

## Sparql Sample Queries

Please adapt these queries to your needs (e.g. adapting the dois of the articles to match the articles within your document collection rdfized with se4ojs).

### Query for the sections directly contained by the article

```
prefix c4o: <http://purl.org/spar/c4o/>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
prefix co: <http://purl.org/co/>
prefix deo: <http://purl.org/spar/deo/>
prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
prefix owl: <http://www.w3.org/2002/07/owl#>
prefix xsd: <http://www.w3.org/2001/XMLSchema#>
prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>
prefix po: <http://www.essepuntato.it/2008/12/pattern#>
prefix doco: <http://purl.org/spar/doco/>
prefix fabio: http://purl.org/spar/fabio/

#select the first-level sections of the article and the text contained in these sections.
select ?sec ?p ?text
where {
  ?article rdf:type fabio:Article.
  ?article prism:doi "10.5964/ejcop.v3i1.23".
  ?article po:contains ?list.
  ?list co:element ?sec.
  ?sec rdf:type doco:Section.
  ?sec po:contains ?listSubSecAndParagraphs.
  ?listSubSecAndParagraphs co:element ?p.
  ?p rdf:type doco:Paragraph.
  ?p c4o:hasContent ?text.
}
```

### Query for all sections (directly contained sections and transitively contained subsections) of the article

```
prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
prefix doco: <http://purl.org/spar/doco/>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
prefix co: <http://purl.org/co/>
prefix zpid_doco: <http://www.zpid.de/zpid_doco#>
prefix po: <http://www.essepuntato.it/2008/12/pattern#>

select ?article ?sec
where {
  ?article prism:doi "10.5964/ejcop.v3i1.23".
  ?article zpid_doco:containsIndirectly ?list.
  ?list rdf:type po:Structured.
  ?list co:element ?sec.
  ?sec rdf:type doco:Section.
}
```

### Query that ranks the citations of references of an article according to frequency

```
prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
prefix owl: <http://www.w3.org/2002/07/owl#>
prefix xsd: <http://www.w3.org/2001/XMLSchema#>
prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
prefix cito: <http://purl.org/spar/cito/>
prefix biro: <http://purl.org/spar/biro/>
prefix c4o: <http://purl.org/spar/c4o/>
```

#The top 10 references cited in the article with in-text citation frequency > 1.

```
Select ?ref ?inTextCount
where {
  ?art prism:doi "10.5964/ejcop.v3i1.23".
  ?art cito:cites ?refText.
  ?ref biro:references ?refText.
  ?ref c4o:hasInTextCitationFrequency ?inTextCount
  FILTER(?inTextCount > 1)
} ORDER BY DESC (?inTextCount ) LIMIT 10
```

### Query to retrieve the titles of the top 10 references cited in the article with in-text citation frequency > 1.

```
prefix cito: <http://purl.org/spar/cito/>
prefix dcterms: <http://purl.org/dc/terms/>
prefix biro: <http://purl.org/spar/biro/>
prefix c4o: <http://purl.org/spar/c4o/>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
```

```
Select ?refTitle ?inTextCount
where {
  ?art prism:doi "10.5964/ejcop.v3i1.23".
  ?art cito:cites ?refText.
  ?ref biro:references ?refText.
  ?ref c4o:hasInTextCitationFrequency ?inTextCount.
  ?refText dcterms:title ?refTitle.
  FILTER(?inTextCount > 1)
} ORDER BY DESC (?inTextCount ) LIMIT 10
```

### Query to retrieve the Top cited authors of an article.

```
prefix foaf: <http://xmlns.com/foaf/0.1/>
prefix doco: <http://purl.org/spar/doco/>
prefix cito: <http://purl.org/spar/cito/>
prefix dcterms: <http://purl.org/dc/terms/>
prefix biro: <http://purl.org/spar/biro/>
prefix c4o: <http://purl.org/spar/c4o/>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
prefix pro: <http://purl.org/spar/pro/>
```

