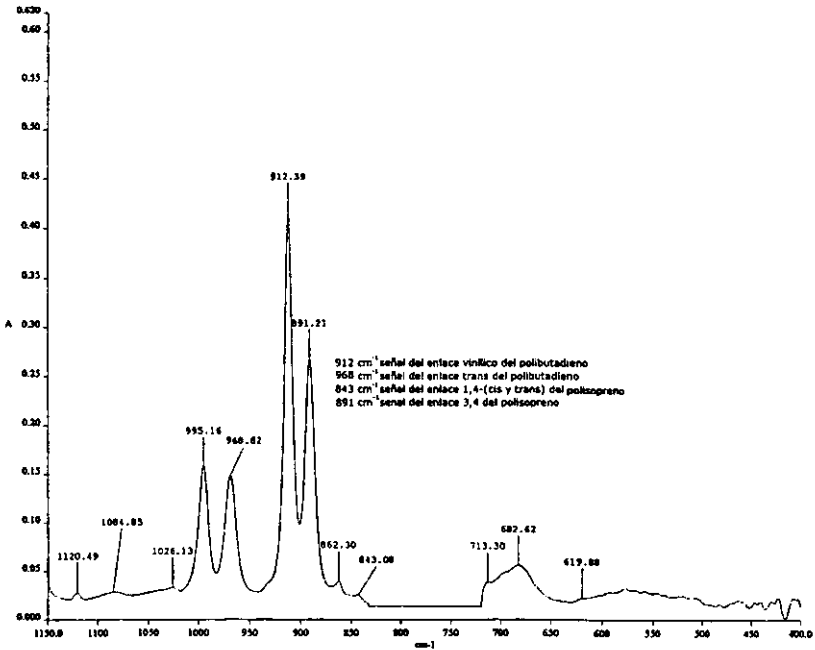
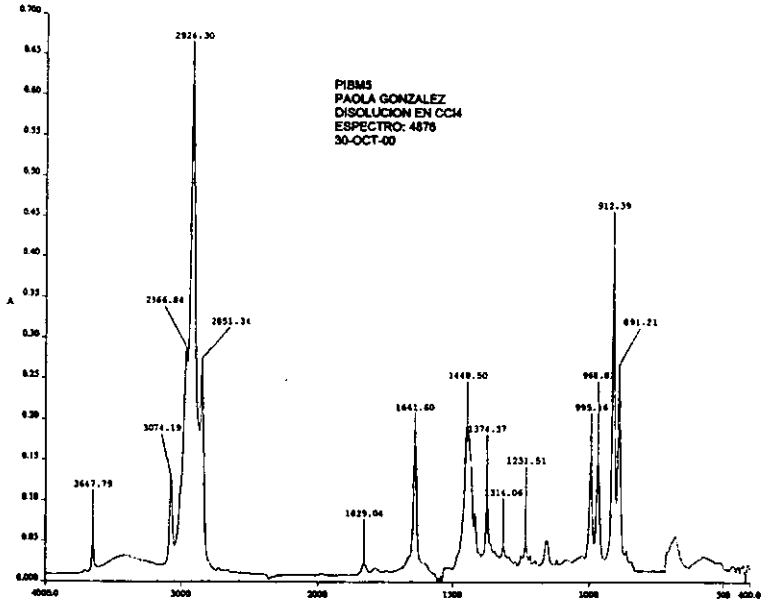


PIBM5





Universidad Nacional
Autónoma de México



UNAM – Dirección General de Bibliotecas
Tesis Digitales
Restricciones de uso

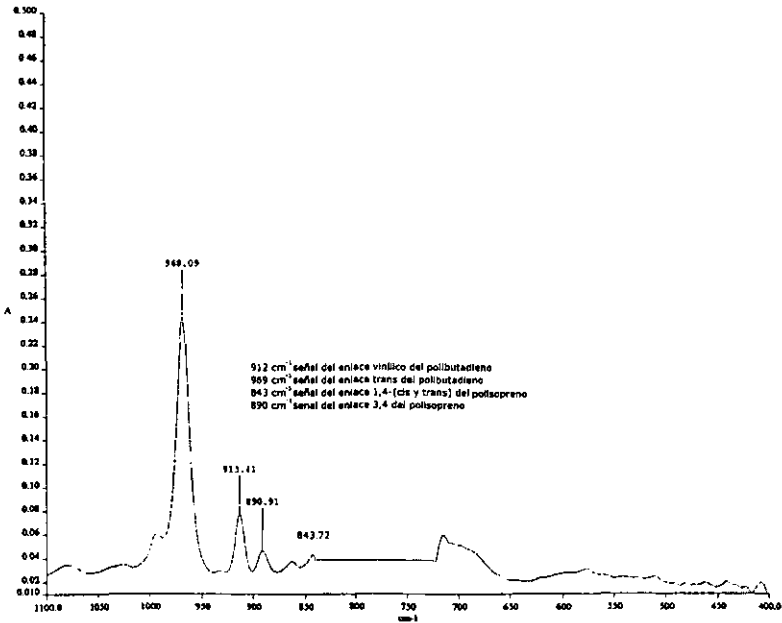
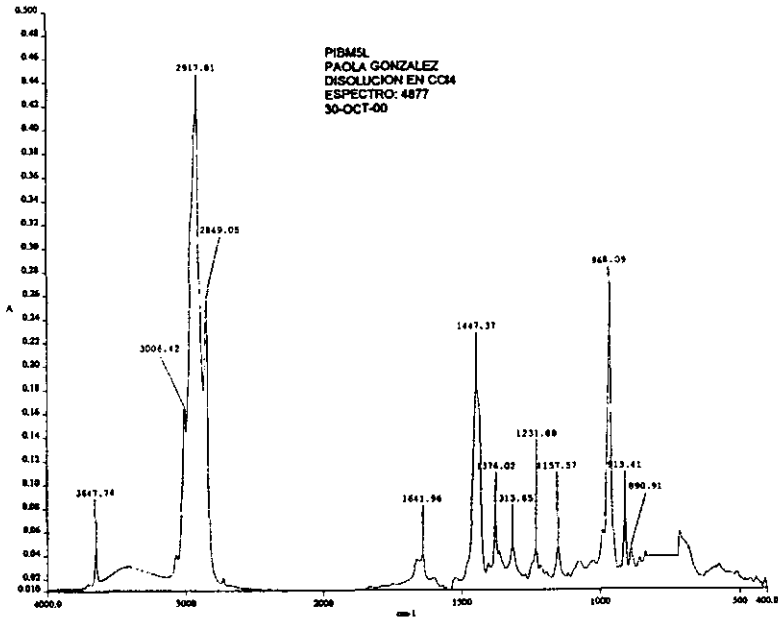
DERECHOS RESERVADOS ©
PROHIBIDA SU REPRODUCCIÓN TOTAL O PARCIAL

