FORTY-EIGHTH AMENDMENT TO
ELSEVIER SUBSCRIPTION AGREEMENT

WHEREAS, the parties hereto have previously entered into an agreement dated 5 February 2009 (the
"Agreement") as last amended on 14 March 2012 and wish to amend the Agreement as set forth in
this amendment ("Amendment").

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth below, and
for such other good and valuable consideration, the receipt and sufficiency of which are hereby
acknowledged, the parties hereto agree to amend the Agreement as of the execution date below as set
forth below and on Schedule 1.

Except as specifically amended hereby, all of the existing terms and conditions of the Agreement are
hereby ratified. Capitalized terms used herein that are not otherwise defined shall have the meanings
ascribed to them in the Agreement. To the extent any terms or conditions of the Agreement conflict
with or are inconsistent with this Amendment, the terms of this Amendment shall prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment by their respective, duly
authorized representatives as of 27 March 2012.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA o/b/o
THE CALIFORNIA DIGITAL LIBRARY

(Subscriber)

| Text deleted |

[Text deleted] | Executive Director |

[Text deleted]

tomer Marketing, Science & Technology

Amendment No.: 1-2980827871
<table>
<thead>
<tr>
<th>Subscribed Products – publisher</th>
<th>Access</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>SciVerse® ScienceDirect® online – Elsevier B.V.</td>
<td>sciencedirect.sciverse.com</td>
<td></td>
</tr>
<tr>
<td>Elsevier Reference Works (perpetual access) - Comprehensive Nuclear Materials, Five-Volume Set</td>
<td>[Text deleted]</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL FEES