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**Albert Kwansa**

Fri, May 10, 2013 at 2:17 PM

To: permissions@elsevier.com

Dear Elsevier,

I have submitted a request to reuse one figure from the following Elsevier article in my dissertation. Attached is the Rightslink License.

Title: Nanomechanics of collagen fibrils under varying cross-link densities: Atomistic and continuum studies;  
Author: Markus J. Buehler; Publication: Journal of the Mechanical Behavior of Biomedical Materials;  
Date: January 2008.

The request is specifically for Fig. 3 on page 63 of the Elsevier article.

I would like to further request permission to include only 3 of the 8 data curves from the author's figure in a newly plotted figure. I have digitized data points from this figure using a software called Engauge Digitizer (<http://digitizer.sourceforge.net/>) for three of the author's data curves (beta = 1, beta = 15, and beta = 25). I would like to include these three data curves as a standard/benchmark to which we can compare our data, as a figure in my dissertation.

Attached is the figure that I would like to include in my dissertation. This figure includes three data curves from Dr. Buehler's article published by Elsevier and three data curves from our data.

If this permission cannot be granted, I certainly understand. If that is the case, I can instead include Fig. 3 from this Elsevier article in its original form as a separate figure in my dissertation. Then I can include only our data in the newly plotted figure.

Below is a draft of the caption for the figure in my dissertation. If I am permitted to use this adapted figure, then I plan to add a statement to the end of this caption acknowledging permission from Elsevier. If not, then I intend to add this acknowledgement to the original figure's caption to be included separately.

Caption: "Figure 5.2: Stress-strain data for our fibril model plotted with data from the literature. The main figure is plotted from 0 to 60% strain, while the inset figure is plotted from 0 to 10% strain. The literature data curves are from a 2-D mesoscopic plane stress model run at 0.4 m/s with several different crosslink densities; we have included data for three of the author's crosslink densities, namely, 0 mol/mol (black x's), 1 mol/mol (blue x's), and 2 mol/mol (red x's) (see Fig. 3 in (Buehler, 2008)). This literature data was re-plotted using Engauge Digitizer as described in section 5.2.3."

Thank you for your time and consideration.

Sincerely,

Albert Kwansa  
Graduate Student  
Musculoskeletal Tissue Regeneration Lab  
Mechanics of Soft Biological Systems Lab  
School of Biomedical Engineering and Sciences  
Virginia Polytechnic Institute and State University (Virginia Tech)

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## 2 attachments



**Rightslink Printable License.pdf**

2259K



**Figure.pdf**

104K

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**Shridhar, Lakshmi Priya (ELS-CHN)**

To: Albert Kwansa

Tue, May 14, 2013 at 11:44 PM



Dear Albert

Thank you for your email below. The terms and conditions of the Rightslink license do actually include the following text which allows for minor modifications:

**5. Altering/Modifying Material: Not permitted. However, figures and illustrations may be altered/adapted minimally to serve your work.**

However, I can confirm that we are happy for you to modify the material as requested.

If you have any further queries regarding this please don't hesitate to contact us.

Regards

Lakshmi Priya

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