TWENTY-FIRST 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 28 March 2011 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 29 March 2011.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA o/b/o
THE CALIFORNIA DIGITAL LIBRARY
(Subscriber)

Name: [Text deleted]
Title: [Text deleted]

ELSEVIER B.V. [Text deleted]
(Elsevier)

Name: [Text deleted]
Title: Managing Director, Global Sales & Customer Marketing, Science & Technology

Amendment No.: 1-2194500901
TWENTY-FIRST AMENDMENT TO
ELSEVIER SUBSCRIPTION AGREEMENT
Schedule 1
Subscribed Products/Access/Fees

UNIVERSITY OF CALIFORNIA - SANTA BARBARA

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<tr>
<th>Subscribed Products – publisher</th>
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<td>- Comprehensive Membrane Science and Engineering</td>
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