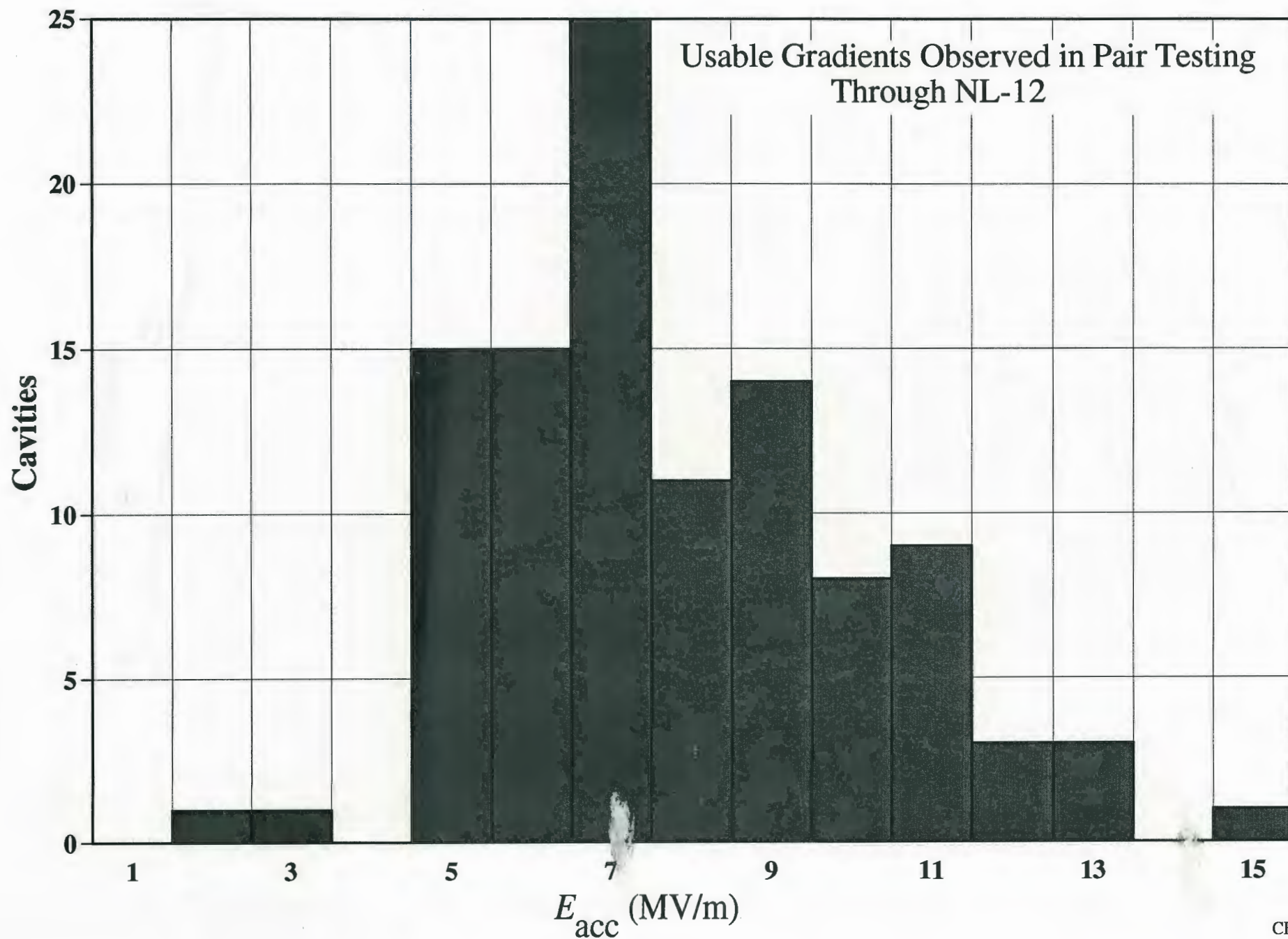
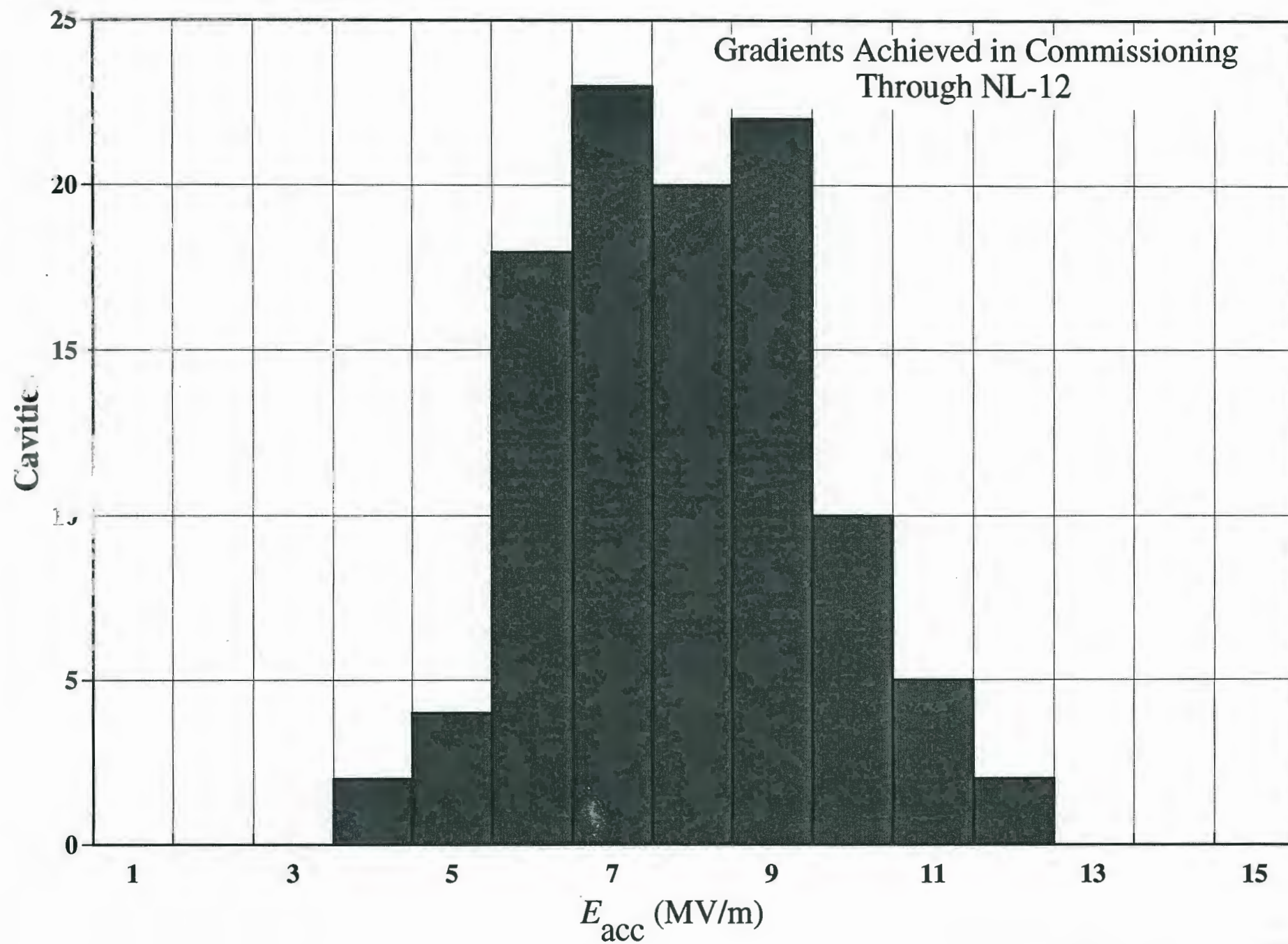
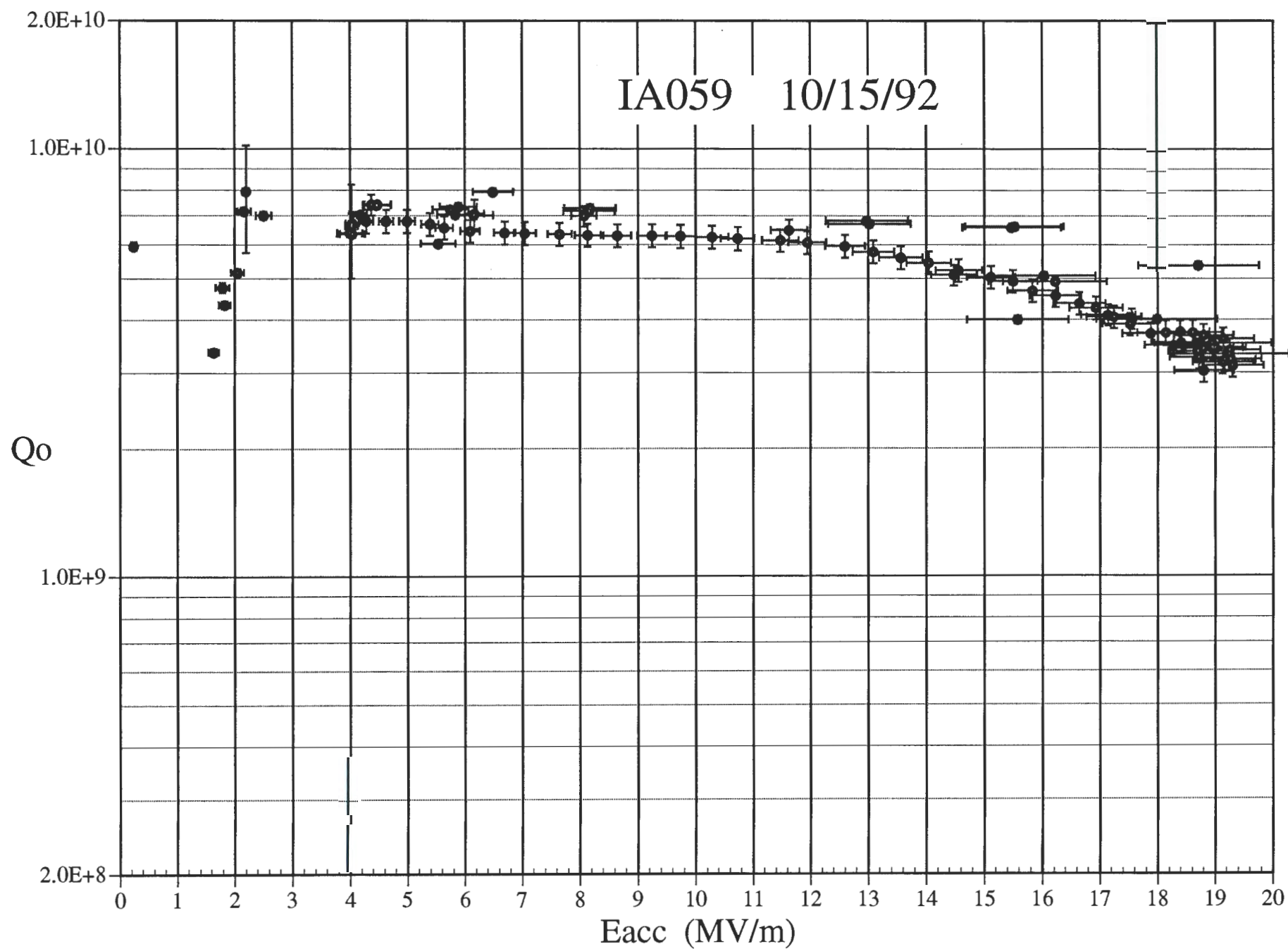
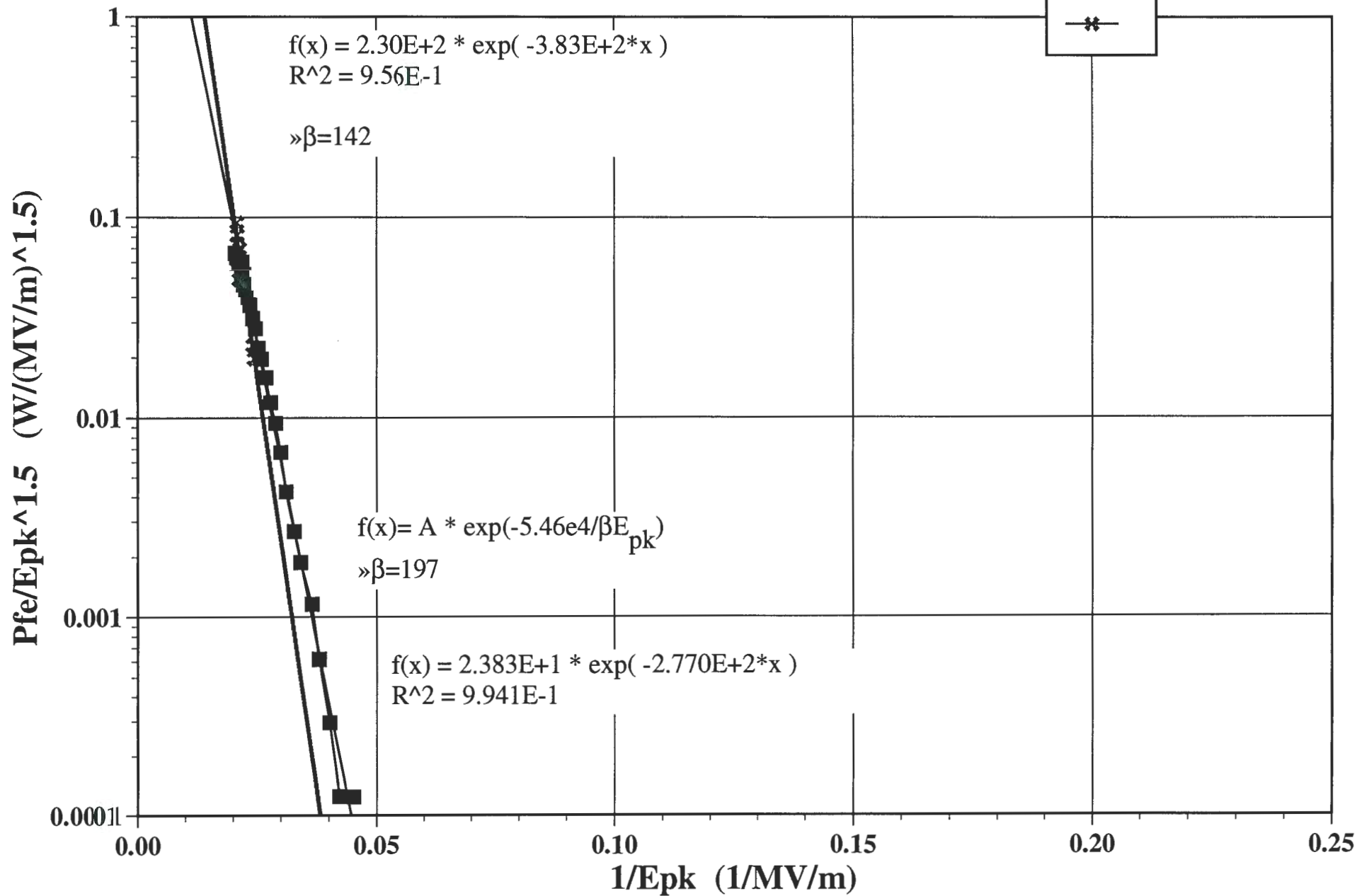


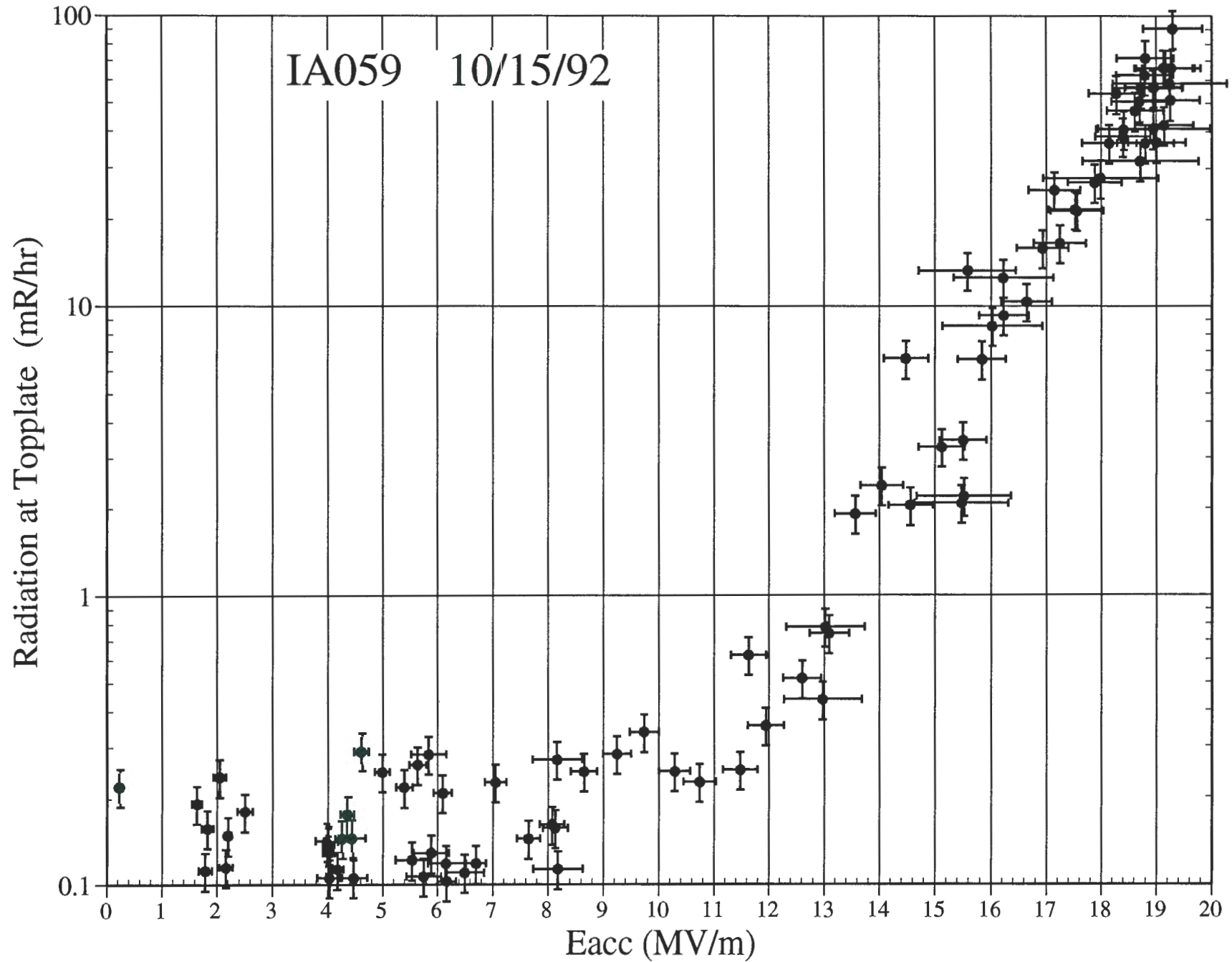




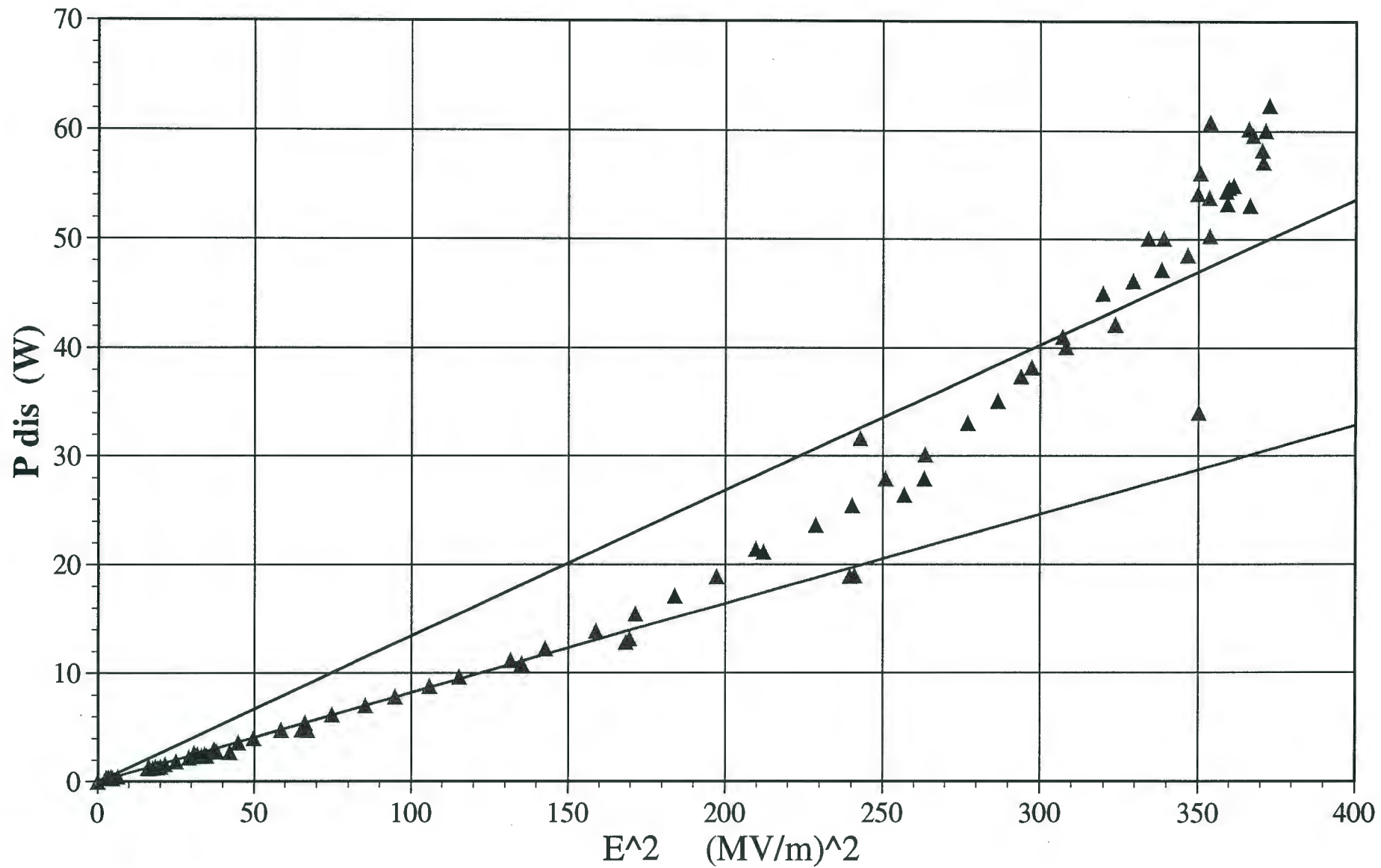


IA059 10/15/92



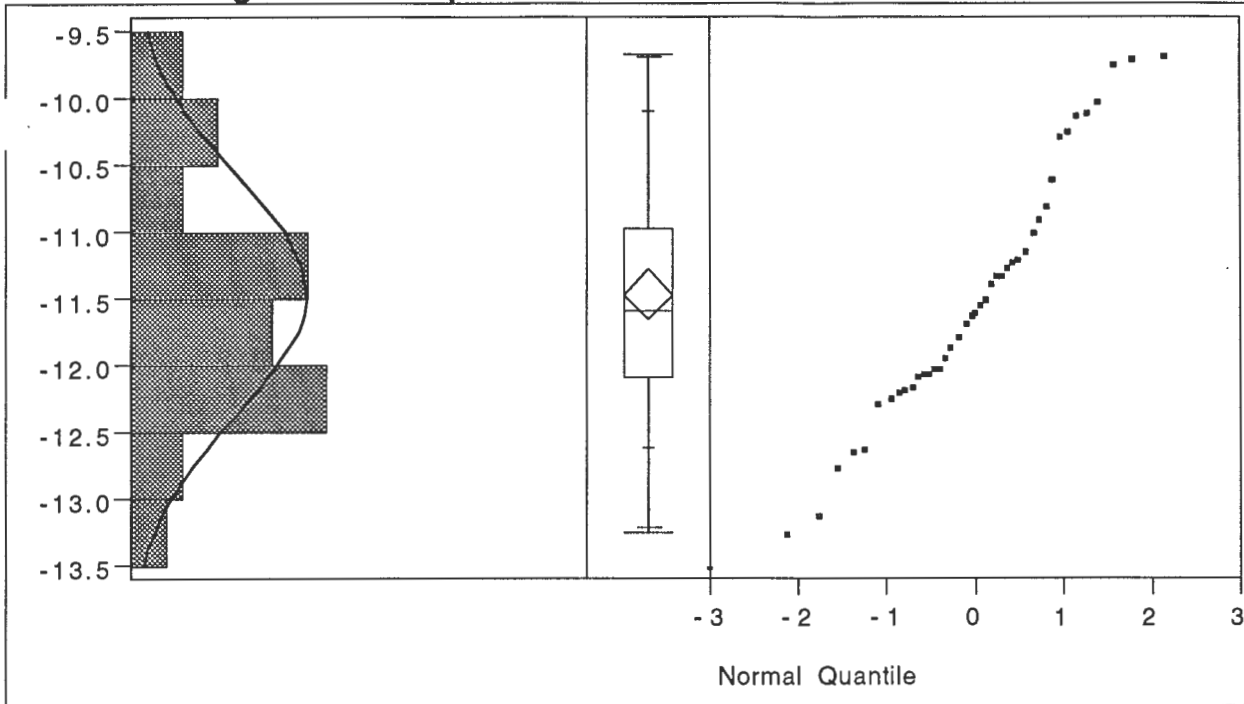


IA059 10/15/92



Common Log of Desorption test

all → 10/20/92



Quantiles

maximum	100.0%	-9.678
	99.5%	-9.678
	97.5%	-9.684
	90.0%	-10.092
quartile	75.0%	-10.972
median	50.0%	-11.585
quartile	25.0%	-12.083
	10.0%	-12.602
	2.5%	-13.212
	0.5%	-13.252
minimum	0.0%	-13.252

Moments

Mean	-11.46508
Std Dev	0.90150
Std Err Mean	0.09503
upper 95% Mean	-11.27626
lower 95% Mean	-11.65390
N	90.00000
Sum Wgts	90.00000

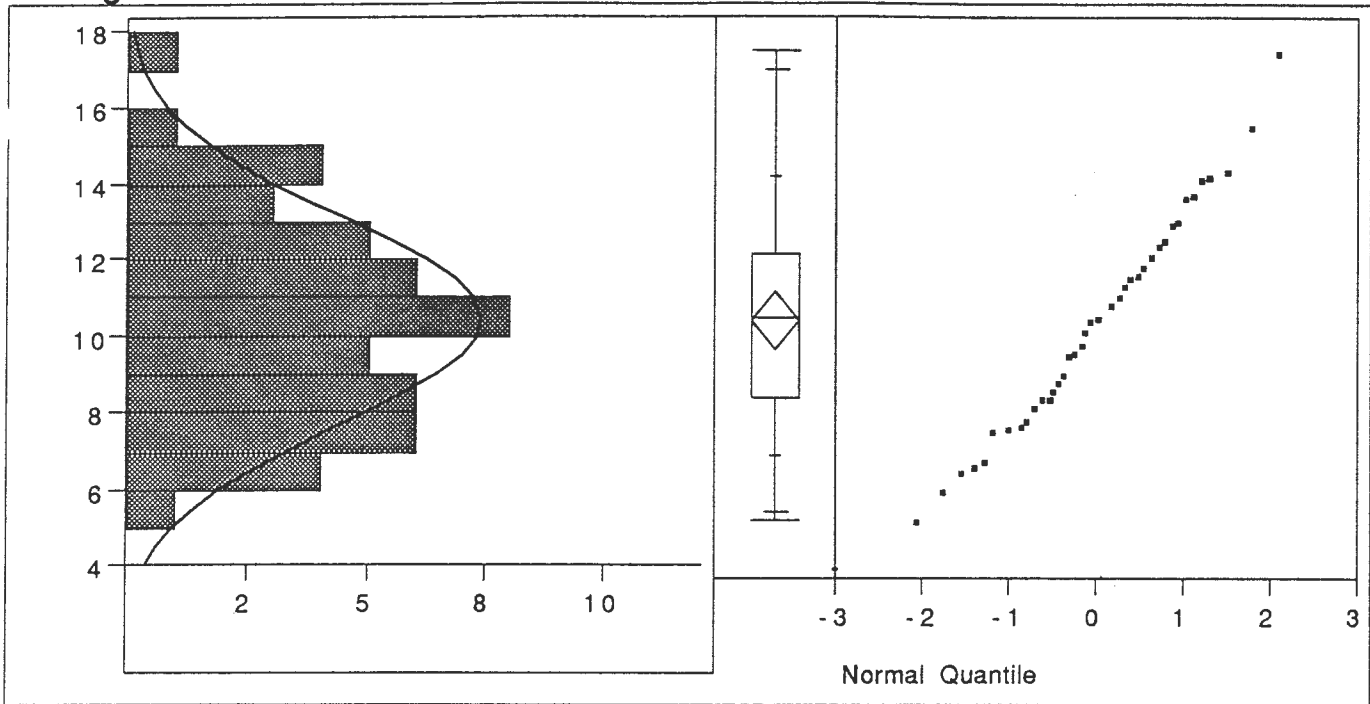
Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.945526	0.0020

6/1/92 - 10/20/92

Use grad



Quantiles

maximum	100.0%	17.500
	99.5%	17.500
	97.5%	16.950
	90.0%	14.190
quartile	75.0%	12.170
median	50.0%	10.500
quartile	25.0%	8.350
	10.0%	6.870
	2.5%	5.420
	0.5%	5.200
minimum	0.0%	5.200

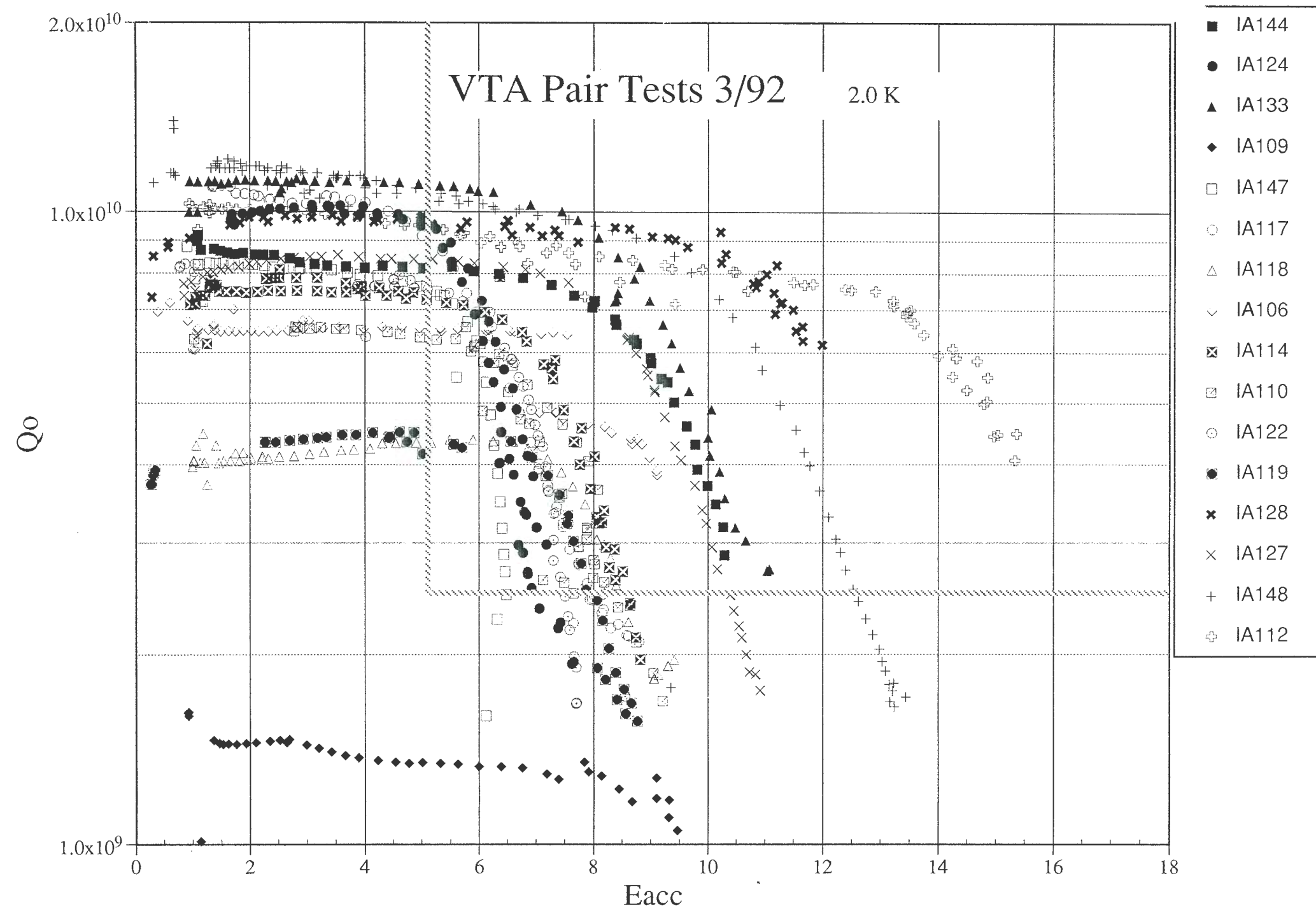
Moments

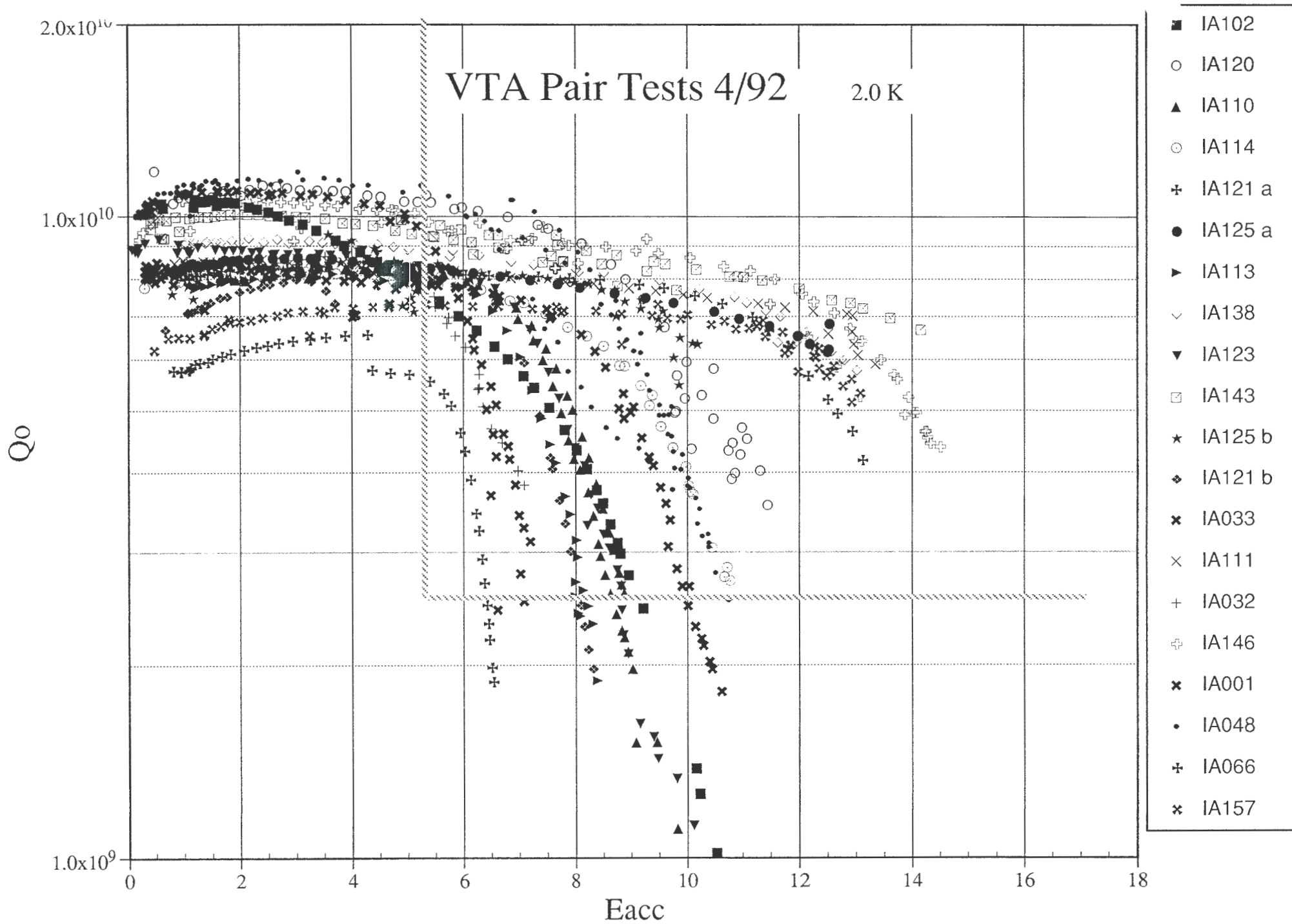
Mean	10.41180
Std Dev	2.68417
Std Err Mean	0.37960
upper 95% Mean	11.17463
lower 95% Mean	9.64897
N	50.00000
Sum Wgts	50.00000

