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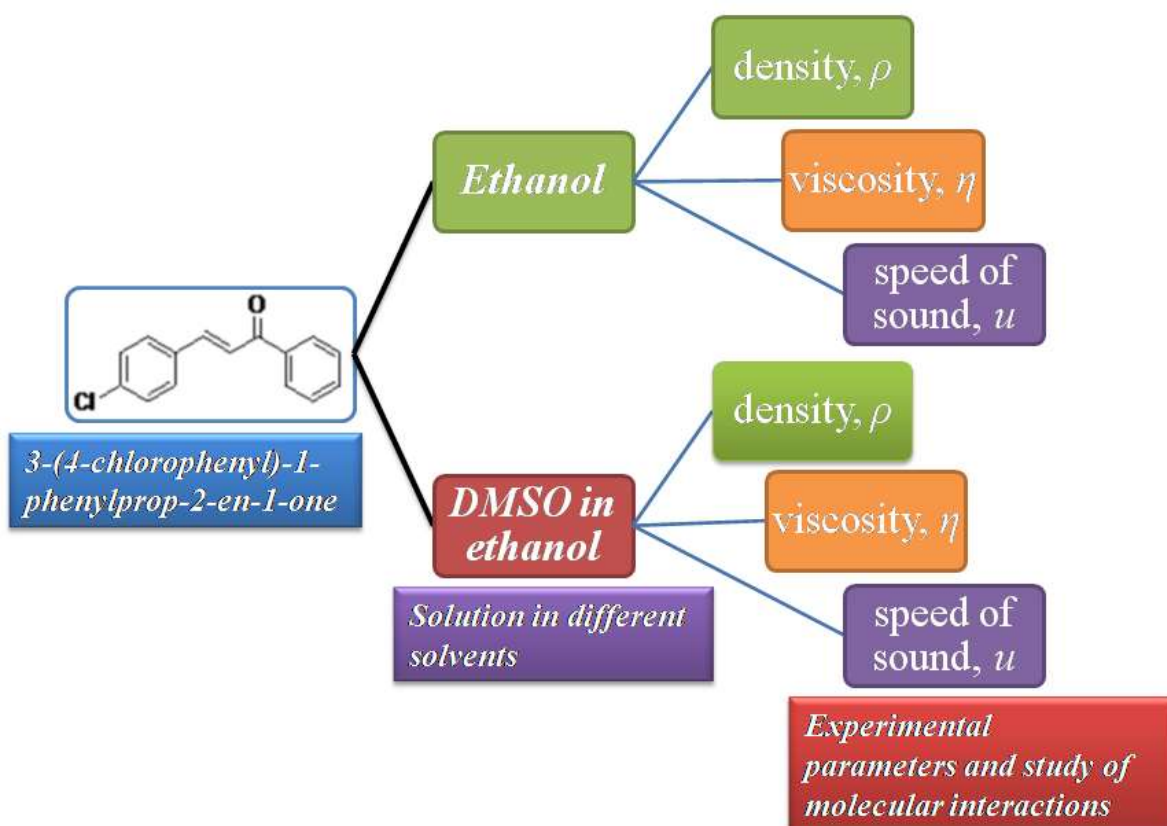
Thermo-acoustic behavior of synthesized 3-(4-chlorophenyl)-1-phenylprop-2-en-1-one in ethanol and in different percentage composition of DMSO in ethanol

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In the present investigation 3-(4-chlorophenyl)-1-phenylprop-2-en-1-one was synthesized by aldol condensation and the obtained product was characterized by ^1H NMR and ^{13}C NMR spectra. Binary and ternary solutions of 3-(4-chlorophenyl)-1-phenylprop-2-en-1-one were prepared in pure ethanol and in different compositions of DMSO in ethanol. The interactions of 3-(4-chlorophenyl)-1-phenylprop-2-en-1-one with solutions of ethanol and in different composition of DMSO in ethanol as a function of temperature and concentration have been studied by combination of volumetric, viscometric and acoustic studies. The obtained results were discussed in terms of molecular interactions occurring in these solutions.

Keywords: 3-(4-Chlorophenyl)-1-phenylprop-2-en-1-one, density, viscosity, speed of sound.