#The top cited authors of the article.

```
Select (sum(?inTextCount) AS ?count) ?authorName ?firstName
where {
```

```
  ?art prism:doi "10.5964/ejop.v8i3.308".
  ?art cito:cites ?reference.
  ?inTextCitation biro:references ?reference.
  ?inTextCitation c4o:hasInTextCitationFrequency ?inTextCount.
  ?reference dcterms:title ?refTitle.
  ?role pro:relatesToDocument ?reference.
  ?role pro:withRole pro:author.
  ?group pro:holdsRoleInTime ?role.
  ?group foaf:member ?member.
  ?member foaf:familyName ?authorName.
  ?member foaf:givenName ?firstName.
```

```
} GROUP BY ?authorName ?firstName ORDER BY Desc (?count)
```

### Query to retrieve the sections ranked by number of citations occurring within their paragraphs.

```
prefix doco: <http://purl.org/spar/doco/>
prefix cito: <http://purl.org/spar/cito/>
prefix dcterms: <http://purl.org/dc/terms/>
prefix biro: <http://purl.org/spar/biro/>
prefix c4o: <http://purl.org/spar/c4o/>
prefix prism: <http://prismstandard.org/namespaces/basic/2.0/>
```

```
prefix po: <http://www.essepuntato.it/2008/12/pattern#>
```

#The sections with the most citations within an article.

```
Select (count(?ref) as ?refcount) ?sec
where {
```

```
  ?art prism:doi "10.5964/ejcop.v3i1.23".
  ?art cito:cites ?refText.
  ?ref biro:references ?refText.
  ?refPtr c4o:denotes ?ref.
  ?refPtr c4o:hasContext ?para.
  ?sec po:contains ?para.
```

```
} GROUP BY ?sec ORDER BY desc (?refcount)
```

## Query for "mental disorders" in the document collection

This query searches the ONTOAD ontology:

- It searches for the children of the concept with the preferred label "Mental disorders" in the ONTOAD ontology (an owl / skos ontology that needs to be copied to the SPARQL endpoint and can be obtained from bioportal).
- It matches ao:body's object in the rdf (which is the concept preferred label) to the corresponding preferred label of the matched child concepts.
- It displays the title of the article where the match was found, the matched text itself, the paragraph, the paragraph starting position and the concept resource (of the ontology).

```
prefix skos: <http://www.w3.org/2004/02/skos/core#>
prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
prefix owl: <http://www.w3.org/2002/07/owl#>
prefix xsd: <http://www.w3.org/2001/XMLSchema#>
prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>
prefix aot: <http://purl.org/ao/types/>
prefix aos: <http://purl.org/ao/selectors/>
prefix dcterms: <http://purl.org/dc/terms/>
prefix aoa: <http://purl.org/ao/annotea/>
prefix c4o: <http://purl.org/spar/c4o/>
prefix biotea: <http://www.biotea.ws/ontology/ao_biotea.owl#>
prefix ao: <http://purl.org/ao/core/>
```

```
SELECT ?title ?textMatch ?text ?label ?concept ?startPosition
WHERE{
  ?annotation ao:body ?body.
  ?annotation ao:context ?context.
  ?context ao:exact ?textMatch.
  ?context dcterms:referencesÂ ?para.
  ?context ao:offset ?startPosition.
  ?para c4o:hasContent ?text.
  ?annotation ao:annotatesResource ?doc.
  BIND(IRI(CONCAT(STR(?doc), "/textual-entity")) AS ?docTextualEntity)
  ?docTextualEntity dcterms:title ?title. ?concept skos:prefLabel ?label. ?concept rdfs:subClassOf
  ?parentConcept. ?parentConcept skos:prefLabel ?parentLabel.
  FILTER(STR(?parentLabel) = 'Mental disorders')
  FILTER(STR(?label) = ?body)
}
```