

# Accepted Manuscript

Thickening of viscoelastic flow in a model porous medium

E.J. Hemingway, A. Clarke, J.R.A. Pearson, S.M. Fielding

PII: S0377-0257(17)30002-2  
DOI: [10.1016/j.jnnfm.2017.11.002](https://doi.org/10.1016/j.jnnfm.2017.11.002)  
Reference: JNNFM 3945



To appear in: *Journal of Non-Newtonian Fluid Mechanics*

Received date: 9 January 2017  
Revised date: 23 October 2017  
Accepted date: 11 November 2017

Please cite this article as: E.J. Hemingway, A. Clarke, J.R.A. Pearson, S.M. Fielding, Thickening of viscoelastic flow in a model porous medium, *Journal of Non-Newtonian Fluid Mechanics* (2017), doi: [10.1016/j.jnnfm.2017.11.002](https://doi.org/10.1016/j.jnnfm.2017.11.002)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**HIGHLIGHTS**

- We study the flow of viscoelastic fluids past a periodic array of cylinders.
- The dominant regions of the flow field are identified for different porosities.
- A Weissenberg number is proposed that consistently captures the upturn in the drag.
- We show that insufficient numerical resolution can produce unphysical fluctuations.

Download English Version:

<https://daneshyari.com/en/article/7061115>

Download Persian Version:

<https://daneshyari.com/article/7061115>

[Daneshyari.com](https://daneshyari.com)