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APPENDIX

1. Specification of Dow Epoxy Resins

Trade Name:	D.E.R. 331
Epoxide Equivalent Weight:	182 - 192
Viscosity, mPa.s, 25°C:	11000 - 14000
Colour Gardner, max.:	3
Density, g/mL, 25°C:	1.16
Flash point (C.O.C.), °C:	255
Odor:	Faint epoxy odor

2. Thermograms and IR spectra

Thermograms and IR spectra of various chemical substances are shown as follows:-

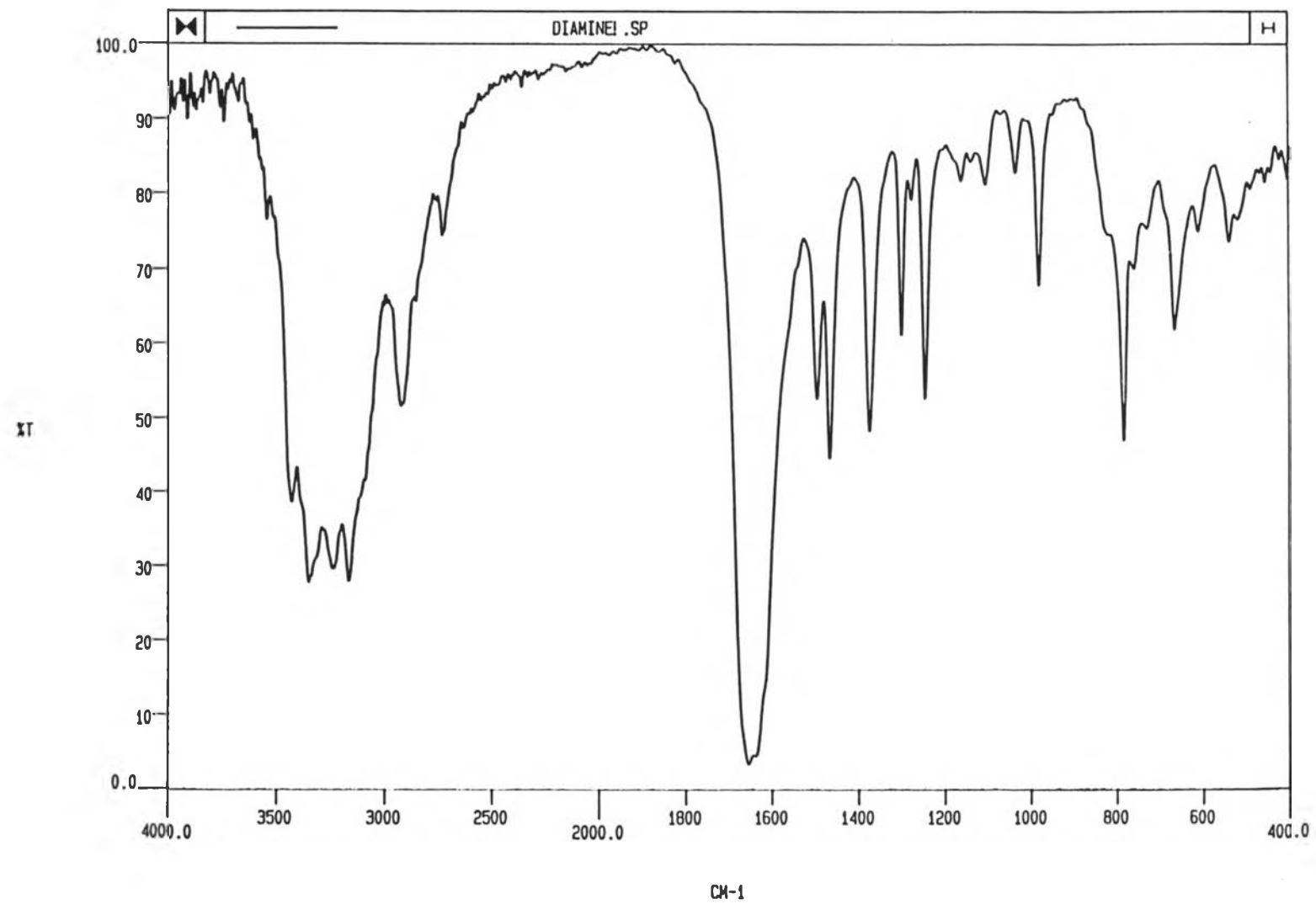


Figure A.1 IR spectrum of 2,4-Diamino-6-hydroxypyrimidine (3)

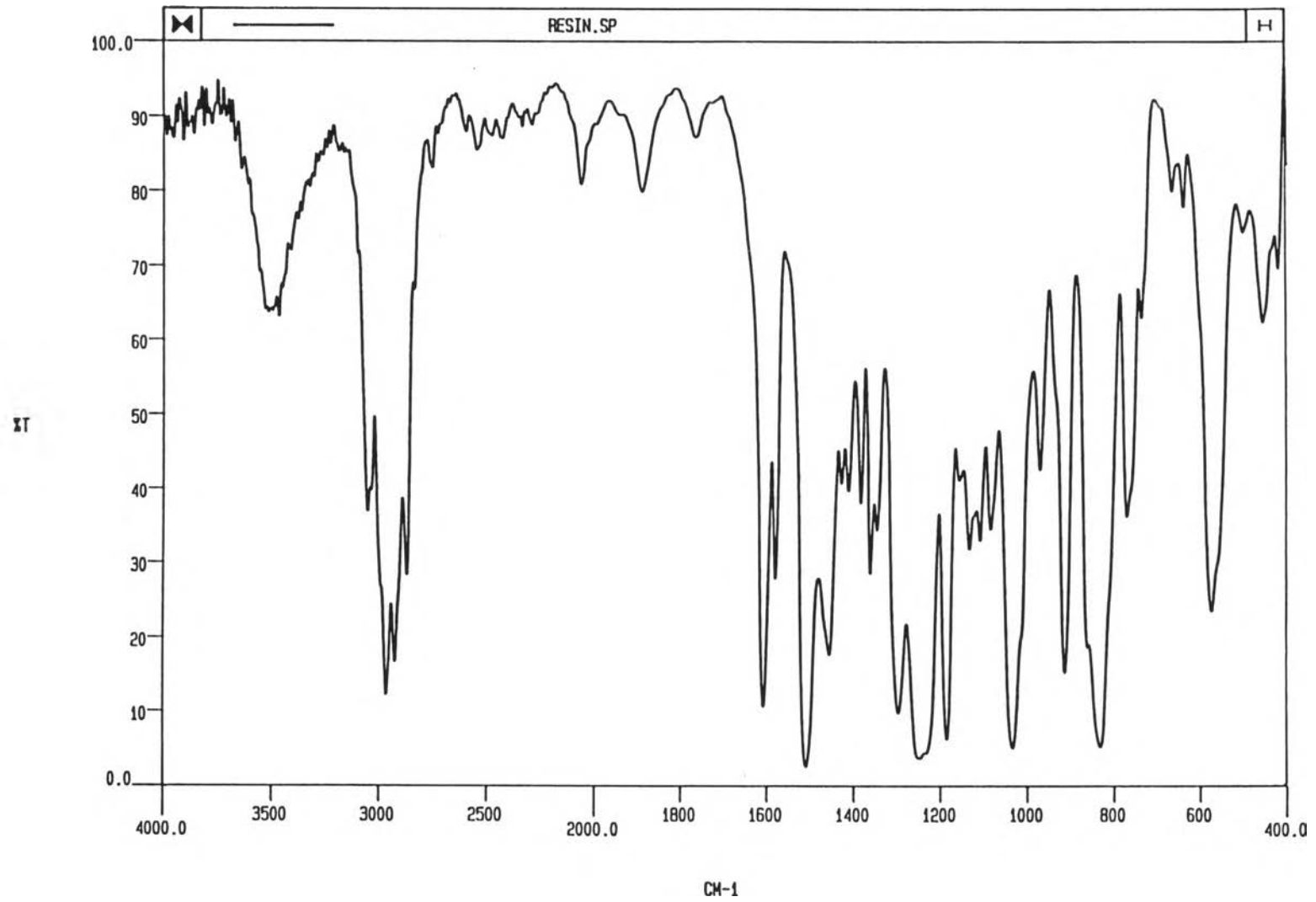


Figure A.2 IR spectrum of Bisphenol-A epoxy resin (2)