Todo el material contenido en esta tesis esta protegido por la Ley Federal del Derecho de Autor (LFDA) de los Estados Unidos Mexicanos (México).

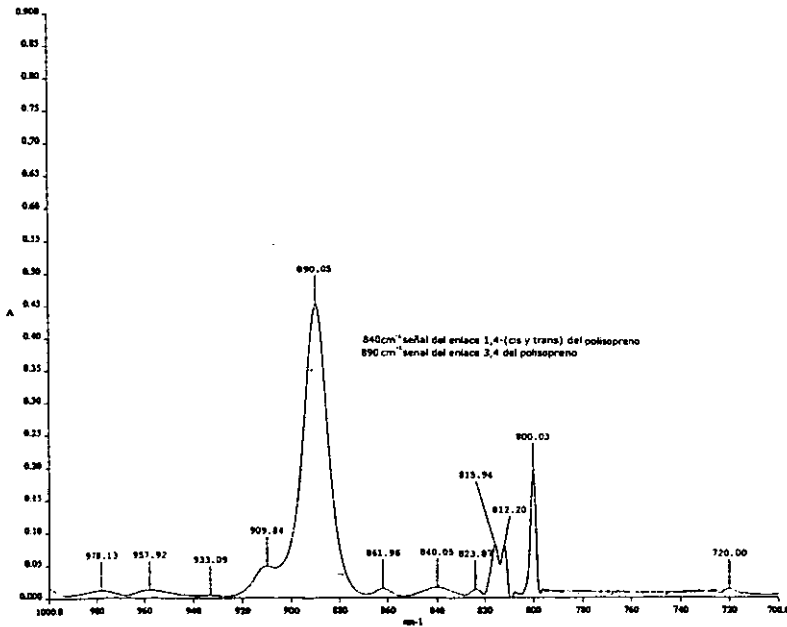
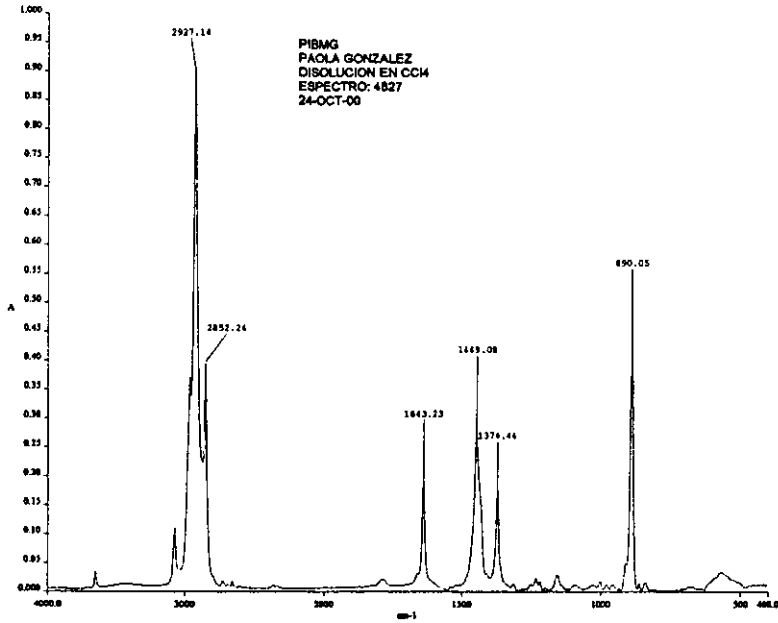
El uso de imágenes, fragmentos de videos, y demás material que sea objeto de protección de los derechos de autor, será exclusivamente para fines educativos e informativos y deberá citar la fuente donde la obtuvo mencionando el autor o autores. Cualquier uso distinto como el lucro, reproducción, edición o modificación, será perseguido y sancionado por el respectivo titular de los Derechos de Autor.

