

Drops in a bucket: contributions of the IAEA Lise Meitner Library to the INIS database

Nicolas Rucks, Nuclear Information Section; Division of Planning, Information and Knowledge Management Department of Nuclear Energy; IAEA Lise Meitner Library, Austria

Abstract

No library can have it all. It is the job of the Inter Library Loan/Document Delivery Service to get elsewhere what is not in a Library's collection. That is also the case in the IAEA Lise Meitner Library (ILML). Most of the topics the ILML deals with are nuclear related (albeit not only), and so are the "known" or specific items requested to the ILL/DD Service.

The ILML is therefore a heavy user of the INIS database, among other nuclear related databases. Many relevant documents are to be found there. In any case, it is a source that must be checked. Then again, it also happens that a given item is not in INIS. Realizing that, the ILML ILL/DD service took the initiative to report those "missing drops" to the INIS proverbial bucket. (ILML and INIS are two different units within IAEA's Nuclear Information Section).

One may wonder if a drop in a bucket is worth it. It is in this case because INIS, as other topical databases/repositories, aims for the wider possible coverage within its topical scope. Since 1972, records in INIS come from member states contributions, IAEA contributions, and yet, some documents escape the coverage, something learned by the experience of looking for requested materials like old conference papers, unpublished thesis, reports from nuclear agencies and institutions, etc.

As a relatively cheap by-product of the search of an item, every month or so, a report in RIS format with items found elsewhere than INIS is sent to INIS, including basic bibliographic information, report ID, searches performed in INIS (not finding it), and location of the material: URL of a site, library catalogue, publisher, or agency. Occasionally, a reported item may lead to the inclusion of many others, a conference paper to the proceedings, a chapter to a book, a paper to a journal, etc.

The reporting is easily replicable: any other library that stumbles upon an item not covered by INIS is welcome to inform about it.

These are items that escaped prior systematic coverage, added to INIS because some user needed it, and ILL/DD located it elsewhere. Reporting to INIS is a way of compensating the relatively high cost of looking for a specific item, hopefully avoiding others looking for it again, but finding it in INIS.

The IAEA Lise Meitner Library

The IAEA Lise Meitner Library is the IAEA (International Atomic Energy Agency) library. It has recently been named after Lise Meitner, the Austrian/Swedish physicist.

The library orients its services mainly to IAEA Staff, and therefore covers mainly Nuclear Science and Technology but also many other topical areas, such as Management, Diplomacy, Computer Science.

It can be said that it has an important collection on Nuclear related topics, including both non-grey and grey literature.

The Inter Library Loan/Document Delivery (ILL/DD) Service

Then again, regardless of its size and scope, no library can have it all; therefore, it is the job of the Inter Library Loan/Document Delivery (ILL/DD) Service to search/locate/obtain elsewhere the items requested by its users that are not in a Library's collection. That is also the case in the IAEA Lise Meitner Library (ILML). Most of the topics the ILML deals



with are nuclear related (albeit not only), and so are the "known" or rather specific items requested to the ILL/DD Service.

Many of the documents requested come in some shade of grey: conference papers, thesis, reports. Others are more commercially available, like books and parts of books, as well as journal papers. It is probably interesting to note that the time-span of the publications requested is very wide and can go as far back as the 40s and 50s...

In order to provide the document to the user, the library's own collection is naturally checked first, as sometimes the items requested are, after all, already in the collection; otherwise, other resources are used, like catalogues of other libraries and different kinds of databases, depending on the item requested, and its subject.

The INIS database

In the nuclear field, the INIS database is unavoidable, close to mandatory. Let us just highlight here that INIS is a repository that constitutes the world's largest collections of published information on the peaceful uses of nuclear science and technology, with over 4 million records¹, which may include the full-text, and brings useful referential information.

Within that context, for nuclear related topics, the ILML is a natural heavy user of the INIS database, among other nuclear related databases. Many relevant documents are to be found there. In any case, it is a source that must be checked. Then again, it also happens that a given item is not in INIS. Realizing that, the ILML ILL/DD service took the initiative to report those "missing drops" to the INIS proverbial bucket. (ILML and INIS are two different units within IAEA's Nuclear Information Section).

