collaboration** elements (a group of authors who present themselves under a common name) and **ce:footnote** elements

The head contains the article history (**ce:date-received**, **ce:daterevised**, **ce:date-accepted** and **ce:miscellaneous**)

```
<ce:date-accepted day="30" month="4" year="2019"/>
```

Abstracts of various classes, each in several possible languages (**ce:abstract**) are in

```

<ce:abstract xml:lang="en" id="abs0010" view="all" class="author">
  <ce:abstract-sec role="background" id="abssec0010" view="all">
    <ce:section-title id="sectitle0010">Background</ce:section-title>
    <ce:simple-para id="abspara0010" view="all">Phenotypic matching in heart
transplantation, where donors and recipients are matched based on physical characteristics,
has been previously limited to only analyzing individual variables such as sex and age. This
study examines the effects of phenotypic matching utilizing multiple factors
simultaneously.</ce:simple-para>
  </ce:abstract-sec>
  <ce:abstract-sec id="abssec0015" view="all">
    <ce:section-title id="sectitle0015">Methods</ce:section-title>
    <ce:simple-para id="abspara0015" view="all">Adult patients undergoing heart
transplantation between 2006 and 2016 were identified from the Organ Procurement and
Transplantation Network database. Phenotypic matching was defined based on six factors: body
mass index difference >30%, age difference >30%, height difference >7%, non-identical
ABO blood grouping, race, and sex. A value between 0 and 1 mismatched characteristics was
considered phenotypically like matching, whereas 2-6 mismatches was considered phenotypically
unlikely matching. The primary study endpoint was 1-year survival. Risk-adjusted mortality was
examined with multivariable Cox regression models.</ce:simple-para>
  </ce:abstract-sec>
  <ce:abstract-sec role="results" id="abssec0020" view="all">
    <ce:section-title id="sectitle0020">Results</ce:section-title>
    <ce:simple-para id="abspara0020" view="all">During the study period, 20,052 adult
patients underwent heart transplantation, of whom 9595 (47.9%) were phenotypically like and
10,457 (52.1%) were phenotypically unlike matched. No differences in 1-year survival were seen

```

between like and unlike matched patients (risk-adjusted odds ratio 1.05, 95% confidence interval 0.96-1.15, *P* = .305) after controlling for clinically relevant covariates. Subgroup analyses did not demonstrate survival differences after stratification based on hospital transplant volume and initial waitlist status. Phenotypically like matched patients had longer waiting times compared with unlike matched patients overall (225 days vs 192 days, *P* < .001).

Conclusions

Waiting for a phenotypically matched heart provides no survival benefit and exposes patients to prolonged waitlist times. These findings challenge the notion that a perfect donor heart exists, when in fact this concept may be a misnomer.

Author-provided keywords and classification codes are in **ce:keywords**).

Keywords

Nematode cuticle

Immunocytochemistry

Lectin-binding

Acanthocheilonema

Brugia

Onchocerca

Head can include chemistry information in the element (**ce:stereochem**). This element contains a structure image, molecular formula, name and stereochemical information

body

The main part of a document is contained in **body**. It consists of an optional nomenclature of terms used in the document (**ce:nomenclature**) and an optional salutation (**ce:salutation**)

The main part of the body is a collection of paragraphs, sections, subsections, etc., contained in **ce:sections**. Each section has a **role** attribute, e.g. 'background', 'case-report', 'case-study', 'conclusion', 'discussion', 'introduction', 'materials-methods', 'results', 'methods'.

An example of a section is

```
<ce:section id="sec3.2" view="all">
  <ce:label>3.2</ce:label>
  <ce:section-title id="sectitle0090">The mtDNA encodinggenes</ce:section-title>
  <ce:section id="sec3.2.1" view="all">
    <ce:label>3.2.1</ce:label>
    <ce:section-title id="sectitle0095">NADH dehydrogenase Subunits
      (NDs) mRNA</ce:section-title>
    <ce:para id="p0095" view="all">The treatment of 1.0 µM MLT
      significantly reduced the abundance of ND1, ND2, ND3, ND4 and
      ND4L mRNA in sperms compared to that of the VC at day 3 in 17 °C
      storage (<ce:italic>P</ce:italic> &lt; 0.05, <ce:cross-ref
        refid="fig1" id="crosref0205"
        >Fig. 1</ce:cross-ref><ce:float-anchor refid="fig1"/>A-E),
      but did not affect ND5 and ND6 mRNA expression (<ce:cross-ref
        refid="fig1" id="crosref0210">Fig. 1</ce:cross-ref>F and G).
      Interestingly, incubation in 37 °C for another 10 min
      significantly increased NDs (1, 2, 3, 4, 4L and 6) mRNA
      expression compared to storage at 17 °C in 1.0 µM MLT-treated
      sperms (<ce:italic>P</ce:italic> &lt; 0.05, <ce:cross-ref
        refid="fig1" id="crosref0215">Fig. 1</ce:cross-ref>A-E, G),
      and the mRNA levels of ND2 and ND4L were significantly higher in
      1.0 µM MLT-treated sperms than that of the VC
      (<ce:italic>P</ce:italic> &lt; 0.05, <ce:cross-ref
        refid="fig1" id="crosref0220">Fig. 1</ce:cross-ref>B,
      E).</ce:para>
  </ce:section>
```

