

#46

4-77

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Note: This is a reference cited in AP 42, *Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

**Data Package for the MDI Samples Collected
at the LP/Sagola and LP/Two Harbors Plants on
June 26 & 29, 1993 and Analyzed by
Reverse Phase HPLC at 254nm and
275nm using N-p-nitrobenzyl-N-propylamine.**

Interpoll Laboratories Report No. 3-9202

Prepared by:

Gregg Holman on 11/5/93

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*Press and Unloading Vent Stack

**Press Vent Stack

***Unloading Vent Stack

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PREFACE

On June 26 and June 29, 1993, Interpoll Laboratories collected MDI samples from two Louisiana Pacific (LP) plants; one in Sagola, Michigan and the other in Two Harbors, Minnesota. The original results reported (Interpoll Labs Report #3-9202) were quantitated at 242nm.

On October 20, 1993, Interpoll Laboratories received a letter from Sue Somers of LP requesting a data package for the 254nm wavelength. This data package contains the chromatograms and quantitative data at 254nm and 275nm for all of the standards, samples and quality assurance samples. Please note that our computer files for MDI STD4 and Check 1 Run 2 are not included because the computer files could not be translated for quantitation.

The samples were analyzed on a Waters Model 600E High Performance Liquid Chromatograph equipped with a Waters Model 991 photodiodearray UV detector using a 250mm x 4.6mm dia. OD-2 column. The samples were solvent exchanged, this time, from methylene chloride to acetonitrile to allow reverse phase HPLC analysis which has been reported to provide superior separation than normal phase (as specified in NIOSH Method 347) and thus is less subject to interferences. The system was calibrated by derivitizing MDI (Kodak) with N-p-nitrobenzyl-N-propylamine at four different concentrations. Calibration check standards were made in the same manner but with a different lot of MDI (supplied by ICI).

The data package is divided into three main parts. The first part is the calibration data from the external standards. The second part is the sample analytical data for each of the six press vent samples plus the sampling train biased field blank.

The data supplied for each sample includes the following:

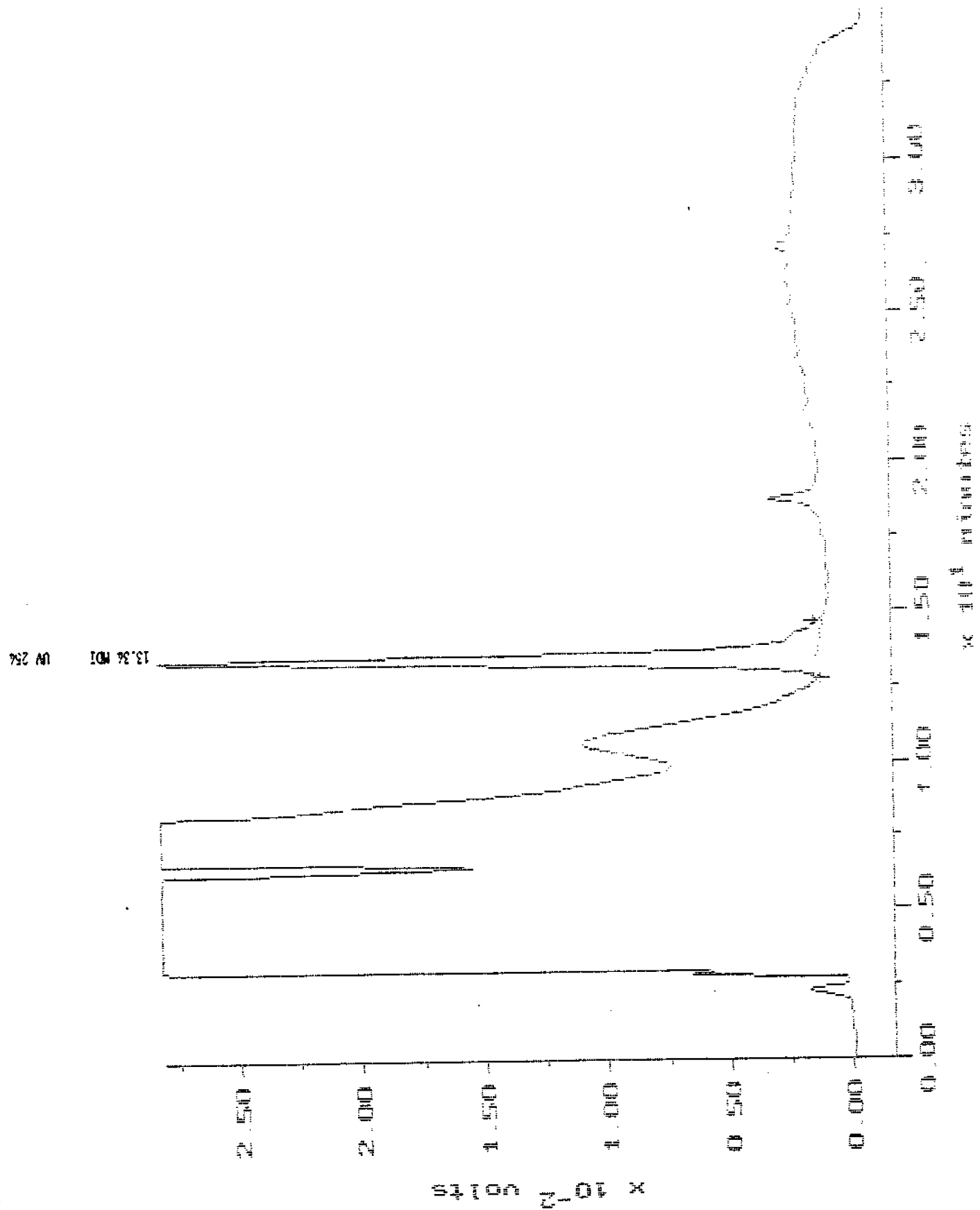
- a. The chromatogram of the 254nm acquisition of the UV detector.
- b. The chromatogram of the 275nm acquisition of the photodiodearray detector.
- c. The quantitation of the chromatograms.

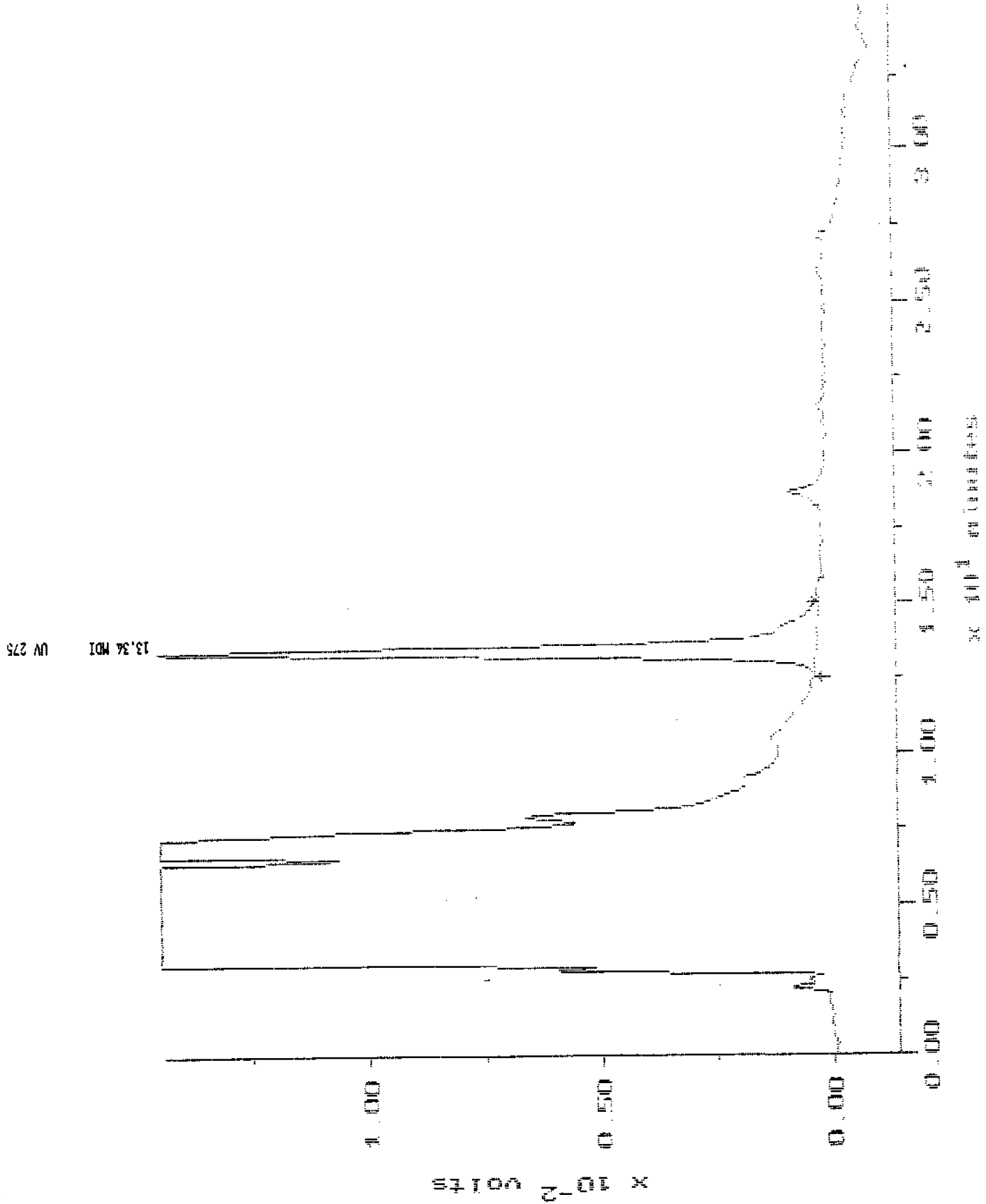
The third part is quality assurance data.

SYSTEM CALIBRATION DATA

STANDARDS CHROMATOGRAMS

Sample: NDI STD3
Acquired: 10-AUG-93 20:11
Channel1: 254.0 nm
Method: 9202 REVERSE PHASE
Operator: ---
Filename: NDISTD3





MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:53:34

SAMPLE: MDI STD3

#2 in Method: 9202 REVERSE PHASE

Acquired: 10-AUG-1993 20:11

Rate: 0.7 points/sec

Duration: 34.979 minutes

Operator: ---

Type: STD

Instrument: Waters 990

Filename: MDISTD3

Index: Disk

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.340	MDI UV 254	5.43000	5.43000	673744	26541	0.00000806	88
TOTAL			5.43000	5.43000	673744	26541		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.340	MDI UV 275	5.43000	5.43000	376922	14012	0.00001441	88
TOTAL			5.43000	5.43000	376922	14012		

Sample: MDI STD2

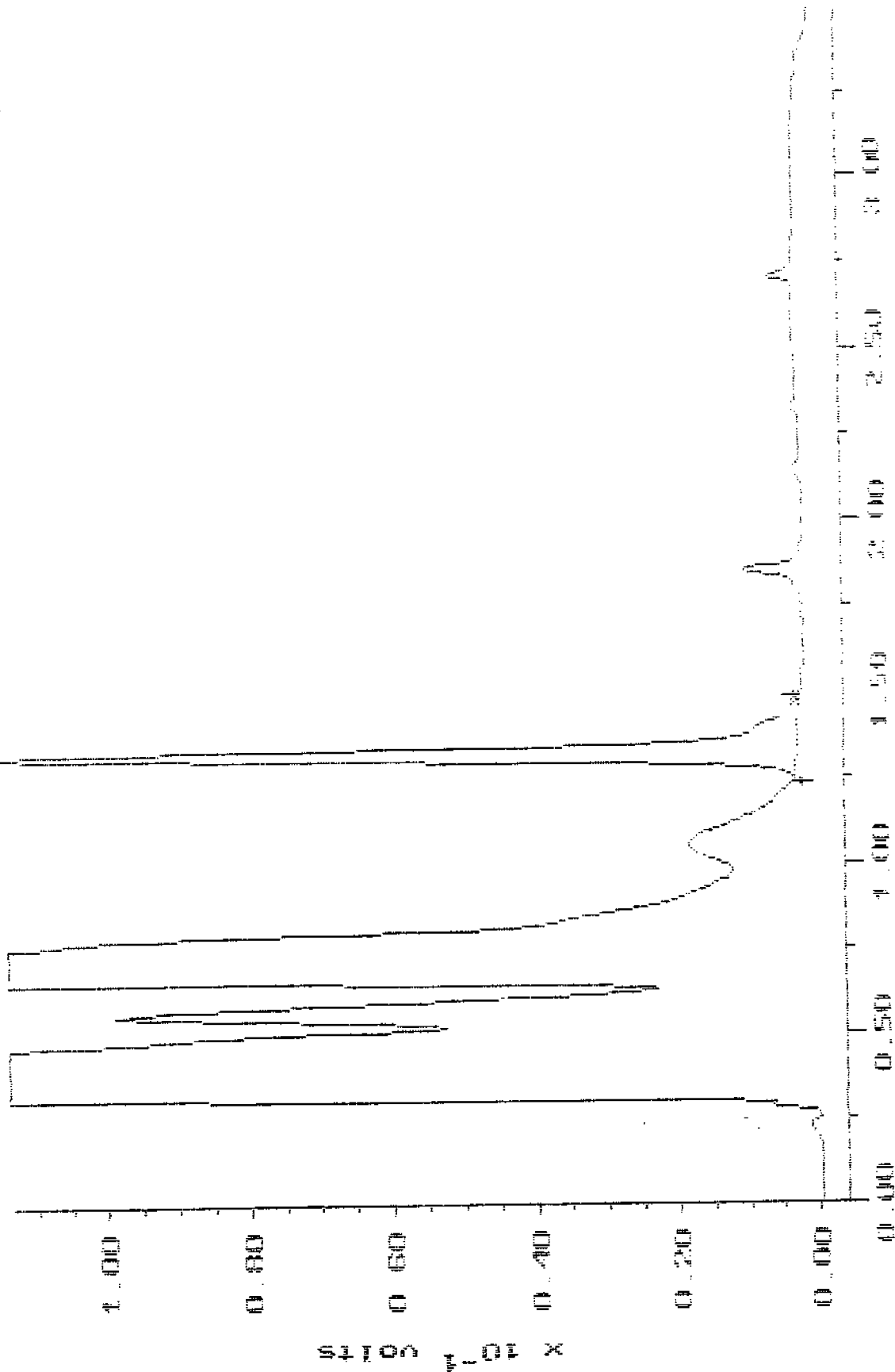
Channel: 254.0 nm

Method: 9202 REVERSE PHASE

Acquired: 10-AUG-93 20:48

File name: MDI STD2

Operator: ---



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:53:52

SAMPLE: MDI STD2

33 in Method: 9202 REVERSE PHASE

Acquired: 10-AUG-1993 20:48

Rate: 0.7 points/sec

Duration: 34.986 minutes

Operator: ---

Type: STD

Instrument: Waters 990

Filename: MDISTD2

Index: Disk

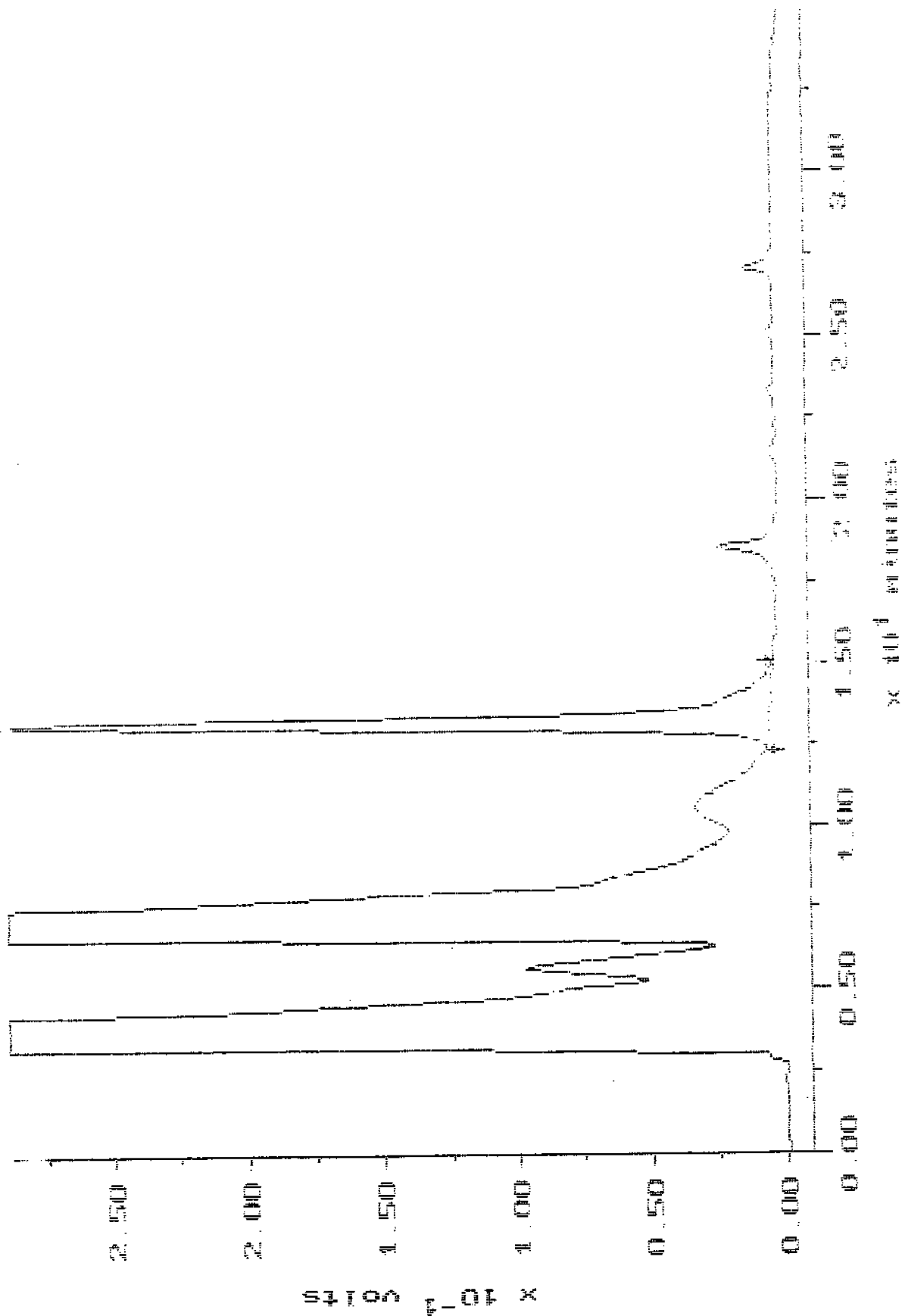
DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.132	MDI UV 254	21.72000	21.72000	2965473	109856	0.00000732	BB
TOTAL			21.72000	21.72000	2965473	109856		

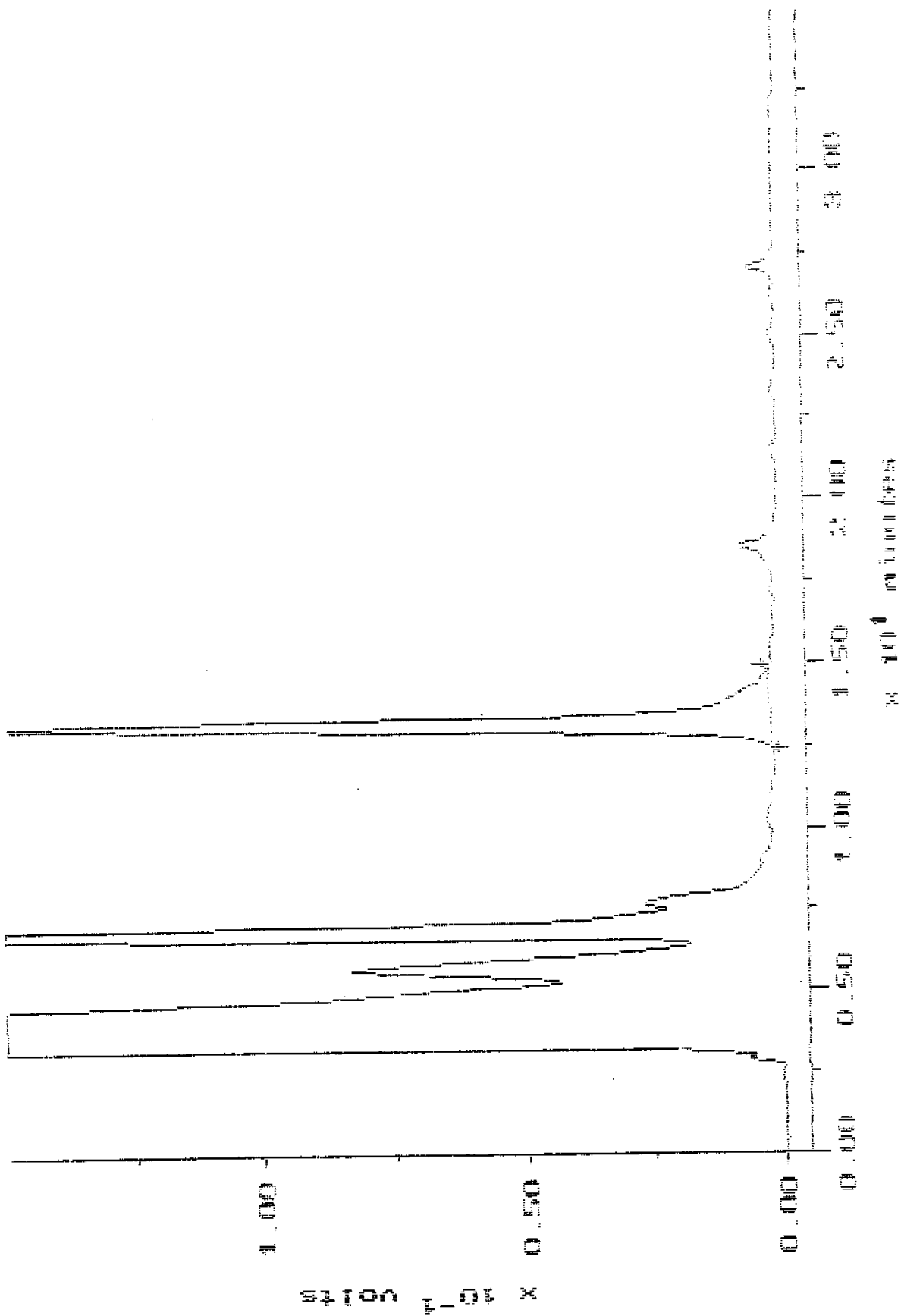
DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.085	MDI UV 275	21.72000	21.72000	1577840	58658	0.00001377	BB
TOTAL			21.72000	21.72000	1577840	58658		

Sample: MD1 STD1
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Acquired: 10-AUG-93 21:25
 Operator: ---
 Filename: MD1STD1



Sample: MDI STD1
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Acquired: 10-AUG-93 21:25
Operator: ---
Filename: MDI1STD1



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:54:11

SAMPLE: MDI STD1

#4 in Method: 9202 REVERSE PHASE
 Acquired: 18-AUG-1993 21:25
 Rate: 0.7 points/sec
 Duration: 34.960 minutes
 Operator: ---

Type: STND

Instrument: Waters 990

Filename: MDISTD1

Index: Disk

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.082	MDI UV 254	54.30000	54.30000	7850745	280144	0.00000692	88
TOTAL			54.30000	54.30000	7850745	280144		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.082	MDI UV 275	54.30000	54.30000	4108559	146422	0.00001322	88
TOTAL			54.30000	54.30000	4108559	146422		

275nm CALIBRATION CURVE

SAMPLE ANALYTICAL DATA

REPORTING FORM

Interpoll Laboratories
(612)786-6020

Due Date: _____

Data Reporting Sheet

CLIENT: Internal / Dept. 020

JOB: ICI Polyurethanes / LP Saginaw

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

Press & unloading Vent Stack

LABORATORY REPORT #: 9202

SAMPLES COLLECTED: 6-26-93

SAMPLES RECEIVED: 6-29-93

Invoicing Signature Report Routing

SAMPLE ID: _____

PL ☐ ☐ ☐
Lab Mgr ☐ ☐ ☐
Ino Mgr ☐ ☐ ☐
Org Mgr ☐ ☐ ☐

SAMPLE TYPE: _____

LOG NO: _____

T6R0	T6R1	T6R2	T6R3
Nitro			
9202-69	-70	-71	-72

PARAMETER	UNITS	DETECT LIMIT	ANALYSIS DATE & INITIALS	METHOD				
MDI	µg	13	7/24/93 <i>WJ</i>	Normal phase HPLC	x BDL	x	x 220	183 x 290
↓	↓	20	↓	↓		203 210		
MDI at 242nm	µg	13	8/11/93 <i>WJ</i>	Reverse phase HPLC	x BDL	x	x 250	x
↓	↓	20	↓	↓		226		288
MDI at 254nm	µg	13	8/11/93	Reverse phase HPLC	BDL	237	262	297

Footnotes:

In-House Comments:

Reverse and Normal (Nitro Reagent)

LCI-0'

Due Date: _____

Interpoll Laboratories
(612)786-6020Data Reporting SheetCLIENT: Internal / Dept. 020JOB: ICI Polyurethanes / LP Two Harbors

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

Press Vent StackLABORATORY REPORT #: 9289
SAMPLES COLLECTED: 6-24-93
SAMPLES RECEIVED: 7-6-93

SAMPLE ID: _____

Invoicing Signature Report
RoutingPL
Lab Mgr
Ino Mgr
Org Mgr☐
☐
☐
☐☐
☐
☐
☐☐
☐
☐
☐

SAMPLE TYPE: _____

LOS NO: _____

Test 7			
IV, +ro	Nitro		
100µg spike	250µg spike		
9289-4	-41		

PARAMETER	UNITS	DETECT LIMIT	ANALYSIS DATE & INITIALS	METHOD				
MDI	µg	6.5	7/25/93 mly	Normal-phase HPLC	x 76	x		
↓	↓	13	↓	↓		x 253 290		
MDI at 242nm	µg	6.5	8/11/93 mly	Reverse phase HPLC	x 78.2	x		
↓	↓	13	↓	↓		279		
MDI at 254nm	µg	13	8/11/93	Reverse phase HPLC	80.5	295		

Footnotes:

In-House Comments:

Reverse and Normal (Nitro Reagent)

LCI-01R

Interpoll Laboratories
(612) 786-6020

Data Reporting Sheet

CLIENT: Internal / Dept. 020

JOB: ICI Polyurethanes / LP Two starters

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

Press Vent + Stack

LABORATORY REPORT #: 9289

SAMPLES COLLECTED: 6-29-93

SAMPLES RECEIVED: 7-6-93

Invoicing		Signature	Report Routing

SAMPLE ID:

PL			
Lab Mgr			
Ino Mgr			
Org Mgr			

SAMPLE TYPE:

LOG NO:

T7R0-1	T7R0-2		
Nitro Field Blank	→		
9284-42	-43		

[illegible]

Footnotes:

In-House Comments:

Reverse and Normal (Nitro Reagent)

LC1-01R

Due Date: _____

Interpoll Laboratories
(612) 786-6020Data Reporting SheetCLIENT: Interpoll / Dept. 620JOB: ICI Polyurethanes/LP Two Itarbc.

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

Press Vent StackLABORATORY REPORT #: 9289
SAMPLES COLLECTED: 6-29-93
SAMPLES RECEIVED: 7-6-93

SAMPLE ID: _____

Invoicing Signature Report
 RoutingPL ☐ ☐ ☐
Lab Mgr ☐ ☐ ☐
Ino Mgr ☐ ☐ ☐
Org Mgr ☐ ☐ ☐

SAMPLE TYPE: _____

LOG NO: _____

T ₇ R ₁	T ₇ R ₂	T ₇ R ₃	
Nitro			
9289-44	-45	-46	

PARAMETER	UNITS	DETECT LIMIT	ANALYSIS DATE & INITIALS	METHOD				
MDI	µg	13	7/25/93 m	Normal class- HPLC	1500 x 1600	1350 x 1400	x	
↓	↓	20	↓	↓			1500 +600	10/1/93
MDI at 242nm	µg	13	7/11/93 m	Reverse- Phase HPLC	x 1510	x 1250	x	
↓	↓	20	↓	↓			1530	
MDI at 254nm	µg	13	8/11/93	Reverse Phase HPLC	1500	1230 +2m	1530	

Footnotes:

In-House Comments:

Reverse and Normal (Nitro Reagent)

LC1-01R

Interpoll Laboratories
(612) 786-6020

Data Reporting Sheet

CLIENT: Internal / Dept. 020

JOB: ICI Polyurethanes/LP Two Harbors

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

unloading Vent Stack

LABORATORY REPORT #: 9284

SAMPLES COLLECTED: 7-1-93

SAMPLES RECEIVED: 7-6-93

Invoicing		Signature	Report Routing

SAMPLE ID:

PL	0	0	0
Lab Mgr	0	0	0
Ino Mgr	0	0	0
Org Mgr	0	0	0

SAMPLE TYPE:

LOG NO:

Test 10	→		
Nitro	Nitro		
100 mg Spike	250 mg Spike		
9284-97	-98		

[illegible]

Footnotes:

In-House Comments:

Reverse and Normal (Nitro Reagent)

LC1-01R

Interpoll Laboratories
(612) 786-6020

Data Reporting Sheet

CLIENT: Internal / Dept. 020

JOB: ICI Polyurethanes/LP Two Harbors

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

unloading Vent Stack

LABORATORY REPORT #: 9259

LABORATORY REPORT NO. 7-1-93
SAMPLES COLLECTED: 7-1-93

SAMPLES RECEIVED: 7-6-53

Report		
Invoicing	Signature	Routing

SAMPLE ID:

PL	00	00	00
Lab Mgr	00	00	00
Ino Mgr	00	00	00
Org Mgr	00	00	00

SAMPLE TYPE:

LOG NO:

T10R0-1	T10R0-2		
Nitro	→		
Field Blank			
9289-99	-100		

[illegible]

Footnotes:

In-House Comments:

Reverse and Normal (N. to Reagent)

LC1-01R

Due Date: _____

Interpoll Laboratories
(612) 786-6020Data Reporting SheetCLIENT: Internal / Dept. 020JOB: ICI Polyurethanes / LP Two Harbors

CLIENT NO: _____

P.O. NO: _____

PROJECT MGR: _____

PHONE: _____

DATE: _____

CONTACT: _____

Unloading Vent StackLABORATORY REPORT #: 9289
SAMPLES COLLECTED: 7-1-93
SAMPLES RECEIVED: 7-6-93

SAMPLE ID: _____

Invoicing Signature Report
 RoutingPL ☐ ☐ ☐
Lab Mgr ☐ ☐ ☐
Ino Mgr ☐ ☐ ☐
Org Mgr ☐ ☐ ☐

SAMPLE TYPE: _____

LOG NO: _____

T ₁₀ R ₁	T ₁₀ R ₂	T ₁₀ R ₃	
Nitro			
9289-101	-102	-103	

PARAMETER	UNITS	DETECT LIMIT	ANALYSIS DATE & INITIALS	METHOD				
MDI	µg	13	7/25/93 [initials]	Normal-phase HPLC	x 1080 1100	x	x 1170 1200	7/25/93
↓	↓	20	↓	↓			802 800	
MDI at 242nm	µg	13	8/11/93 [initials]	Reverse-phase HPLC	x 1040	x	x 1090	
↓	↓	20	↓	↓			790	
MDI at 254nm	µg	13	8/11/93	Reverse-phase HPLC	1040	777	1080	

Footnotes: _____

In-House Comments: _____

Reverse and Normal (Nitro Reagent)

LC1-01R

ANALYSIS RUN LOG

MAXIMA 820 METHOD REPORT

Printed: 29-OCT-1993 14:09

9202 REVERSE PHASE

Sample Queue

Queue Parameters

File Path: C:\MAX\WATERS\MDI\9202SRV2

Raw Sample Weight: 1.000

Starting Index: 1

Volume of Extract: 1.000

Stripchart Parameters

Scaling: Fit to highest valid peak x-Axis limits: 0.0-0.0
 Peak Labels: Names, retention times y-Axis limits: 0.0-0.0
 Regions: 0
 Options: baselines, starts/ends, maxima

Sample Queue Table

#	Name	Type	Source	File Name	Index	Inj. Volume	Amount	Dilution
1	MDI STD4	STND	DISK	MDISTD4				
2	MDI STD3	STND	DISK	MDISTD3				
3	MDI STD2	STND	DISK	MDISTD2				
4	MDI STD1	STND	DISK	MDISTD1				
5	CHECK 1	UNKN	DISK	CHECK1			1.000E+00	1.000E+00
6	CHECK 2	UNKN	DISK	CHECK2			1.000E+00	1.000E+00
7	INST BLANK	UNKN	DISK	INSTBLK			1.000E+00	1.000E+00
8	9202 BLANK	UNKN	DISK	9202BLK			1.000E+00	1.000E+00
9	9202 SPIKE 1	UNKN	DISK	9202SPK1			1.000E+00	1.000E+00
10	9202 SPIKE 2	UNKN	DISK	9202SPK2			1.000E+00	1.000E+00
11	9202-67	UNKN	DISK	920267			1.000E+00	1.000E+00
12	9202-68	UNKN	DISK	920268			1.000E+00	1.000E+00
13	9202-69	UNKN	DISK	920269			1.000E+00	1.000E+00
14	9202-70	UNKN	DISK	920270			1.000E+00	1.000E+00
15	CHECK1 RUN2	UNKN	DISK	CHECK1R2			1.000E+00	1.000E+00
16	INST BLANK 2	UNKN	DISK	INSTBLK2			1.000E+00	1.000E+00
17	9202-71	UNKN	DISK	920271			1.000E+00	1.000E+00

FILE WOULD NOT TRANSLATE

FILE WOULD NOT TRANSLATE

18	9202-72	UNKN: DISK	920272		1.000E+00	1.000E+00
19	9289-40	UNKN: DISK	928940		1.000E+00	1.000E+00
20	9289-41	UNKN: DISK	928941		1.000E+00	1.000E+00
21	9289-42	UNKN: DISK	928942		1.000E+00	1.000E+00
22	9289-43	UNKN: DISK	928943		1.000E+00	1.000E+00
23	9289-44	UNKN: DISK	928944		1.000E+00	1.000E+00
24	9289-45	UNKN: DISK	928945		1.000E+00	1.000E+00
25	CHECK1 RUN3	UNKN: DISK	CHECK1R3		1.000E+00	1.000E+00
26	INST BLANK 3	UNKN: DISK	INSTBLK3		1.000E+00	1.000E+00
27	9289-46	UNKN: DISK	928946		1.000E+00	1.000E+00
28	9289-97	UNKN: DISK	928997		1.000E+00	1.000E+00
29	9289-98	UNKN: DISK	928998		1.000E+00	1.000E+00
30	9289-99	UNKN: DISK	928999		1.000E+00	1.000E+00
31	9289-100	UNKN: DISK	9289100		1.000E+00	1.000E+00
32	9289-101	UNKN: DISK	9289101		1.000E+00	1.000E+00
33	9289-102	UNKN: DISK	9289102		1.000E+00	1.000E+00
34	9289-103	UNKN: DISK	9289103		1.000E+00	1.000E+00
35	CHECK1 RUN4	UNKN: DISK	CHECK1R4		1.000E+00	1.000E+00
36	INST BLANK 4	UNKN: DISK	INSTBLK4		1.000E+00	1.000E+00

