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PHYSICOCHEMICAL INVESTIGATION TO PROBE THE RECOVERY
AND CONTROLLING MANAGEMENT OF GOUT PAIN
IN HUMAN BODY THROUGH ACCUMULATION OF VITAMIN B₆ MOLECULE

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Abstract. Pyridoxal phosphate (PLP), the active form of vitamin B₆, is a coenzyme in a variety of enzymatic reactions. The high blood concentrations of uric acid crystals can lead to gout and are associated with other medical conditions including diabetes and the formation of ammonium acid urate kidney stones. Therefore, these PLP and uric acid's ion-solvent interactions in aqueous system can lead to the dissolution of the excess uric acid from the body, which brings about the novelty in this paper. In order to proof the interactions and removal of excess uric acid from the body we have studied its Density, Viscosity, Refractive index, Conductance, UV-Vis, IR, ¹H-NMR at three diverse temperatures. It was observed that the ion-solvent interactions dominated rather than the ion-ion interactions. Therefore, these potential capacities of PLP to act as coenzyme in various catabolic pathways will be helpful in various clinical treatments related with hyperuricemia, hypouricemia, hyperuricosuria, hypouricosuria, gout within the human body.