

Result: Water has the highest relative polarity because of the low amount of energy and wavelength took to reach the max Absorbance. Some of the solvents took the same amount of wavelength to reach the max absorbance. Acetonitrile and Acetone took the higher amount of wavelength to reach the max absorbance.

Discussion: There is a difference between the visual analysis of the relative energies and energy ranking from actual measurement of the energies using the Genesys 20 because visual analysis was a predictor or finding the amount of light that can be absorbed. hypochromic shift was occurring during the experiment. The types of categories in this experiment are the solvents that took higher wavelengths to turn into negative, such as the 1-Propanol and Acetonitrile, Acetone, and solvents that require shorter wavelengths like methanol and water. Most of the polarity was miscible in the table at Solvent Polarity Table, so it could not be compared. The solvent will bathochromic shift because it took higher amount of wavelength to get higher Absorbance. It will be less than the first solvent because of the higher amount required.

Conclusion: The purpose is to determine the wavelength of maximum absorption of solution and it can be achieved through the experiment several types of dyed solvent and recording their absorption of solution and try to calculate their polarity's. The results were little like anticipated outcomes because there may be small error occurring during the experiment such as the exposure of light to solvent may have resulted in different outcome. In future it may be helpful to experiment with low lighting so that light does not have an effect on the solvent during the experiment.