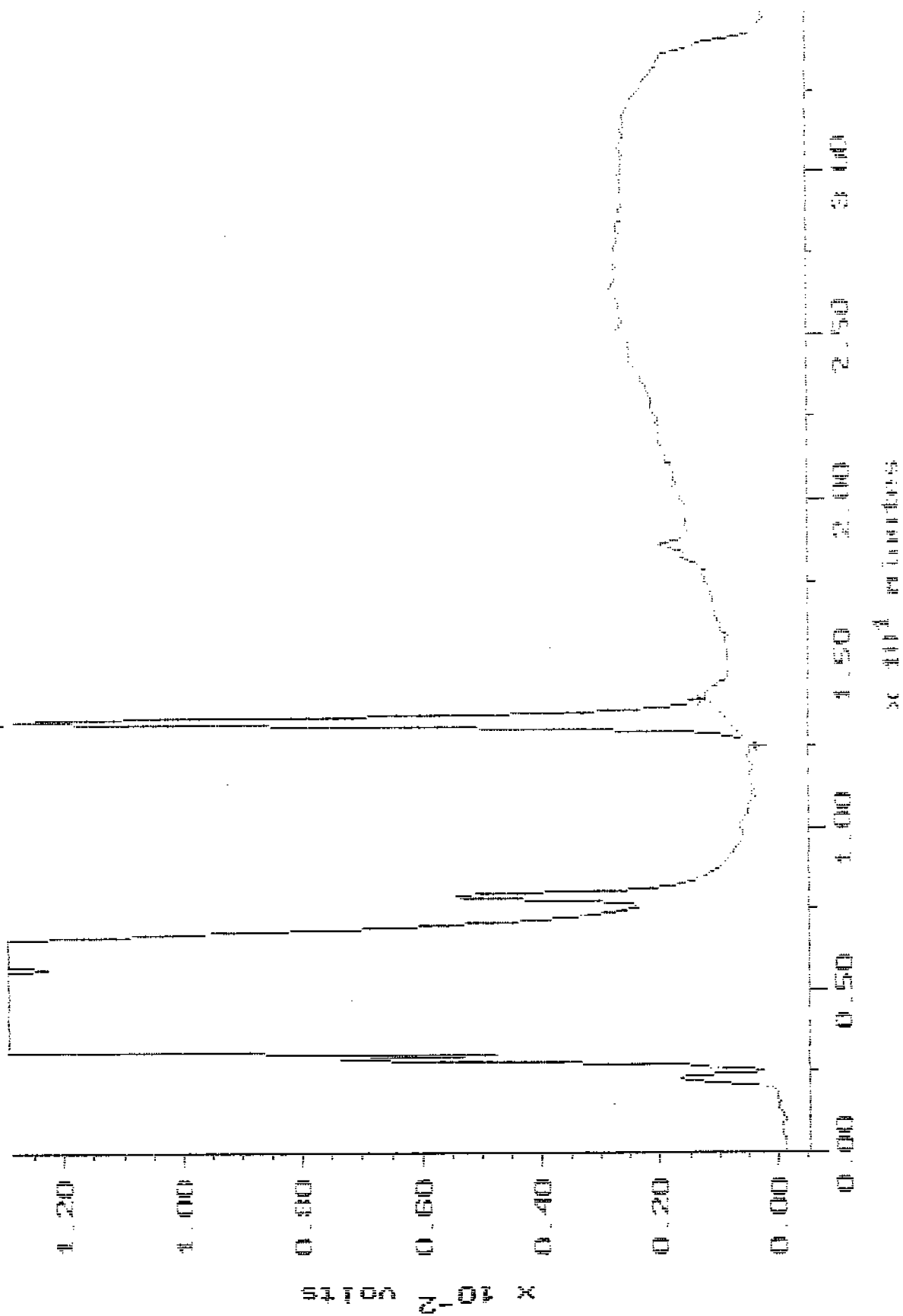
Standard Concentrations

Component	MDI STD4	MDI STD3	MDI STD2	MDI STD1
MDI UV 254	1.086E+00	5.430E+00	2.172E+01	5.430E+01
MDI UV 275	1.086E+00	5.430E+00	2.172E+01	5.430E+01

SAMPLE CHROMATOGRAMS

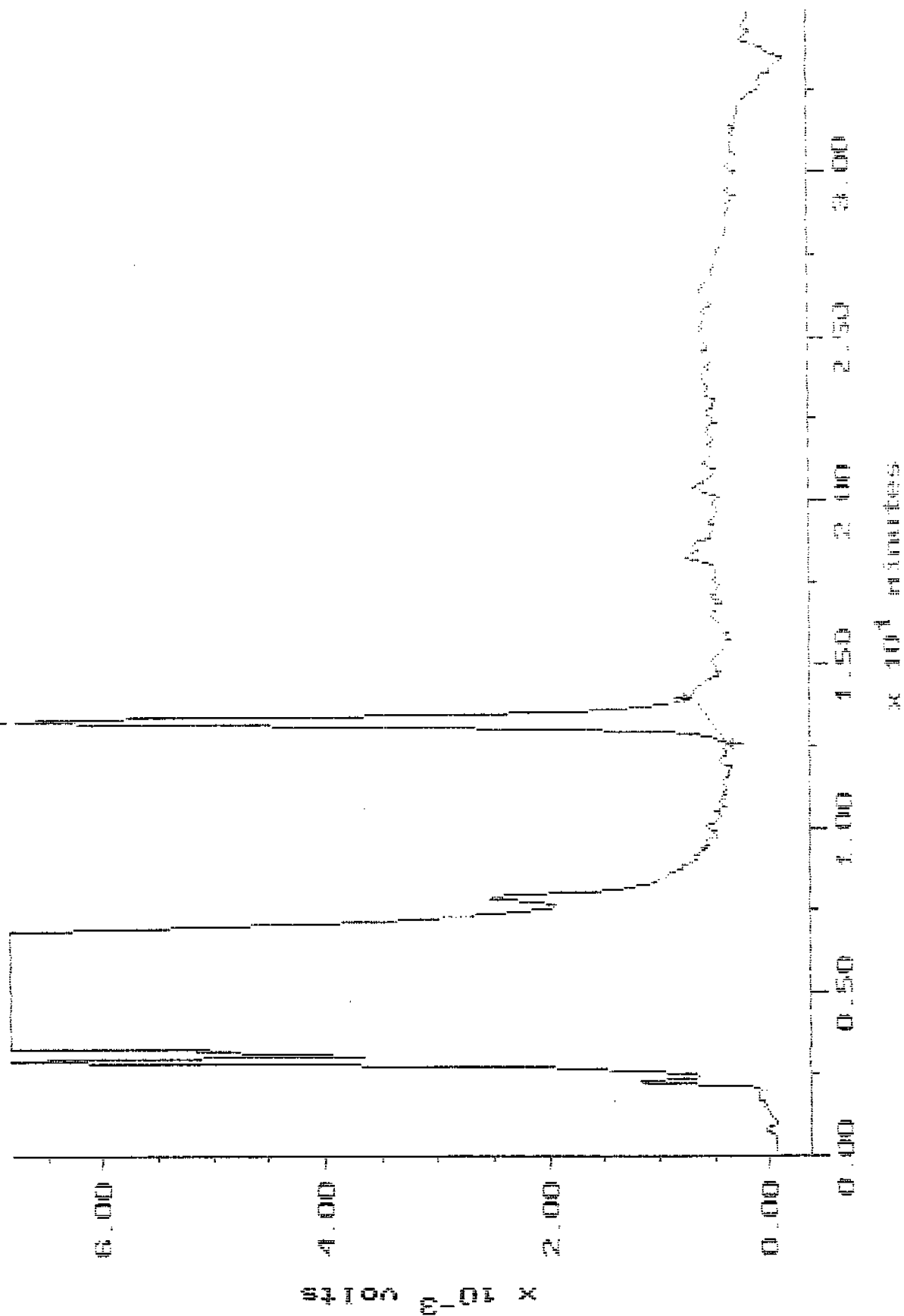
UV 254

13.18 MDI



Sample: 9202-67
Acquired: 11-AUG-93 1:43
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 920267

Sample: 9202-67
 Acquired: 11-AUG-93 1:43
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 Filename: 920267
 Operator: ---



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:58:56

SAMPLE: 9202-67

#11 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 1:43

Rate: 0.7 points/sec

Duration: 34.984 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920267

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.173	MDI UV 254	1.94543	1.94543	278937	11983	0.00000697	BB
TOTAL			1.94543	1.94543	278937	11983		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.201	MDI UV 275	1.92270	1.92270	144617	6235	0.00001330	BB
TOTAL			1.92270	1.92270	144617	6235		

MDIµg

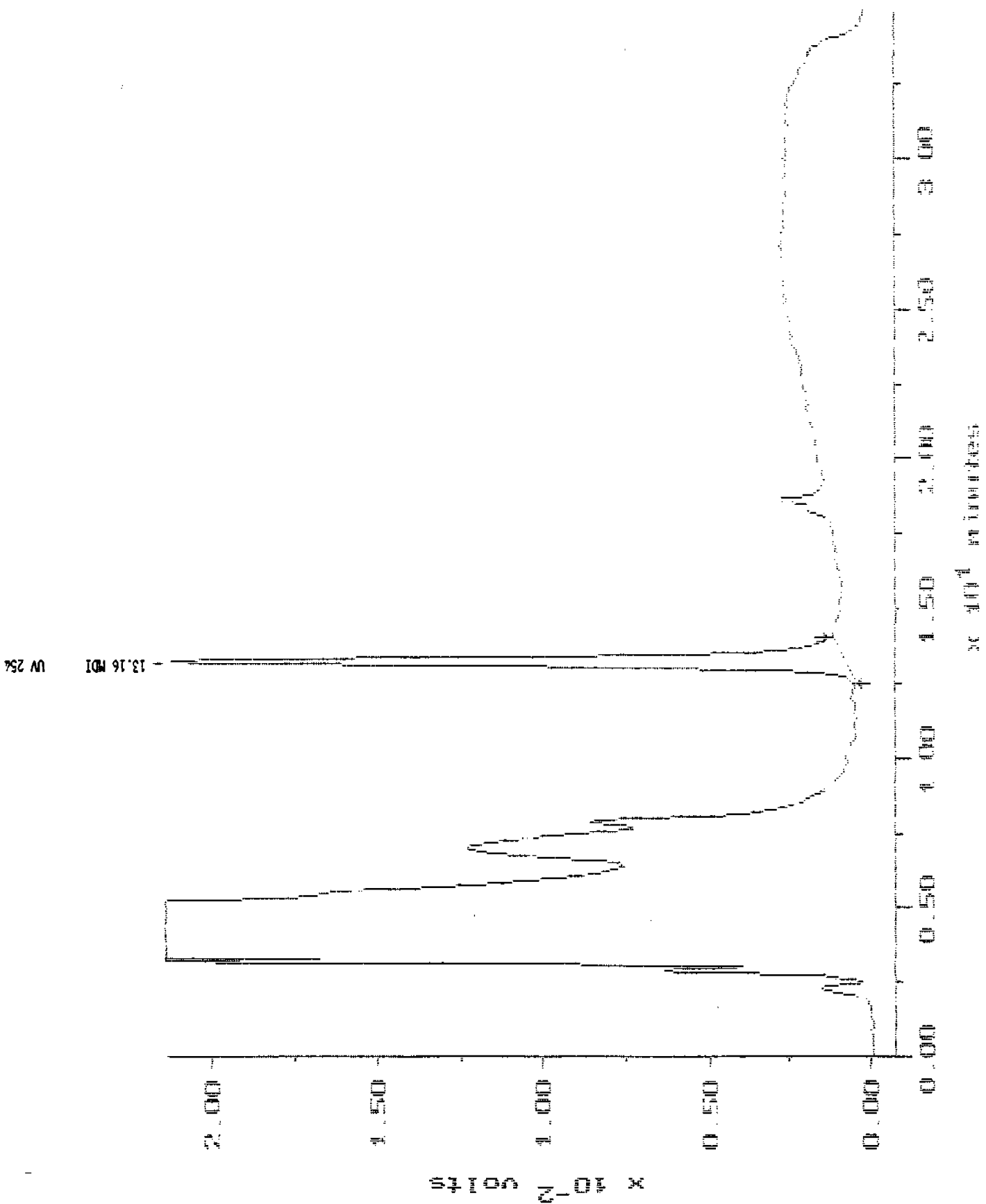
UV 254

$$1.95 \mu\text{g/ml} \times 50 \text{ ml} = 97.5 \mu\text{g}$$

UV 275

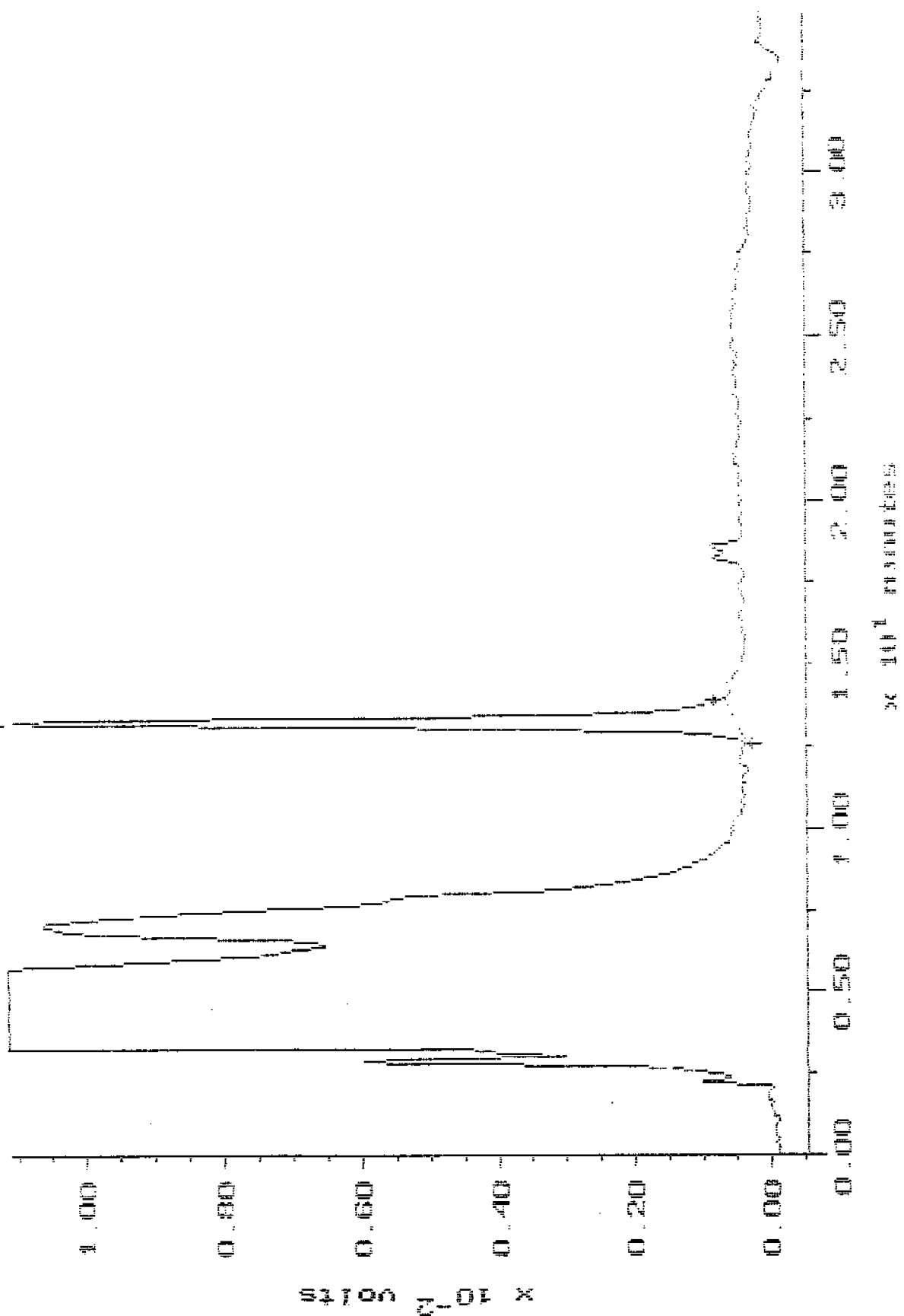
$$1.92 \mu\text{g/ml} \times 50 \text{ ml} = 96.0 \mu\text{g}$$

Sample: 9202-68
 Acquired: 11-AUG-93 2:20
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 File: 920268



UV 275

13.16 MDI



Sample: 9202-68
Acquired: 11-AUG-93
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 920268

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:59:15

SAMPLE: 9202-68

#12 In Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 2:20

Rate: 0.7 points/sec

Duration: 34.992 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920263

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.157	MDI UV 254	3.22190	3.22190	461957	20418	0.00000697	BB
TOTAL			3.22190	3.22190	461957	20418		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.157	MDI UV 275	3.13883	3.13883	236090	10538	0.00001330	BB
TOTAL			3.13883	3.13883	236090	10538		

MDI

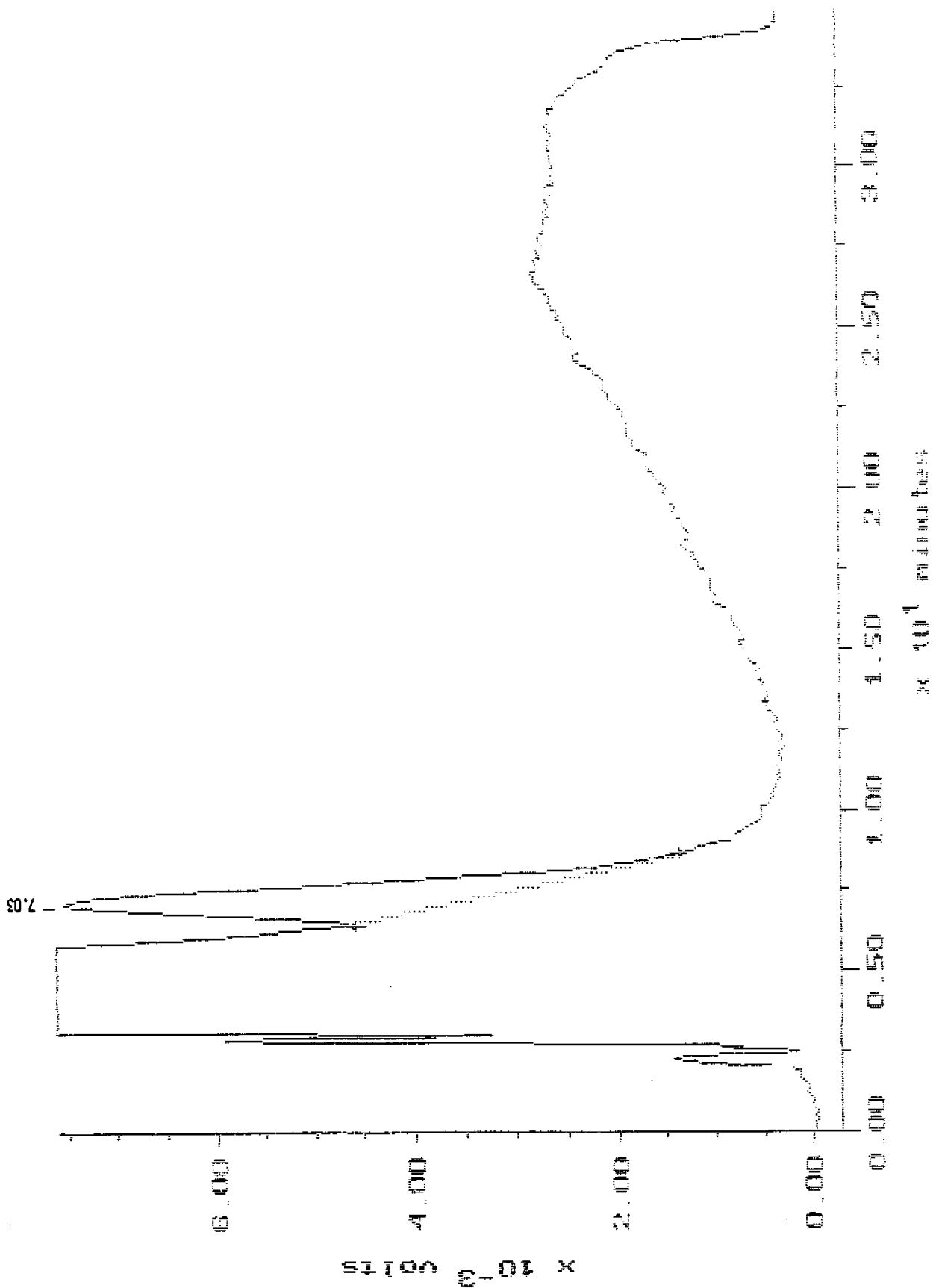
µg

UV 254

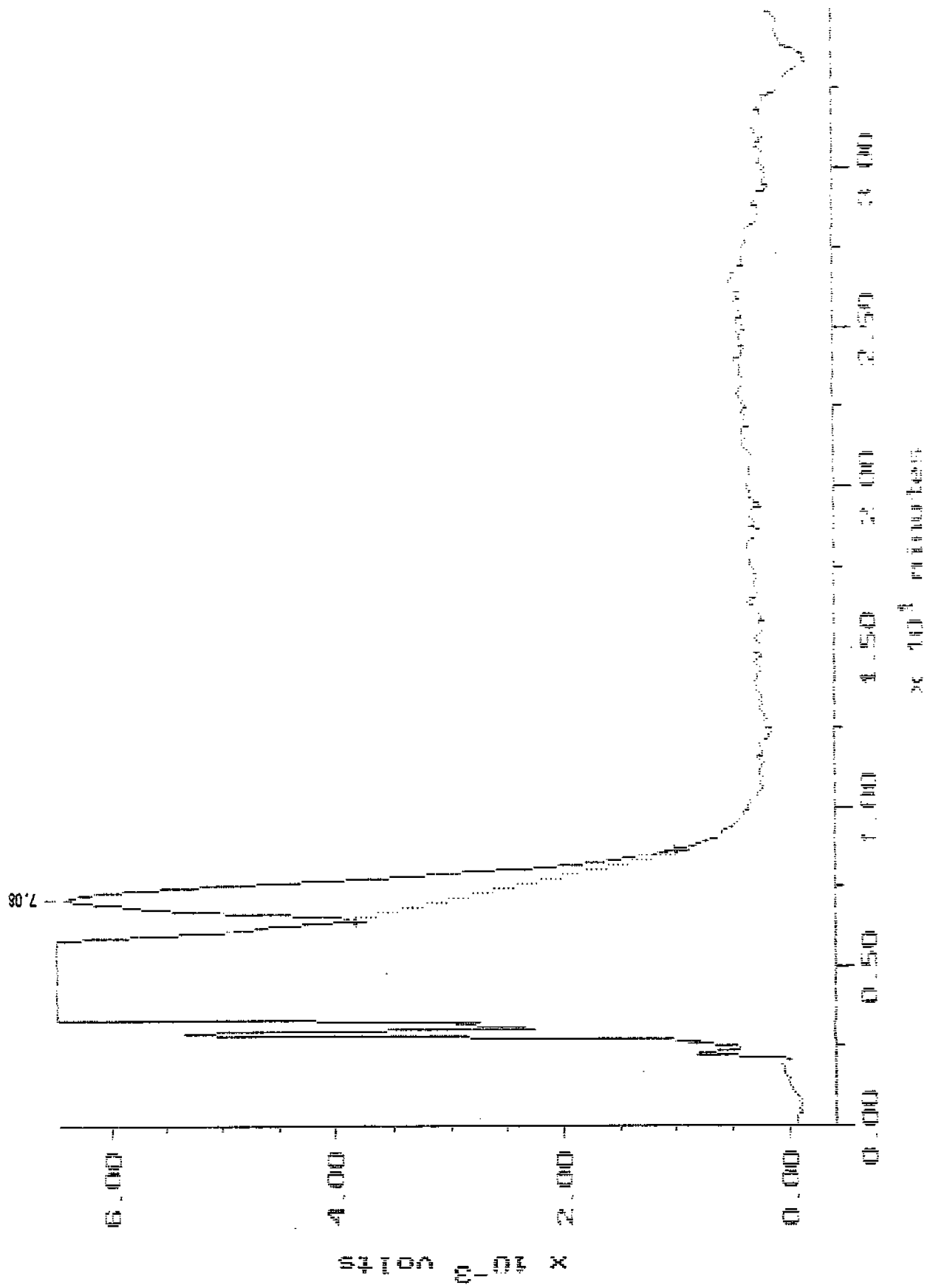
$$3.22 \mu\text{g/ml} \times 100 \text{ ml} = 322 \mu\text{g}$$

UV 275

$$3.14 \mu\text{g/ml} \times 100 \text{ ml} = 314 \mu\text{g}$$



Sample: 9202-69
 Acquired: 11-AUG-93 2:57
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: 920269
 Operator: —



Sample: 9202-69
 Acquired: 11-AUG-93 2:57
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 File name: 920269
 Operator: ---

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:59:34

SAMPLE: 9202-69

#13 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 2:57

Rate: 0.7 points/sec

Duration: 34.983 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920269

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.034				226778	3805		88
TOTAL			0.00000	0.00000	226778	3805		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.081				201698	3366		88
TOTAL			0.00000	0.00000	201698	3366		

MDI

pg

UV 254

BOL

UV 275

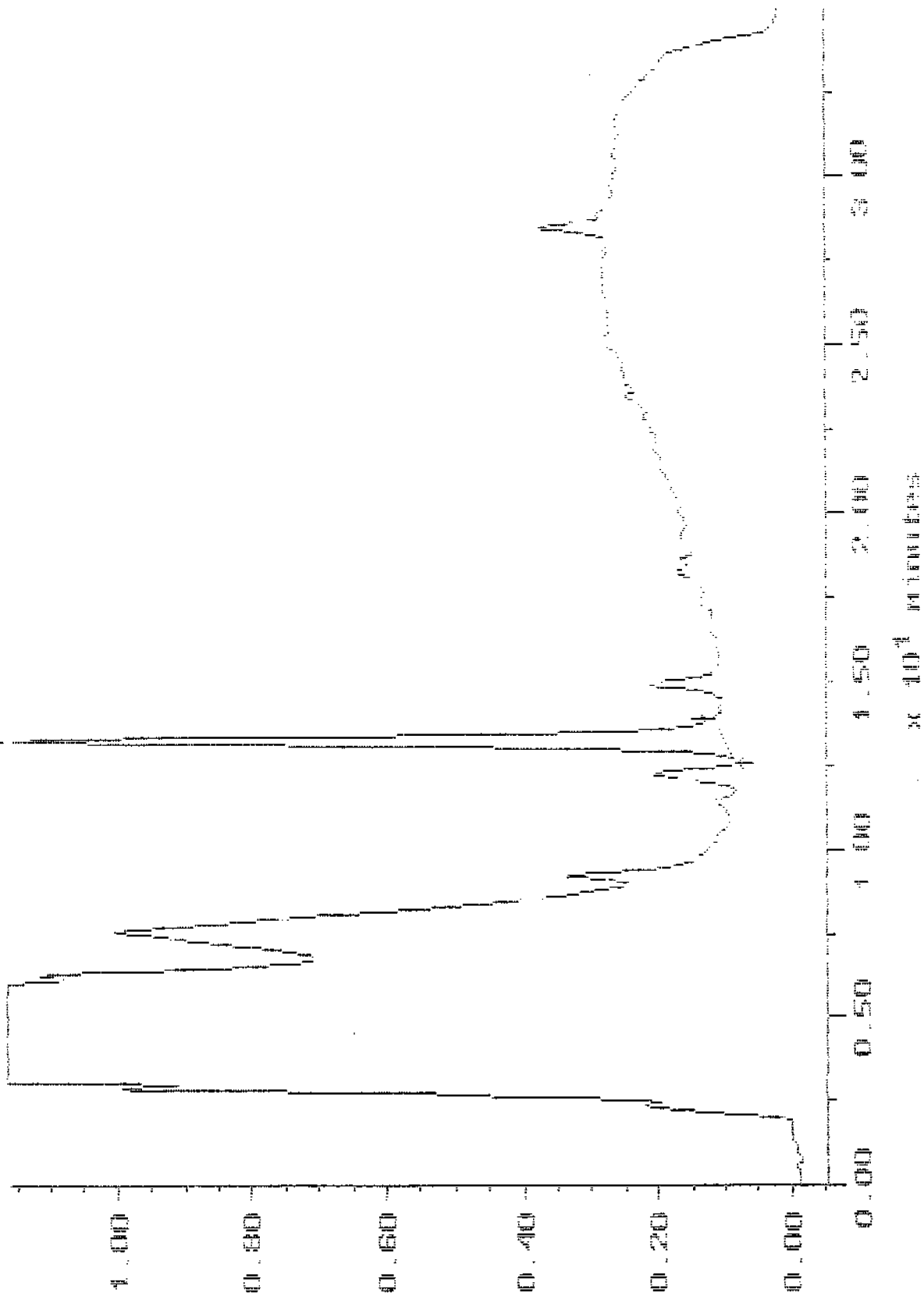
BOL

Det. Limit

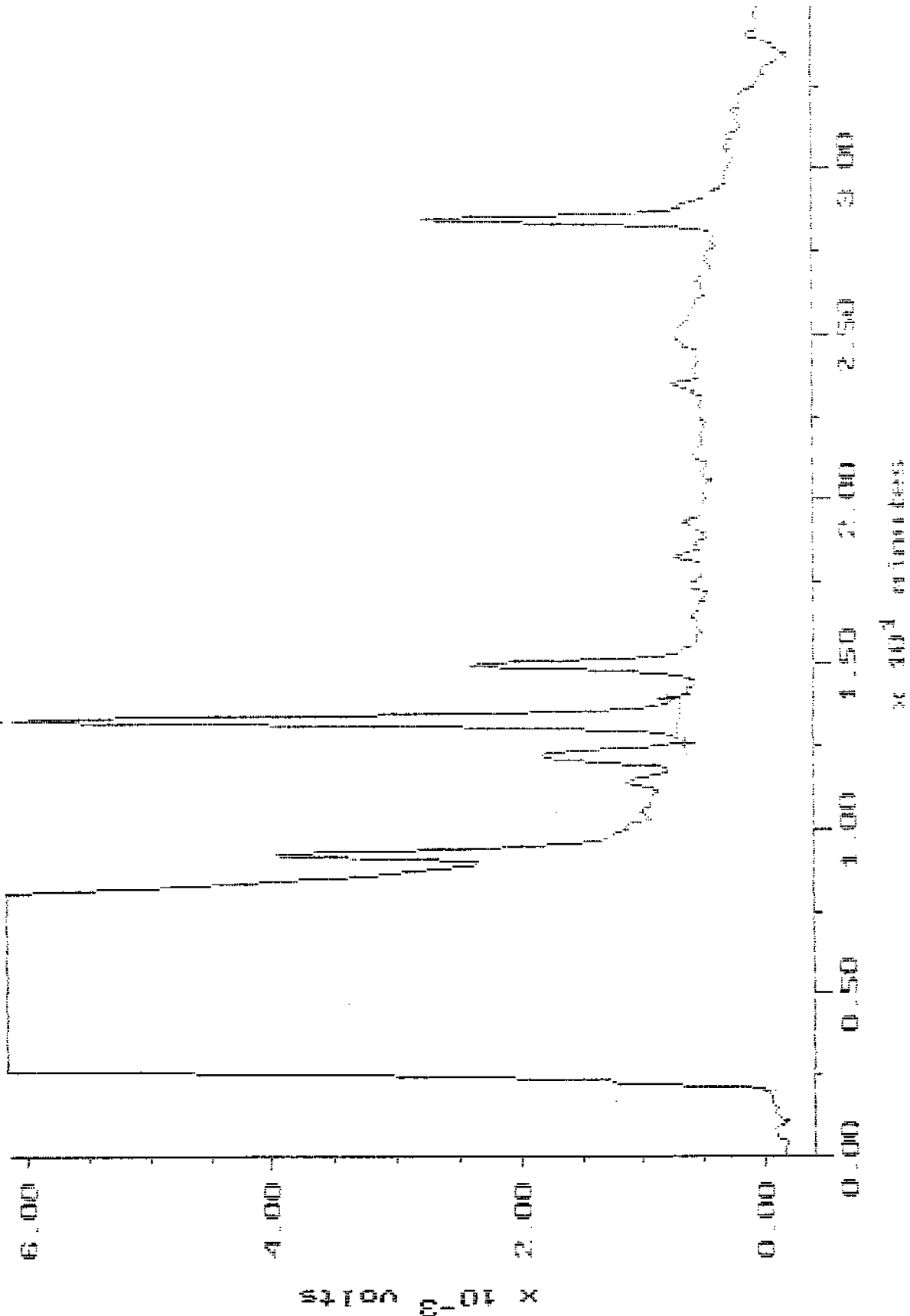
$$0.13 \text{ pg/ml} \times 100 \text{ ml} = 13 \text{ pg}$$

Sample: 9202-70
Acquired: 11-AUG-93
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 920270

$\times 10^{-2}$ volts



UV 275



Sample: 9202-70
Acquired: 11-AUG-93 3:34
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 920270

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:59:53

SAMPLE: 9202-70

#14 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 3:34

Rate: 0.7 points/sec

Duration: 34.990 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920270

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.203	MDI UV 254	1.58345	1.58345	227036	10514	0.00000697	BB
TOTAL			1.58345	1.58345	227036	10514		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.203	MDI UV 275	1.52524	1.52524	114722	5388	0.00001330	BB
TOTAL			1.52524	1.52524	114722	5388		

MDI

H

UV 254

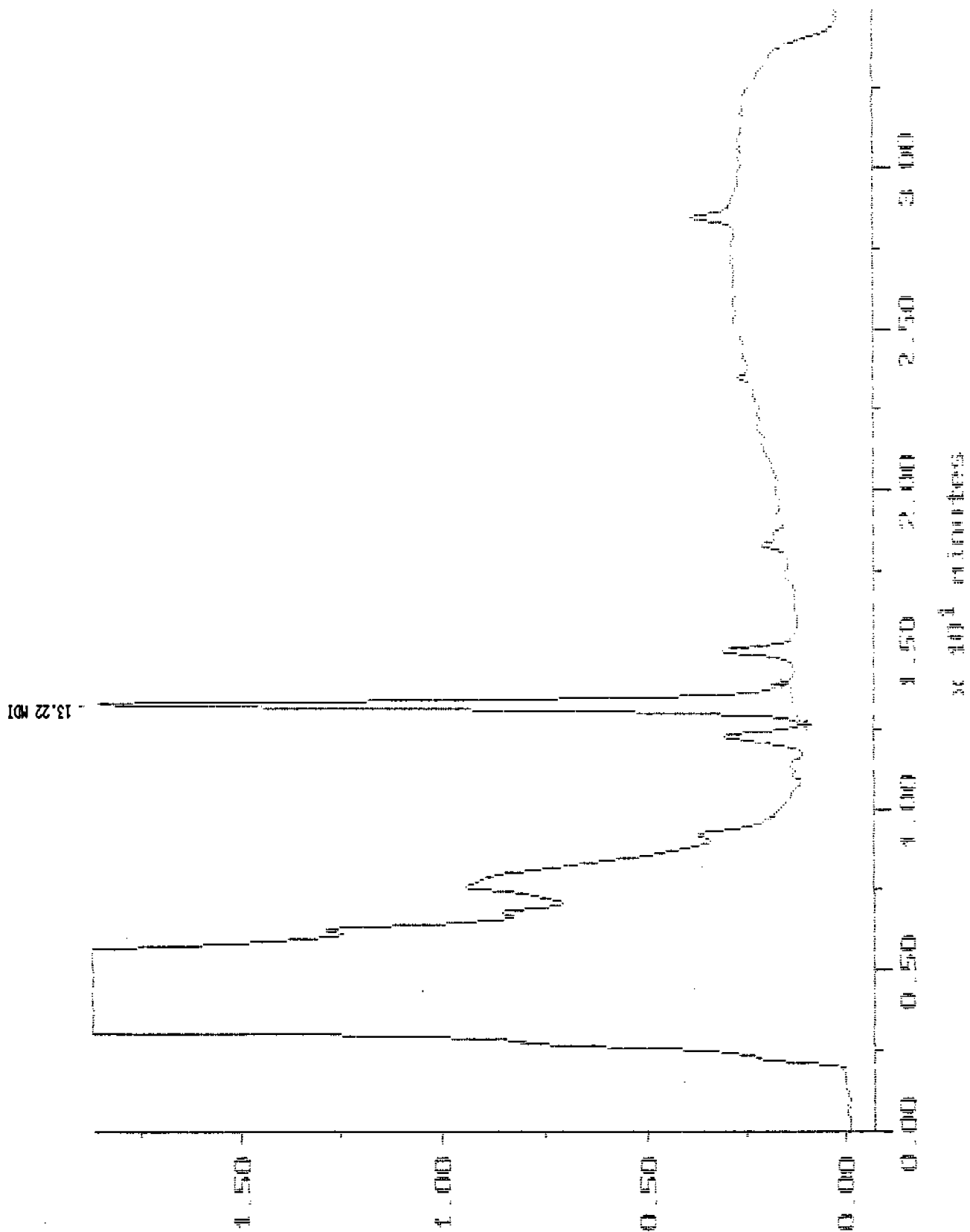
$$1.58 \mu\text{g/ml} \times 150 \text{ ml} = 237 \mu\text{g}$$