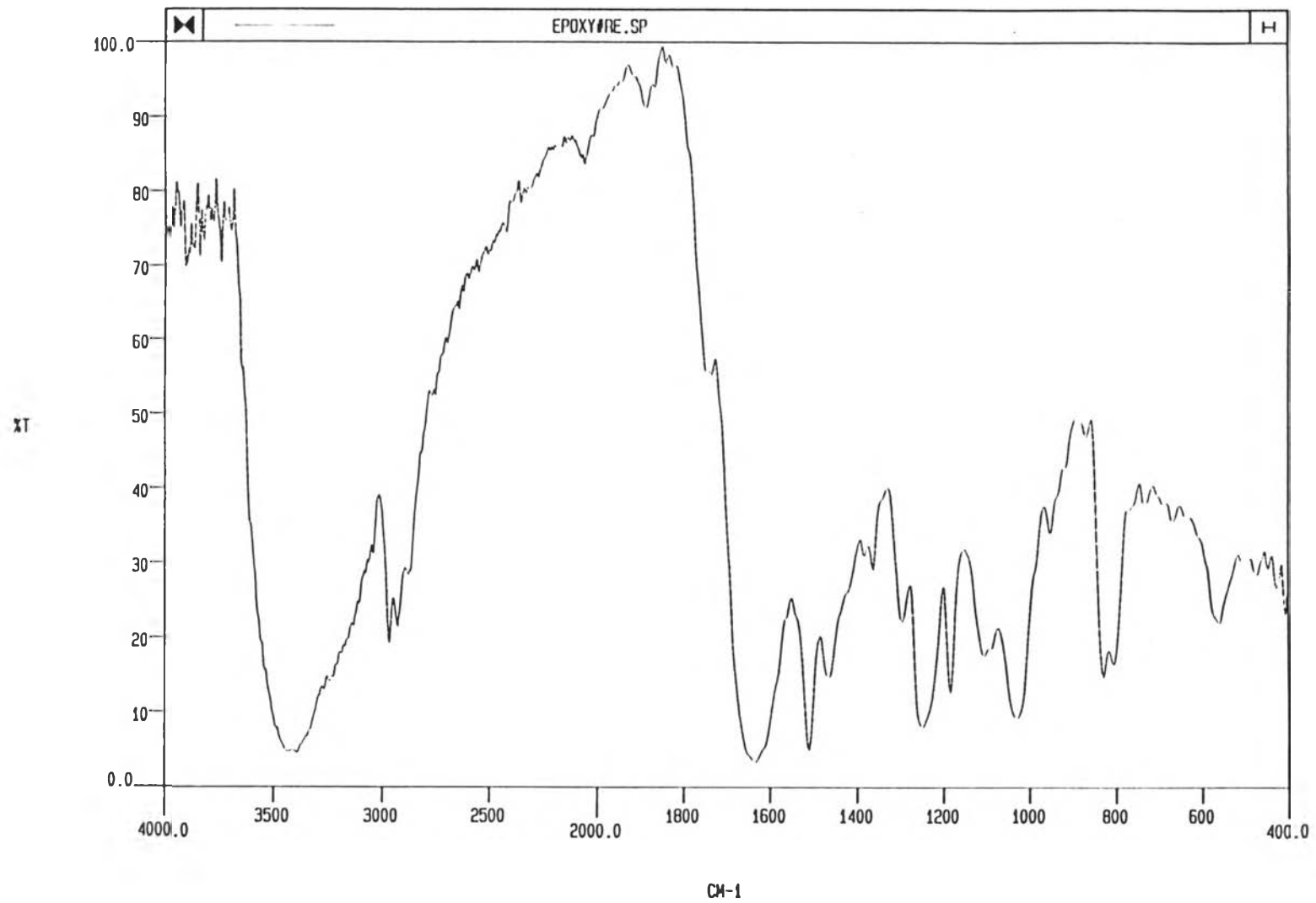


Figure A.3 IR spectrum of Crosslinked resin 4a



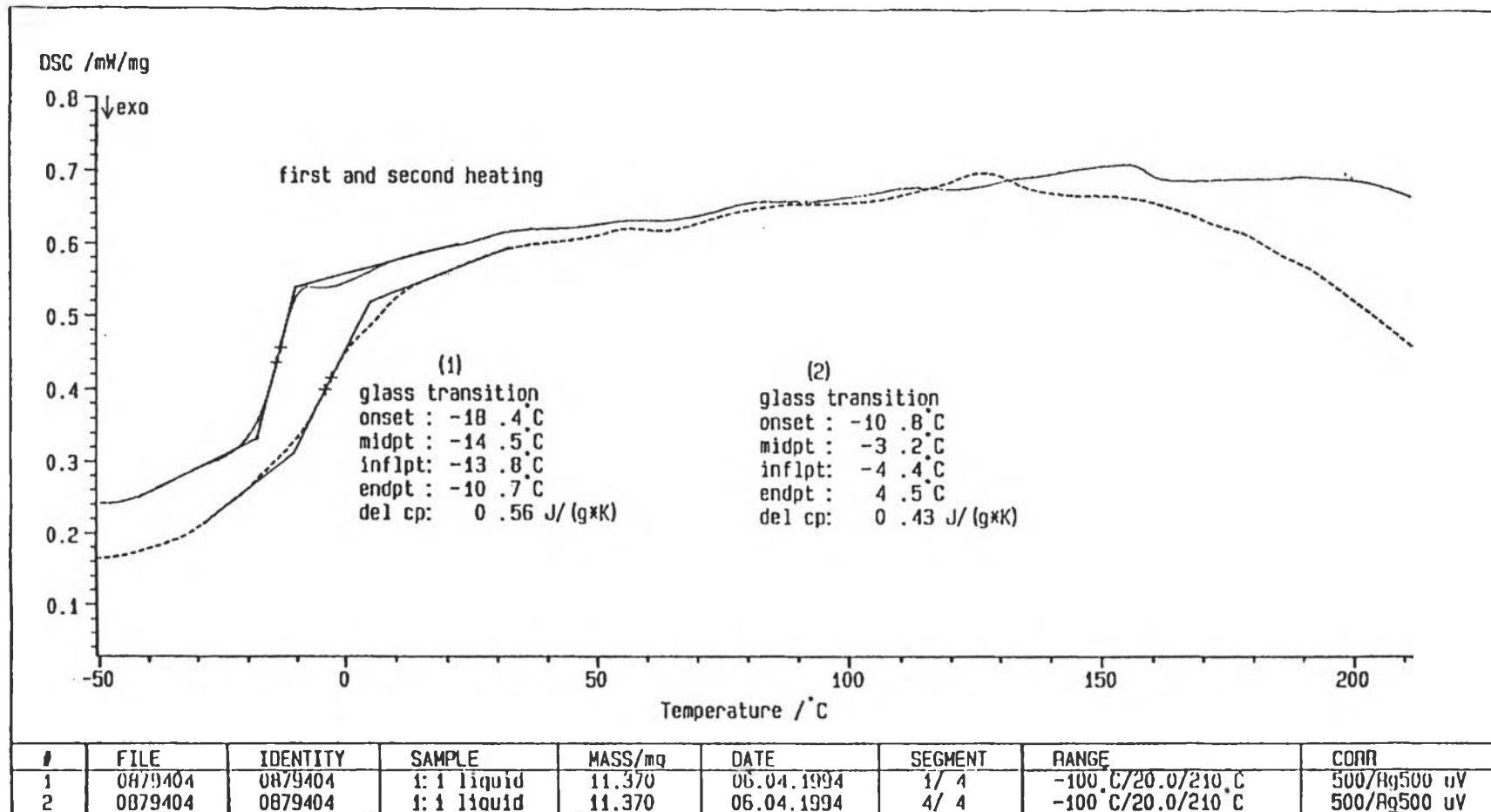


Figure A.4 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 2:1 (Temperature range -100 - 210°C)

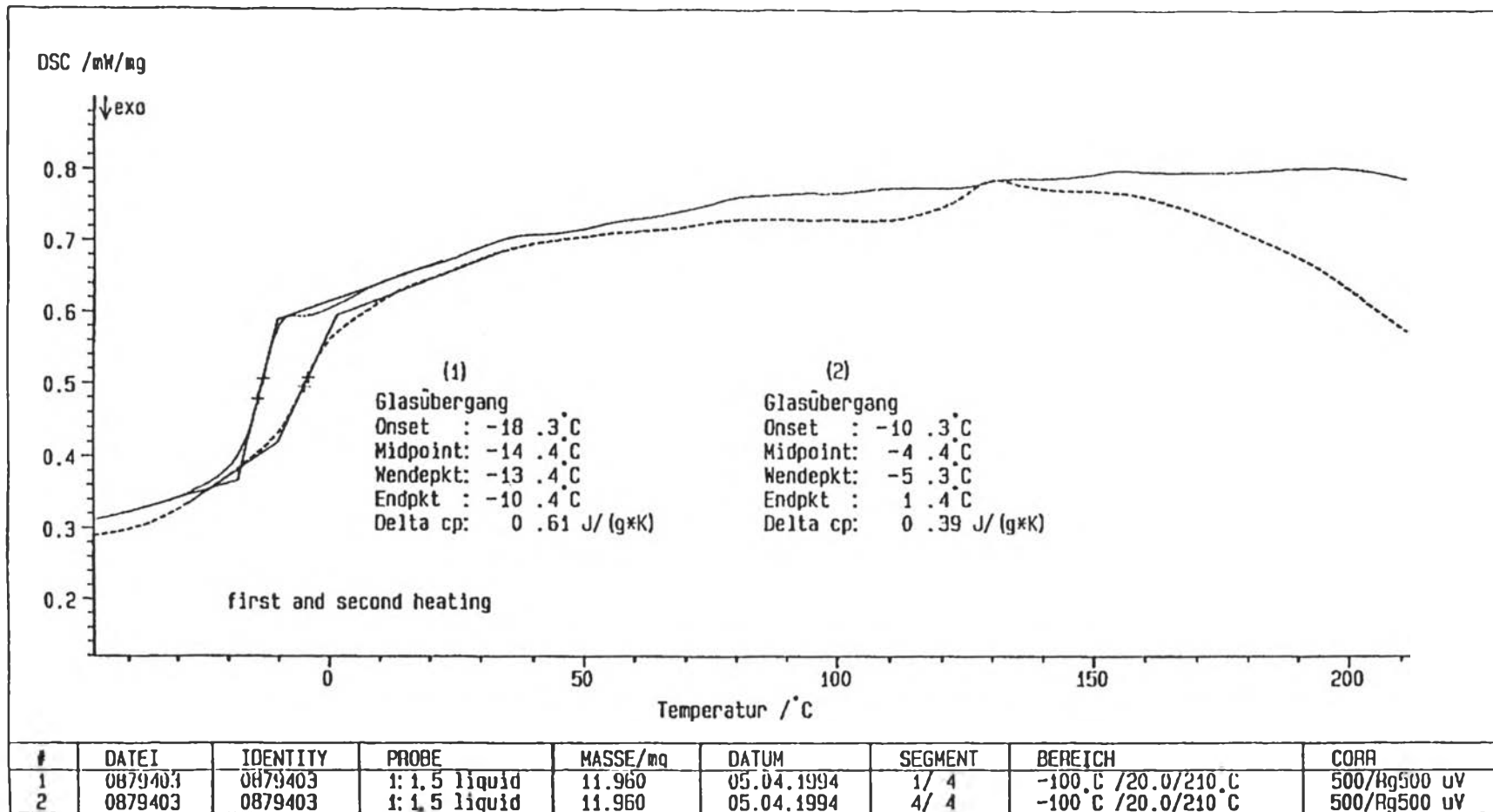


Figure A.5 DSC thermogram of uncured epoxy resin at equivalent weight ratio
(3:2) of 2:1.5 (Temperature range -100 - 210°C)

