

SPARQL Queries Examples for the USPatents dataset

Fetch 100 patents

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>

select *
where
{
?s rdf:type patents:Patent.
}
limit 100
```

Fetch patents' basic data

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>
prefix dcterms: <http://purl.org/dc/terms/>

select *
where
{
?s rdf:type patents:Patent .
?s patentp:docNo ?documentNo .
?s patentp:inventionTitle ?title.
?s dcterms:abstract ?abstract.
?s dcterms:date ?date.
?s patentp:year ?year
}
limit 1000
```

Patents' citedBy AI Info-

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>

select ?s ?citing ?citedByDocNumber ?citerName ?citationCategory
where
{
?s rdf:type patents:Patent.
```

```

?s patentp:citedBy ?citing .
?citing patentp:docNo ?citedByDocNumber .
?citing foaf:name ?citerName .
?citing patentp:category ?citationCategory .

}
limit 1000

```

Patents' kinds Information

```

prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>

select ?s ?kindCode ?kindLabel
where
{
?s rdf:type patents:Patent.
?s patentp:kind ?kindCode .
?kindCode rdfs:label ?kindLabel
}
limit 1000

```

Patents' national classification information

```

prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>

select ?s ?classCode ?classLabel ?subClassLabel
where
{
?s rdf:type patents:Patent.
?s patentp:national-classification ?nClassification .
?nClassification patentp:mainClassCode ?classCode .
?nClassification patentp:mainClassLabel ?classLabel .
?nClassification patentp:mainSubclassLabel ?subClassLabel .

}
limit 1000

```

Patents' international classification information

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>

select ?s ?section ?class ?subclass ?group
where
{
  ?s rdf:type patents:Patent.
  ?s patentp:international-classification ?nClassification .
  ?nClassification patentp:section ?section .
  ?nClassification patentp:class ?class .
  ?nClassification patentp:subclass ?subclass .
  ?nClassification patentp:main-group ?group .
}
limit 1000
```

Patents' country (All US)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>

select ?s ?country
where
{
  ?s rdf:type patents:Patent.
  ?s patentp:country ?countryCode .
  ?countryCode rdfs:label ?country
}
limit 1000
```

Fetch patents' assignee

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>

select *
where
```

```
{
?s rdf:type patents:Patent.
?s patentp:assignee ?assignee
}
limit 100
```

Patents' assignee roles

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksu.org/property/>
prefix patents: <http://us.patents.aksu.org/ontology/>

select ?s ?assignee ?role
where
{
?s rdf:type patents:Patent.
?s patentp:assignee ?assignee .
?assignee patentp:role ?roleCode .
?roleCode rdfs:label ?role.
?assignee patentp:orgname ?org .
?org rdfs:label ?organization
}
limit 100
```

Patents' assignee organization

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksu.org/property/>
prefix patents: <http://us.patents.aksu.org/ontology/>

select ?s ?assignee ?organization
where
{
?s rdf:type patents:Patent.
?s patentp:assignee ?assignee .
?assignee patentp:orgname ?org .
?org rdfs:label ?organization
}
limit 100
```

Patents' assignee state

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>
```

```
select ?s ?assignee ?state
where
{
  ?s rdf:type patents:Patent.
  ?s patentp:assignee ?assignee .
  ?assignee patentp:state ?stateCode .
  ?stateCode rdfs:label ?state
}
limit 100
```

Patents' assignee country

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>
```

```
select ?s ?assignee ?country
where
{
  ?s rdf:type patents:Patent.
  ?s patentp:assignee ?assignee .
  ?assignee patentp:country ?countryCode .
  ?countryCode rdfs:label ?country
}
limit 100
```

Patents' assignee city

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aks.w.org/property/>
prefix patents: <http://us.patents.aks.w.org/ontology/>
```

```
select ?s ?assignee ?city
where
{
  ?s rdf:type patents:Patent.
  ?s patentp:assignee ?assignee .
```

```
?assignee patentp:city ?cityCode .
?cityCode rdfs:label ?city
}
limit 100
```

Patents' all assignee information (+state==> All USA)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
select ?s ?assignee ?role ?organization ?country ?state ?city
where
{
?s rdf:type patents:Patent.
?s patentp:assignee ?assignee .
?assignee patentp:role ?roleCode .
?roleCode rdfs:label ?role .
?assignee patentp:orgname ?org .
?org rdfs:label ?organization .
?assignee patentp:country ?countryCode .
?countryCode rdfs:label ?country .
?assignee patentp:state ?stateCode .
?stateCode rdfs:label ?state .
?assignee patentp:city ?cityCode .
?cityCode rdfs:label ?city
}
limit 100
```

