

Annotation Guide - TRANSMATT

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This Guide is designed to familiarize annotators with the use of the WebAnno tool. The version used here is provided by the ICO team of IATE joint research unit and can be accessed at: <https://ico.iate.inra.fr/webanno/login.html>.

As an annotator you have to log in as follow:

username firstname.name

password firstname.name

Getting started with the WebAnno tool

Once logged in you can access the annotation function from the main menu. Clicking on the **Annotation** button opens a new window where you can select a project you are involved in (left column) and then the document you wish to work on (right column).

The colour of the document names indicates the document work progress status:

black annotation pending

blue annotation in progress

red annotation completed

The core functionalities on the annotation screen are:

1. **Settings** allows you to adjust the **text** display.
2. buttons in the **page** tab enable quick navigation through the text.
3. the **reset** button deletes all annotations on the active document.
4. the **finish** button is clicked when the annotation is completed.
5. the text you will annotate.
6. the **logo** may be clicked to return to the home page.

Annotation Home Help martin.lentschat Log out (automatically in 29 min)

Document Page Script Help Workflow

Open Prev. Next Export Settings 1 First Prev. Go to 2 Next Last LTR/RTL Guidelines 3 Reset 4 Finish

TRANSMAT-53/Cava_et_al._2006_-
_Comparative_performance_and_barrier_properties_of_biodegradable_thermoplastics_and_nanobiocomposites_versus_PET_for_food_packaging_applications.tx
Showing 1-15 of 335 sentences [document 7 of 53]

Annotation

1 TITLE .
2 Food packaging based on polymer nanomaterials.
3 ABSTRACT .
4 Since its starting in the 19th century, modern food packaging has made great advances as results of global trends and consumer preferences.
5 These advances are oriented to obtain improved food quality and safety.
6 Moreover, with the move toward globalization, food packaging requires also longer shelf life, along with the monitoring of safety and quality based upon international standards.
7 Nanotechnology can address all these requirements and extend and implement the principal packaging functions – containment, protection and preservation, marketing and communications.
8 Applications of polymer nanotechnology in fact can provide new food packaging materials with improved mechanical, barrier and antimicrobial properties, together with nano-sensors for tracing and monitoring the condition of food during transport and storage.
9 The latest innovations in food packaging, using improved, active and smart nanotechnology will be analyzed.
10 It will be also discuss the limits to the development of the new polymer nanomaterials that have the potential to completely transform the food packaging industry.
11 Highlights ► The latest innovations in food packaging based on polymer nanotechnology are examined. ► Polymer nanotechnology can greatly implement the packaging functions. ► For a successful application of polymer nanotechnology in food packaging

Layer partial Instance

Annotation
No annotation selected!

Here we seek to annotate scientific articles by locating certain *Arguments* regarding *N-Ary Relations* pertaining to permeability. This concerns several types of information present throughout the texts.

Annotation creation

To create an annotation, simply double-click a word or highlight a sequence. This selection should be as precise as possible (down to the character). The *Label* is selected in the right tab once the annotation has been created.

Some *Labels* will need to be connected by dragging the selected annotation to link it with another one. You should pay attention to the linkage direction. These linked *Labels* may not necessarily be in the same sentence, this is not problematic because a connection can be made over a long distance.

It was reported by Park and Chinnan (1990) that O₂ and CO₂ permeabilities of protein based films increase with decreasing thickness.

The second selected reference OP was reported by Park and Chinnan (1990) for a film with a composition of MC : PEG in 9 : 1 ratio and with a thickness of 40 μm.

The OP of this film was found to be 0.21×10⁻⁹ g d⁻¹ Pa⁻¹ m⁻¹ at 30 °C and 0% relative humidity.

The control film prepared in the present work had the same composition and the same thickness.

Its OP was measured at 29 °C and 0% relative humidity as (0.52±0.03)×10⁻⁹ g d⁻¹ Pa⁻¹ m⁻¹, which again has the same order of magnitude but is greater than the reported result of Park and Chinnan.