UV 275

$$1.53 \mu\text{g/ml} \times 150 \text{ ml} = 230 \mu\text{g}$$

Sample: 9202-71
Acquired: 11-AUG-93 5:25
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 920271

$\times 10^{-2}$ volts



minutes

13.22 ND1

UV 254

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:00:46

SAMPLE: 9202-71

#17 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 5:25

Rate: 0.7 points/sec

Duration: 34.981 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920271

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.223	MDI UV 254	2.61793	2.61793	375360	17207	0.00000697	BB
TOTAL			2.61793	2.61793	375360	17207		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.223	MDI UV 275	2.50178	2.50178	188174	8800	0.00001330	BB
TOTAL			2.50178	2.50178	188174	8800		

MDIµg

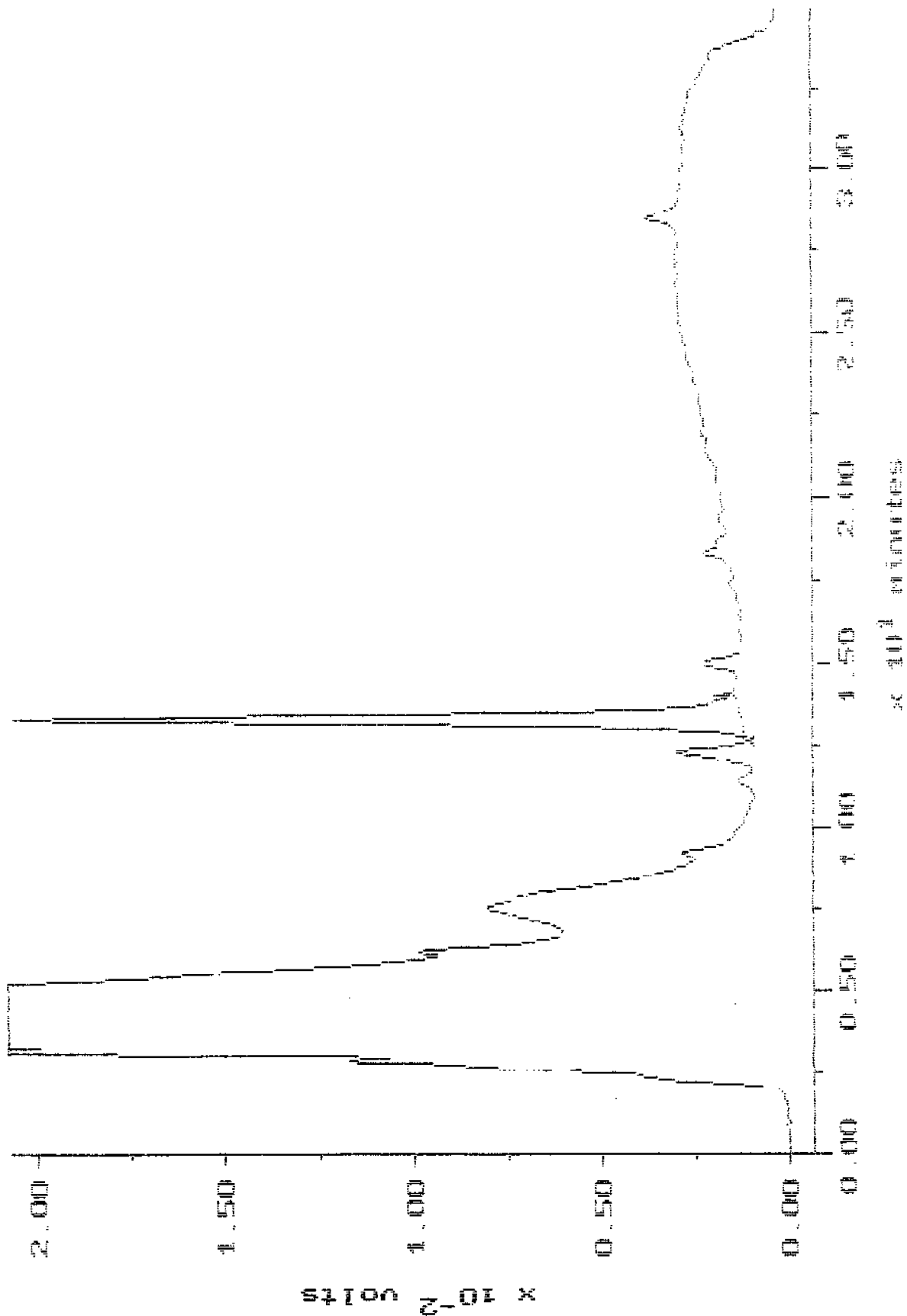
UV 254

$$2.62 \text{ µg/ml} \times 100 \text{ ml} = 262 \text{ µg}$$

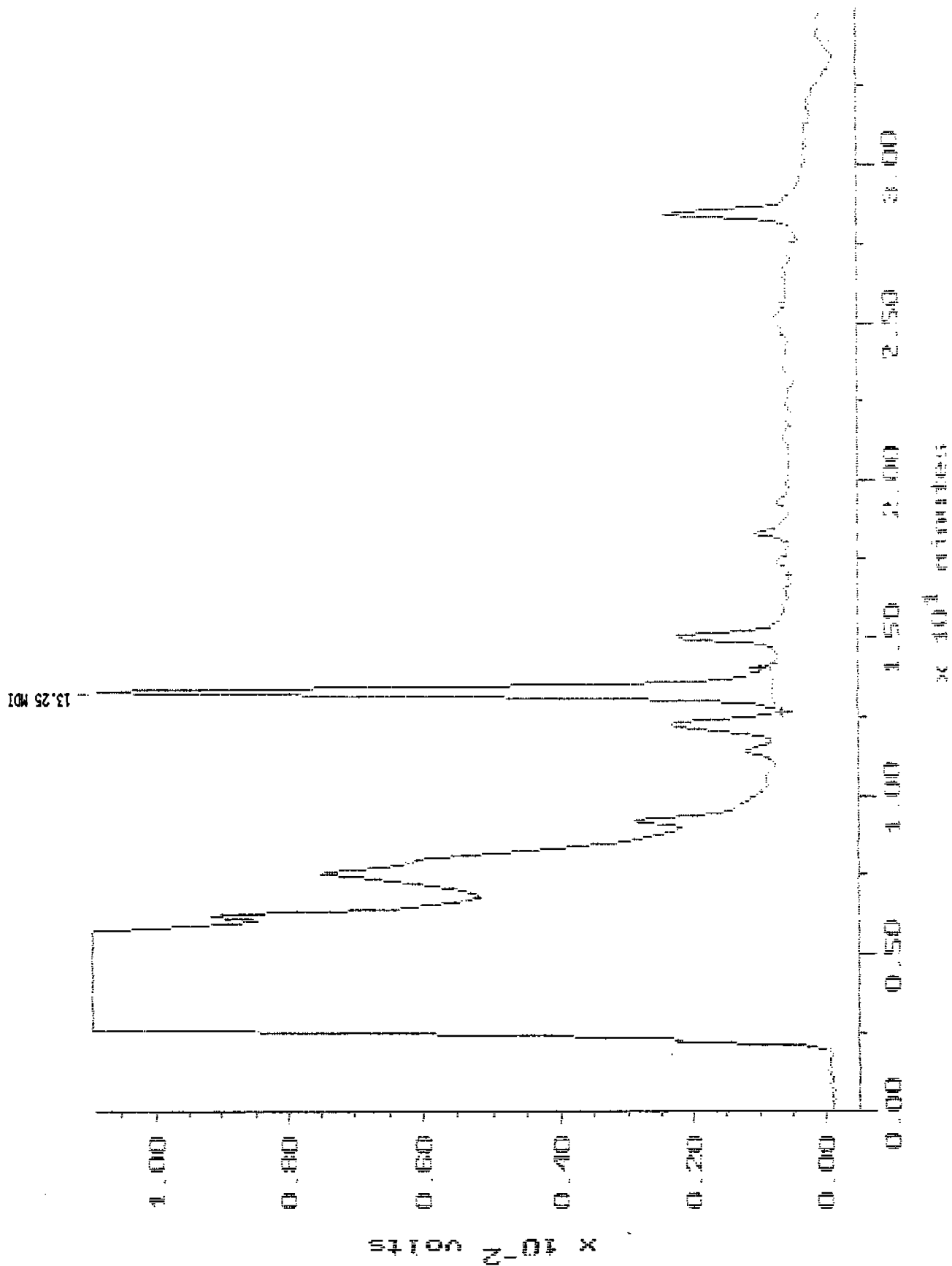
UV 275

$$2.50 \text{ µg/ml} \times 100 \text{ ml} = 250 \text{ µg}$$

Sample: 9202-72
 Acquired: 11-AUG-93 6:02
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 Filename: 920272
 Operator: —



Sample: 9202-72
Acquired: 11-AUG-93 6:02
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: —
Filename: 920272



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:01:05

SAMPLE: 9202-72

#13 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 6:02

Rate: 0.7 points/sec

Duration: 34.990 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 920272

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.250	MDI UV 254	2.97033	2.97033	425887	19307	0.00000697	88
TOTAL			2.97033	2.97033	425887	19307		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.250	MDI UV 275	2.92485	2.92485	219995	10045	0.00001330	88
TOTAL			2.92485	2.92485	219995	10045		

MDI

µg

UV 254

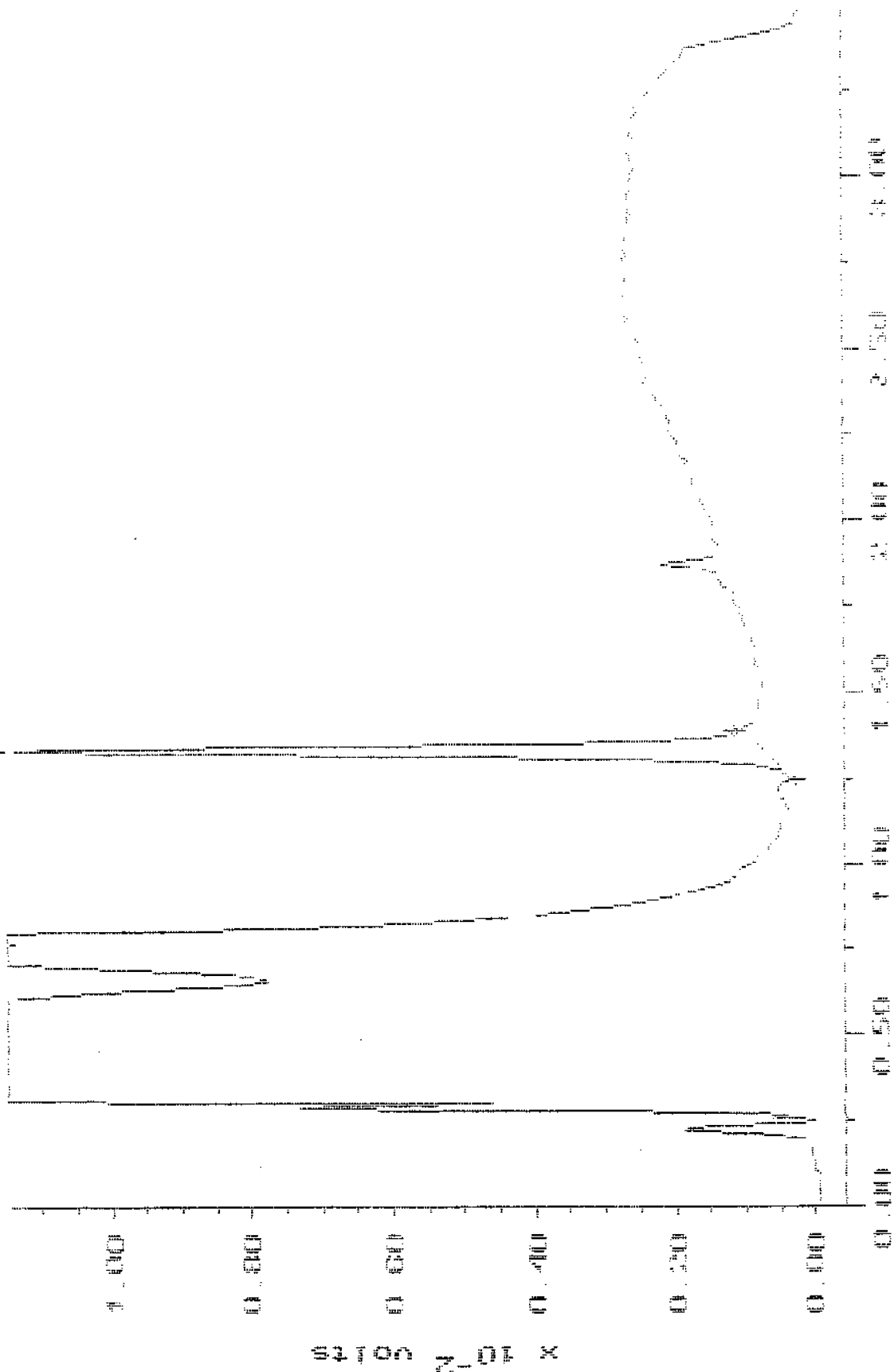
$$2.97 \mu\text{g/ml} \times 100 \text{ ml} = 297 \mu\text{g}$$

UV 275

$$2.92 \mu\text{g/ml} \times 100 \text{ ml} = 292 \mu\text{g}$$

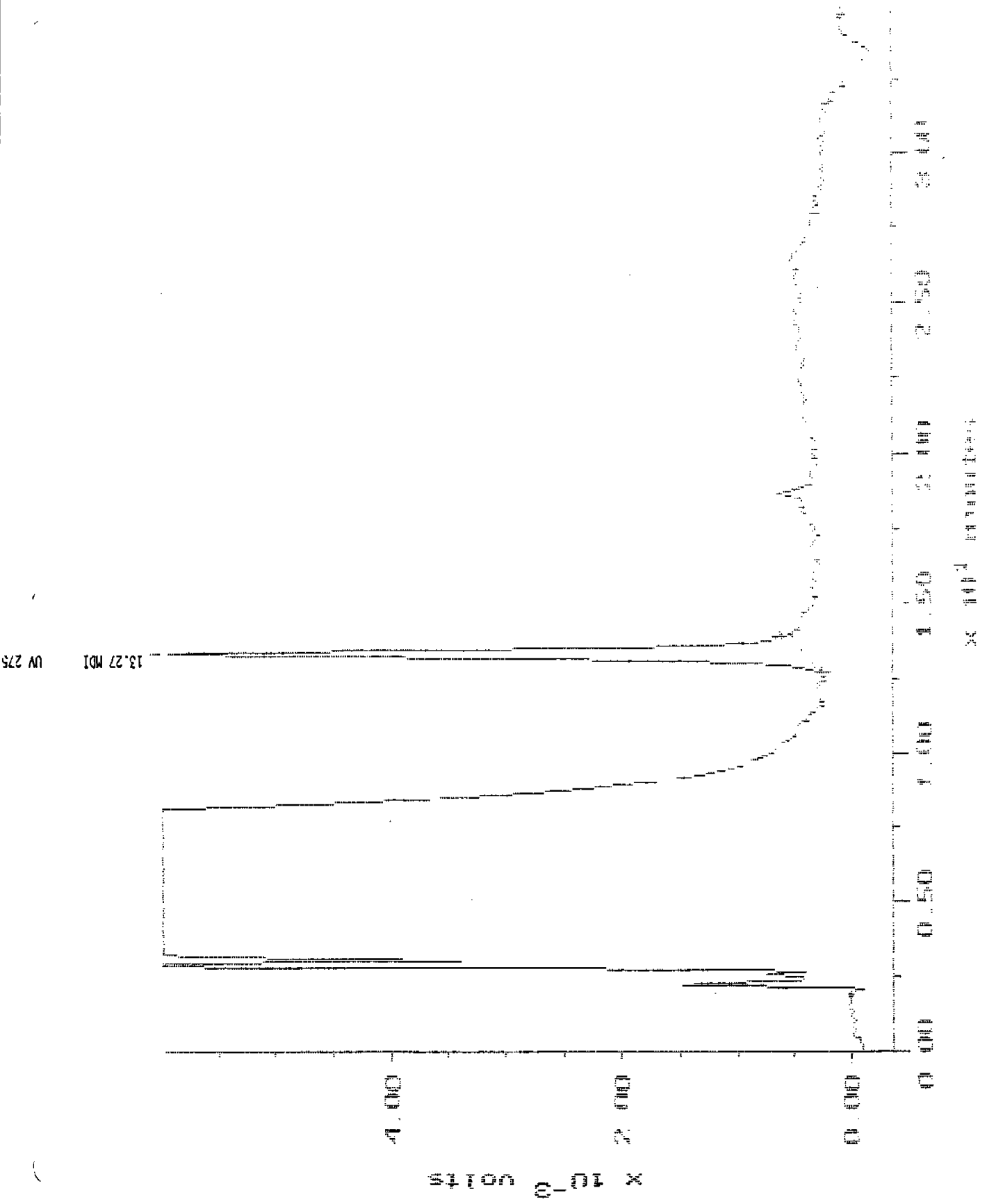
UV 254

13.27 MDI



Sample: 9289-40
Acquired: 11-AUG-93 6:39
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: 928940

Sample: 9289-40
 Acquired: 11-AUG-93 6:39
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 File name: 928940
 Operator: ---



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:01:24

SAMPLE: 9289-40

#19 in Method: 9202 REVERSE PHASE
 Acquired: 11-AUG-1993 8:39
 Rate: 0.7 points/sec
 Duration: 34.931 minutes
 Operator: ---

Type: UAAH
 Instrument: Waters 990
 Filename: 928940
 Index: Disk
 Dilution: 1.000
 Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.270	MDI UV 254	1.60564	1.60564	230217	10653	0.00000697	28
TOTAL			1.60564	1.60564	230217	10653		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.270	MDI UV 275	1.59648	1.59648	120081	5515	0.00001330	36
TOTAL			1.59648	1.59648	120081	5515		

MDI

µg

UV 254

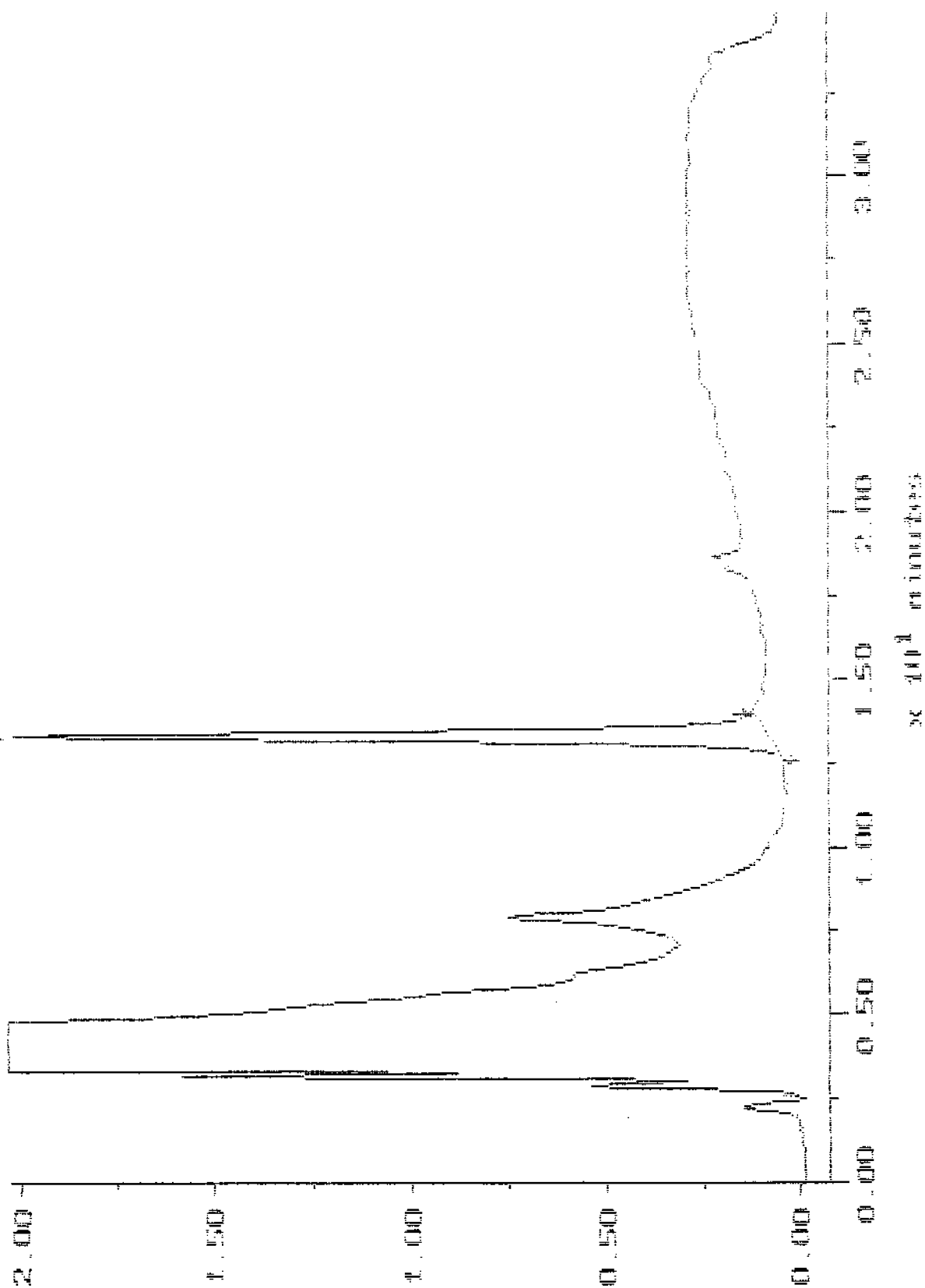
$$1.61 \mu\text{g/ml} \times 50 \text{ ml} = 80.5 \mu\text{g}$$

UV 275

$$1.60 \mu\text{g/ml} \times 50 \text{ ml} = 80.0 \mu\text{g}$$

Sample: 9289-61
Acquired: 11-AUG-93 7:16
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928961

$\times 10^{-2}$ volts

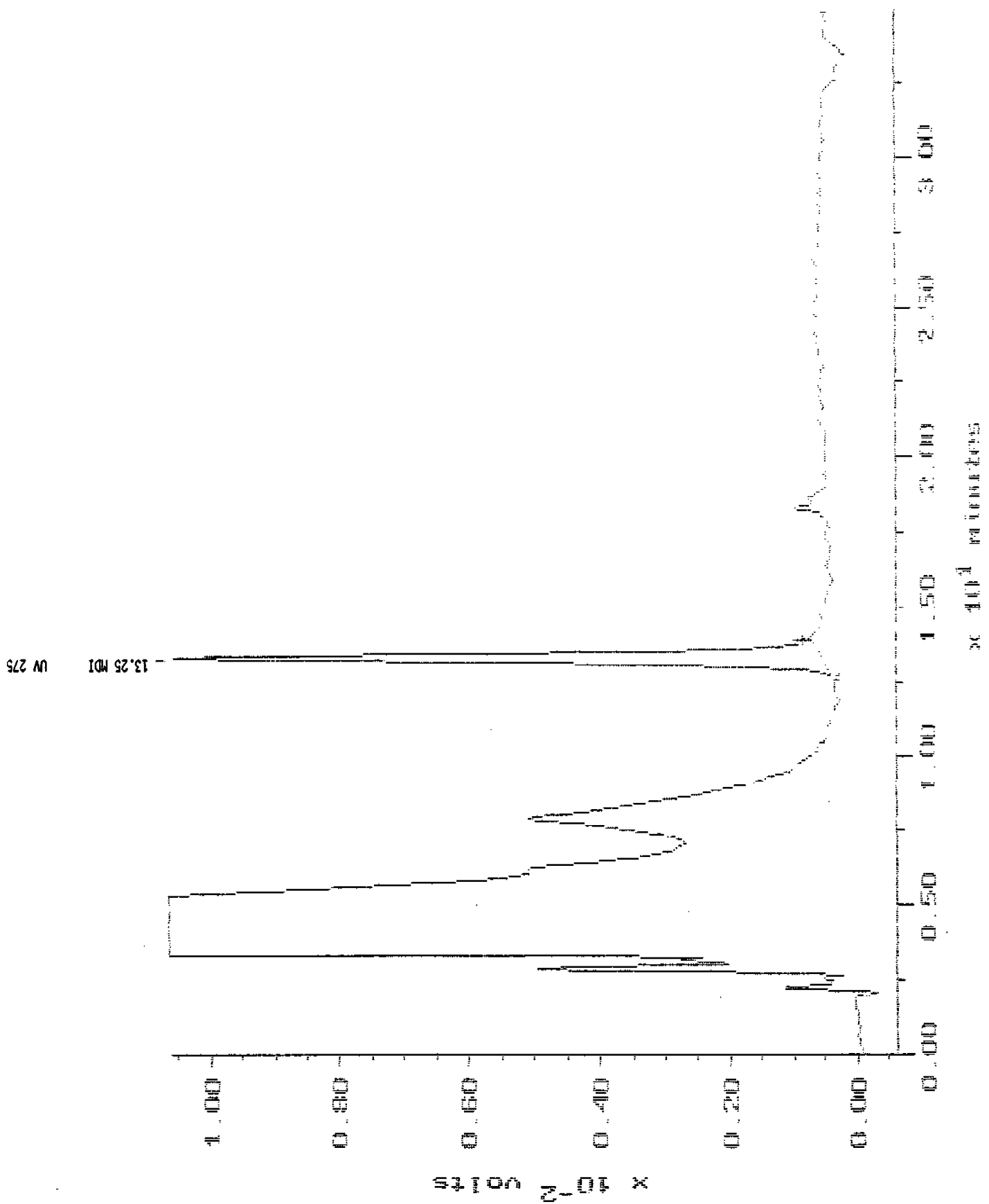


$\times 10^4$ minutes

13.25 MDI

UV 254

Sample: 9289-41
Acquired: 11-AUG-93 7:16
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928941



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 16:01:44

SAMPLE: 9289-41

#20 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 7:16

Rate: 0.7 points/sec

Duration: 34.989 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928941

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.250	MDI UV 254	2.94816	2.94816	422709	19279	0.00000697	88
TOTAL			2.94816	2.94816	422709	19279		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.250	MDI UV 275	2.89170	2.89170	217502	9983	0.00001330	88
TOTAL			2.89170	2.89170	217502	9983		

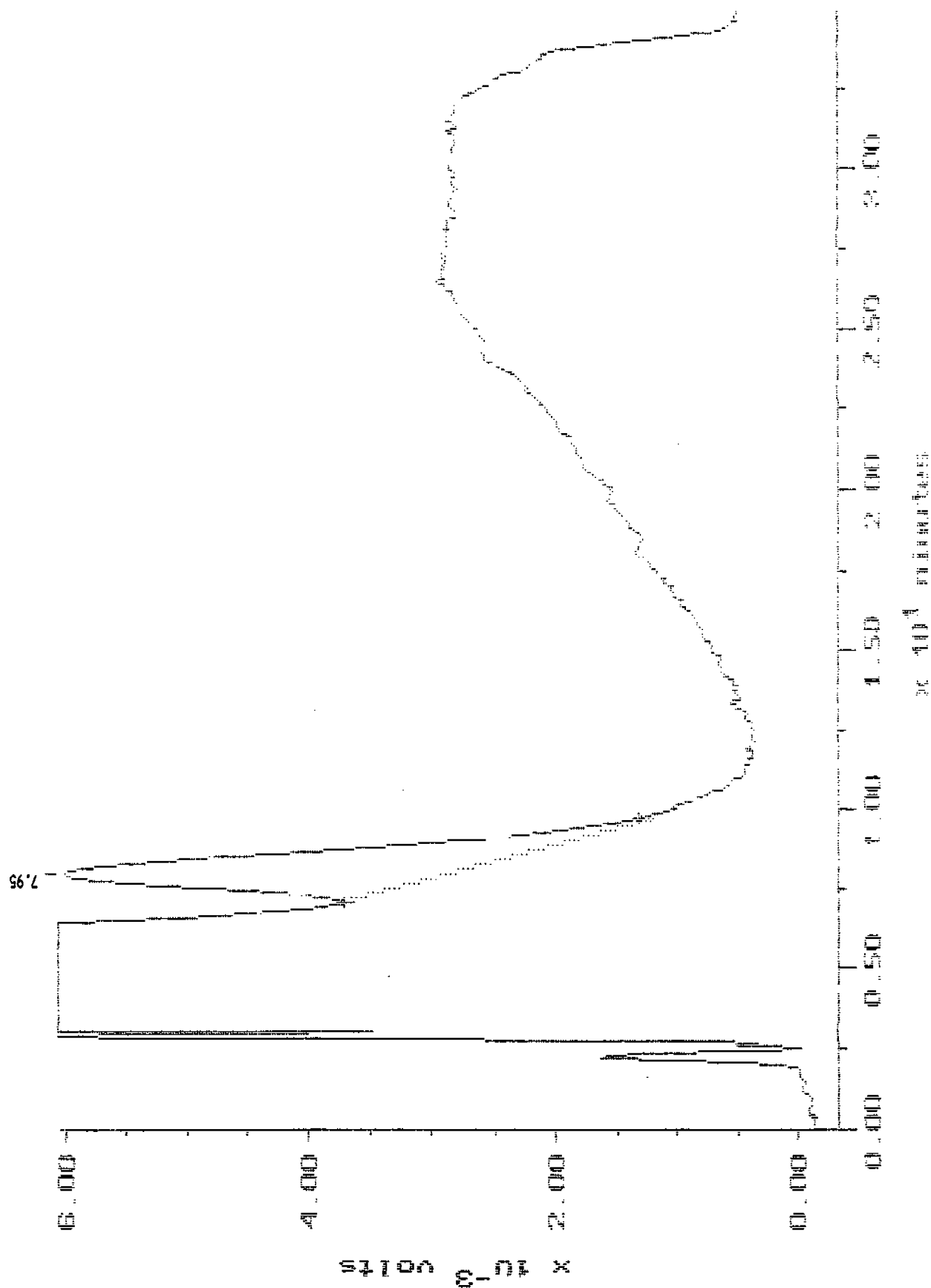
MDIµg

UV 254

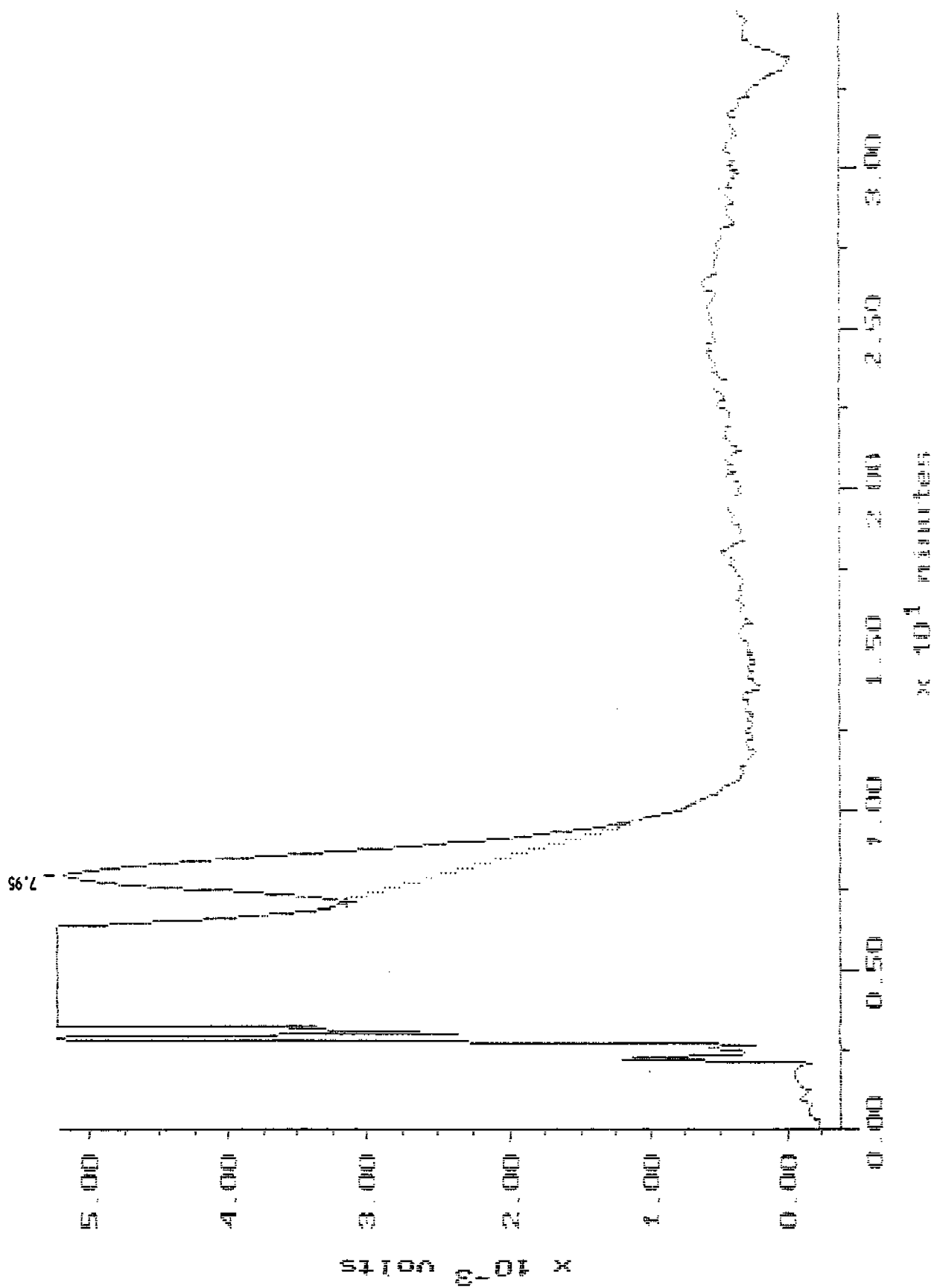
$$2.95 \mu\text{g/ml} \times 100 \text{ ml} = 295 \mu\text{g}$$

UV 275

$$2.89 \mu\text{g/ml} \times 100 \text{ ml} = 289 \mu\text{g}$$



Sample: 9289-62
 Acquired: 11-AUG-93 7:53
 Dilution: 1 : 1.000
 Channel: 256.0 mV
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 Filename: 928962



Sample: 9289-42
Acquired: 11-AUG-93 7:53
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
File name: 928942
Operator: —

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:02:04

SAMPLE: 9299-42

#21 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 7:53

Rate: 0.7 points/sec

Duration: 34.980 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928942

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.968				225099	3068		88
TOTAL			0.00000	0.00000	225099	3068		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.968				188639	2668		88
TOTAL			0.00000	0.00000	188639	2668		

