LIST OF RESEARCH PAPERS

PUBLISHED

1. Determination of Effective Potentials for Non-Polar Liquids Using the Continuum Dielectric Model,

2. A Theoretical Model for Determining Oscillator Strength Using a Non-Spherical Molecular Cavity and Measurement of the He-Ne. Laser Light Absorption Coefficient in Solutions,

3. Dielectric Response of Select Ionic Solutions Using a Loaded Microwave Cavity Operating Near 9, 21 and 29 GHz as a Probe,

   IEEE Transaction on Electrical Insulation, Conference Record of the 10th International Conference on Conduction and Breakdown in Dielectric Liquids, held at Grenoble, France, September, 10-14, 1990.

   IEEE Transaction on Electrical Insulation, Conference Record of the 10th International Conference on Conduction and Breakdown in Dielectric Liquids, Grenoble, France, September, 10-14, 1990.

6. Measurement of linewidth parameter and dipole moment for $^{13}$CH$_3^{13}$C$_2^{15}$N molecule in the $n_\nu_B$ (n = 0, 1, 2) vibrationally excited states at microwave frequencies.
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7. Phase Transition Study of Nematic Liquid Crystals.


9. Molecular structure of isotopically substituted methyl cyanide of $C_{3v}$ symmetry.

10. First order interaction energy of the two molecules system under the Rayleigh-Schrödinger perturbation theory and contributions to the cross sections using the method of irreducible tensor operators: I.

11. Second order interaction energy of the two molecules system under the Rayleigh-Schrödinger perturbation theory using method of irreducible tensor operators: II.
PAPERS PRESENTED AT THE CONFERENCES

1. Linewidth and Lineshift Parameters of Rotation-Vibration Transition of Linear Molecule Perturbed by Inert Gas.


2. Dielectric Response of Select Ionic Solutions Using a Loaded Microwave Cavity Operating at 9, 21 and 29 GHz as a Probe.


3. An Experimental Study of Collisional Broadening of the Rotational Components ΔJ = 2 ← 1, K = 0, 1 of the $^{13}$CH$_3^{13}$C$^{15}$N Molecule in the $^n$ν$_8$, n = 0, 1, 2 Vibrations. Presented at 37th Annual Meeting of the American Association of Physics Teachers, Sponsored by American Physical Society at Texas City, Texas, USA, November, 9-10, 1990.

4. A Study of the Lineshape of the Collisionally Broadened Rotational Components ΔJ = 2 ← 1, K = 1 of the $^{13}$CH$_3^{13}$C$^{15}$N molecule in the $^n$ν$_8$ (n = 0, 1, 2) Vibrations. Presented at the 37th Annual Meeting of the American Association of Physics Teachers, Sponsored by American Physical Society at Texas City, Texas, USA, November, 9-10, 1990.

5. Molecular Structure of Isotopically Substituted Methyl Cyanide of C$_{3v}$ Symmetry.

Presented at the 61st Annual Session of the National Academy of Sciences, India, held at Meerut University, Meerut, India, December, 19-21, 1991.