The Reports

After one year of working at the ILML, that is, starting November 2019, it has been realised that some of the items requested were actually not included in INIS (whether full-text or referential), but found elsewhere.

It was asked to Brian Bales, Head of INIS, if some kind of report of those cases would be of interest and/or useful.

Note that the IAEA Library and the INIS database are two separate things, but both are under the same organizational Head of Section, hence closely related.

The first report was sent to INIS October 2020, with a rather loose textual format, and a kind of alert to INIS established as a by-product of actual requests for specific materials.

Examples

The following are **some examples** of items requested by users to the ILML, that were not found in the INIS database, but located in the IAEA Library or elsewhere, afterwards reported to INIS, and finally added to the INIS database (that is, the bibliographic reference, and a link to the source). All of them falling within the scope of INIS, peaceful uses of nuclear science and technology.

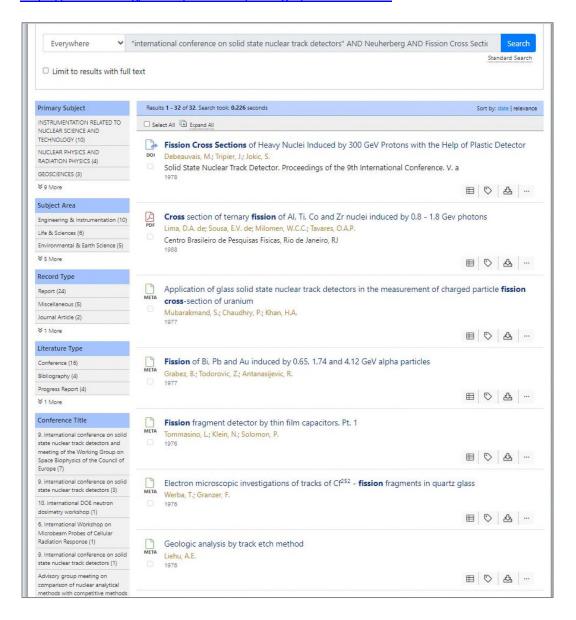
Occasionally, a reported item may also lead to the inclusion of many others, a conference paper to the proceedings, a chapter to a book, a paper to a journal, etc.



Example A)

Debeauvais, M., Tripier, J., & Jokic, S. Schopper, E. (Ed.). (1978). Fission Cross Sections of Heavy Nuclei Induced by 300 GeV Protons with the Help of Plastic Detector. United Kingdom: PERGAMON PRESS.

This is a paper from a 1978 conference; fortunately, the proceedings were in the library. Actually, the conference was partially covered by INIS, but this particular paper was not. https://inis.iaea.org/search/search.aspx?orig_q=RN:53113349



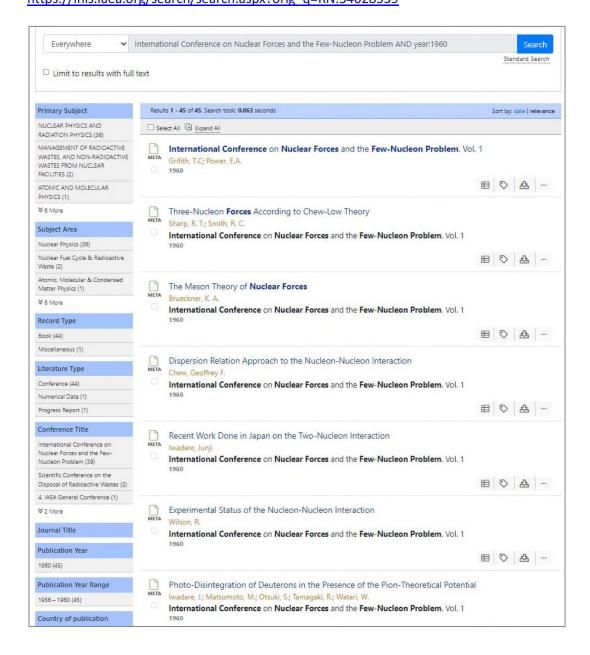


Example B)

Bowen, P.H., Cox, G.C., Huxtable, G., Langsford, A., Scanlon, J.P., Stafford, G., & Thresher, J.J. Power, E.A. (Ed.). (1960). Neutron-Proton Angular Distributions and Polarization Measurements in the Energy Range 20 To 120 MeV. United Kingdom: The Whitefriars Pres Ltd.