MOI

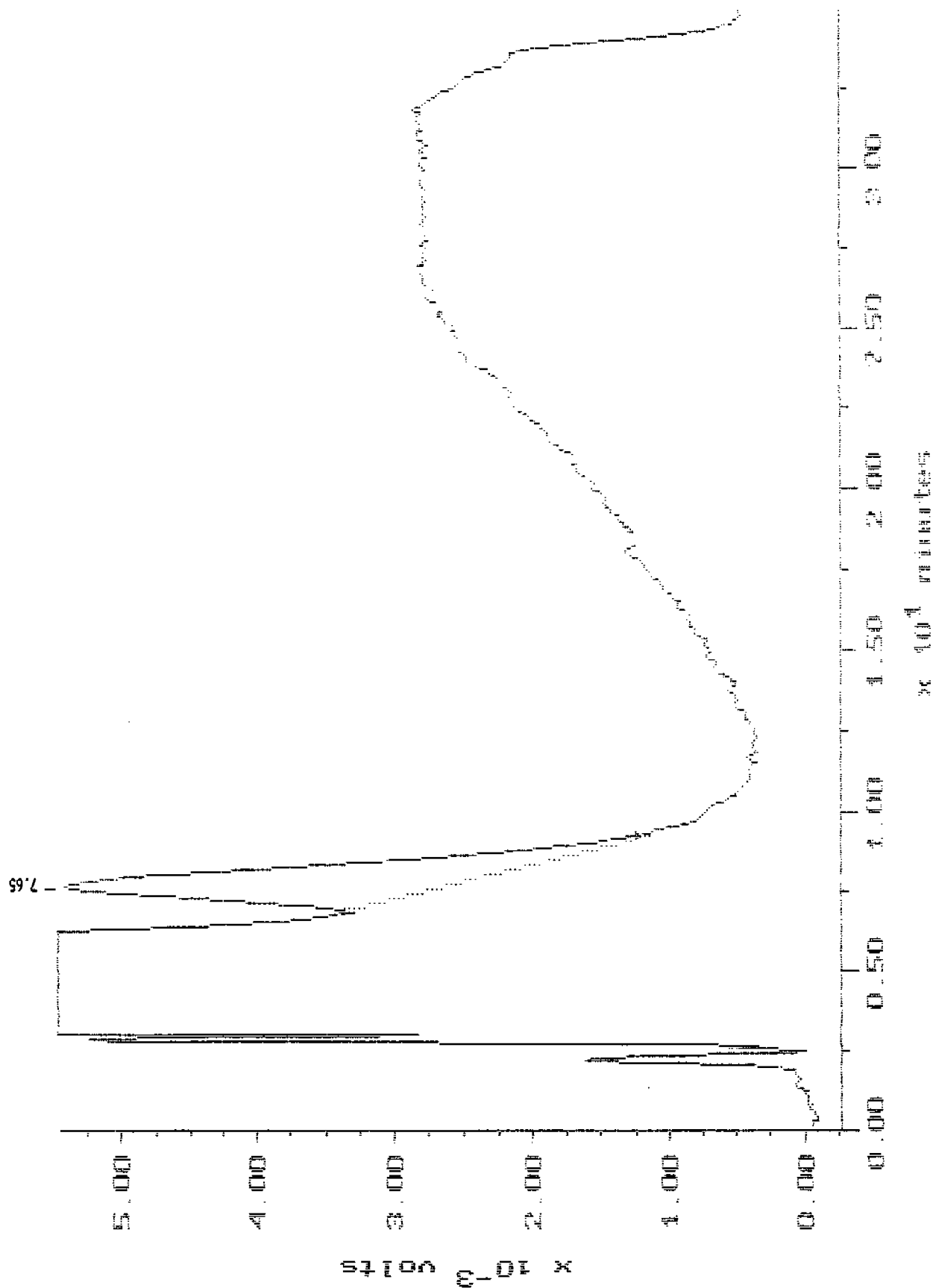
µg

UV 254

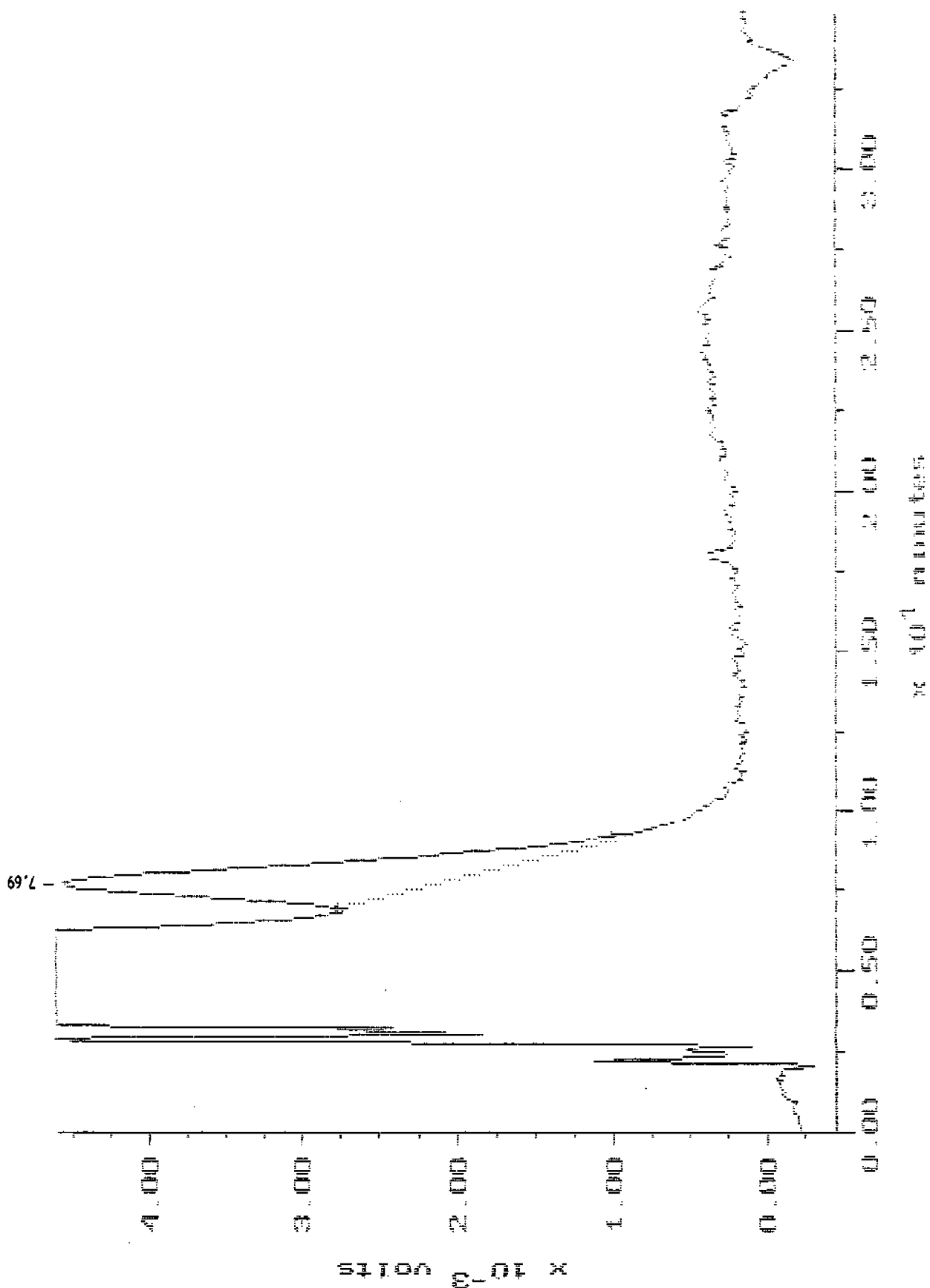
BOL

UV 275

BOL



Sample: 9289-43
 Acquired: 11-AUG-93 8:30
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filtrate: 928943
 Operator: —



Sample: 9289-43
 Acquired: 11-AUG-93 8:30
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 File name: 928943
 Operator: ---

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:03:19

SAMPLE: 9289-43

#22 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 8:30

Rate: 0.7 points/sec

Duration: 34.989 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928943

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.645				185012	2737		BB
TOTAL			0.00000	0.00000	185012	2737		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.692				160055	2429		BB
TOTAL			0.00000	0.00000	160055	2429		

MDIµg

UV 254

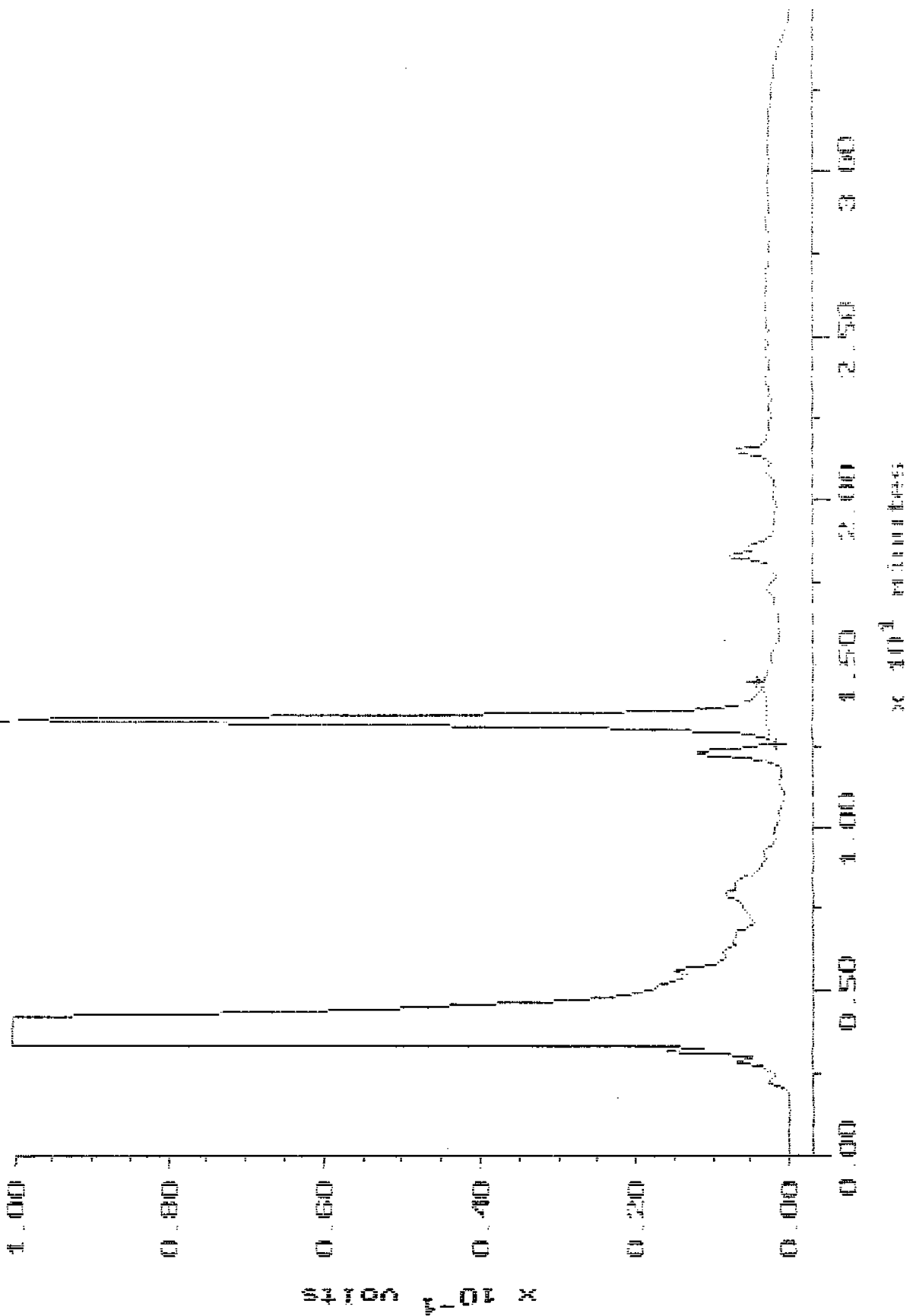
BDL

UV 275

BDL

UV 254

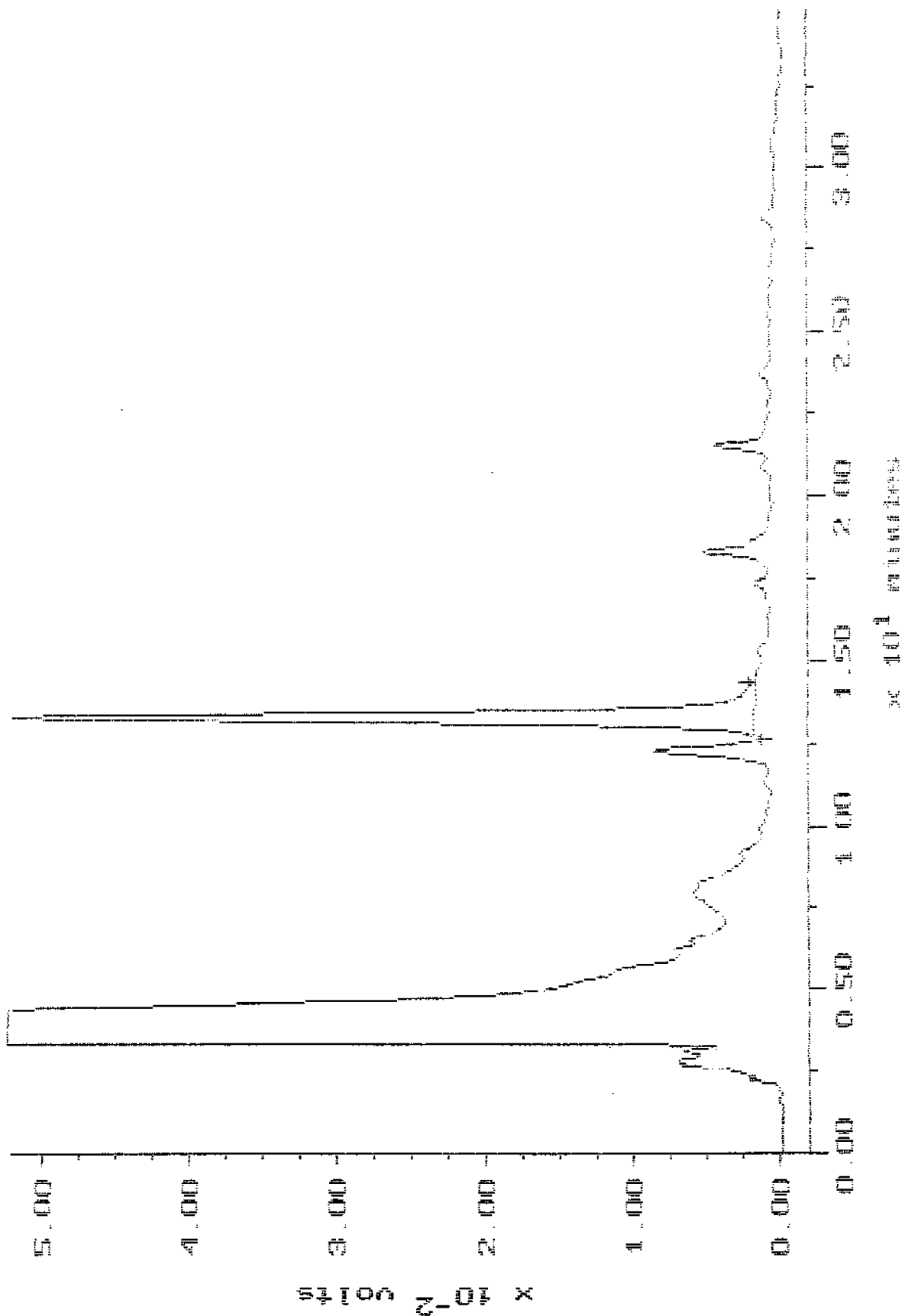
13.25 MDI



Sample: 9289-44
Acquired: 11-AUG-93 9:07
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: 928944

UV 275

13.25 MDI



Sample: 9289-66
Acquired: 11-AUG-93 9:07
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: 928966

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:03:38

SAMPLE: 9289-44

#23 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 9:07

Rate: 0.7 points/sec

Duration: 34.983 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928944

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.268	MDI UV 254	15.00718	15.00713	2151738	96240	0.00000697	88
TOTAL			15.00718	15.00713	2151738	96240		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.268	MDI UV 275	14.81858	14.81858	1114592	50075	0.00001330	88
TOTAL			14.81858	14.81858	1114592	50075		

MDIµg

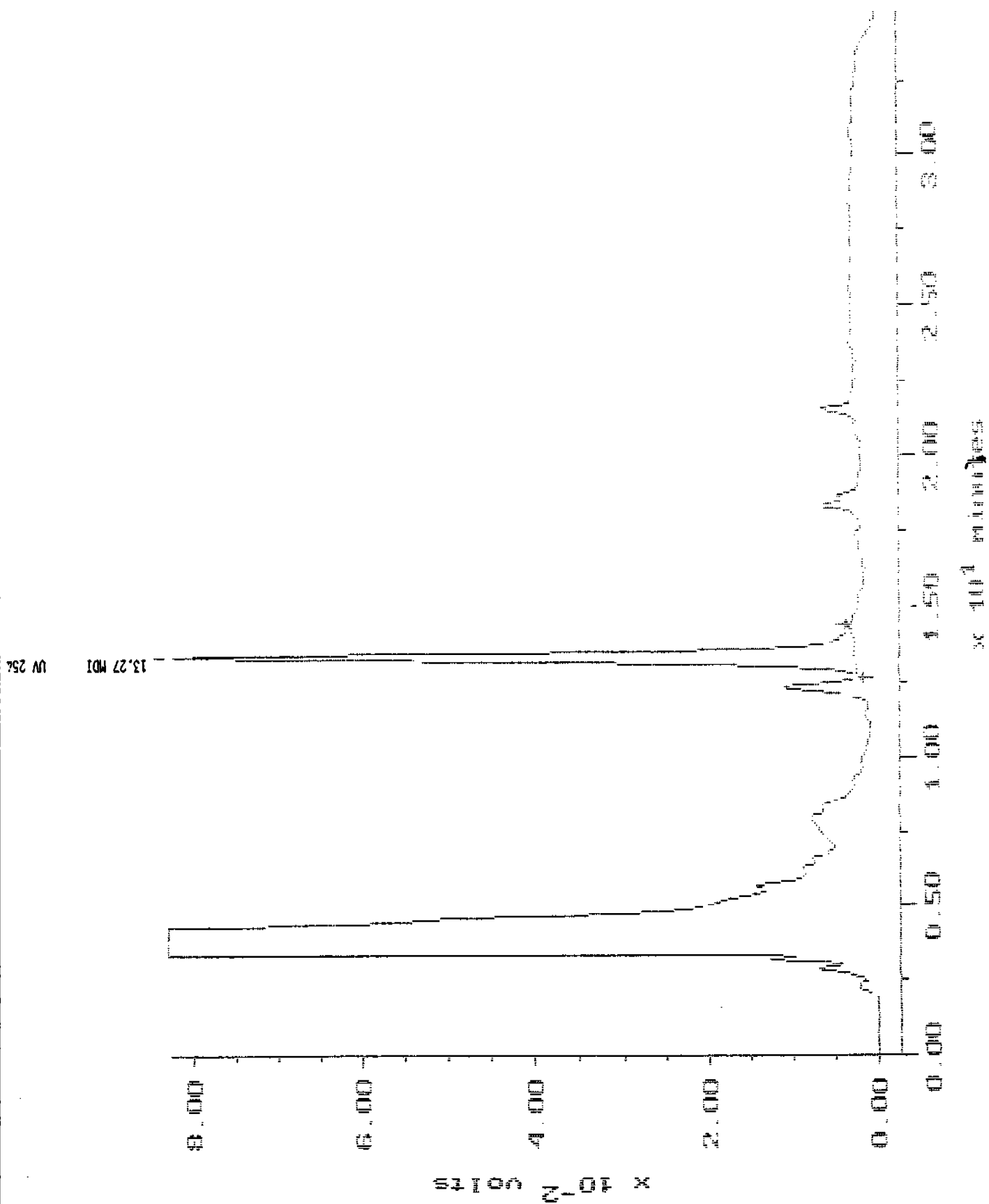
UV 254

$$15.0 \text{ } \mu\text{g/ml} \times 100 \text{ ml} = 1500 \text{ } \mu\text{g}$$

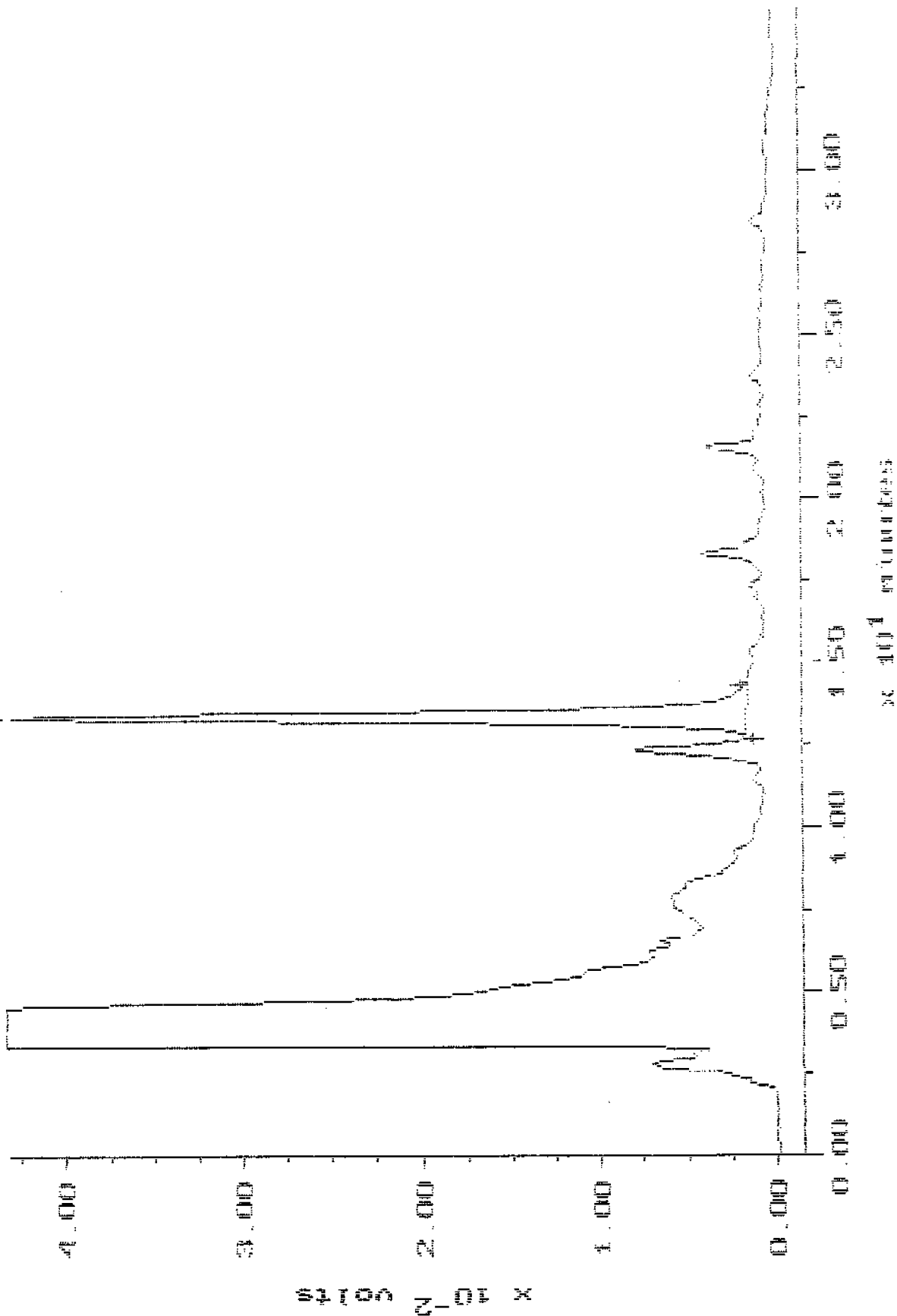
UV 275

$$14.8 \text{ } \mu\text{g/ml} \times 100 \text{ ml} = 1480 \text{ } \mu\text{g}$$

Sample: 9289-45
 Acquired: 11-AUG-93 9:44
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: 928945
 Operator: —



Sample: 9289-45
 Acquired: 11-AUG-93 9:44
 Method: 9202 REVERSE PHASE
 Channel: 275.0 nm
 Amount: 1.000
 Operator: ---
 Filename: 928945



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:03:58

SAMPLE: 9289-45

#24 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 9:44

Rate: 0.7 points/sec

Duration: 34.992 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928945

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.274	MDI UV 254	12.34130	12.34130	1769502	79408	0.00000697	dB
TOTAL			12.34130	12.34130	1769502	79408		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.274	MDI UV 275	12.21344	12.21344	918644	41330	0.00001330	BB
TOTAL			12.21344	12.21344	918644	41330		

MDIµg

UV 254

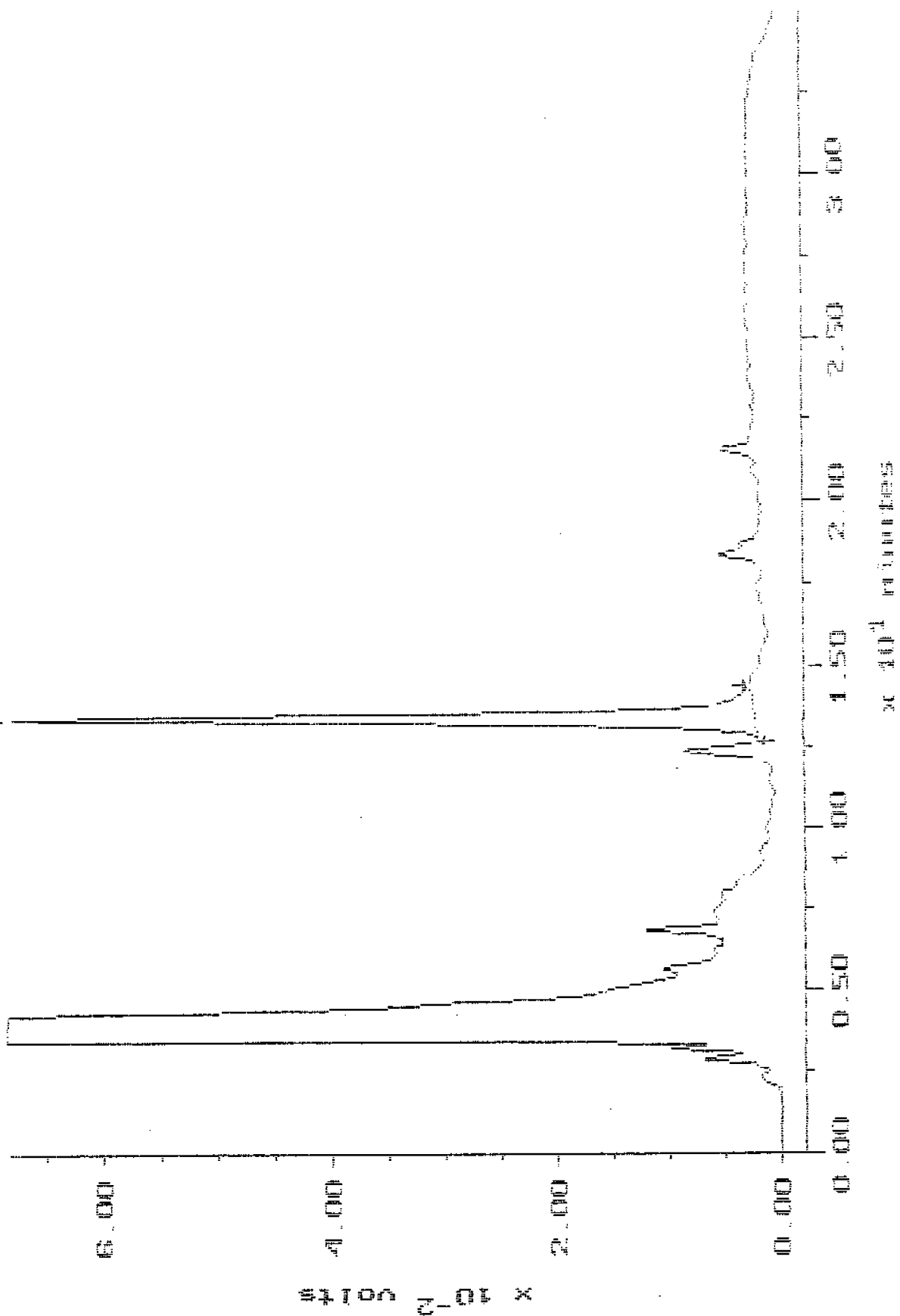
$$12.34 \text{ µg/ml} \times 100 \text{ ml} = 1230 \text{ µg}$$

UV 275

$$12.21 \text{ µg/ml} \times 100 \text{ ml} = 1220 \text{ µg}$$

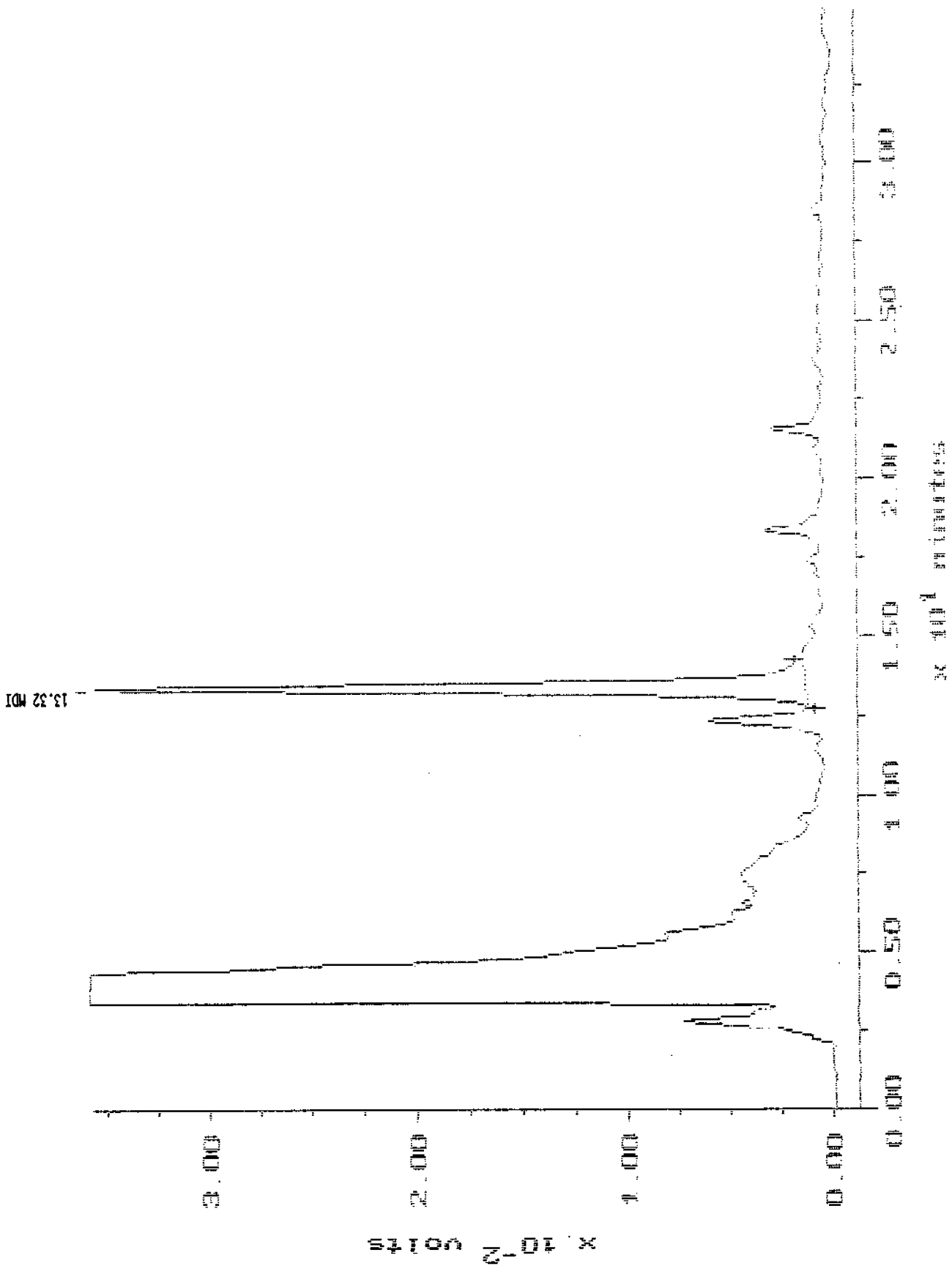
UV 254

13.32 MDI



Sample: 9289-46
Acquired: 11-AUG-93 11:35
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928946

Sample: 9289-66
Acquired: 11-AUG-93 11:35
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: —
Filename: 928946



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:04:55

SAMPLE: 9289-46

#27 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 11:35

Rate: 0.7 points/sec

Duration: 34.980 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928946

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.317	MDI UV 254	10.20653	10.20653	1463418	65649	0.0000697	88
TOTAL			10.20653	10.20653	1463418	65649		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.317	MDI UV 275	10.04850	10.04850	755806	34201	0.00001330	88
TOTAL			10.04850	10.04850	755806	34201		