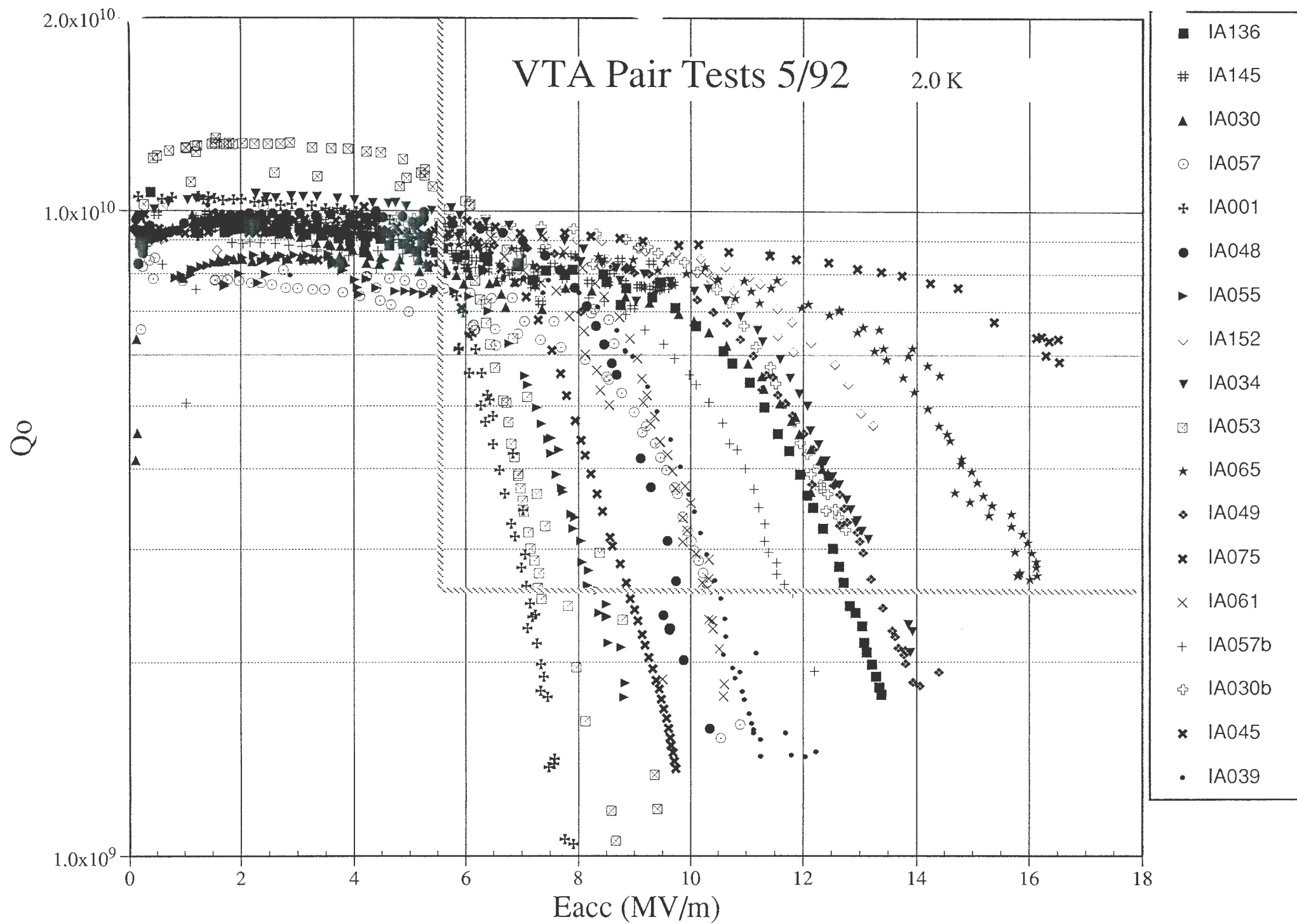
Test for Normality

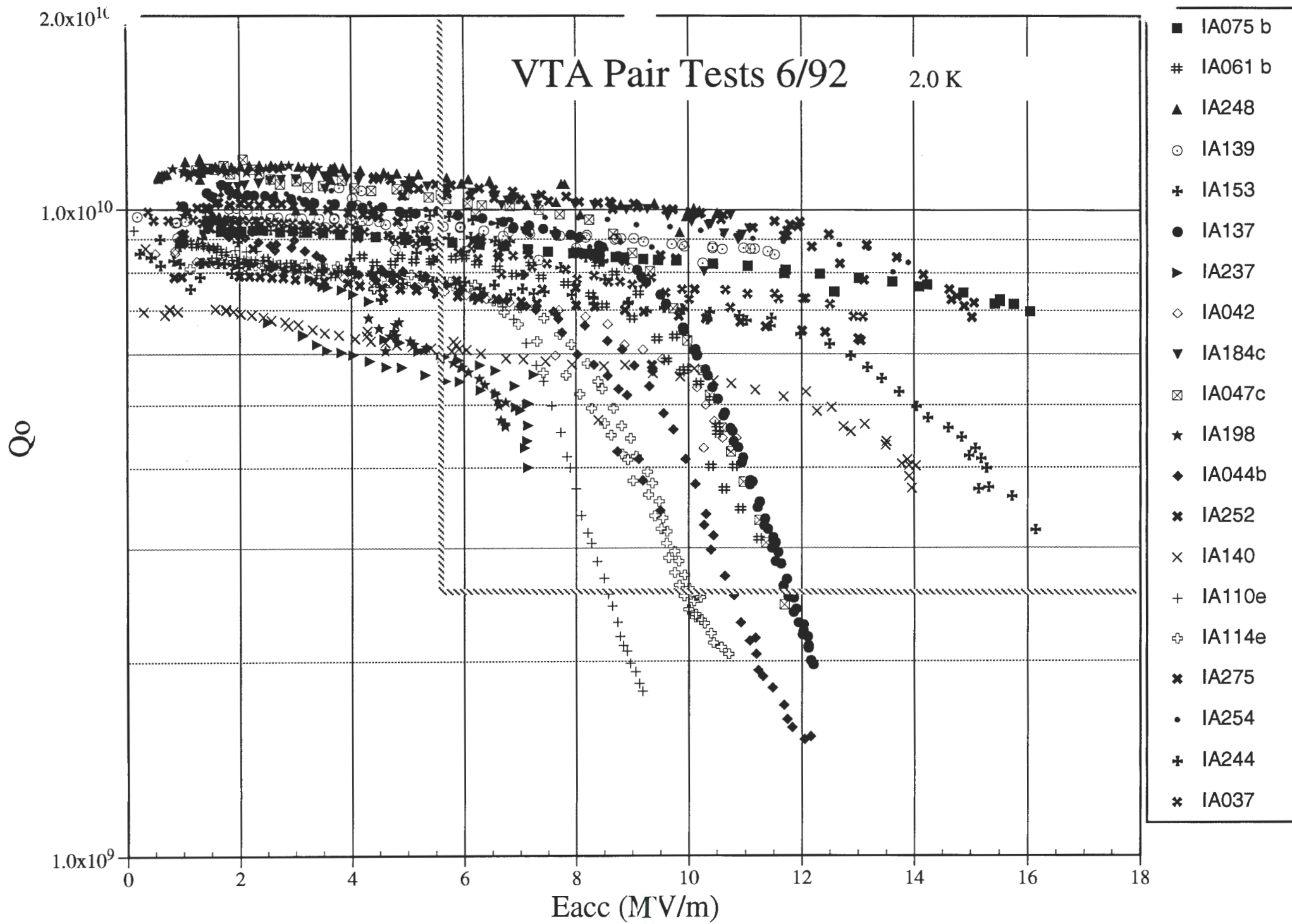
Shapiro-Wilk W Test

W	Prob<W
0.980442	0.7443

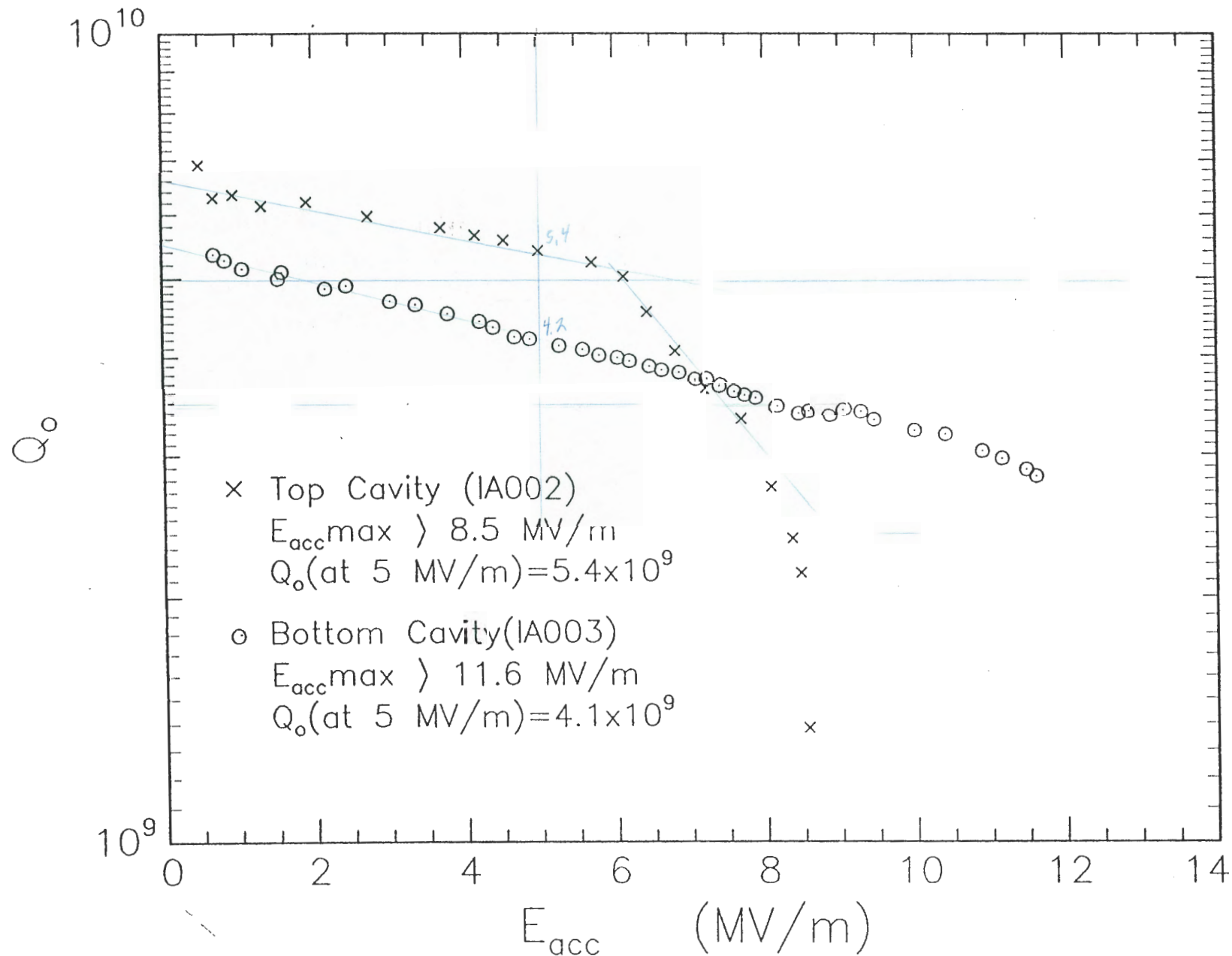




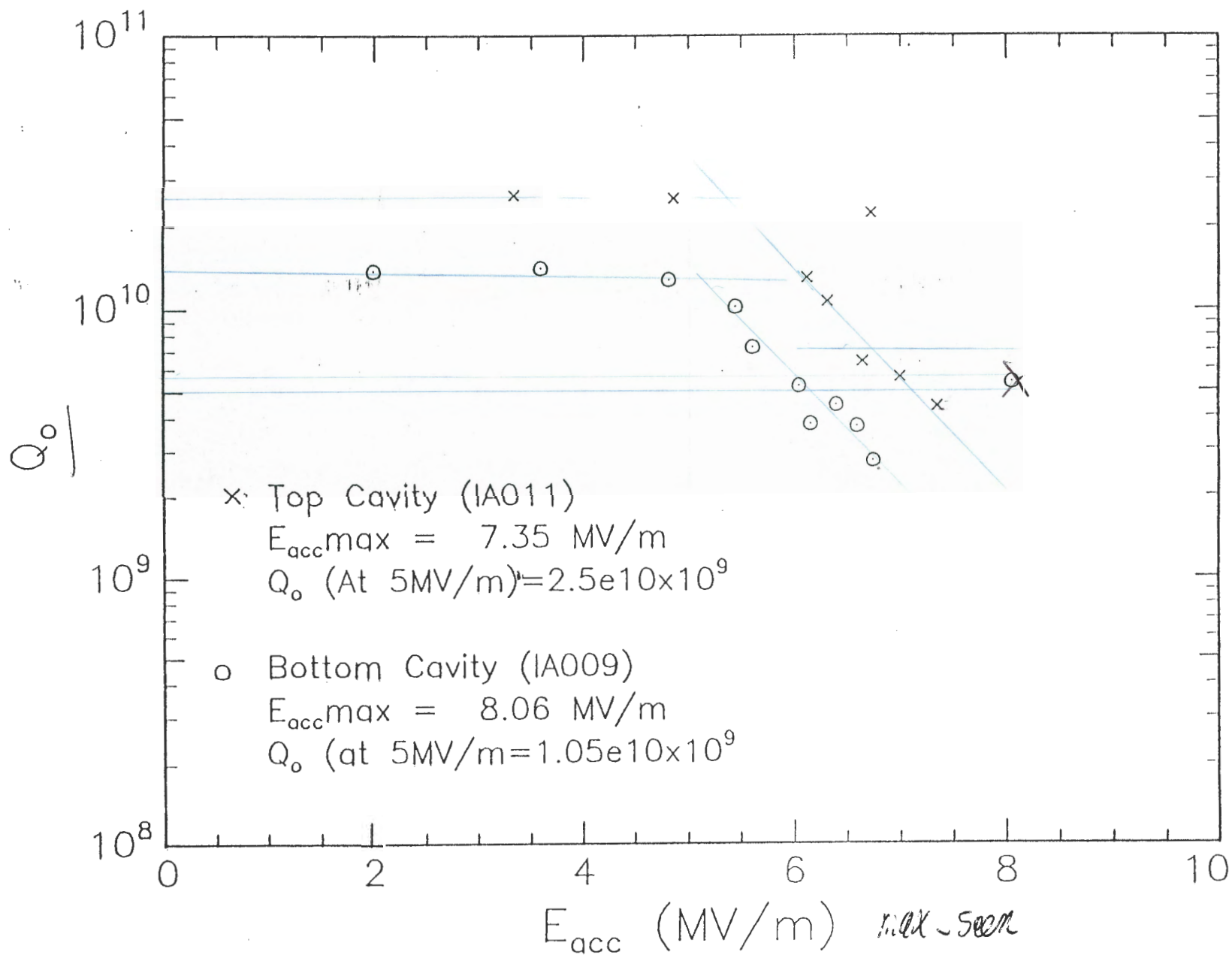




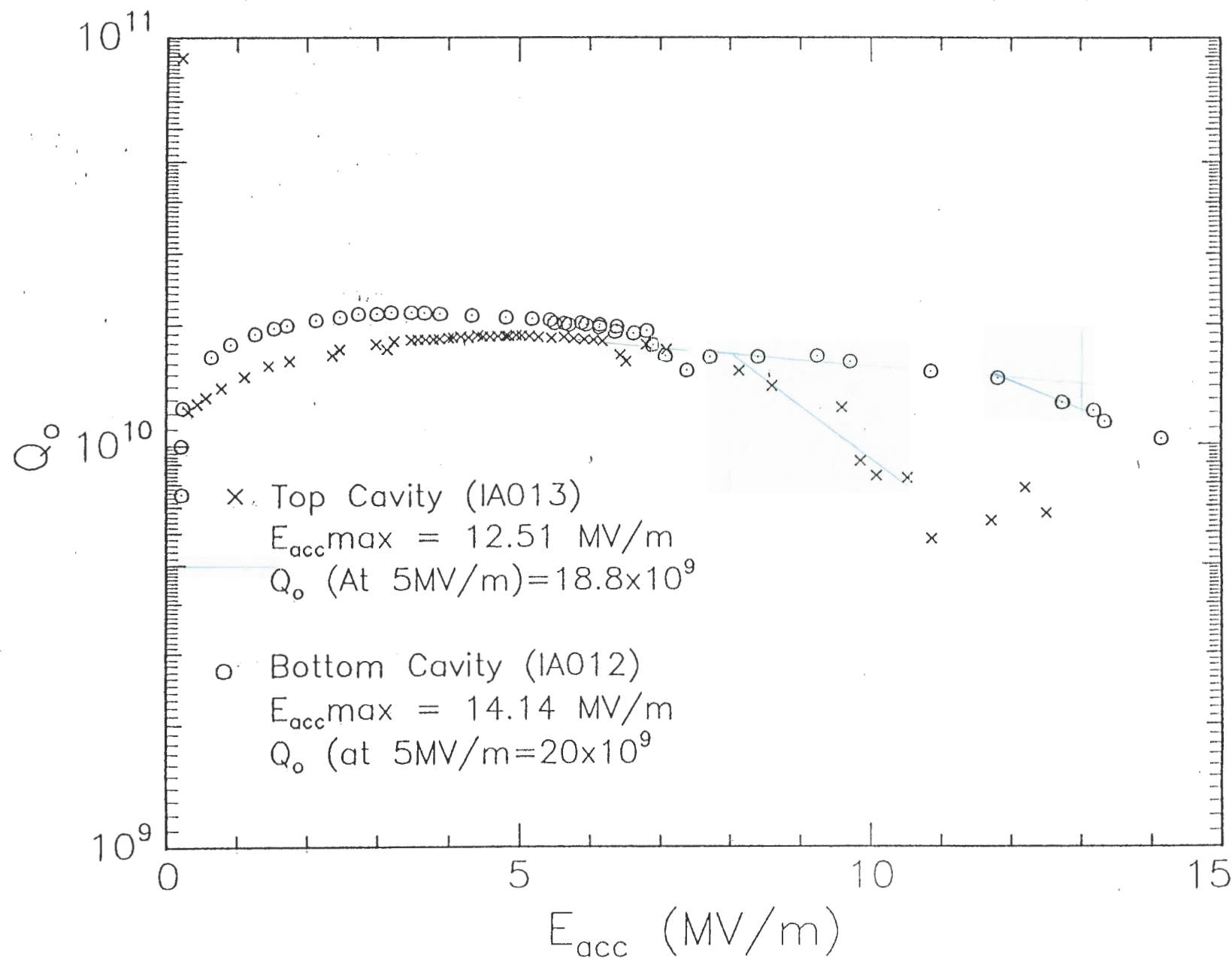
Result of Vertical Cavity Test May/25/90



