

Lecture 3.8 Quiz
Principles of Electronic Nanobiosensors
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Answer the five questions below by choosing the one, best answer.

- 1) The Michaelis-Menton equation describes the following:
 - a) Flux conservation during fluid flow.
 - b) Enzyme assisted reaction.**
 - a) Evaporation of droplet.
 - b) Reaction in the reference electrode.

- 2) Glucose oxidase is:
 - a) The analyte
 - b) Enzyme which is used, but not consumed by the reaction.**
 - c) Peclet number.
 - d) Size of the molecule.

- 3) The Michaelis-Menton equations have two rate equations. These constants can be determined most simply by the slope and the intercept of the following plot.
 - a) $[v]$ vs $[S]$.
 - b) $1/[v]$ vs $[S]$.
 - c) $[v]$ vs. $1/[S]$.
 - d) $1/[v]$ vs. $1/[S]$.**

- 4) In a Glucose sensor, the slow diffusion of oxygen away from the electrode is reflected in the:
 - a) Relative increase in the reverse reaction at the electrode.**
 - b) Faster diffusion of Glucose.
 - c) Reduced concentration of Glucose at the interface.
 - d) All of the above.

- 5) For a planar amperometric sensor, the time-exponent of the current produced in response to a step pulse is given by:
 - a) 0.0
 - b) 0.5
 - c) -0.5**
 - d) 1.0

End of quiz. This quiz contains 5 questions.