Patents' All assignee Information (-state==> All Countries)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
select ?s ?assignee ?role ?organization ?country ?city
where
{
?s rdf:type patents:Patent.
?s patentp:assignee ?assignee .
?assignee patentp:role ?roleCode .
?roleCode rdfs:label ?role .
?assignee patentp:orgname ?org .
?org rdfs:label ?organization .
?assignee patentp:country ?countryCode .
?countryCode rdfs:label ?country .
?assignee patentp:city ?cityCode .
?cityCode rdfs:label ?city
} limit 100
```

Patents agents information

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
prefix dcterms: <http://purl.org/dc/terms/>
select *
where
{
?s rdf:type patents:Patent .
?s patentp:agent ?agent .
?agent rdf:type ?class .
optional {?agent foaf:firstName ?firstName} .
optional {?agent foaf:lastName ?lastName} .
optional {?agent foaf:Organization ?organization} .
?agent patentp:country ?countryCode .
?countryCode rdfs:label ?country
}
limit 1000
```

Patents primary examiners

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
prefix dcterms: <http://purl.org/dc/terms/>
select *
where
{
?s rdf:type patents:Patent .
?s patentp:primaryExaminer ?primaryExaminer .
?primaryExaminer foaf:firstName ?firstName .
?primaryExaminer foaf:lastName ?lastName .
}
limit 1000
```

Patents secondary examiners

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
prefix dcterms: <http://purl.org/dc/terms/>
select *
where
{
?s patentp:secondaryExaminer ?secondaryExaminer .
?secondaryExaminer foaf:firstName ?firstName .
}
```

```
?secondaryExaminer foaf:lastName ?lastName .
}
limit 1000
```

Patents inventor (valid for some years) (+state Only USA)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksu.org/property/>
prefix patents: <http://us.patents.aksu.org/ontology/>
prefix gndo:<http://d-nb.info/standards/elementset/gnd#>
select ?applicant ?fName ?IName ?Country ?state ?city ?residence ?nationality
where
{
?s rdf:type patents:Patent.
?s gndo:inventor ?inventor .
?inventor foaf:firstName ?fName .
?inventor foaf:lastName ?IName .
?patentp: patentp:country ?CCode .
?CCode rdfs:label ?Country .
?patentp: patentp:state ?CState .
?CState rdfs:label ?state .
?patentp: patentp:city ?CCity .
?CCity rdfs:label ?city .
}
limit 100
```

Patents inventor (valid for some years) (-state all countries)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksu.org/property/>
prefix patents: <http://us.patents.aksu.org/ontology/>
prefix gndo:<http://d-nb.info/standards/elementset/gnd#>
select ?applicant ?fName ?IName ?Country ?city ?residence ?nationality
where
{
?s rdf:type patents:Patent.
?s gndo:inventor ?inventor .
?inventor foaf:firstName ?fName .
?inventor foaf:lastName ?IName .
?patentp: patentp:country ?CCode .
?CCode rdfs:label ?Country .
?patentp: patentp:city ?CCity .
?CCity rdfs:label ?city .
}
limit 100
```


Patents applicant (+state Only USA)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
select ?applicant ?fName ?IName ?Country ?state ?city ?residence ?nationality
where
{
?s rdf:type patents:Patent.
?s patentp:applicant ?applicant .
?applicant foaf:firstName ?fName .
?applicant foaf:lastName ?IName .
?applicant patentp:country ?CCode .
?CCode rdfs:label ?Country .
?applicant patentp:state ?CState .
?CState rdfs:label ?state .
?applicant patentp:city ?CCity .
?CCity rdfs:label ?city .
?applicant patentp:residence ?Cresidence.
?Cresidence rdfs:label ?residence .
?applicant patentp:nationality ?NCode .
?NCode rdfs:label ?nationality
}
limit 100
```

Patents applicant (-state all countries)

```
prefix foaf:<http://xmlns.com/foaf/0.1/>
prefix patentp: <http://us.patents.aksw.org/property/>
prefix patents: <http://us.patents.aksw.org/ontology/>
select ?applicant ?fName ?IName ?Country ?city ?residence ?nationality
where
{
?s rdf:type patents:Patent.
?s patentp:applicant ?applicant .
?applicant foaf:firstName ?fName .
?applicant foaf:lastName ?IName .
?applicant patentp:country ?CCode .
?CCode rdfs:label ?Country .
?applicant patentp:city ?CCity .
?CCity rdfs:label ?city .
?applicant patentp:residence ?Cresidence.
?Cresidence rdfs:label ?residence .
?applicant patentp:nationality ?NCode .
?NCode rdfs:label ?nationality
}
limit 100
```

Patents' nationalities

```
select ?applicant ?nationality
where
{
  ?s <http://us.patents.aksw.org/property/applicant> ?applicant .
  ?applicant <http://us.patents.aksw.org/property/nationality> ?cnationality .
  ?cnationality <http://www.w3.org/2000/01/rdf-schema#label> ?nationality .
  filter not exists { ?cnationality <http://www.w3.org/2000/01/rdf-schema#label> "omitted"@en
}
```