OSA® The Optical Society

Light in Focus

FundRef—Making it Happen

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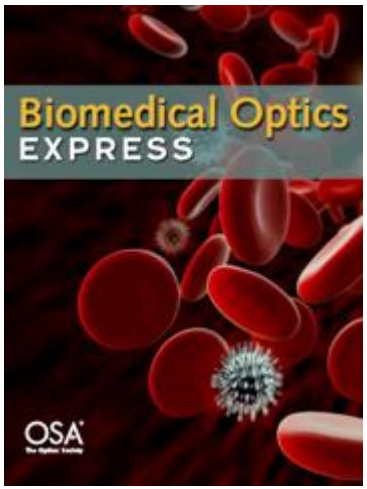
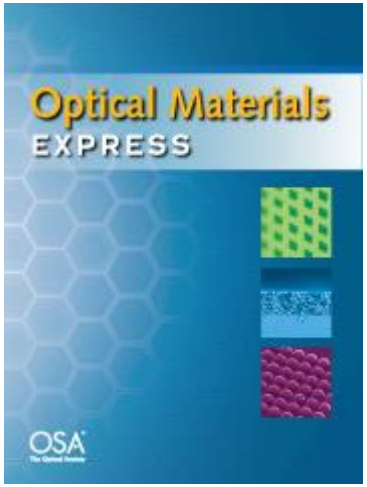
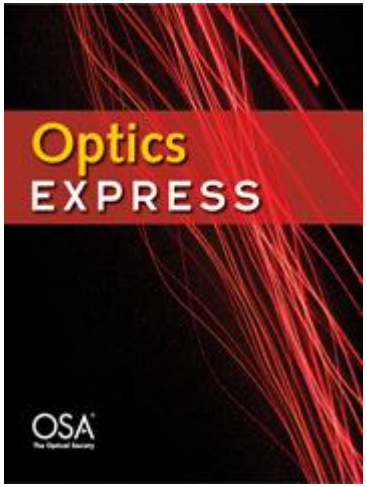
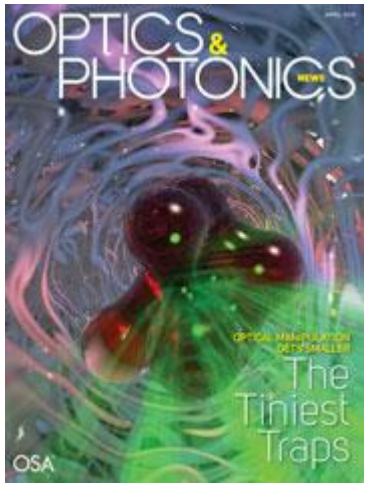
XUG
12 November 2015