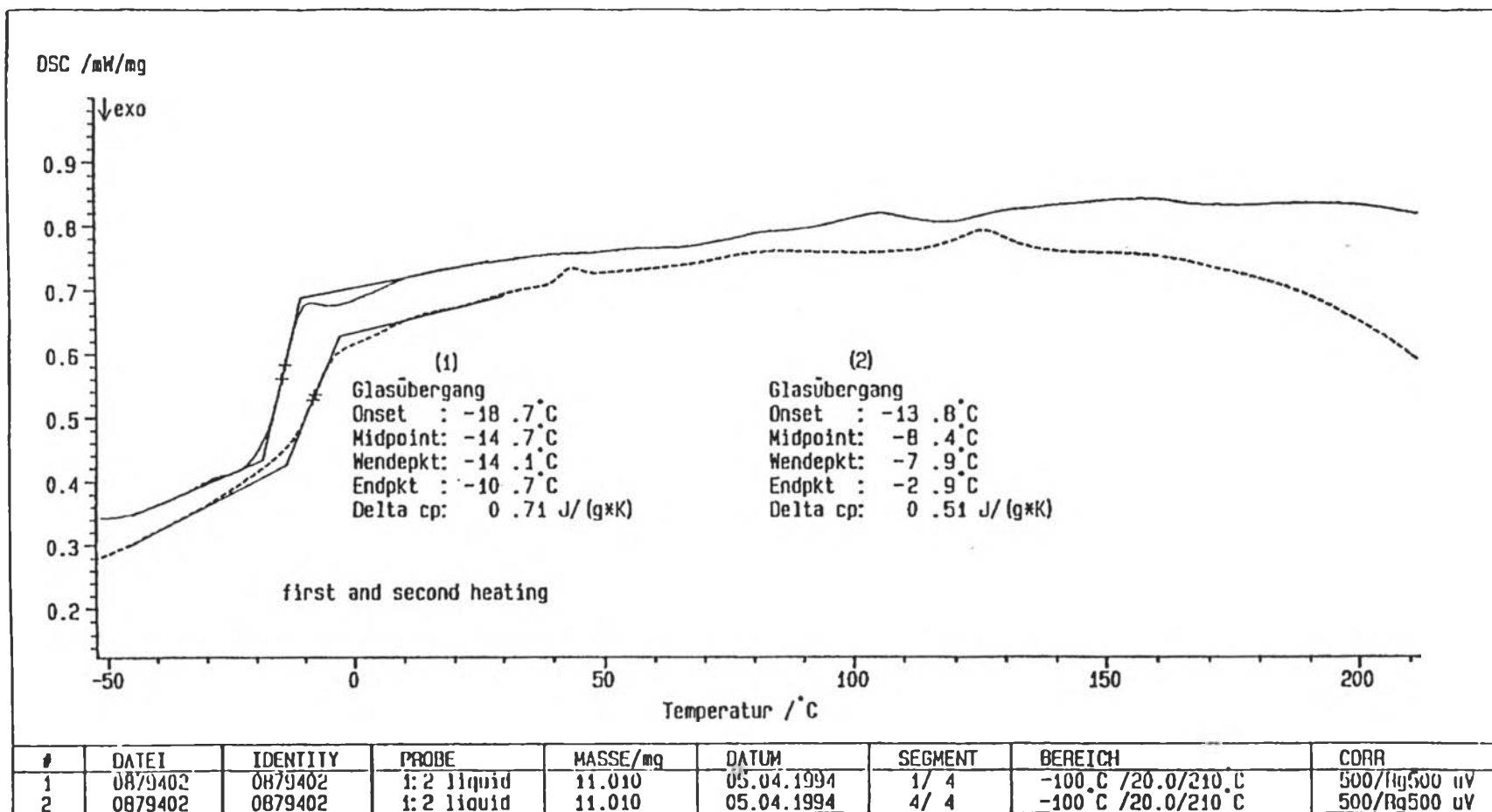


Figure A.6 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 1:1 (Temperature range -100 - 210°C)

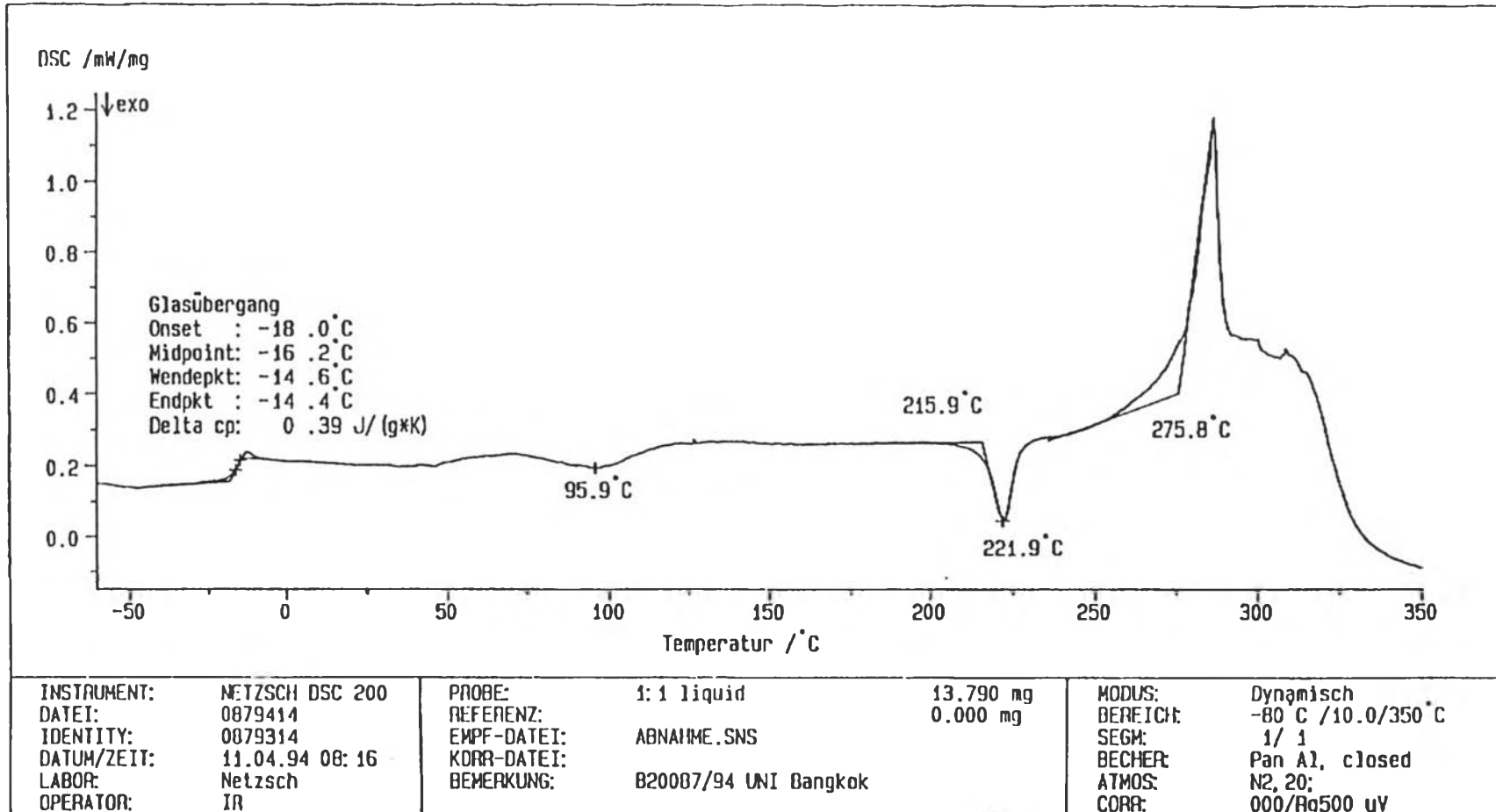


Figure A.7 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 2:1 (Temperature range -80 - 350°C)