TESIS CON FALLA DE ORIGEN

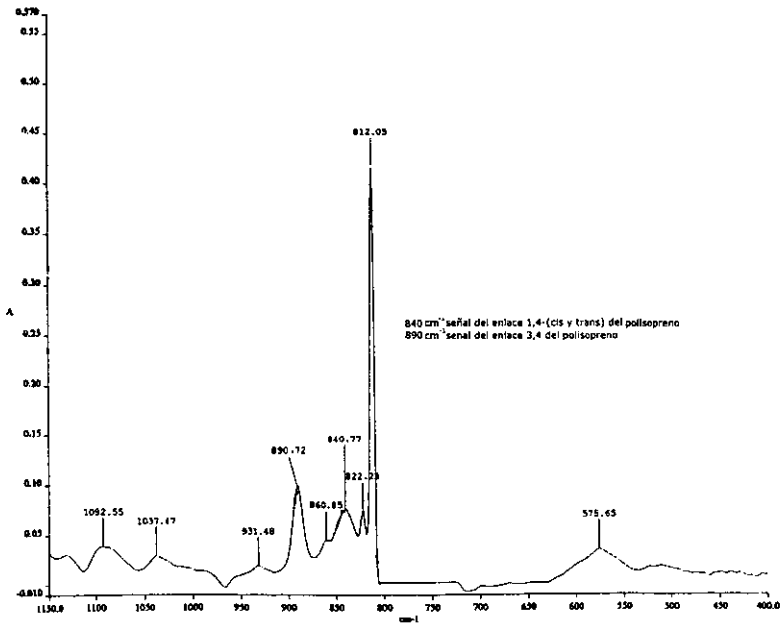
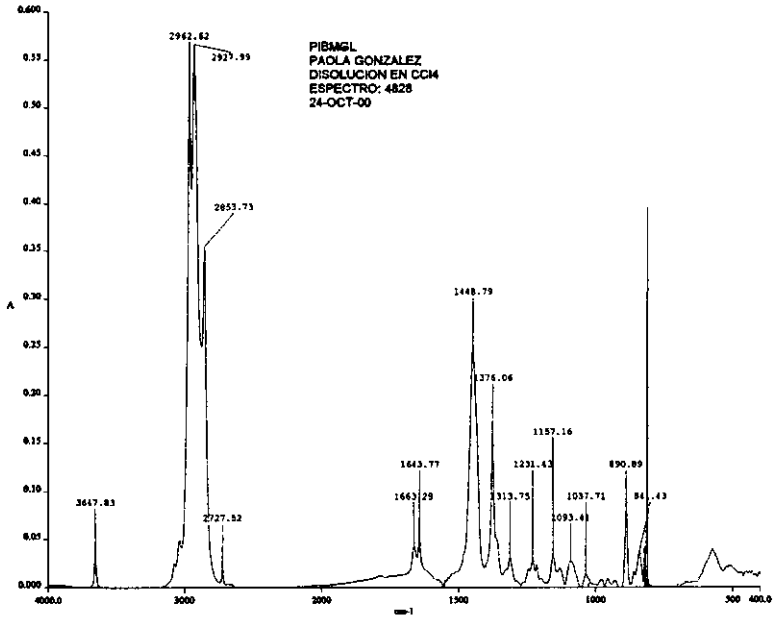
PIBM5L



PIBM6



PIBM6L

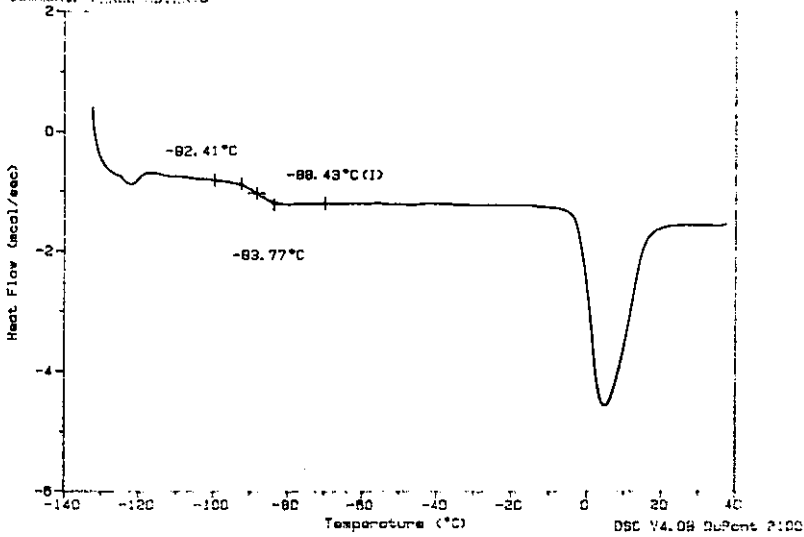


APÉNDICE IV
TERMOGRAMAS DE CALORIMETRÍA
DIFERENCIAL DE BARRIDO
(DSC)

Sample: PIBM1L BUTADIENO
 Size: 21.2000 mg
 Method: ISOPRENE
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENE.248
 Operator: PG
 Run Date: 20-Oct-00 13:08