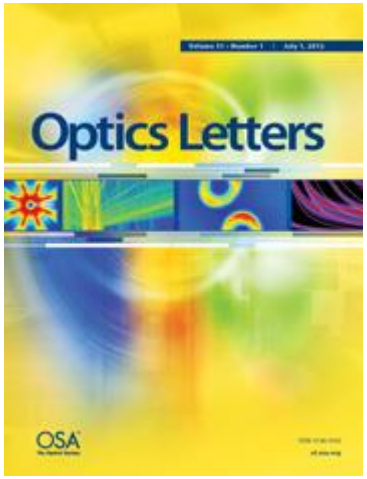
About The Optical Society

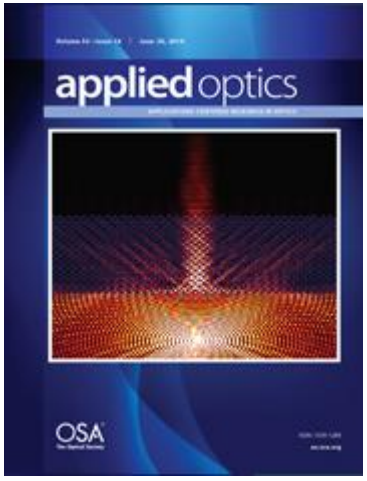


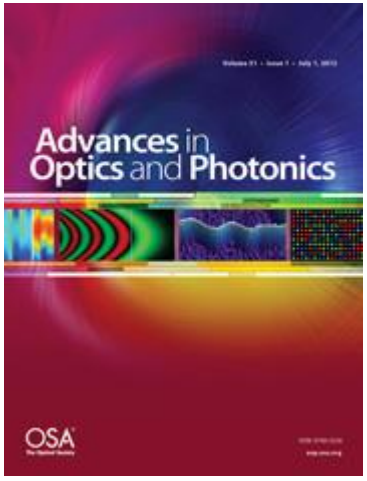


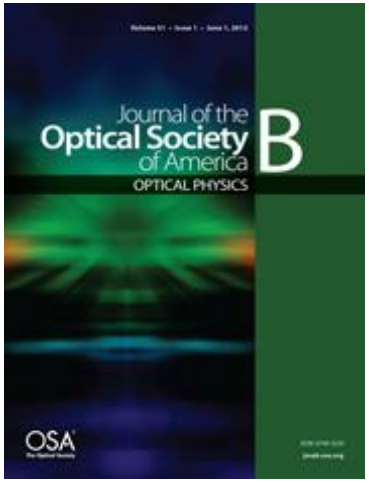


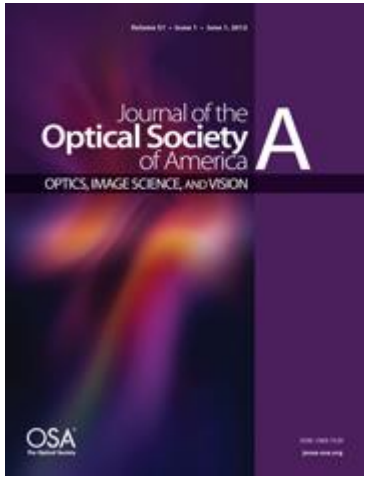








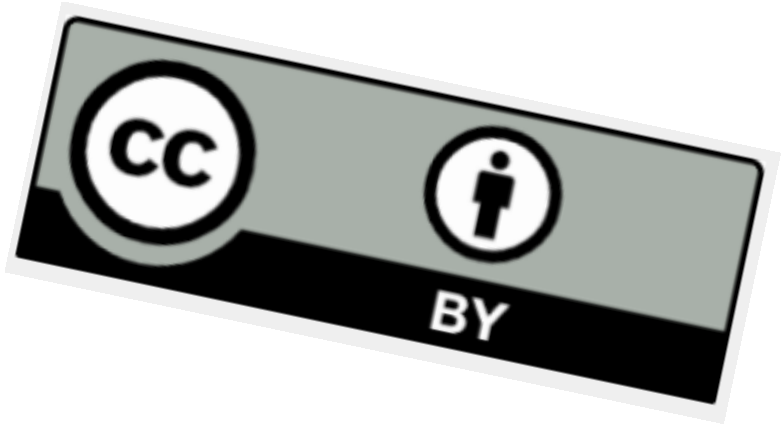