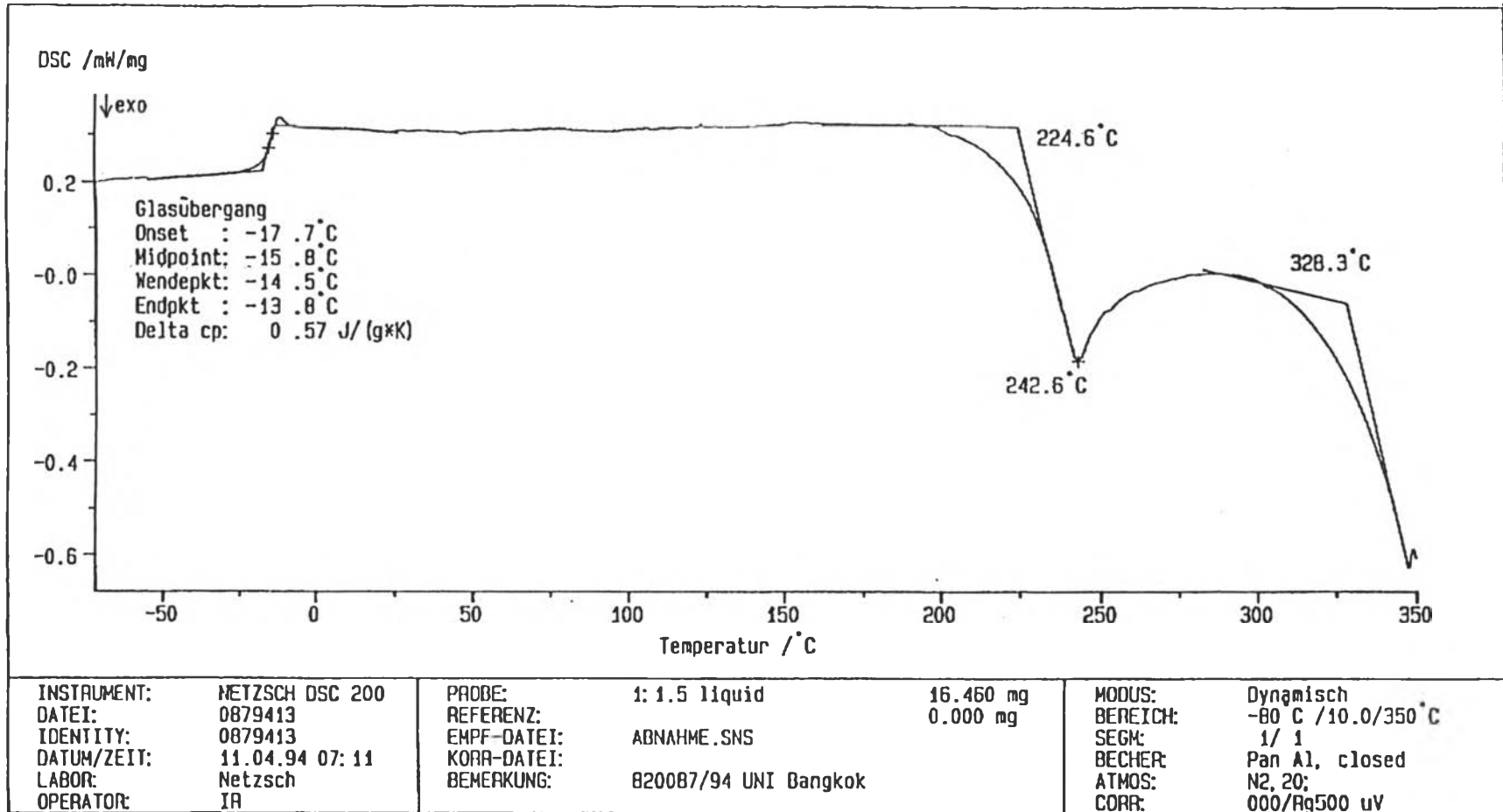


Figure A.8 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 2:1.5 (Temperature range -80 - 350°C)

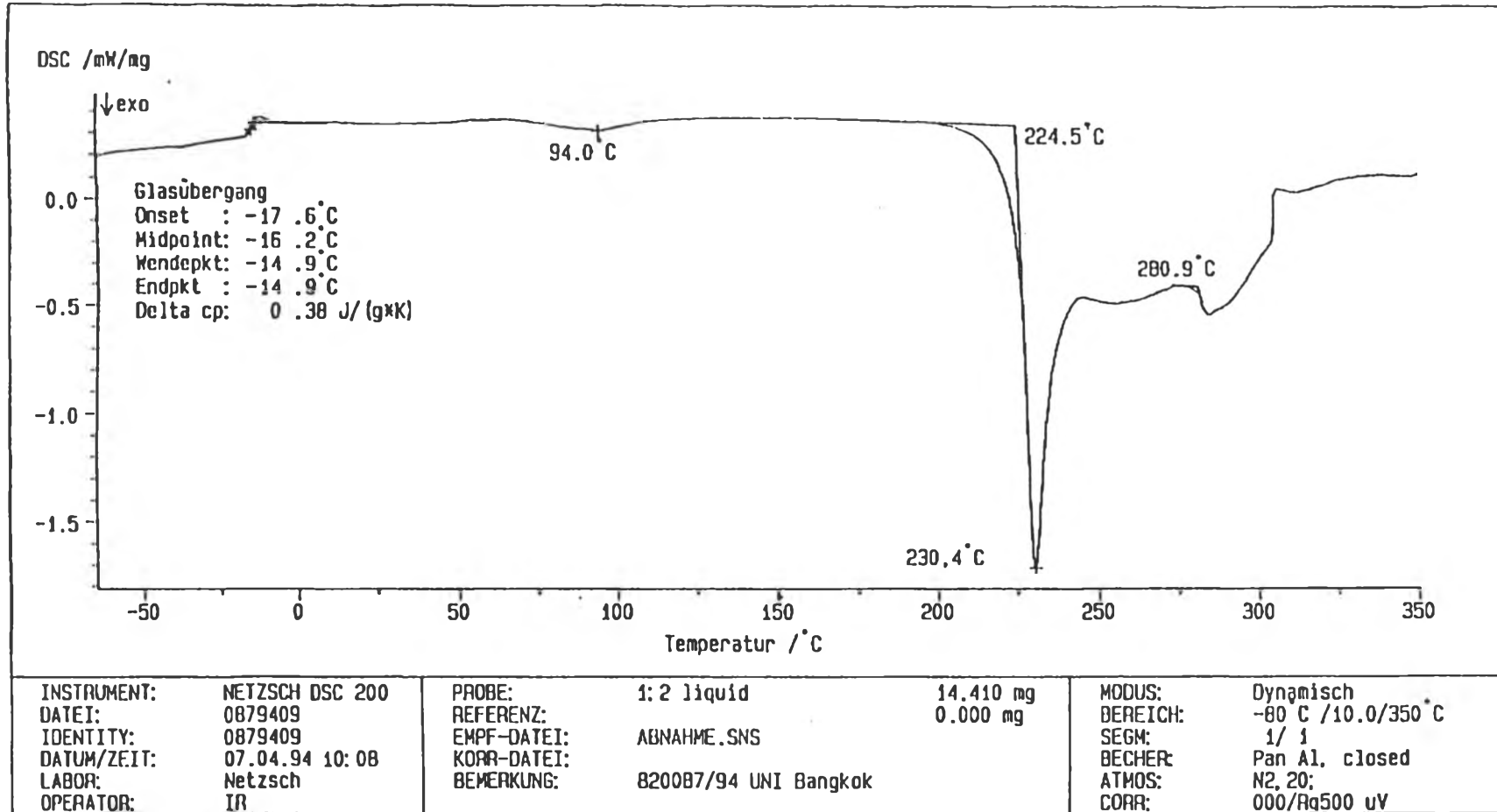


Figure A.9 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 1:1 (Temperature range -80 - 350°C)

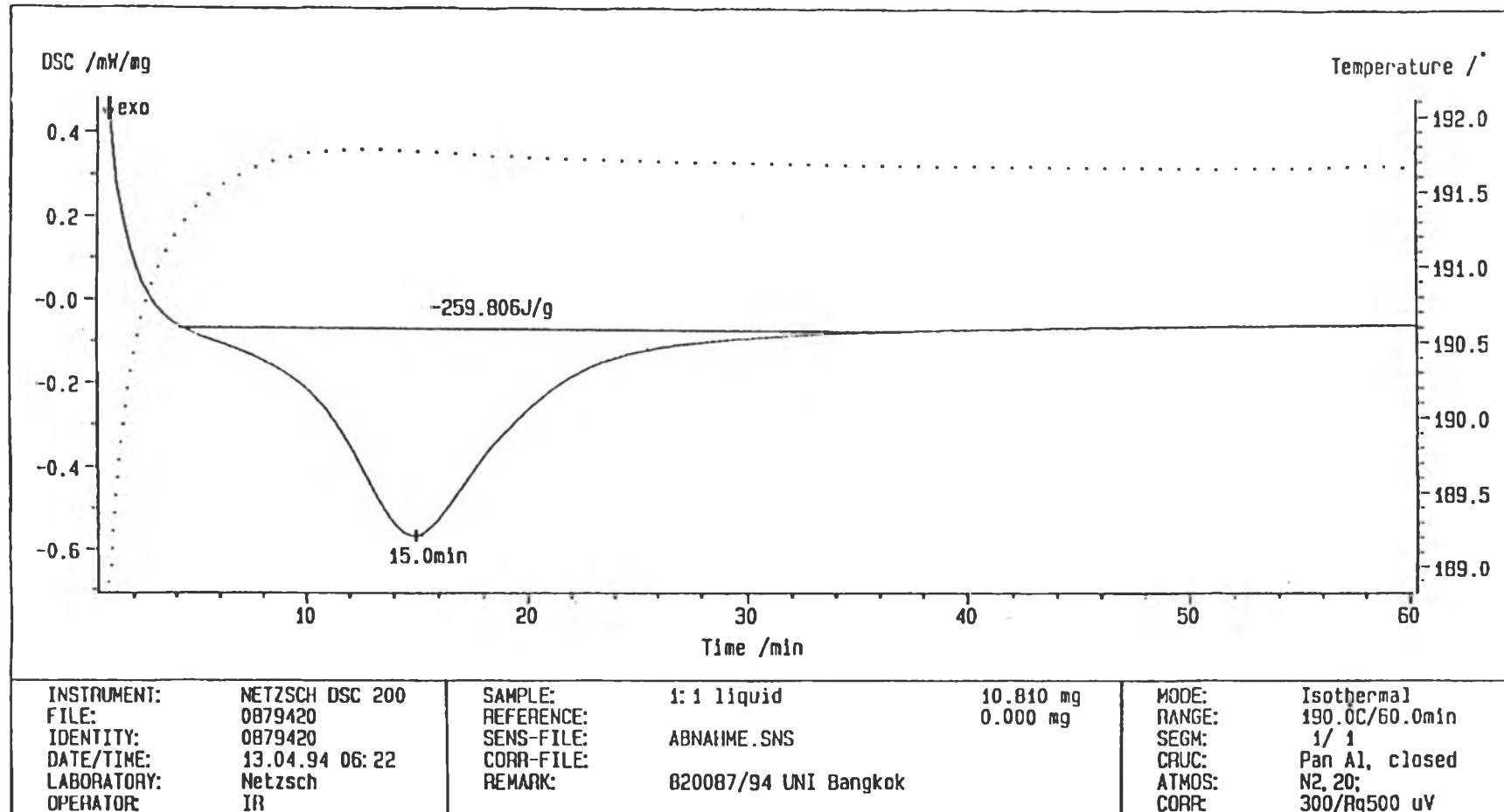


Figure A.10 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 2:1 (At constant temperature of 190°C)

