

# Enzymes Speed Reactions

(to the tune of "We Will Rock You" by Queen)

Michaelis and Menton did a lot o' diggin' to get the rate equation for an enzyme.

"V" is  $V_{max}:[S]$  ova'  $[S]$  plus  $K_M$ ; starts out steep and it flattens out then, singin'

**Enzymes speed reactions; Enzymes speed reactions**

Transition state recognition is the key 'cuz it lowers activation free energy.

Yo! how much substrate gives half the best rate is how we find  $K_M$  on any ol' date, singin'

**Enzymes speed reactions; Enzymes speed reactions**

Competitive inhibitors raise the  $K_M$  but the  $V_{max}$  always stays just the same.

Noncompetitive's the other way round, with the  $K_M$  unchanged and the  $V_{max}$  goin' down, singin'

**Enzymes speed reactions; Enzymes speed reactions**

You're in college now make a big noise learnin' all 'bout enzymes taught in Biochemistry.

You got facts in yo' head, just what the Prof said, spreadin' out yo' notes all over the bed, dreamin'

**Enzymes speed reactions; Enzymes speed reactions**