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## Software developed to make rheological information easy to exchange **FREE**

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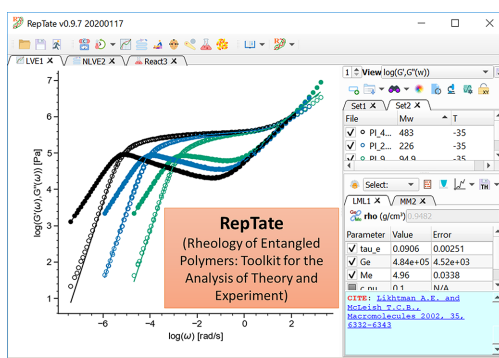


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**RepTate, a free and open-source software for sharing rheological data, has been updated to be compatible across Windows, Mac and Linux.**



From 2005-2009, the Microscale Polymer Processing 2 project developed the original RepTate software for the collection and exchange of scientific data related to rheology. Though the software had its limitations, it was the first step towards a much-needed platform for the exchange of experimental information.

Boudara et al. present an updated version of the free and open-source program RepTate, short for the Rheology of Entangled Polymers: Toolkit for Analysis of Theory and Experiment. Instead of using Borland Delphi, which is a Pascal based coding language, the new RepTate was built using Python, making it compatible across Windows, Mac and Linux operating systems.

The user-friendly software helps experimentalists to analyze their data using a large theoretical database and theorists to distribute their theories. Moreover, it can be installed on the same computer running the experiments and further streamline the data analysis workflow.

“With just a few clicks, users can load their experimental data, represent them in a convenient way and compare them with several different theories,” said author Jorge Ramírez. “At the same time, we have tried to make the software flexible enough so that advanced users can have full control over how they fit theories to data.”

The authors tested RepTate on results from a recent study on monodisperse, entangled linear polyisoprene polymers of different molecular weights.

“Most of the added value of RepTate comes from the contributions of external researchers, in the form of new theories, new applications or suggestions for improvement,” said Ramírez. “We hope that additional external contributors will help us extend the range of applicability of the code. That way, they can benefit the community and get more visibility for their theories.”

**Source:** “REPTATE rheology software: Toolkit for the analysis of theories and experiments,” by Victor A.H. Boudara, Daniel J. Read, and Jorge Ramírez, *Journal of Rheology* (2020). The article can be accessed at <https://doi.org/10.1122/8.0000002>.

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