

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/08/2022

(21) Application No.202211047054 A

(43) Publication Date : 18/11/2022

(54) Title of the invention : STUDY OF MOLECULAR INTERACTIONS IN POLYVINYL CHLORIDE SOLUTIONS

(51) International classification :G01N0029024000, G01N0009000000, G01N0029320000, G01N0029036000, G01N0011160000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

1)Dr. Richa Saxena

Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, **IFTM** University, Moradabad, Uttar Pradesh - 244102 Moradabad -----

2)Dr. B.K. Singh

3)Prof. B S Rawat

4)Dr. Rajan Singh

5)Dr. Sarika Arora

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr. Richa Saxena

Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, **IFTM** University, Moradabad, Uttar Pradesh - 244102 Moradabad -----

2)Dr. B.K. Singh

Address of Applicant :Professor, Department of Mathematics, School of Sciences, **IFTM** University, Moradabad, Uttar Pradesh - 244102 Moradabad -----

3)Prof. B S Rawat

Address of Applicant :Department of Physics, School of Applied and Life Sciences (SALS), Uttaranchal University, Dehradun, Uttarakhand - 248007 Dehradun -----

4)Dr. Rajan Singh

Address of Applicant :Assistant Professor, Department of Mathematics, School of Sciences, **IFTM** University, Moradabad, Uttar Pradesh - 244102 Moradabad -----

5)Dr. Sarika Arora

Address of Applicant :Associate Professor, Department of Chemistry, School of Sciences, **IFTM** University, Moradabad, Uttar Pradesh - 244102 Moradabad -----

(57) Abstract :

The present invention relates to that the experimental values of density, viscosity and ultrasonic velocity of polyvinylchloride in dimethylformamide is measured at different concentration and temperatures at 1 MHz frequency. Using these data different acoustical parameters have been calculated to understand molecular interactions between solute and solvent. The study helps to understand the polymer and solvent interaction and the effect of concentration and temperature on various parameters have been discussed.

No. of Pages : 21 No. of Claims : 4