Open Access Mandates

CHORUS

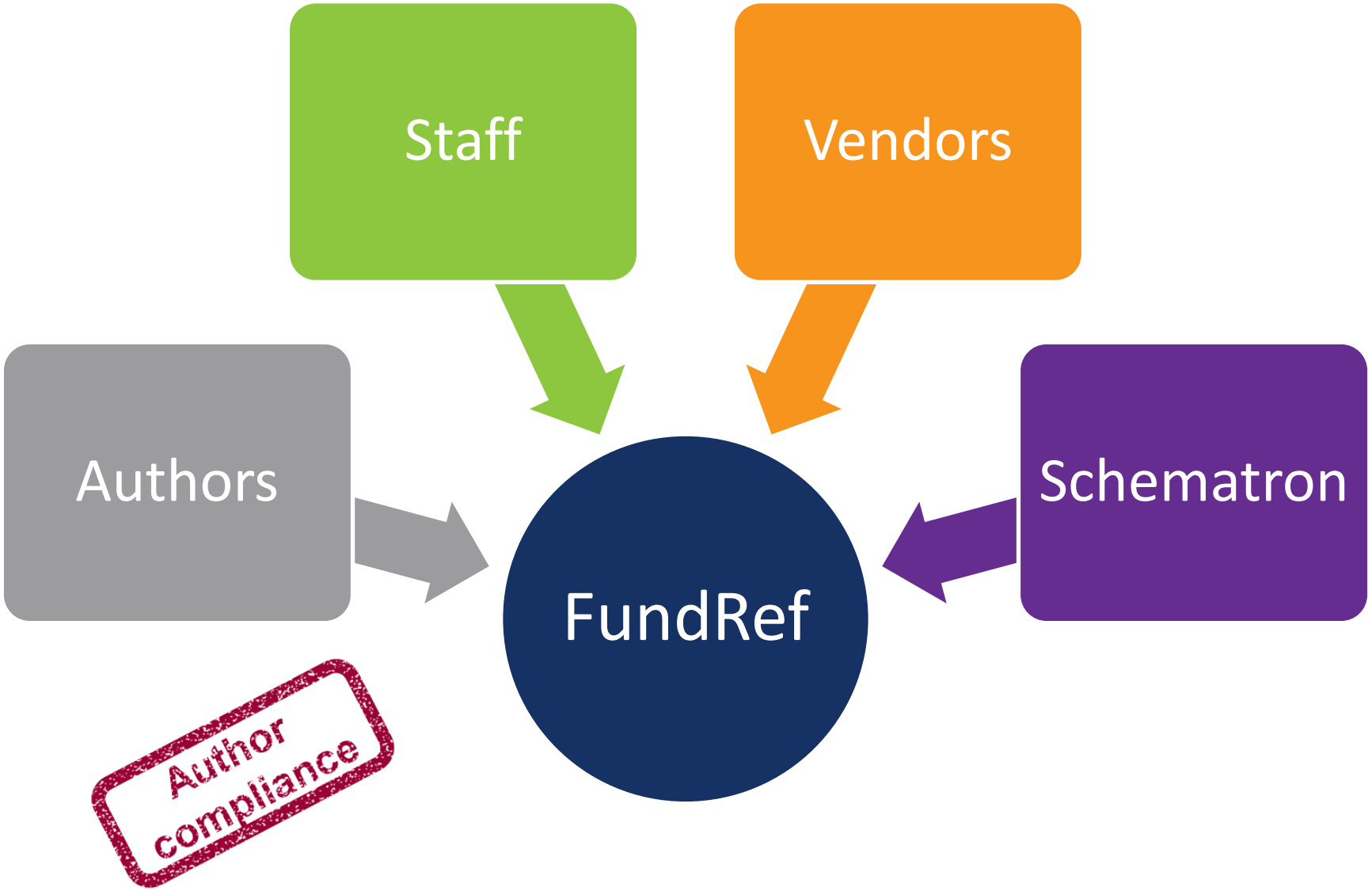
Clearinghouse for the **Open Research** of the United States



Fibermaster — George A. Kasabov - See more at: http://www.osaopn.org/home/gallery/image_of_the_week.aspx#image-16