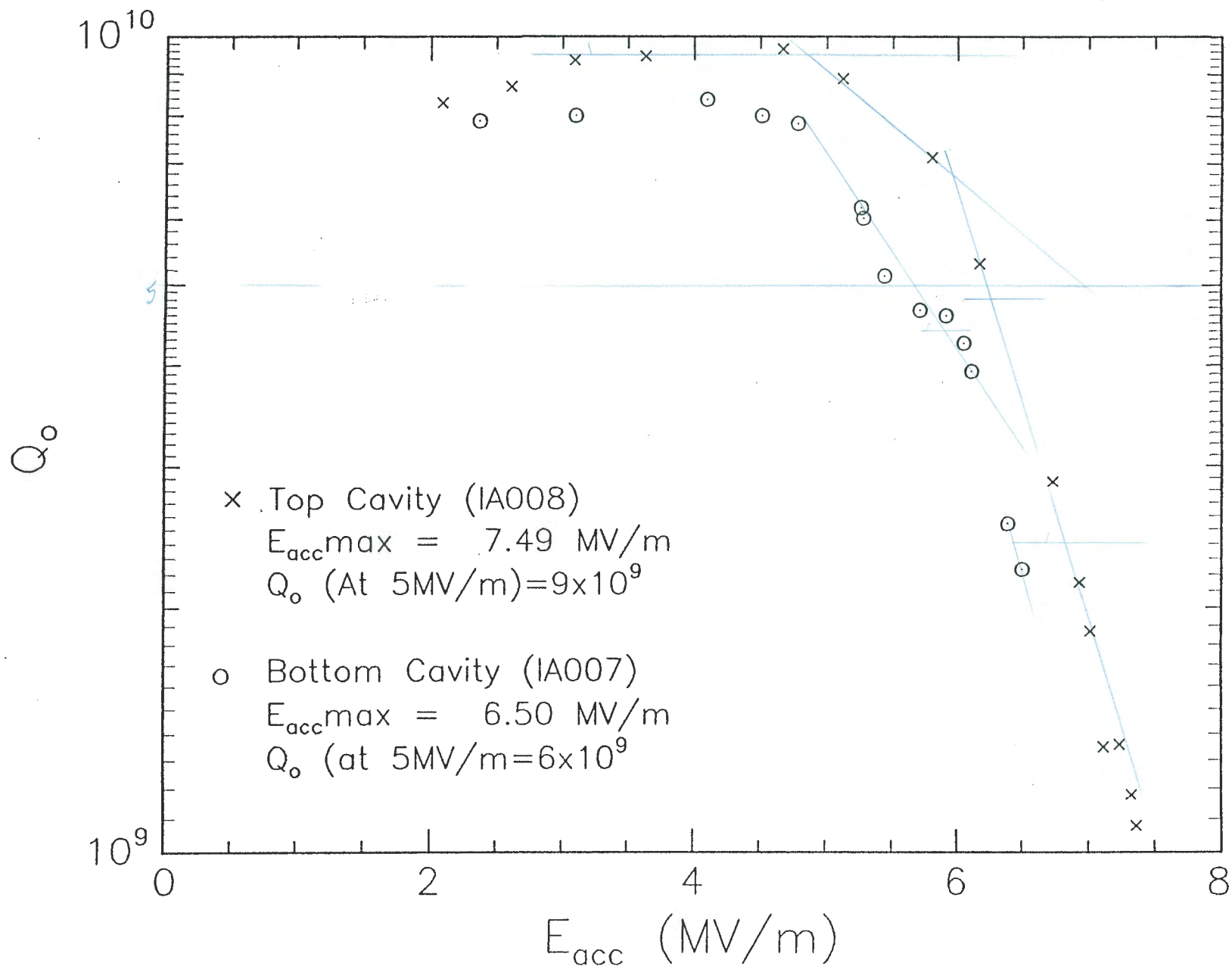
Result of Vertical Cavity Test 8/17/90



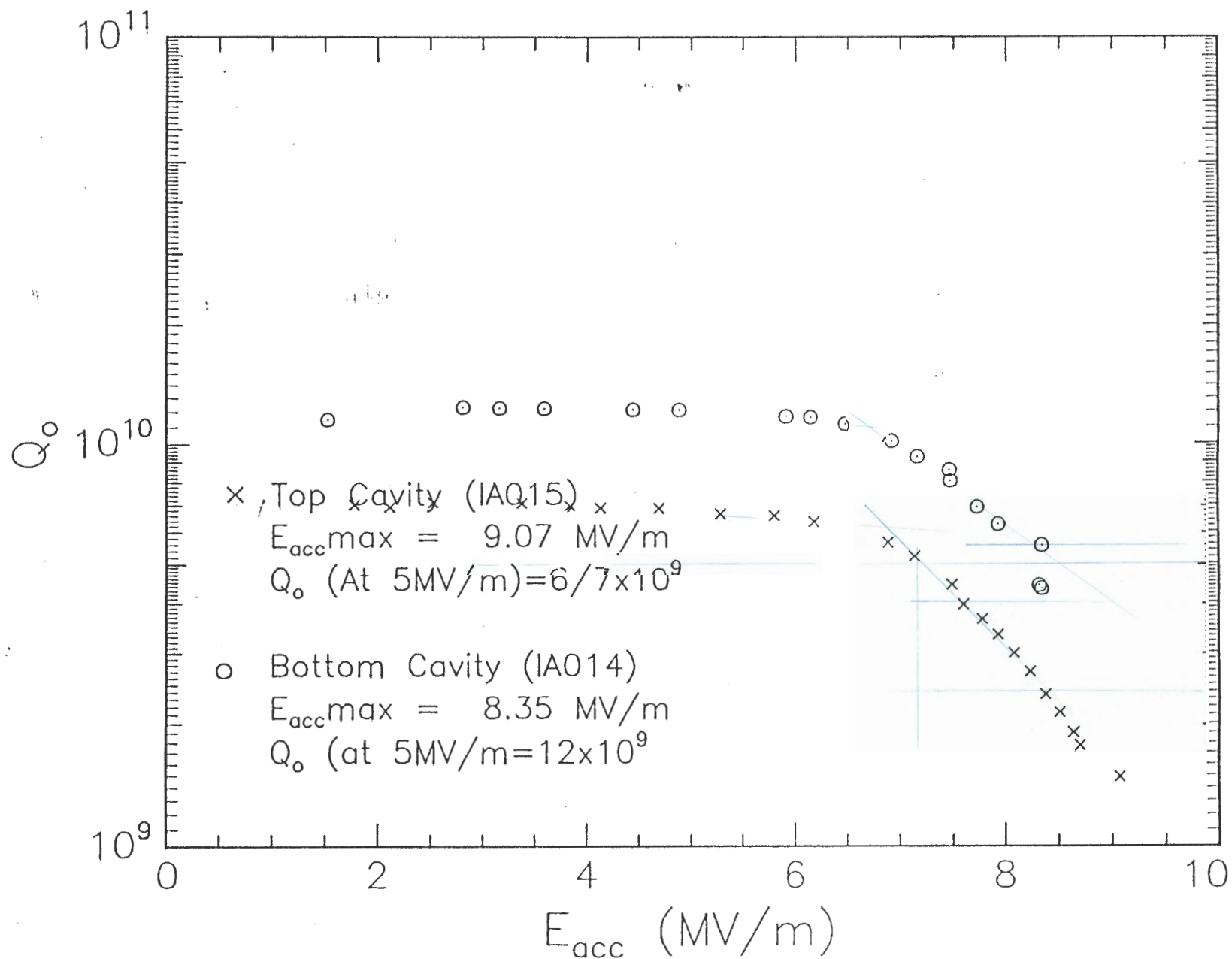
Result of Vertical Cavity Test 8/27/90



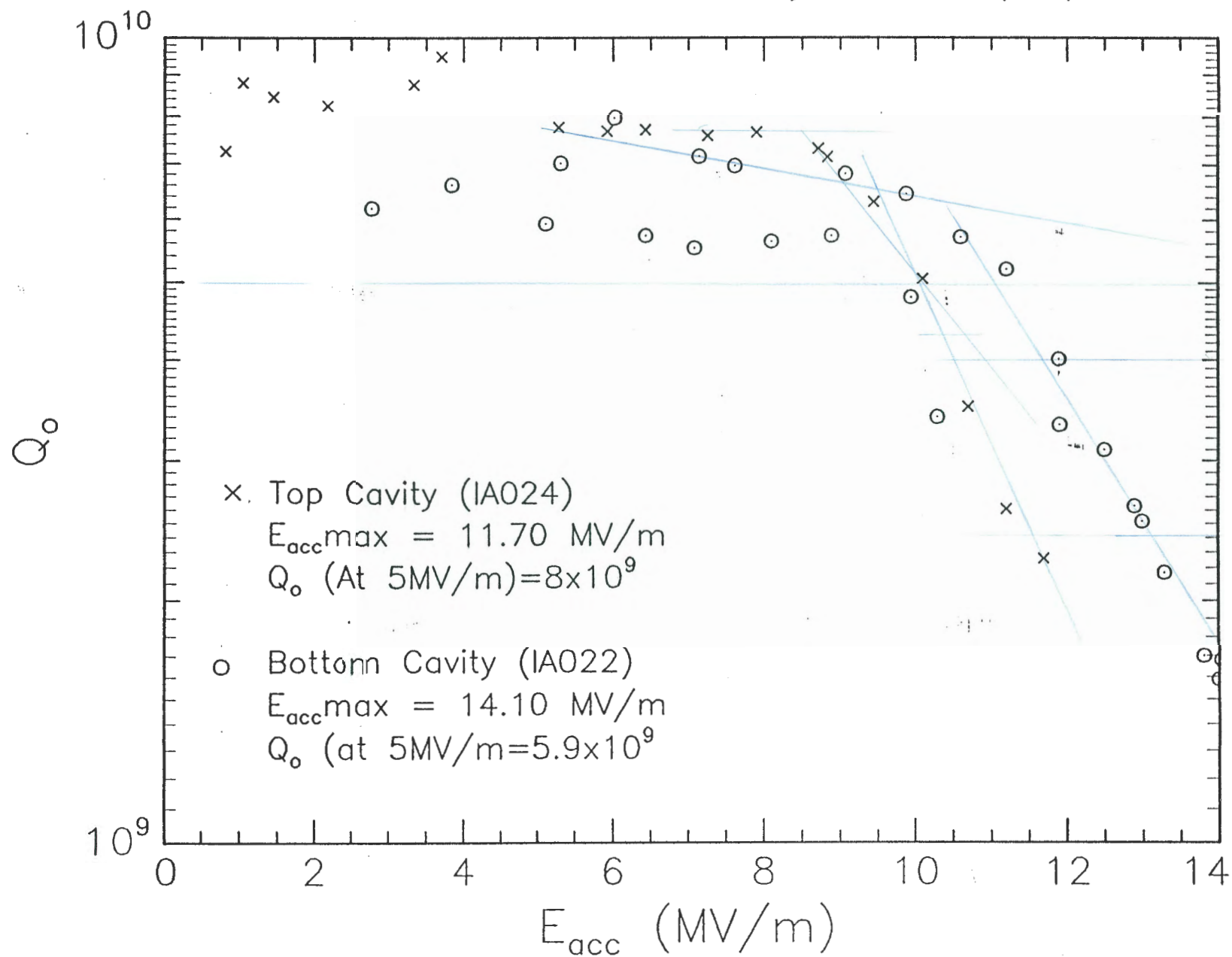
Result of Vertical Cavity Test 10/10/90



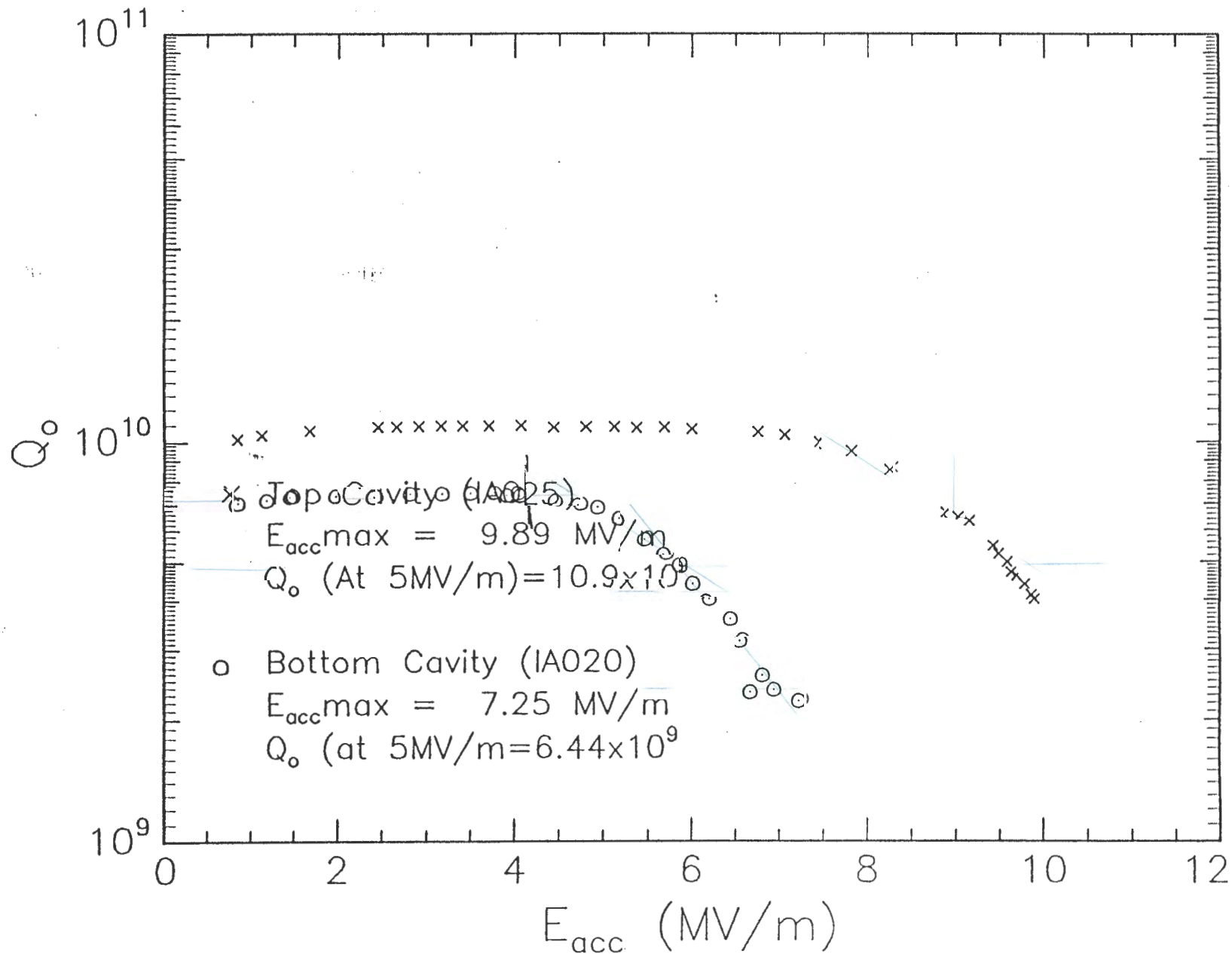
Result of Vertical Cavity Test 11/12/90



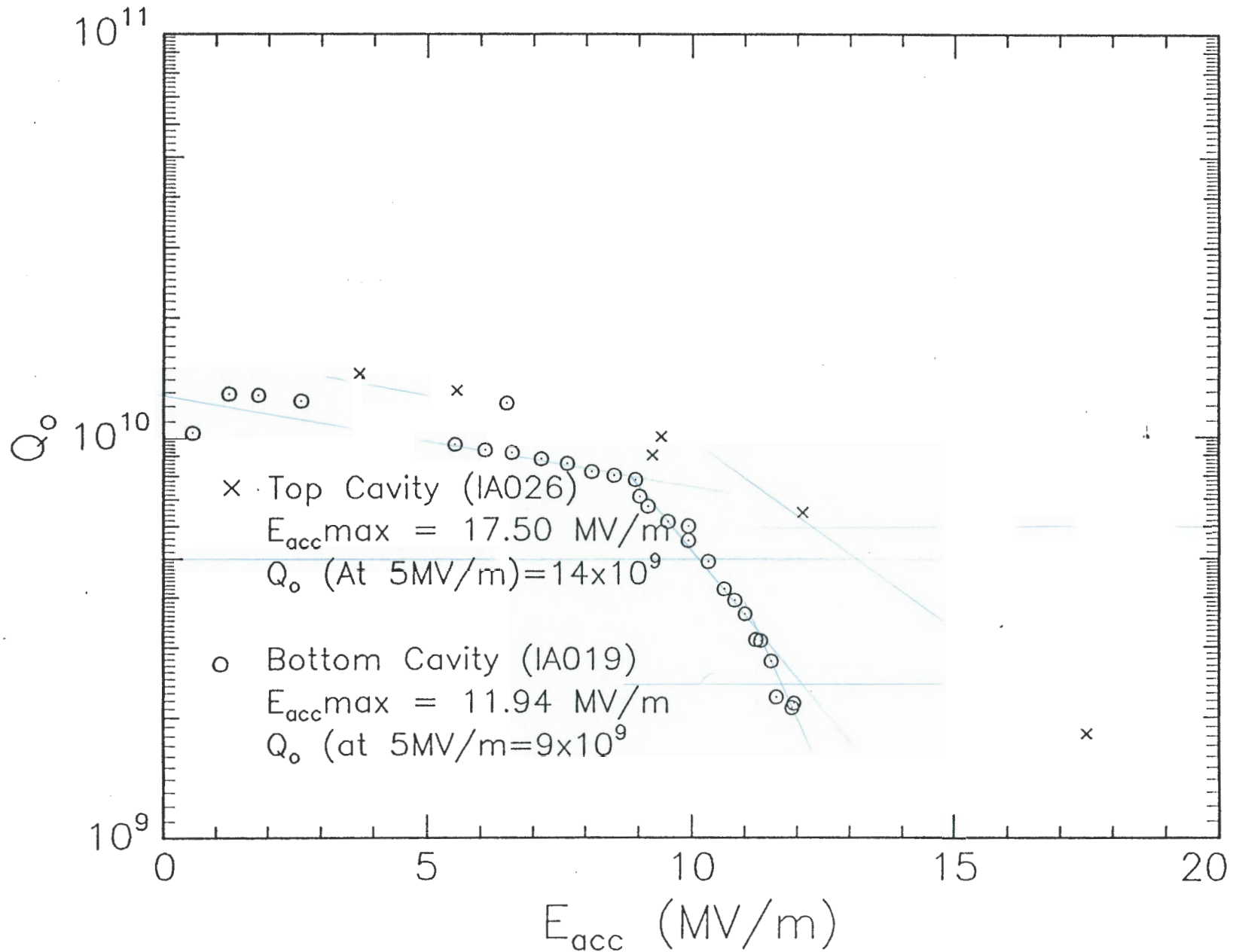
Result of Vertical Cavity Test 2/4/91



Result of Vertical Cavity Test 2/14/91

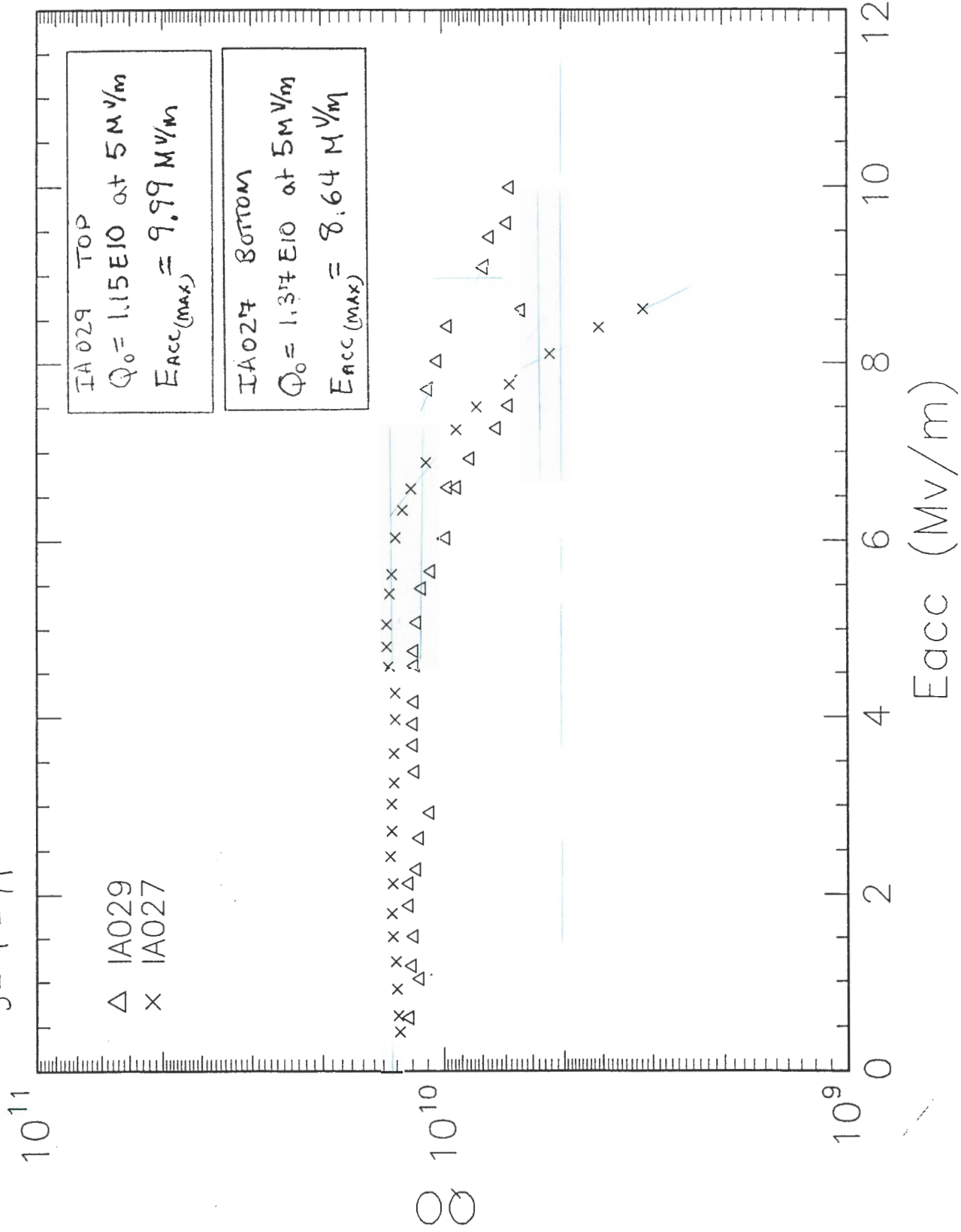


Result of Vertical Cavity Test 3/4/91

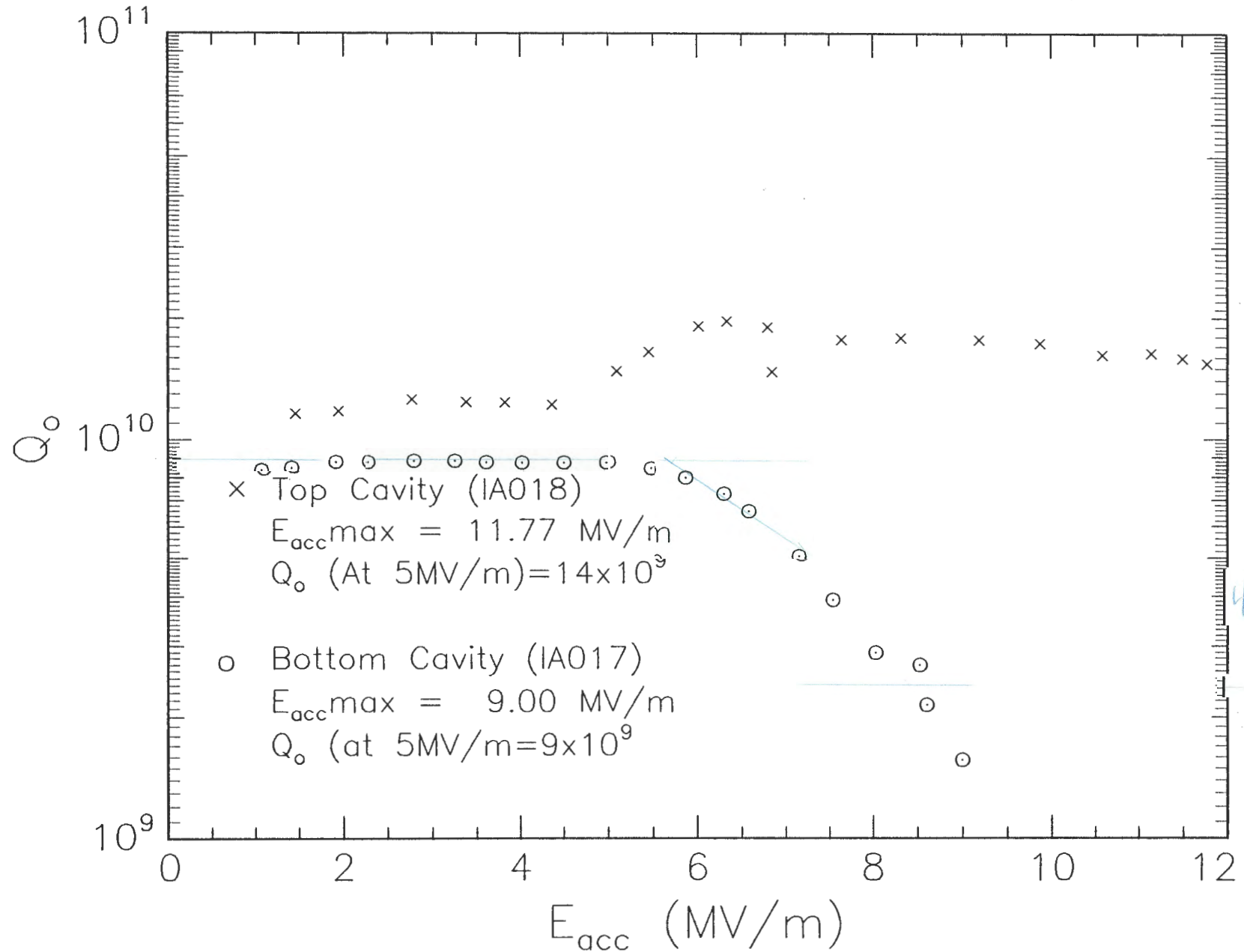


3-7-91

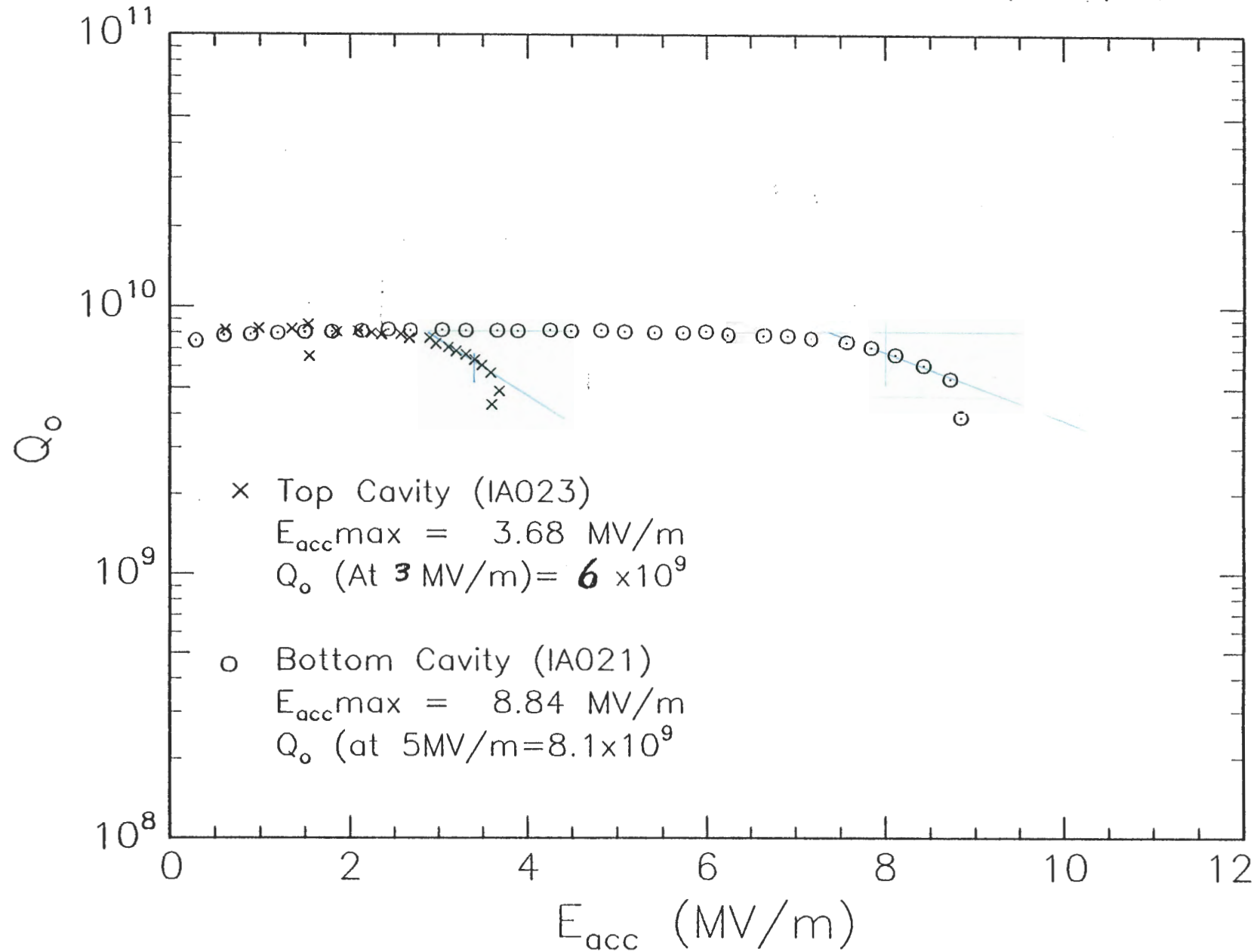
Δ IA029
x IA027



Result of Vertical Cavity Test 3/28/91



Result of Vertical Cavity Test 3/29/91



Q-VALUE AT
5 MV/m

1.02×10^{10}

Q-VALUE AT
5 MV/m

$> 2.4 \times 10^9$

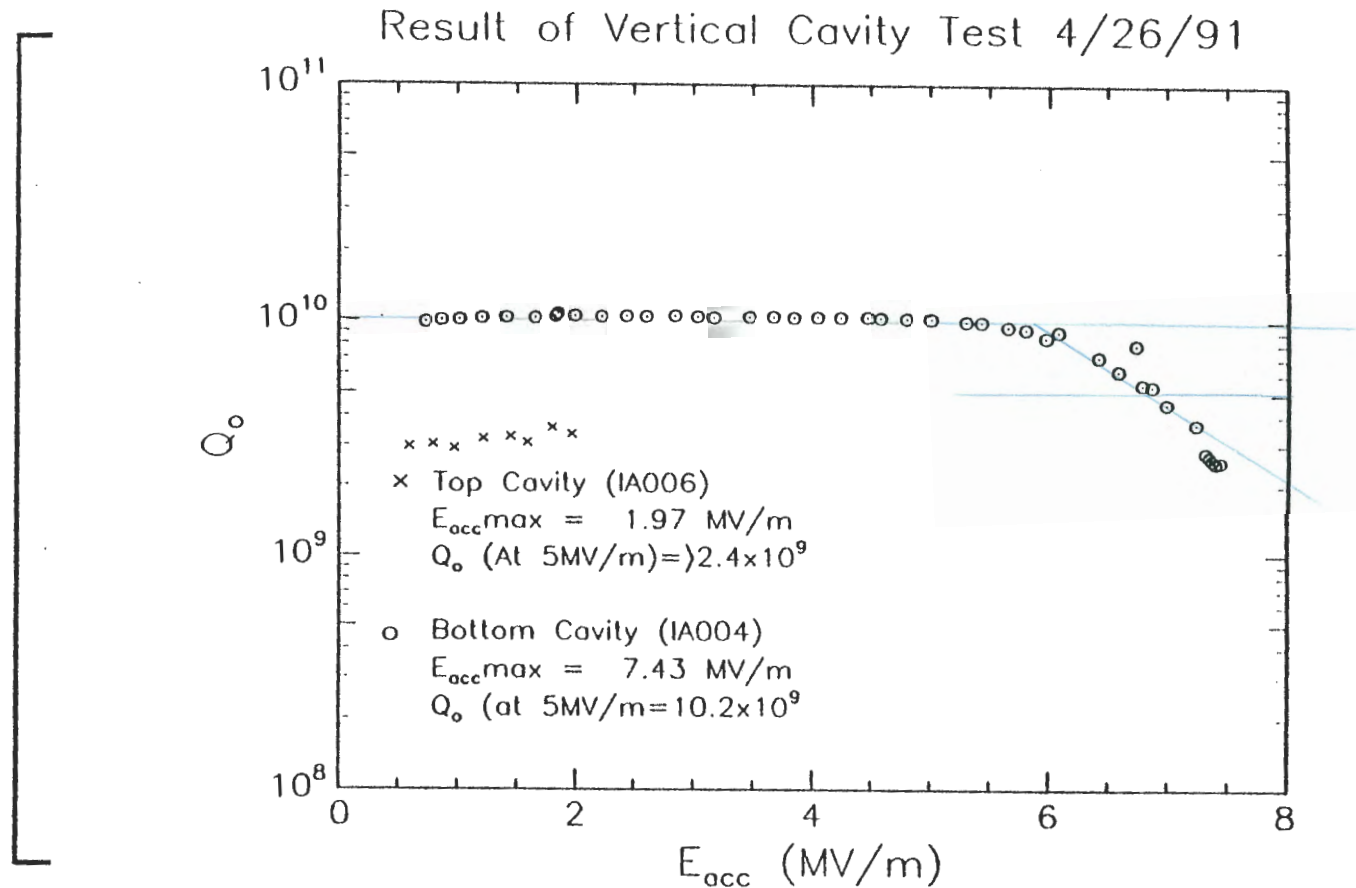
E_{acc,max}:

7.43 MV/m

E_{acc,max}:

$\approx 7.0 \text{ MV/m}$

Q vs E_{acc}



COMMENTS:

NOTE: IA006 Coupling system was misaligned thus strongly overcoupling the cavity. The last point calculated was $Q_0 = 3.33 \times 10^9$ @ 1.97 MV/m. The cavity gave no indication

of break down until much higher fields $\approx 7 \text{ MV/m}$
There is a small shaded region on the graph for the bottom cavity data between 5.5 and 7.5 MV/m.

Q VALUE AT
5 MV/m

5.99 E9

Q-VALUE AT
5 MV/m

10.9 E9

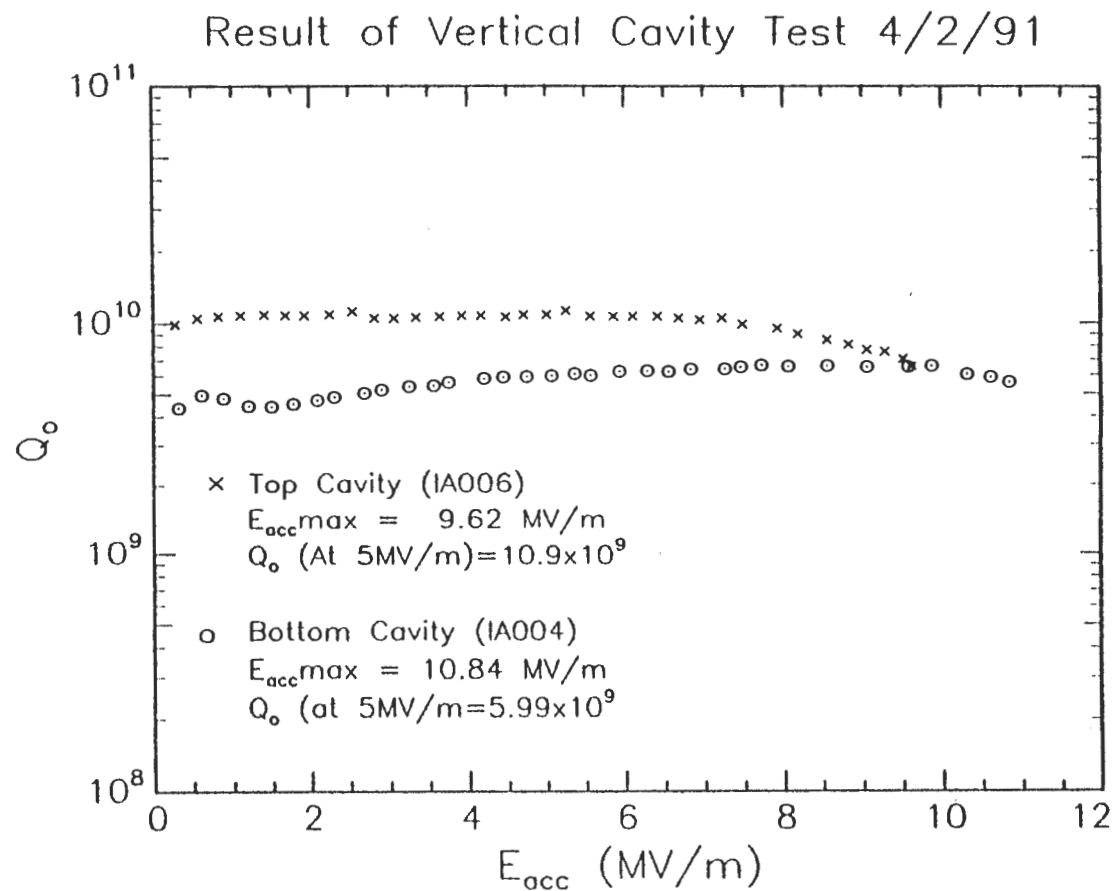
E_{acc,max}:

10.84 MV/m

E_{acc,max}:

9.62 MV/m

Q vs E_{acc}



COMMENTS:

Q-VALUE AT
5 MV/m

8.0E9

Q-VALUE AT
5 MV/m

9.3E9

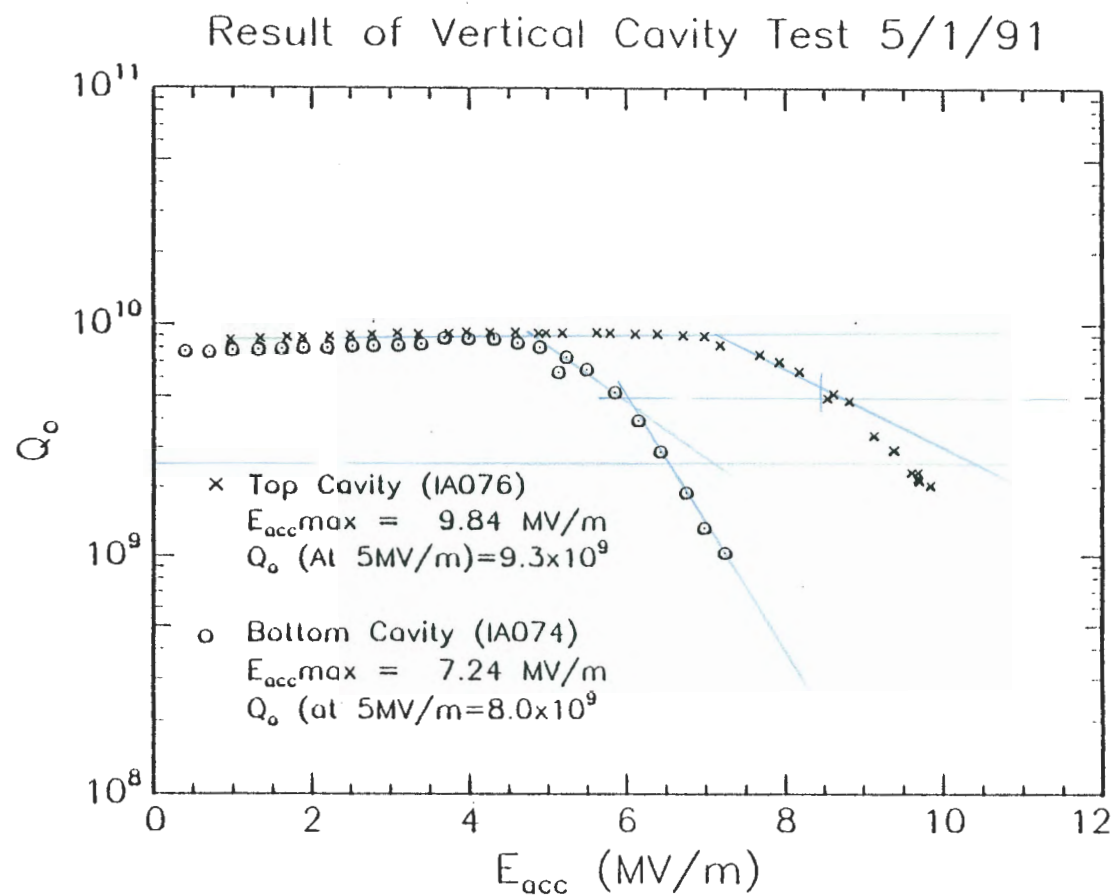
E_{acc,max}:

7.24 MV/m

E_{acc,max}:

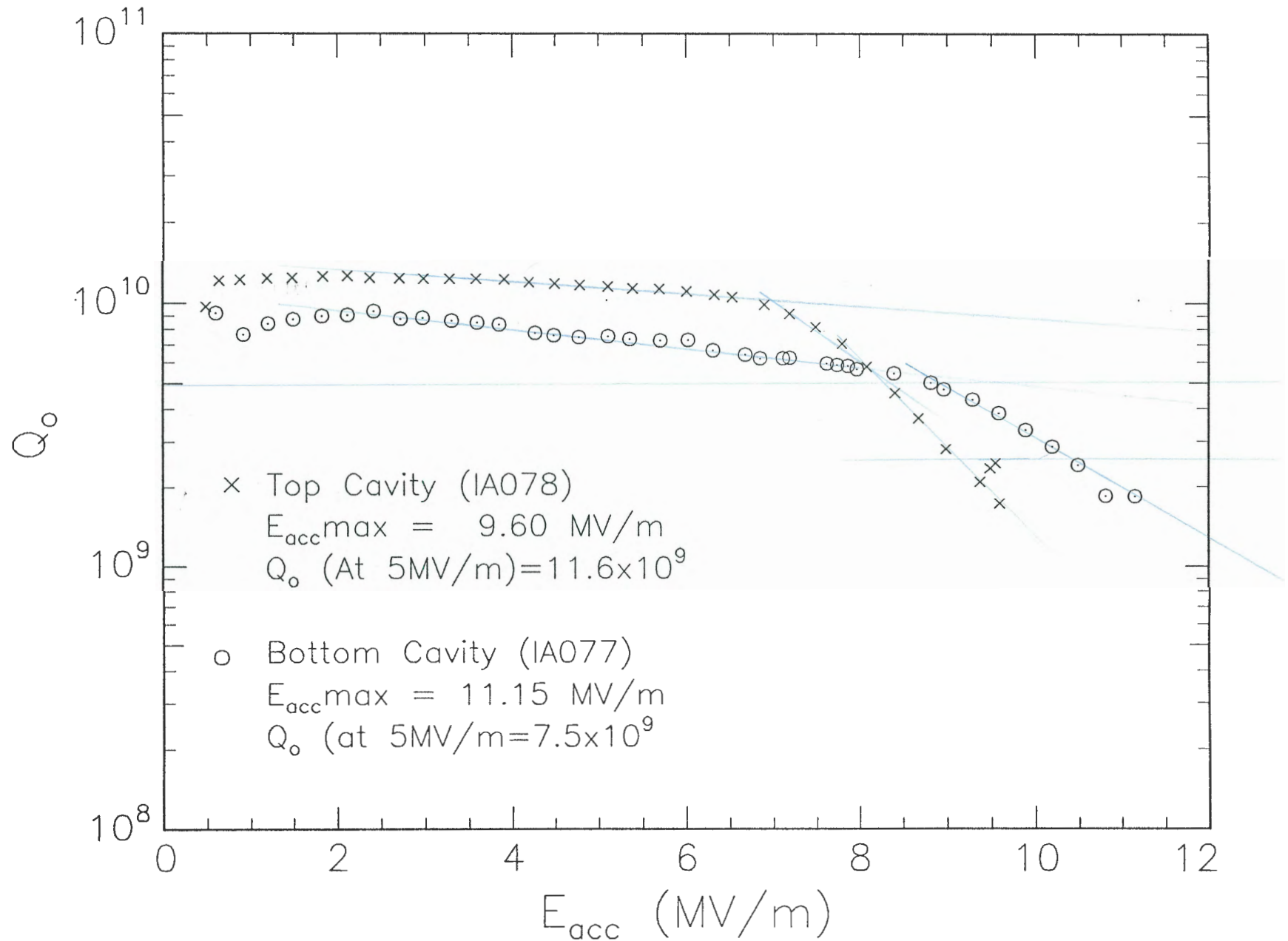
9.84 MV/m

Q vs E_{acc}

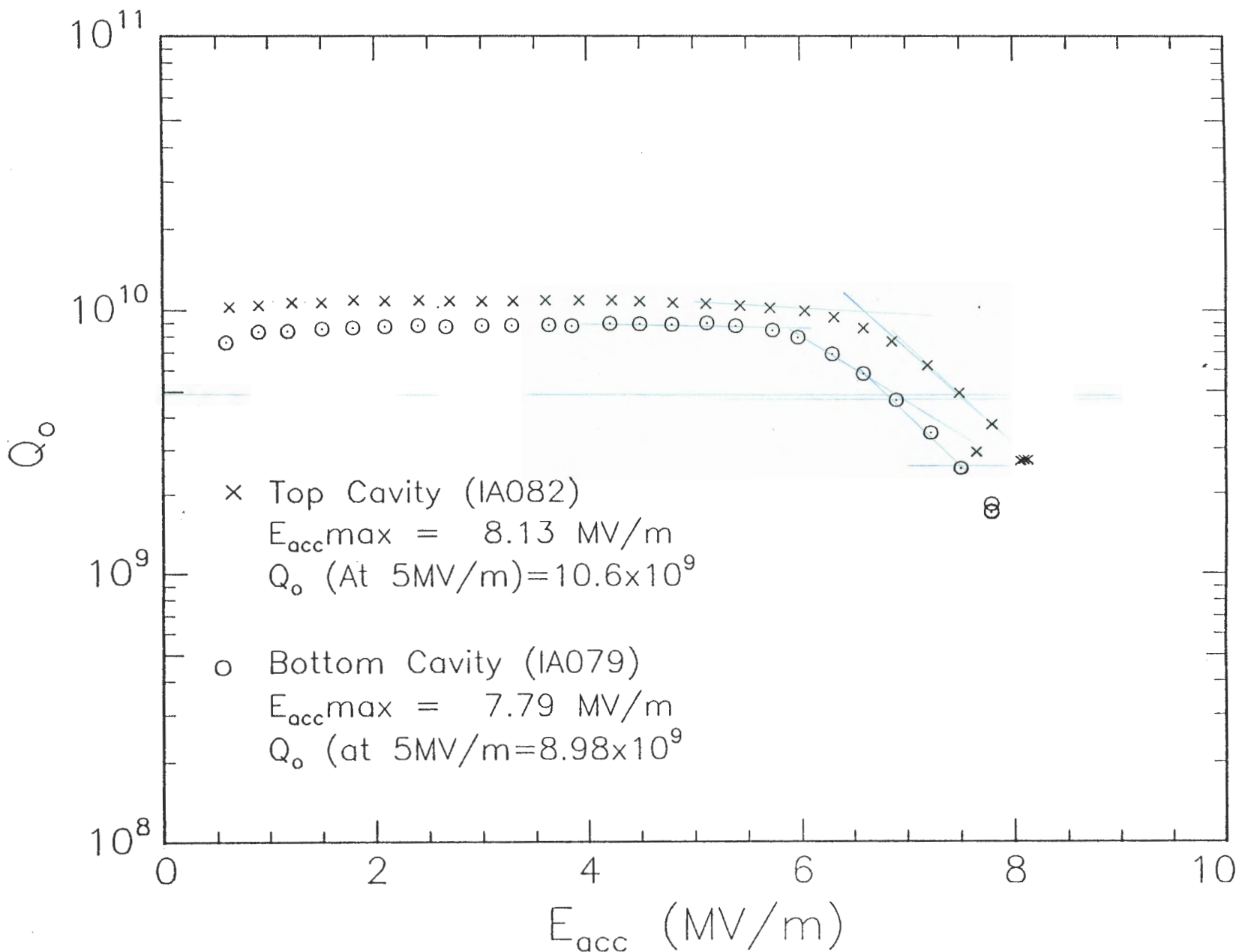


COMMENTS:

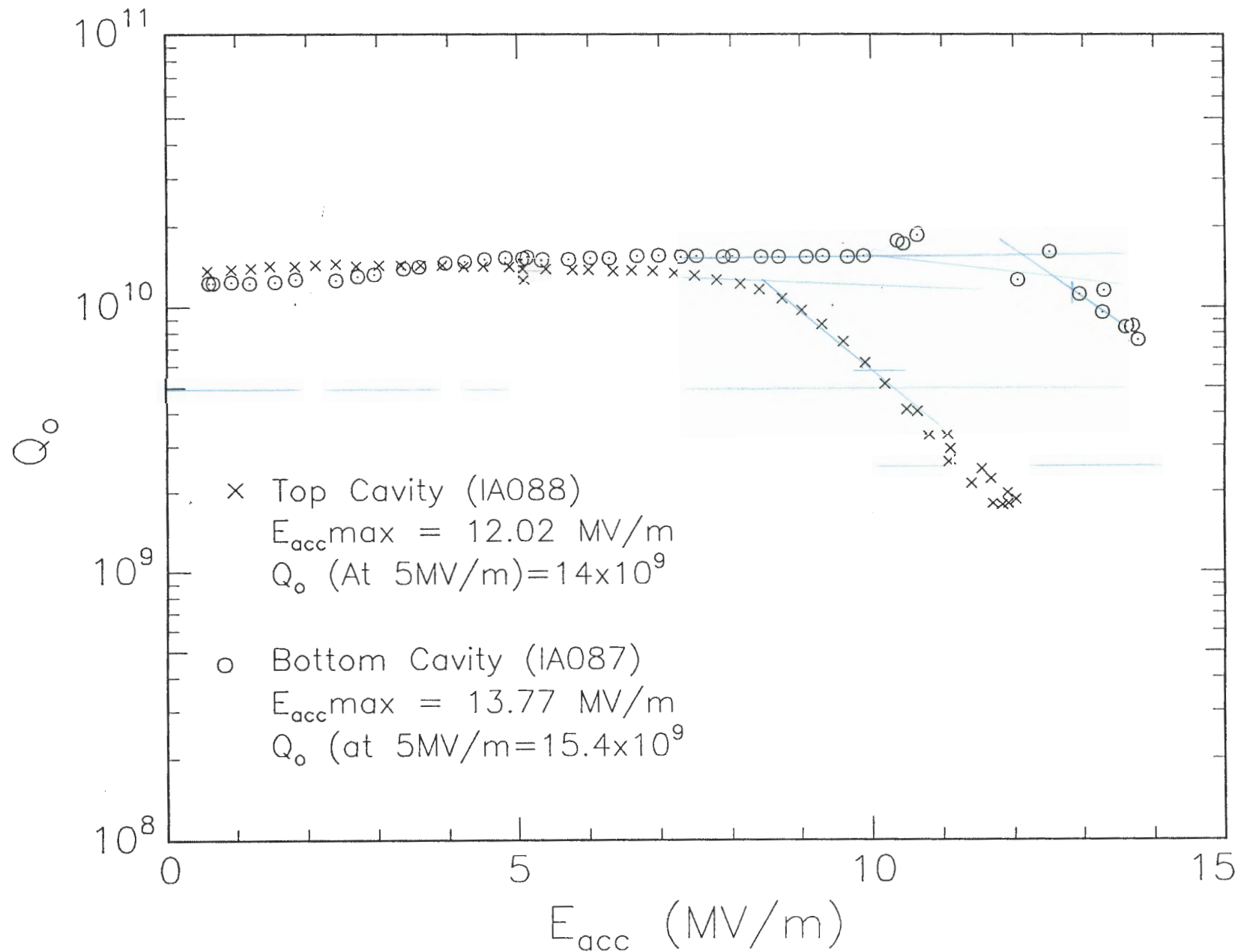
Result of Vertical Cavity Test 5/14/91



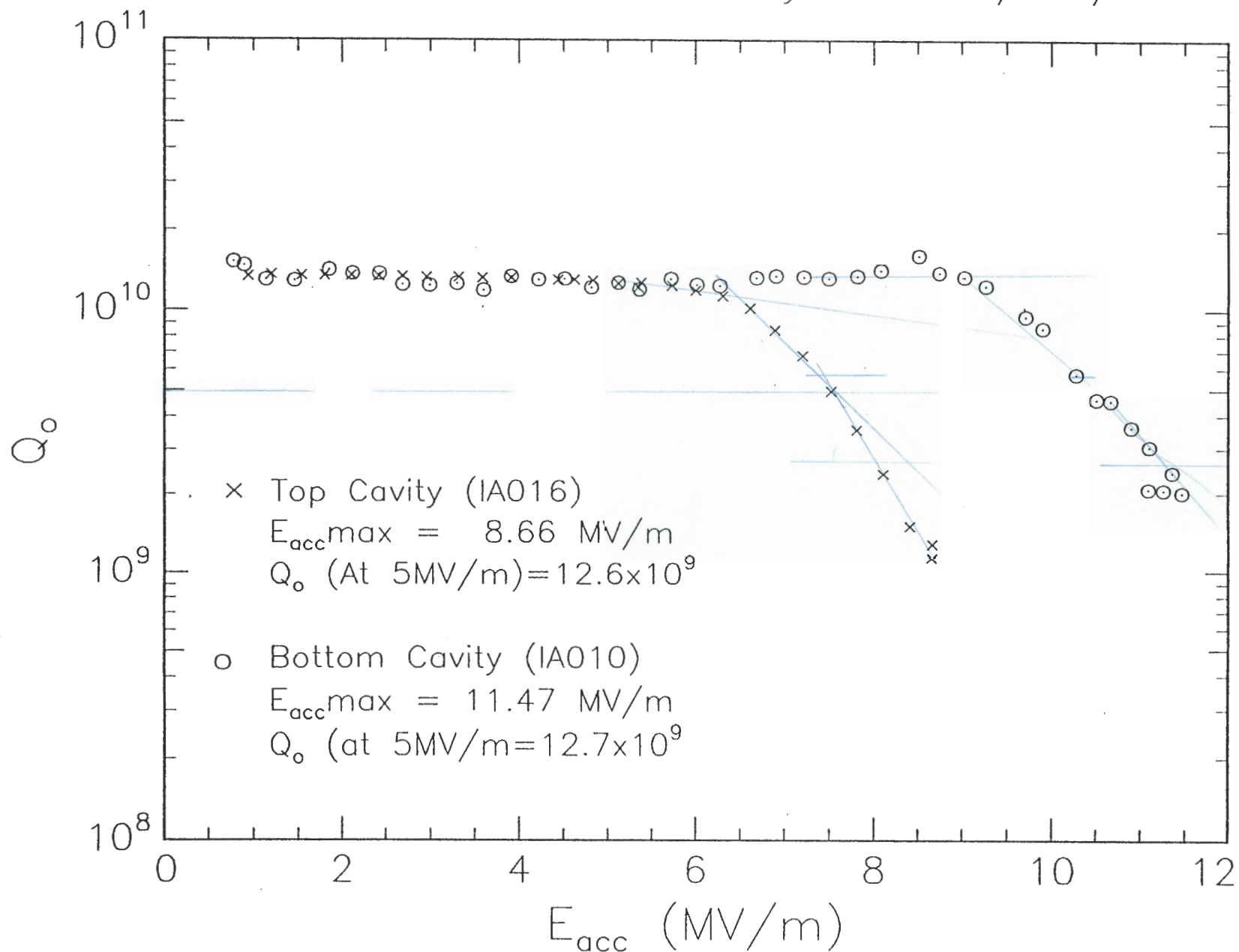
Result of Vertical Cavity Test 6/11/91

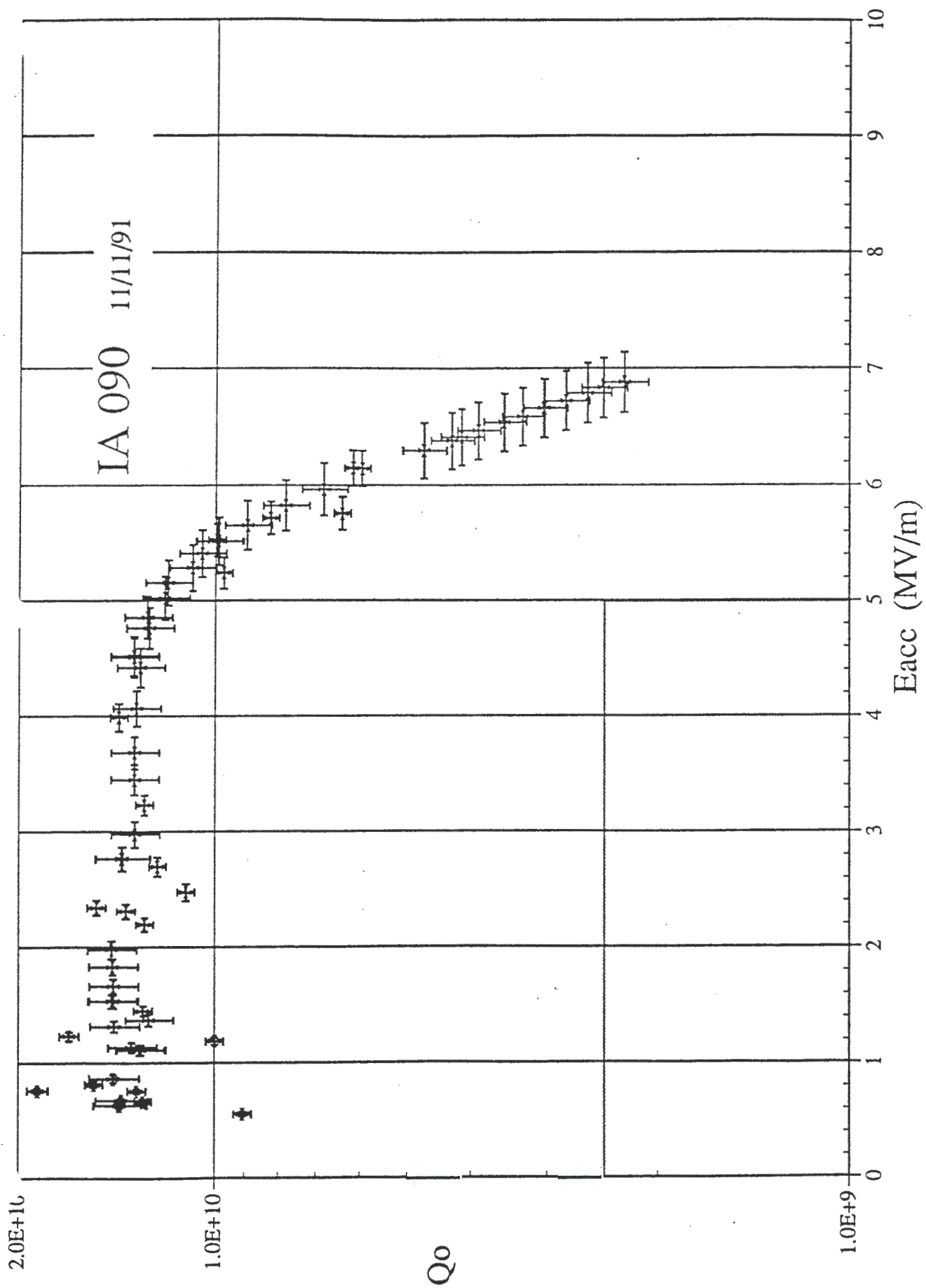


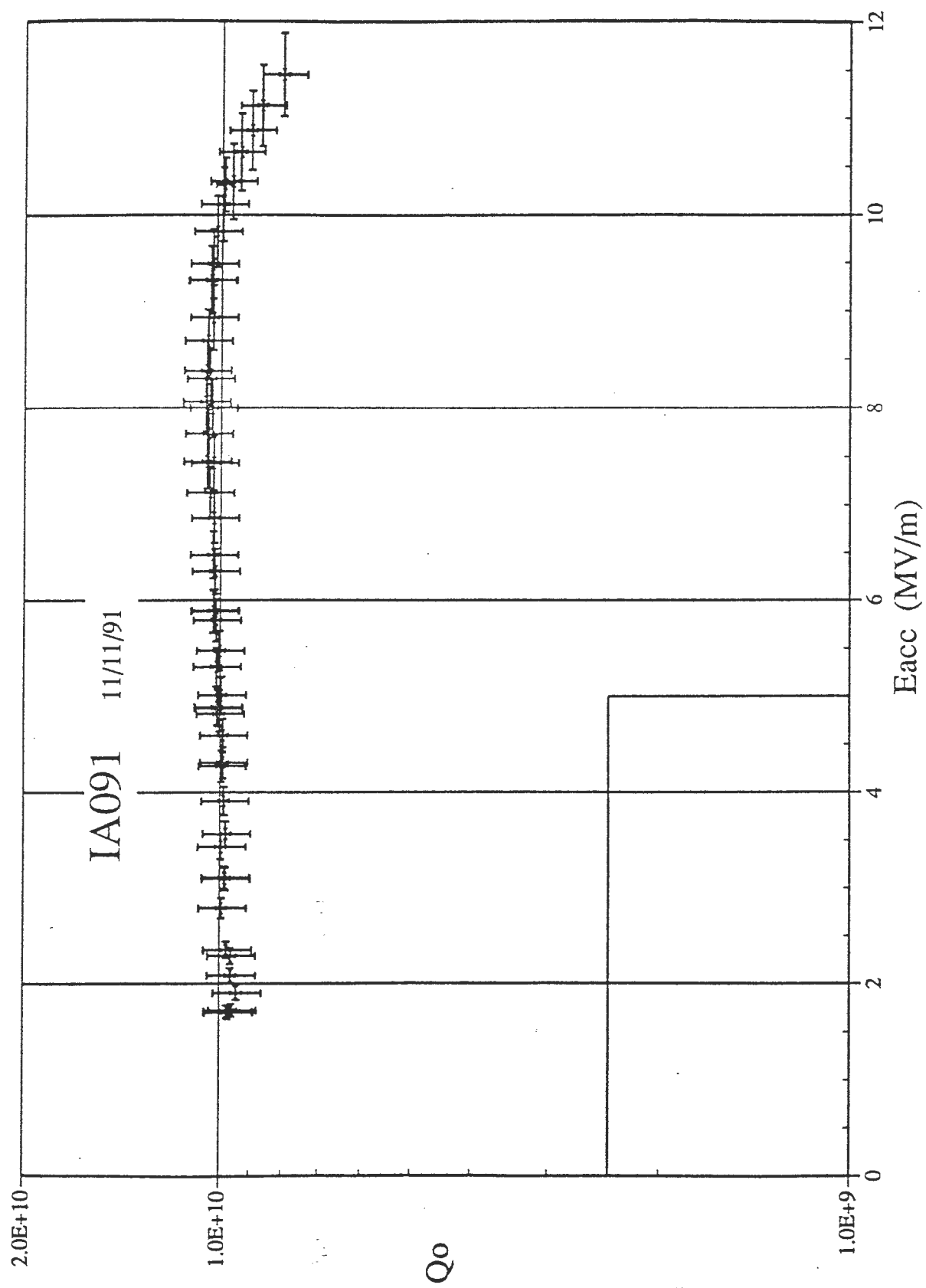
Result of Vertical Cavity Test 6/14/91

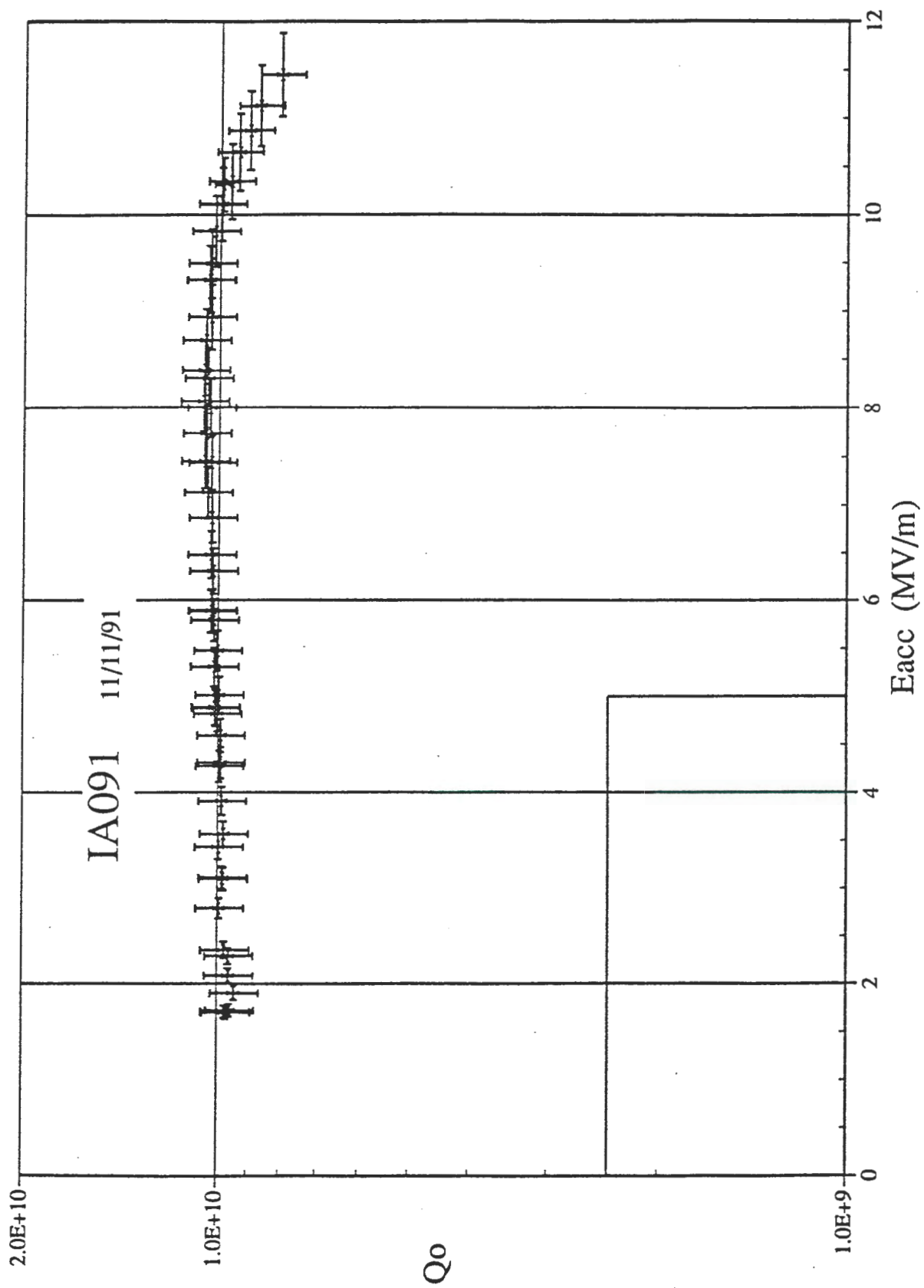


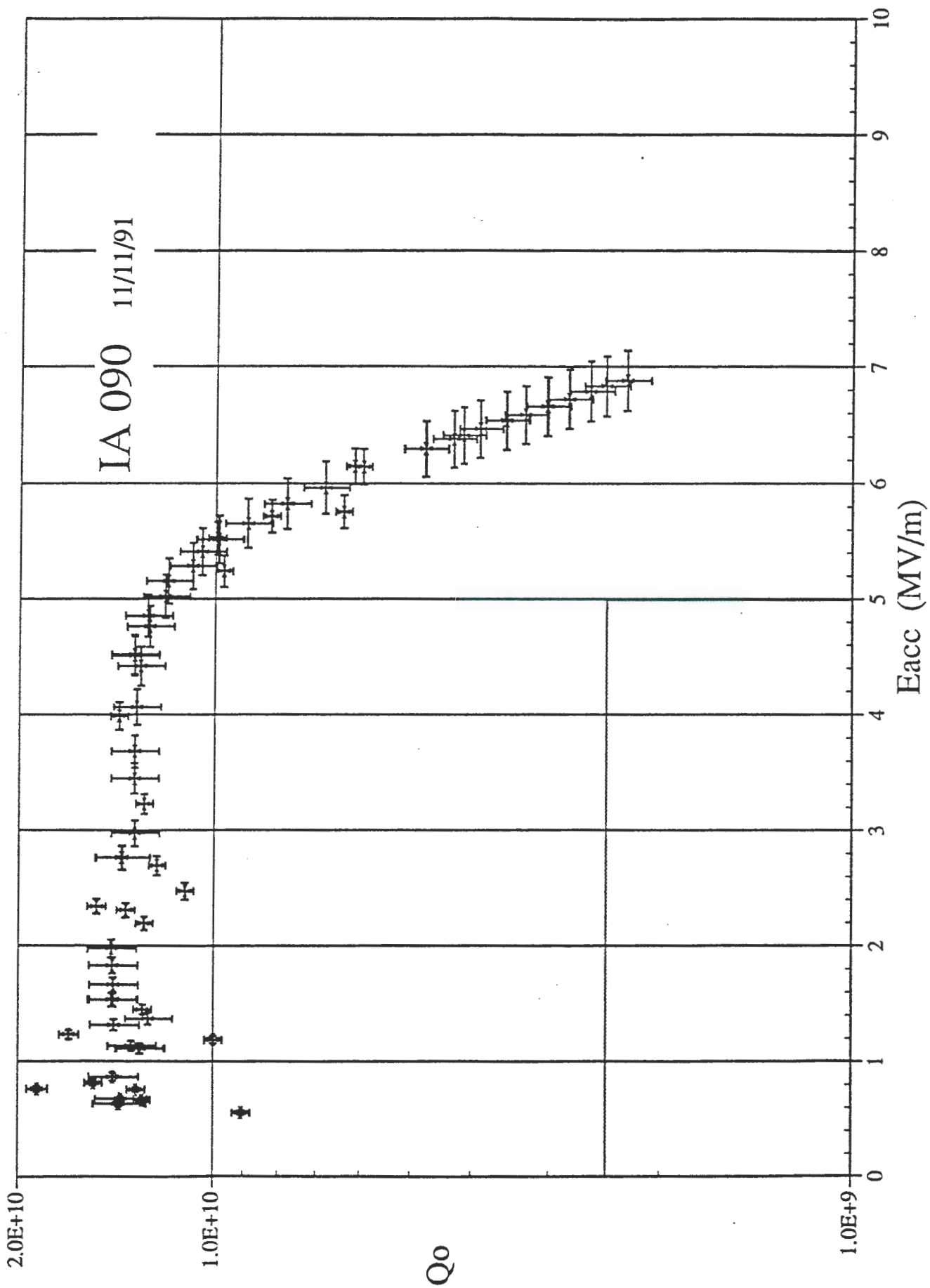
Result of Vertical Cavity Test 6/24/91

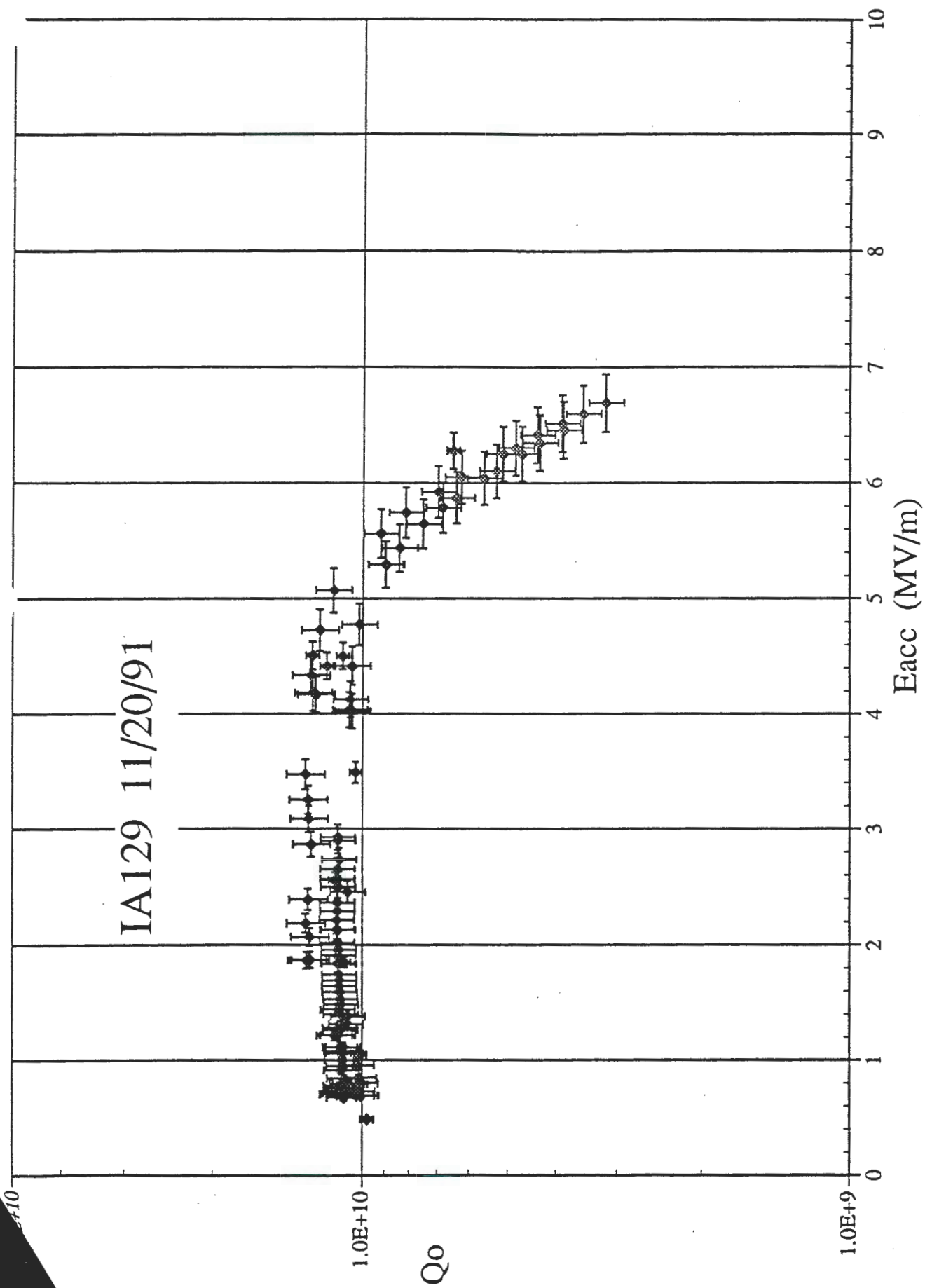








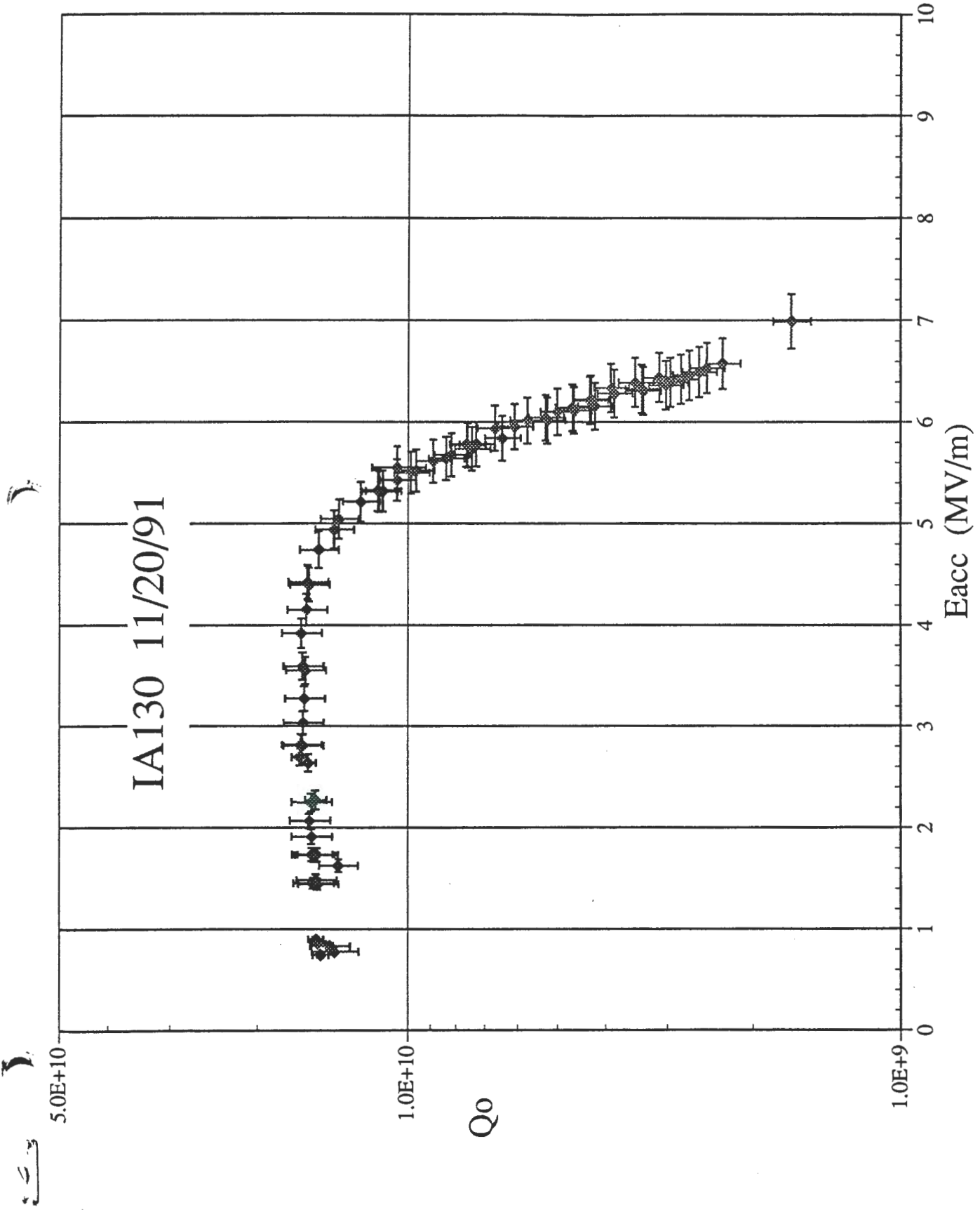


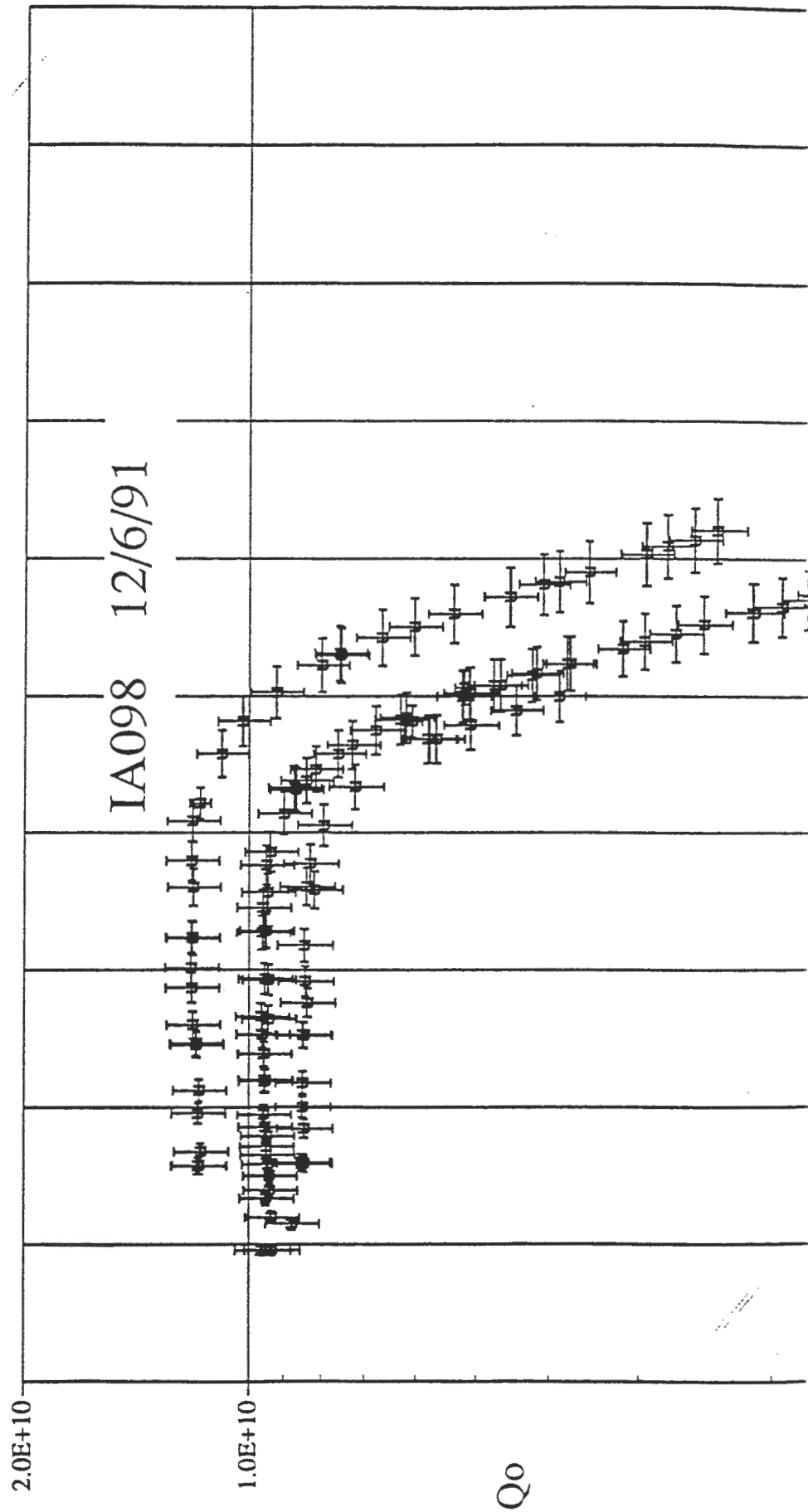


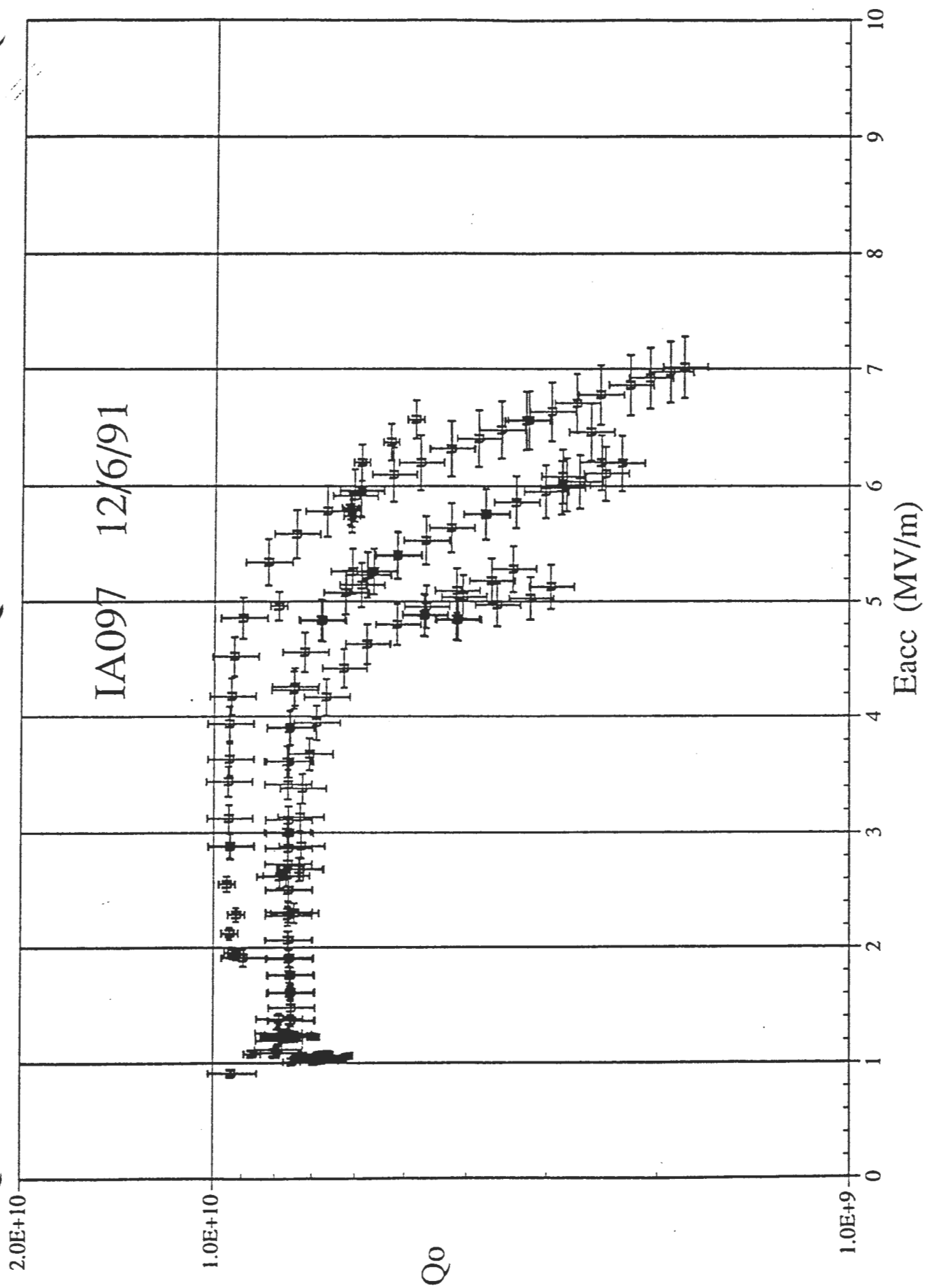
IA130 11/20/91

Q_0

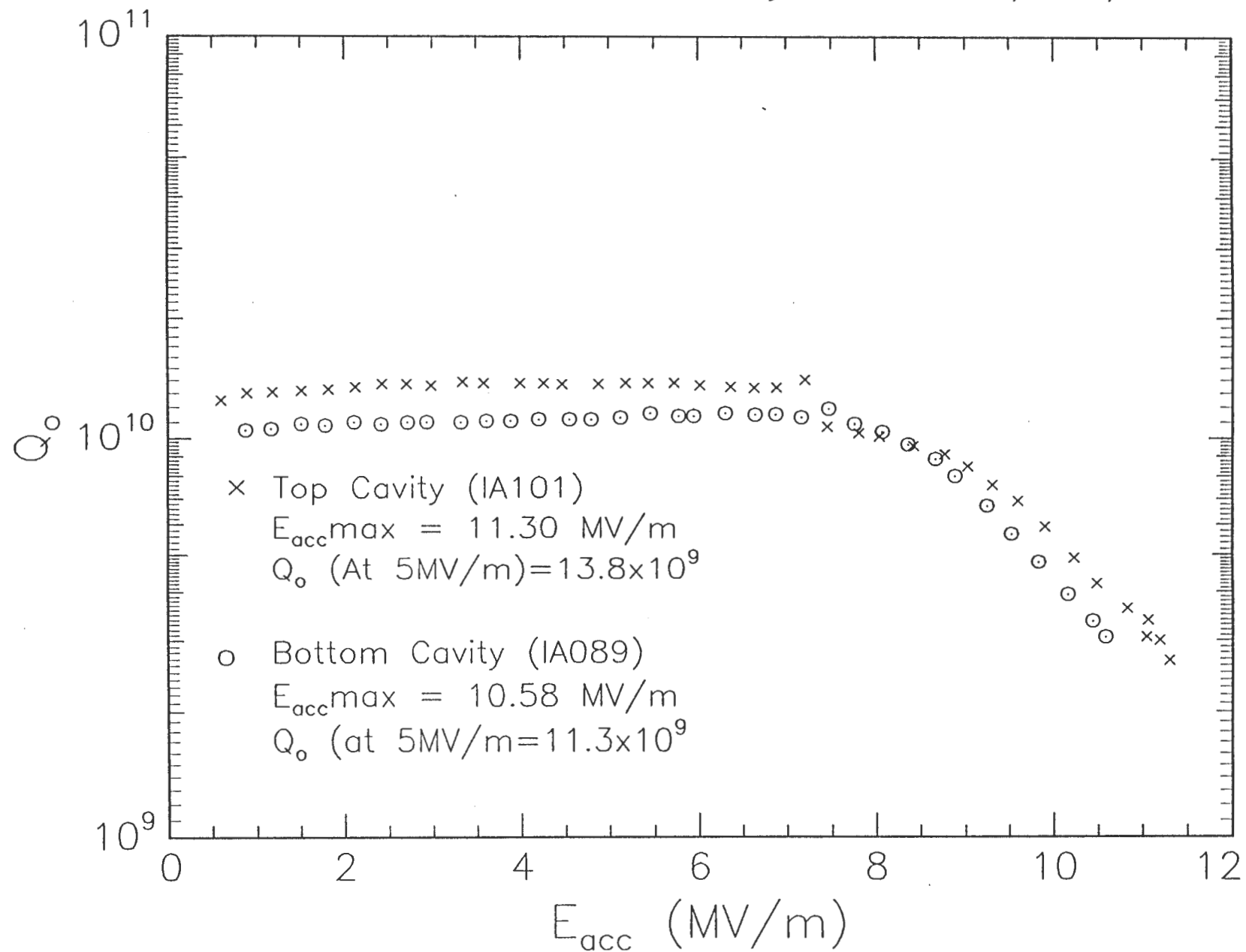
Eacc (MV/m)



