

Practice Problem

Unit 2

Two experiments were performed with the enzyme ribonuclease. In experiment 1, the effect of increasing substrate concentration on reaction velocity was measured. In experiment 2, the reaction mixtures were identical to those in experiment 1 except that 0.1 mg of an unknown compound was added to each tube. Plot the data according to the Lineweaver-Burk method. Determine the effect of the unknown compound on the enzyme's activity. (Substrate concentration is measured in millimoles per liter. Velocity is measured in the change in optical density per hour.)

Experiment 1		Experiment 2	
[S]	v	[S]	v
0.5	0.81	0.5	0.42
0.67	0.95	0.67	0.53
1	1.25	1	0.71
2	1.61	2	1.08