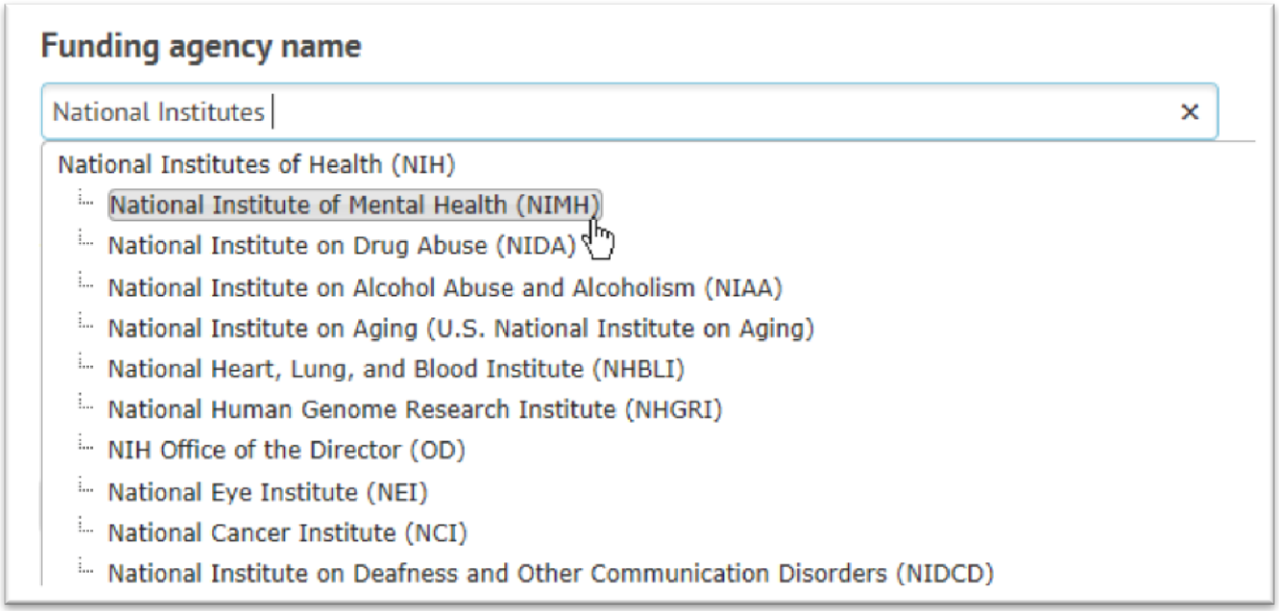
Business Intelligence

Compliance Challenge

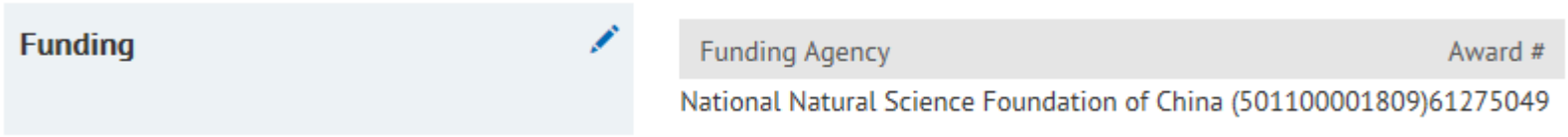


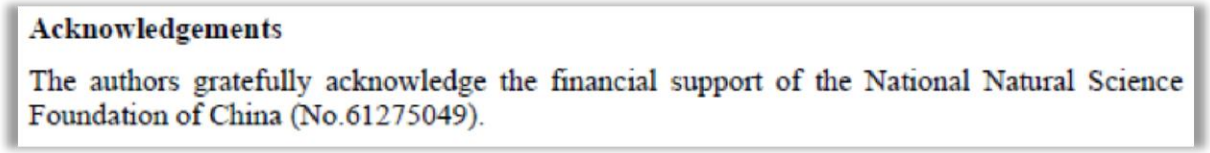
prism Article Tracking System Workflow – Author Submission

Authors select funding agency from the FundRef Registry



Staff must verify the funding information provided by author against what is in the manuscript.



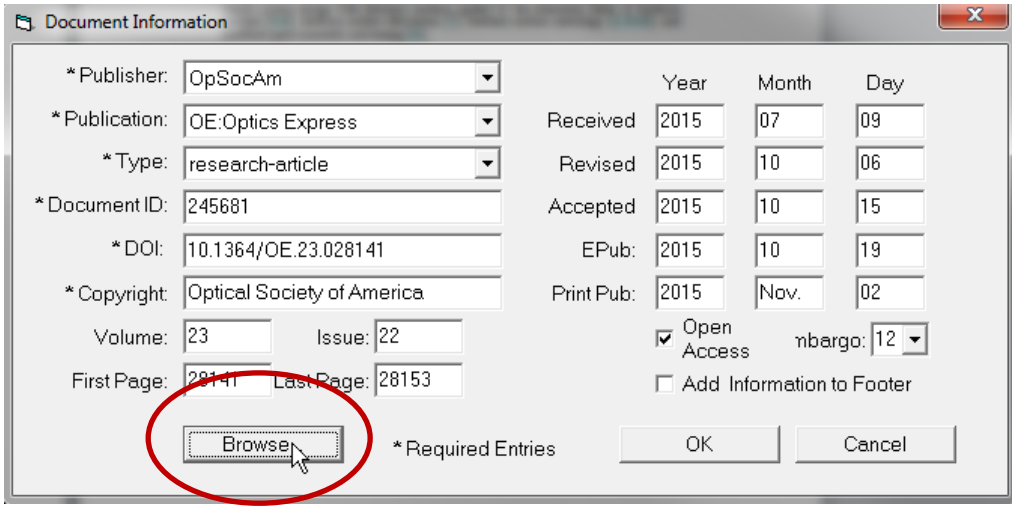


Does it match?

