

X

NPTEL

reviewer3@nptel.iitm.ac.in ▼

[Courses](#) » [Interactomics](#) [Announcements](#) [Course](#) [Ask a Question](#) [Progress](#) [Mentor](#) [FAQ](#)

Unit 2 - Week 1

Course outline

How to access the portal ?

Week 1

- Lecture 1 - Introduction to Interactomics
- Lecture 2 - An overview of label-free technologies
- Lecture 3 - An overview of surface plasmon resonance (SPR)
- Lecture 4 - An overview of surface plasmon resonance imaging (SPRi)
- Lecture 5 - Basics of SPR: Surface chemistry
- Download Videos
- Weekly Feedback
- Quiz : Week 1 Assingment 1
- Week 1

Week 1 Assingment 1

The due date for submitting this assignment has passed.

As per our records you have not submitted this **Due on 2018-09-12, 23:59 IST.** assignment.

1) The pH of the immobilization buffer is dependent on which of the following? **1 point**

- pI of the ligand
- Molecular weight of the ligand
- pI of the analyte
- Molecular weight of the analyte

No, the answer is incorrect.

Score: 0

Accepted Answers:

pI of the ligand

2) Which of the following statement is true? **1 point**

- Ligand is used as the immobilization buffer and analyte is used as the running buffer
- Ligand is used as the running buffer and analyte is used as the immobilization buffer
- Ligand is immobilized on the surface and analyte is flown over it
- Ligand is used as the capture molecule and analyte is used as the running buffer

No, the answer is incorrect.

Score: 0

Accepted Answers:

Ligand is immobilized on the surface and analyte is flown over it

3) What are the different applications of an SPR system? **1 point**

- Kinetics
- Binding
- Concentration analysis

© 2014 NPTEL - Privacy & Terms - Honor Code - FAQs -



A project of



NPTEL

National Programme on
Technology Enhanced Learning

In association with

NASSCOM®

Funded by

Week 5

Week 6

Week 7

Week 8

experiment

- All bound analyte is removed
- Minimum effect on ligand activity
- Both of the above
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both of the above

5) Using the information provided below, calculate the immobilization level needed for an **1 point**
R_{max} of 200 RU. If the molecular weight of a ligand is 150kDa, molecular weight of the analyte is 30kDa and the stoichiometric ratio of interaction is 1:1.

- 40 RU
- 600 RU
- 1000 RU
- 45000 RU

No, the answer is incorrect.

Score: 0

Accepted Answers:

1000 RU

6) Which of the following can be treated as a reference surface for an SPR assay? **1 point**

- Unmodified surface
- Activated-deactivated surface
- Surface immobilized with dummy ligand
- All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of the above

7) A sensorgram is a plot of? **1 point**

- Response against concentration
- Response against time
- K_D against concentration
- K_D against time

No, the answer is incorrect.

Score: 0

Accepted Answers:

Response against time

8) Which of the following buffer is used for dissolving the analyte? **1 point**

- Regeneration buffer
- Running buffer
- Immobilization buffer

Any of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Running buffer

9) What is the unit of association rate constant?

1 point

- Molar (M)
- Per second (s-1)
- Per molar per second (M-1s-1)
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Per molar per second (M-1s-1)

10) What is the unit of dissociation rate constant?

1 point

- Molar (M)
- Per second (s-1)
- Per molar per second (M-1s-1)
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Per second (s-1)

Previous Page

End