



Satuan Acara Pengajaran

ENEF802006 - Divais Hetero-struktur

Pengajar

Prof. Dr. Ir. Nji Raden Poespawati M.T.

Tujuan Perkuliahan

mampu menganalisis prinsip-prinsip operasional dan fisik dari divais heterostructure secara komprehensif

Minggu 1

Materi	Introduction
Media	In-Focus
Referensi	1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006 2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003 3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002
Aktivitas	

Minggu 2

Materi	Concepts and theoretical basis for semiconductor heterostructures
Media	In-focus Whiteboard

- Referensi**
1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
 2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
 3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002
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Aktivitas

Minggu 3

Materi Band modification and electronic properties

Media In-focus

- Referensi**
1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
 2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
 3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002
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Aktivitas

Minggu 4

Materi Transport properties-I

Media In-focus
Whiteboard

- Referensi**
1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
 2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
 3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002
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Aktivitas

Minggu 5

Materi Transport properties-II

Media In-focus
Whiteboard

Referensi 1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 6

Materi Optical properties

Media In-focus
Whiteboard

Referensi 1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 7

Materi Low dimensional heterostructures and Epitaxy

Media In-focus
Whiteboard

Referensi 1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 8

Materi Solar cells

Media In-focus
Whiteboard

Referensi

1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 9

Materi Ujian Tengah Semester

Media Buku Jawaban

Referensi

1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 10

Materi Heterostructure Lasers

Media In-focus
whiteboard

Referensi

1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 11

Materi Characterization of heterostructures and electronic devices

Media In-focus
whiteboard

Referensi 1. S. M. Sze et.al, "Physics of Semiconductor Devices", John Wiley & Sons, 3rd Edition, 2006
2. J. Singh, "Electronic and Optoelectronic Properties of Semiconductor Structures", Cambridge University Press 2003
3. E. Rosencher and B. Vinter, "Optoelectronics", Cambridge University Press 2002

Aktivitas

Minggu 12

Materi Presentasi makalah

Media In-focus
Whiteboard

Referensi -

Aktivitas Presentasi
Tanya Jawab

Minggu 13

Materi Presentasi Makalah

Media In-focus
Whiteboard

Referensi -

Aktivitas Presentasi
tanya jawab

Minggu 14

Materi	Presentasi Makalah
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Media	In-focus Whiteboard
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Aktivitas	Presentasi Tanya jawab
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Minggu 15

Materi	Presentasi Makalah
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Media	In-focus Whiteboard
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Aktivitas	Presentasi Tanya jawab
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Minggu 16

Materi	Presentasi Makalah
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Media	In-focus Whiteboard
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Referensi	-
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Aktivitas	Presentasi Tanya jawab
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