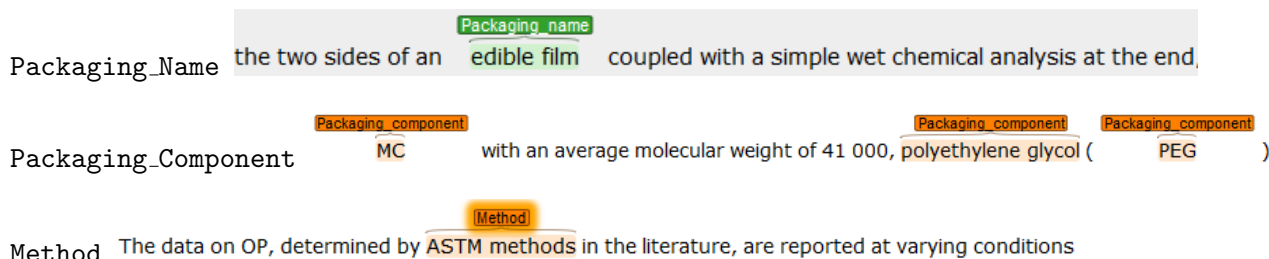
This time the difference in conditions seems to be only in temperature and that is only 1 °C, which can not explain the large difference observed in OP values.

Once an annotation has been created, it can be modified or deleted by double-clicking on it again.

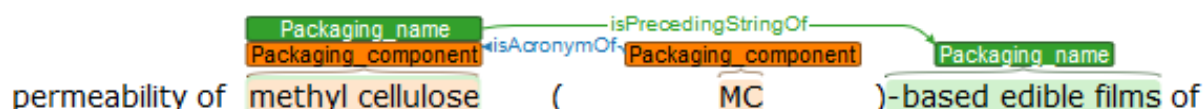
The following sections detail the selection criteria for *Labels* and connections.

Labels and symbolic argument connections

Here the symbolic arguments to be annotated consist of terms (i.e. words or word sequences) related to food packaging and the permeability measurement method. We distinguish the name used by the authors to designate and categorize a package from the components used to create it.



As these terms are 'self-supporting', they inseldom need connections (except regarding component proportions, see below). The **isAcronymOf** connection may be used (this task is optional), to indicate links between terms and their acronyms. The **isPrecedingStringOf** connection allows you to link annotations of the same *Labels*, to indicate that they concern the same term. Annotation may also be overlapped if necessary.

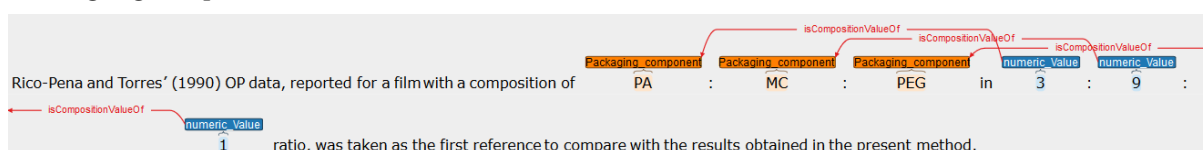


Packaging components and connections with their proportions

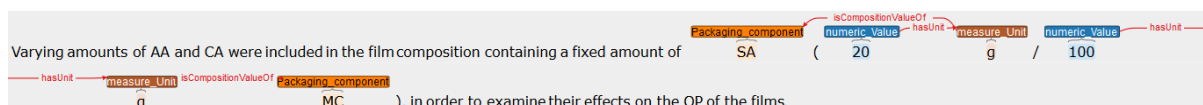
Packaging component contents are presented in documents in terms of: ratios and mass quantity. Two elements are always present (a numerical value and a packaging component), sometimes along with a measurement unit. The connection used to link the component and the numerical value or measurement unit is, when available, **isCompositionValueOf**.

Example :

- **Packaging_Component** and **numerical_Value**



- **Packaging_Component**, **numerical_Value** and **measure_Unit**



Labels and quantity argument connections

Instances of quantity arguments to be annotated are more complex and include multiple *Labels*. They always consist of a numerical value (**numerical_Value**) with a measurement unit (**measure_Unit**) and sometimes a term indicating its dimension :

Thickness the food packaging tickness, e.g. : '*thickness*', '*thick*' ...

Temperature control temperature used during the permeability readings, e.g. : *'temperature'*, *'T'*, *'temp.'* ...

Relative_Humidity control humidity of the permeability measurements, e.g. : *'relative humidity'*, *'RH'* ...

Relative_Humidity_Difference similar to the previous, considered when measuring water vapour permeability (H2O.Perm) ...