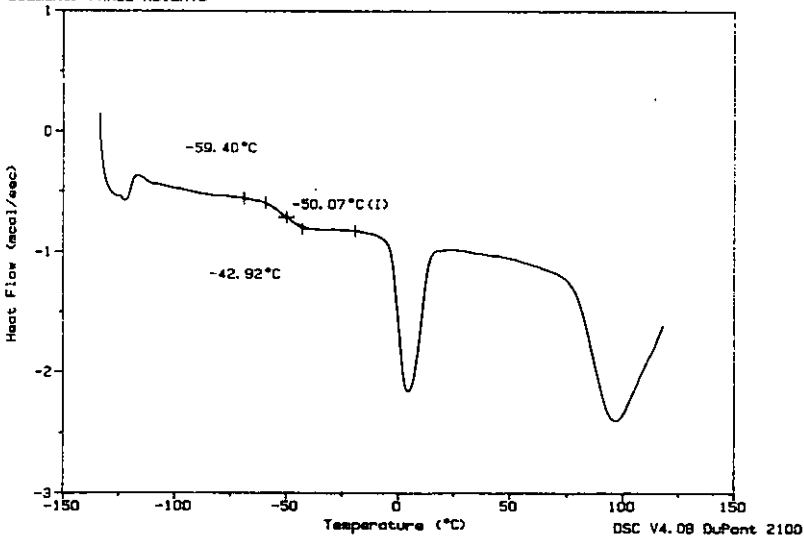


Termograma del polímero PIBM1L

Sample: PIBM1 BUTADIENO
 Size: 12.7000 mg
 Method: Z1 BUTADIENO
 Comment: PANEL ABIERTO

DSC

File: C:\BUTADIENO.210
 Operator: LM
 Run Date: 10-Oct-00 10:50

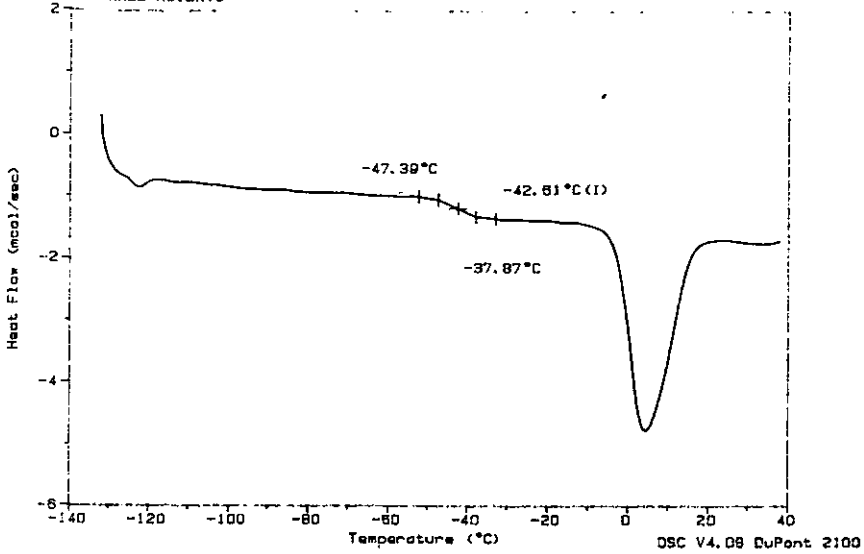


Termograma del polímero PIBM1

Sample: PIBM4 BUTISOPRE
 Size: 20.8000 mg
 Method: ISOPRENO
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENO.241
 Operator: PG
 Run Date: 14-Oct-00 11:28

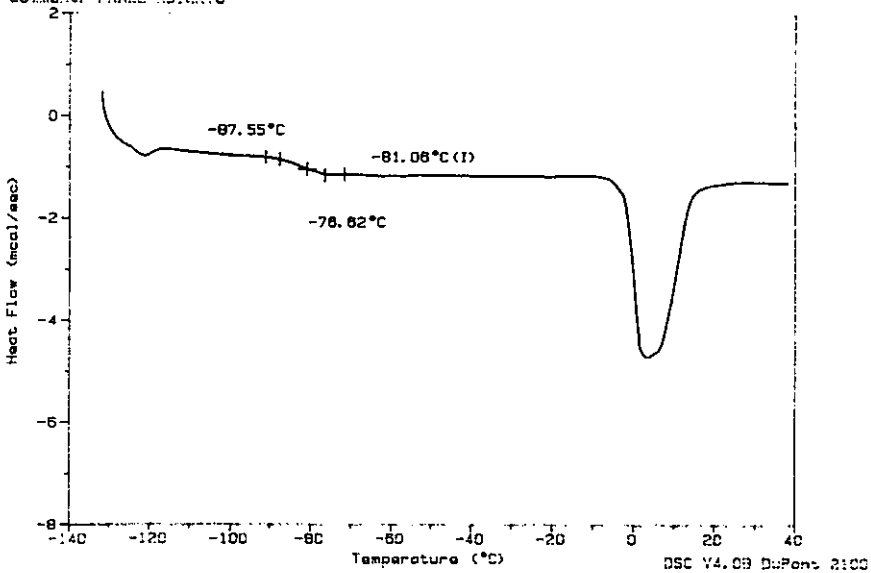


Termograma del polímero PIBM4

Sample: PIBM4L BUTISOPRE
 Size: 20.8000 mg
 Method: ISOPRENO
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENO.245
 Operator: PG
 Run Date: 14-Oct-00 13:32