In: Grifith, T.C Power, E.A. (Ed.). (1960). International Conference on Nuclear Forces and the Few-Nucleon Problem Vol 1. United Kingdom: The Whitefriars Pres Ltd.

This is a paper in a conference held in 1959: Nuclear Forces and the Few-Nucleon Problem. Which was also in the library's collection. What is interesting here is that the request of one paper led to the inclusion of all the papers of the conference into INIS. https://inis.iaea.org/search/search.aspx?orig_q=RN:54028539





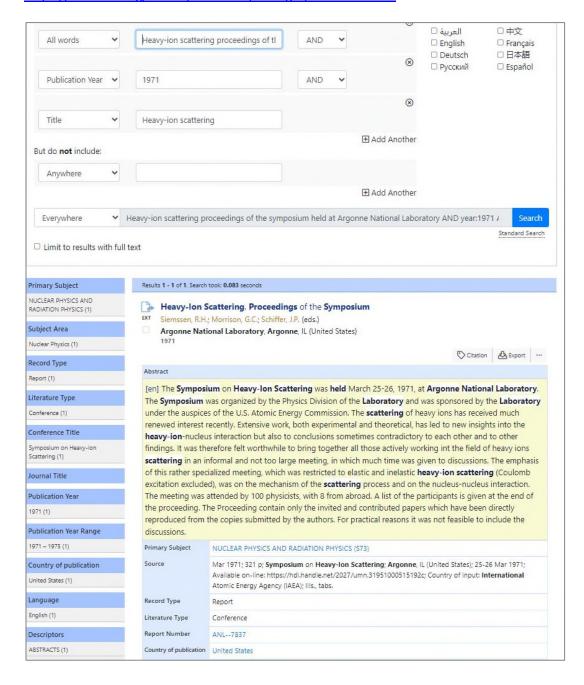
Example C)

Argonne National Laboratory report ANL-7837.

Siemssen, R.H., & Morrison, G.C. (1971). Heavy-Ion Scattering Proceedings of the Symposium (ANL--7837). Schiffer, J.P. (Ed.). United States.

This conference proceedings identified as a report was digitized by Google from an original made available by University of Minesotta. Now it also has its record in INIS. Papers inside were also included separately.

https://inis.iaea.org/search/search.aspx?orig_q=RN:53109178



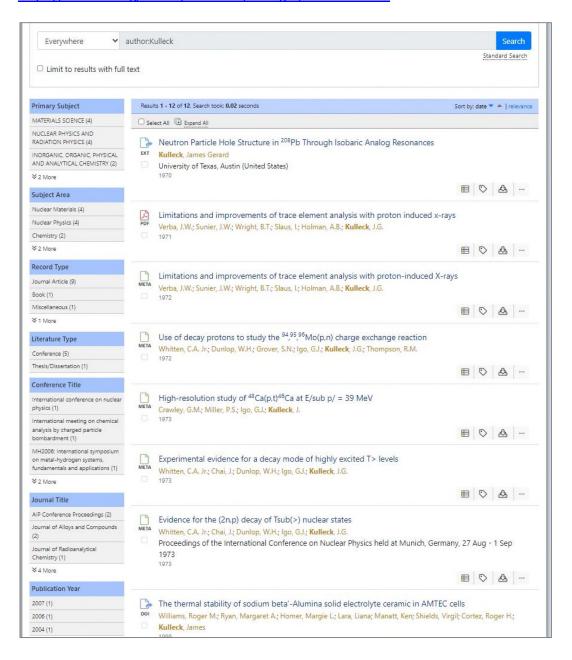


Example D)

Kulleck, James Gerard. Neutron Particle Hole Structure in 2°8Pb through Isobaric Analog Resonances. Thesis (Ph. D.)--University of Texas at Austin, 1970.

