

Creating nanopublications with Groovy

Egon Willighagen 

Published December 27, 2018

Citation

Willighagen, E. (2018, December 27). Creating nanopublications with Groovy. *Chem-bla-ics*. <https://doi.org/10.59350/v3szx-3jk73>

Keywords

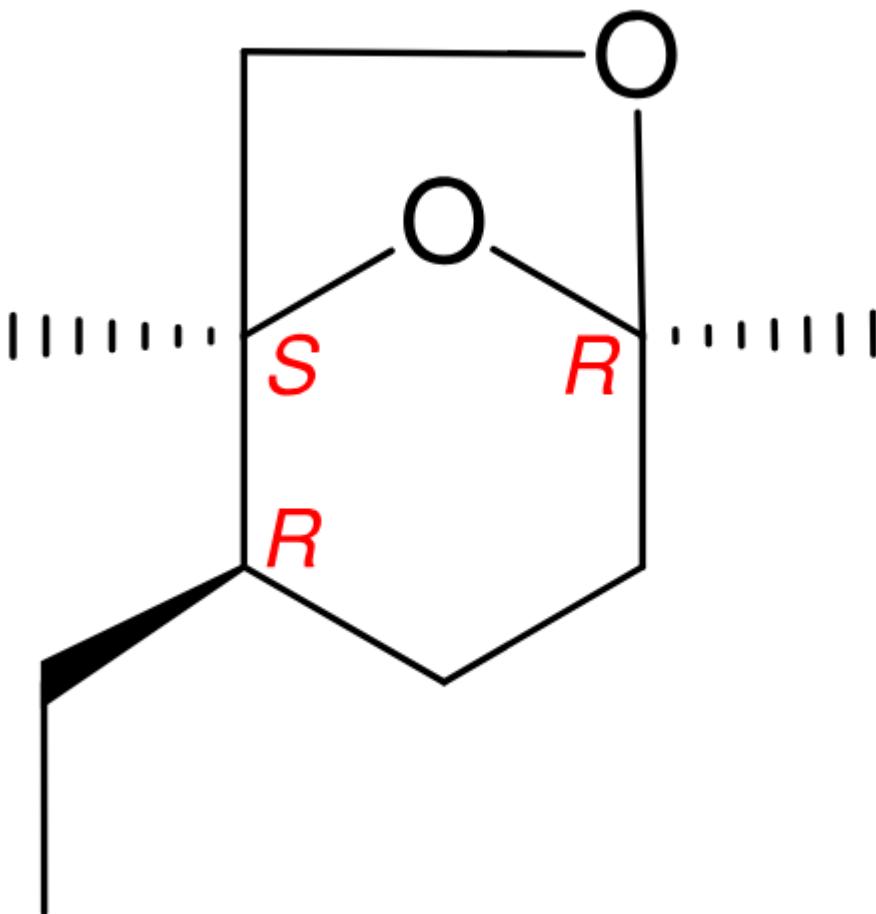
Nanopub, Wikidata, Groovy

Copyright

Copyright © Egon Willighagen 2018. Distributed under the terms of the [Creative Commons Attribution 4.0 International License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

chem-bla-ics

Yesterday, I struggled some with creating [nanopublications](#) with [Groovy](#). My first attempt was an utter failure, but then I discovered



[Thomas Kuhn's NanopubCreator](#) and it was downhill from there.

On the right, a depiction is given of a compound found in *Taphrorychus bicolor* (doi:[10.1002/JLAC.199619961005](https://doi.org/10.1002/JLAC.199619961005)). Published in *Liebigs Annalen*, see [this post](#) about the history of that journal.

There are two good things about this. First, I now have a [code base](#) that I can easily repurpose to make *rusty nanopublications* (doi:[10.1007/978-3-319-07443-6_27](https://doi.org/10.1007/978-3-319-07443-6_27)) about anything structured as a table (so can you).

Second, I now about almost 1200 CCZero nanopublications that tell you in which species a certain metabolite has been found. Sourced from [Wikidata](#), using [their SPARQL end point](#). This collection is a bit boring that this moment, and most of them are human metabolites, where the source is either [Recon 2.2](#) or [WikiPathways](#). But I expect (hope) to see more DOIs to show up. Think [We challenge you to reuse Additional Files](#).

Finally, you are probably interested in learning what one of the created nanopublications looks like, so I put [a Gist online](#):

```
@prefix this: <http://www.bigcat.unimaas.nl/nanopubs/wikidata/tmp/
np742.RAwXcetTykN6UPVzB0yatKm30mbT6endXfDrxnarRysL0> .
@prefix sub: <http://www.bigcat.unimaas.nl/nanopubs/wikidata/tmp/
np742.RAwXcetTykN6UPVzB0yatKm30mbT6endXfDrxnarRysL0#> .
@prefix wd: <http://www.wikidata.org/entity/> .
```

chem-bla-ics

```
@prefix np: <http://www.nanopub.org/nschema#> .
@prefix has-source: <http://semanticscience.org/resource/SIO_000253> .
@prefix has-inchikey: <http://semanticscience.org/resource/CHEMINF_000399> .
@prefix orcid: <http://orcid.org/> .
@prefix wdt: <http://www.wikidata.org/prop/direct/> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix pav: <http://purl.org/pav/> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .

sub:Head {
    this: np:hasAssertion sub:assertion ;
        np:hasProvenance sub:provenance ;
        np:hasPublicationInfo sub:pubinfo ;
        a np:Nanopublication .
}

sub:assertion {
    wd:Q15978631 rdfs:label "Homo sapiens"@en ;
        skos:exactMatch <http://purl.obolibrary.org/obo/
NCBITaxon_9606> .

    wd:Q27125029 has-inchikey: "APJYDQYYACXCRM-UHFFFA0YSA-0" ;
        rdfs:label "tryptaminium"@en ;
        wdt:P703 wd:Q15978631 .
}

sub:provenance {
    sub:assertion has-source: wd:Q2013 , wd:Q28601559 .

    wd:Q28601559 rdfs:label "Recon 2.2: from reconstruction to model of
human metabolism"@en ;
        owl:sameAs <https://doi.org/10.1007/S11306-016-1051-4> .
}

sub:pubinfo {
    this: pav:createdBy orcid:0000-0001-7542-0286 .
}
```