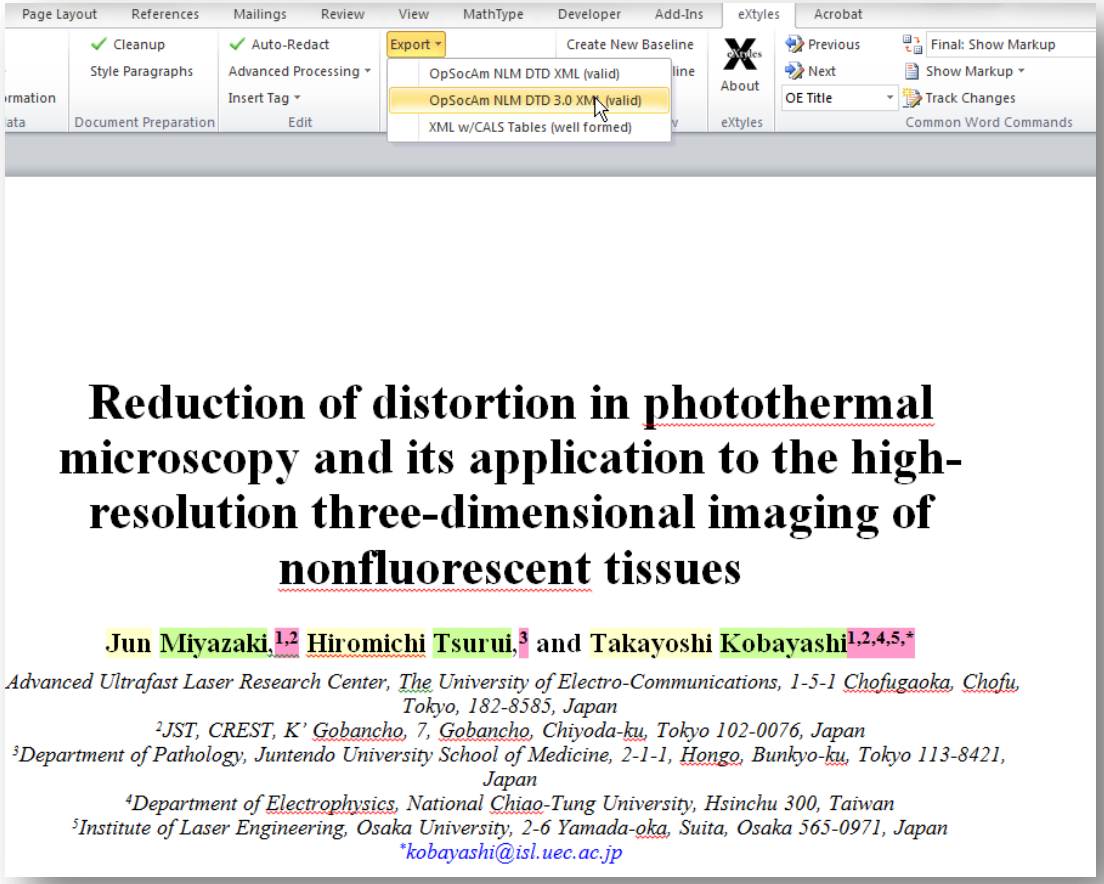
Workflow – eXtyles Import

XML Metadata Import File

```
<funding-group>
    <award-group id="sp1">
        <funding-source>Bundesministerium f&#xfc;r Bildung und Forschung (Federal
            Ministry of Education and Research)<named-content content-type="doi"
                >10.13039/501100002347</named-content></funding-source>
        <award-id>13N11972 (PT-VDI, TEHFA)</award-id>
    </award-group>
    <award-group id="sp2">
        <funding-source>European Research Council (ERC)<named-content content-type="doi"
                >10.13039/501100000781</named-content></funding-source>
        <award-id>[617173] “ACOPS”</award-id>
    </award-group>
</funding-group>
```



