Unit 9 - Week 8

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

- Current Trends in Surface Modification of Nanomaterials (Part-1)
- Current Trends in Surface Modification of Nanomaterials (Part-2)
- Current Trends in Surface Modification of Nanomaterials (Part-3)
- Modified Nanomaterials: In-use for consumer products
- Main Problems in Synthesis of Modified Nanomaterials
- Quiz : Assignment 8

Download Videos

Feedback

Text Transcripts

Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-25, 23:59 IST.

All are compulsory

1) _____ is the process of adding impurities to a pure semiconductor *1 point*

- Diffusing
- Mixing
- Doping
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
Doping

2) When intrinsic semiconductors are added with the pentavalent impurities i.e. antimony, arsenic, bismuth and phosphorus, are called: *1 point*

- Donor or N-type impurities
- Acceptor or P-type impurities
- Donor or P-type impurities
- Acceptor or N-type impurities

No, the answer is incorrect.
Score: 0
Accepted Answers:
Donor or N-type impurities

3) How the functionalization of nanomaterials takes place? *1 point*

- By absorption of functional groups
- By adsorption of functional groups
- By attachment of functional groups
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
By attachment of functional groups

4) Select the property that can be enhanced through functionalization of a nanomaterial? *1 point*

- Interfacial bonding
- Thermal stability
- Dispersibility
- All of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of these

5) What happens to physical adsorption, when we vary the temperature? *1 point*

- Increases with decrease in temperature
- Decreases with increase in temperature
- Increases with increase in temperature
- No effect

No, the answer is incorrect.
Score: 0
Accepted Answers:
Decreases with increase in temperature

6) Select a material that can be used as an inorganic layer for the surface modification of nanomaterials? *1 point*

- Titania
- Tungsten
- Silver
- Copper

No, the answer is incorrect.
Score: 0
Accepted Answers:
Titania

7) A fuel cell is used to convert chemical energy into *1 point*

- Mechanical energy
- Solar energy
- Electrical energy
- Potential energy

No, the answer is incorrect.
Score: 0
Accepted Answers:
Electrical energy

8) What is the discharge capacity of 3D stacked BC3 sheets tested as anode materials for Li-Ion batteries? *1 point*

- 857 mAh/g
- 57 mAh/g
- 85 mAh/g
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
857 mAh/g

9) Which of the following parameters are affecting the quality of thin film fabrication? *1 point*

- Rate of deposition
- Time duration
- Both (a) and (b)
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both (a) and (b)

10) Full for of PMMA polymer: *1 point*

- Poly(methyl methacrylate)
- Poly(methane methacrylate)
- Poly(methyl methane amine)
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
Poly(methyl methacrylate)