MDIµg

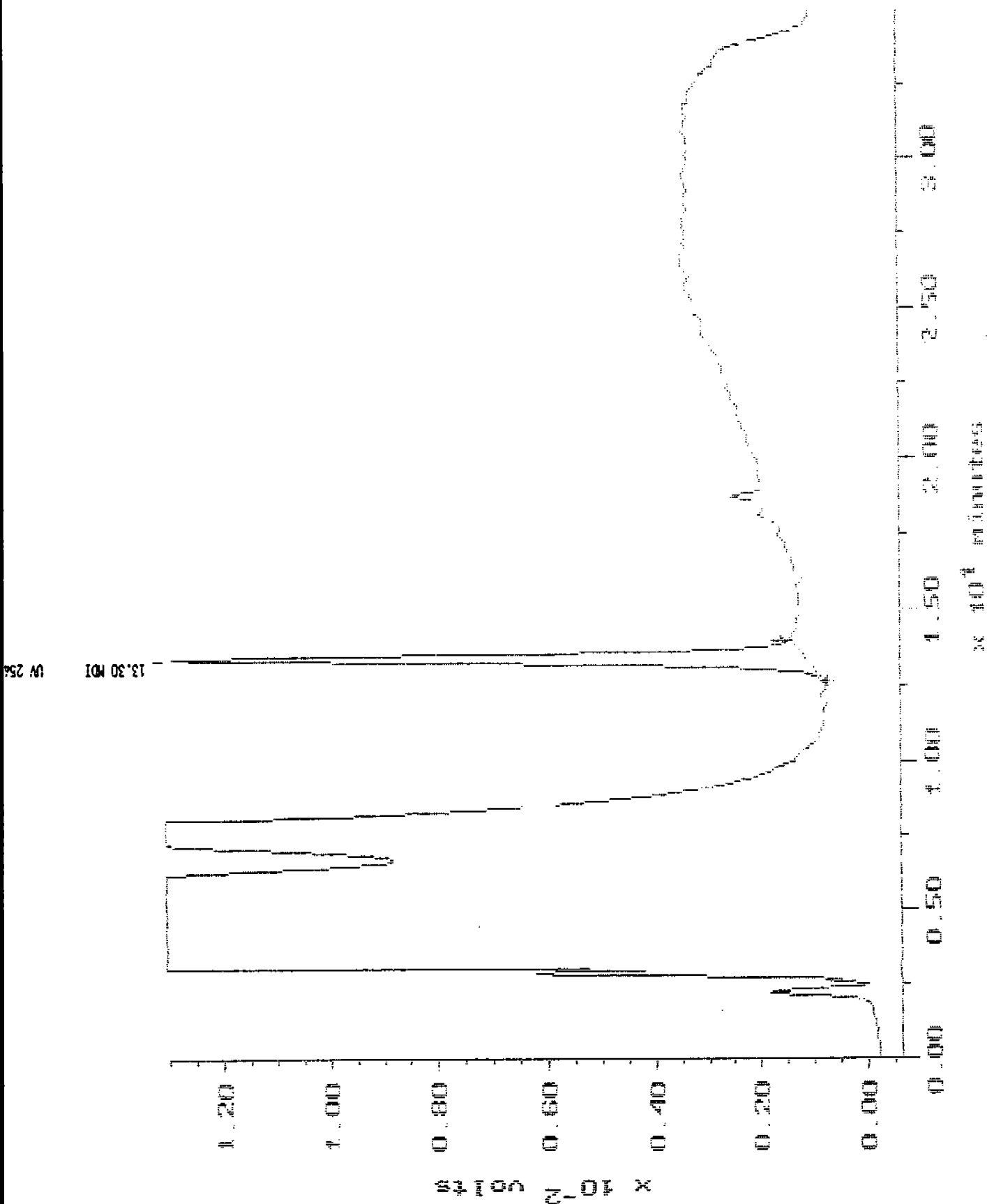
UV 254

$$10.2 \mu\text{g/ml} \times 150 \text{ ml} = 1530 \mu\text{g}$$

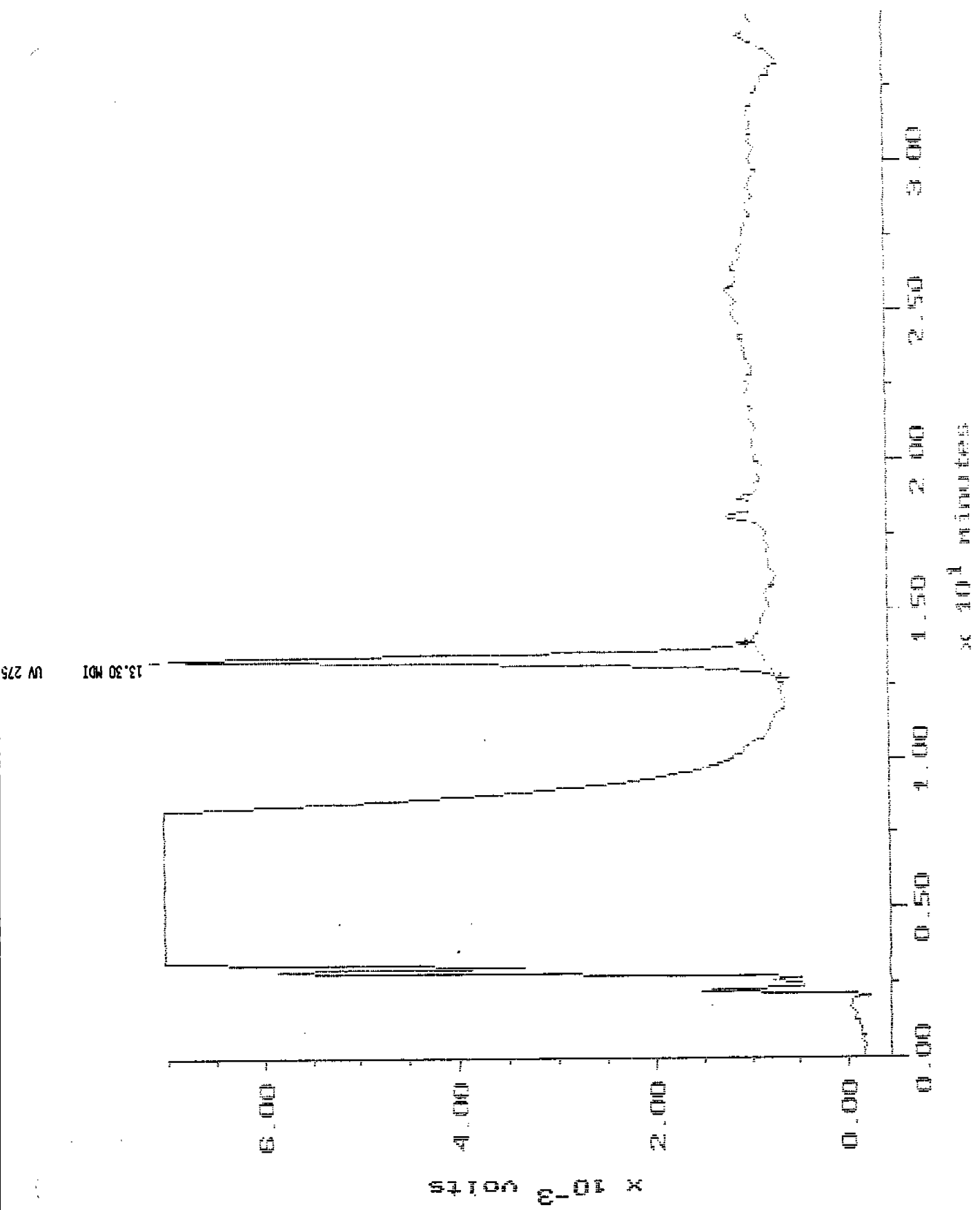
UV 275

$$10.0 \mu\text{g/ml} \times 150 \text{ ml} = 1500 \mu\text{g}$$

Sample: 9289-97
Acquired: 11-AUG-93 12:12
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928997



Sample: 9289-97
 Acquired: 11-AUG-93 12:12
 Dilution: 1 : 1.000
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 Filename: 928997



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:05:14

SAMPLE: 9289-97

#23 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 12:12

Rate: 0.7 points/sec

Duration: 34.988 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928997

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.296	MDI UV 254	1.80454	1.80454	258736	11783	0.00000697	BB
TOTAL			1.80454	1.80454	258736	11783		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.296	MDI UV 275	1.75874	1.75874	132285	6104	0.00001330	BB
TOTAL			1.75874	1.75874	132285	6104		

MDIµg

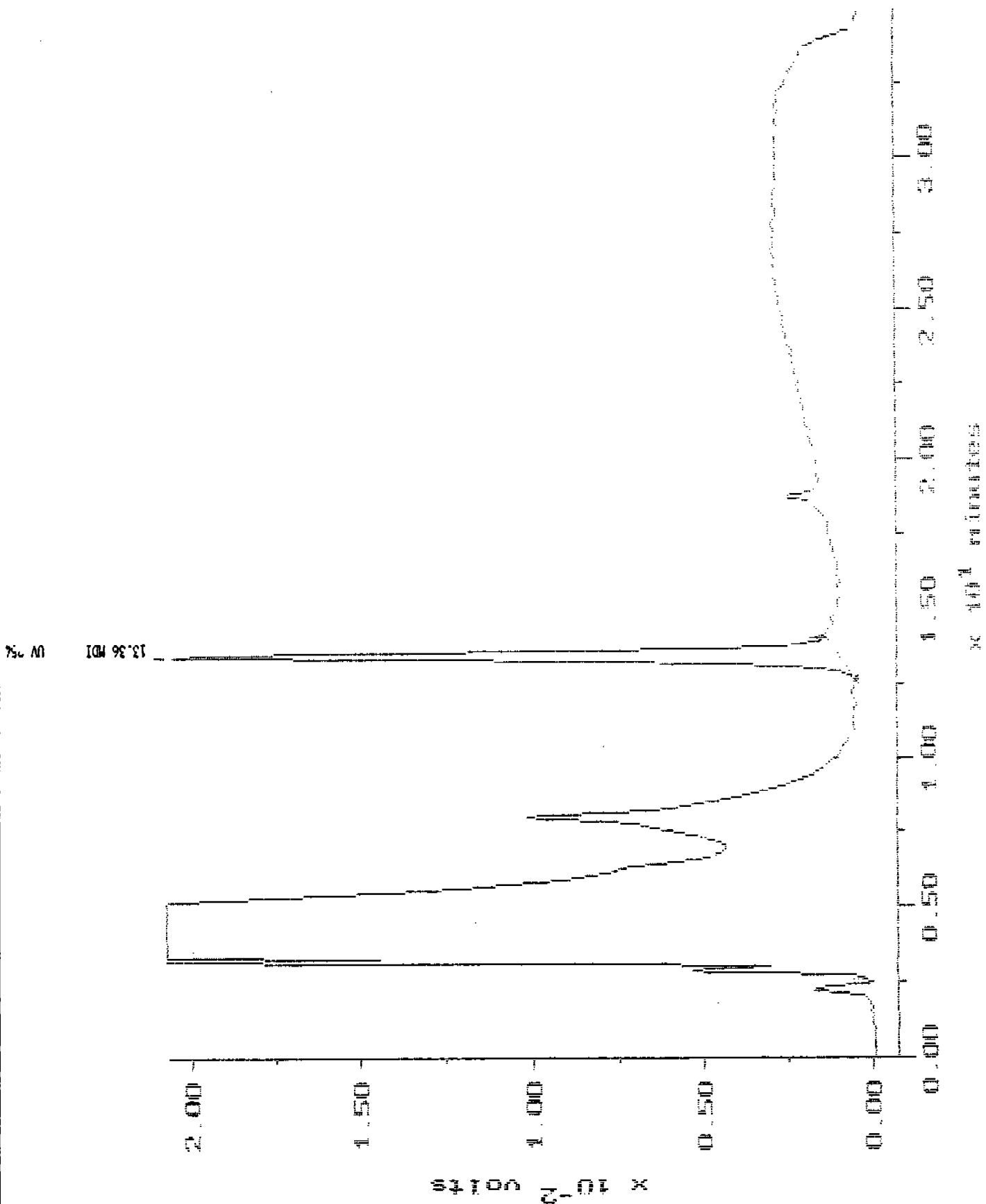
UV 254

$$1.80 \text{ µg/ml} \times 50 \text{ ml} = 90.0 \text{ µg}$$

UV 275

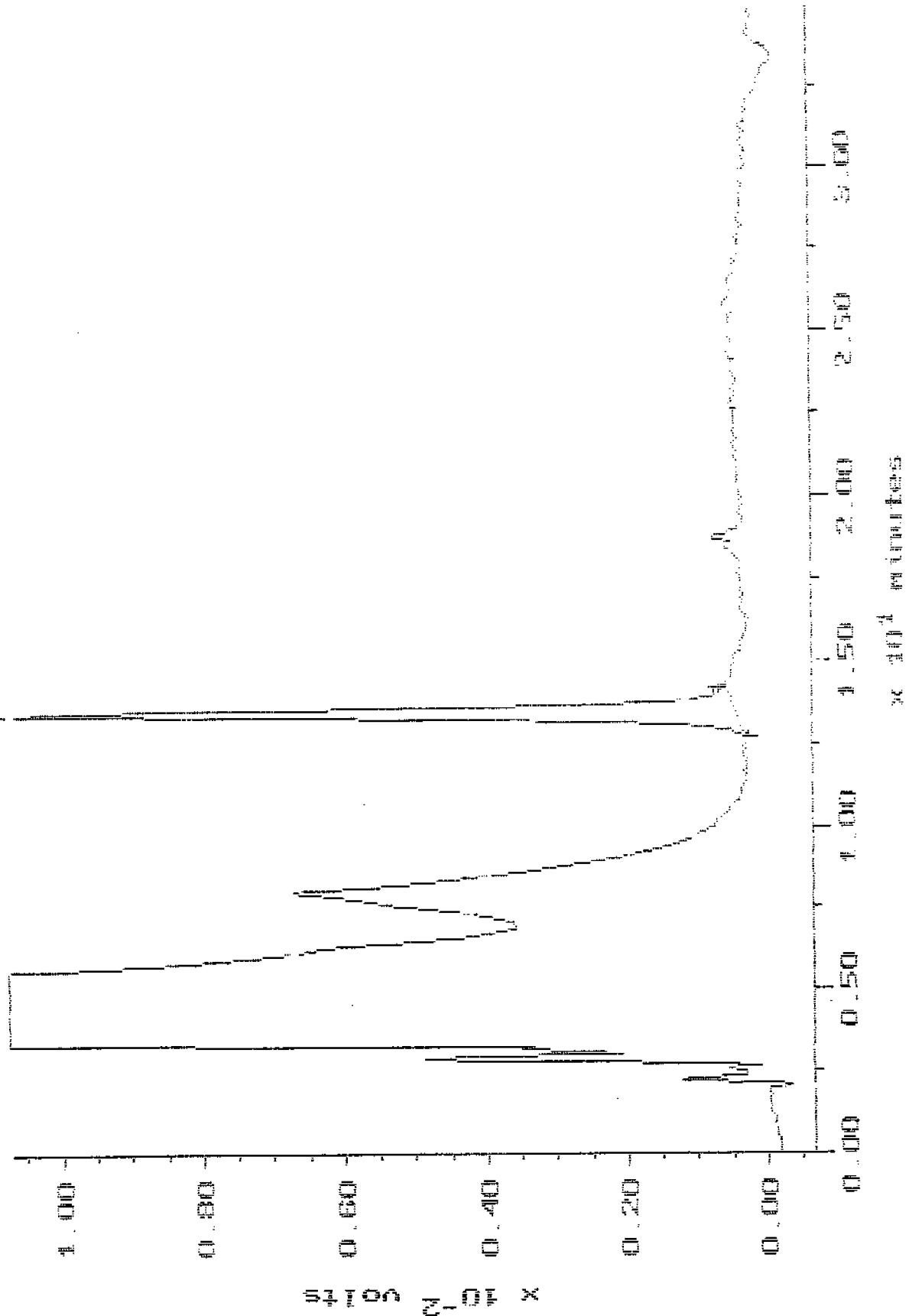
$$1.76 \text{ µg/ml} \times 50 \text{ ml} = 88.0 \text{ µg}$$

Sample: 9289-98
Acquired: 11-AUG-93 12:49
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928998



UV 275

13.36 MDI



Sample: 9289-98
Acquired: 11-AUG-93 12:49
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928998

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:06:29

SAMPLE: 9289-98

#29 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 12:49

Rate: 0.7 points/sec

Duration: 34.979 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928998

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.363	MDI UV 254	2.98755	2.98755	428357	19550	0.00000697	BB
TOTAL			2.98755	2.98755	428357	19550		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.363	MDI UV 275	3.05730	3.05730	229957	10233	0.00001330	BB
TOTAL			3.05730	3.05730	229957	10233		

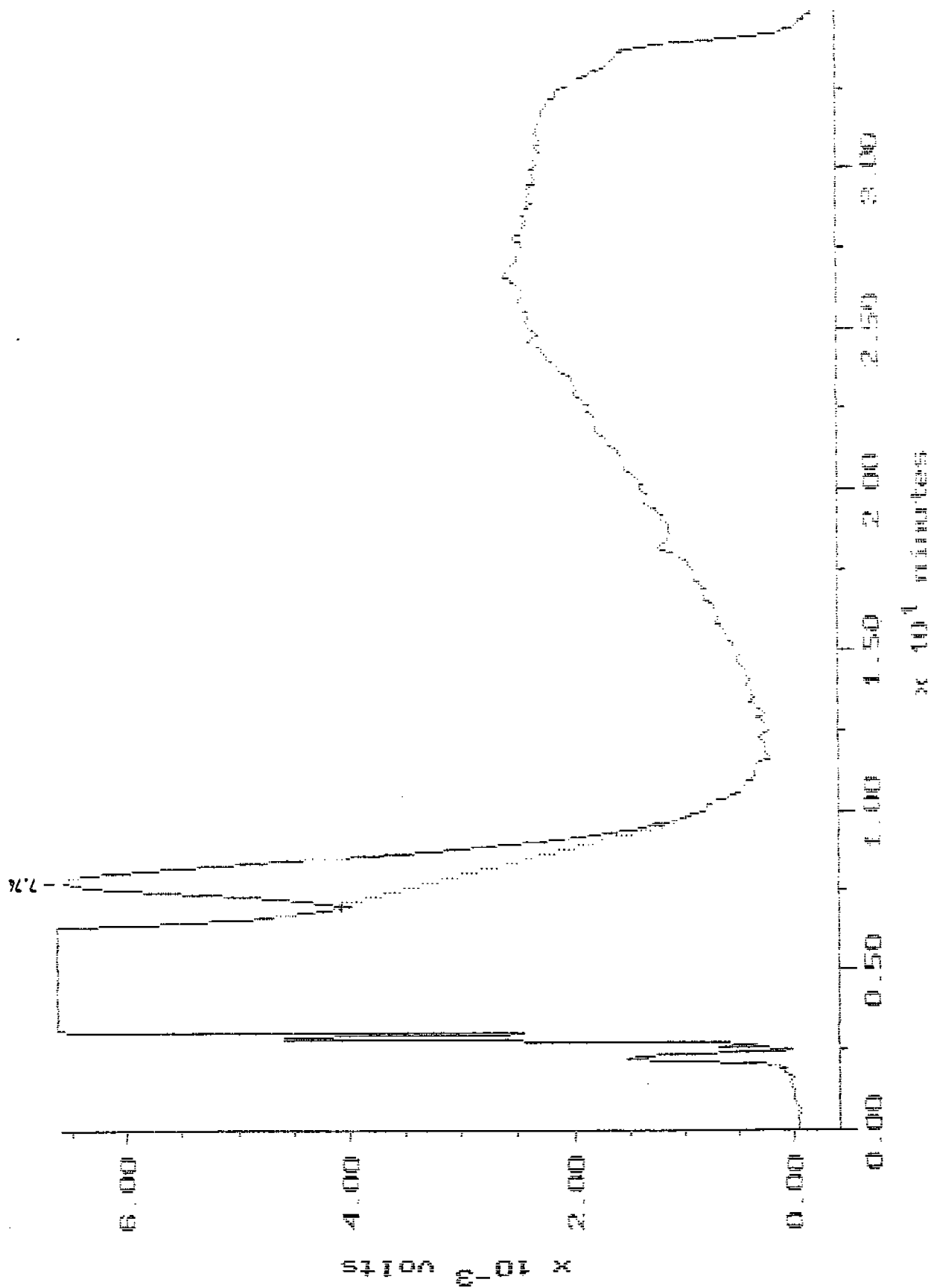
MDIµg

UV 254

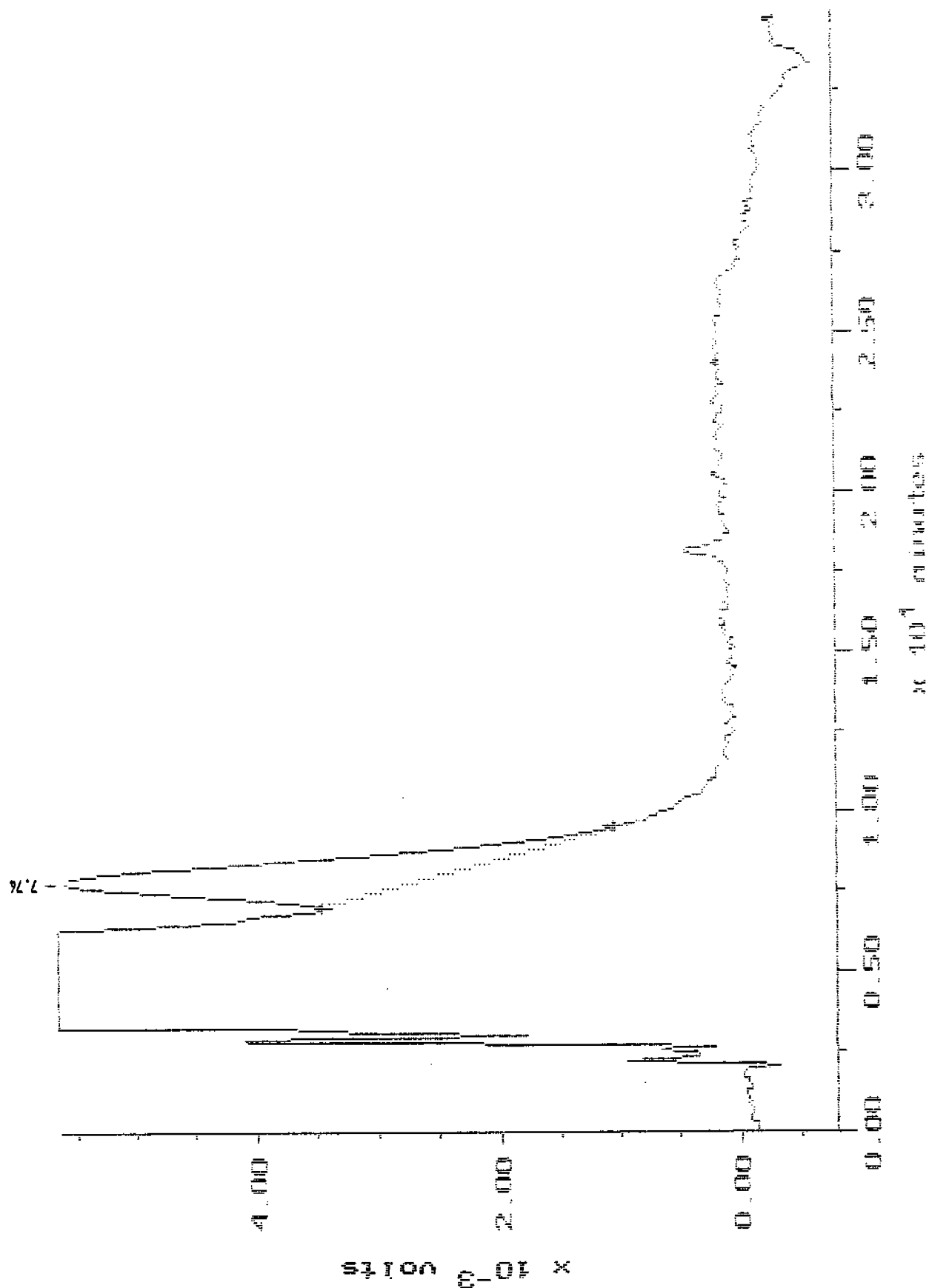
$$2.99 \frac{\mu\text{g}}{\text{ml}} \times 100 \text{ ml} = 299 \mu\text{g}$$

UV 275

$$3.06 \frac{\mu\text{g}}{\text{ml}} \times 100 \text{ ml} = 306 \mu\text{g}$$



Sample: 9289-99
 Acquired: 11-AUG-93 13:26
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 File name: 928999
 Operator: ---



Sample: 9289-99
Acquired: 11-AUG-93 13:26
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 928999

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:06:42

SAMPLE: 9289-99

#30 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 13:26

Rate: 0.7 points/sec

Duration: 34.989 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 928999

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.739				238951	3316		BB
TOTAL			0.00000	0.00000	238951	3316		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	7.739				202632	2854		BB
TOTAL			0.00000	0.00000	202632	2854		

MDI

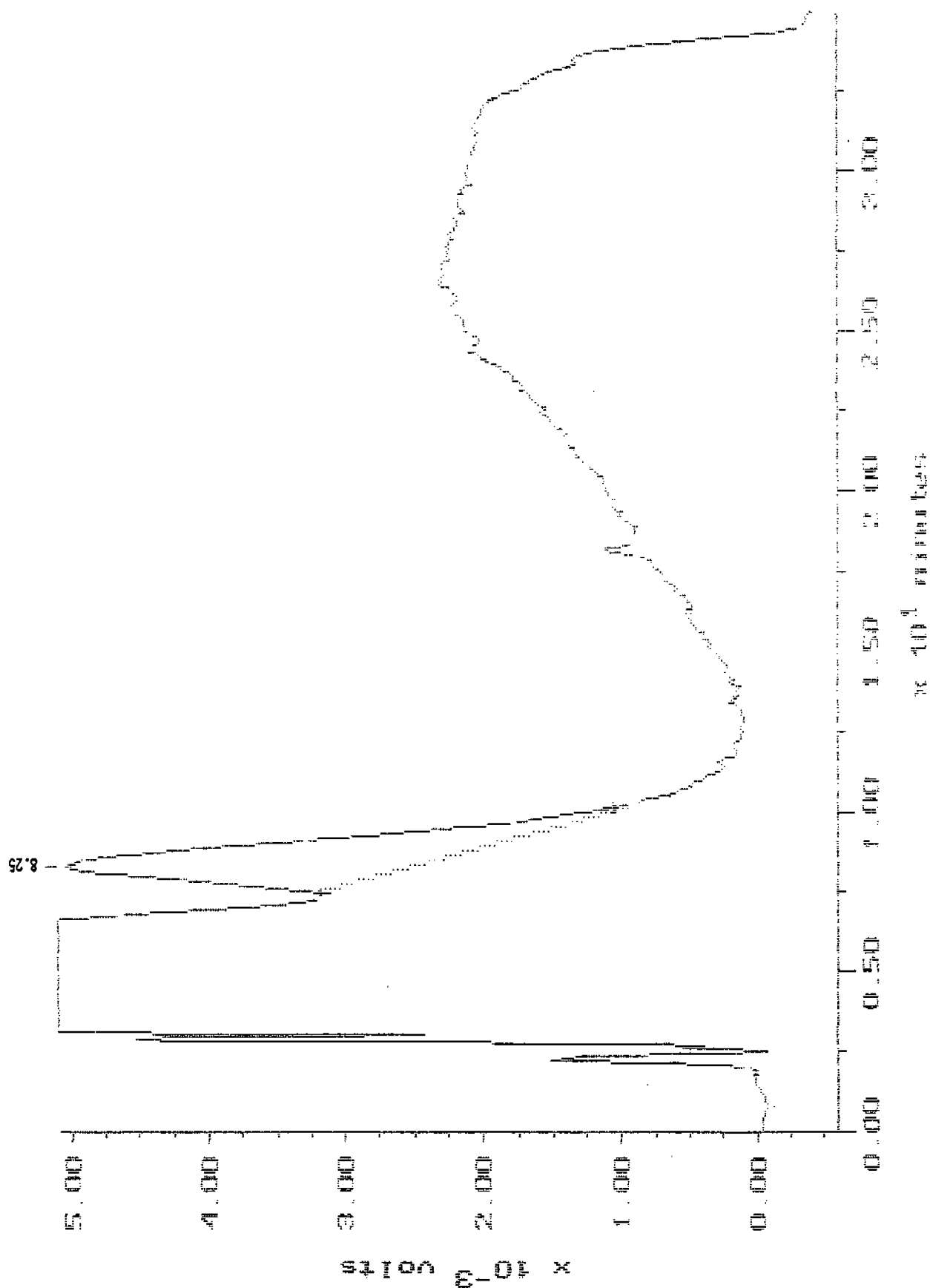
py

UV 254

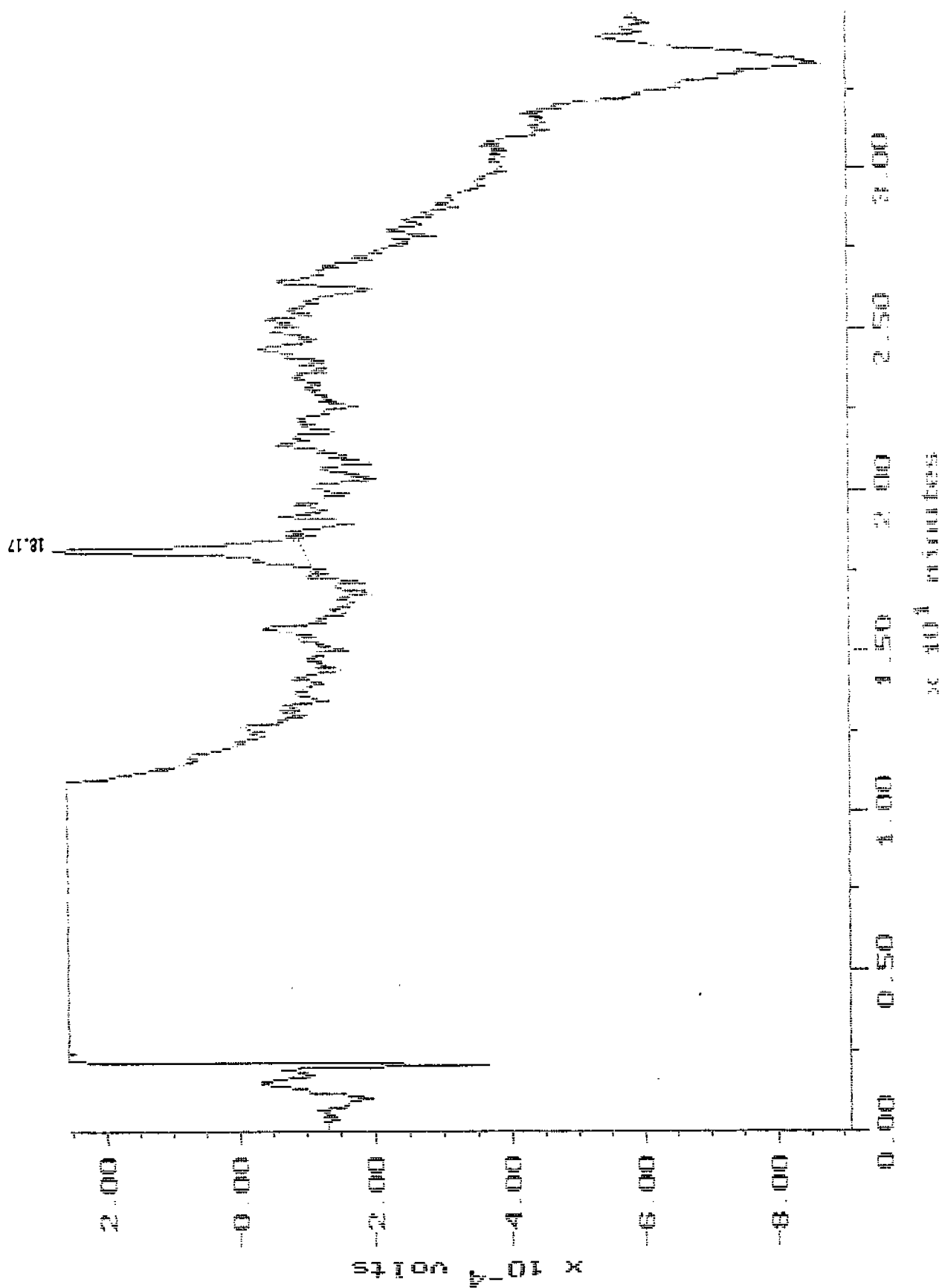
BDL

UV 275

BDL



Sample: 9289-100
 Acquired: 11-AUG-93 16:03
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 Filename: 9289100



Sample: 9289-100
Acquired: 11-AUG-93 16:03
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 9289100

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:07:08

SAMPLE: 9289-100

#31 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 14:03

Rate: 0.7 points/sec

Duration: 36.979 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9289100

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	8.252				205095	2518		88
TOTAL			0.00000	0.00000	205095	2518		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	18.169				8015	346		88
TOTAL			0.00000	0.00000	8015	346		

MOI

17

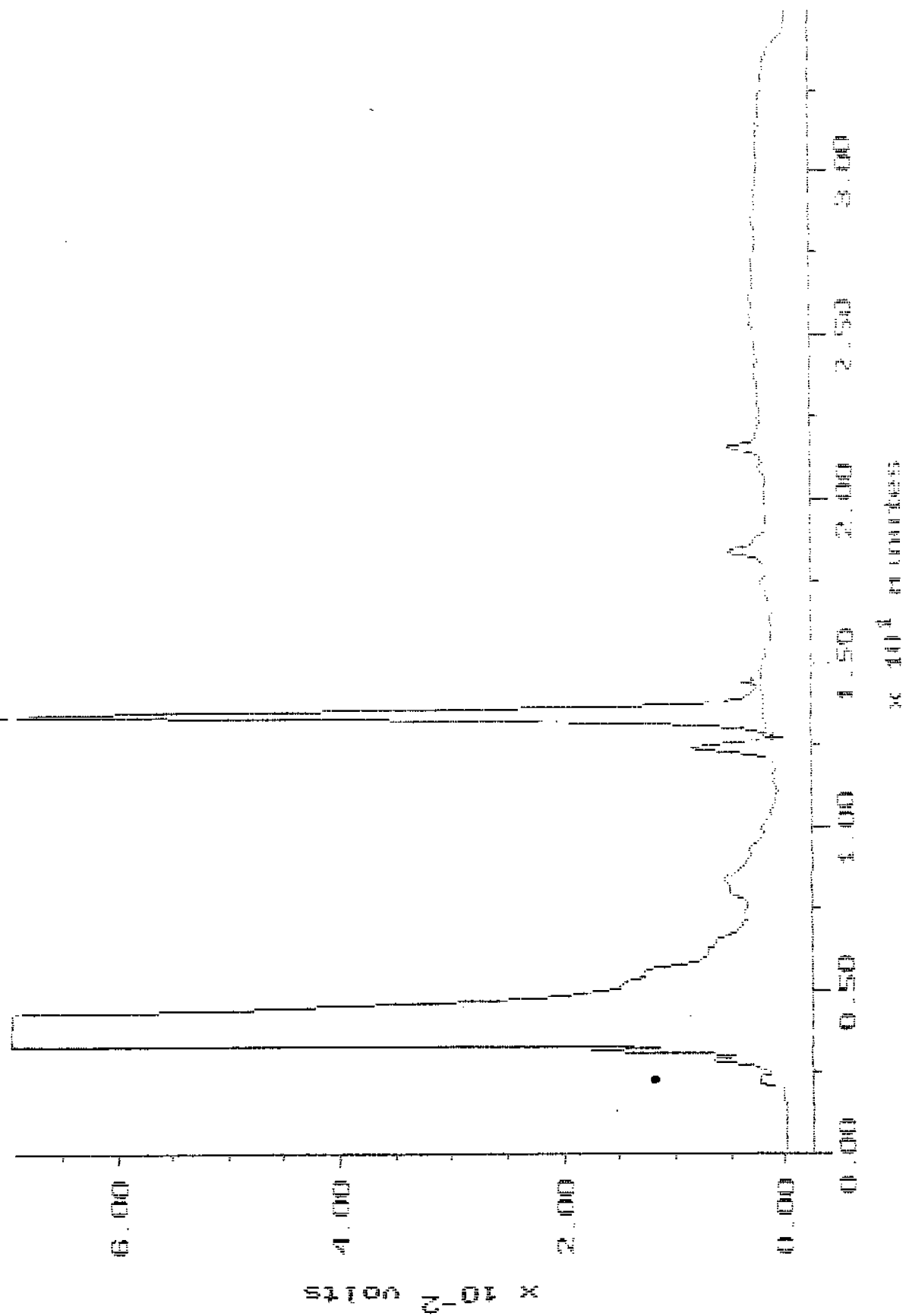
UV 254

BOL

UV 275

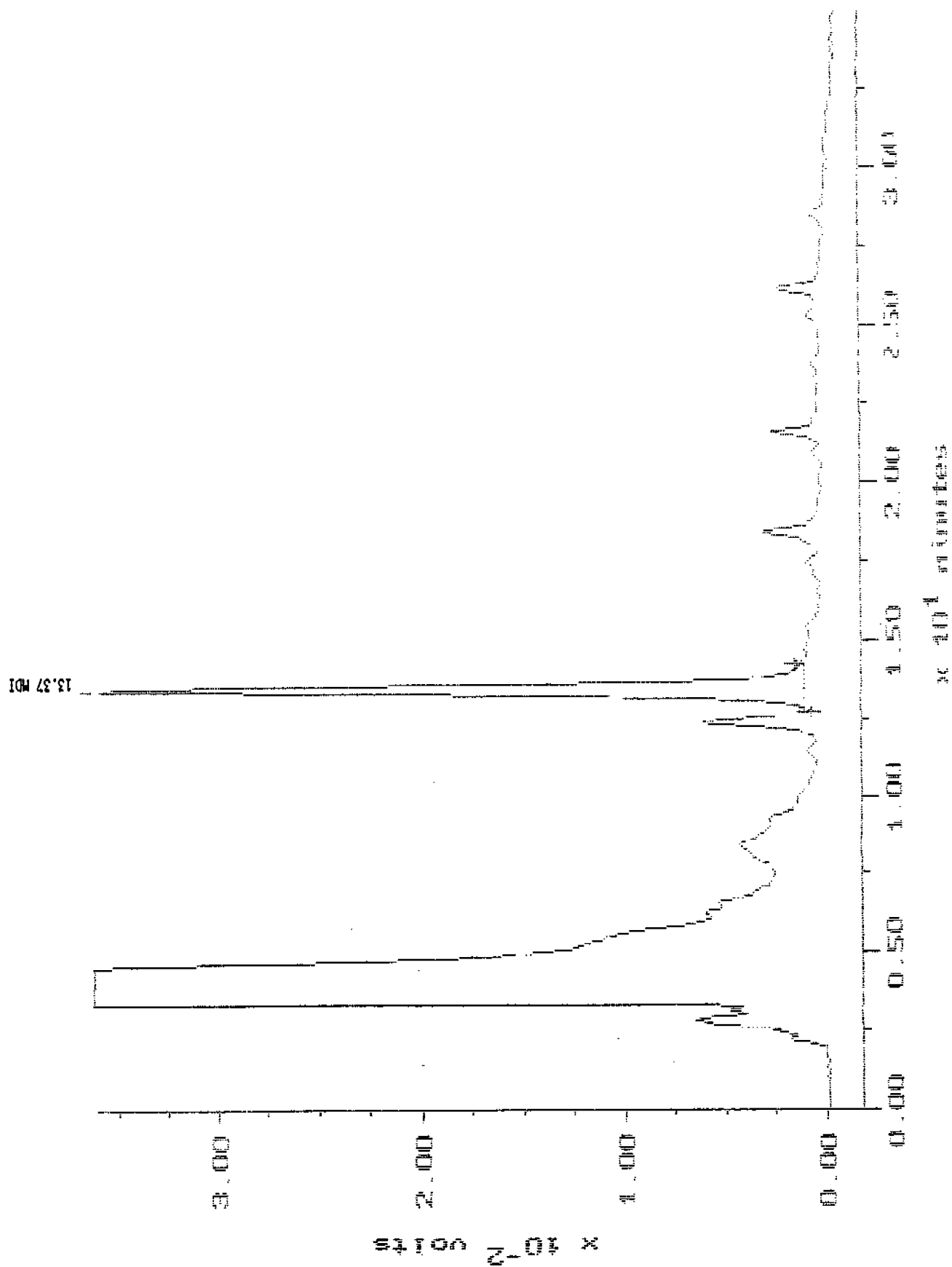
BOL

VA 54



Sample: 9289-101
Acquired: 11-AUG-93 16:40
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 9289101