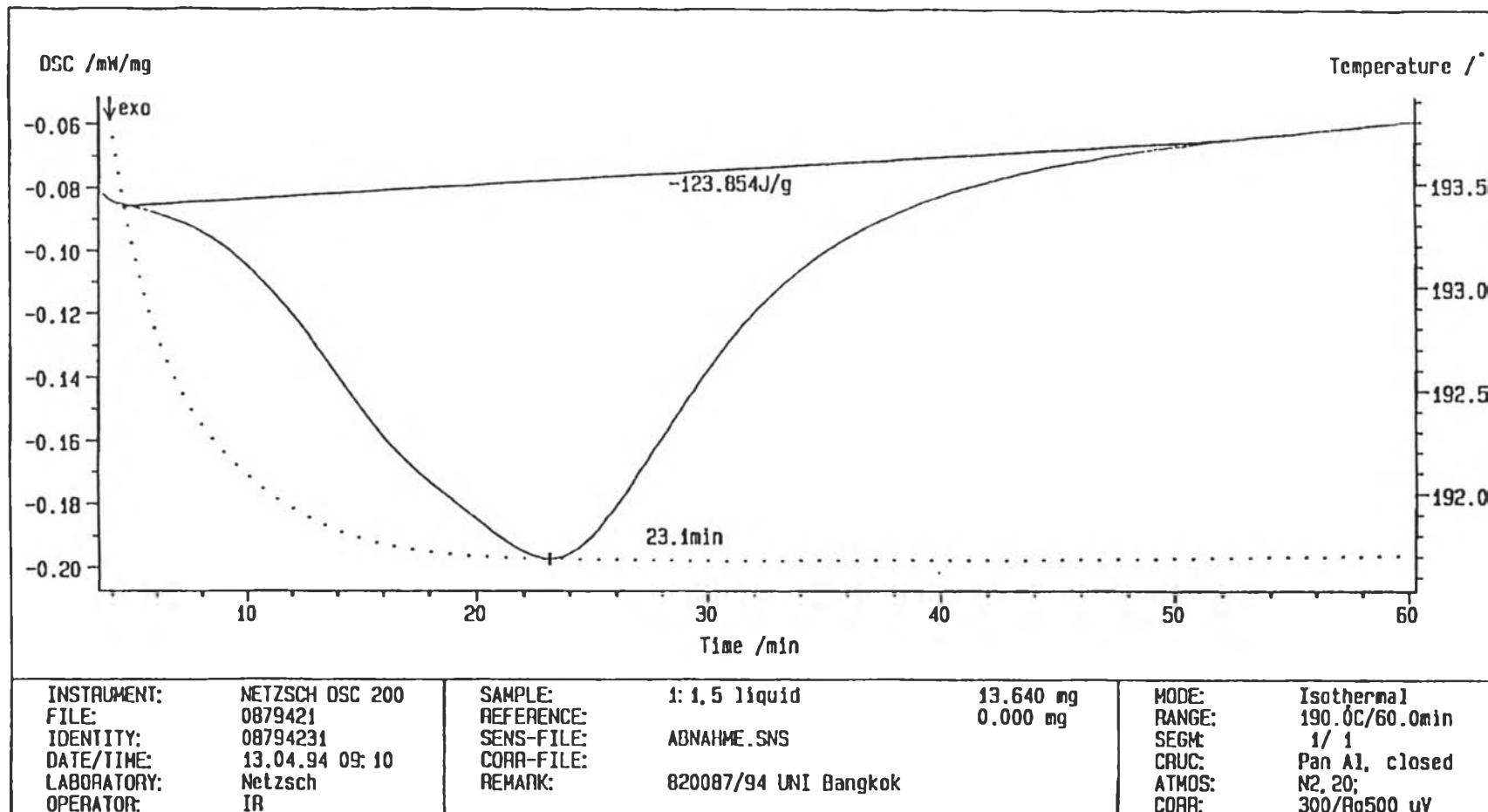


Figure A.11 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 2:1.5 (At constant temperature of 190°C)

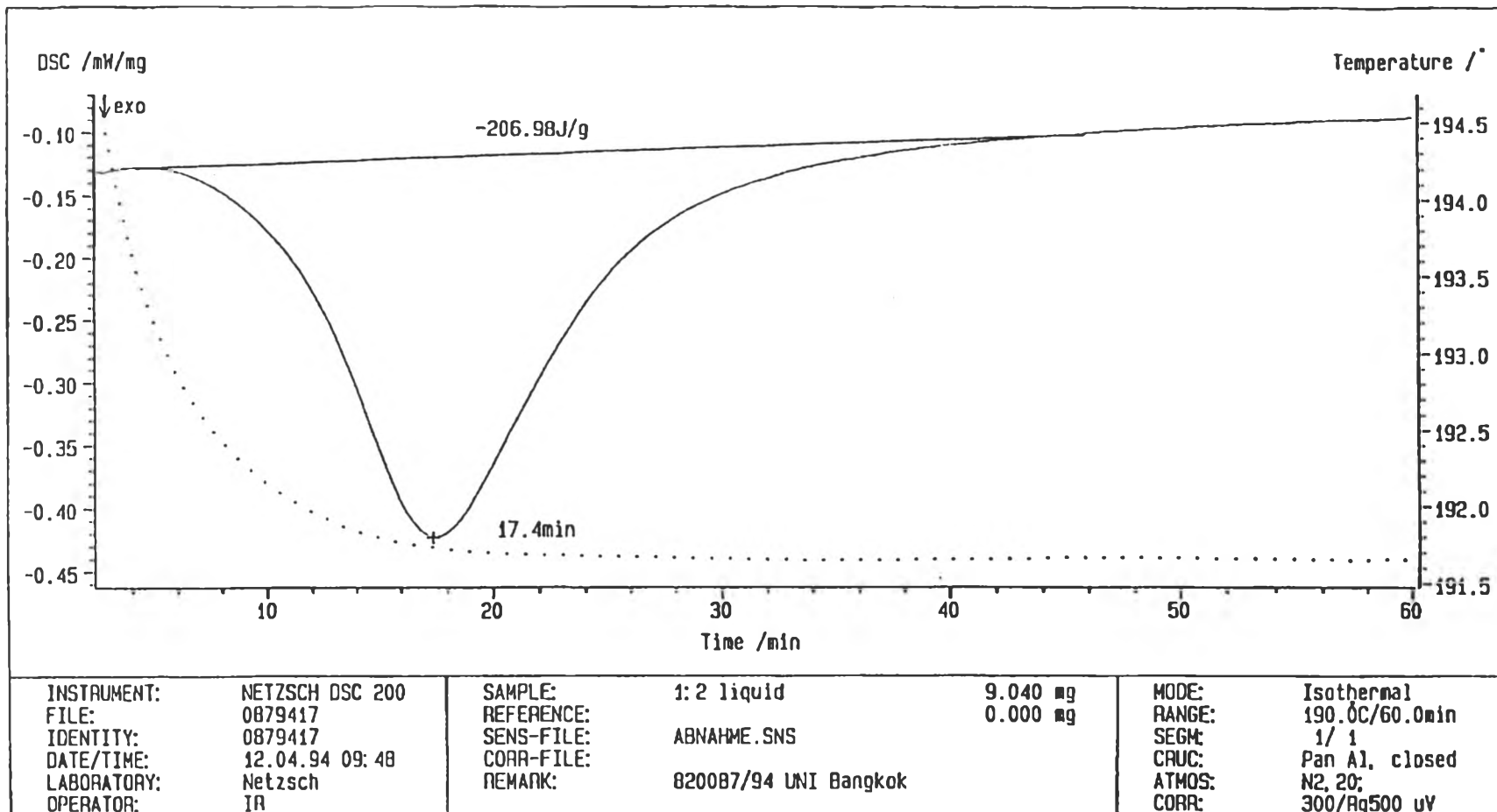


Figure A.12 DSC thermogram of uncured epoxy resin at equivalent weight ratio (3:2) of 1:1 (At constant temperature of 190°C)