The dissertation/thesis of Mr Kulleck, presented at the University of Texas Austin in 1970, which has its record in the University of Texas Library catalog, now has its record is in INIS too.

https://inis.iaea.org/search/search.aspx?orig_q=RN:53114381



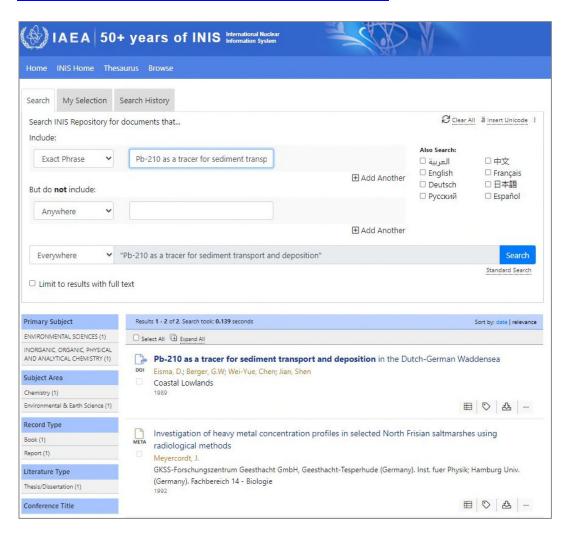


Example E)

Eisma, D., Berger, G.W., Wei-Yue, C., Jian, S. (1989). Pb-210 as a tracer for sediment transport and deposition in the Dutch-German Waddensea. In: van der Linden, W.J.M., Cloetingh, S.A.P.L., Kaasschieter, J.P.K., van de Graaff, W.J.E., Vandenberghe, J., van der Gun, J.A.M. (eds) Coastal Lowlands. Springer, Dordrecht

This is a chapter of a book on Coastal Lowlands Geology. Only the on chapter on Pb-210 as a tracer is relevant to the INIS database.

https://inis.iaea.org/search/search.aspx?orig_q=RN:53101900





The reports to INIS include the following information:

- Identifying bibliographic data, Just what is necessary to clearly identify the item, not a full citation nor cataloguing record
- Searches performed in INIS showing that the item was NOT FOUND in the database
- The source where the item and/or its bibliographic data was found (URL, Library or call numer for the ILML)
- In August 2022 this was more formalized, adopting an implementation of the text based RIS format.

Examples of provided records

```
TY - THES
AN - 7511
TI - Neutron Particle Hole Structure in 208Pb Through Isobaric Analog Resonances
AU - Kulleck, James Gerard
PP - University of Texas, Austin
PY - 1970
C1 -
https://inis.iaea.org/search/search.aspx?num=10&orig q=author%3aKulleck&lang=en-US&login=false&user=External&src=ics&search-option=Everywhere&sort=date%3AD%3AS%3Ad1&sortorder=ascending
C2 - author:Kulleck
UR - https://search.lib.utexas.edu/permalink/01UTAU INST/9e1640/alma991036205999706011
ER -
```

```
TY - CONF
AN - 7530
T1 - International Conference on Nuclear Forces and the Few-Nucleon Problem
DA - 8-11 July 1959
PP - Physics Department, University College, London
1 - International Conference on Nuclear Forces and the Few-Nucleon Problem
Ettps://inis.iaea.org/search/search.aspx?search-option=bibliographicOnly&orig q=%22Nuclear%20Forces%20and%20the%20Few-Nucleon %20Problem%22&mode=Advanced&translateTo=
C2 - "Nuclear Forces and the Few-Nucleon Problem"
C1 - https://inis.iaea.org/search/search.aspx?num=10&orig q=International+Conference+on+Nuclear+Forces+and+the+Few-Nucleon+Problem &langeen-US&login=false&user=External&src=ics&search-option=Everywhere&sort=date%3AD%3AS%3Ad1&sortorder=ascending
C2 - "International Conference on Nuclear Forces and the Few-Nucleon Problem"
C1 - *
https://inis.iaea.org/search/search.aspx?search-option=everywhere&sort=queltentaleto=0and%20forference%20on%20Nuclear%20Forces%20and%20the%20Few-Nucleon*X20Peroblem%20AND%20year%3A1960&mode=Advanced&translateTo=0and*20Conference%20on%20Nuclear%20Forces%20and%20the%20Few-Nucleon*X20Peroblem*20Forces%20and%20the%20Few-Nucleon*X20Peroblem*20Forces%20and%20the%20Forces%20and%20the%20Few-Nucleon*X20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%20Forces%20and%20the%
```

How many drops in the proverbial bucket? Is it worth?