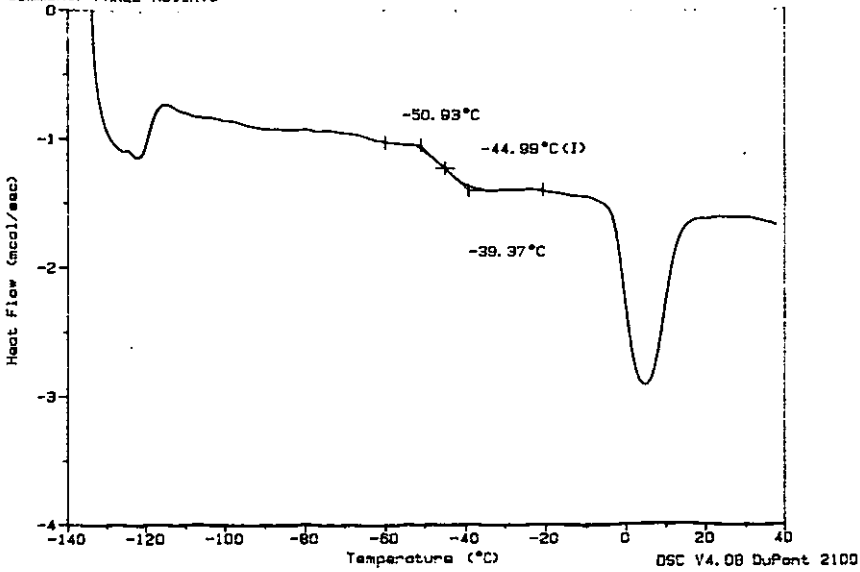


Termograma del polímero PIBM4L

Sample: PIBM5 BUTISOPRE
 Size: 21.0000 mg
 Method: ISOPREND
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENC.239
 Operator: PG
 Run Date: 13-Oct-00 23:55

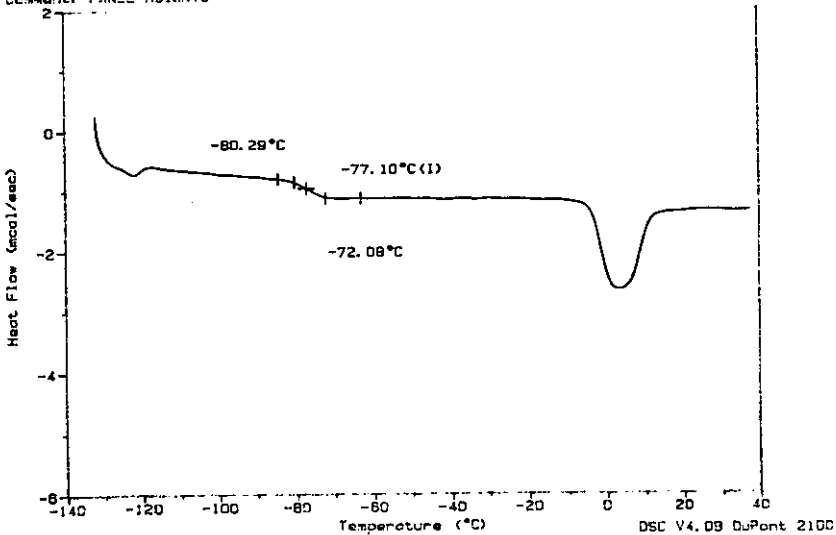


Termograma del polímero PIBM5

Sample: PIBM5L BUTISOPRE
 Size: 21.6000 mg
 Method: ISOPREND
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENC.250
 Operator: PG
 Run Date: 21-Oct-00 06:18

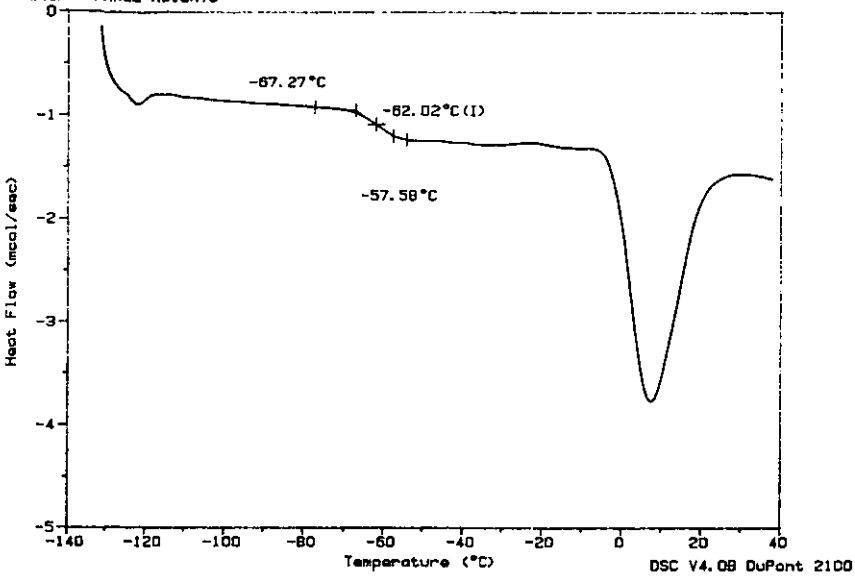


Termograma del polímero PIBM5L

Sample: PIBM6L ISOPRENO
 Size: 20.9000 mg
 Method: ISOPRENO
 Comment: PANEL ABIERTO