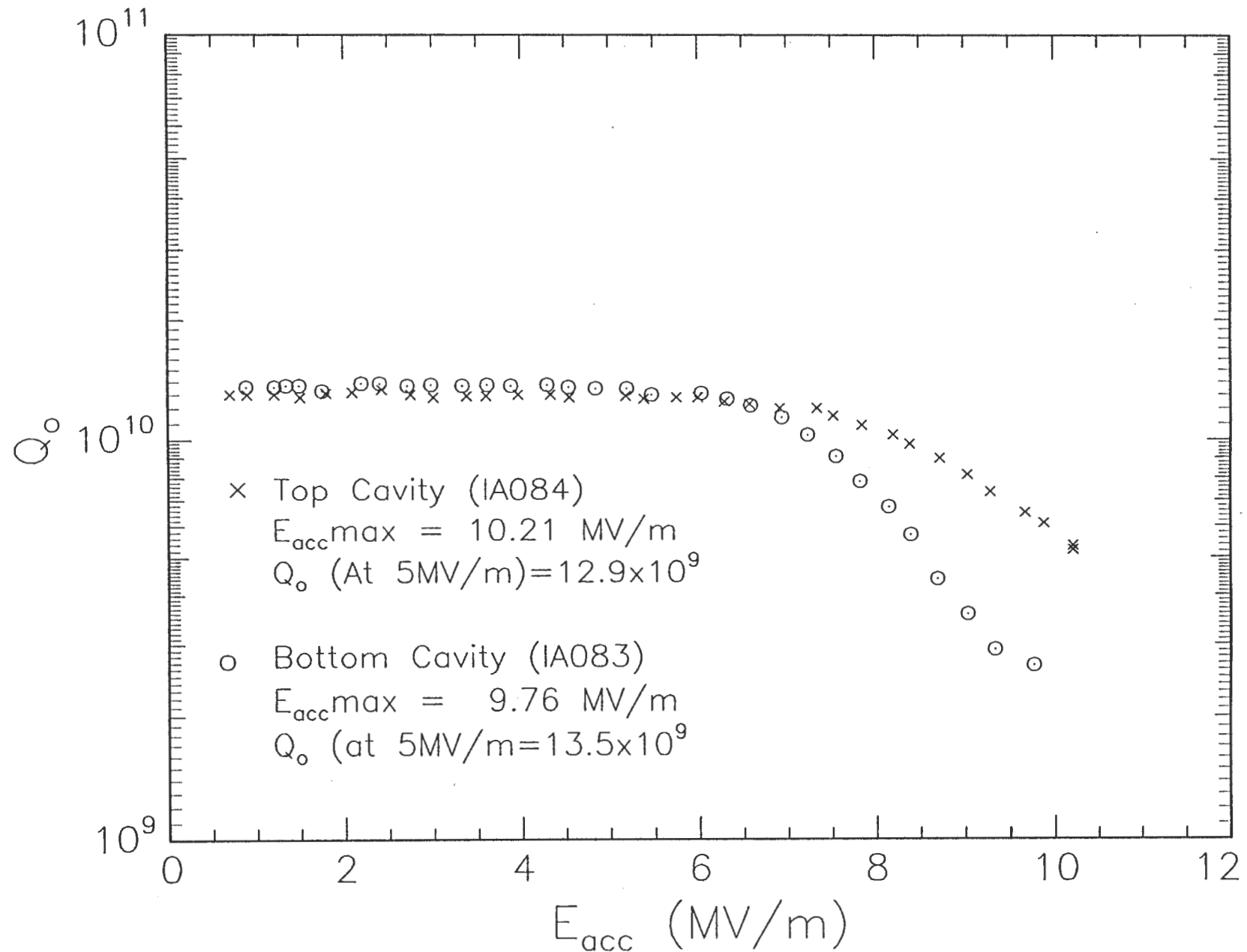


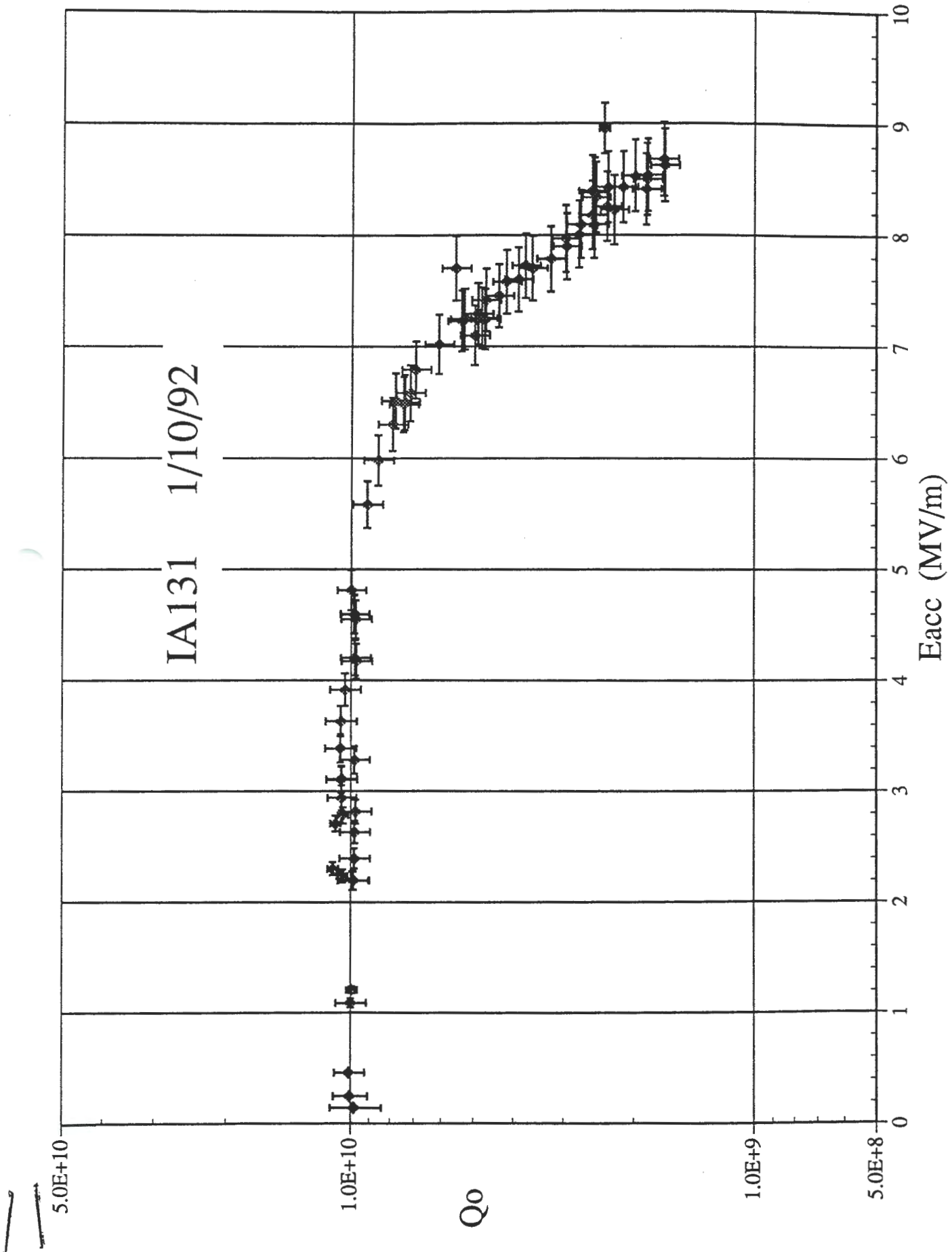


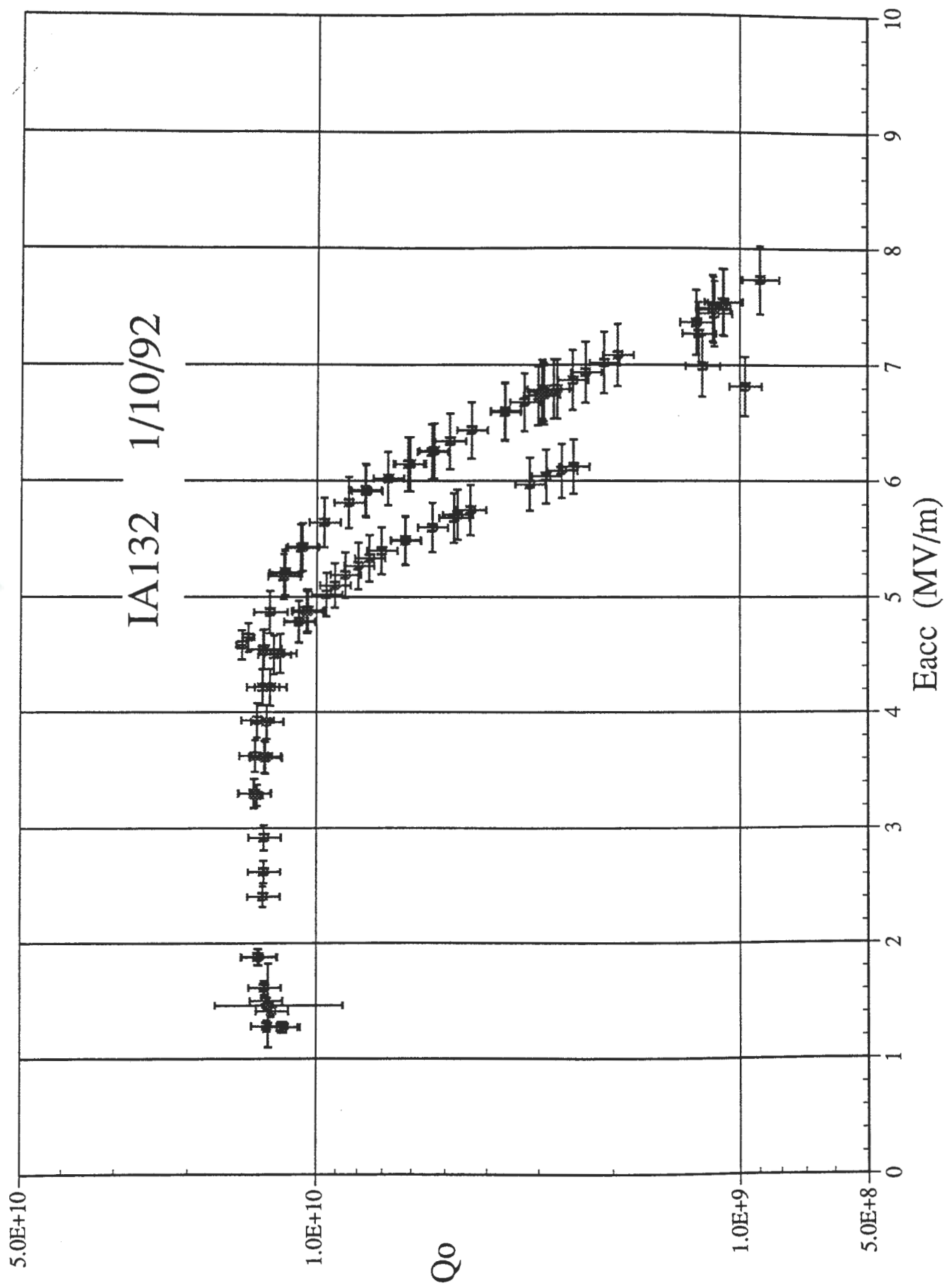
Result of Vertical Cavity Test 12/12/91

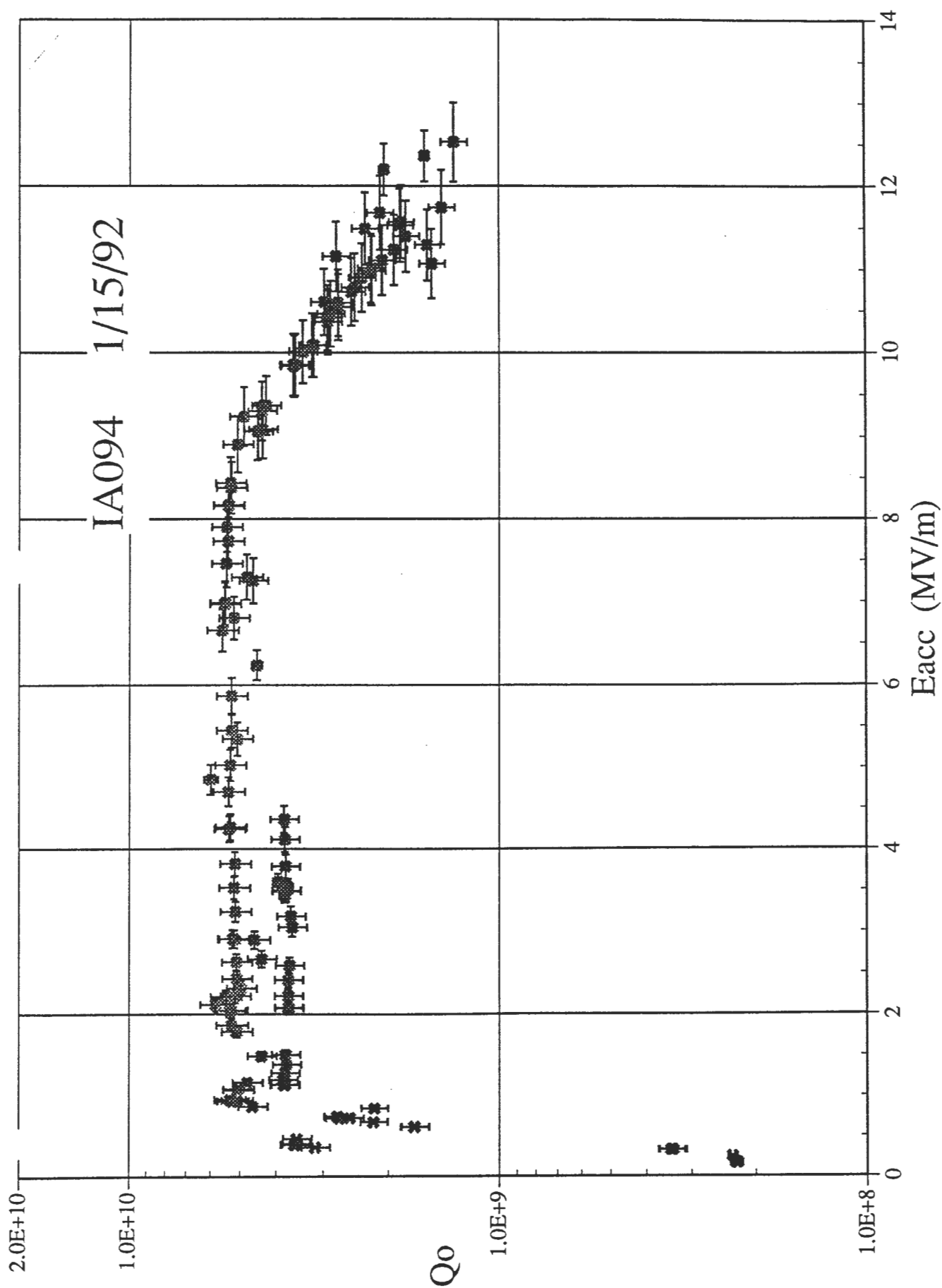


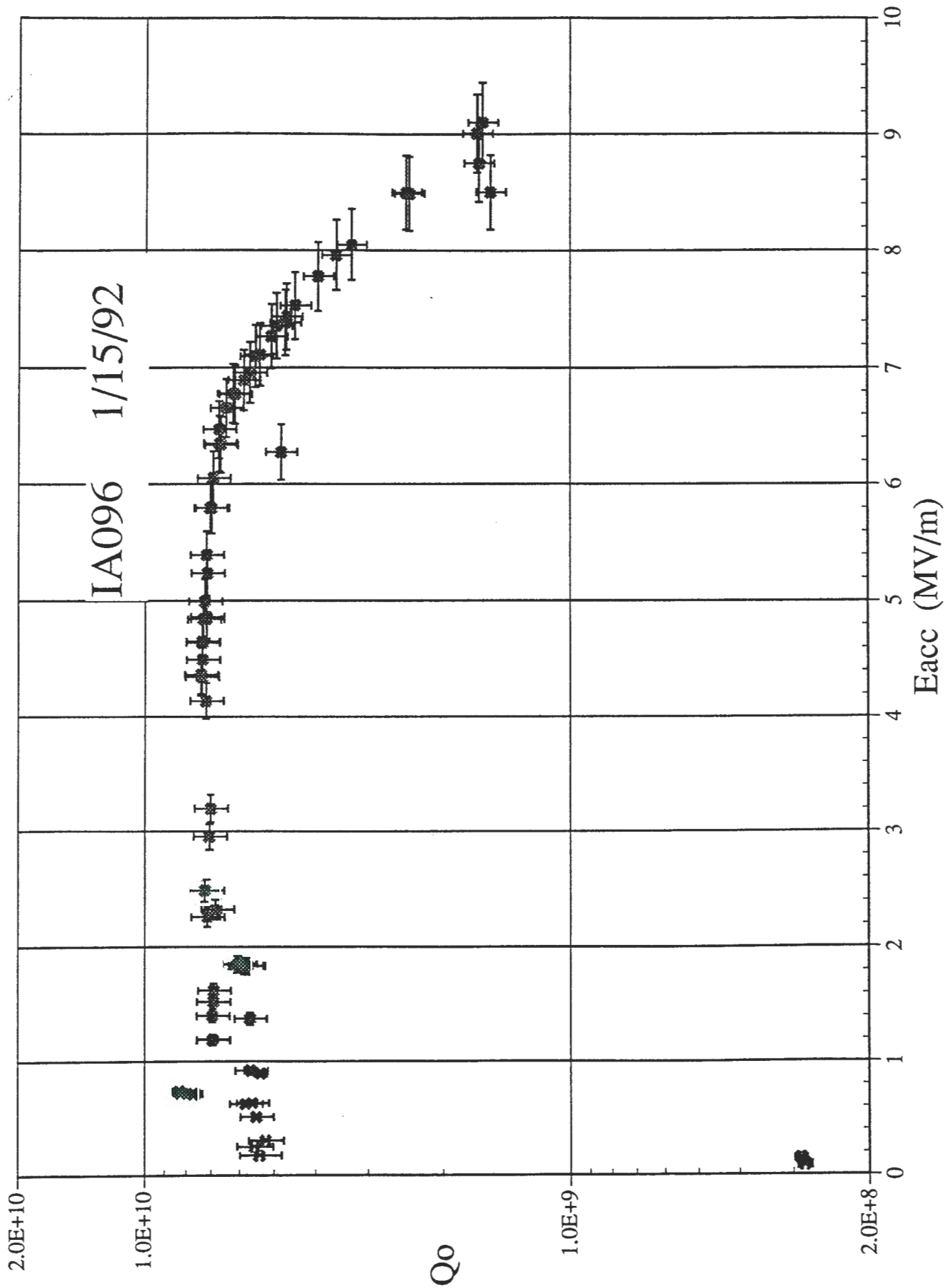
Result of Vertical Cavity Test 12/13/91

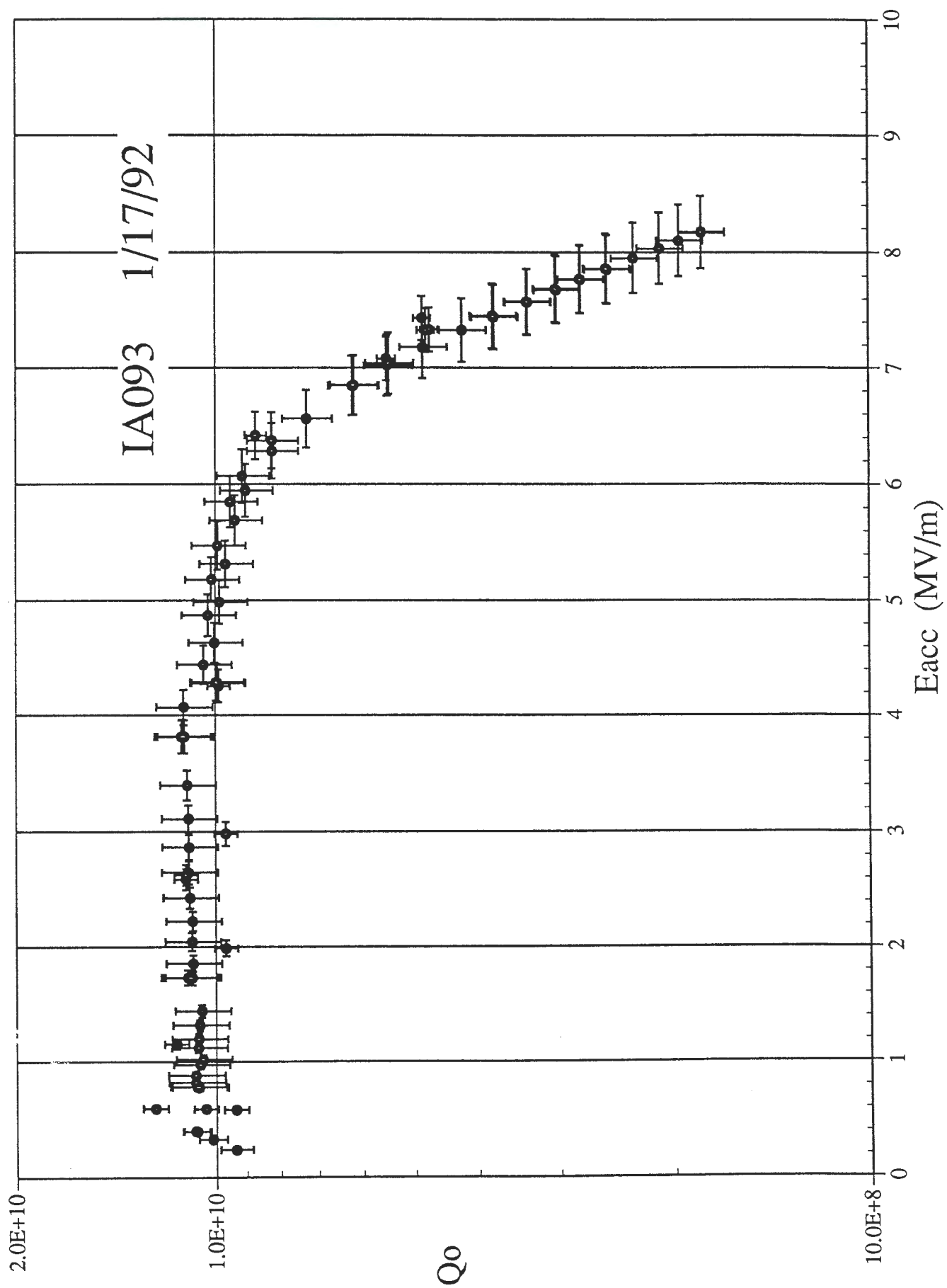


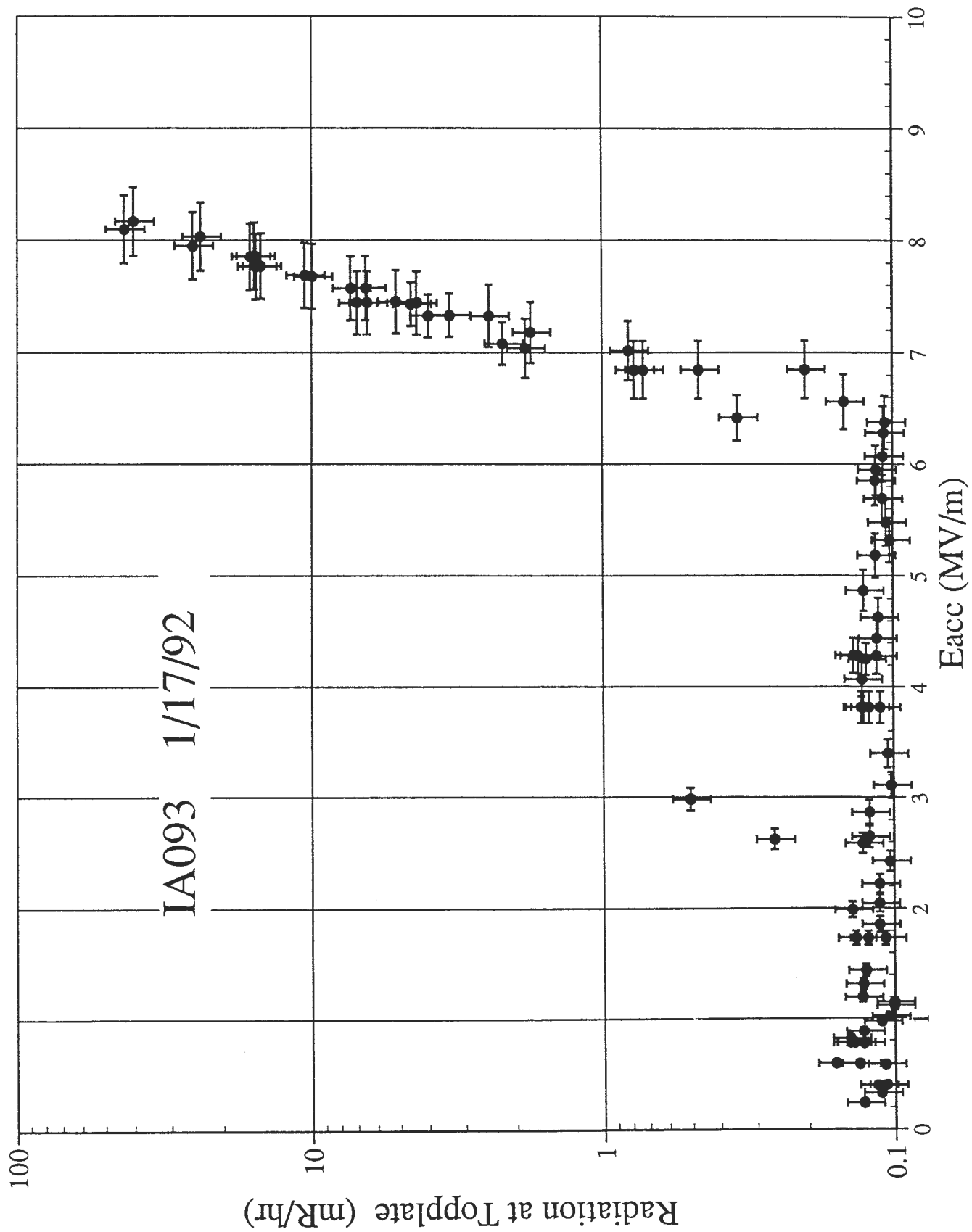


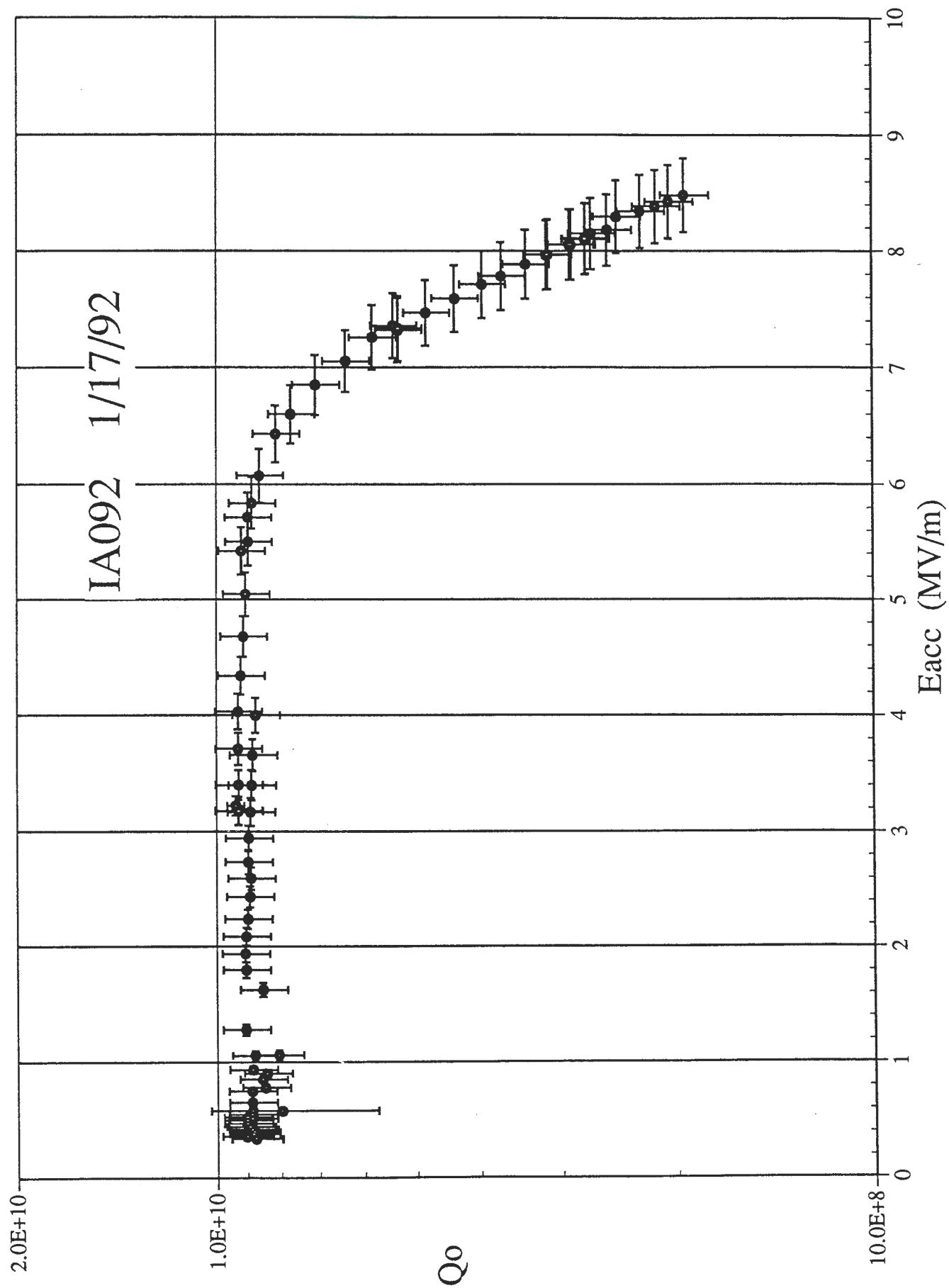


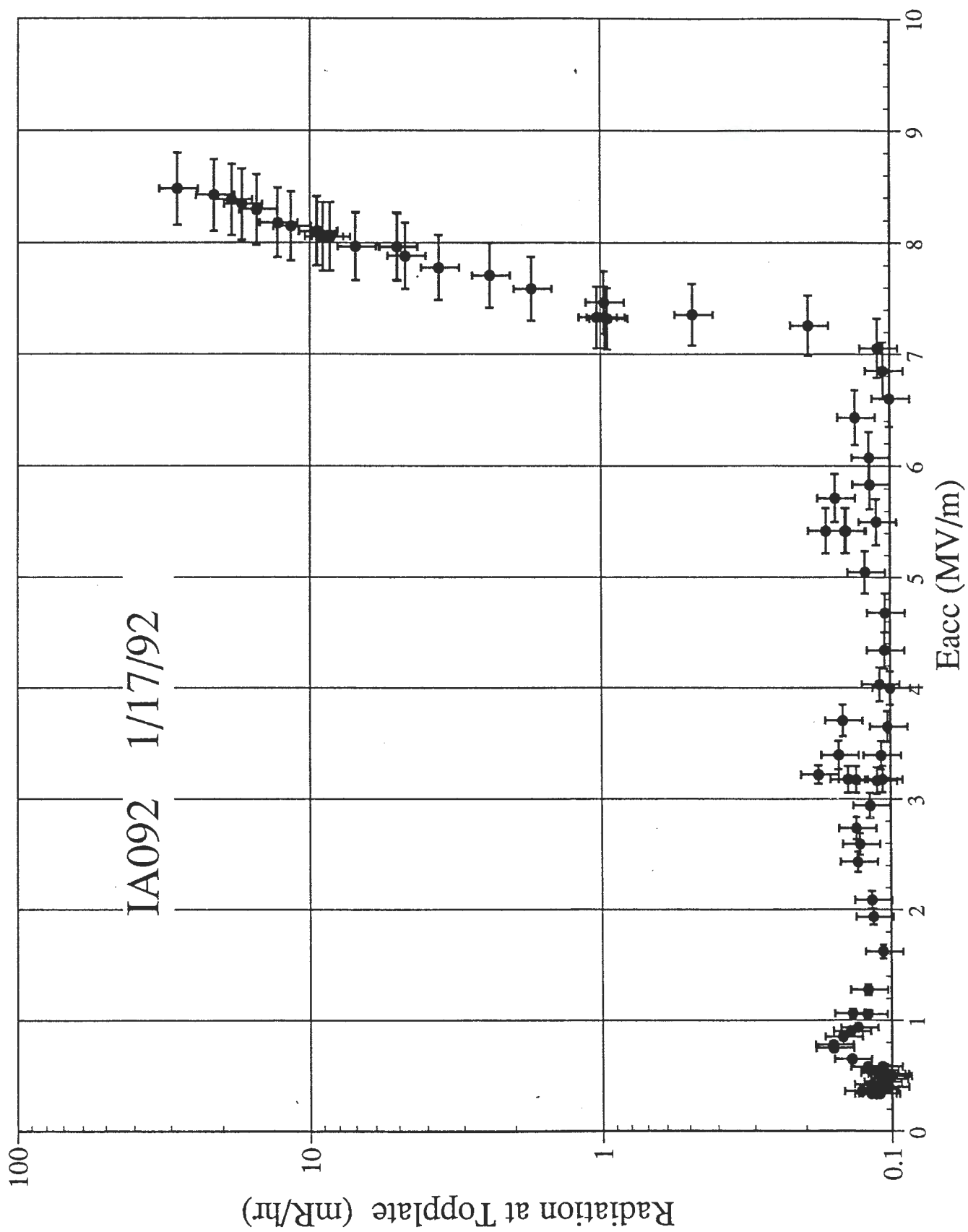


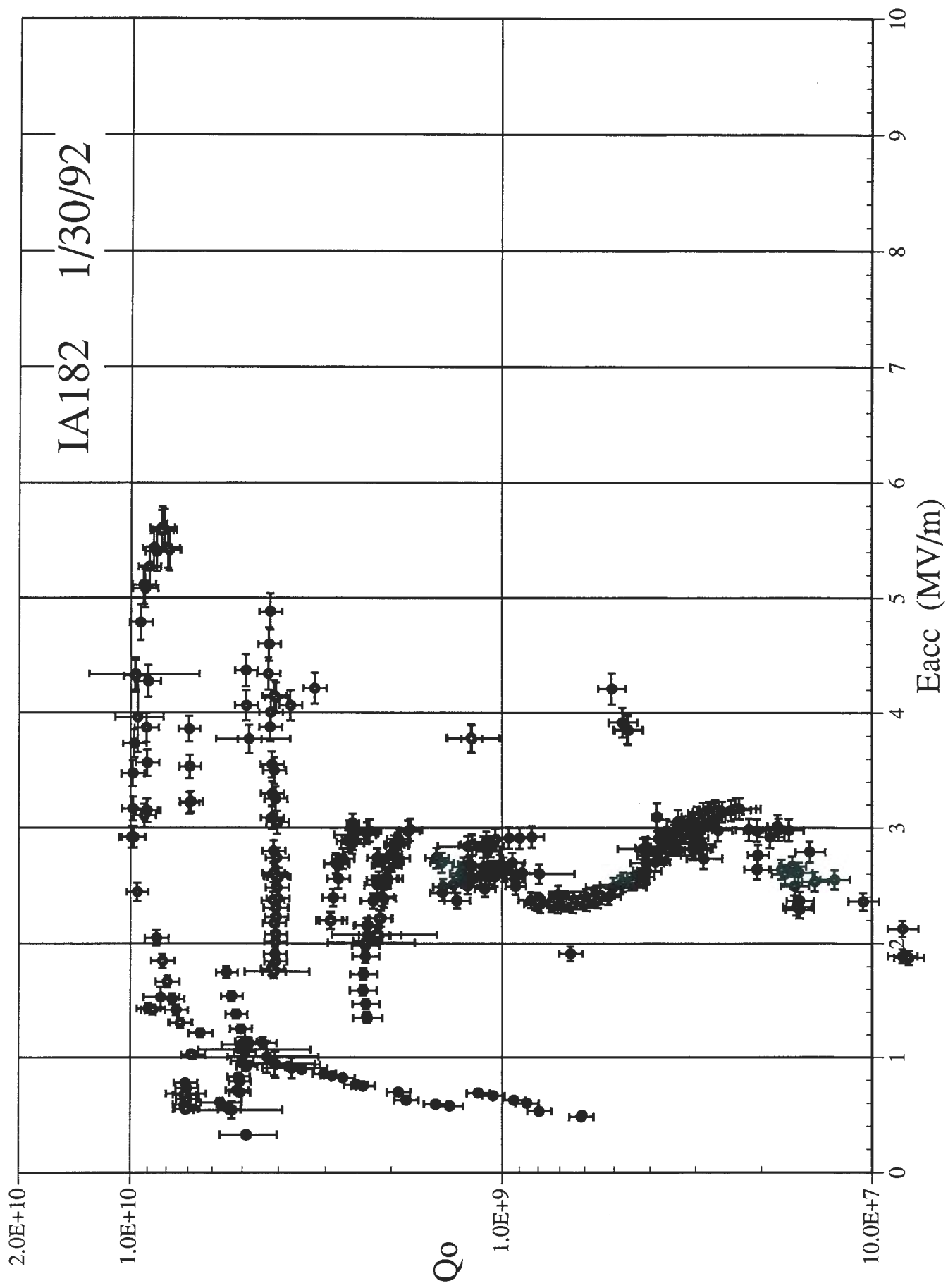


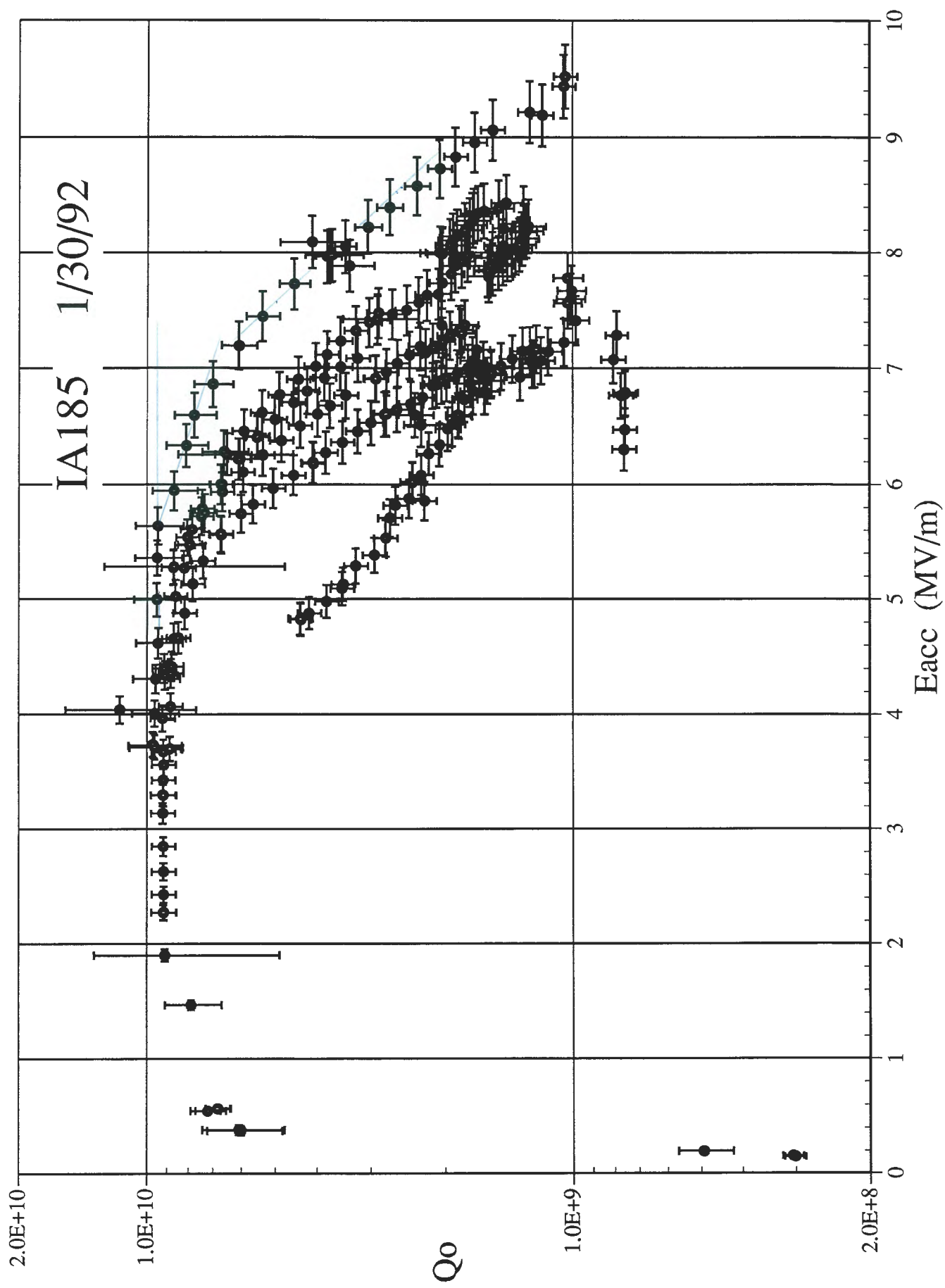


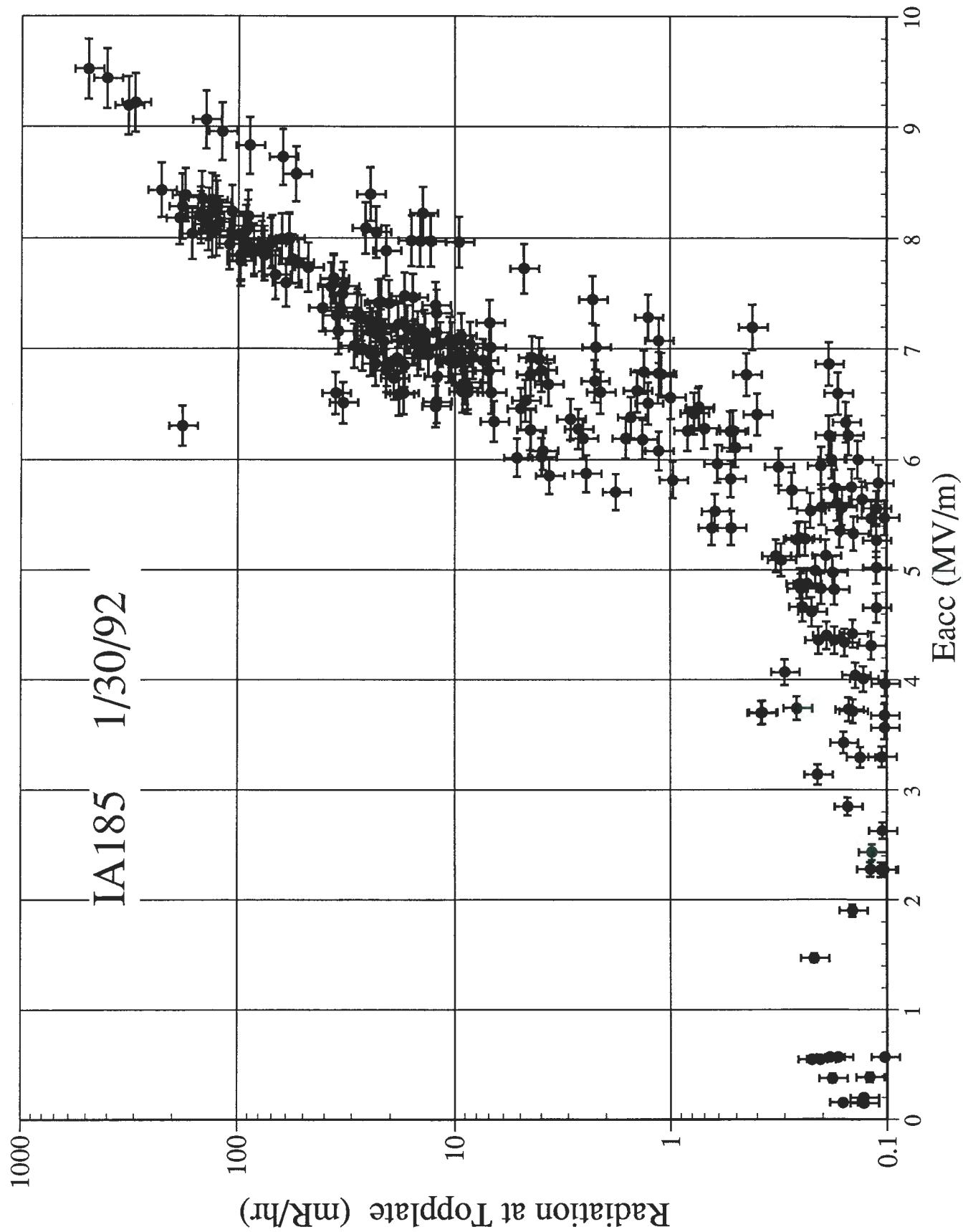












Currently Selected Cavity

8 Bottom

Idle

Auto Measure

Pi [W] 8.80E-2
Pr [W] 6.26E-2
Pt[W] 4.69E-4
Freq. [MHz] 1497.1350

Optimize Phase

Atten (dB)

16.000

Theta (degrees)

13.2

IA103

Cavity Name

D Pressure 53.58
Rad (mR/hr) 0.11

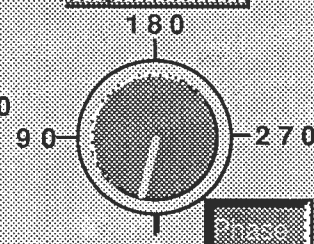
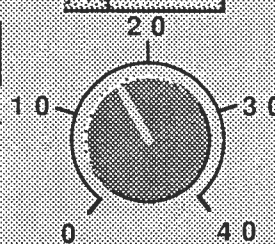
B < 1

B > 1

Date:Time 2/1/92 5:16 PM

Optimize Frequency

Set Mixer Level



Phase Control

Corrected Power

Pin = 7.32E1 Watts 2.8
Pref = 3.18E1 Watts 2.8 ± %
Pt = 1.85E-2 Watts 2.8
Ploss = 4.14E1 Watts 5.5

QL = 9.833E6 8.4
Qo* = 0.000E0 NaN ± %
Qext1 = 1.185E7 8.7
Qext2 = 1.290E11 5.0
Qo = 5.77E7 7.8

BETA* = 0.0000 NaN
Beta1 = 4.8704 4.0 ± %
Beta2 = 0.0004 9.2
Eacc = 2.140 MV/m ± % 2.9

Qo - CW

-3.27E9

Eacc - CW

0.02

MEASURE & LOG

Auto Step Power, Measure and Log

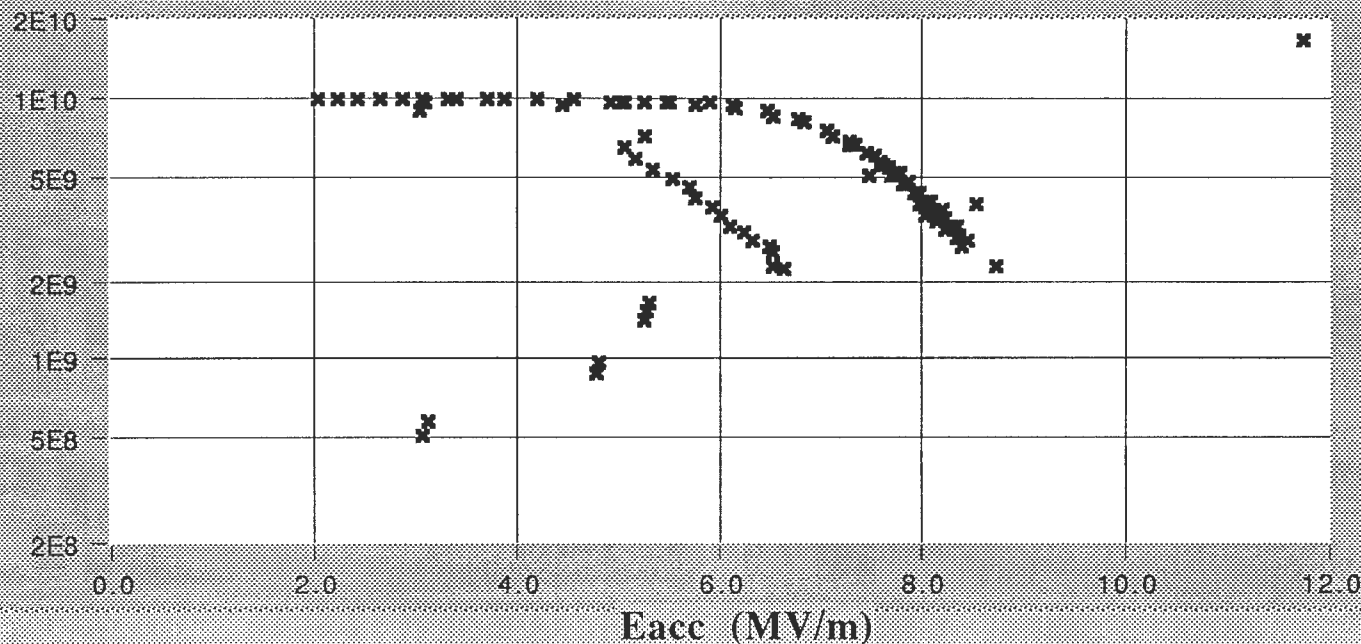
MEASURE LOG, & PRINT

Clear Graph

Auto # 20

Zero Power Meters

Qo



Currently Selected Cavity

8 Top

Idle

Auto Measure

Pi [W] 8.80E-2

Pr [W] 6.26E-2

Pt[W] 4.69E-4

Freq. [MHz] 1497.1350

Optimize Phase

Optimize Frequency

Set Mixer Level

Atten (dB)

16.000

Theta (degrees)

13.2

IA104

Cavity Name

D Pressure Rad (mR/hr)