Workflow – eXtyles Export



Workflow – eXtyles Export

Full-text XML

```
<abstract>
<p>Vascular abnormalities serve as a key indicator for many skin diseases. Currently available methods in dermatology such as histopathology
</abstract>
<kwd-group kwd-group-type="OCIS"><title>OCIS codes: </title><kwd>(170.4500) Optical coherence tomography</kwd><kwd>(170.5120) Photoacoustic
<funding-group>
 <award-group id="sp1">
  <funding-source>Austrian Science Fund (FWF)<named-content content-type="doi">10.13039/501100002428</named-content></funding-source>
  <award-id>S10510-N20</award-id>
 </award-group>
 <award-group id="sp2">
  <funding-source>European Commission (EC)<named-content content-type="doi">10.13039/501100000780</named-content></funding-source>
  <award-id>FP7 ICT 317744</award-id>
 </award-group>
</funding-group>
</article-meta>
</front>
<body>
```

Document is valid.

How We Make It Work

1. Check 'label → DOIs' consistency within <funding-source>
2. Check 'DOI → labels' consistency within <funding-source>
3. Check Funding Info ↔ metadata DOIs consistency
4. Check label → DOI consistency between Acknowledgments and metadata

Breakdown of continuum" Diffracted Christmas lights on a textured panel of a fridge interrupted by a small plastic logo. —Vladimir Karpov, MPB Communications
http://www.osa-opn.org/home/gallery/image_of_the_week.aspx#image-4

Schematron Requirements

r1: check 'label → DOIs' consistency within <funding-source>

Check that for a funder's label (preferred or not) found in a <funding-source> its DOI is present and correct.

```
<funding-source>U.S. Department of Energy (DOE)
<named-content content-type="doi">10.13039/100000000</named-content></funding-source>
```

r2: check 'DOI → labels' consistency within <funding-source>

Check that for a DOI found in a <funding-source> the funder is represented as its preferred label followed by the acronym, if it exists.

```
<funding-source>Department of Entropy (DOE)
<named-content content-type="doi">10.13039/100000015</named-content></funding-source>
```

Schematron Requirements

r3: check Funding Info ↔ metadata DOIs consistency

Check that the set of funder DOIs in the article's metadata is the same as the set of funder DOIs in its backmatter.

```
<article-meta>
 <funding-group><award-group id="sp1">
   <funding-source>National Science Foundation (NSF)
    <named-content content-type="doi">10.13039/100000001
   </named-content></funding-source></award-group>
  <award-group id="sp2"><funding-source>U.S. Department of Energy (DOE)
     [redacted]
    </funding-source></award-group></funding-group></article-meta>
…
<back>
 <sec sec-type="funding"><title>FUNDING INFORMATION</title><p>
  <funding-source>National Science Foundation (NSF)
   <named-content content-type="doi">10.13039/100000001
   </named-content></funding-source>
  <funding-source>U.S. Department of Energy (DOE)
   <named-content content-type="doi">10.13039/100000015
   </named-content></funding-source></p></sec></back>
```

Schematron Requirements

r4: check label → DOI consistency between Acknowledgments and metadata

Check that for any string in Acknowledgments that matches a funder's label (preferred or not) its DOI in the article's metadata is present and correct.

```
<article-meta>
 <funding-group>
  <award-group id="sp1">
   <funding-source>National Science Foundation (NSF)
    <named-content content-type="doi">10.13039/100000001
    </named-content></funding-source></award-group>
 </funding-group>
</article-meta>
…
<ack>
 <title>ACKNOWLEDGMENTS</title>
 <p>Support provided by NSF and Department of Energy.</p>
</ack>
```