DSC

File: C:\ISOPRENO.230
 Operator: LM
 Run Date: 12-Oct-00 18:08

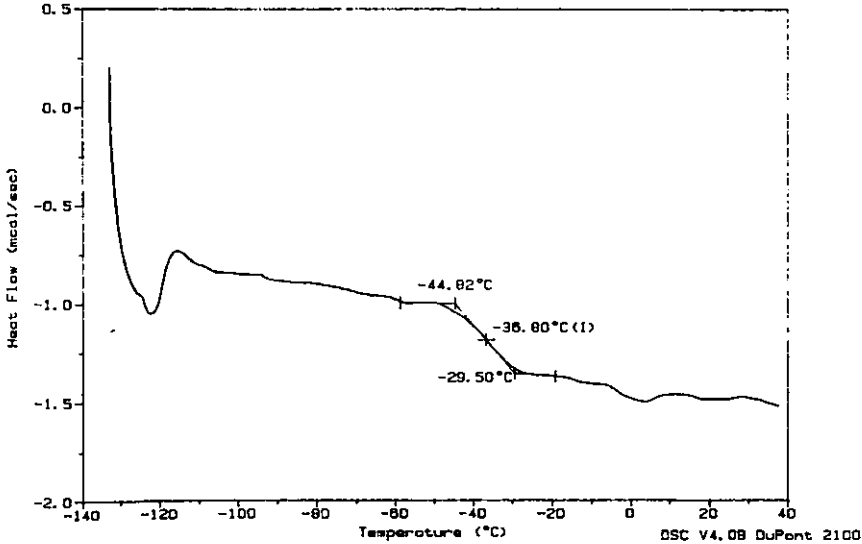


Termograma del polímero PIBM6L

Sample: PIBM6 ISOPRENO
 Size: 21.5000 mg
 Method: BUTADIENO-ISOPRENO
 Comment: PANEL ABIERTO

DSC

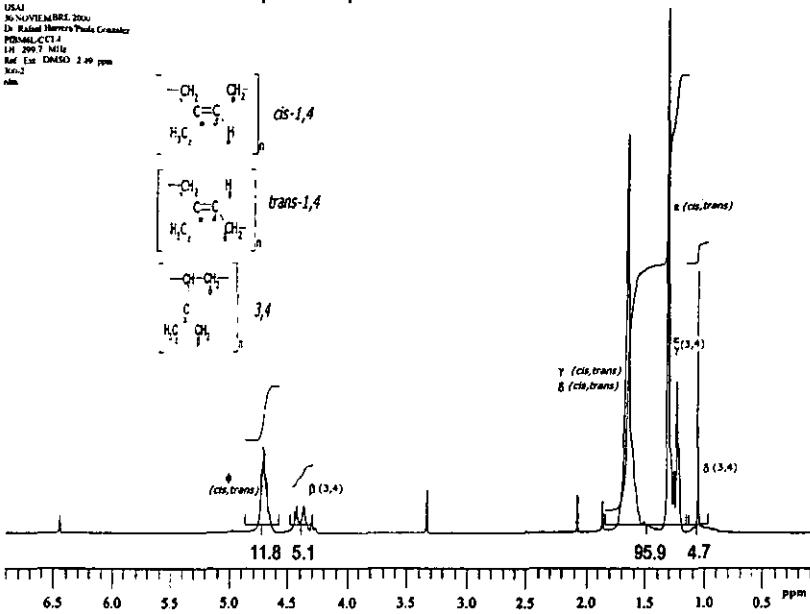
File: C:\ISOPRENO.225
 Operator: LM
 Run Date: 12-Oct-00 11:03



Termograma del polímero PIBM6

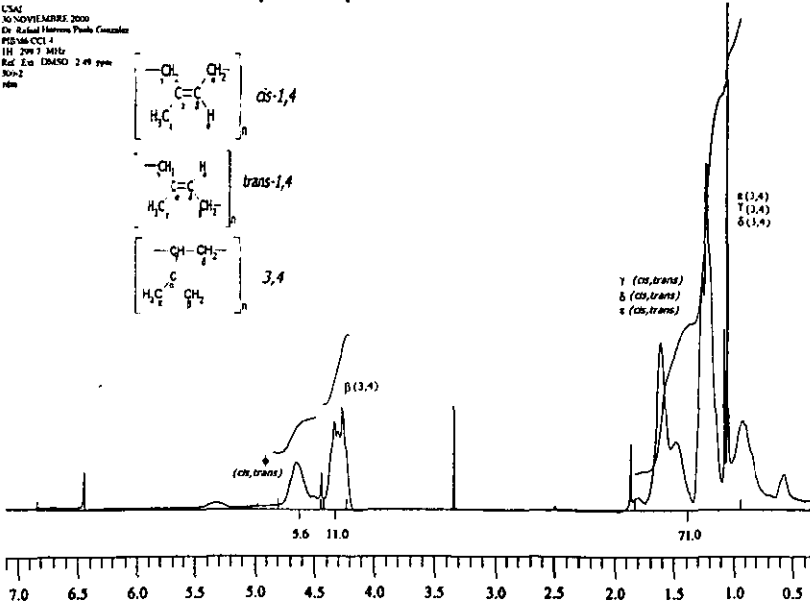
Espectro de ¹H RMN polisipreno normal

USAI
30 NOVIEMBRE 2000
Dr. Rafael Herrera Pardo González
PESMAU, C 17.1
11/ 2007 1616
Ref. Est. DMSO 2.49 ppm
300-2
nm