Conflict of interest statements are in **ce:conflict-of-interest**

```
<ce:conflict-of-interest id="coi005" view="all">
  <ce:section-title id="st065">Declaration of Competing Interest</ce:section-title>
  <ce:para id="p0095" view="all">The authors declare that they have no known
    competing financial interests or personal relationships that could have
    appeared to influence the work reported in this paper.</ce:para>
```

</ce:conflict-of-interest>

Acknowledgments in **ce:acknowledgment** may include funding information

```
<ce:acknowledgment id="ack0001" view="all">
  <ce:section-title id="cesectitle0029">Acknowledgments</ce:section-title>
  <ce:para id="para0061" view="all">This research was financially supported by the
  <ce:grant-sponsor id="gs0001"
    sponsor-id="<http://dx.doi.org/10.13039/501100004396>" xlink:type="simple"
    xlink:role="<http://www.elsevier.com/xml/linking-roles/grant-sponsor>"
  >Thailand Research Fund</ce:grant-sponsor> through the Royal Golden
  Jubilee Ph.D. Program (grant number PHD/0040/2559). The authors wish to
  thank Dr. Fredrick Eze for assistance with English editing.</ce:para>
</ce:acknowledgment>
```

Optional appendices are in **ce:appendices**.

```
<ce:appendices view="all">
  <ce:section id="appsec1" view="extended">
    <ce:section-title id="sectitle0055">Supplementary Data</ce:section-title>
    <ce:para id="p0135" view="all">
      <ce:display>
        <ce:e-component id="mmc1">
          <ce:label>Supplemental Tables 1 and 2</ce:label>
          <ce:link locator="mmc1" xlink:type="simple"
xlink:role="http://data.elsevier.com/vocabulary/ElsevierContentTypes/46.1"
xlink:href="pii:S0003497519308963/mmc1"/>
        </ce:e-component>
      </ce:display>
    </ce:para>
  </ce:section>
</ce:appendices>
```

tail

The tail of an article is contained within **tail**. None of its constituents are mandatory, but the element must not be empty. The tail consists of the bibliographic references (**ce:bibliography**) which consists of a brief introduction (**ce:intro**) and several subsections, **ce:bibliography-sec**. Each **ce:bibliography-sec** except the first must have a **ce:section-title**. The subelement **ce:section-title** contains the name of the bibliography, e.g. "References" or "Bibliography". Subelement **ce:intro** contains a short introduction to the bibliography. It can also contain a simple statement like "Full reference list available online. . .". Each **ce:bibliography-sec** contains one or more bibliographic references, **ce:bib-reference**.

```
<ce:bibliography id="cebibl1" view="all">
```

```

<ce:section-title id="cesectitle0030">Reference</ce:section-title>
<ce:bibliography-sec id="cebibsec1" view="all">
  <ce:bib-reference id="bib0001">
    <ce:label>kareem et al., 2016</ce:label>
    <sb:reference id="sbref0001">
      <sb:contribution langtype="en">
        <sb:authors>
          <sb:author>
            <ce:given-name>M.S.M.</ce:given-name>
            <ce:surname>Abd El kareem</ce:surname>
          </sb:author>
          <sb:author>
            <ce:given-name>M.A.</ce:given-name>
            <ce:surname>Rabbih</ce:surname>
          </sb:author>
          <sb:author>
            <ce:given-name>E.T.M.</ce:given-name>
            <ce:surname>Selim</ce:surname>
          </sb:author>
        </sb:authors>
        <sb:title>
          <sb:maintitle>Identification of zingiber components by gas
chromatograph/mass spectrometer and semi-empirical calculations</sb:maintitle>
        </sb:title>
      </sb:contribution>
      <sb:host>
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          <sb:series>
            <sb:title>
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Research</sb:maintitle>
            </sb:title>
            <sb:volume-nr>4</sb:volume-nr>
          </sb:series>
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        </sb:issue>
        <sb:pages>
          <sb:first-page>20</sb:first-page>
          <sb:last-page>26</sb:last-page>
        </sb:pages>
        <ce:doi>10.14419/ijpr.v4i1.6052</ce:doi>
      </sb:host>
    </sb:reference>
    <ce:source-text id="srctxt0001">Abd El kareem, M.S.M., Rabbih, M.A.,

```


.& Selim, E.T.M. (2016). Identification of zingiber components by gas chromatograph/mass spectrometer and semi-empirical calculations. International Journal of Physical Research, 4(1), 20-26. 10.14419/ijpr.v4i1.6052</ce:source-text>

