Grossoehme, Nicholas <grossoehmen2@mailbox.winthrop.edu>

Chapter 12 - Enzyme Kinetics

1 message

Google Forms <nobody@google.com> Thu, Oct 13, 2016 at 1:04 PM
To: grossoehmen2@mailbox.winthrop.edu

Thanks for filling out Chapter 12 - Enzyme Kinetics

Here's what we got from you:

EDIT RESPONSE

Chapter 12 - Enzyme Kinetics

Your email address (**grossoehmen2@mailbox.winthrop.edu**) was recorded when you submitted this form.

Match the rate constant units with the reaction order.

	0th order	1st order	2nd order
1/s	○	◉	○
1/M*1/s	○	○	◉
M/s	◉	○	○

Which process is an equilibrium in Michaelis-Menten kinetics?

- ○ ES --> E + P
- ◉ E + S --> ES
- ○ E + S --> E + P

What is meant by a "Steady State Approximation"?

[ES] does not change as the reaction proceeds

When V0 = Vmax/2, Km = ____.

Sorry, Google Forms don't do subscripts.

[S]

Which of the following refers to a second order reaction?

- kcat
- Km
- kcat/Km

The Steady State Kinetics model can determine a reaction mechanism.

- True
- False

It cannot determine if intermediates form during the reaction progress.

Reactions that involve multiple substrates can be modeled with Michaelis Menten kinetics

- True
- False

Kinetic experiments and equations can be derived, but they are more complicated than M-M equation

Methanol poisoning is treated by getting someone intoxicated with ethanol. This is an example of _____ inhibition.

- competetive
- uncompetitive

Which form of inhibition always decreases the apparent Km and Vmax?

- competetive
- mixed
- uncompetitive

Note that there was a typo in the reading questions - it said increase instead of decrease.
None of these forms always increases both variables - Mixed CAN increase both, but it can also lead to a decrease in KM. See Table 12.2 for a summary

Feedback inhibition is a form of _____. Select all that apply.

- [ ] Mixed inhibition
- [x] allosteric regulation
- [ ] competetive inhibition

- [x] uncompetetive inhibition

What is a common form of enzyme control through covalent modifications?

- [x] phosphorylation
- [ ] yeah, it must be phosphorylation
- [ ] no, seriously, choose phosphorylation.
- [ ] metabolic pathways are turned on/off because of phosphorylation triggered by extracellular signals. So choose the first one.