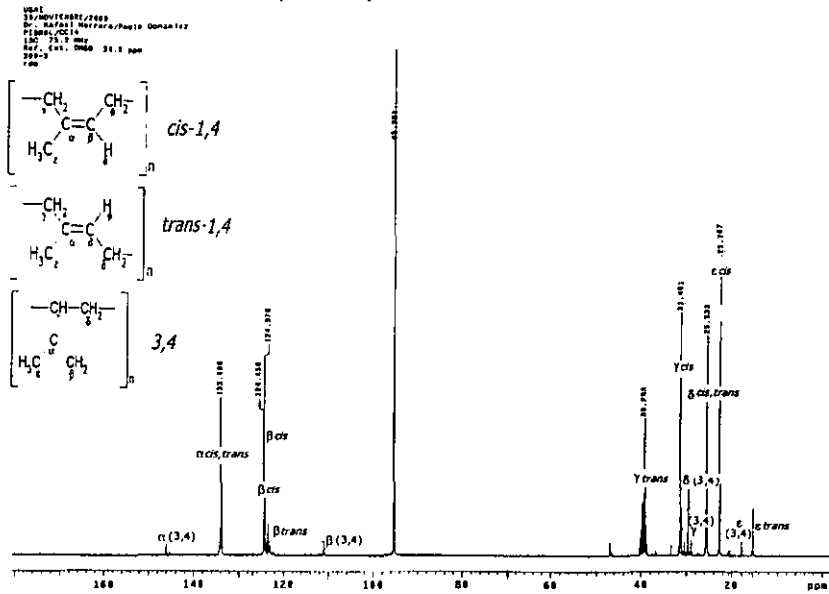


Espectro de ¹H RMN polisipreno modificado

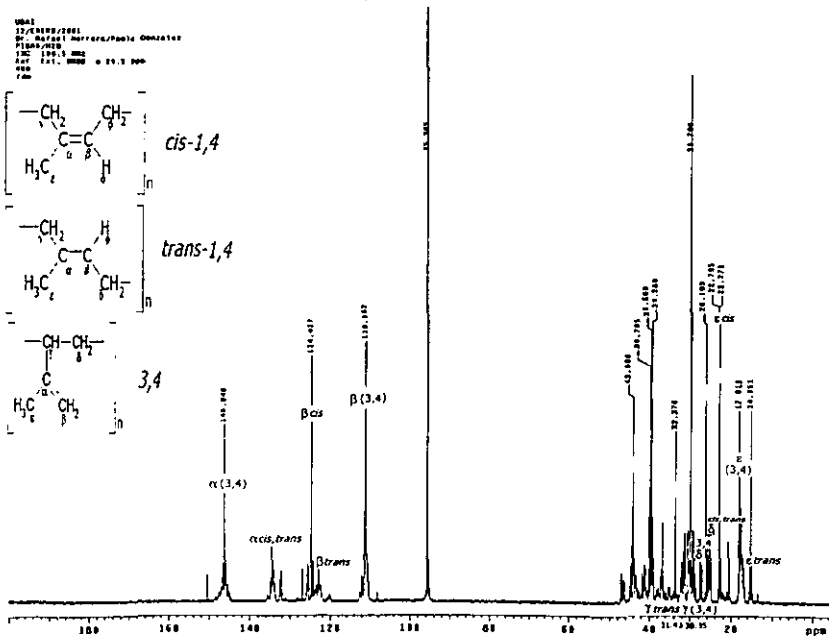
USAI
30 NOVIEMBRE 2000
Dr. Rafael Herrera Pardo González
PESMAU, C 17.1
11/ 2007 1616
Ref. Est. DMSO 2.49 ppm
300-2
nm



Espectro de ^{13}C RMN polisopreno normal



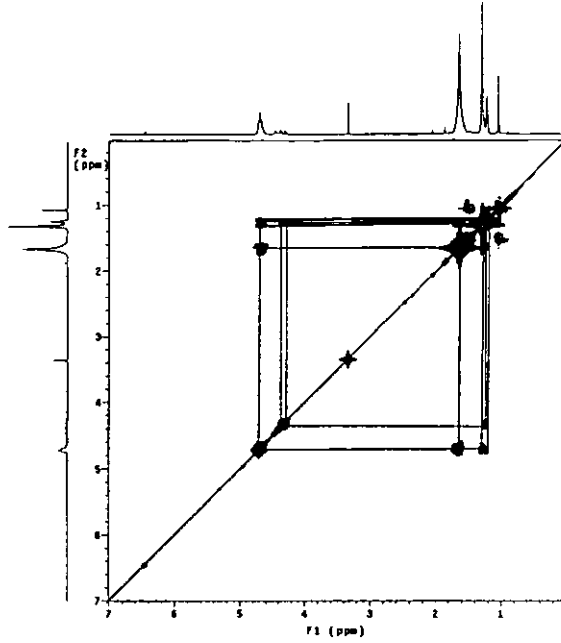
Espectro de ^{13}C RMN polisopreno modificado