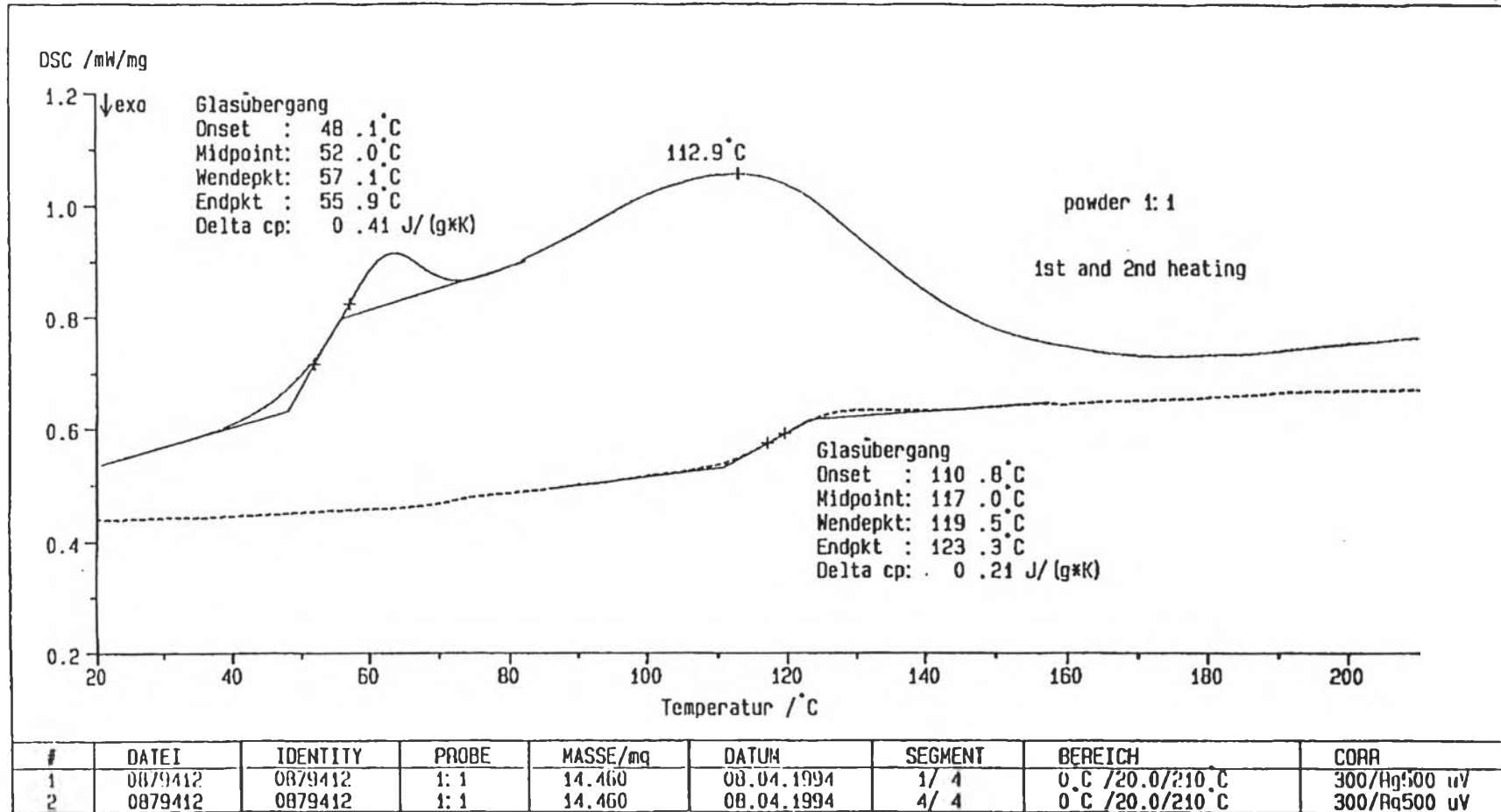


Figure A.13 DSC thermogram of 4a

(Temperature range 0 - 210°C)

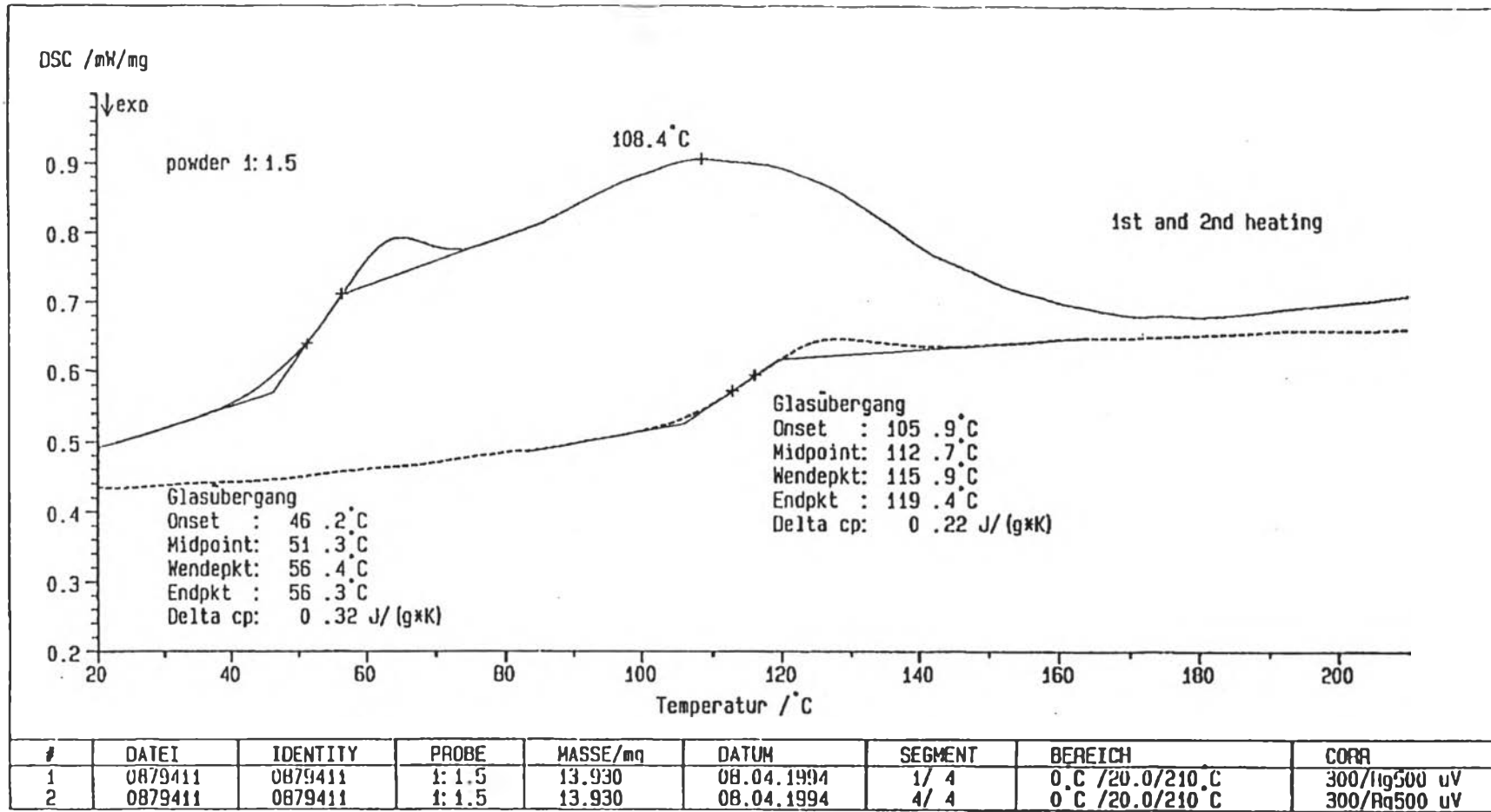


Figure A.14 DSC thermogram of 4c
 (Temperature range 0 - 210°C)

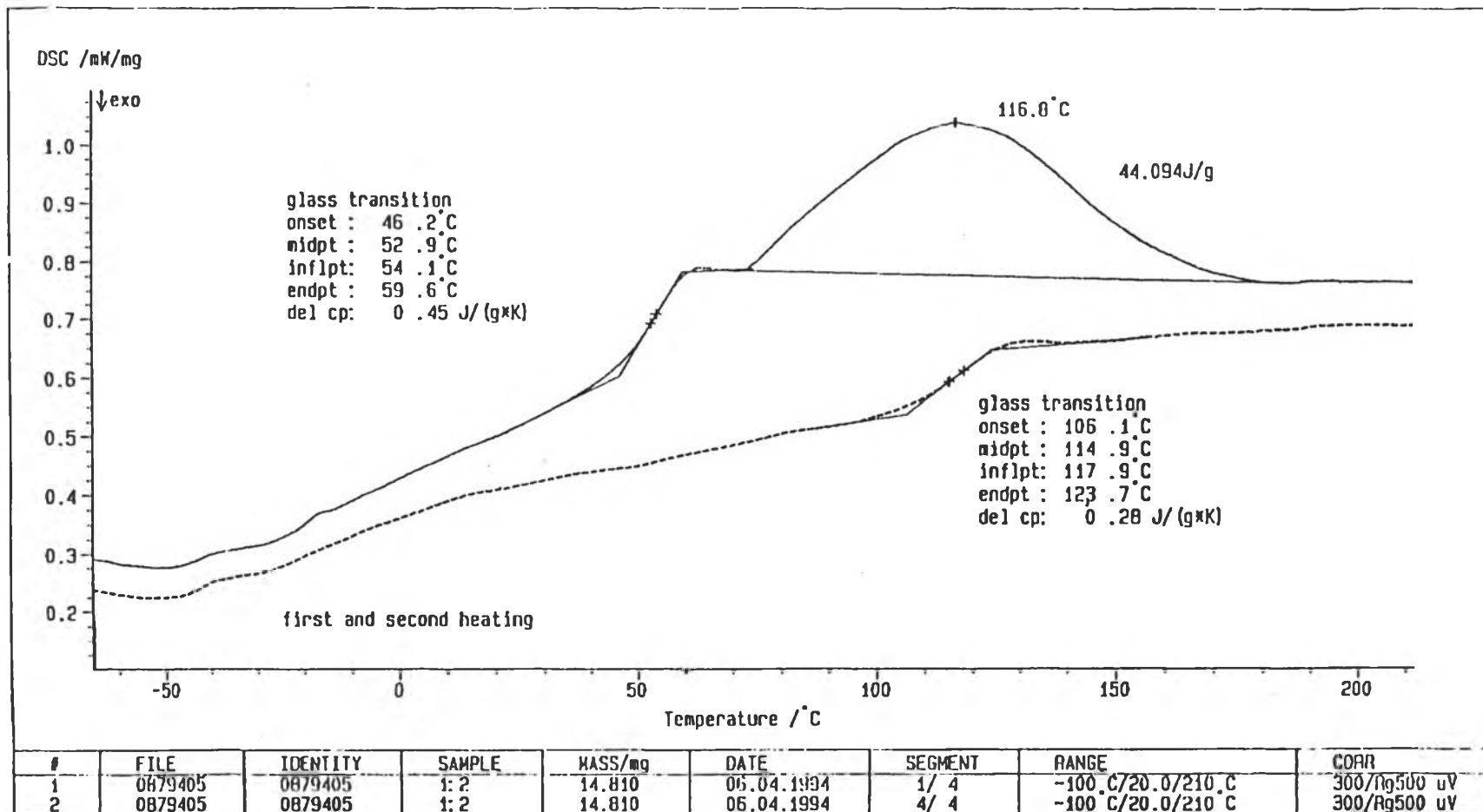
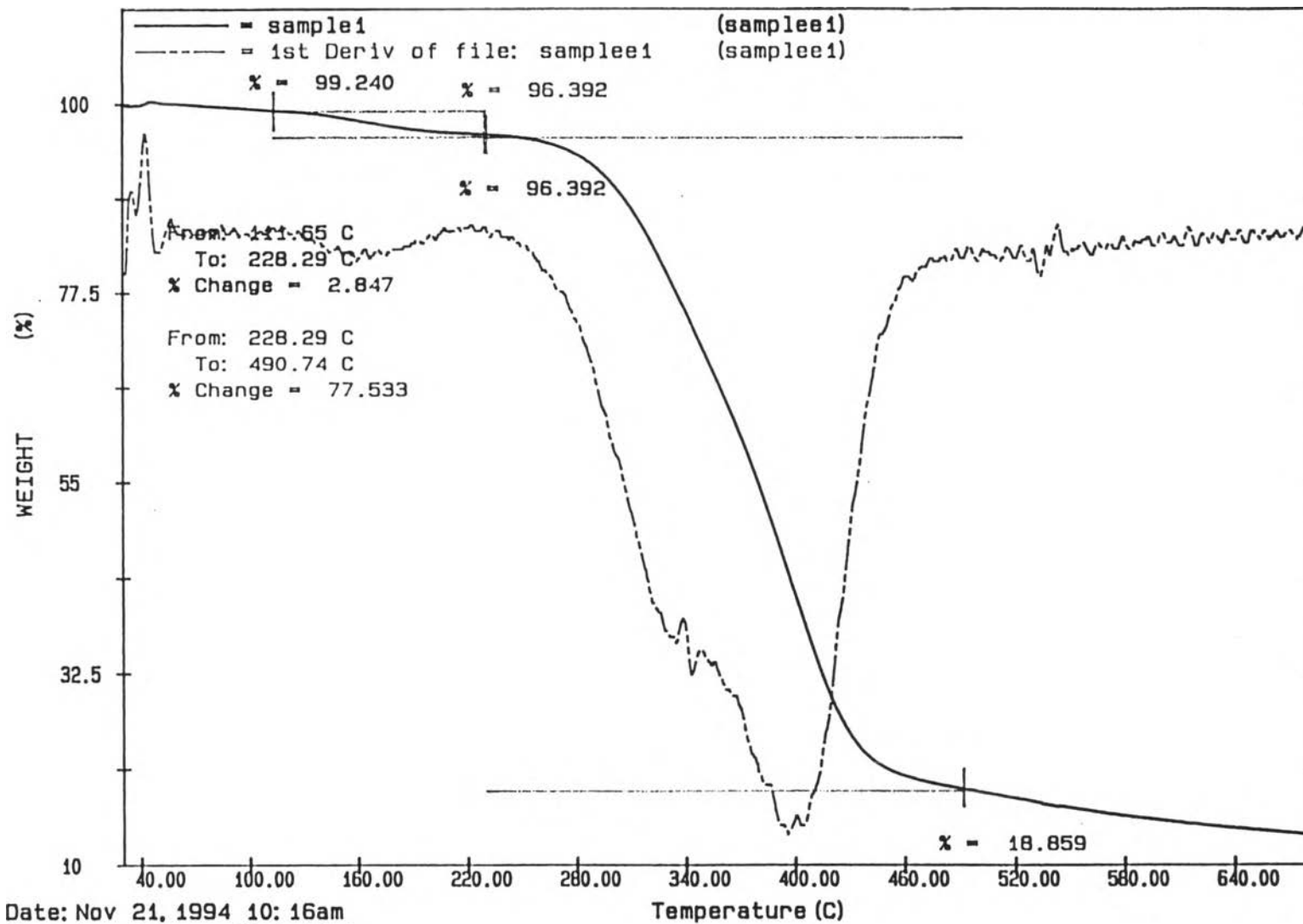