Lookups Derived from FundRef

LOOKUP-funder-label-to-dois.xml

```
<labels xmlns:xi="http://www.w3.org/2001/XInclude">
        <xi:include
        href="LOOKUP-funder-label-to-dois-not-in-FundRef.xml"/>
        ...
        <funder label="U.S. Department of Energy" pref="yes">
                <doi>10.13039/100000015</doi>
        </funder>
        <funder label="Department of Energy" alt="yes">
                <doi>10.13039/100000015</doi>
        </funder>
        <funder label="DOE" acronym="yes">
                <doi>10.13039/100000015</doi>
        </funder>
        ...
</labels>
```

LOOKUP-funder-doi-to-labels.xml

```
<funders xmlns:xi="http://www.w3.org/2001/XInclude">
        <xi:include
        href="LOOKUP-funder-doi-to-labels-not-in-FundRef.xml"/>
        ...
        <funder doi="10.13039/100000015">
                <label type="pref">U.S. Department of Energy</label>
                <label type="alt">Department of Energy</label>
                <label type="acronym">DOE</label>
        </funder>
        ...
</funders>
```

Matching Children to Parents

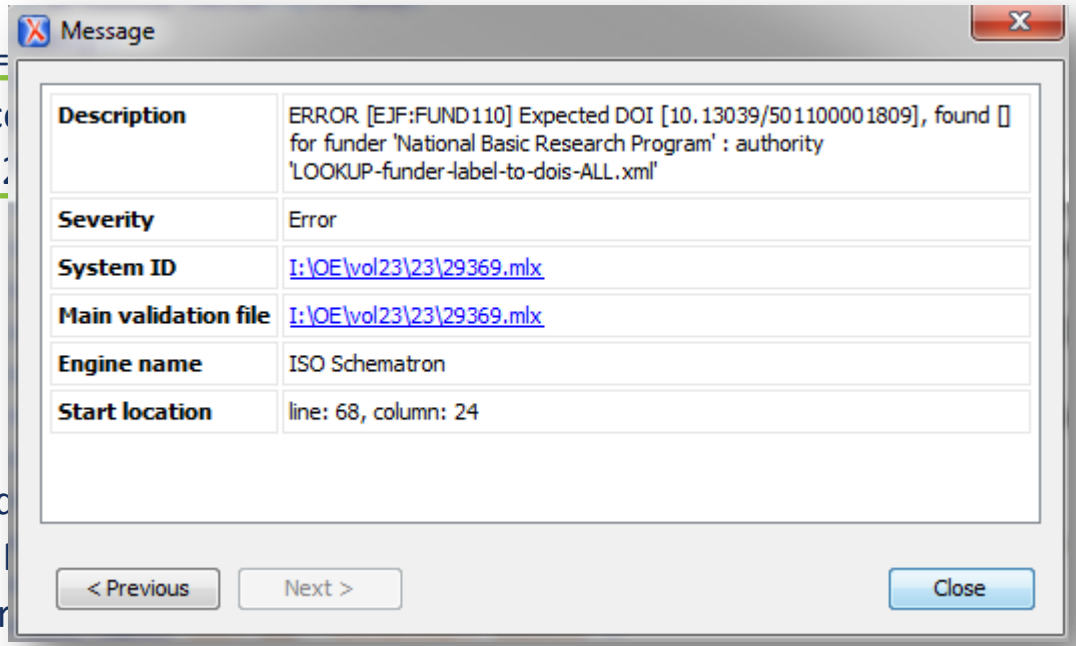
An NSFC project/program is a funder but NSFC isn't mentioned

Article Metadata

```
<funding-group>
   <award-group id=
      <funding-sourc
      <award-id>201
   </award-group>
</funding-group>
```

Funding block

```
<sec sec-type="func
   <title>FUNDING I
   <p><funding-sour
         (<award-id>2012CB315602</award-id>).</p>
</sec>
```



Matching Children to Parents

NSFC to be added and tagged explicitly

Article Metadata

```
<funding-group>
  <award-group id="sp1">
    <funding-source>National Basic Research Program</funding-source>
  </award-group>
  <award-group id="sp2">
    <funding-source>National Natural Science Foundation of China
        (NSFC)<named-content content-type="doi"
        >10.13039/501100001809</named-content></funding-source>
    <award-id>2012CB921900</award-id>
  </award-group>
</funding-group>
```

