# Package 'xlum'

April 4, 2022
Type Package
Title Read, Write, and Convert xlum Data
Version 0.1.0.9000-7
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<b>Description</b> Support for the xlum-file format for exchange and long-term preservation of luminescence data.
License GPL-3
<b>Depends</b> 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

# 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

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom), <sebastian.kreutzer@aber.ac.uk>

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# **Description**

#TODO

# Usage

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

# Arguments

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

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#### **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

##TODO

#### 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 0.1.0.9000-7.

# Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

validate\_xlum

Validate xlum format against an XSD reference schema

#### **Description**

A 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 0.1.0.9000-7.

# Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

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# Examples

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

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