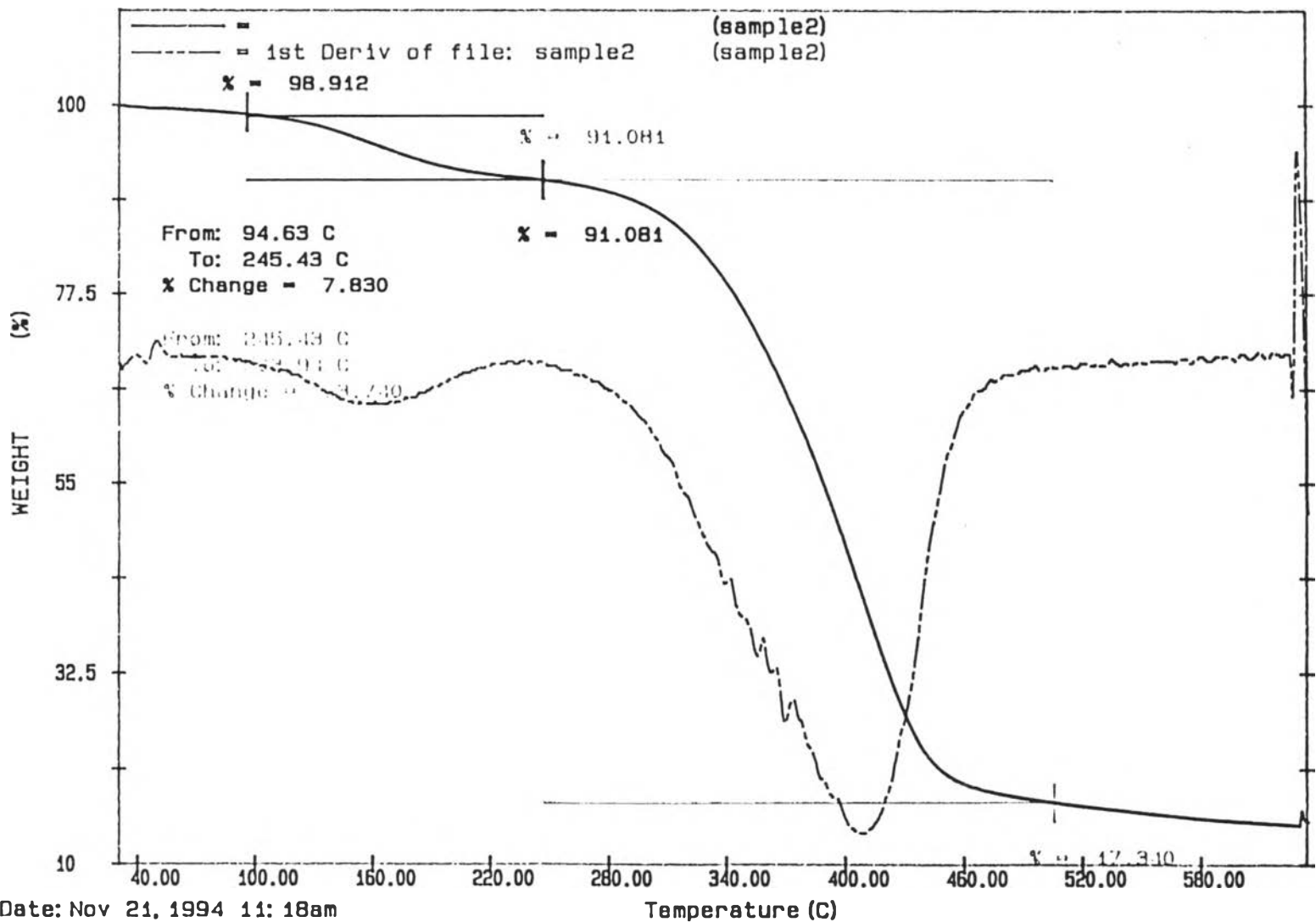
Figure A.15 DSC thermogram of 4e
 (Temperature range -100 - 210°C)





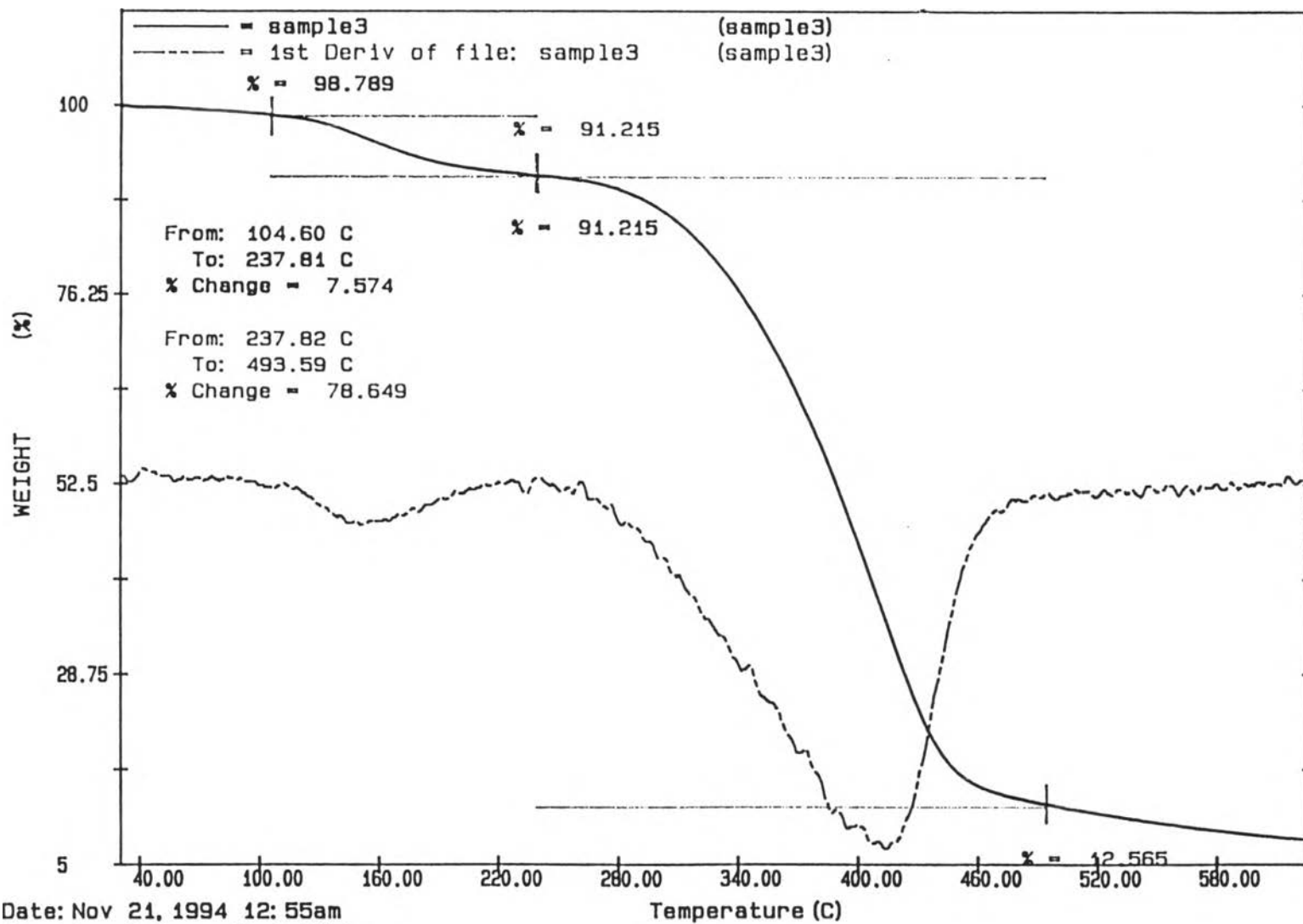
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 Sample Wt: 1.341 mg Path: a:\
 File: SAMPLEE1