Funding block

```
<sec sec-type="funding">
  <title>FUNDING INFORMATION</title>
  <p><funding-source>National Basic Research Program</funding-source> of the
      <funding-source>National Natural Science Foundation of China
        (NSFC)<named-content content-type="doi"
        >10.13039/501100001809</named-content></funding-source>
      (<award-id>2012CB315602</award-id>).</p>
</sec>
```

Alt Labels in FundRef Registry

CrossRef Submission Confirmation Email

<?xml version="1.0" encoding="UTF-8"?>

<doi_batch_diagnostic status="completed" sp="ds5.crossref.org">

<submission_id>1383766356</submission_id>

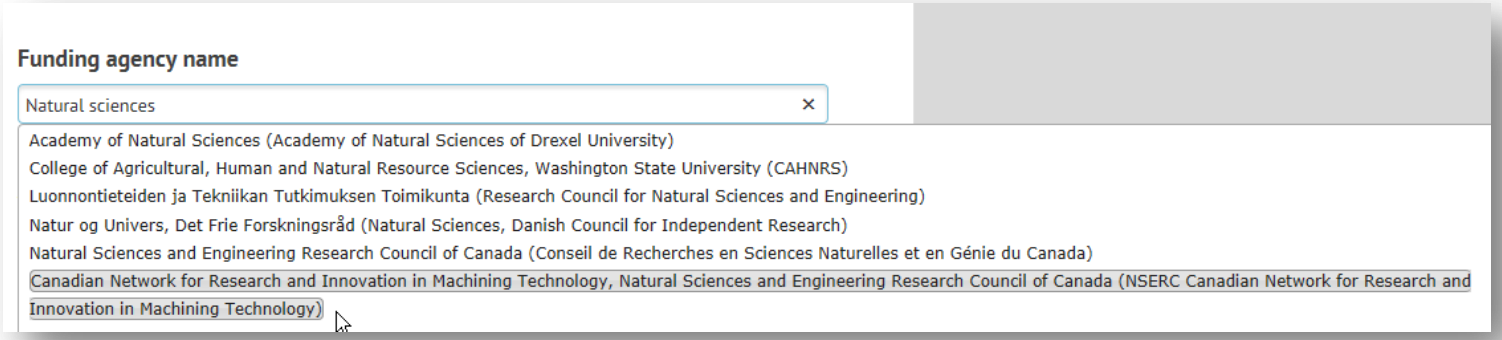
<batch_id>osa_batch_20150828015513</batch_id>

<record_diagnostic status="Warning">

<doi>10.1364/OE.23.023450</doi>

<msg>Funder name Canadian Network for Research and Innovation in Machining Technology, Natural Sciences and Engineering Research Council of Canada (NSERC Canadian Network for Research and Innovation in Machining Techn... is too long, please ensure the name is for a funder only.
 Fundref portion of deposit skipped</msg>

</record_diagnostic>



Alt Labels in FundRef Registry

FundRef Registry

```
<skos:Concept rdf:about="http://dx.doi.org/10.13039/501100002790">
   <skos:inScheme rdf:resource="http://data.fundref.org/vocabulary"/>
   <skosxl:prefLabel>
      <skosxl:Label rdf:about="http://data.fundref.org/vocabulary/Label-428015">
         <skosxl:literalForm xml:lang="en">Canadian Network for Research and Innovation in
            Machining Technology, Natural Sciences and Engineering Research Council of
            Canada</skosxl:literalForm>
      </skosxl:Label>
   </skosxl:prefLabel>
   <skosxl:altLabel>
      <skosxl:Label rdf:about="http://data.fundref.org/vocabulary/Label-508175">
         <skosxl:literalForm xml:lang="en">NSERC Canadian Network for Research and Innovation in
            Machining Technology</skosxl:literalForm>
      </skosxl:Label>
   </skosxl:altLabel>
   <skosxl:altLabel>
      <skosxl:Label rdf:about="http://data.fundref.org/vocabulary/Label-428016">
         <skosxl:literalForm xml:lang="en">CANRIMT, NSERC</skosxl:literalForm>
         <fref:usageFlag rdf:resource="http://data.fundref.org/vocabulary/abbrevName"/>
      </skosxl:Label>
```

Thank you!

Jennifer Mayfield

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