3.81

0.18

B < 1

B > 1

Date:Time

2/1/92 5:37 PM

Corrected Power

Pin = 7.32E1 Watts 2.8

Pref = 3.18E1 Watts 2.8 ± %

Pt = 1.85E-2 Watts 2.8

Ploss = 4.14E1 Watts 5.5

QL = 9.833E6 8.4

Qo* = 0.000E0 NaN ± %

Qext1 = 1.185E7 8.7

Qext2 = 1.290E11 5.0

Qo = 5.77E7 7.8

BETA* = 0.0000 NaN

Beta1 = 4.8704 4.0 ± %

Beta2 = 0.0004 9.2

Eacc = 2.140 MV/m ± % 2.9

Qo - CW

-1.83E10

Eacc - CW

0.02

MEASURE & LOG

Auto Step Power Measure and Log

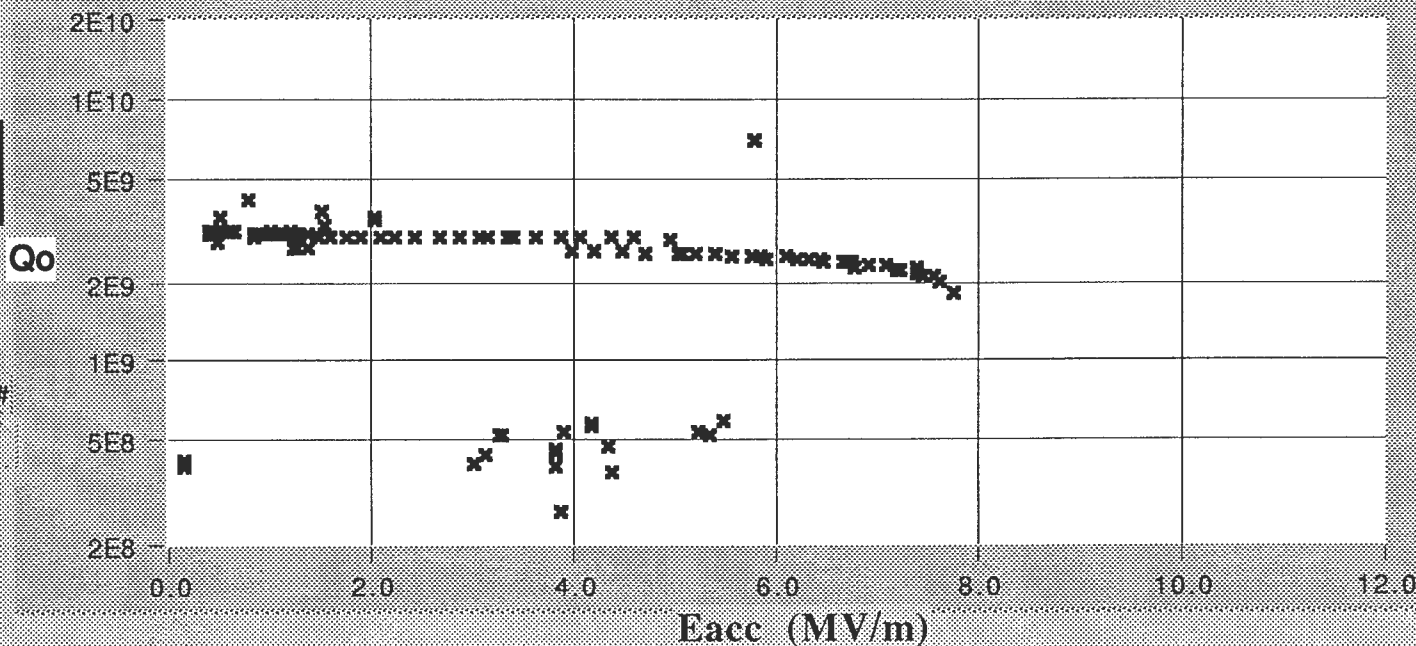
MEASURE LOG & PRINT

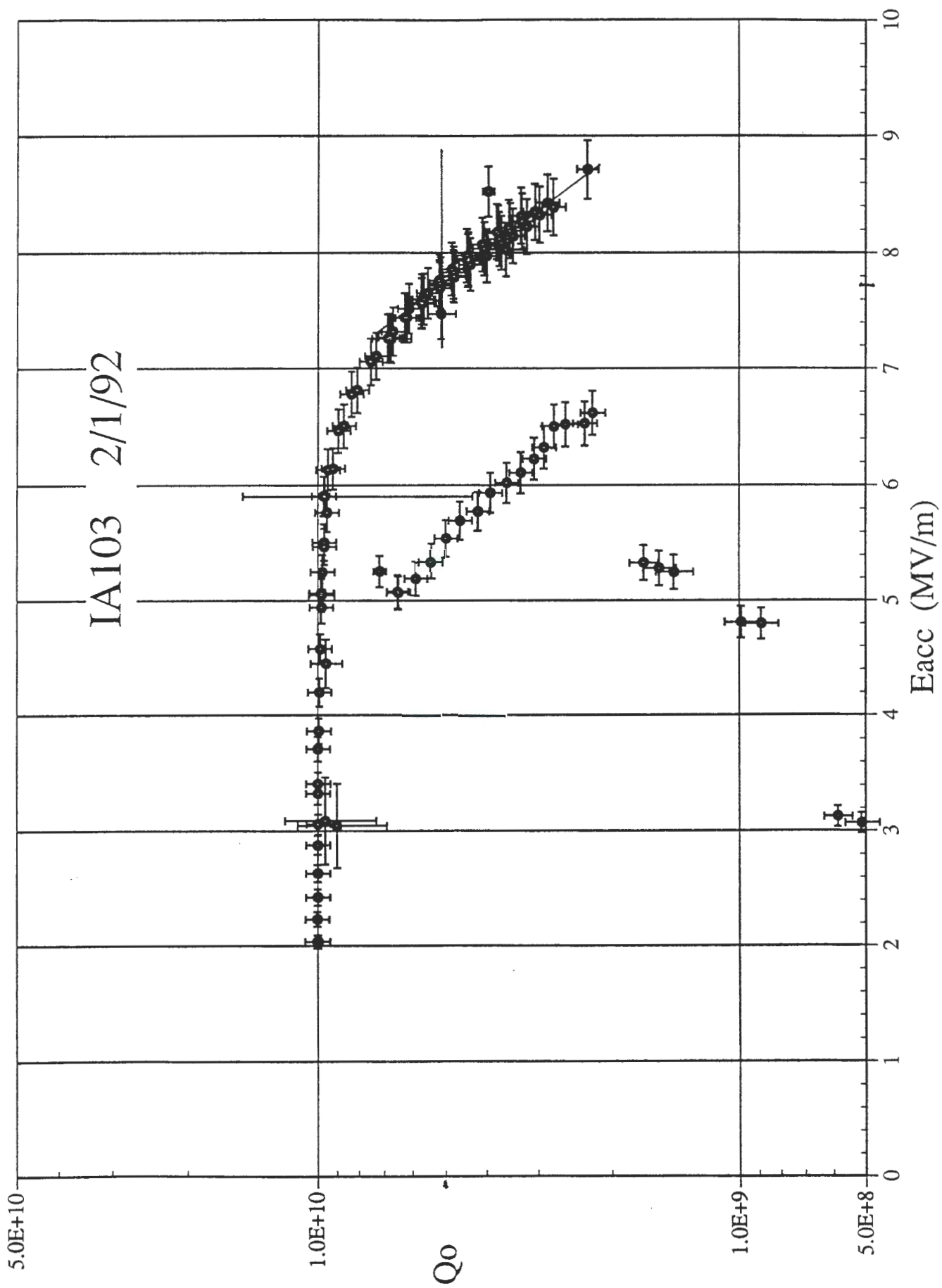
Clear Graph

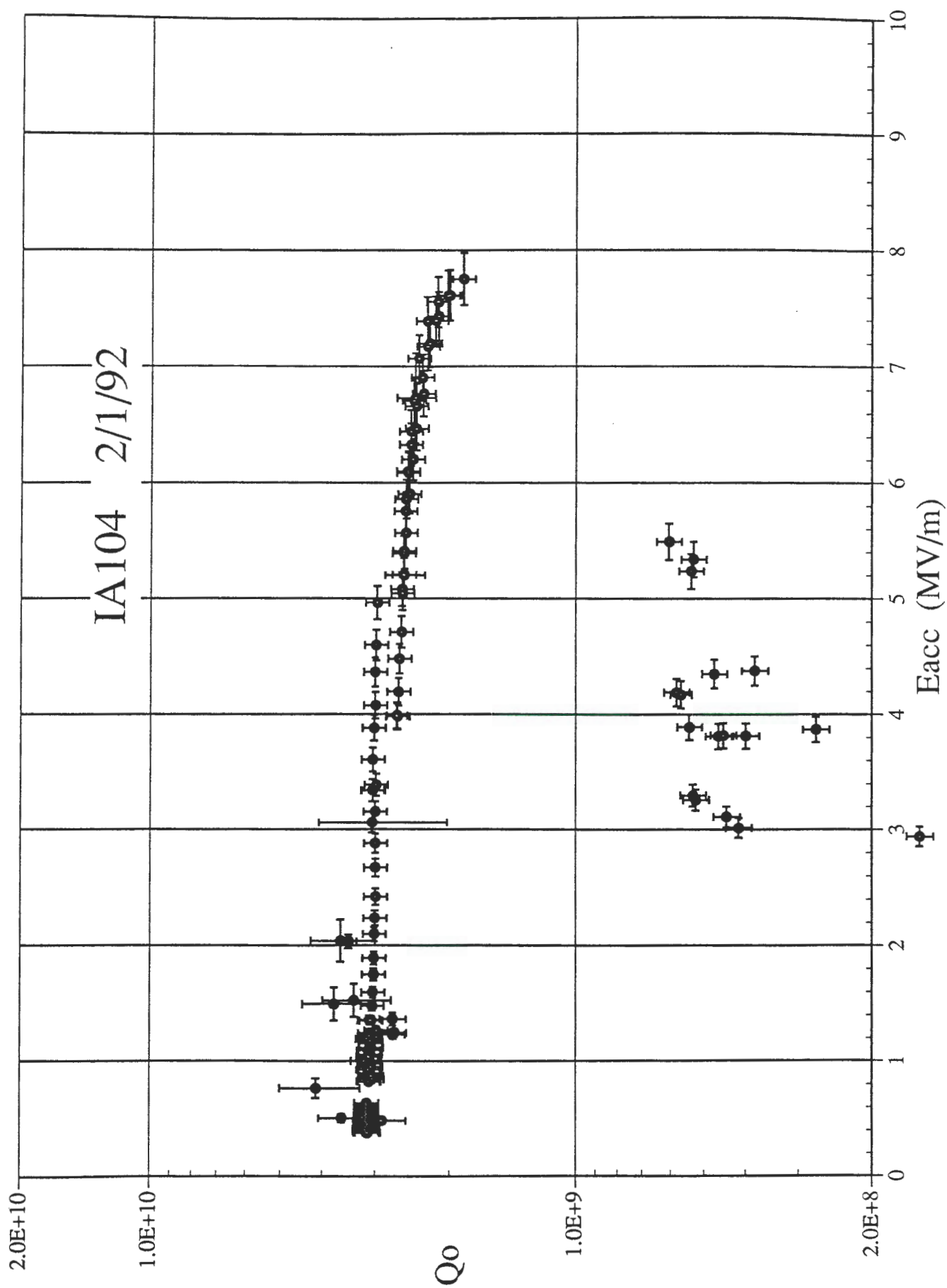
Auto #

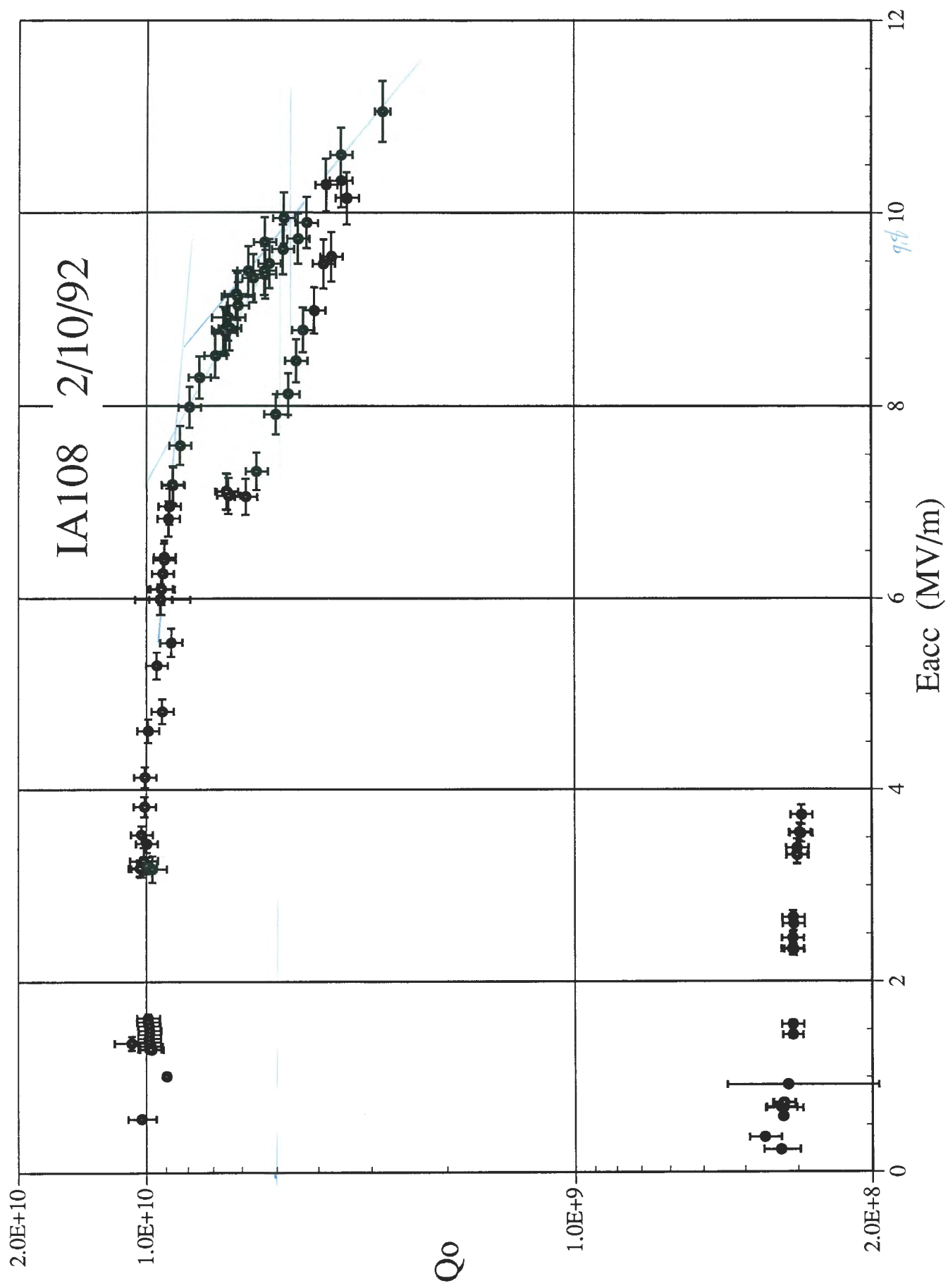
20

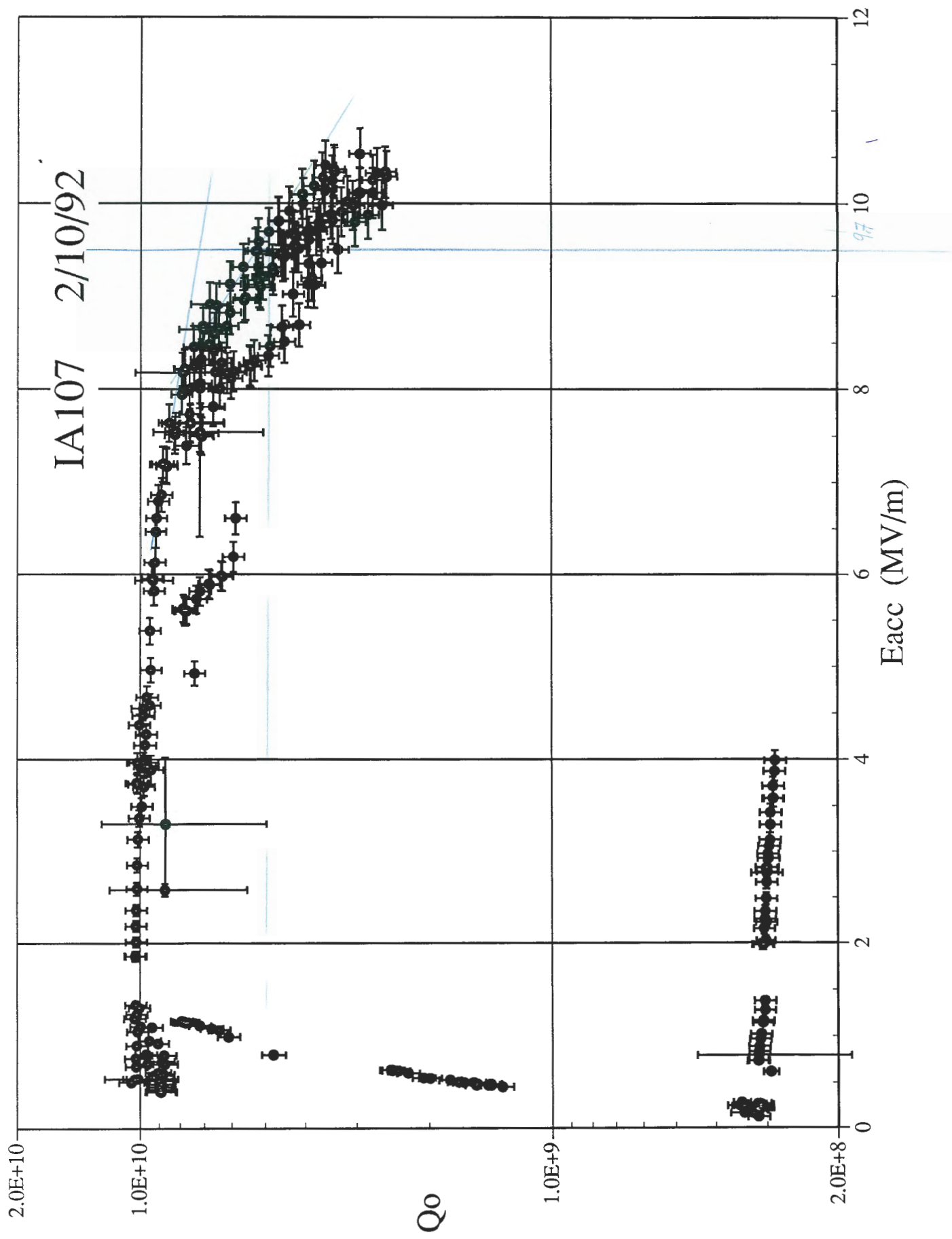
Zero Power Meters

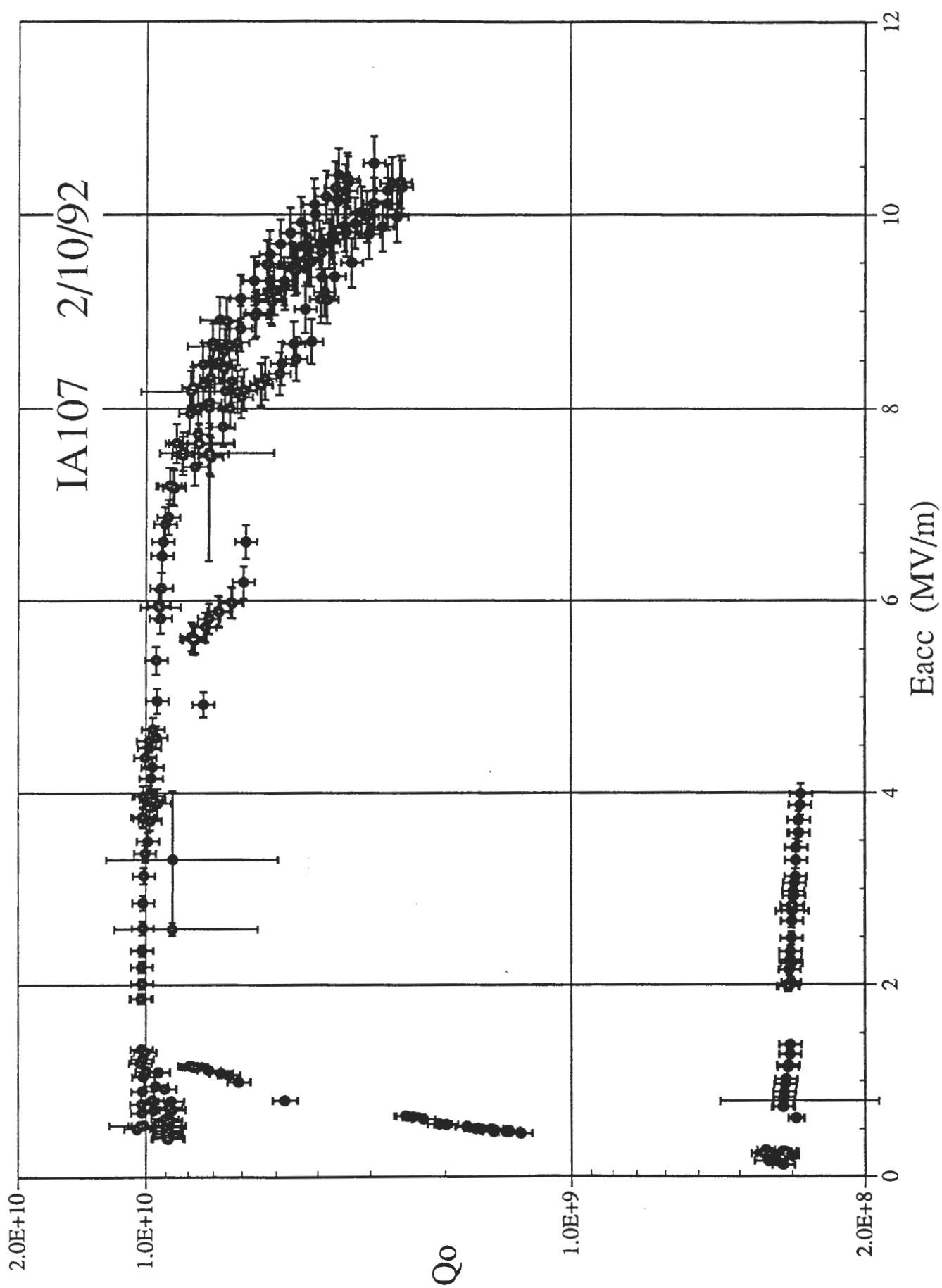


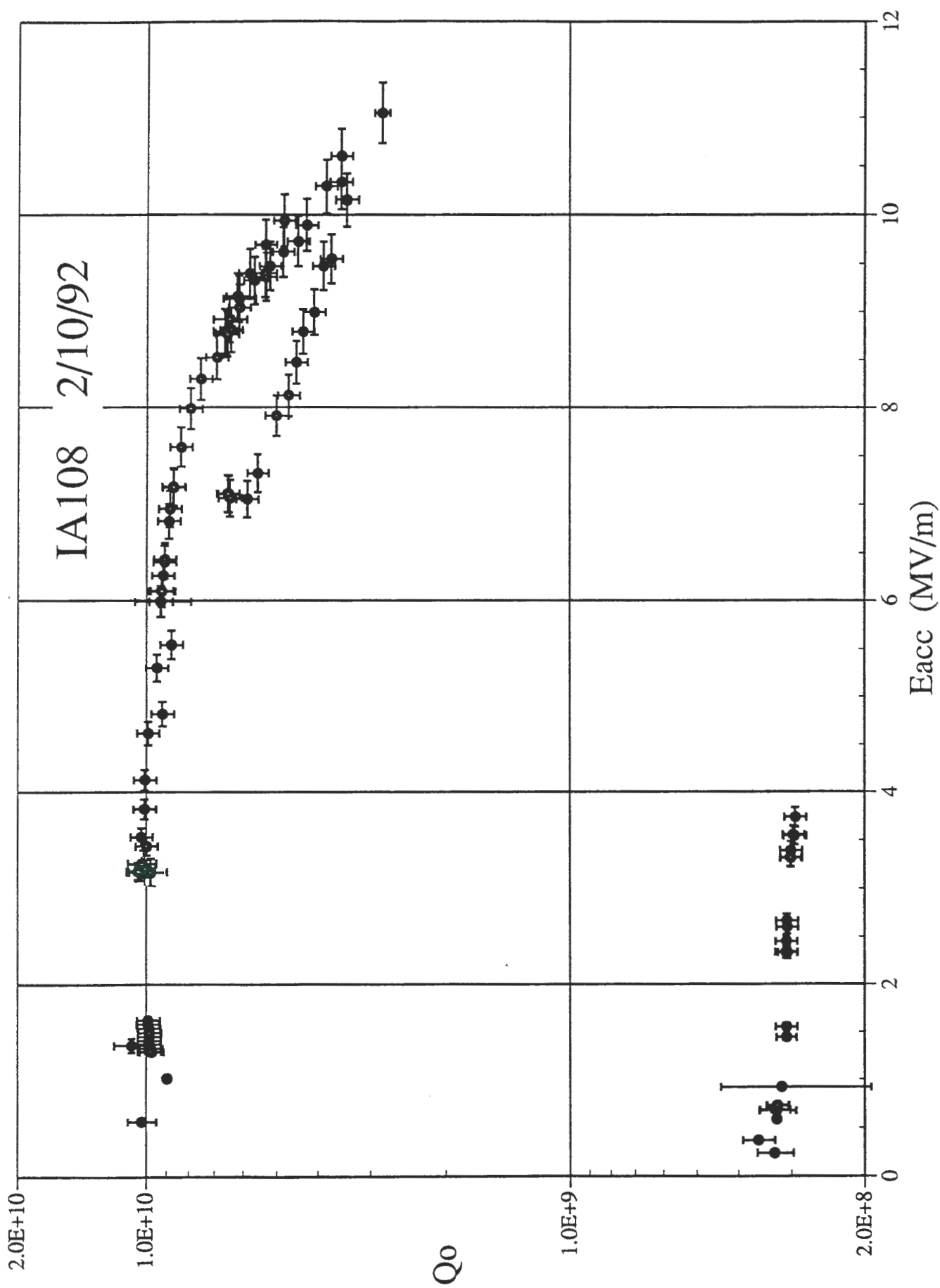


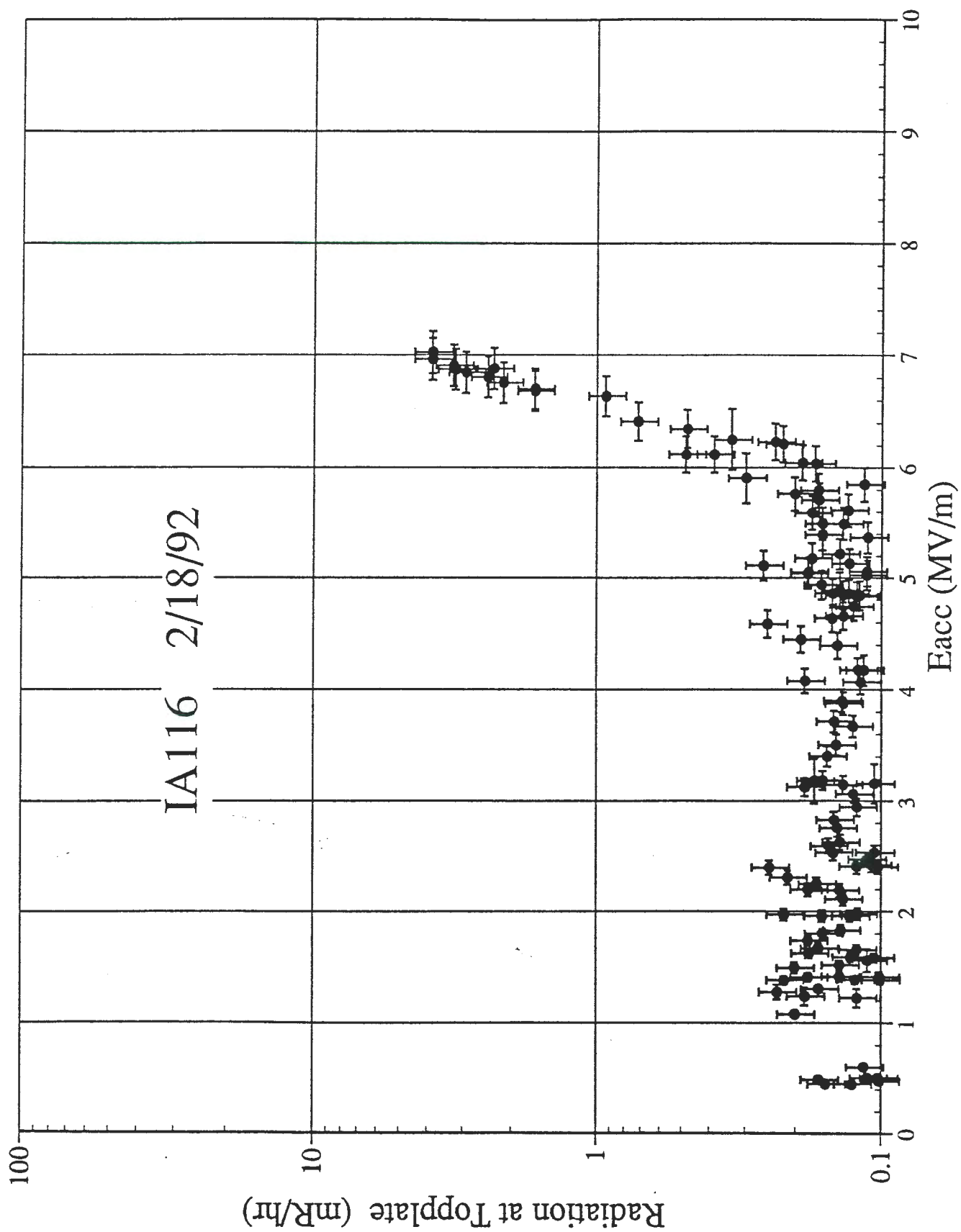


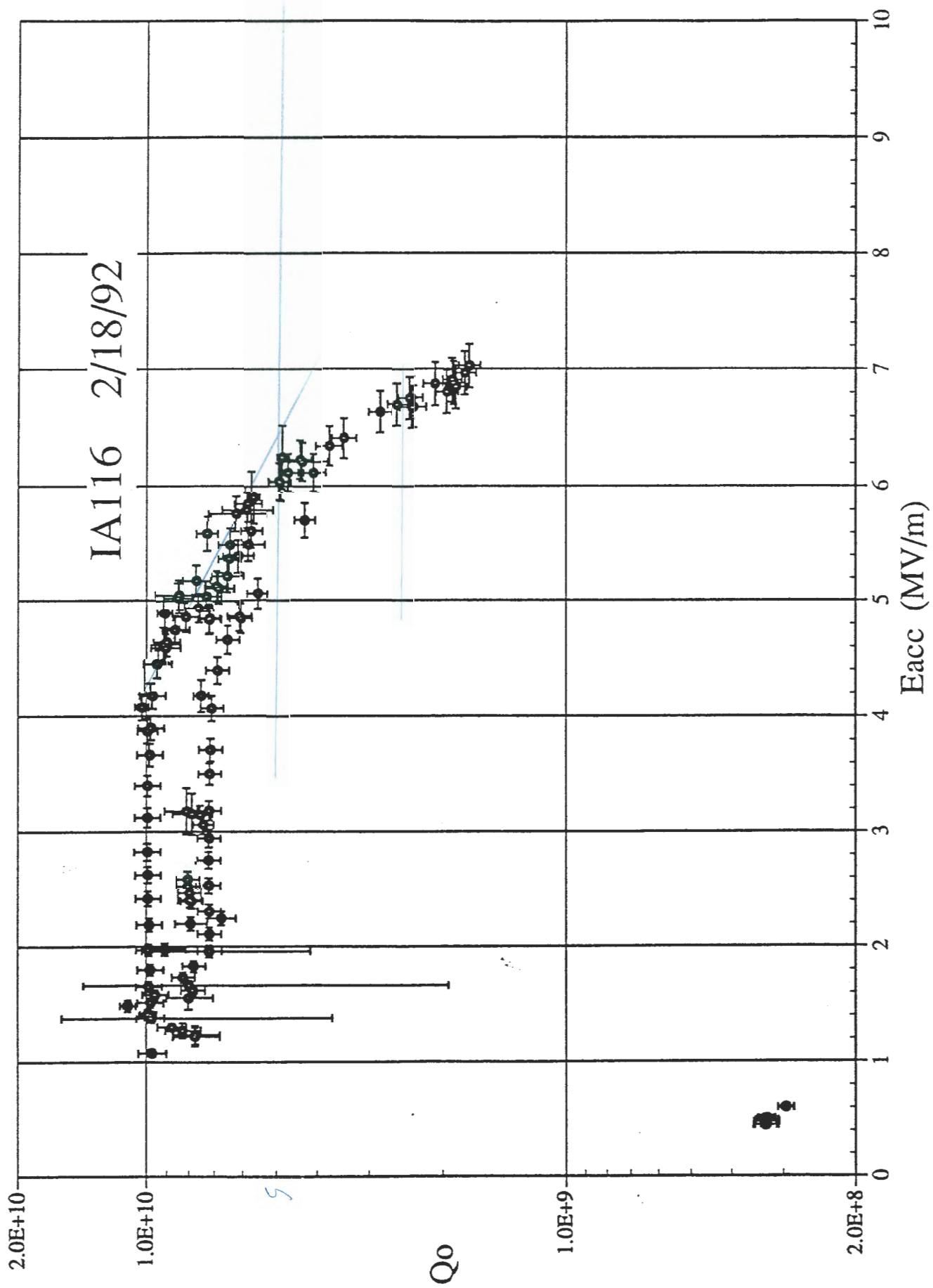


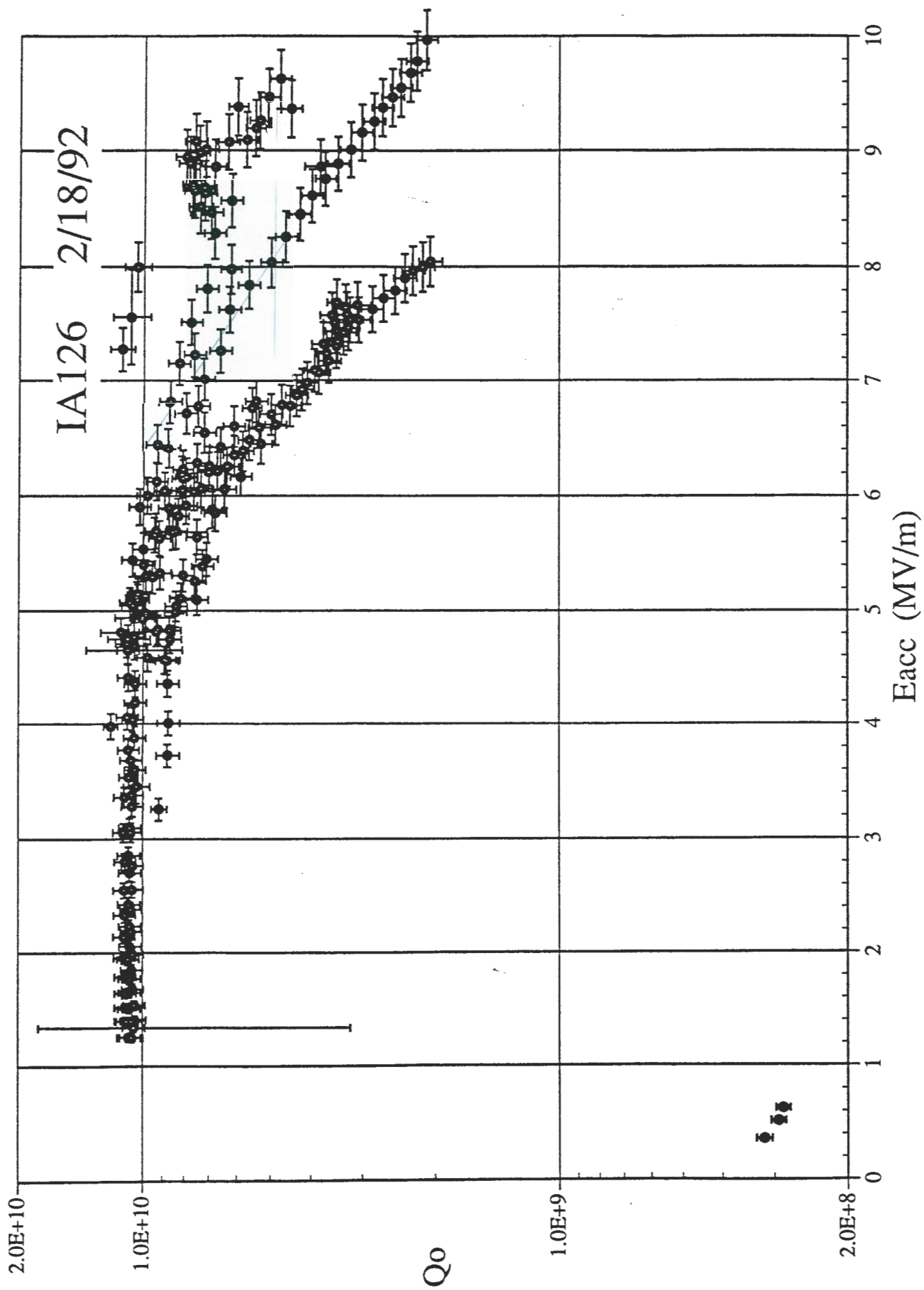


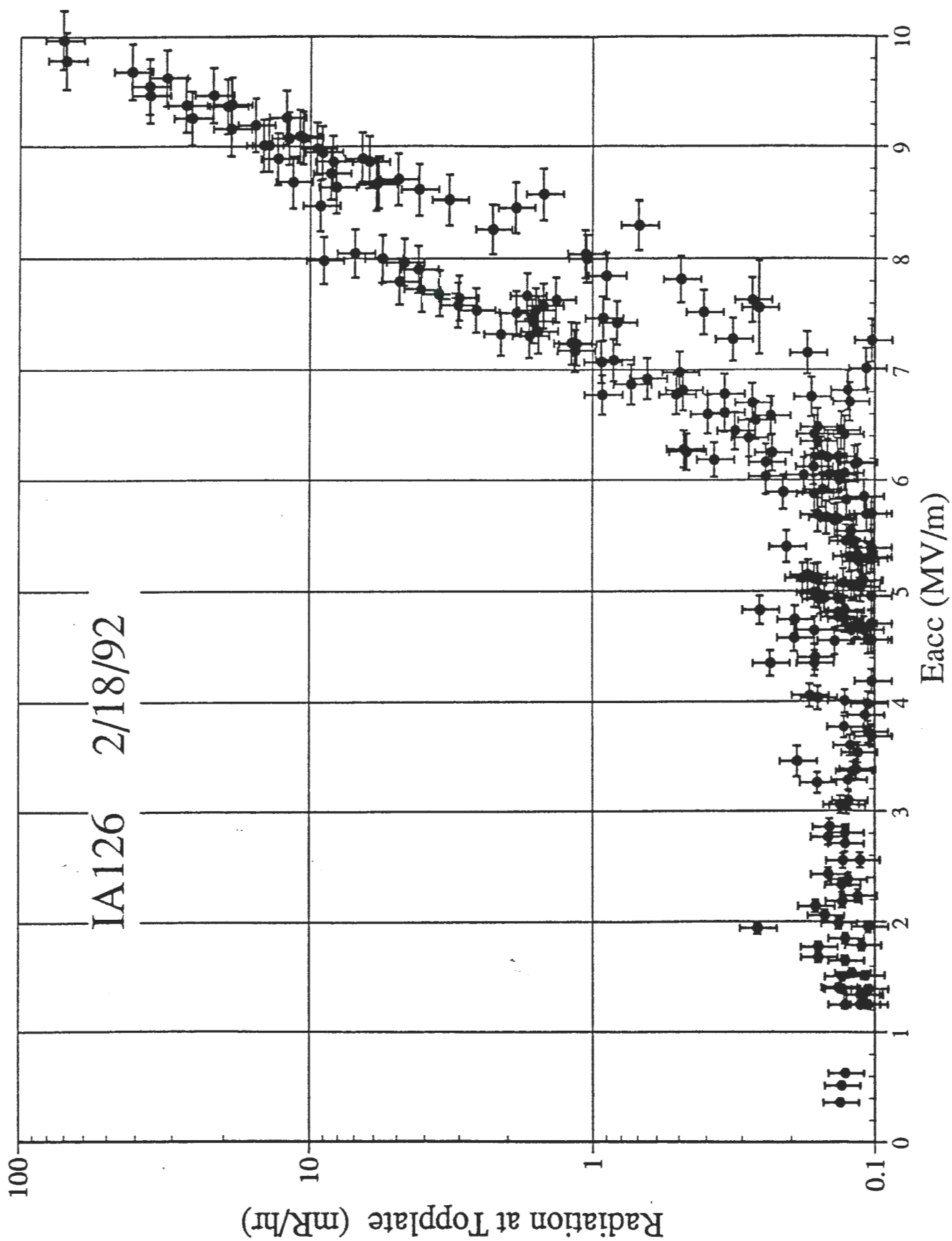












SUMMARY OF RF-MEASUREMENTS AT
CRYOGENIC TEMPERATURES

DATE:

2/18/92

TEST DONE BY:

CR

CAVITY #:

JA116

CAVITY #:

JA126

FREQ.(4.2K):

1497.0627 MHz

FREQ.(4.2K):

1497.072 MHz

Q-VALUE(4.2K):

3.31×10^8

Q-VALUE:

3.17×10^8

FREQ.(2 K):

1497.133 MHz

FREQ(2 K):

1497.149 MHz

Q-VALUE(2 K):

1.0×10^{10}

Q-VALUE(2K):

1.05×10^{10}

Q-VALUE AT
5 MV/m

8×10^{10}

Q-VALUE AT
5 MV/m

1.0×10^{10}

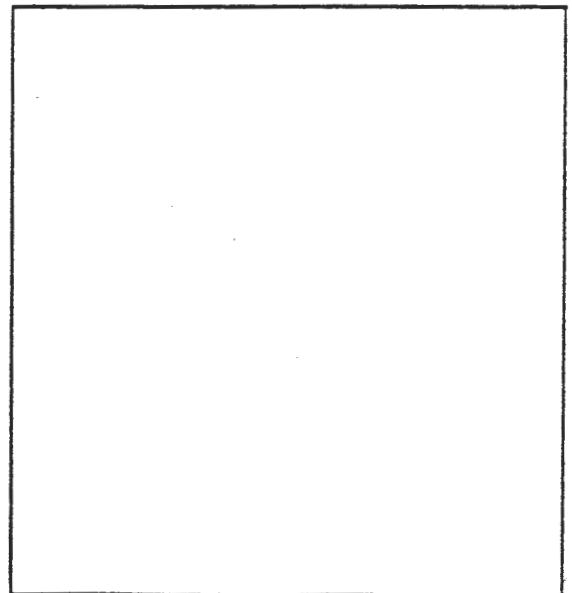
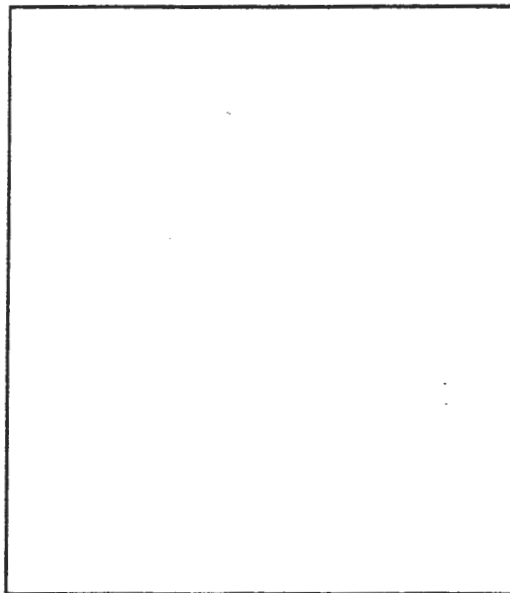
Eacc,max:

6.5 MV/m

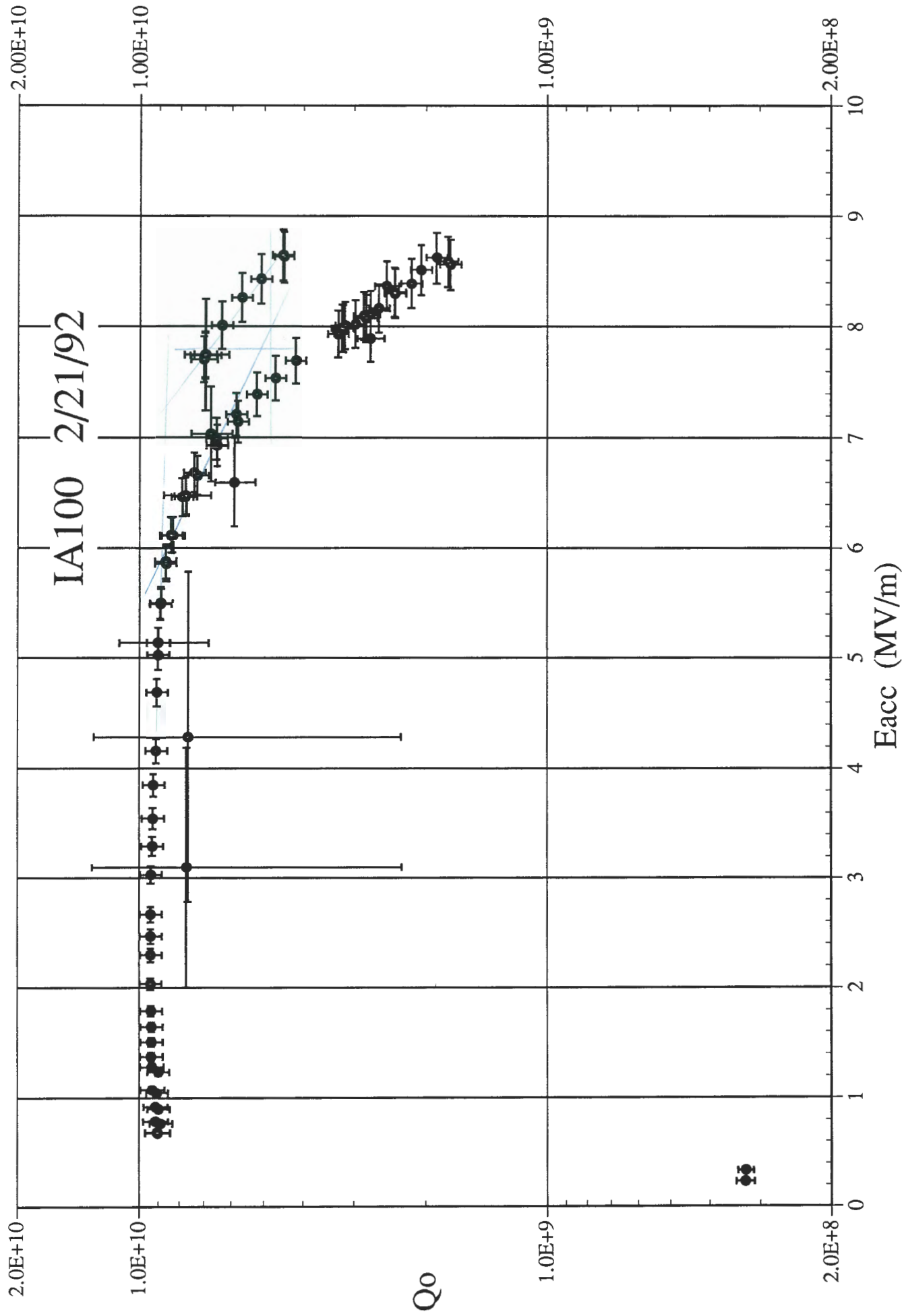
Eacc,max:

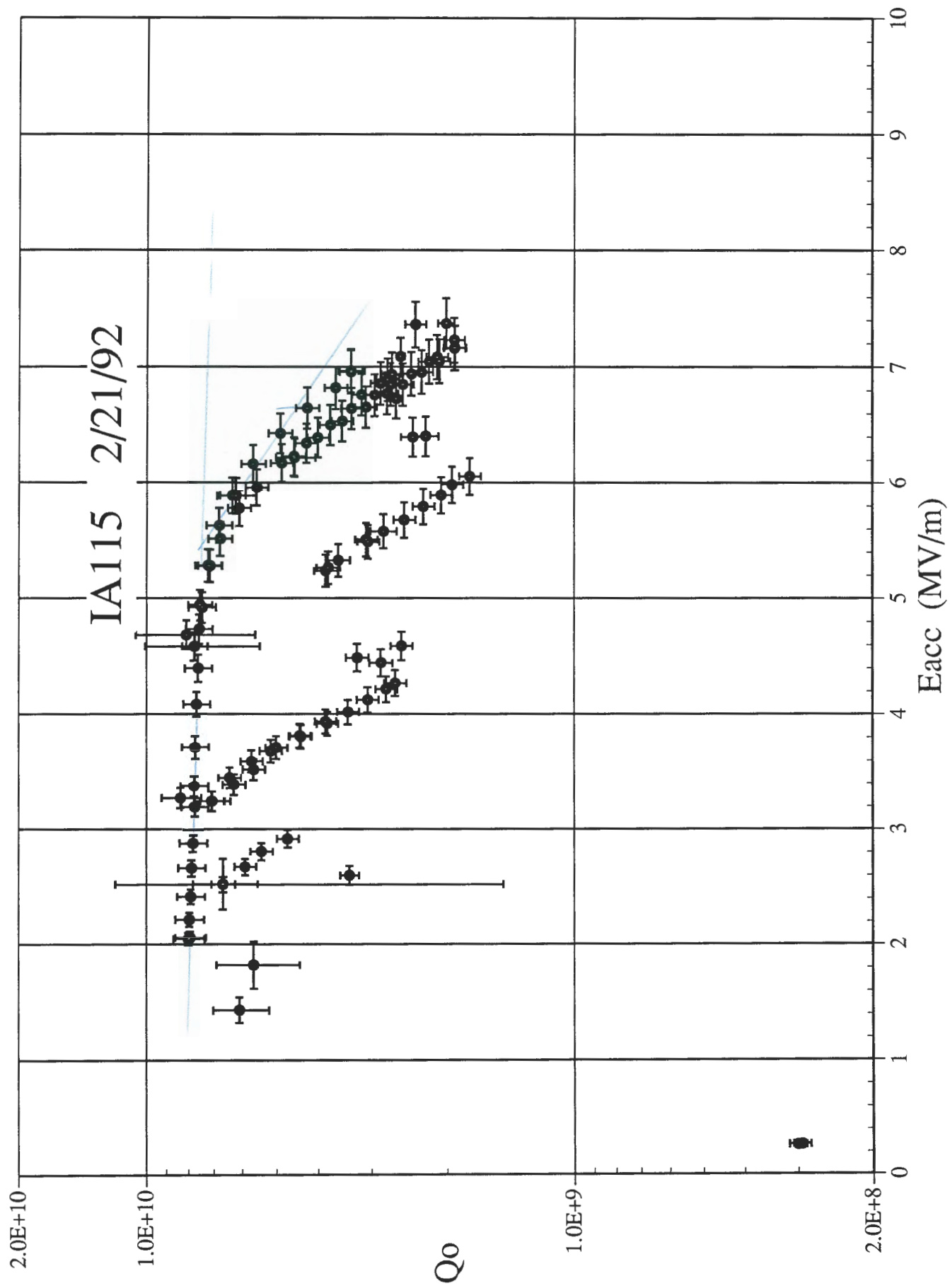
9.5 MV/m

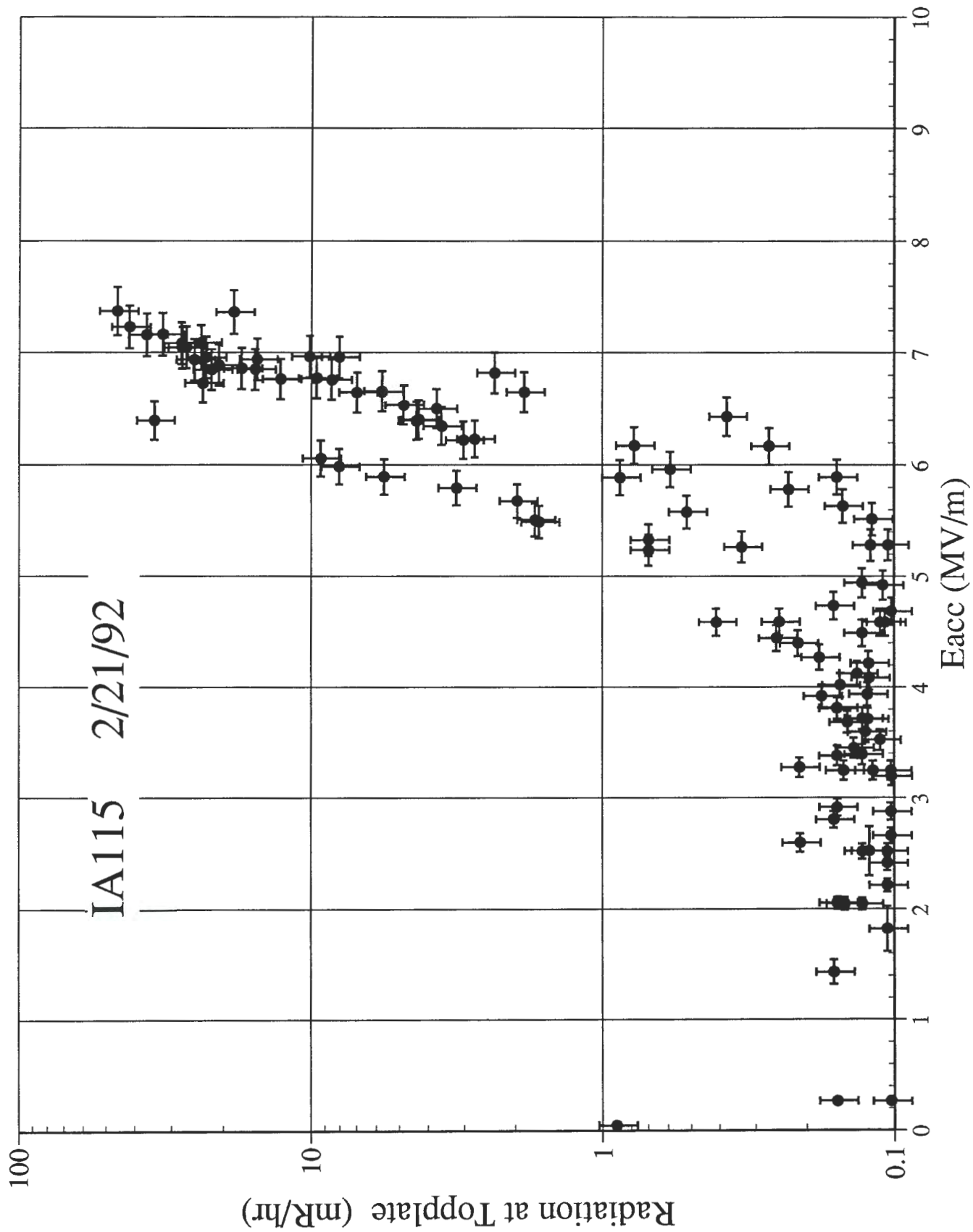
Q vs Eacc²

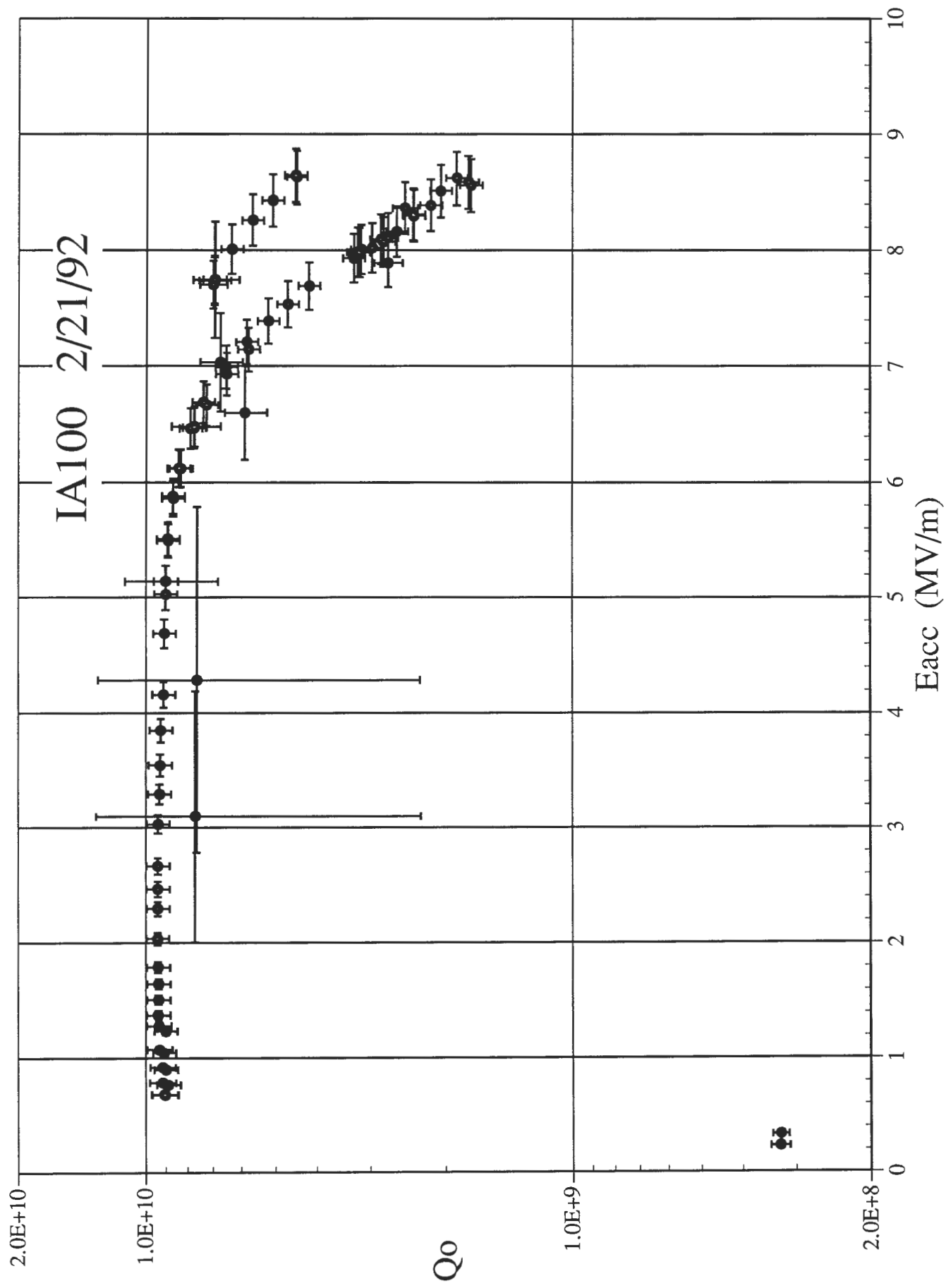


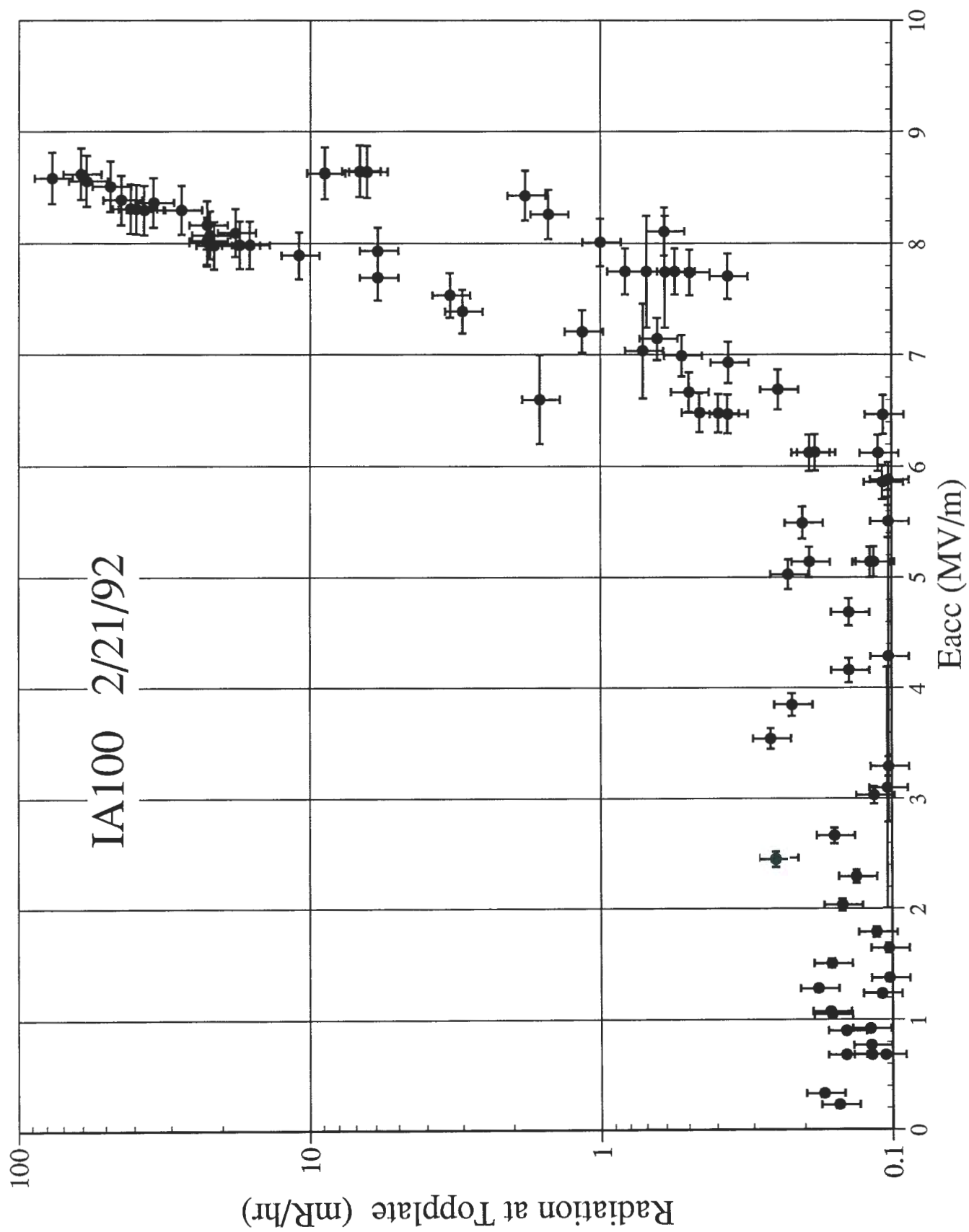
COMMENTS:

