

## **The Effects of Osmotic Crowding on the Hydrolysis of p-Nitrophenyl Phosphate by E.coli Alkaline Phosphatase**

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### *Poster Presentation Abstract:*

Most enzymes function in a very crowded environment within the cell. The kinetics of the enzymes have evolved to function under such conditions. However in most *in vitro* studies, enzyme kinetics are studied under comparatively highly dilute conditions. This experiment is designed to study the hydrolysis p-nitrophenyl phosphate catalyzed by E.coli alkaline phosphatase using osmotic crowding to simulated *in vivo* conditions. The results of this experiment will be compared to our previous studies using calf intestinal alkaline phosphatase. Ultimately, these experiments will help us better understand the behavior of drugs under more cell-like conditions, allowing for better drug design and testing.

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