

# Package ‘xlum’

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**Type** Package

**Title** Read, Write, and Convert xlum Data

**Version** 0.1.0.9000-13

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**Description** Support for the xlum-file format for exchange and long-term preservation of luminescence data.

**License** GPL-3

**Depends** R (>= 4.1),  
utils

**Imports** methods,  
xml2 (>= 1.3.3)

**Encoding** UTF-8

**Language** en-GB

**LazyData** true

**RoxygenNote** 7.1.2

**Collate** 'read\_xlum.R'  
'utils.R'  
'validate\_xlum.R'  
'xlum-package.R'

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xlum-package

*Read, Write, and Convert xlum Data*


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## Description

Support for the xlum-file format for exchange and long-term preservation of luminescence data.

## Details

### Support contact

- <https://github.com/R-Lum/xlum/discussions>

### Bug reporting

- <https://github.com/R-Lum/xlum/issues>

### Project source code repository

- <https://github.com/R-Lum/xlum>

### Package maintainer

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read\_xlum

*Import xlum files*


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## Description

Imports xlum files using [xlm2::read\\_xml](#). Comes with a few convenience features

## Usage

```
read_xlum(file, verify = TRUE, output = "xlum_list")
```

## Arguments

file	<a href="#">character</a> ( <b>required</b> ): path to file
verify	<a href="#">logical</a> ( <i>with default</i> ): enable/disable format validation
output	<a href="#">character</a> ( <i>with default</i> ): output object of the import, supported are "xml_document", "list", "xlum_list" (the default)

## Details

### Supported output options

"xlum\_list" (default): imports XML-data and coerces them to list. Numeric values for level <curve> are transposed into [numeric](#) vectors for better handling

"list": imports XML-data and coerces it to a [list](#), no further treatment of data

"xml\_document": unprocessed output from [xml2::read\\_xml](#)

### Value

The output depends on the setting selected in output. It will be either an [xml2::xml\\_document](#), [list](#), or a [list](#) of class `xlum_list`.

### How to cite

Kreutzer, S., 2022. `read_xlum()`: Import xlum files. In: Kreutzer, S., 2022. `xlum`: Read, Write, and Convert xlum Data. R package version 0.1.0.9000-13.

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

### Examples

```
##TODO
```

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validate_xlum	<i>Validate xlum format against an XSD reference schema</i>
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### Description

A convenience wrapper around [xml2::xml\\_validate](#) against the reference format description shipped with [xlum-package](#)

### Usage

```
validate_xlum(file)
```

### Arguments

file [xml2::xml\\_document](#) (**required**): object to test

### Value

Results of the validation [logical](#) with attributes

### How to cite

Kreutzer, S., 2022. `validate_xlum()`: Validate xlum format against an XSD reference schema. In: Kreutzer, S., 2022. `xlum`: Read, Write, and Convert xlum Data. R package version 0.1.0.9000-13.

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

**Examples**

```
file <- system.file("extdata/xlum_prototype.xlum", package = "xlum")  
validate_xlum(file)
```

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