



Satuan Acara Pengajaran

ENMT803921 - Material Turunan Polimer

Pengajar

Jaka Fajar Fatriansyah Ph.D.

Dr. Mochamad Chalid S.Si., M.Sc.Eng.

Minggu 1

Materi Pengantar (pembahasan, asal petro/bio polimer, siklus polimer)
Definisi, struktur susunan molekul polimer, klasifikasi polimer

Media Laptop, Proyektor

Referensi

1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
5. PVC Handbook, C.E. Wilkes et al,
6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993

Aktivitas Tatap muka di kelas

Minggu 2

Materi Perilaku rantai polimer
Model & pegamatan kristal & morfologi polimer
Perilaku termal material polimer

Media Laptop, Proyektor

Referensi	<ol style="list-style-type: none"> 1. Fundamentals of polymer engineering Arie Ram Plenum press 1997 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD 5. PVC Handbook, C.E. Wilkes et al, 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas	Tatap muka di kelas
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Minggu 3

Materi	Perilaku reologi polimer Perilaku mekanik polimer
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Media	Laptop, Proyektor
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Referensi	<ol style="list-style-type: none"> 1. Fundamentals of polymer engineering Arie Ram Plenum press 1997 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD 5. PVC Handbook, C.E. Wilkes et al, 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas	Tatap muka di kelas
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Minggu 4

Materi	Struktur, sifat & aplikasi - PE (LDPE, LLDPE, HDPE) - Termoset
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Media	Laptop, Proyektor
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- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas Tatap muka di kelas

Minggu 5

Materi Struktur, sifat & aplikasi
- PP & PVC
- Elastomer

Media Laptop, Proyektor

- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas Tatap muka di kelas

Minggu 6

Materi Daur ulang polimer dan ekologi

Media Laptop, Proyektor

- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas

Minggu 7

Materi Daur ulang polimer dan ekologi

Media Laptop, Proyektor

- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas Tatap muka di kelas

Minggu 8

Materi Metode Karakterisasi Polimer: Struktur Kimia

Media Laptop, Proyektor

- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas Tatap muka di kelas

Minggu 9

Materi Metode Karakterisasi Polimer: Struktur Kimia, FTIR

Media Laptop, Proyektor

Referensi

1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
5. PVC Handbook, C.E. Wilkes et al,
6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993

Aktivitas Tatap muka di kelas

Minggu 10

Materi Metode Karakterisasi Polimer: Struktur Kimia, NMR

Media Laptop, Proyektor

Referensi

1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
5. PVC Handbook, C.E. Wilkes et al,
6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993

Aktivitas Tatap muka di kelas

Minggu 11

Materi Metode karakterisasi polimer: Morfologi, SEM, SANS, SAXS, TEM, light scattering.

Media Laptop, Proyektor

Referensi	<ol style="list-style-type: none"> 1. Fundamentals of polymer engineering Arie Ram Plenum press 1997 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD 5. PVC Handbook, C.E. Wilkes et al, 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas	Tatap muka di kelas
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Minggu 12

Materi	<p>Metode karakterisasi polimer: Sifat mekanik, reologi polimer, reometer, Mass flow index.</p> <p>Pemrosesan polimer.</p>
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Media	Laptop, Proyektor
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Aktivitas	Tatap muka di kelas
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Minggu 13

Materi	Pengantar Polimer blends
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Media	Laptop, Proyektor
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- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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Aktivitas Tatap muka di kelas

Minggu 14

Materi Termodinamika, kompatibility dan sifat polimer blends.

Media Laptop, Proyektor

- Referensi**
1. Fundamentals of polymer engineering Arie Ram Plenum press 1997
 2. Handbook of Thermoset Plastics 2nd, Sidney H. Goodman 1998 Noyes Publisher
 3. Modern plastics handbook Modern Plastics Charles A Harper McGraw-Hill 2000
 4. An Introduction to Rubber Technology, A Ciesielski, 1999, Rapra Tech LTD
 5. PVC Handbook, C.E. Wilkes et al,
 6. Recycling of plastic materials Francesco Paolo La Mantia Chem Tech Publisher 1993
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