Sample: 9289-101
Acquired: 11-AUG-93 16:40
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 9289101



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:07:27

SAMPLE: 9289-101

#32 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 14:40

Rate: 0.7 points/sec

Duration: 34.988 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9289101

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.367	MDI UV 254	10.37140	10.37140	1487057	66764	0.00000697	88
TOTAL			10.37140	10.37140	1487057	66764		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.367	MDI UV 275	10.16896	10.16896	764867	34716	0.00001330	88
TOTAL			10.16896	10.16896	764867	34716		

MDIµg

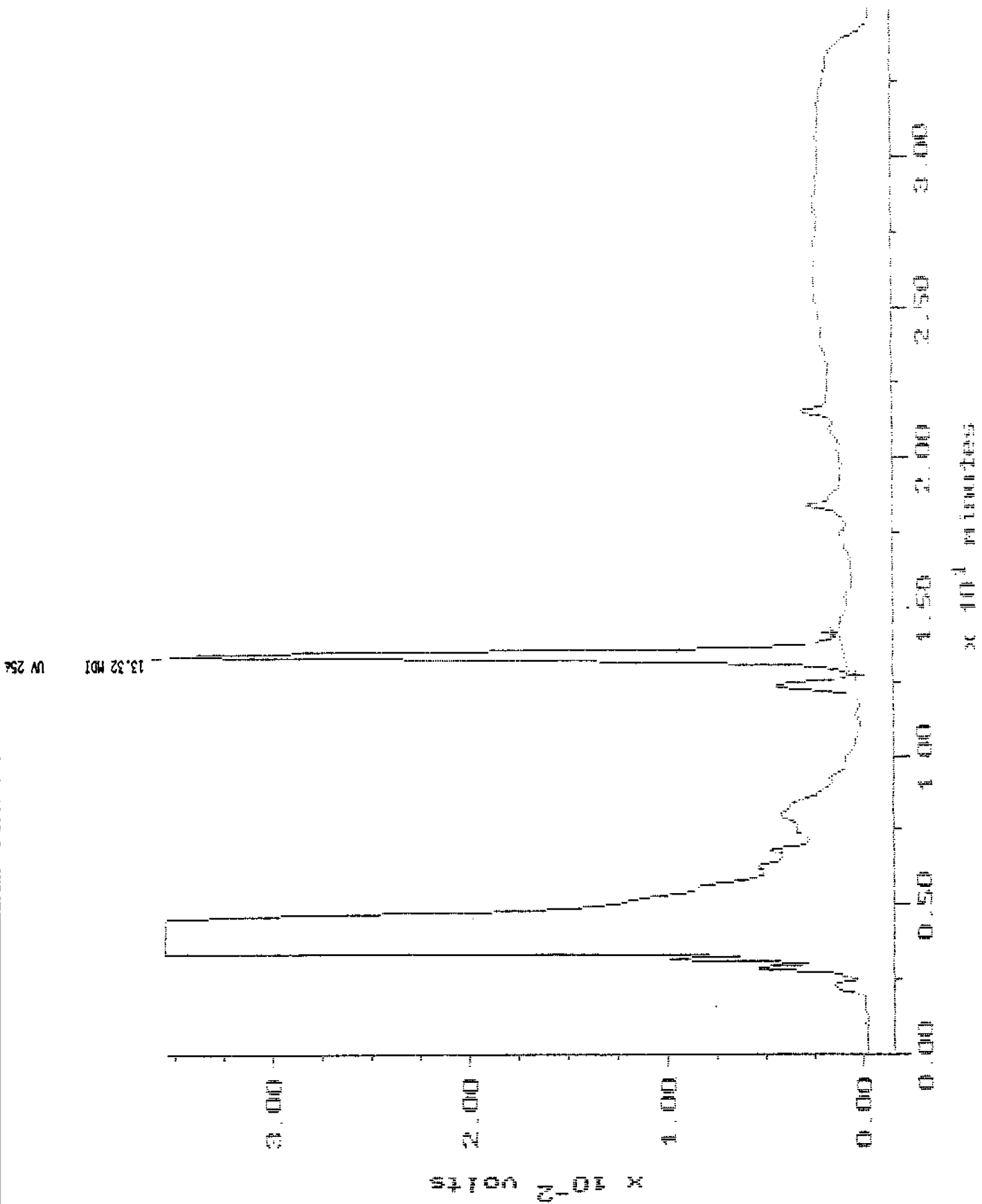
UV 254

$$10.4 \mu\text{g/ml} \times 100 \text{ ml} = 1040 \mu\text{g}$$

UV 275

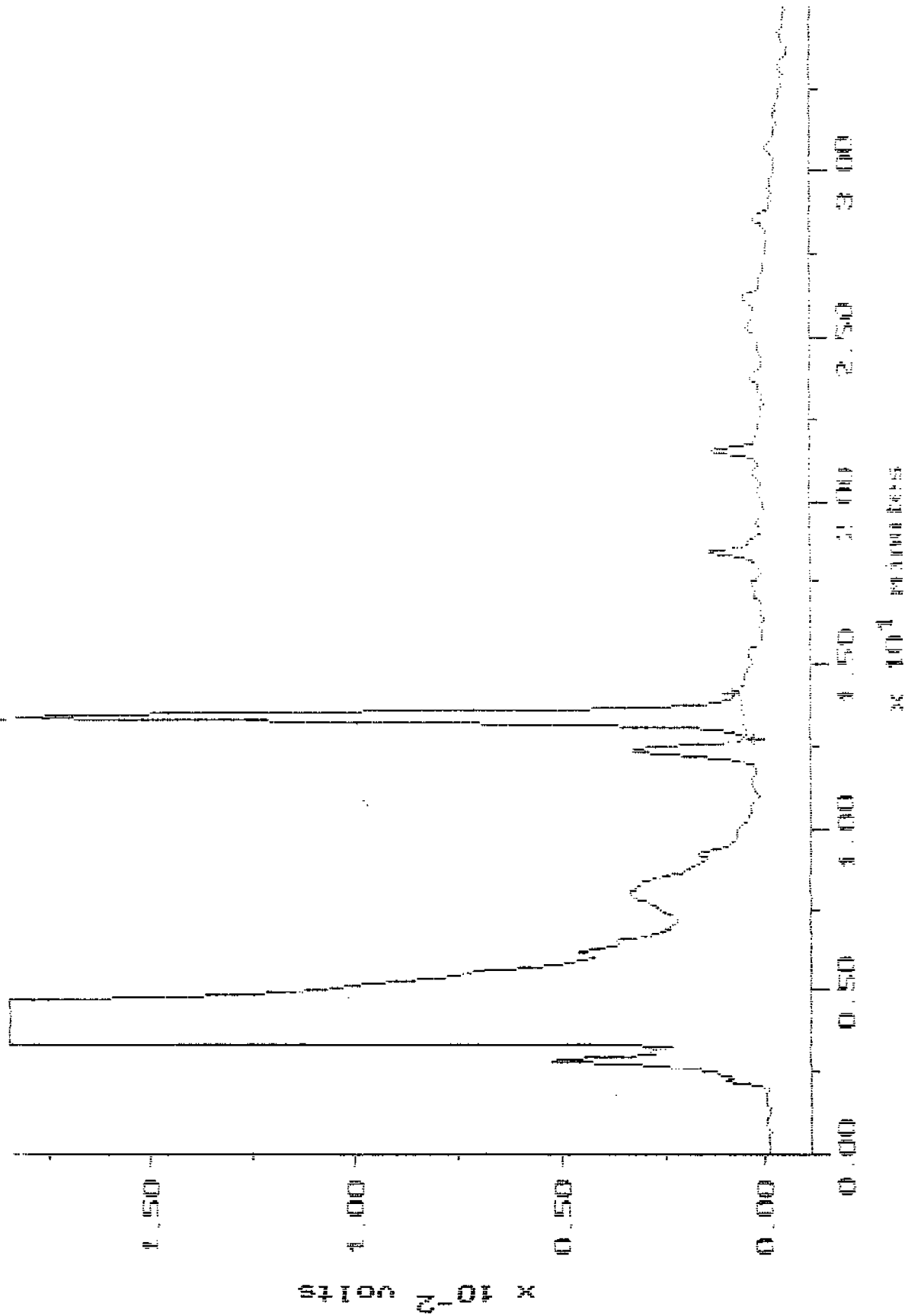
$$10.2 \mu\text{g/ml} \times 100 \text{ ml} = 1020 \mu\text{g}$$

Sample: 9289-102
Acquired: 11-AUG-93 15:17
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 9289102



UV 275

13.32 MDI



Sample: 9289-102
Acquired: 11-AUG-93 15:17
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
File: 9289102
Operator: ---

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:08:22

SAMPLE: 9289-102

#33 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 15:17

Rate: 3.7 points/sec

Duration: 34.977 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9289102

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.325	MDI UV 254	5.18178	5.18178	742967	34075	0.00000697	BB
TOTAL			5.18178	5.18178	742967	34075		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.325	MDI UV 275	5.10230	5.10230	383774	17712	0.00001330	BB
TOTAL			5.10230	5.10230	383774	17712		

MDIµg

UV 254

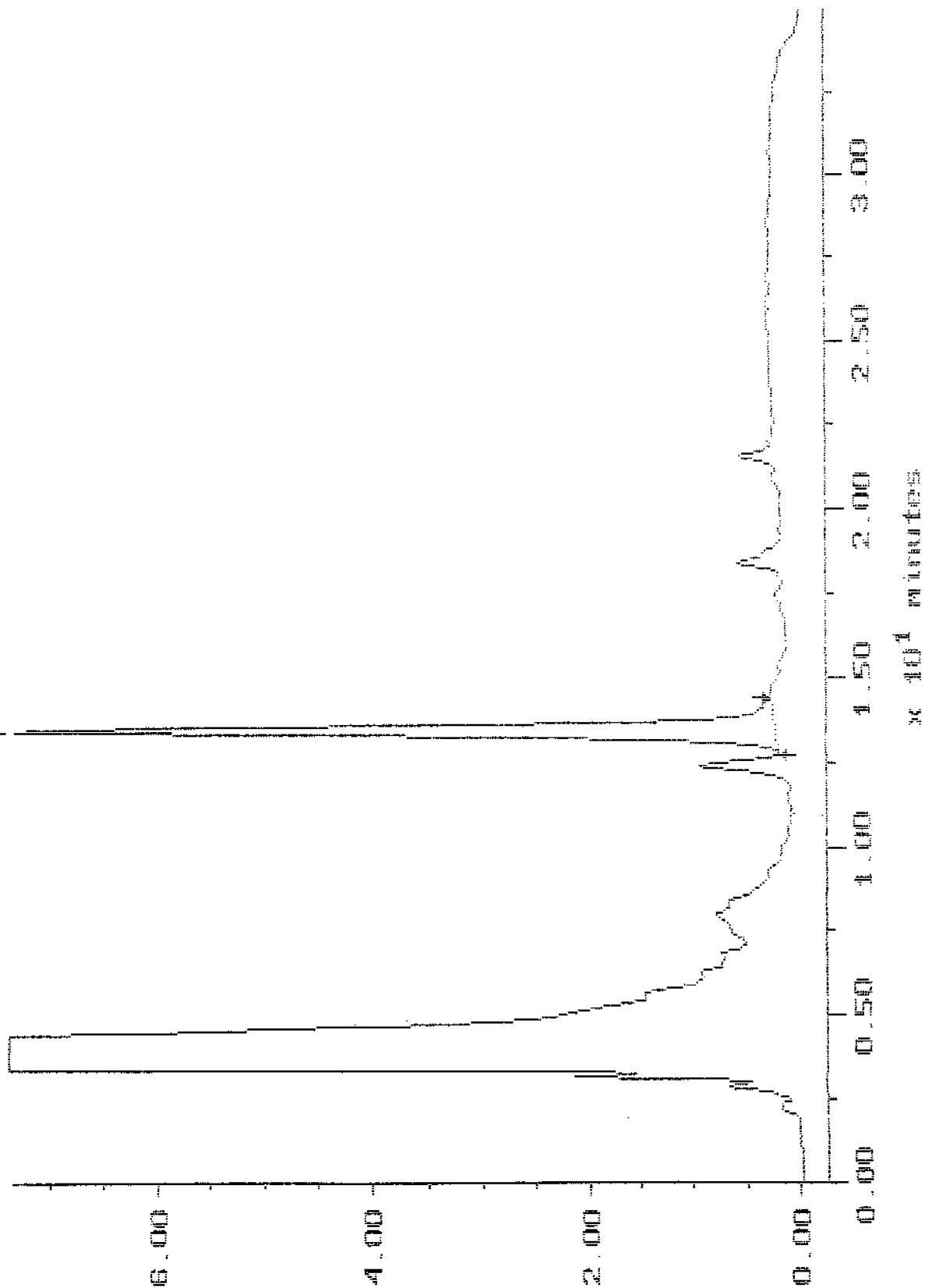
$$5.18 \mu\text{g/ml} \times 150 \text{ ml} = 777 \mu\text{g}$$

UV 275

$$5.10 \mu\text{g/ml} \times 150 \text{ ml} = 765 \mu\text{g}$$

Sample: 9289-103
Acquired: 11-AUG-93 15:54
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
File: 9289103
Operator: —

$\times 10^{-2}$ volts



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:08:41

SAMPLE: 9289-103

#34 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 15:54

Rate: 0.7 points/sec

Duration: 34.985 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9289103

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.365	MDI UV 254	10.83599	10.83599	1553670	70763	0.00000697	88
TOTAL			10.83599	10.83599	1553670	70763		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.365	MDI UV 275	10.69722	10.69722	804601	36807	0.00001330	88
TOTAL			10.69722	10.69722	804601	36807		

MDIµg

UV 254

$$10.8 \mu\text{g/ml} \times 100 \text{ ml} = 1080 \mu\text{g}$$

UV 275

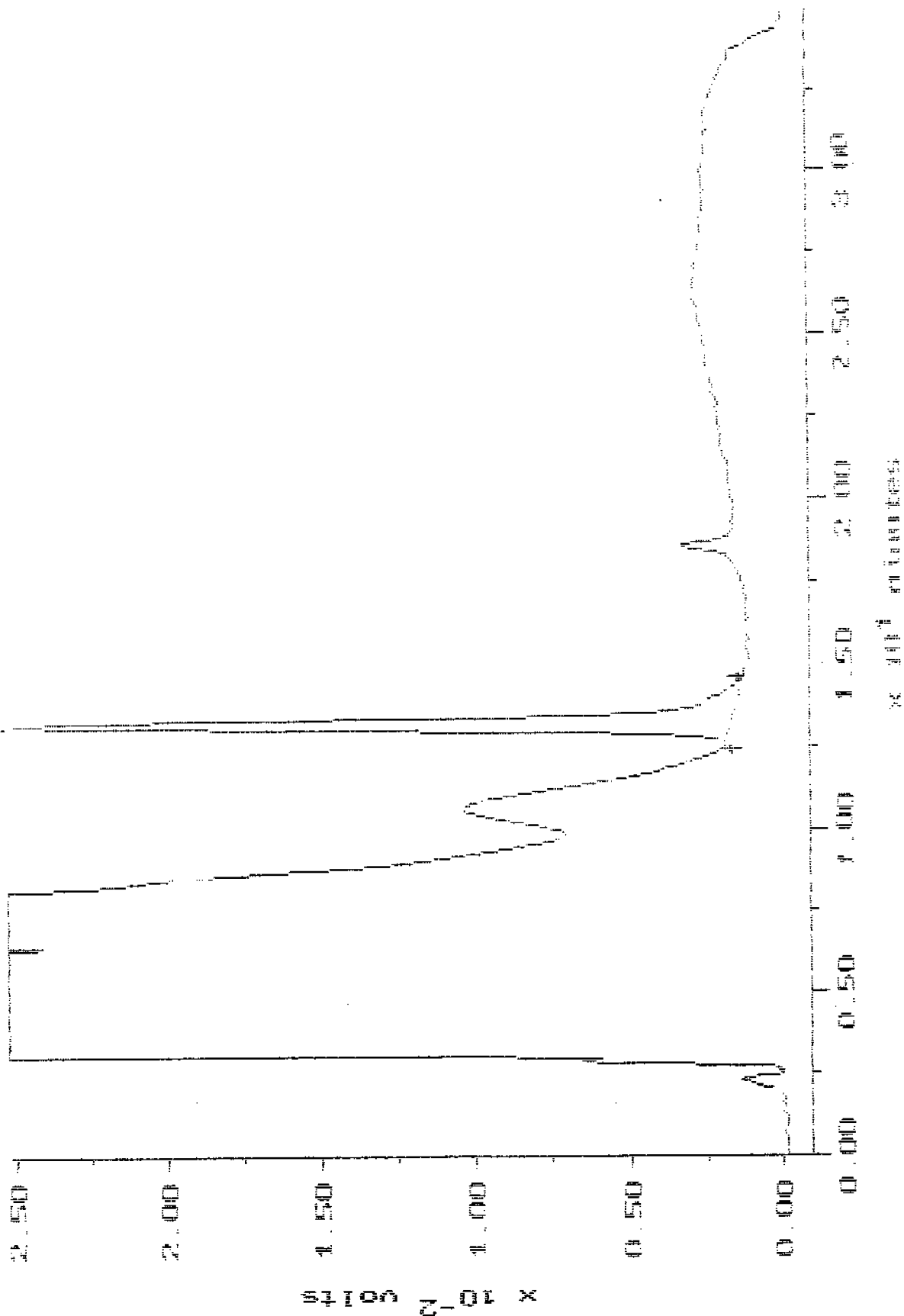
$$10.7 \mu\text{g/ml} \times 100 \text{ ml} = 1070 \mu\text{g}$$

QUALITY ASSURANCE DATA

CALIBRATION CHECKS

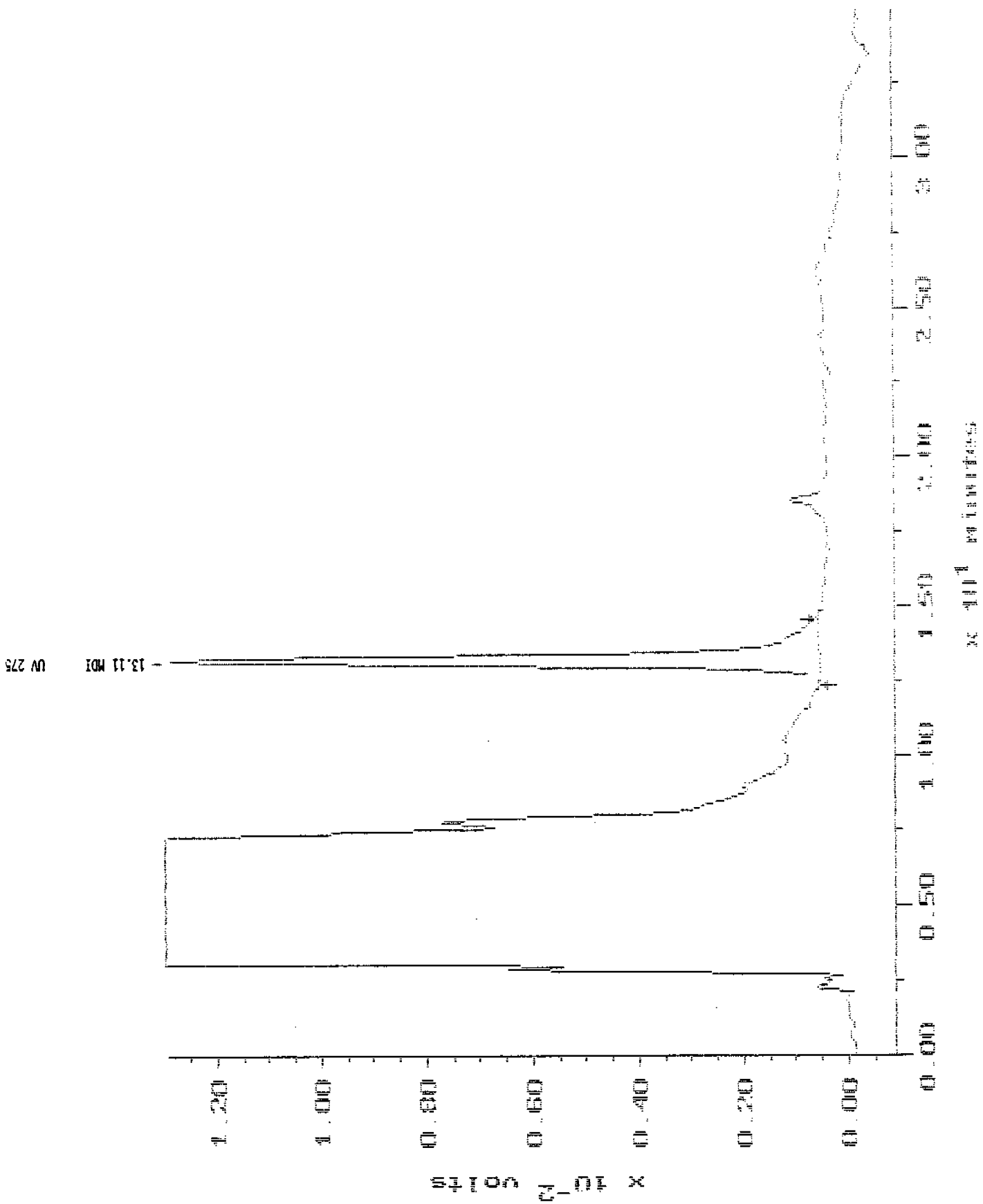
UV 254

13.11 MDI



Sample: CHECK 1
Acquired: 10-AUG-93 22:02
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: CHECK1

Sample: CHECK 1
 Acquired: 10-AUG-93 22:02
 Dilution: 1 : 1.000
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 Filename: CHECK1



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:56:40

SAMPLE: CHECK 1

#5 in Method: 9202 REVERSE PHASE
 Acquired: 10-AUG-1993 22:02
 Rate: 0.7 points/sec
 Duration: 34.985 minutes
 Operator: ---

Type: UNKN
 Instrument: Waters 990
 Filename: CHECK1
 Index: Disk
 Dilution: 1.000
 Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.108	MDI UV 254	4.10374	4.10374	588396	23317	0.00000697	88
TOTAL			4.10374	4.10374	588396	23317		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.108	MDI UV 275	4.26811	4.26811	321030	12305	0.00001330	88
TOTAL			4.26811	4.26811	321030	12305		

MDI% Rec

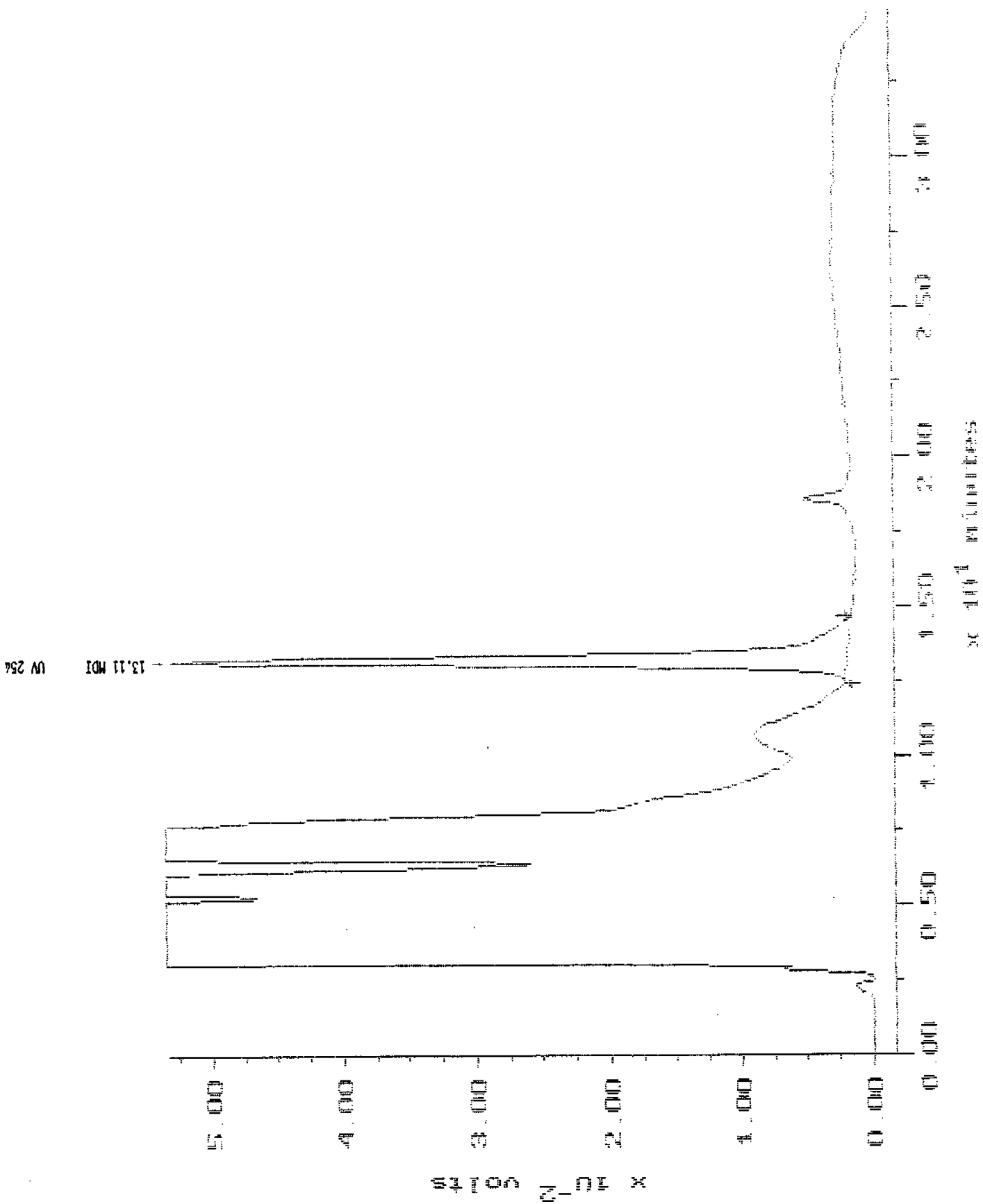
UV 254

$$4.10 / 4.71 \times 100\% = 87\%$$

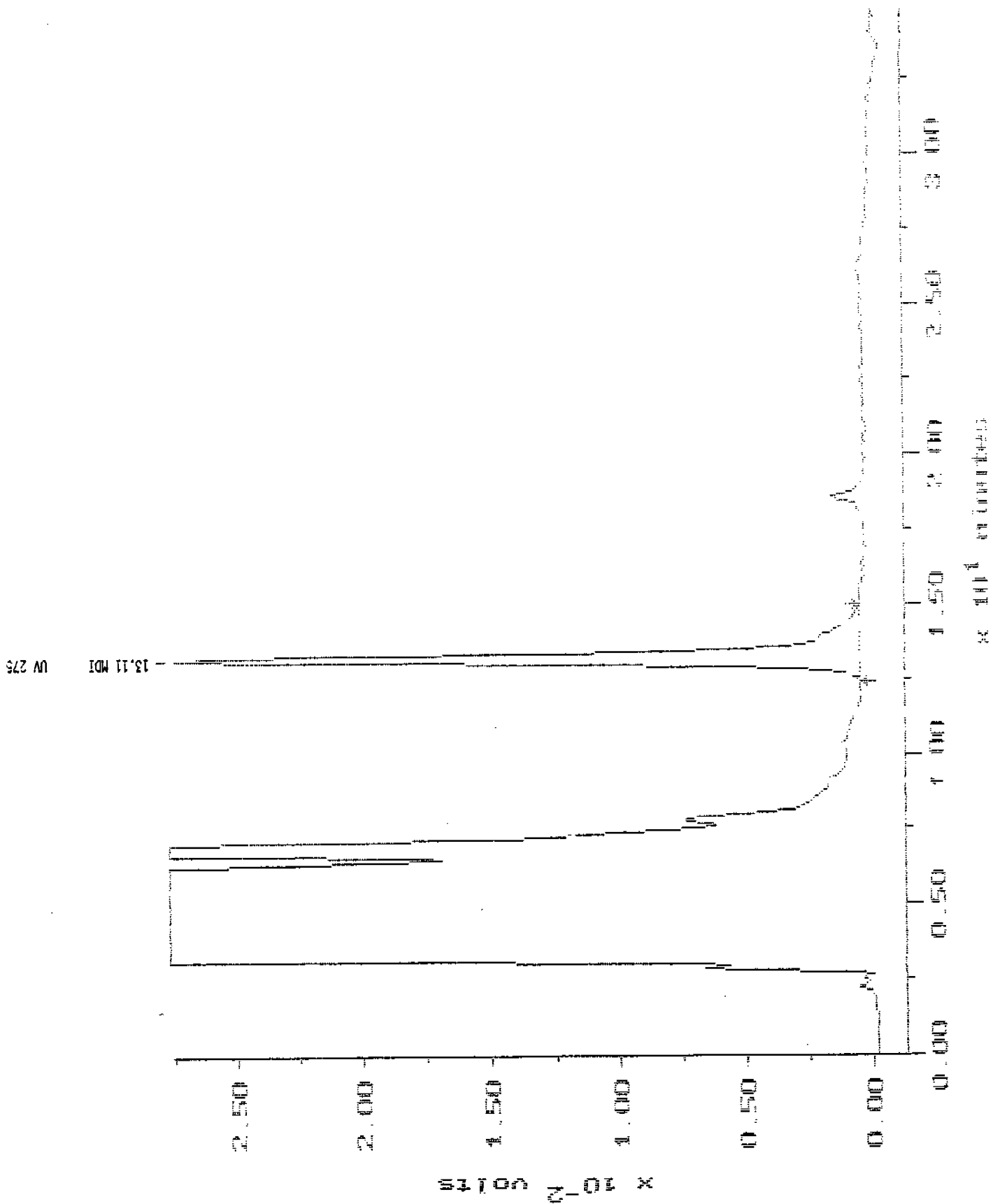
UV 275

$$4.27 / 4.71 \times 100\% = 91\%$$

Sample: CHECK 2
 Acquired: 10-AUG-93 22:39
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: CHECK2
 Operator: ---



Sample: CHECK 2
 Acquired: 10-AUG-93 22:39
 Dilution: 1 : 1.000
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: CHECK2
 Operator: ---



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:56:59

SAMPLE: CHECK 2

% in Method: 9202 REVERSE PHASE
 Acquired: 15-AUG-1993 22:39
 Rate: 0.7 points/sec
 Duration: 34.977 minutes
 Operator: ---

Type: UNKN
 Instrument: Waters 990
 Filename: CHECK2
 Index: Disk
 Dilution: 1.000
 Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.114	MDI UV 254	9.24808	9.24808	1325995	51103	0.00000697	88
TOTAL			9.24808	9.24808	1325995	51103		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.114	MDI UV 275	9.51483	9.51483	715666	26882	0.00001330	88
TOTAL			9.51483	9.51483	715666	26882		

