SVRC-QSPR model for predicting liquid viscosity

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Viscosity is an important transport property used in engineering design for transportation and processing of fluids. Although experimental determination of Viscosity of liquid remains option, It requires significant time and cost investment.
Many generalized prediction model do not capture structure properties, thus produce poor prediction. As such, quantitative structure–property relationship (QSPR) models offer an attractive alternative since they have the potential to provide reliable property estimates based on chemical structure information. but QSPR model data over the entire saturation range provides only semi-quantitative predictions.
In this study, To overcome the drawbacks of QSPR models, an approach that involves the use of QSPR methodology to generalize the model parameters of the developed SVRC(Scaled variable reduced coordinate)model was proposed. SVRC framework was used to correlate the available data for the saturation properties under consideration. QSPR was used to generalize the SVRC model parameters. By Using SVRC model, We can do precise prediction of liquid viscosity.