</ce:bib-reference>

Appendix A - Document Subtypes

Code	Description	Example	In DaaS
abs	Abstract or very short communication	https://www.sciencedirect.com/science/article/pii/B9780323909648000075	5%
add	Addendum		< 0.01%
adv	Advertisement	https://www.sciencedirect.com/science/article/pii/S2772283X21001990	No
ann	Announcement	https://www.sciencedirect.com/science/article/pii/S0264127522001861	No
brv	Book review	https://www.sciencedirect.com/science/article/pii/S0975947621001790	No
cal	Calendar	https://www.sciencedirect.com/science/article/pii/S0302283822024241	No
chp	Chapter (of a book)	https://www.sciencedirect.com/science/article/pii/B9780128211397001100	No
cnf	Conference report not conference article	https://www.sciencedirect.com/science/article/pii/S0896627322004597	0.2%
con	Contents list	https://www.sciencedirect.com/science/article/pii/S0883540322006301	No
cor	Correspondence	https://www.sciencedirect.com/science/article/pii/S2213260022000893	2%
crp	(Patient) Case Report	https://www.sciencedirect.com/science/article/pii/S0012369221012915	0.9%
dat	Data in brief articles, describing data	https://www.sciencedirect.com/science/article/pii/S2352340922002219	0.1%
dis	Discussion	https://www.sciencedirect.com/science/article/pii/S2213260022000078	3%
dup	Duplicate	https://www.sciencedirect.com/science/article/pii/S2213422021000895	No
edb	Editorial Board Members list	https://www.sciencedirect.com/science/article/pii/B9780128191668099771	No
edi	Editorial	https://www.sciencedirect.com/science/article/pii/S2213260022001412	0.6%
eoc	Expression of Concern	EXPRESSION OF CONCERN NOTICE to “Darwin revisited: The vagus nerve is a causal element in controlling recognition of other's emotions” by Lorenza S. Colzato, Roberta Sellaro, Christian Beste. [Cortex 92 (2017): 95–102] - ScienceDirect	< 0.01%
err	Erratum	https://www.sciencedirect.com/science/article/pii/S2213260022001400	0.2%
exm	Examination or quiz	https://www.sciencedirect.com/science/article/pii/S0363502322003021	No
fla	Full length article	https://www.sciencedirect.com/science/article/pii/S088354032100629X	70%

ind	Index	https://www.sciencedirect.com/science/article/pii/B9780128204726180016	No
ins	Insight, e.g. a popular science press article	https://www.sciencedirect.com/science/article/pii/S2213260022001369	No
lit	Literature alert, list of relevant literature	https://www.sciencedirect.com/science/article/pii/S277295322200048X	0.04%
lst	List (of figures, tables, etc.)	https://www.sciencedirect.com/science/article/pii/B9780323909648000075	No
mic	micro-article	https://www.sciencedirect.com/science/article/pii/S2211379722003059	0.04%
mis	Miscellaneous, i.e. not classified elsewhere	https://www.sciencedirect.com/science/article/pii/S0883540322006313	2%
nws	News	https://www.sciencedirect.com/science/article/pii/S2213260022001229	0.3%
ocn	Contents list of another journal	https://www.sciencedirect.com/science/article/pii/S0012369221041167	No
osp	software	https://www.sciencedirect.com/science/article/pii/S0925231222006518	No
pgl	(Medical) Practice guideline	https://www.sciencedirect.com/science/article/pii/S0012369221015063	0.04%
pnt	Patent report		No
prp	Report about one or more (living or deceased) persons, e.g. an obituary, a biography, an award ceremony, etc.	https://www.sciencedirect.com/science/article/pii/S0140673622010236	No
pro	Protocol, experimental	DeCiFering the elusive cancer cell fraction in tumor heterogeneity and evolution - ScienceDirect	0.02%
prv	Product (not book) review	https://www.sciencedirect.com/science/article/pii/S0140673622010212	No
pub	Publisher's note	https://www.sciencedirect.com/science/article/pii/S2451902222001355	No
rem	Tombstone article, removed from public access	https://www.sciencedirect.com/science/article/pii/S2590123022000755	No
req	Request for assistance		No
ret	Tombstone article, retracted	https://www.sciencedirect.com/science/article/pii/B9780128012383988706	No
rev	Review article	https://www.sciencedirect.com/science/article/pii/S0950061822016804	6%
rpl	Replication study	https://www.sciencedirect.com/science/article/pii/S0167487022000277	Yes
sco	Short report or announcement	https://www.sciencedirect.com/science/article/pii/S0022096522000753	9%
ssu	Short or mini review	https://www.sciencedirect.com/science/article/pii/S2095927322001578	1%
vid	Video article	https://www.sciencedirect.com/science/article/pii/S0960740421000645	No