MDI% Rec

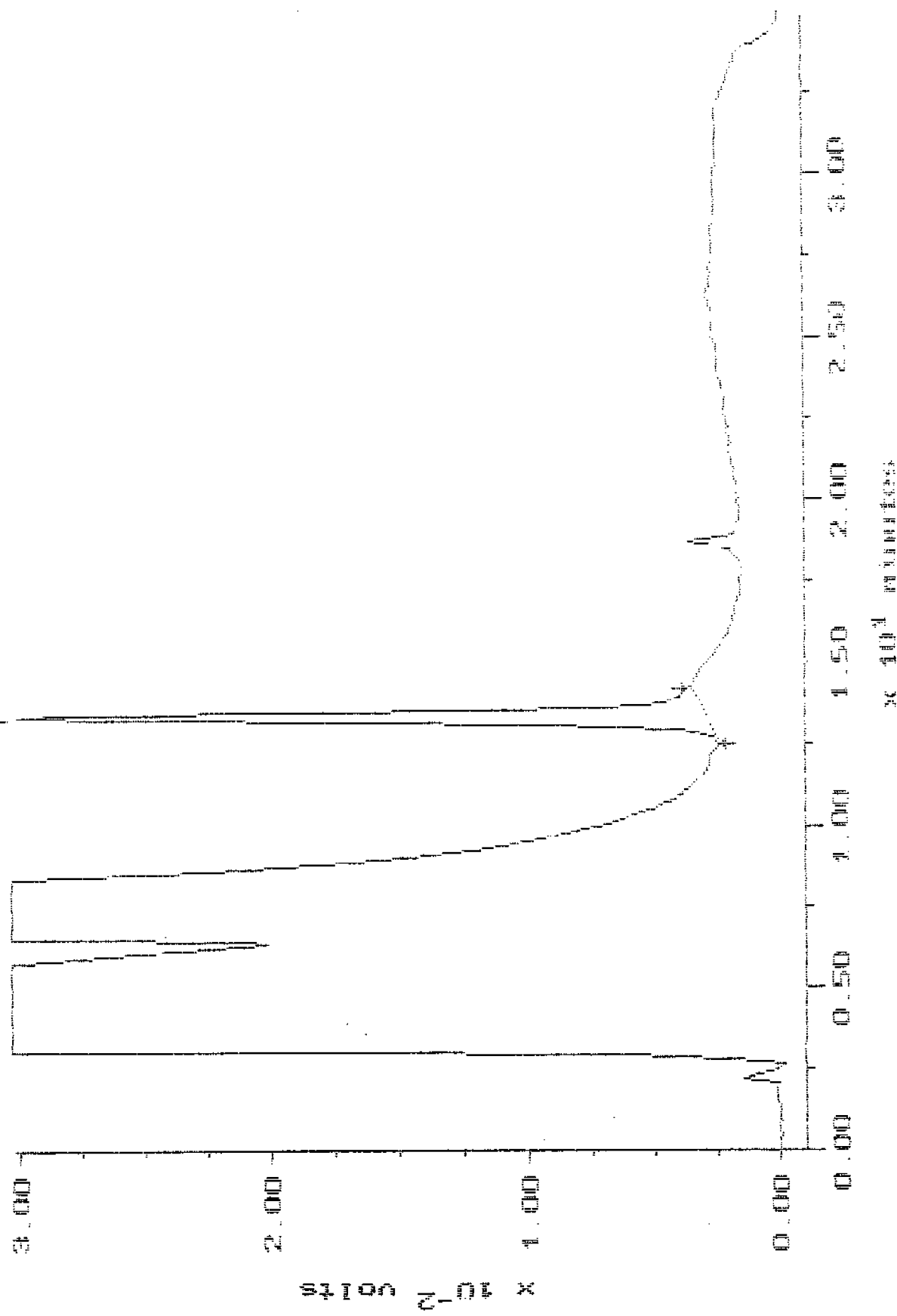
uv 254

$$9.25 / 9.975 \times 100\% = 93\%$$

uv 275

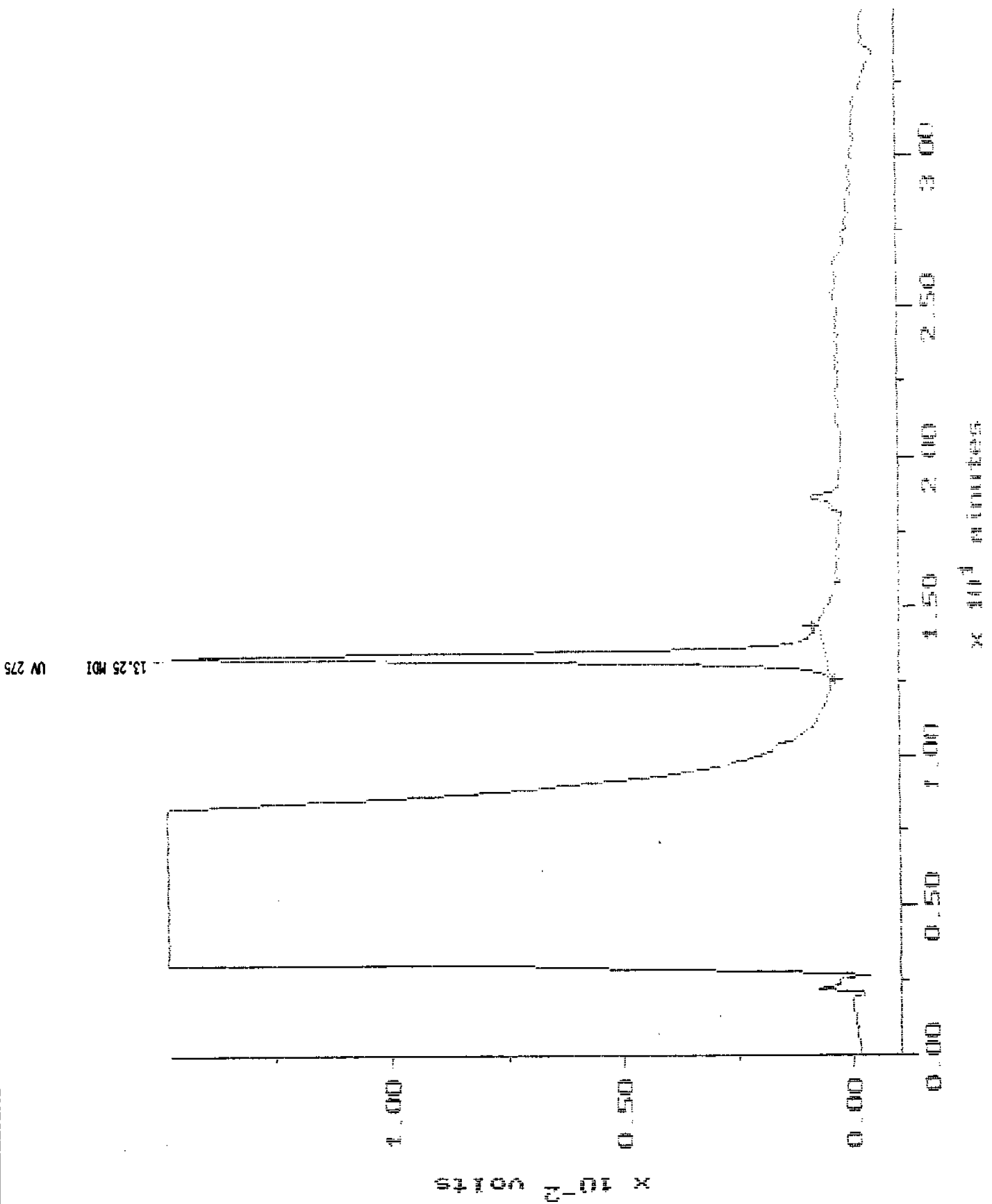
$$9.51 / 9.975 \times 100\% = 95\%$$

UV 54



Sample: CHECK1 RUN3
Channel: 254.0 nm
Acquired: 11-AUG-93 10:21
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: CHECK1R3

Sample: CHECK1 RUN3
 Acquired: 11-AUG-93 10:21
 Channel: 275.0 mV
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 Filename: CHECK1R3
 Operator: ---



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:04:17

SAMPLE: CHECK1 RUN3

#25 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 10:21

Rate: 0.7 points/sec

Duration: 34.983 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: CHECK1R3

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

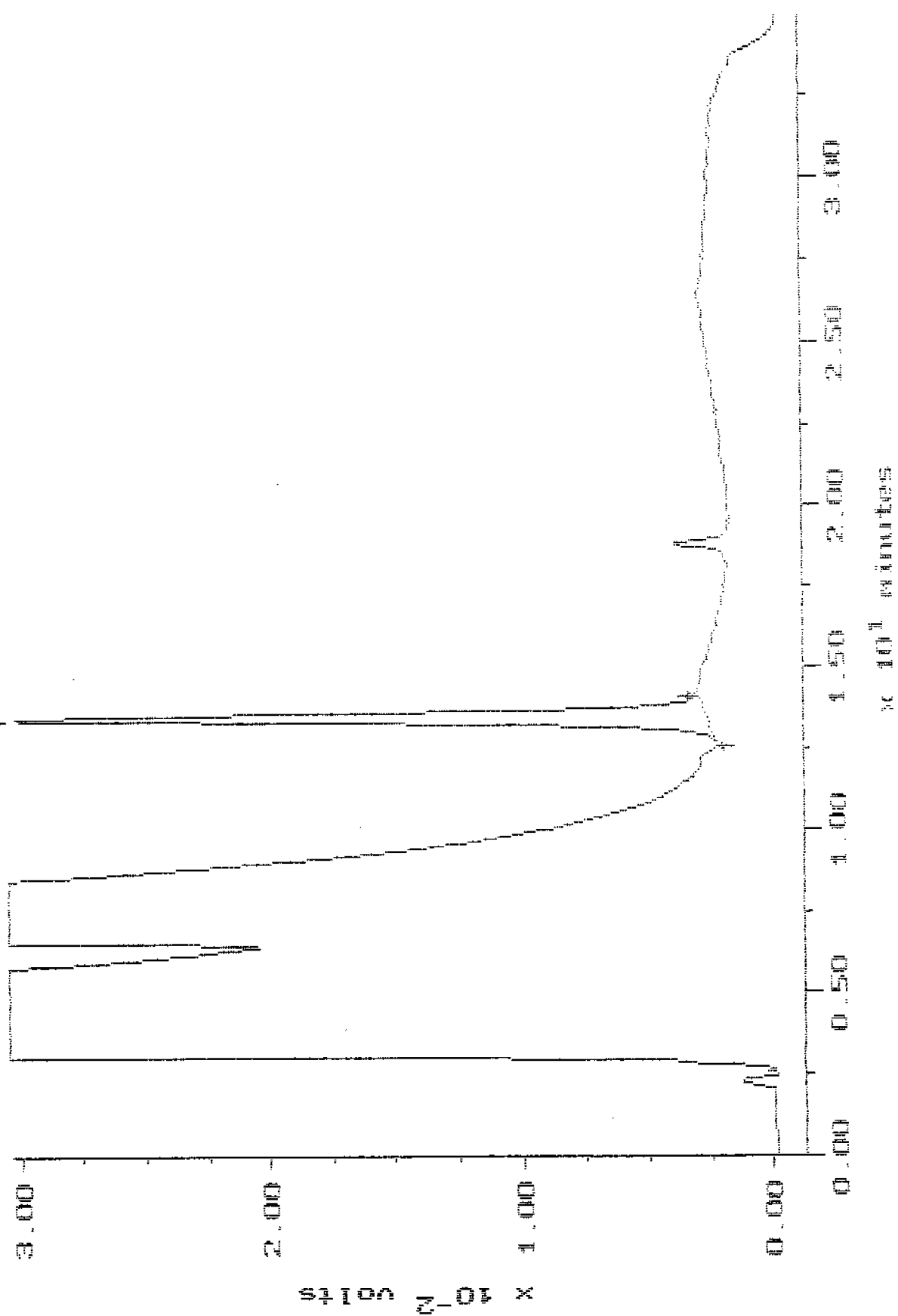
Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.248	MDI UV 254	4.33978	4.33978	622240	27061	0.00000697	BB
TOTAL			4.33978	4.33978	622240	27061		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.248	MDI UV 275	4.32085	4.32085	324996	14148	0.00001330	BB
TOTAL			4.32085	4.32085	324996	14148		

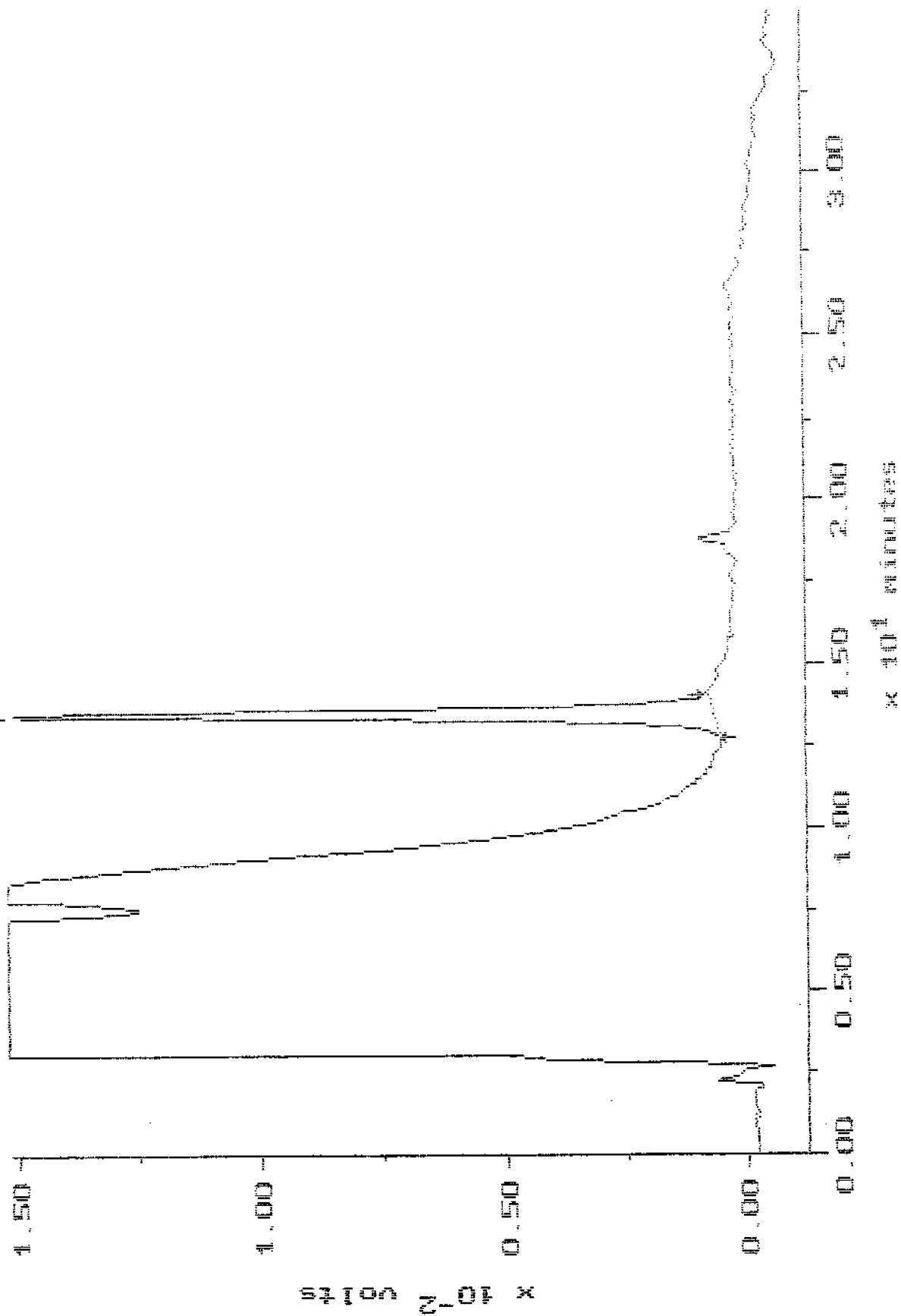
MDI 70 RecUV 254 $4.34 / 4.71 \times 100\% = 92\%$ UV 275 $4.32 / 4.71 \times 100\% = 92\%$

54



Sample: CHECK1 RUN
Acquired: 11-AUG-93 16:31
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
File name: CHECK1.R4
Operator: —

Sample: CHECK1 RUN
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 Acquired: 11-AUG-93 16:31
 File name: CHECK1.R6
 Operator: —



13.39 MDI UN 75

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:09:01

SAMPLE: CHECK1 RUN4

#35 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 16:31

Rate: 0.7 points/sec

Duration: 34.990 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: CHECK1R4

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.391	MDI UV 254	4.27870	4.27870	613482	27547	0.00000697	88
TOTAL			4.27870	4.27870	613482	27547		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.391	MDI UV 275	4.26352	4.26352	320685	14412	0.00001330	88
TOTAL			4.26352	4.26352	320685	14412		

MDI% Rec

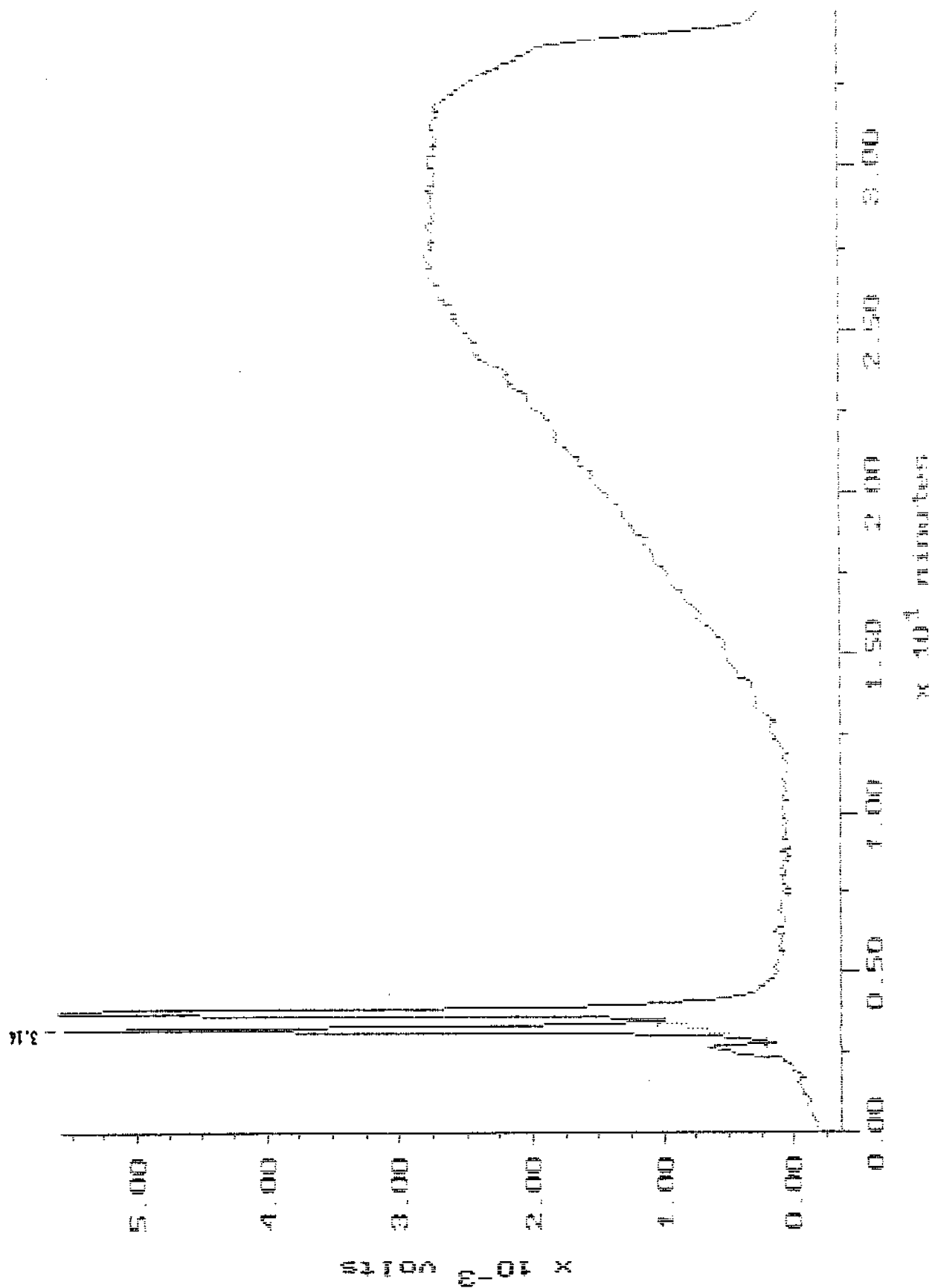
UV 254

$$4.28/4.71 \times 100\% = 91\%$$

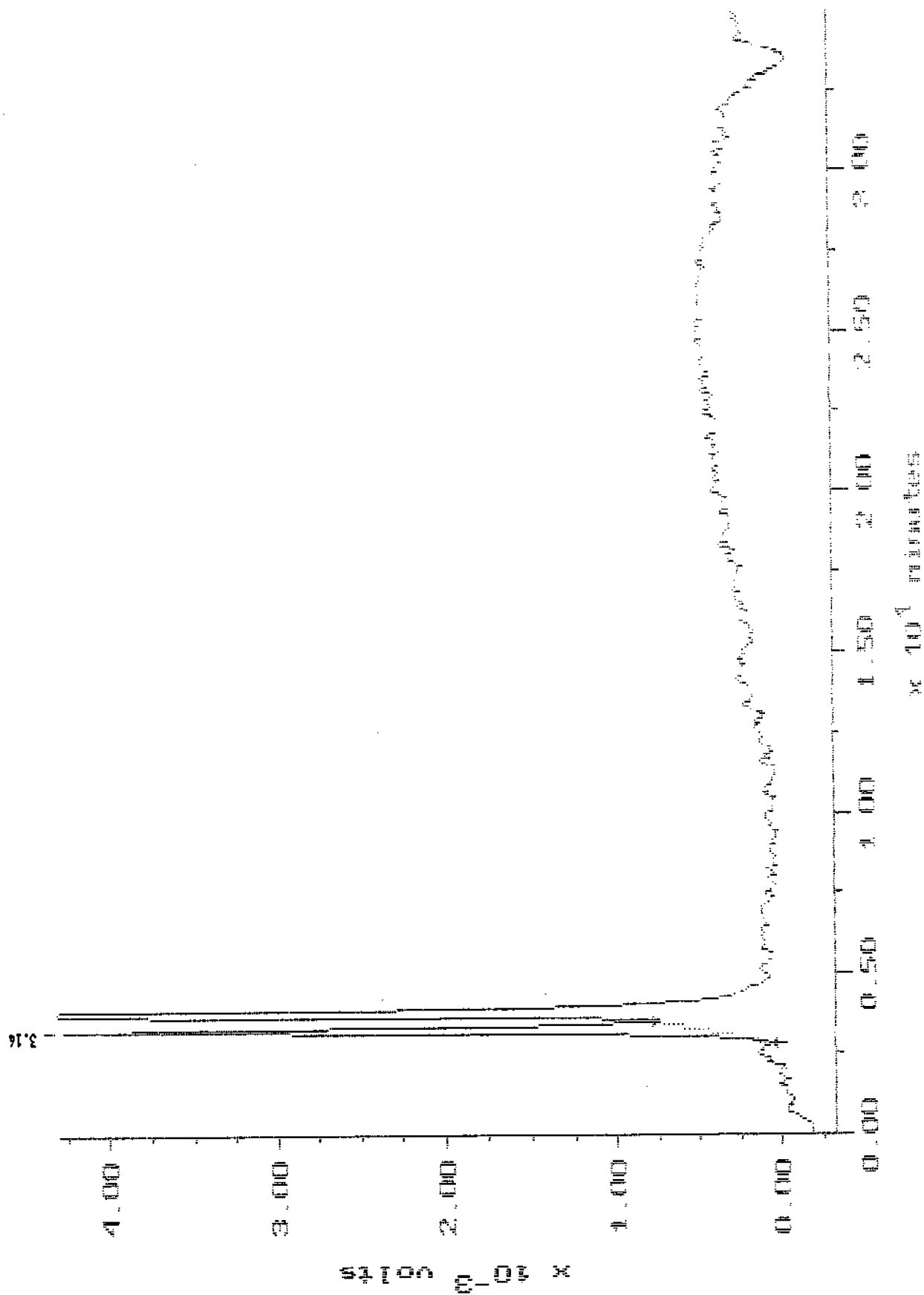
UV 275

$$4.26/4.71 \times 100\% = 90\%$$

INSTRUMENT BLANKS



Sample: INST BLANK
 Acquired: 10-AUG-93 23:16
 Dilution: 1 : 1.000
 Channel: 256.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: INSTBLK
 Operator: ---



Sample: INST BLANK
 Acquired: 10-AUG-93 23:16
 Dilution: 1 : 1.000
 Amount: 1.000
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 File name: INSTBLK
 Operator: ---

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:57:18

SAMPLE: INST BLANK

#7 In Method: 9202 REVERSE PHASE
Acquired: 10-AUG-1993 23:16
Rate: 0.7 points/sec
Duration: 34.984 minutes
Operator: ---

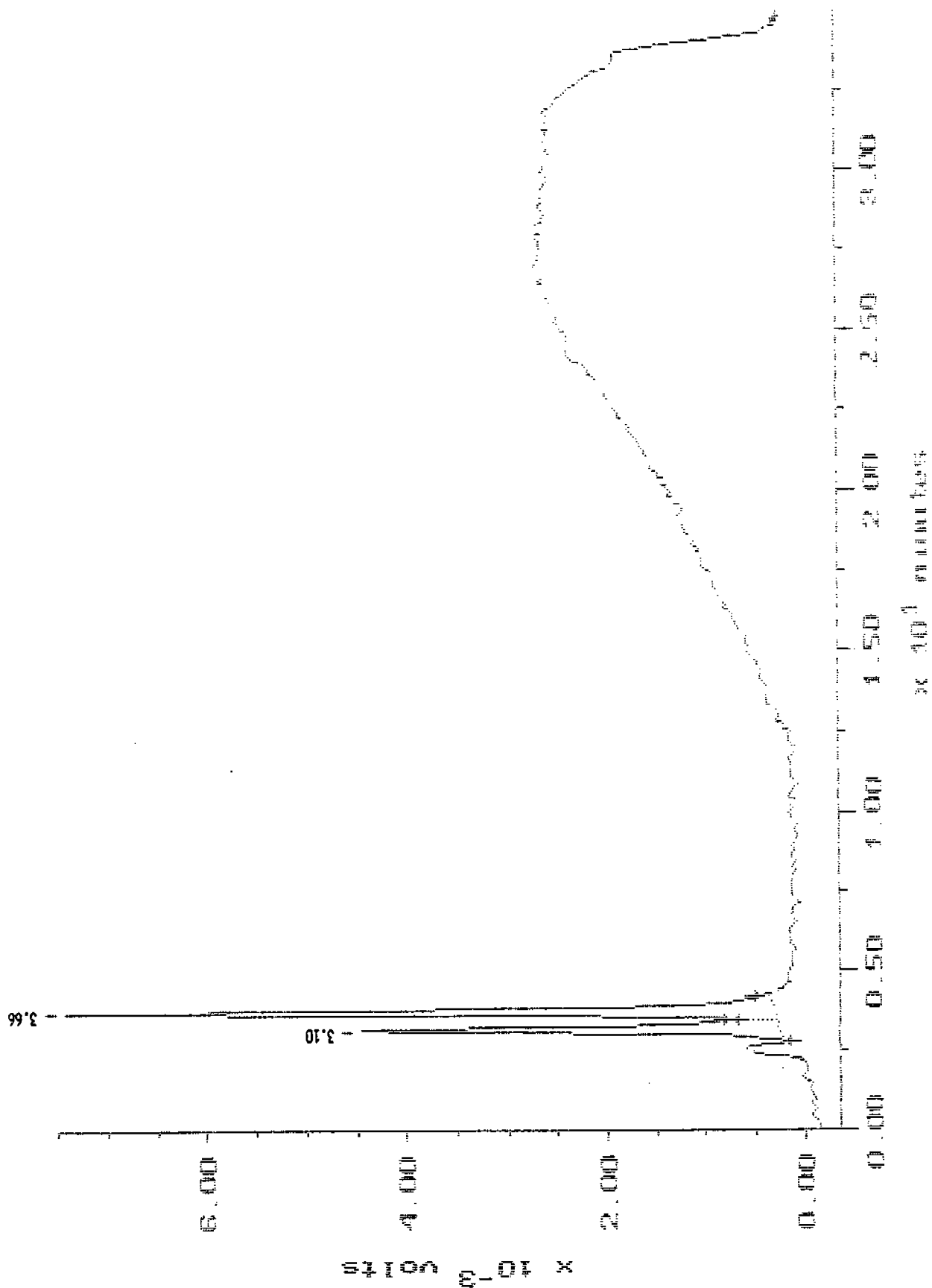
Type: UNKN
Instrument: Waters 990
Filename: INST8LK
Index: Disk
Dilution: 1.000
Amount: 1.000

DETECTOR: 254.0 nm

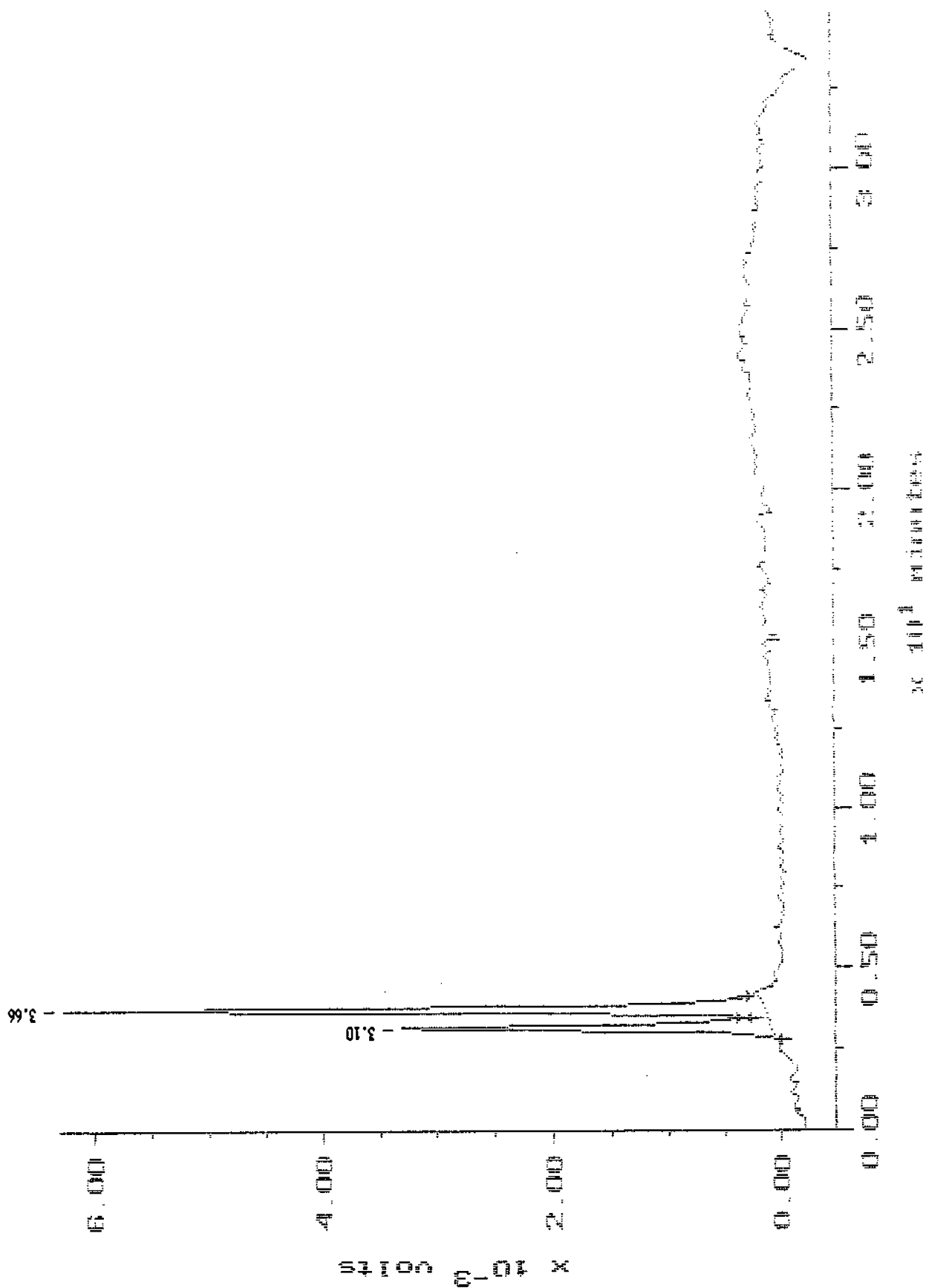
Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	3.142				62643	4904		EE
TOTAL			0.00000	0.00000	62643	4904		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	3.142				49900	3843		BB
TOTAL			0.00000	0.00000	49900	3843		



Sample: INST BLANK 2
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Dilution: 1 : 1.000
 File name: INSTBLK2
 Operator: ---



Sample: INST BLANK 2
Channel: 275.0 nm
Acquired: 11-AUG-93 6:46
Method: 9202 REVERSE PHASE
Dilution: 1 : 1.000
Amount: 1.000
Operator: ---
Filename: INSTBLK2

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:00:27

SAMPLE: INST BLANK 2

#16 In Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 4:48

Rate: 0.7 points/sec

Duration: 34.929 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: INSTBLK2

Index: Disk

Dilution: 1.000

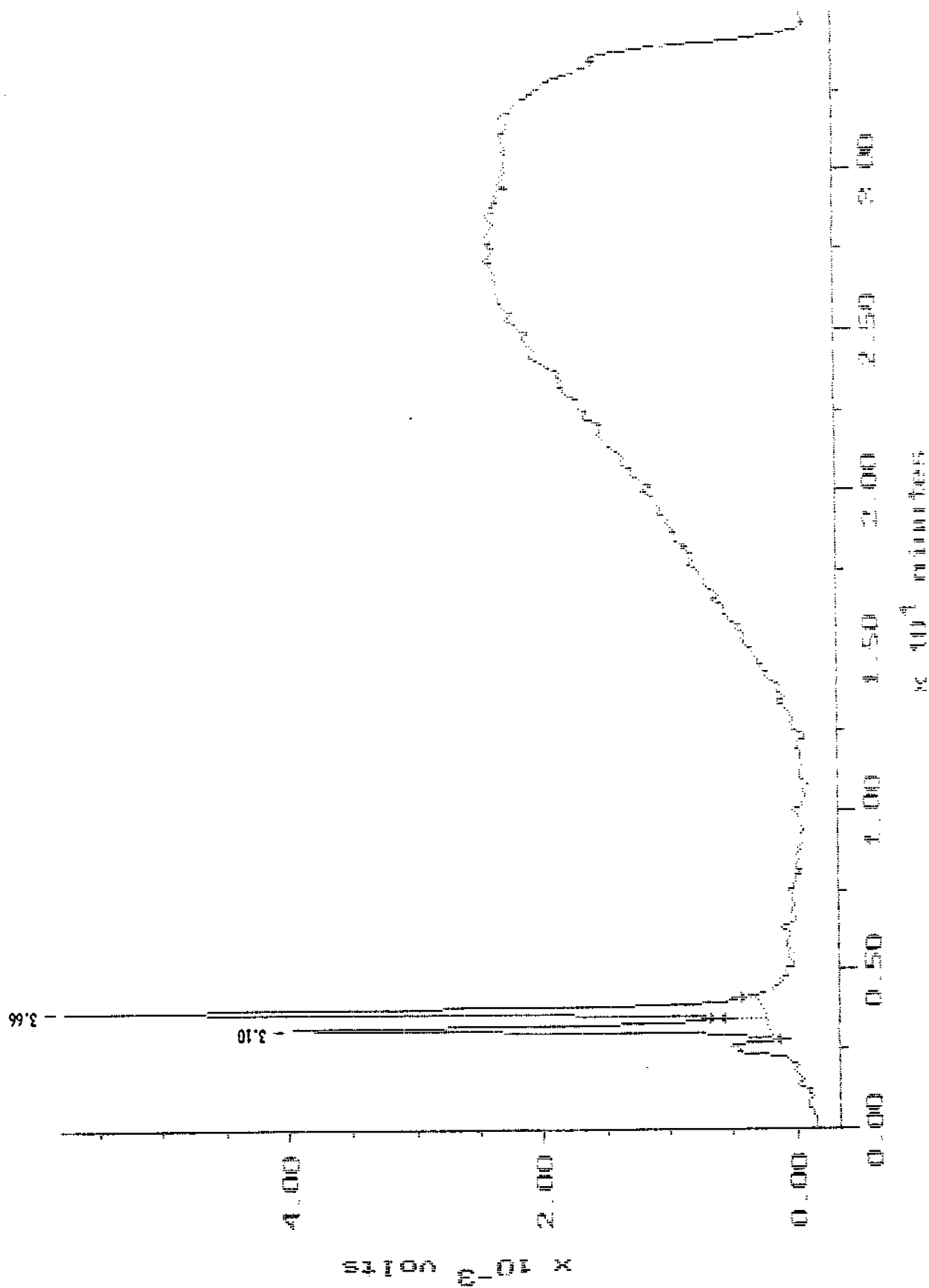
Amount: 1.000

DETECTOR: 254.0 nm

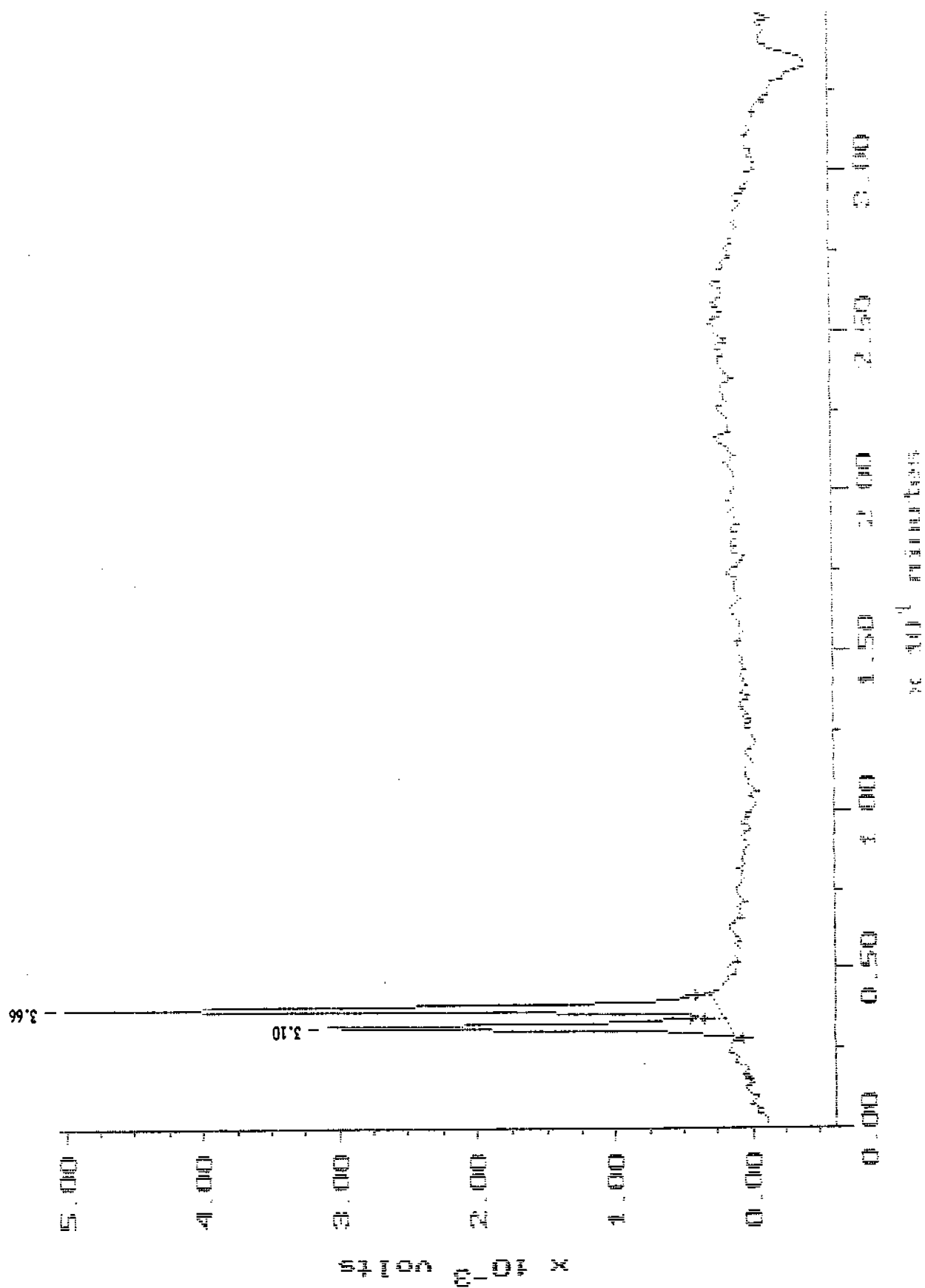
Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.846	3.096				60877	4201		BP
1.000	3.658				97336	7126		PS
TOTAL			0.00000	0.00000	158263	11327		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.846	3.096				45068	3216		BP
1.000	3.658				80928	6125		PS
TOTAL			0.00000	0.00000	125996	9341		