During 2022, after several reports, <u>55 citations in total</u> were contributed to INIS by the ILML

This raised concerns as to whether this was useful at all, with the feeling of dropping drops in a bucket, and just a few.

For the sake of the illustration, let's put this figure of speech into numbers, and have a quick look at the proverbial drop in a bucket...

How many drops there are in a bucket depends of course on the size of the drops and the size of the bucket. Supposing a 20 Litter bucket, and a drop of 0.05 ml, this makes 400.000 drops in a bucket.

20.000 mL / 0.05 ml/drop = 400.000 drops in a bucket

So how does the IMLM reports to INIS compare to that? In year 2022, INIS added almost 125.000 new records², so that's 55 contributions within the 125.000 new records in INIS in year 2022.

That would be equivalent to 175 drops if in a bucket of 400.000 drops. Considerably more than "just 1 drop" in a bucket. In other words, quite decent... if compared to the drop in the bucket.



But actually, to be fair, it is a participation of 0.044% compared to the annual INIS bucket of new records.

So that is not completely reassuring.

Modest, but worth it

On the reassuring side, though, let's keep in mind that this is a by-product of searches in the library. Not a harvesting, nor a collection development policy. Therefore, from the library's point of view, it is not that expensive, since searches have to be performed anyway. It is also a token of relevancy to the items searched, since they were requested.

More important, following the drop in a bucket figure of speech, each drop here has a title. If considered solely as a contributed numbers for a bigger total, then it's drops in a bucket. But if you put a title on each drop, then you get one step closer to "Yet another customer satisfied". But this is a given document identified and located for a given reader. Consider also that if somebody had done this before, documents requested would have been found in INIS to begin with. Now that they have been found maybe the searching burden is sparing to others, avoiding some duplication of efforts. These little searching efforts are being capitalized.

Since 1972, records in INIS come from member states contributions, IAEA contributions, and yet, some documents escape the coverage, something learned by the experience of looking for requested materials like old conference papers, unpublished thesis, reports from nuclear agencies and institutions, etc.

As stated by Brian Bales, head of INIS, in a presentation in 2022 ... among several principles a Repository should aim to, one of them is comprehensiveness (or completeness): <<Characteristics, such as timeliness, openness, user-friendliness, accuracy, and completeness, are proposed as those which meet user and institutional needs and define the degree of development for a given repository. [...] Finally, **completeness** describes how well a repository encompasses its scope.>>³

The contributions of the IAEA Lise Meitner Library to the INIS database are, therefore, tiny steps towards completeness.

Finally, it is worth mentioning that the reporting is easily replicable: any other library that stumbles upon an item not covered by INIS is welcome to inform about it, contributing to completeness too.

Conclusion

These reports to INIS are a relatively cheap by-product of searches for requested items that can be capitalized. Modest as it may be, it still is a useful contribution that aims for comprehensiveness and avoiding duplication of efforts. Within the Nuclear Science and Technology community, other librarians may face a similar situation. It would be useful for if those extra efforts were collected and information included in INIS, as this is probably easy to replicate by other Nuclear-related libraries that likely already use or recommend using INIS.

References

¹ INIS 50th anniversary poster https://www.iaea.org/sites/default/files/20/08/inis 50 anniversary poster web.pdf

² INIS Information Letter No. 436. INIS Progress and Activity Report 2022.

³ Bales, Brian. Characteristics of a Well-Developed Grey Literature Repository. 2022. Pp 11-16 http://www.textrelease.com/images/GL2022 Conference Proceedings.pdf https://av.tib.eu/media/59873 at 13mn30s and 17mn26s