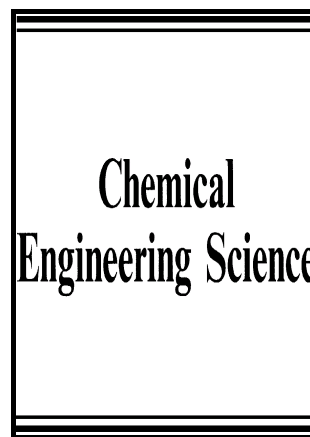


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Investigation of the influence of viscoelastic behaviour on the agitation of non-Newtonian fluid flow

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1 Investigation of the influence of viscoelastic behaviour  
2 on the agitation of non-Newtonian fluid flow

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7 **Abstract**

8 The design process of mixers agitating non-Newtonian fluid flow is usually  
9 performed with several well-known correlation methods. These methods has  
10 been the issue of many studies of the last few decades, so they are well dis-  
11 covered and often extended. But these studies also disclose the dependency  
12 of the correlation methods on the rheology of the fluid flow. Due to the  
13 good applicability the discovered dependencies were often neglected. In this  
14 paper the existing methods will be investigated experimentally for agitating  
15 viscoelastic as well as viscoinelastic fluid flow to determine the influence of  
16 viscoelasticity on the power consumption of agitating non-Newtonian fluid  
17 flow.

18 *Keywords:* design method, mixing, non-Newtonian Flow, Power  
19 consumption, viscoelastic

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