Figure A.16 TGA thermogram of 4a
 (Temperature range ambient - 600°C)



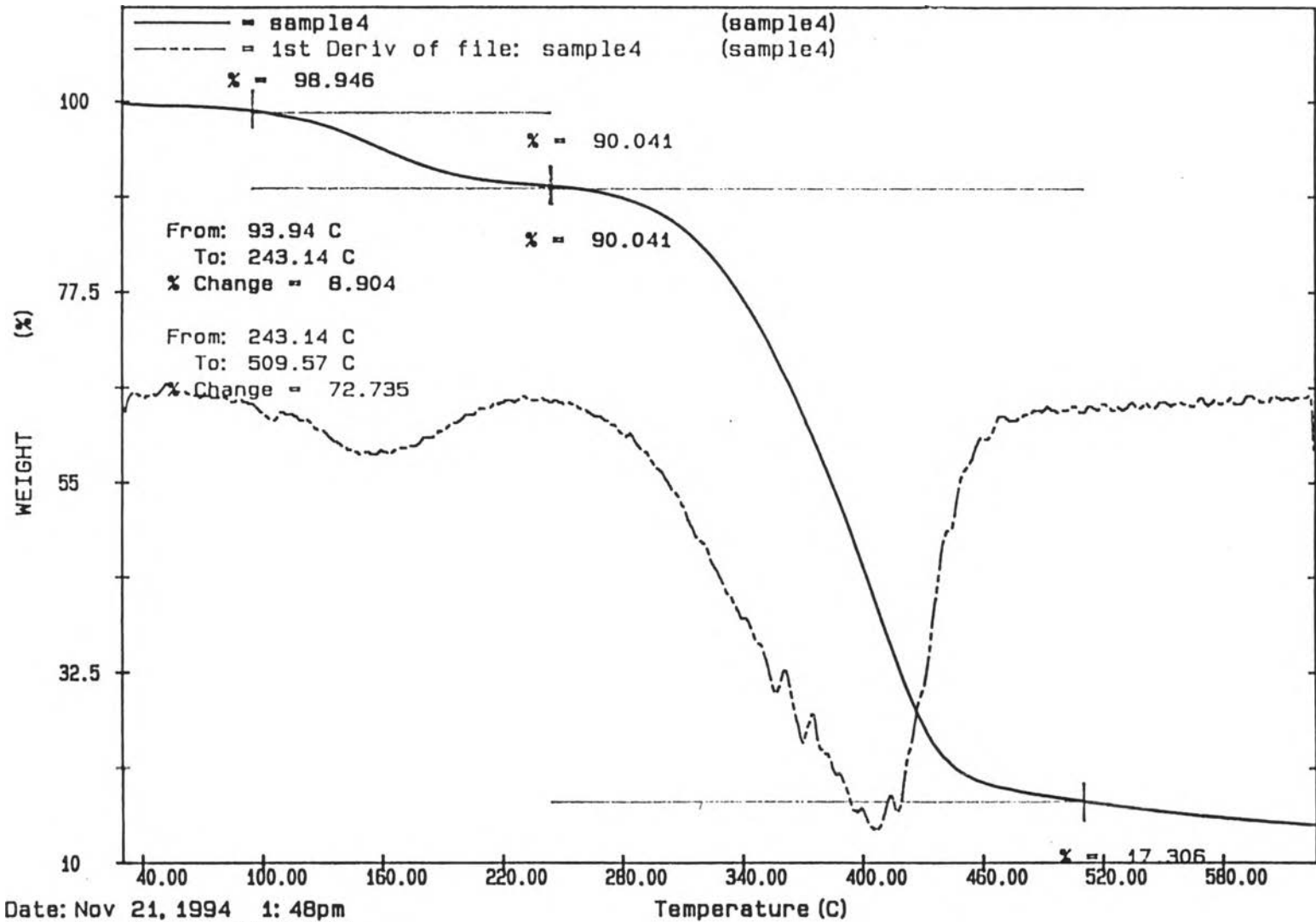
Date: Nov 21, 1994 11: 18am
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 Sample Wt: 3.170 mg Path: a: \
 File: SAMPLE2

Figure A.17 TGA thermogram of 4c
 (Temperature range ambient - 600°C)



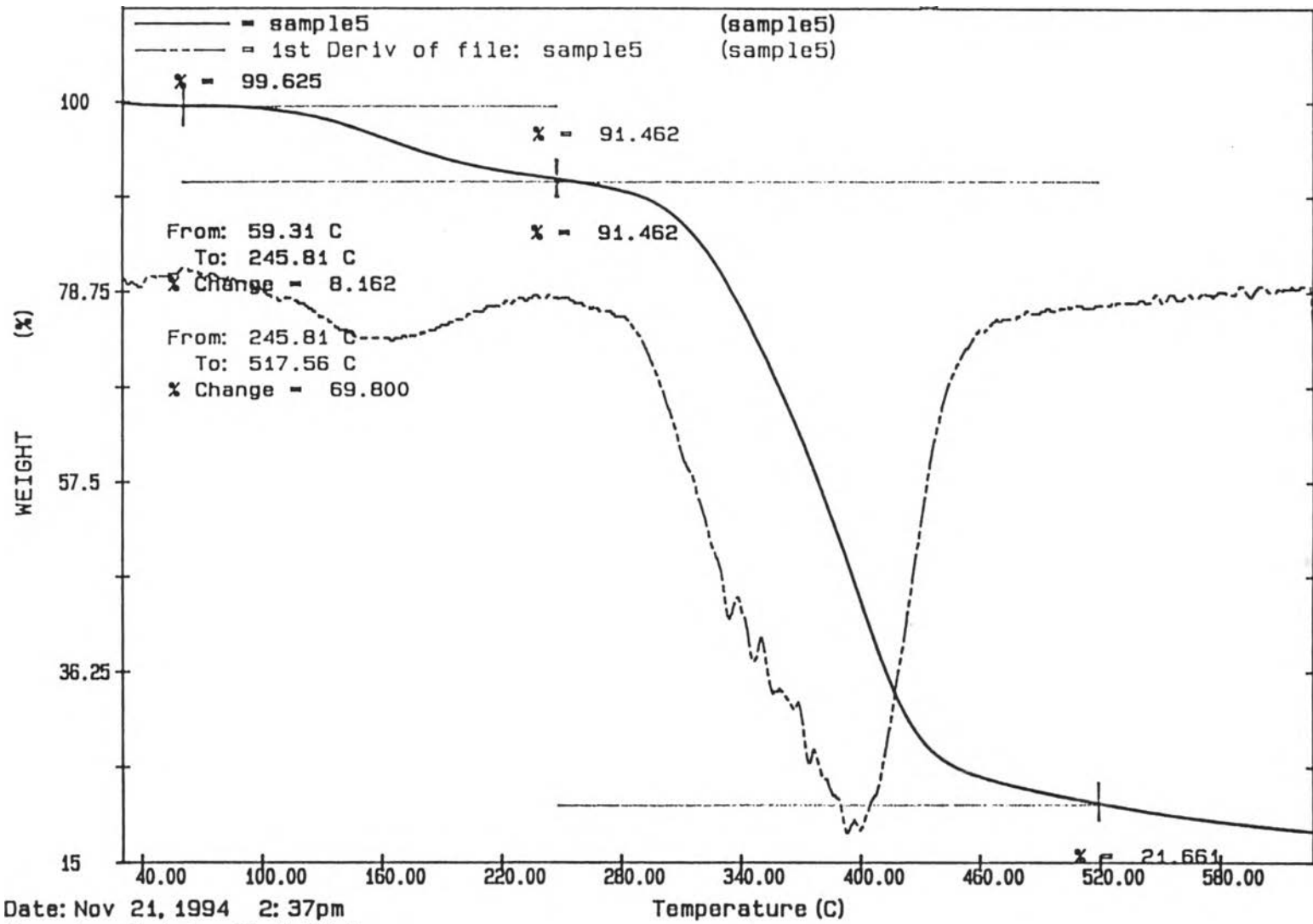
Date: Nov 21, 1994 12: 55am
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 Sample Wt: 1.334 mg Path: a:\
 File: SAMPLE3

Figure A.18 TGA thermogram of 4e
 (Temperature range ambient - 600°C)



Date: Nov 21, 1994 1: 48pm
 Scanning Rate: 20.0 C/min
 Sample Wt: 2.334 mg Path: a: \
 File: SAMPLE4

Figure A.19 TGA thermogram of 4f
 (Temperature range ambient - 600°C)



Date: Nov 21, 1994 2: 37pm
 Scanning Rate: 20.0 C/min
 Sample Wt: 5.091 mg Path: a:\
 File: SAMPLE5

Figure A.20 TGA thermogram of 4g
 (Temperature range ambient - 600°C)



VITA

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