Partial_Pressure_Difference difference of pressure used in the permeability measurement, ex : *partial pressure difference*

CO2-H2O-02_Perm terms related to permeability measurements, e.g. : *'oxygen permeability'*, *'WVP'*, *'[CO2] perm'* ...

Caution : Values not involved in the permeability relation, e.g. the packaging preparation temperature, storage humidity etc. are not concerned.

Connections indicate that the different elements constitute the same argument instances. There are several of them:

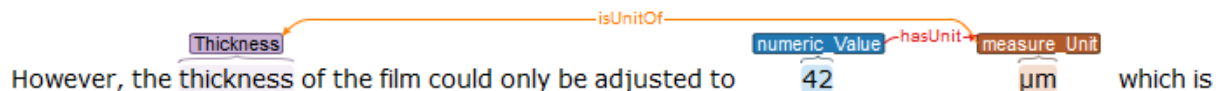
hasUnit goes from **numeric.Value** and link it to **measure.Unit**

isUnitOf goes from **measure.Unit** and link it to one of the quantity term

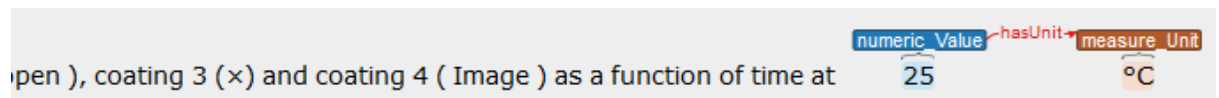
The presence of a term giving the dimension of the numerical value is important for disambiguation. It may sometimes not be present in the sentence but instead in the textual window (± 1 sentence) around the measurement unit and numerical value. Yet some of the three ideally present elements are sometimes missing.

The possible cases for annotating the terms and their connections are therefore :

- 1 The numerical value is linked to the measurement unit, which in turn is linked to the quantity term.



- 2 The numerical value is linked to the measurement unit, but the quantity term is missing.



Citations

Authors of an article sometimes refer to other research articles for comparison with their work. In such cases arguments may be present, often relating to the packaging being discussed.

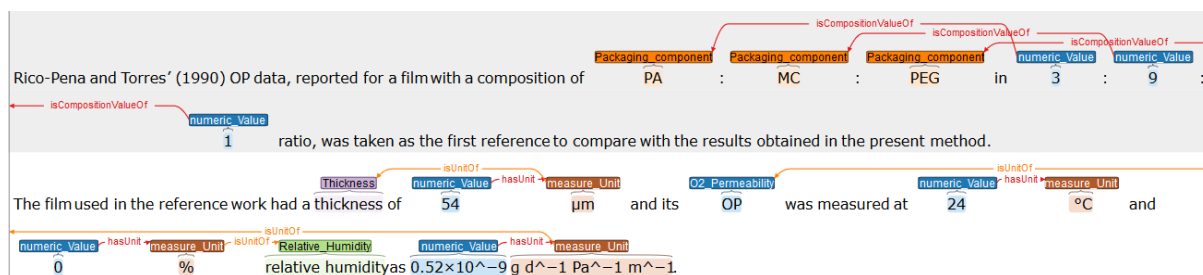
Caution : the information presented is often incomplete and not the focus of the article. Annotate only if several arguments are present, with **Packaging** and **Permeability** being mandatory.

Example :

- Invalid

Greener and Fennema (1989) reported oxygen permeabilities of **bilayer films** prepared from **methyl cellulose** and **beeswax** measured by the same method.

- Valid



Tables

Tables are sometimes present in the documents. These consist of a legend, note or quotation and a table. The latter is easily recognizable because each line of the table is then preceded by the word '*Line*' and *pipes* ('—') are included to differentiate the cells.

Given the complexity of this task for annotators and the annotation client, when annotating tables it is recommended that **only text lines be annotated** (such as the caption) while **not annotating the table cells content**.

Recommendations

- take the time to understand what you are reading and read the text several times. The text in the vicinity of an item often indicates whether an annotation is warranted.
- if you do not know whether a word should be included in an annotation or not then annotate broadly.
- annotate according to what you think is right, not what you think is consensual.
- if you are doubtful about a case and it is not covered in the present Guide, then do not annotate.
- the same information that appears many times in a text (e.g. packaging name) should only be annotated once or twice. There is no need to repeat an annotation that you are sure you have already created.