Sample: INST BLANK 3
 Acquired: 11-AUG-93 10:58
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Operator: ---
 Filename: INSTBLK3



Sample: INST BLANK 3
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Acquired: 11-AUG-93 10:58
 Dilution: 1 : 1.000
 Amount: 1.000
 File name: INSTBLK3
 Operator: —

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:04:36

SAMPLE: INST BLANK 3

#26 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 10:58

Rate: 0.7 points/sec

Duration: 34.991 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: INSTBLK3

Index: Disk

Dilution: 1.000

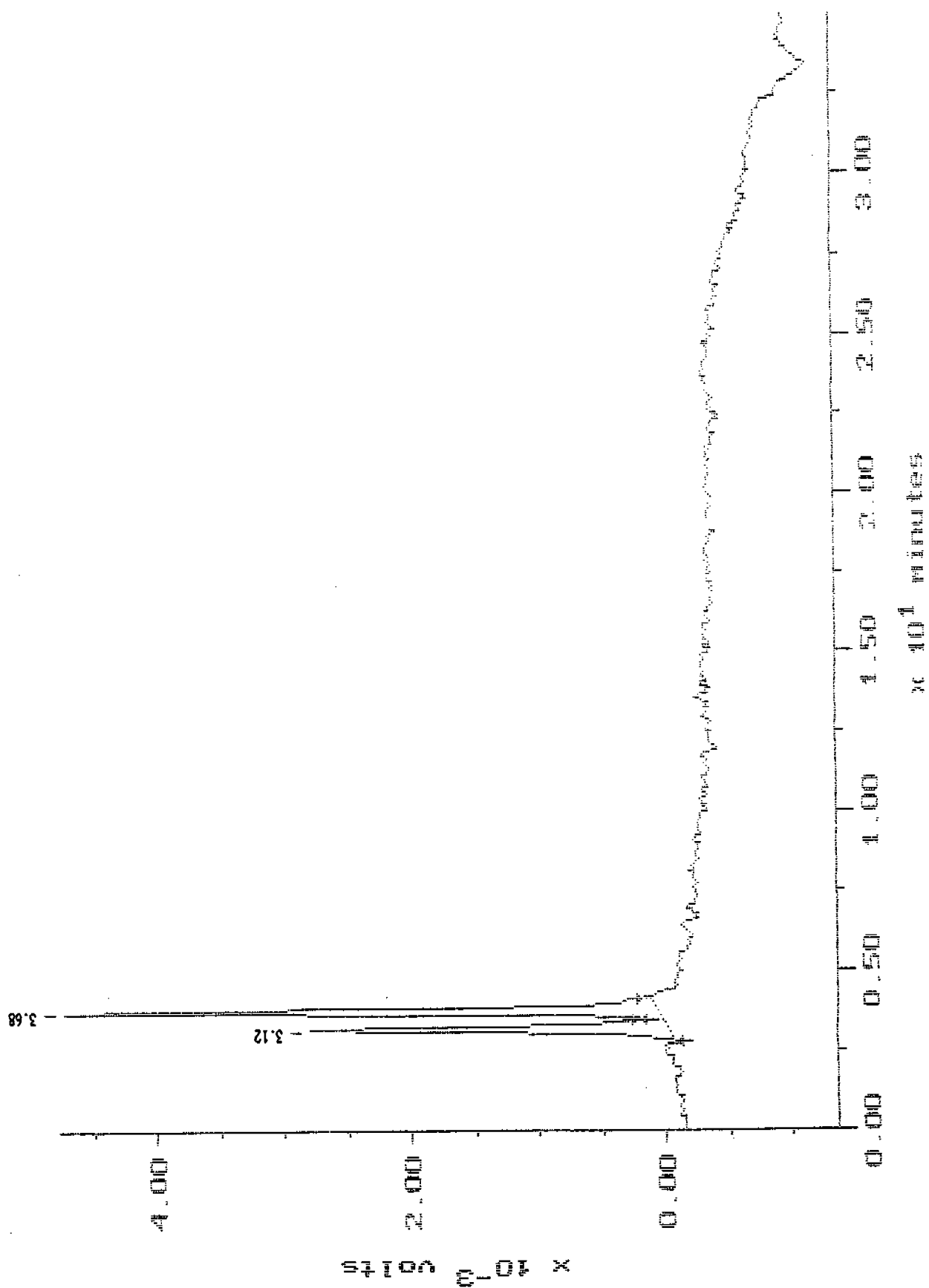
Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.846	3.096				53604	3746		BP
1.000	3.639				74154	5515		PB
TOTAL			0.00000	0.00000	127758	9260		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.846	3.096				41127	2913		BP
1.000	3.639				64056	4766		PB
TOTAL			0.00000	0.00000	105183	7684		



Filename: INSTRBLK4
Operator: —

Sample: INST BLANK 4
Acquired: 11-AUG-93 17:08
Dilution: 1 : 1.000
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 14:09:20

SAMPLE: INST BLANK 4

#36 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 17:08

Rate: 0.7 points/sec

Duration: 34.982 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: INSTBLK4

Index: Disk

Dilution: 1.000

Amount: 1.000

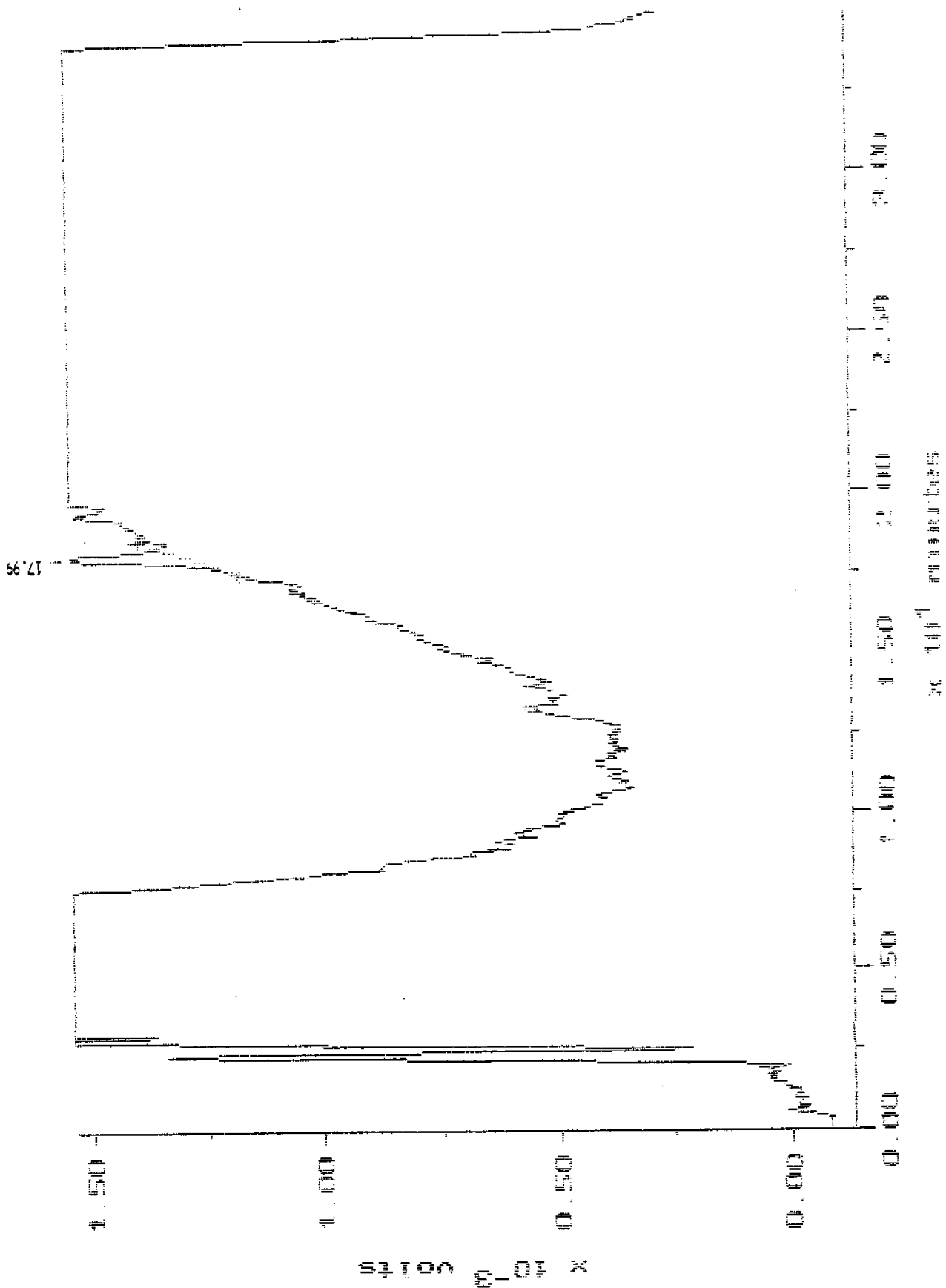
DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.847	3.118				50931	3622		BP
1.000	3.681				71030	5386		PB
TOTAL			0.00000	0.00000	121961	9007		

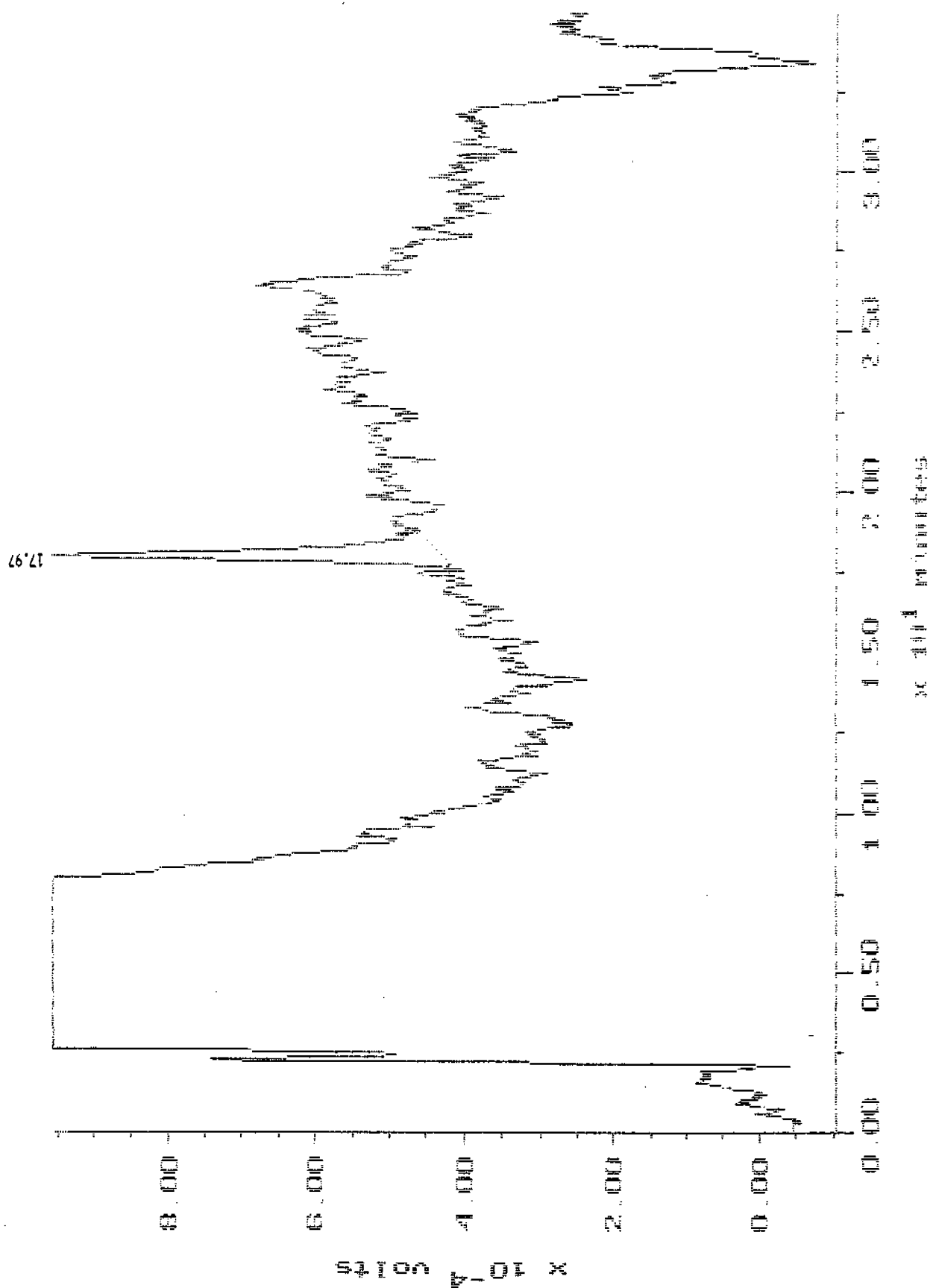
DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
0.847	3.118				40020	2830		BP
1.000	3.681				61957	4683		PB
TOTAL			0.00000	0.00000	101978	7513		

METHOD BLANKS



Sample: 9202 BLANK
 Acquired: 10-AUG-93 23:52
 Dilution: 1 : 1.000
 Channel: 254.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: 9202BLK
 Operator: ---



Sample: 9202 BLAK
 Acquired: 10-AUG-93 23:52
 Dilution: 1 : 1.000
 Channel: 275.0 nm
 Method: 9202 REVERSE PHASE
 Amount: 1.000
 Filename: 9202BLK
 Operator: ---

MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:57:38

SAMPLE: 9202 BLANK

#8 in Method: 9202 REVERSE PHASE

Acquired: 10-AUG-1993 23:52

Rate: 0.7 points/sec

Duration: 34.993 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9202BLK

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

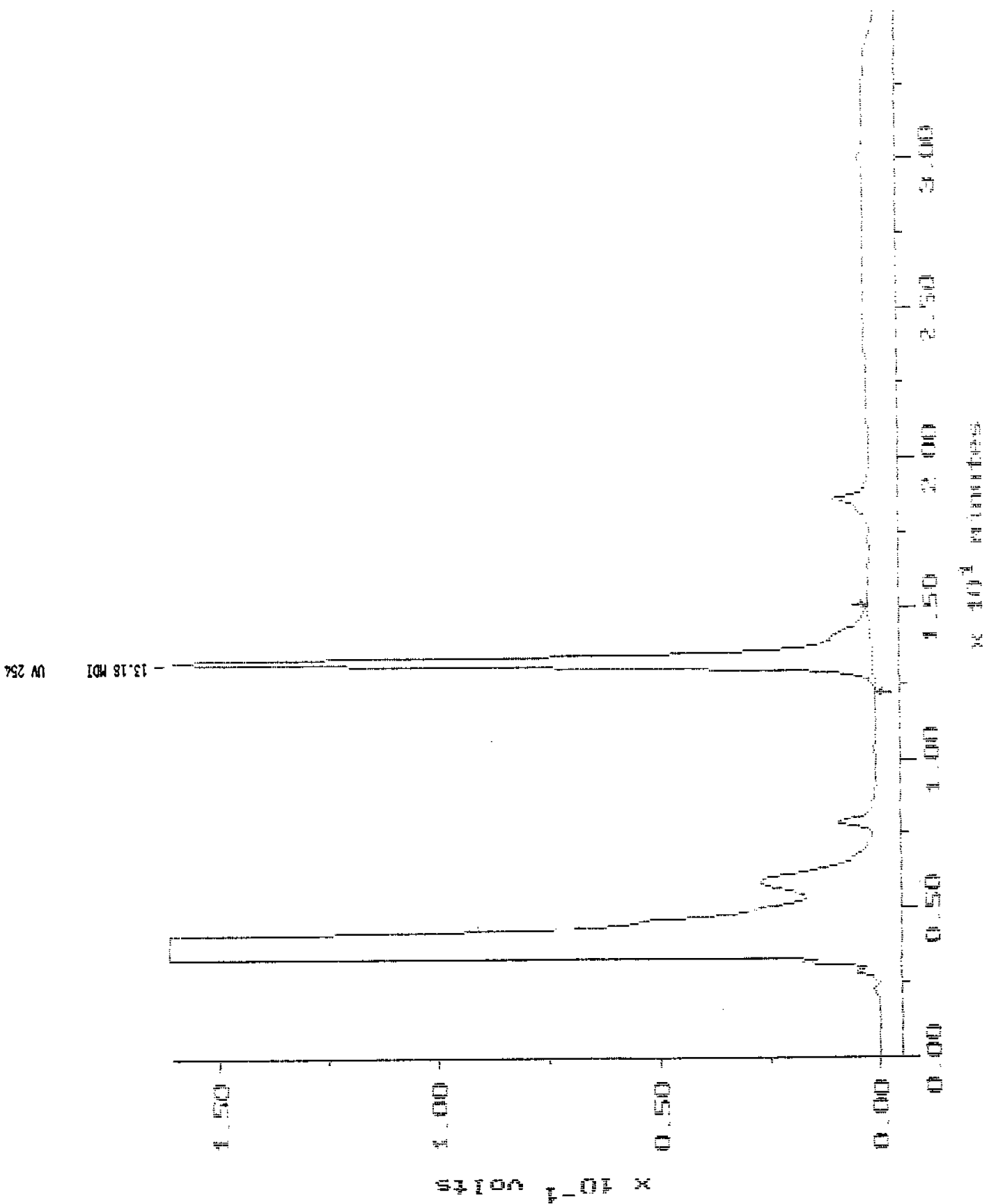
Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	17.389				5083	241		SS
TOTAL			0.00000	0.00000	5083	241		

DETECTOR: 275.0 nm

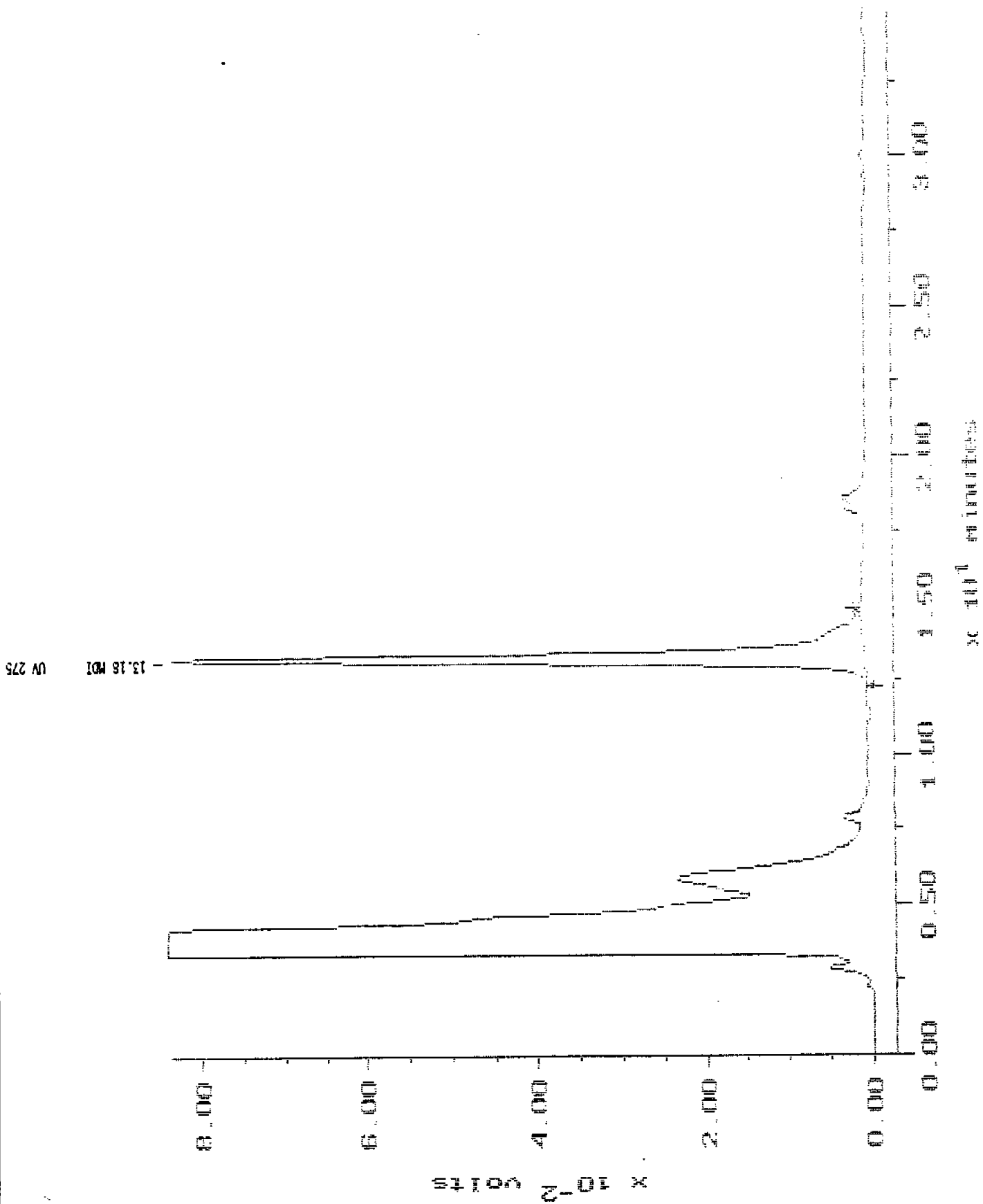
Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	17.966				11842	515		SS
TOTAL			0.00000	0.00000	11842	515		

METHOD SPIKES

Sample: 9202 SPIKE 1
Acquired: 11-AUG-93 0:29
Channel: 256.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: 9202SPK1



Sample: 9202 SPIKE 1
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Acquired: 11-AUG-93 0:29
Operator: —
Filename: 9202SPK1



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:57:56

SAMPLE: 9202 SPIKE 1

#9 in Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 0:29

Rate: 0.7 points/sec

Duration: 34.983 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9202SPK1

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.177	MDI UV 254	29.56246	29.56246	4238680	158412	0.00000697	28
TOTAL			29.56246	29.56246	4238680	158412		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.177	MDI UV 275	29.10468	29.10468	2189134	82412	0.00001330	28
TOTAL			29.10468	29.10468	2189134	82412		

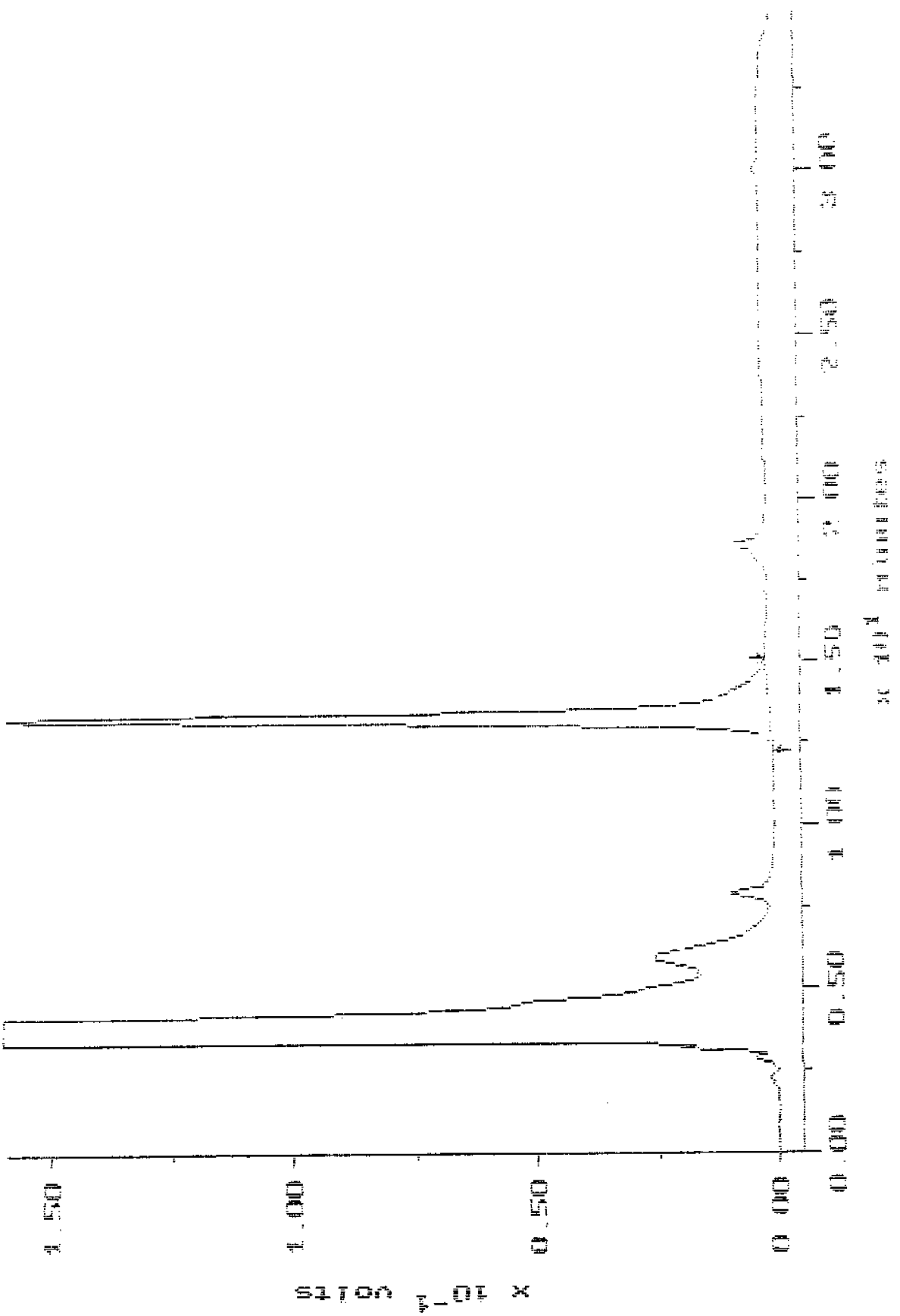
MDI µg % Rec
 UV 254 $29.6 \text{ µg/ml} \times 88 \text{ ml} = 2605 \text{ µg}$ $\frac{2605}{2038} \times 100\% = 128\%$
 UV 275 $29.1 \text{ µg/ml} \times 88 \text{ ml} = 2561 \text{ µg}$ $\frac{2561}{2038} \times 100\% = 126\%$

SAMPLE VOL. $82 \text{ ml} + 1 \text{ ml} + 5 \text{ ml} = 88 \text{ ml}$

SPIKE LEVEL $\Rightarrow 2 \text{ ml} \times 1.019 \frac{\text{mg}}{\text{ml}} = 2038 \text{ µg}$

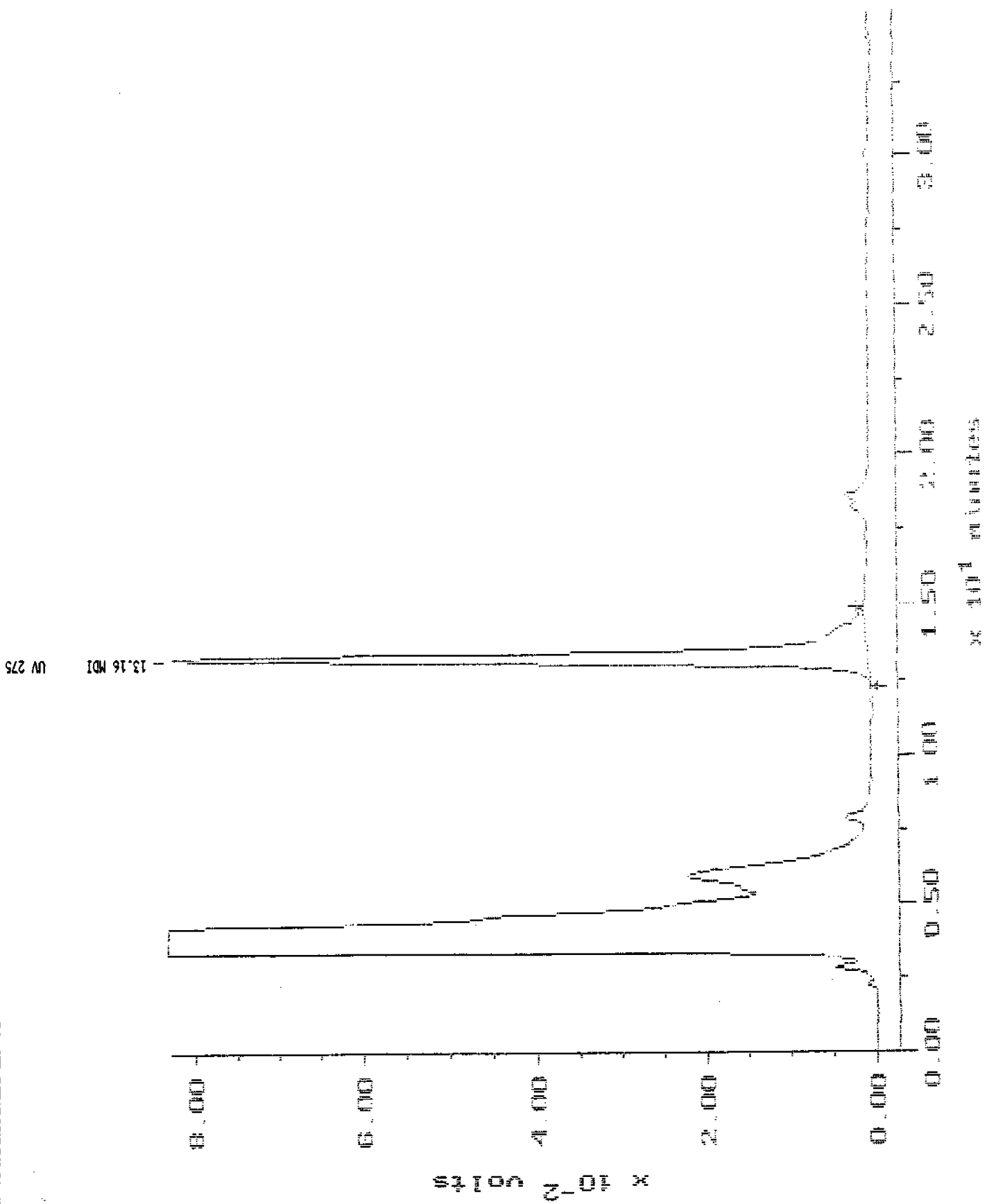
UV 254

13.16 MDI



Sample: 9202 SPIKE 2
Acquired: 11-AUG-93 1:06
Dilution: 1 : 1.000
Channel: 254.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Operator: ---
Filename: 9202SPK2

Sample: 9202 SPIKE 2
Acquired: 11-AUG-93 1:06
Channel: 275.0 nm
Method: 9202 REVERSE PHASE
Amount: 1.000
Dilution: 1 : 1.000
Operator: ---
Filename: 9202SPK2



MAXIMA 820 CUSTOM REPORT

Printed: 29-OCT-1993 13:53:37

SAMPLE: 9202 SPIKE 2

#10 In Method: 9202 REVERSE PHASE

Acquired: 11-AUG-1993 1:06

Rate: 0.7 points/sec

Duration: 34.991 minutes

Operator: ---

Type: UNKN

Instrument: Waters 990

Filename: 9202SPK2

Index: Disk

Dilution: 1.000

Amount: 1.000

DETECTOR: 254.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.157	MDI UV 254	28.99872	28.99872	4157852	156941	0.00000697	38
TOTAL			28.99872	28.99872	4157852	156941		

DETECTOR: 275.0 nm

Relative Time	Retention Time (minutes)	Component Name	Original Conc (ug/ml)	Solution Conc (ug/ml)	Peak Area	Peak Height	Response Factor	Type
1.000	13.157	MDI UV 275	28.59690	28.59690	2150941	81687	0.00001330	38
TOTAL			28.59690	28.59690	2150941	81687		

MDIµg% Rec

UV 254 29.0 µg/ml × 90 ml = 2610 µg 2610/2038 × 100% = 128%

UV 275 28.6 µg/ml × 90 ml = 2574 µg 2574/2038 × 100% = 126%

SAMPLE VOL. = 84ml + 1ml + 5ml = 90 ml

SPIKE LEVEL = 2ml × 1.019 ¹³⁰mg/ml = 2038 µg