COSY del polisipreno normal

```

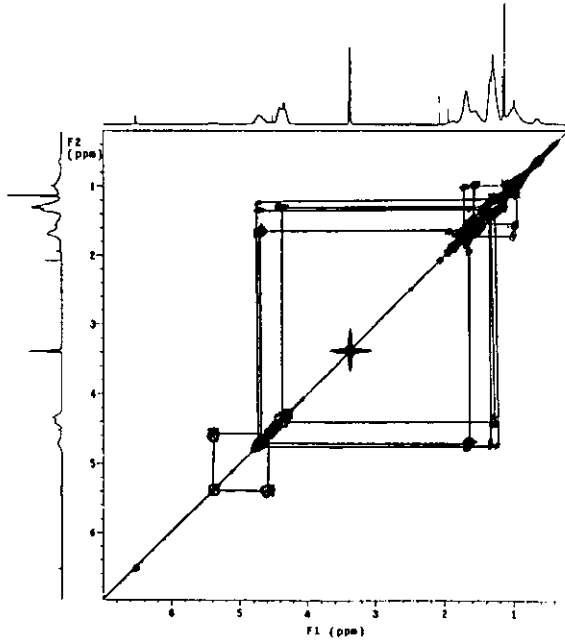
STANDARD IN OBSERVE
Solvent: DMSO
Ambient Temperature:
INOWA-200 1002300-1
PULSE SEQUENCE: rslsya
Relax. delay: 3.000 sec
COSY 90-90
Acq. time: 0.236 sec
NUC1: 13C 100.6 MHz
2D width: 1000.0 Hz
3 repetitions
256 increments
OBSERVE: 311 219.600300 MHz
DATA PROCESSING
Time shift: 0.100 sec
F1 DATA PROCESSING
Time shift: 0.000 sec
F2 size: 1024 x 1024
Total time: 46 minutes
    
```



COSY del polisipreno modificado

```

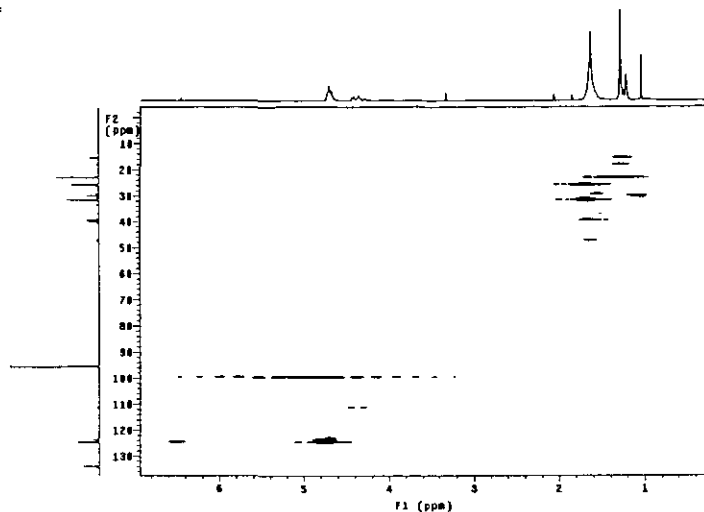
MSA1
07/FEMENDO/2001
Dr. Rafael Herrera/Phelia Gonzalez
PULSE SEQUENCE: rslsya
IR 200.2 MHz
Rel. Cal. DMSO 2.49 ppm
100-1
nm
Solvent: DMSO
Ambient Temperature:
INOWA-200 1002300-1
PULSE SEQUENCE: rslsya
Relax. delay: 3.000 sec
COSY 90-90
Acq. time: 0.234 sec
NUC1: 13C 100.6 MHz
2D width: 1000.0 Hz
3 repetitions
256 increments
OBSERVE: 311 219.234570 MHz
DATA PROCESSING
Time shift: 0.100 sec
F1 DATA PROCESSING
Time shift: 0.000 sec
F2 size: 1024 x 1024
Total time: 43 minutes
    
```



HETCOR del polisipreno normal

USF1
 26 NOV 1993 12:24:44
 Dr. Rafael Herrera/Paola Gonzalez
 P180410014
 13C 75.3 MHz
 Refr. cont. DMSO 33.5 ppm
 388-2
 FWH

Solvent: DMSO
 Ambient temperature
 F1: HETCOR_13001
 IMODE=480 "inv480"
 PULSE SEQUENCE: hzgloof
 Relax. delay 2.000 sec
 Acq. time 8.000 sec
 Vials 10001,7 Hz
 20 MHz 4495.4 Hz
 400 repetitions
 156 increments



HETCOR del polisipreno modificado

USF1
 15/NOV/93
 Dr. Rafael Herrera/Paola Gonzalez
 P180410014
 13C 75.3 MHz
 Refr. cont. DMSO 33.49 ppm
 388-1
 FWH

Solvent: DMSO
 Ambient temperature
 IMODE=480 "inv480"
 PULSE SEQUENCE: hzgloof
 Relax. delay 1.800 sec
 Acq. time 8.000 sec
 Vials 10001,7 Hz
 20 MHz 4495.4 Hz
 400 repetitions
 156 increments