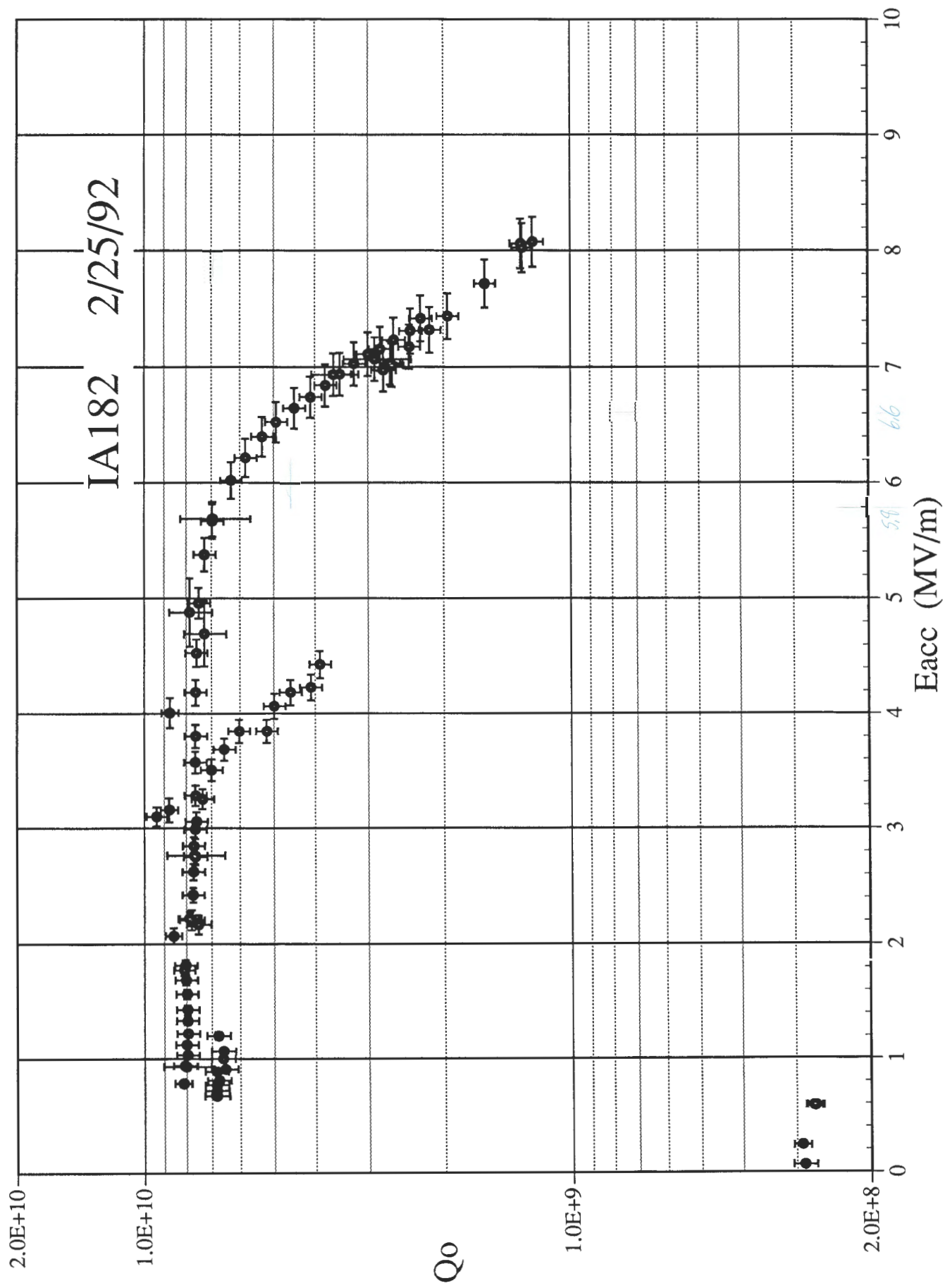


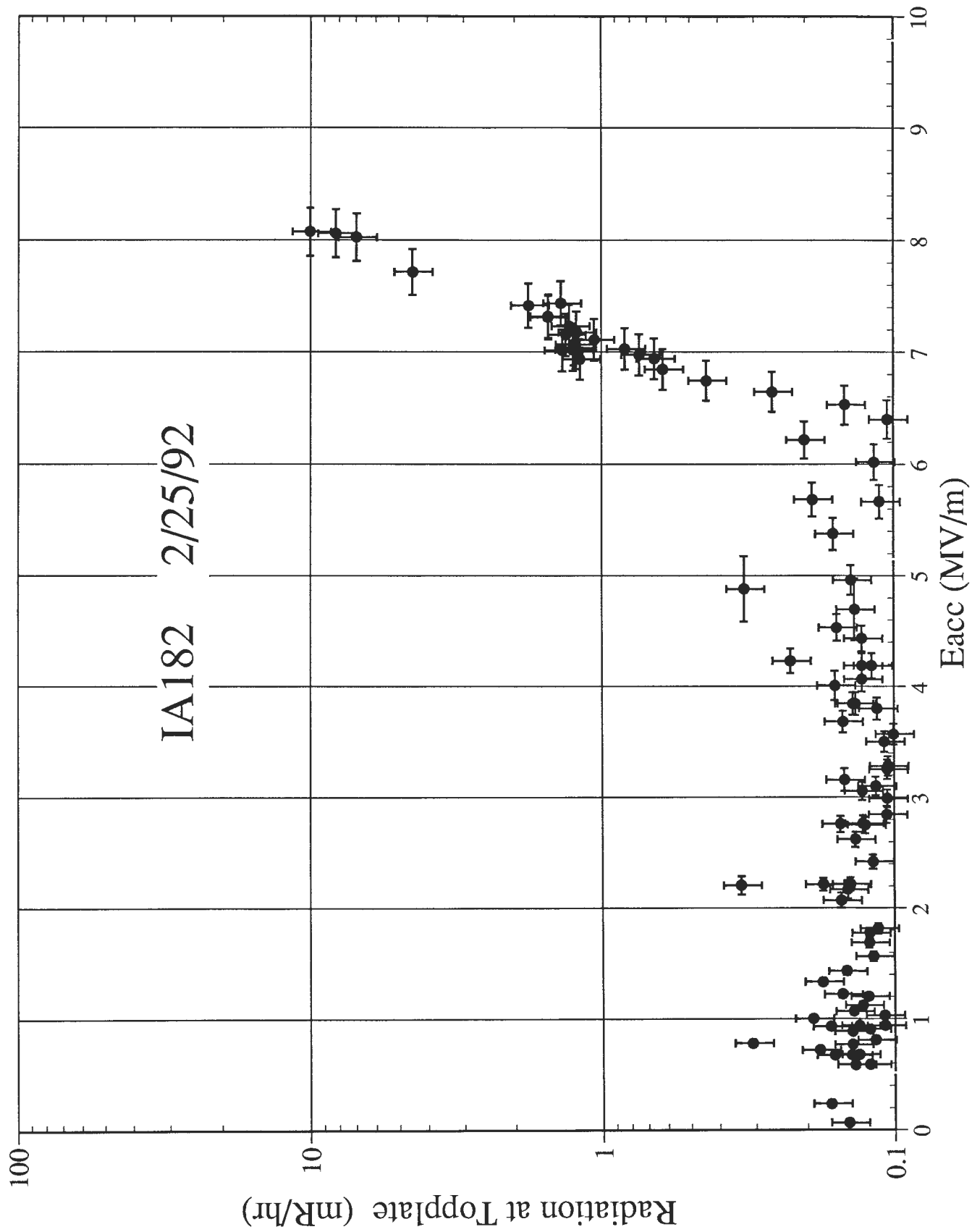


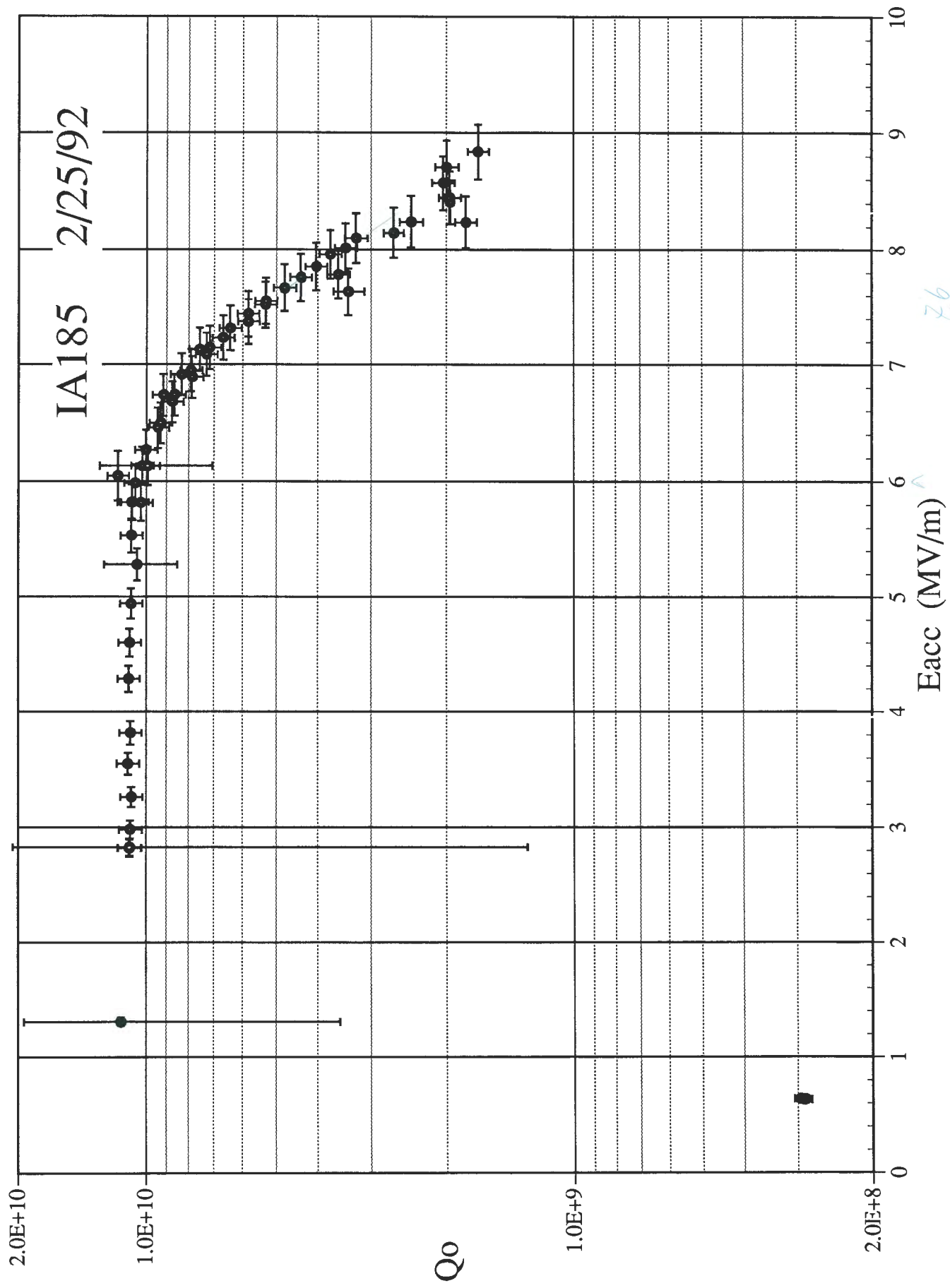


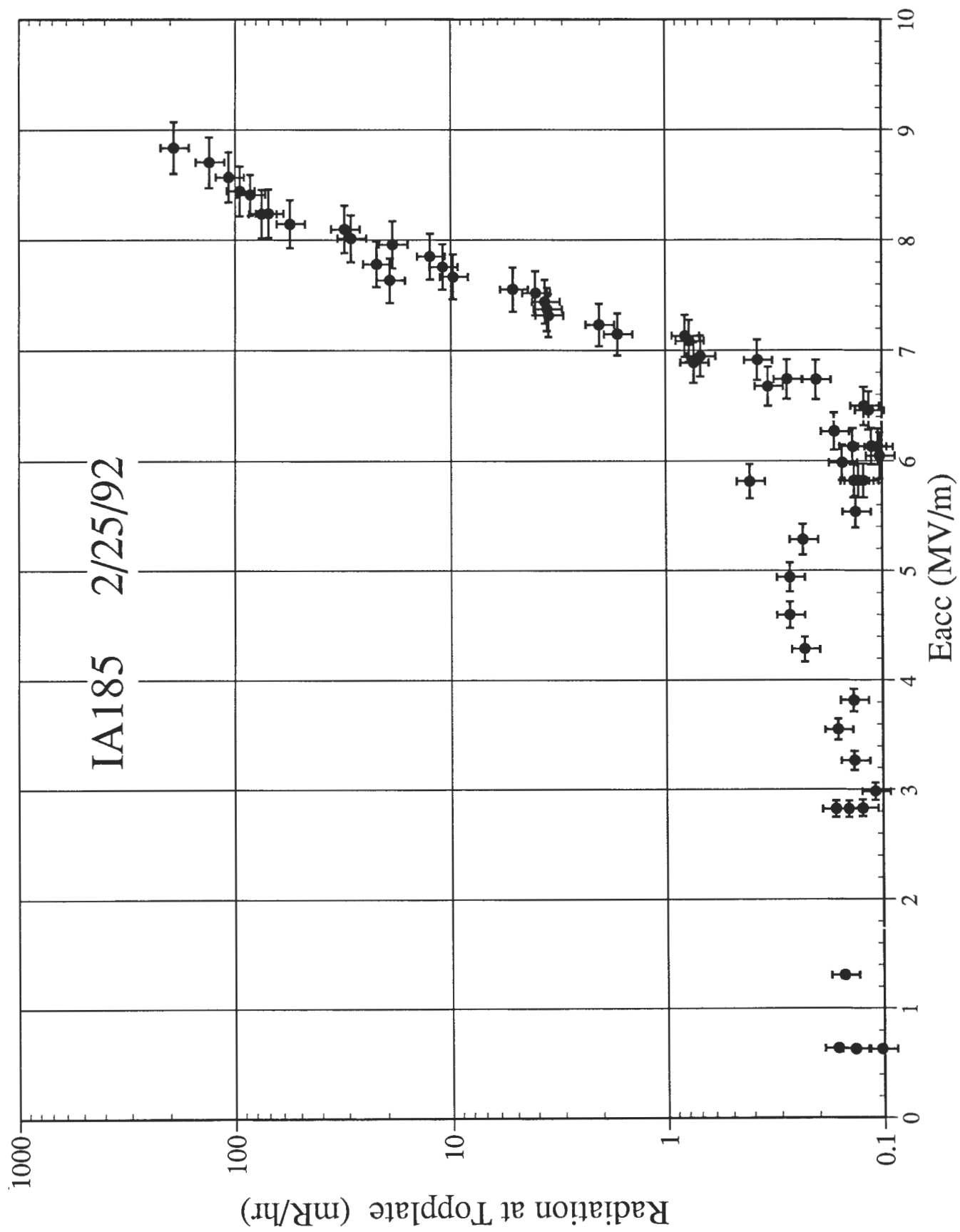


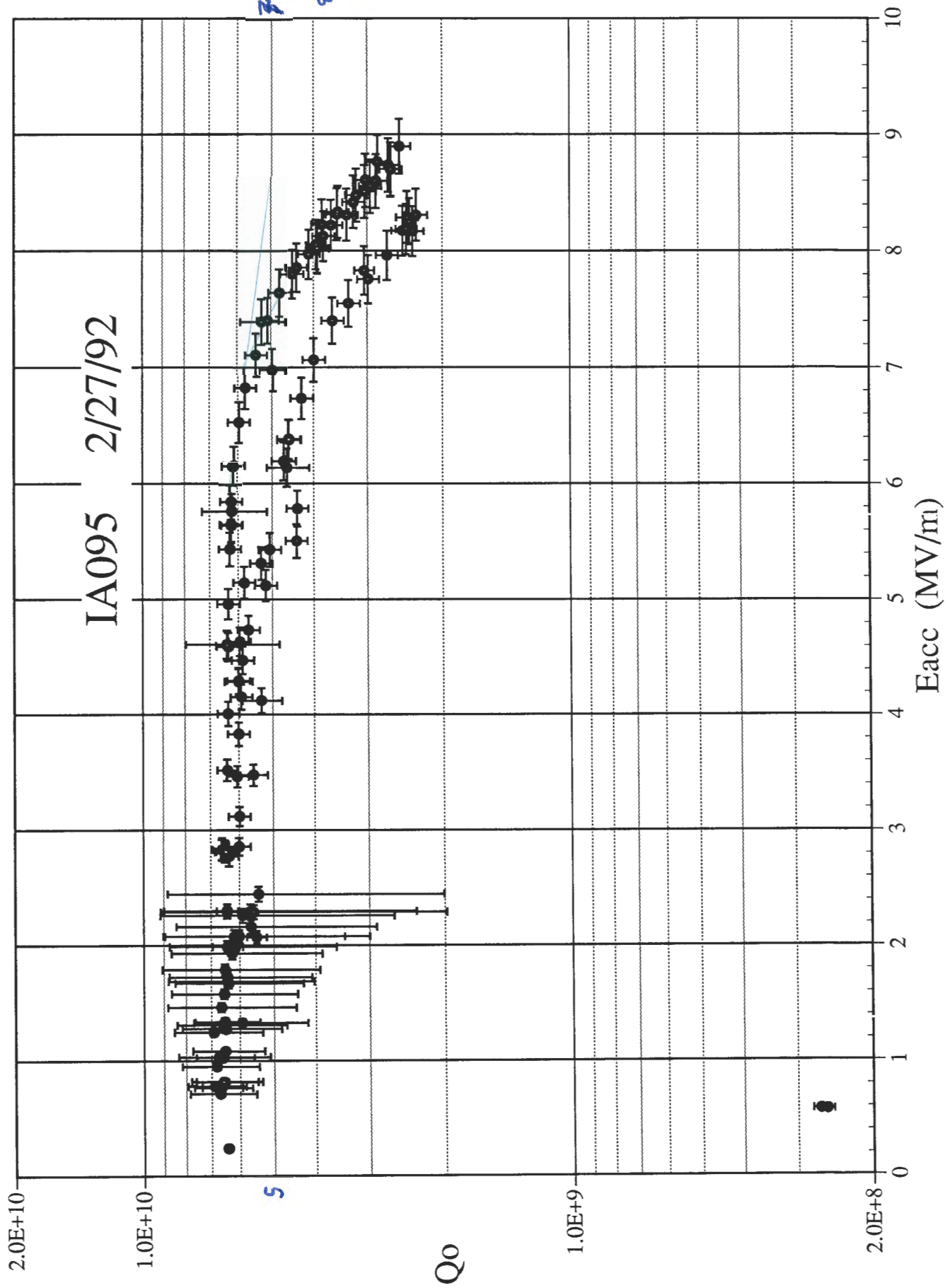


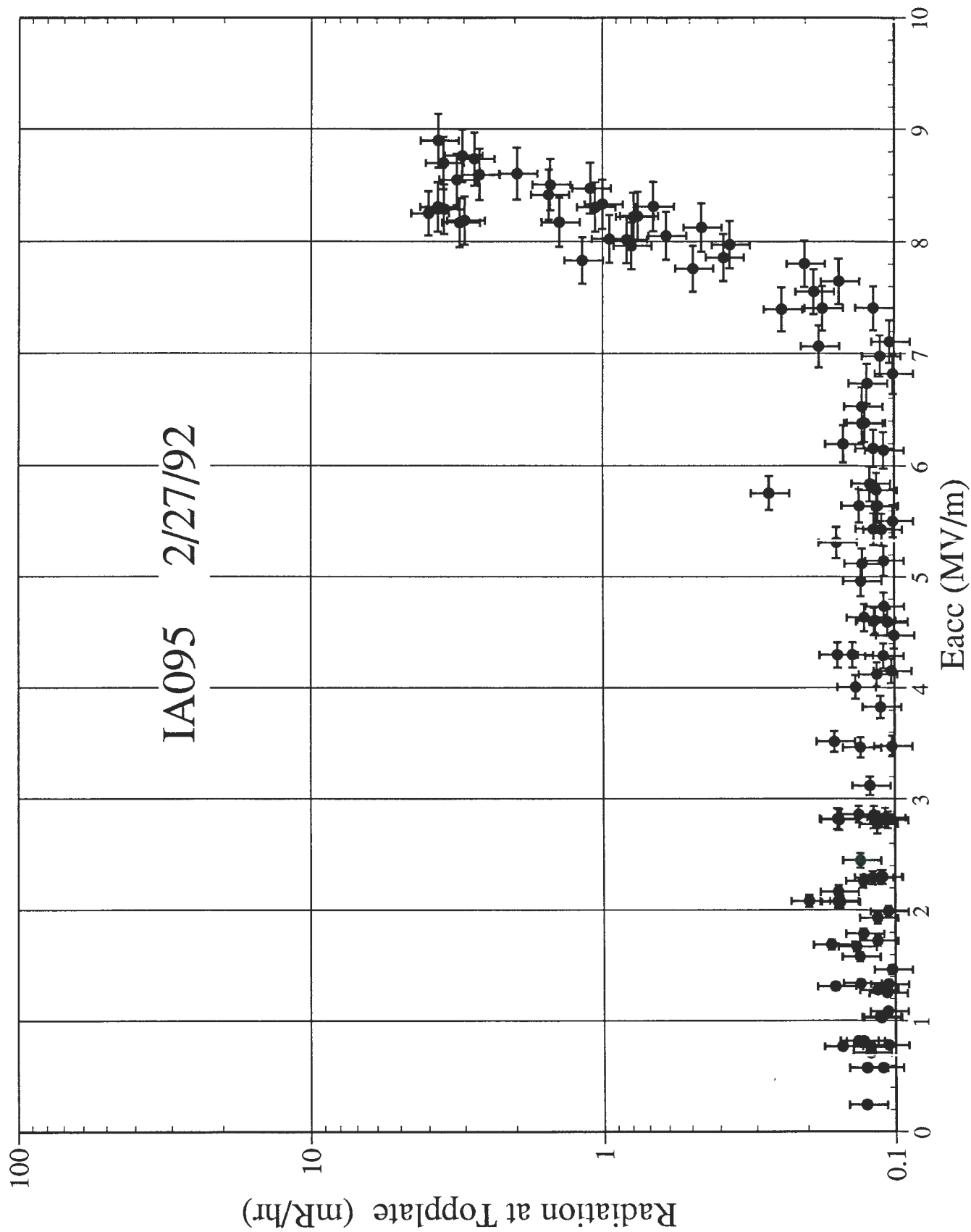


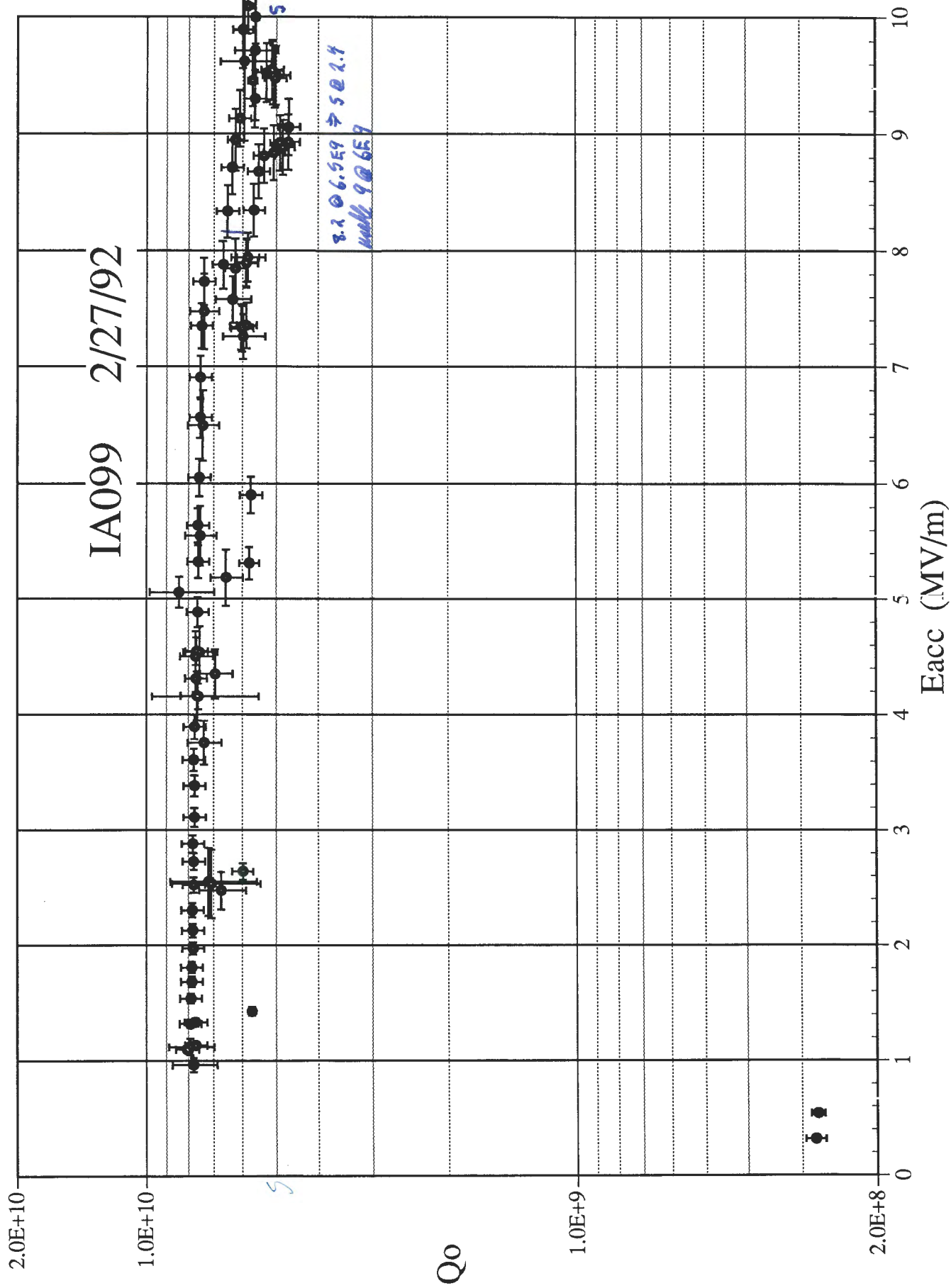


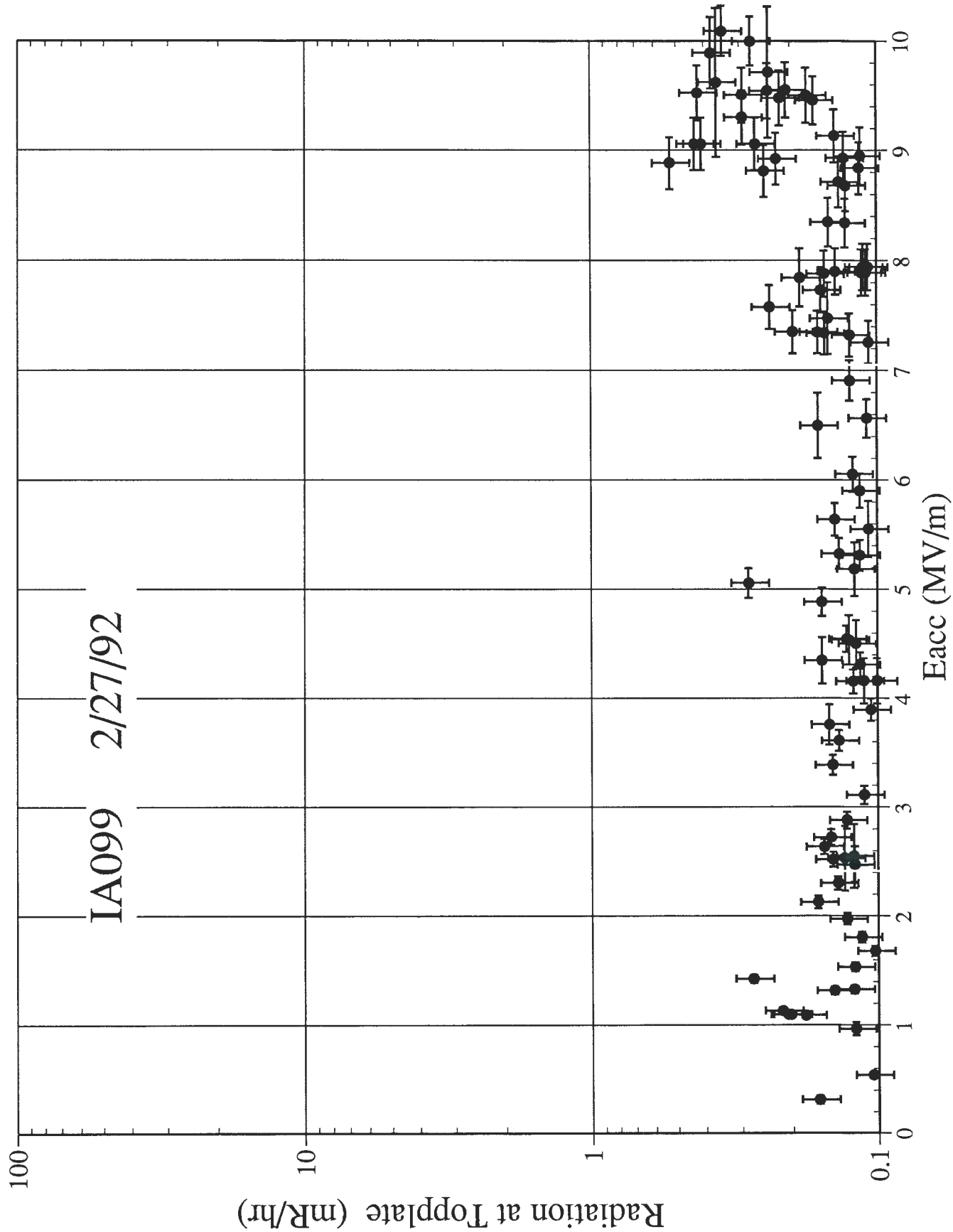


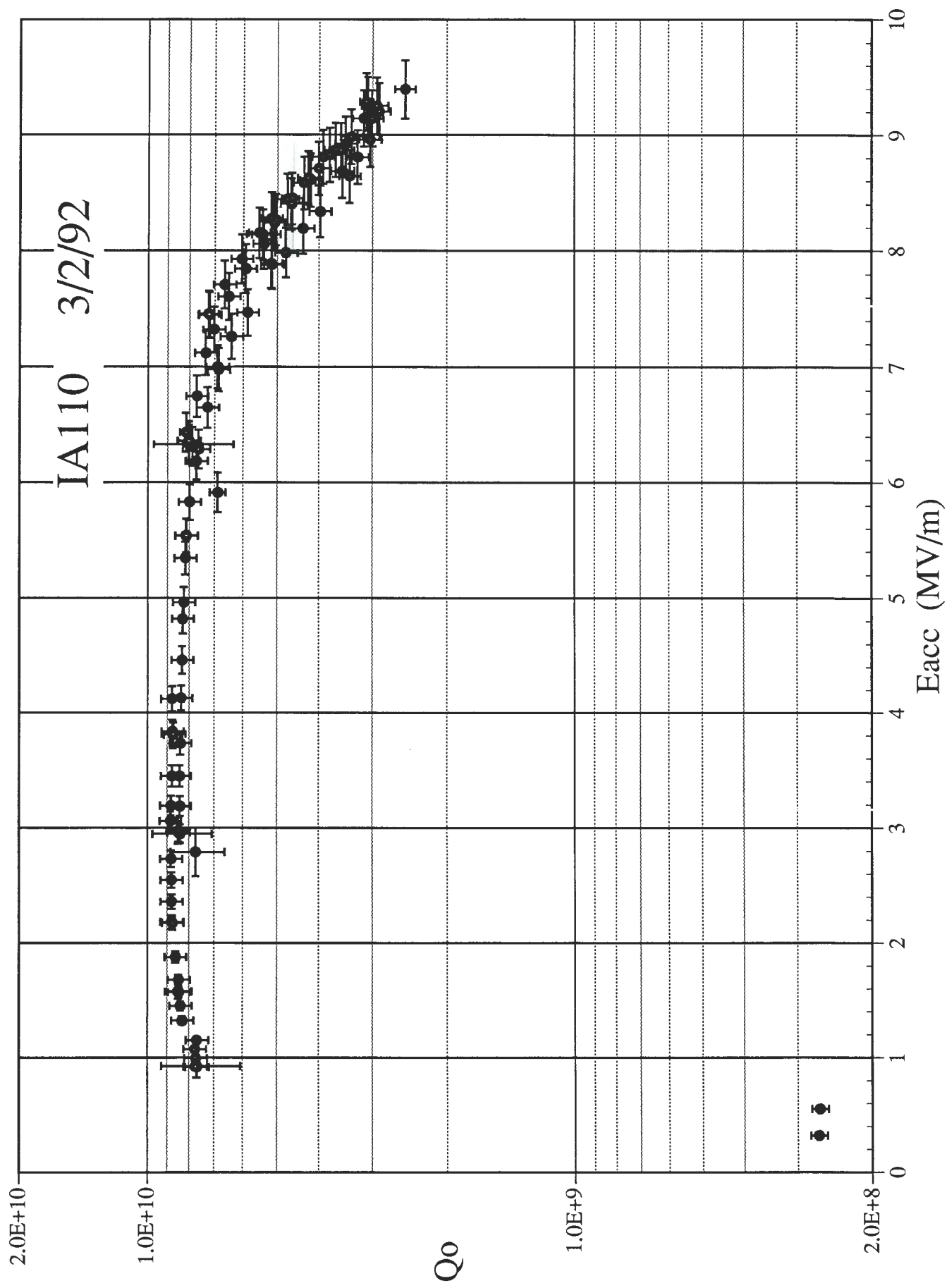


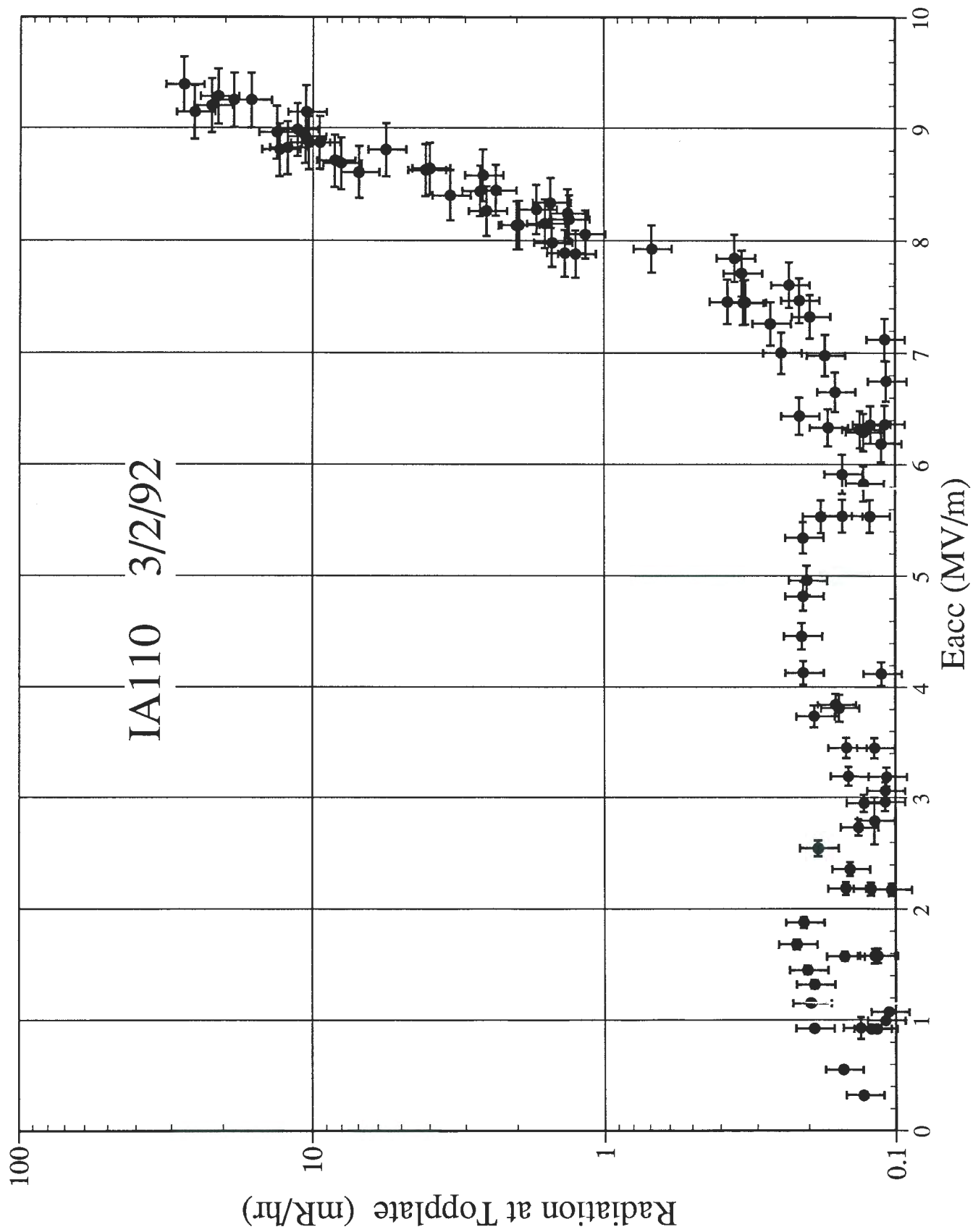


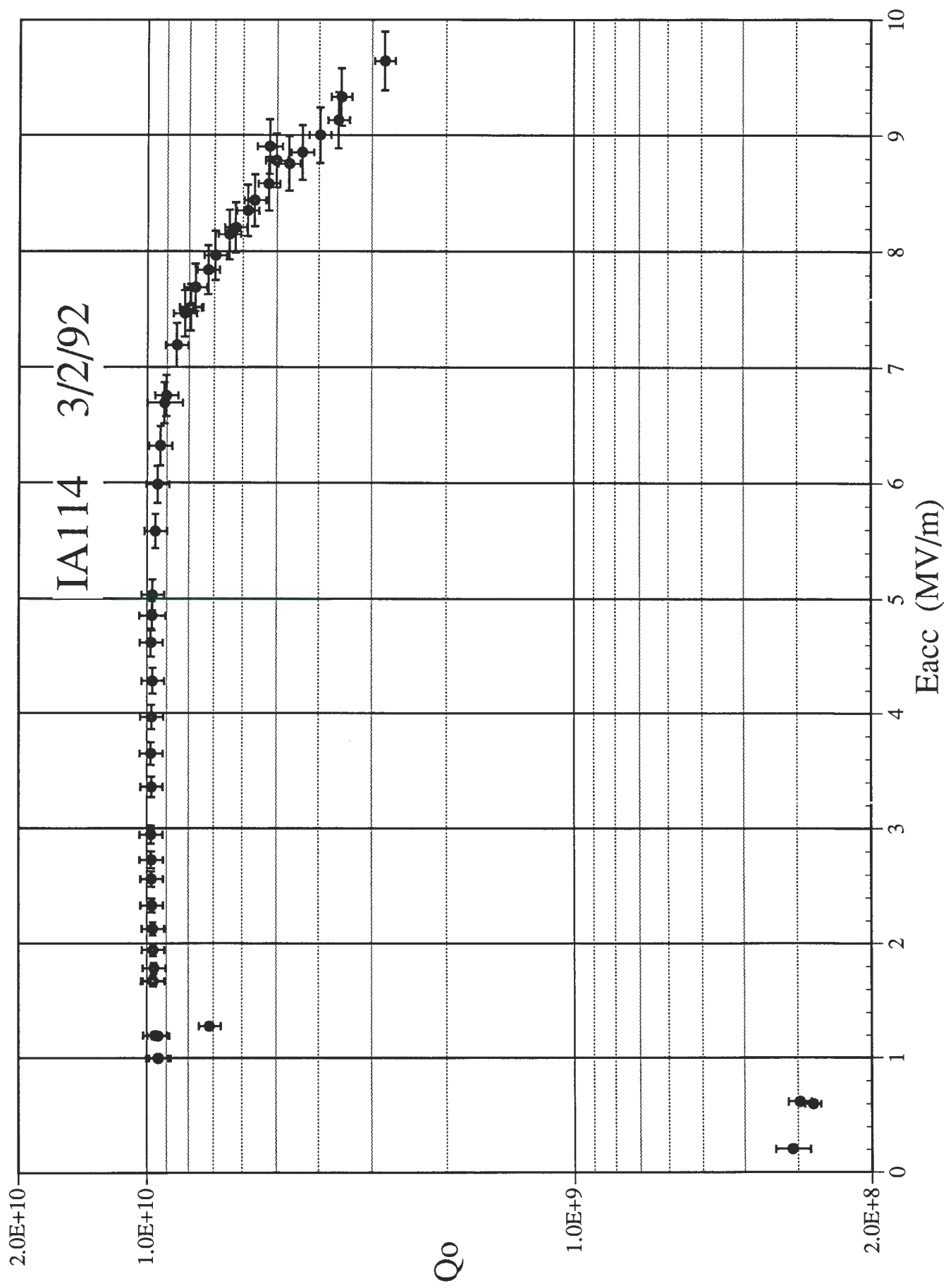


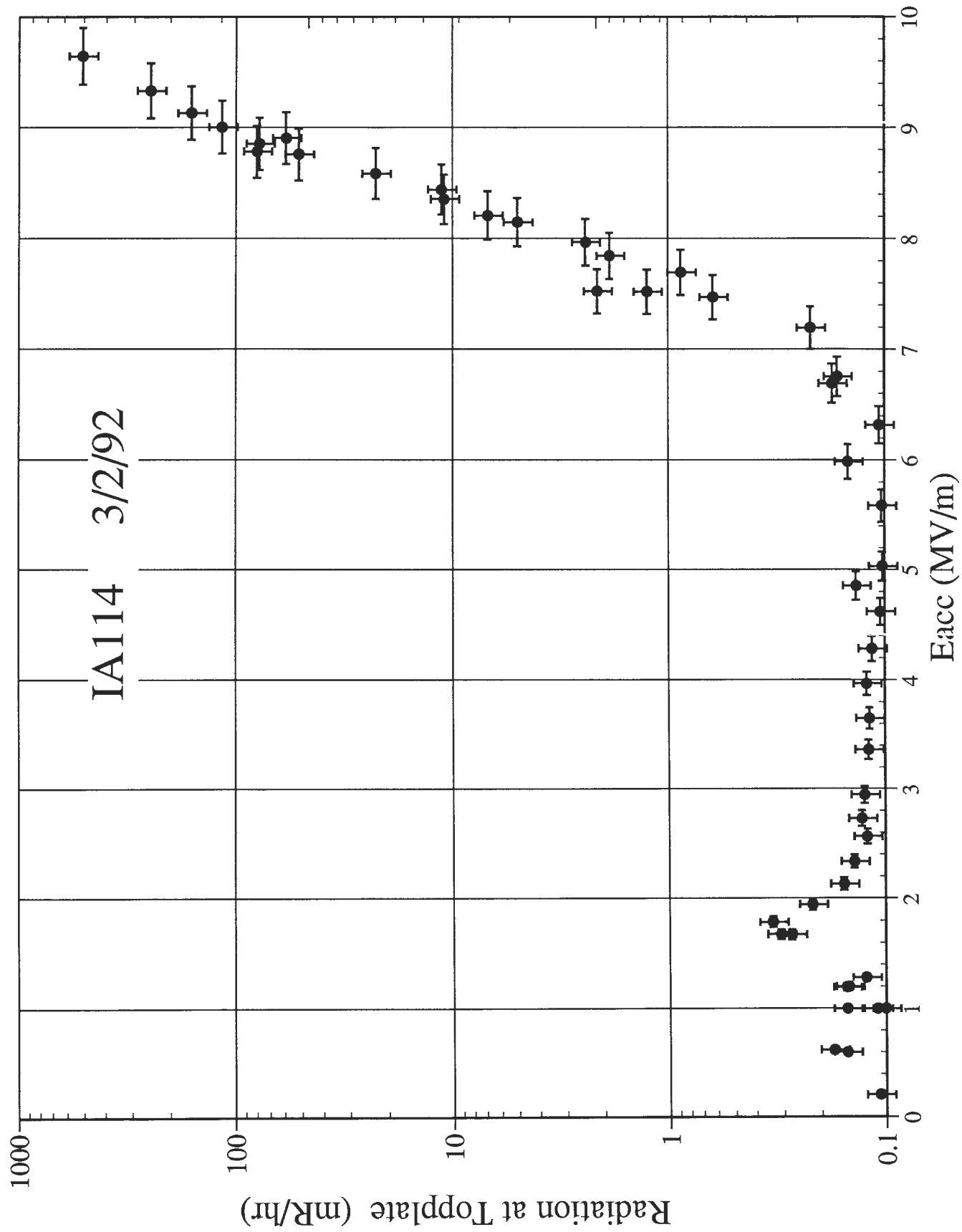












VTA RF Test Summary Sheet

03-04-92

Cavity: IA119

Date: 3/5/92

Dewar #: 8

☐ Top
☒ Bottom

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	4.2	1496.9185	2.8	90	0.97
π	2.0	1496.9908	4.0	20	1.10
$4\pi/5$	2.0	1492.3206	3.0	10	0.69
		1480.7284	1.8	0	1.39
$3\pi/5$	2.0	1480.7284	1.8	0	1.39
$2\pi/5$	2.0	1467.0498	0.76	0	2.18
$\pi/5$	2.0	1455.8815	0.75	0	16.0
Hat	2.0	1429.546	3.0406	0	
π	4.2		2.5	100	0.86
	4.2		2.88	80	0.97

Gradient Limitation

Quench @ Eacc=

Input limitation input discharge @ 25 u

FE Loading @ Eacc=

Radiation Tolerance @ mR/hr

Other :

Eacc	Qo
MV/m	E9
1.0	3.63
5.0	4.0
8.0	2.0
10.0	
Eacc	8.7
	1.6
	7.5
	2.9
Eacc usable	7.3
	3.3

Pref min @ B=1.0 :

Onset of measurable Radiation : 7.0

HOM Data

Freq	Q1
1976.79	2300
1980.36	1680

Operator Chen Jee

Notes: Strong MP barrier @ low field

Notes: On second day MP seen in $\pi/5$ mode only persisted ~ 4 minutes

Notes: _____

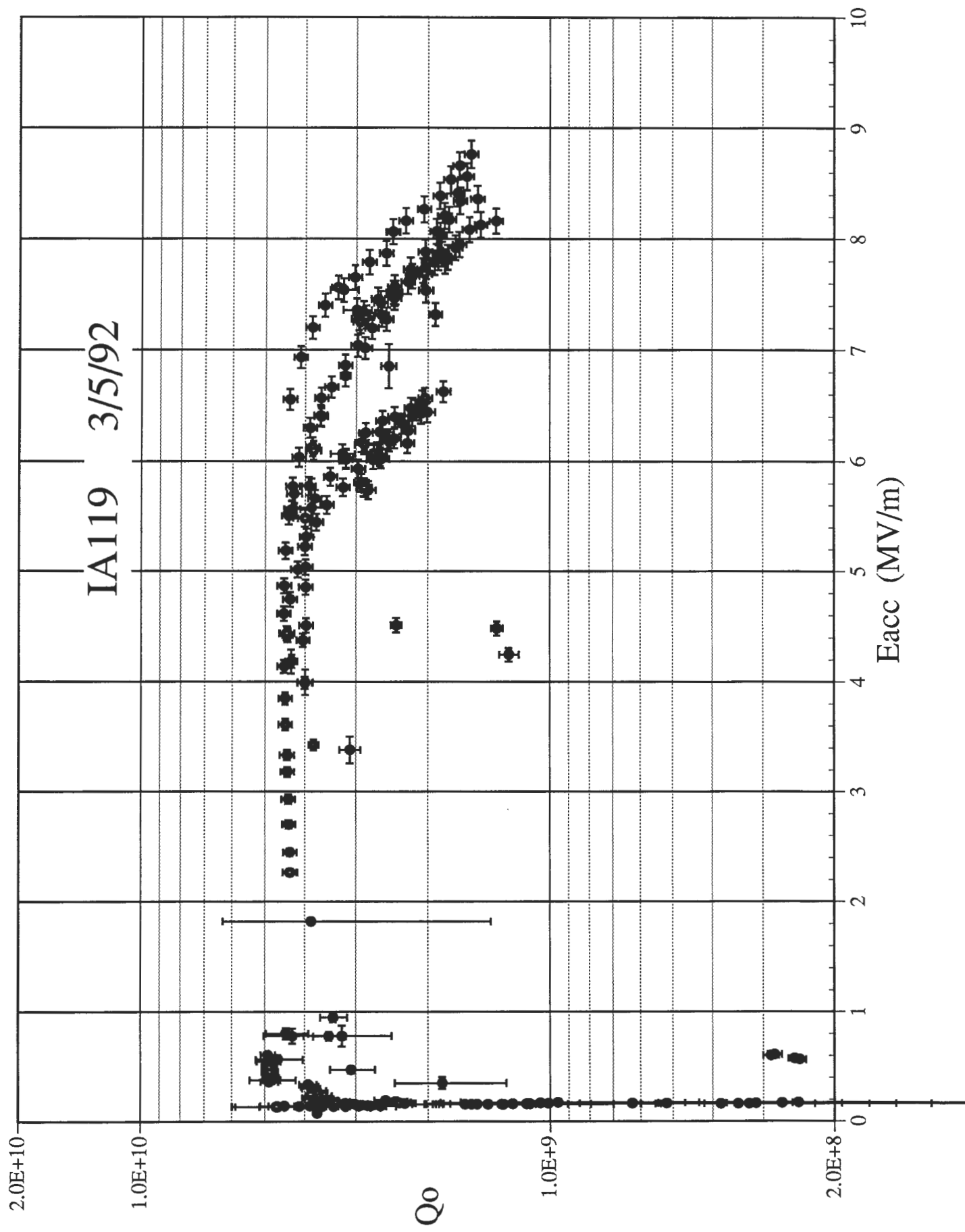
Notes: _____

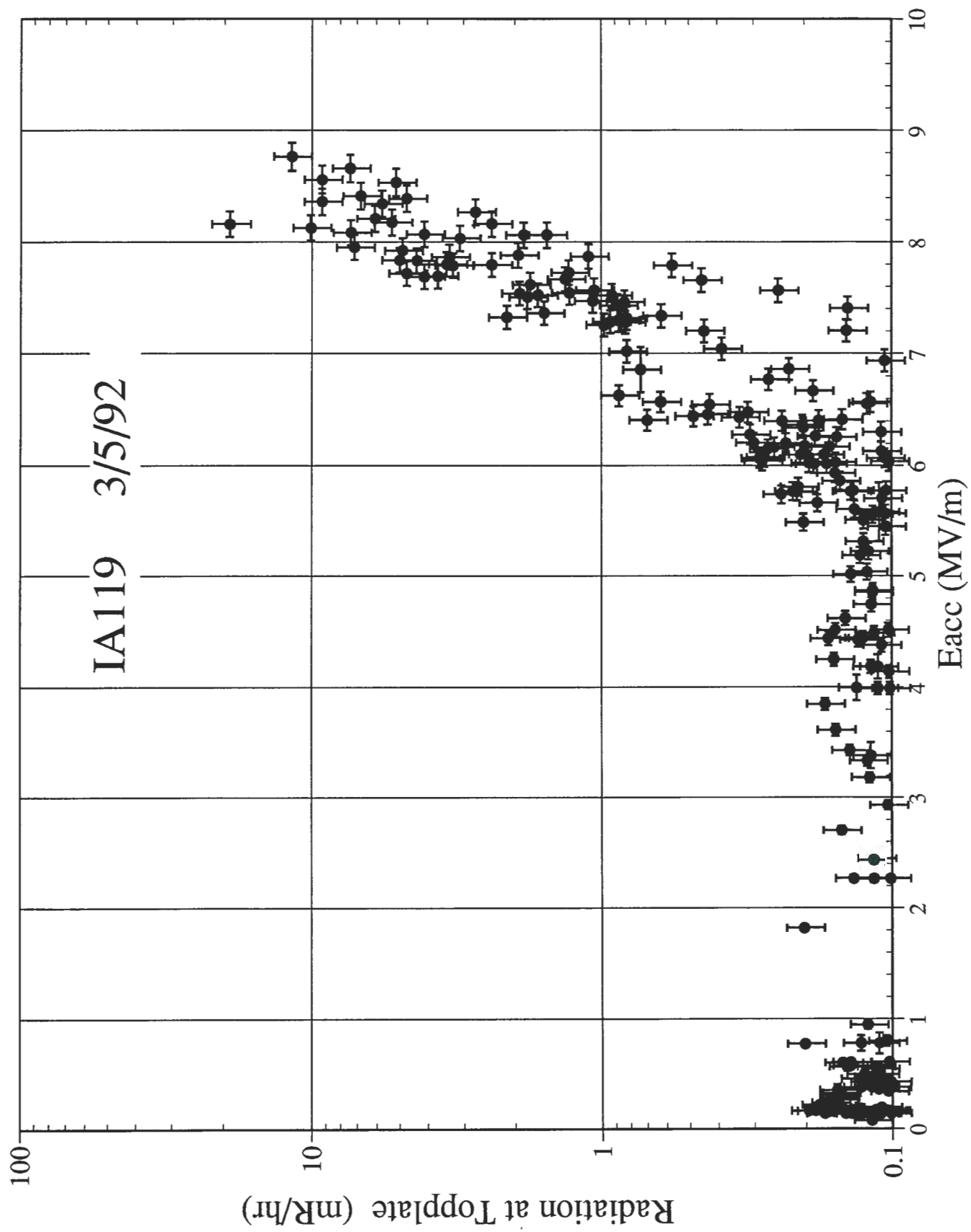
Notes: _____

Notes: _____

Notes: _____

Notes: _____





VTA RF Test Summary Sheet

03-04-92

Cavity: IA122

Date: 3/5/92

Dewar #: 8

☒ Top
☐ Bottom

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	4.2	<u>1496.8754</u>	<u>0.31</u>	<u>0</u>	<u>1.5</u>
π	2.0	<u>1496.9581</u>	<u>7.3</u>	<u>600</u>	<u>1.5</u>
$4\pi/5$	2.0				
$3\pi/5$	2.0				
$2\pi/5$	2.0				
$\pi/5$	2.0				
Hat	2.0	<u>1428.12</u>	<u>36,580</u>	<u>100</u>	
π	4.2	<u>1496.8774</u>	<u>0.32</u>	<u>20</u>	<u>1.50</u>

Gradient Limitation

Quench @ Eacc= _____

Input limitation

☒ FE Loading @ Eacc= 8.2

Radiation Tolerance @ _____ mR/hr

Other : _____

Eacc
MV/m

1.0 7.3

5.0 7.3

8.0 1.8

10.0

Eacc 8.2 1.8

Eacc usable 7.3 3.3

HOM Data

Freq	Q1
<u>1977.03</u>	<u>2800</u>
<u>1980.16</u>	<u>1823</u>

Operator TJP

Pref min @ B=1.0 : _____

Onset of measurable Radiation : 6.4

Notes: No processes noted with < 20 W incident

Notes: _____

Notes: _____

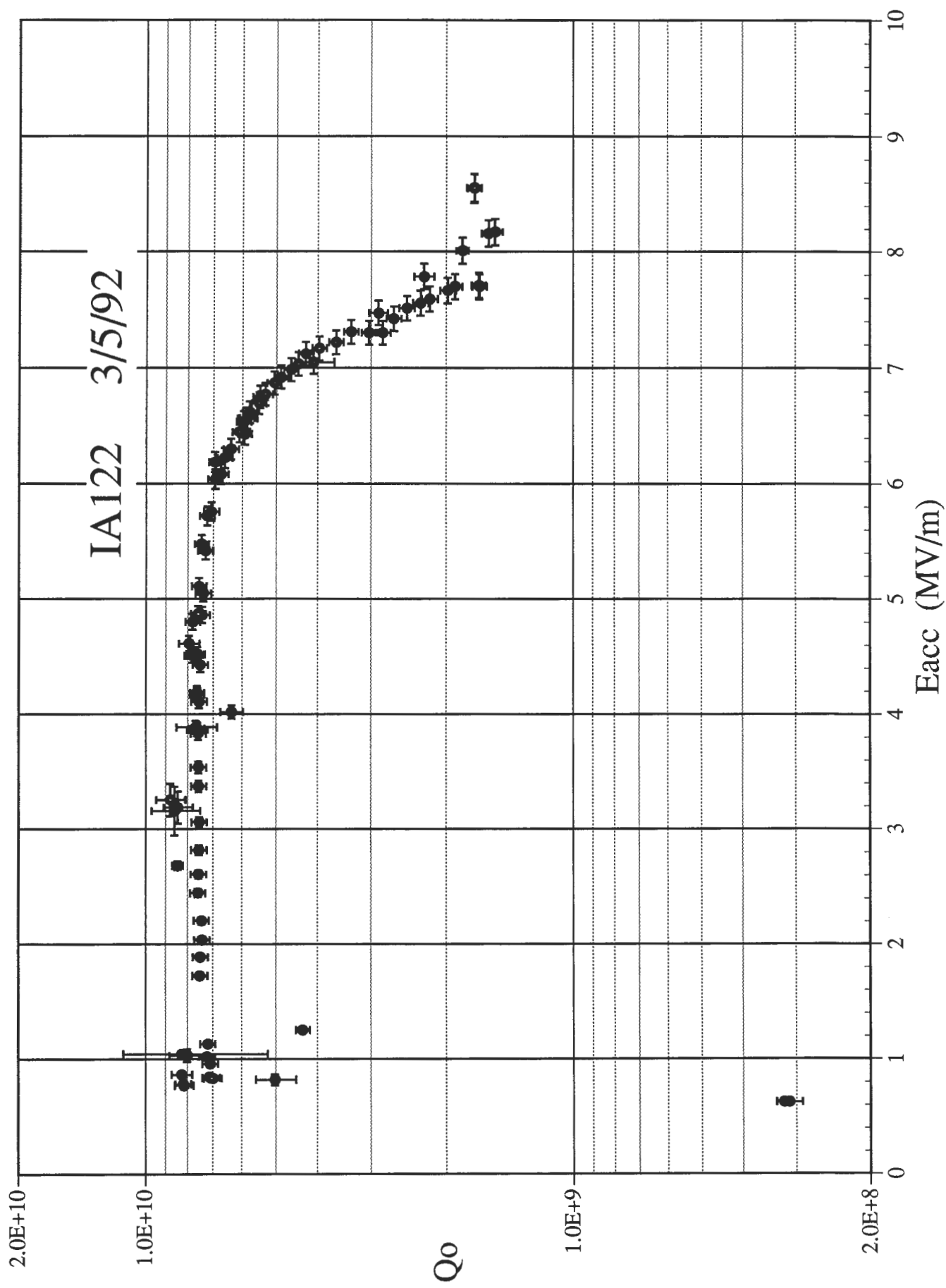
Notes: _____

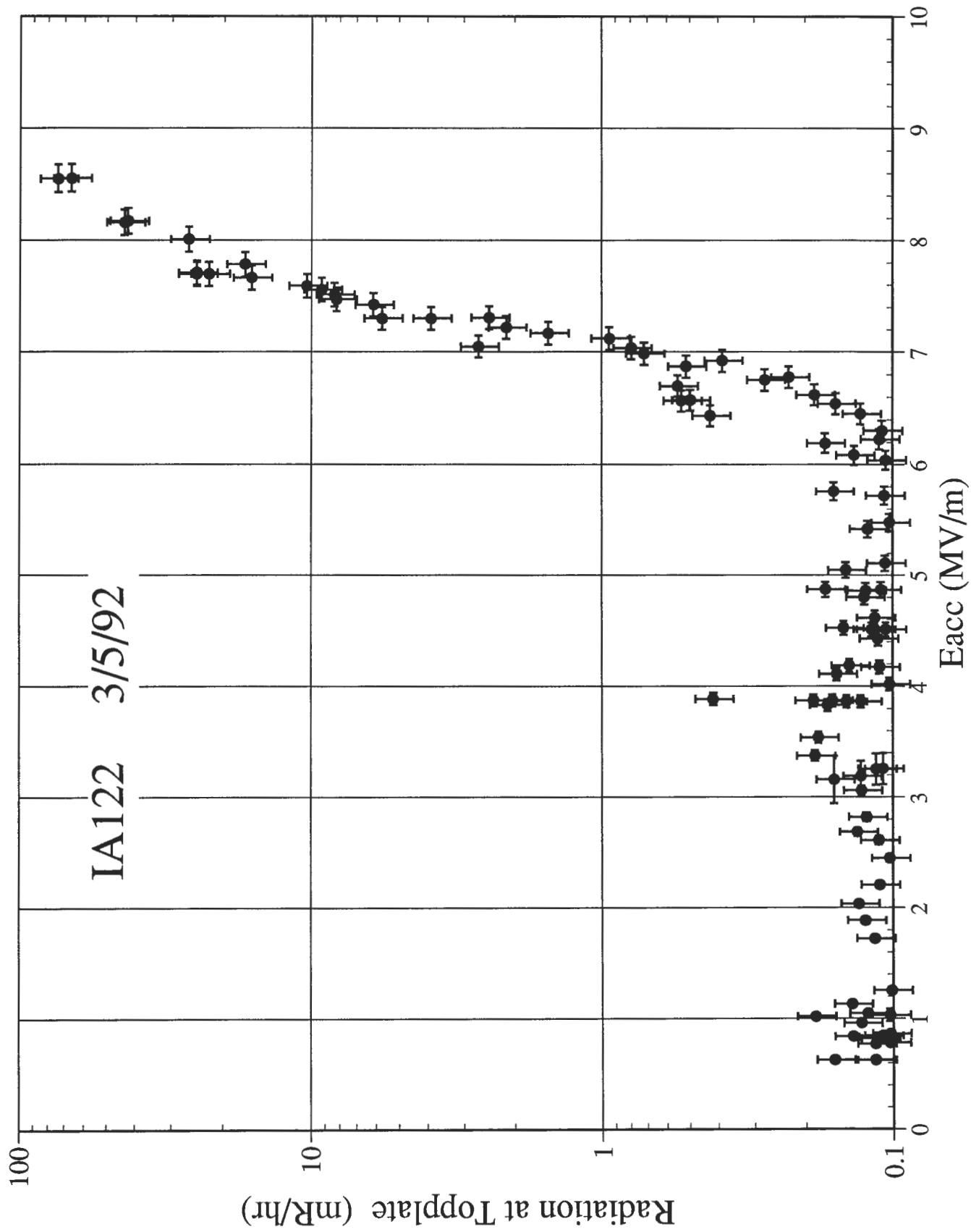
Notes: _____

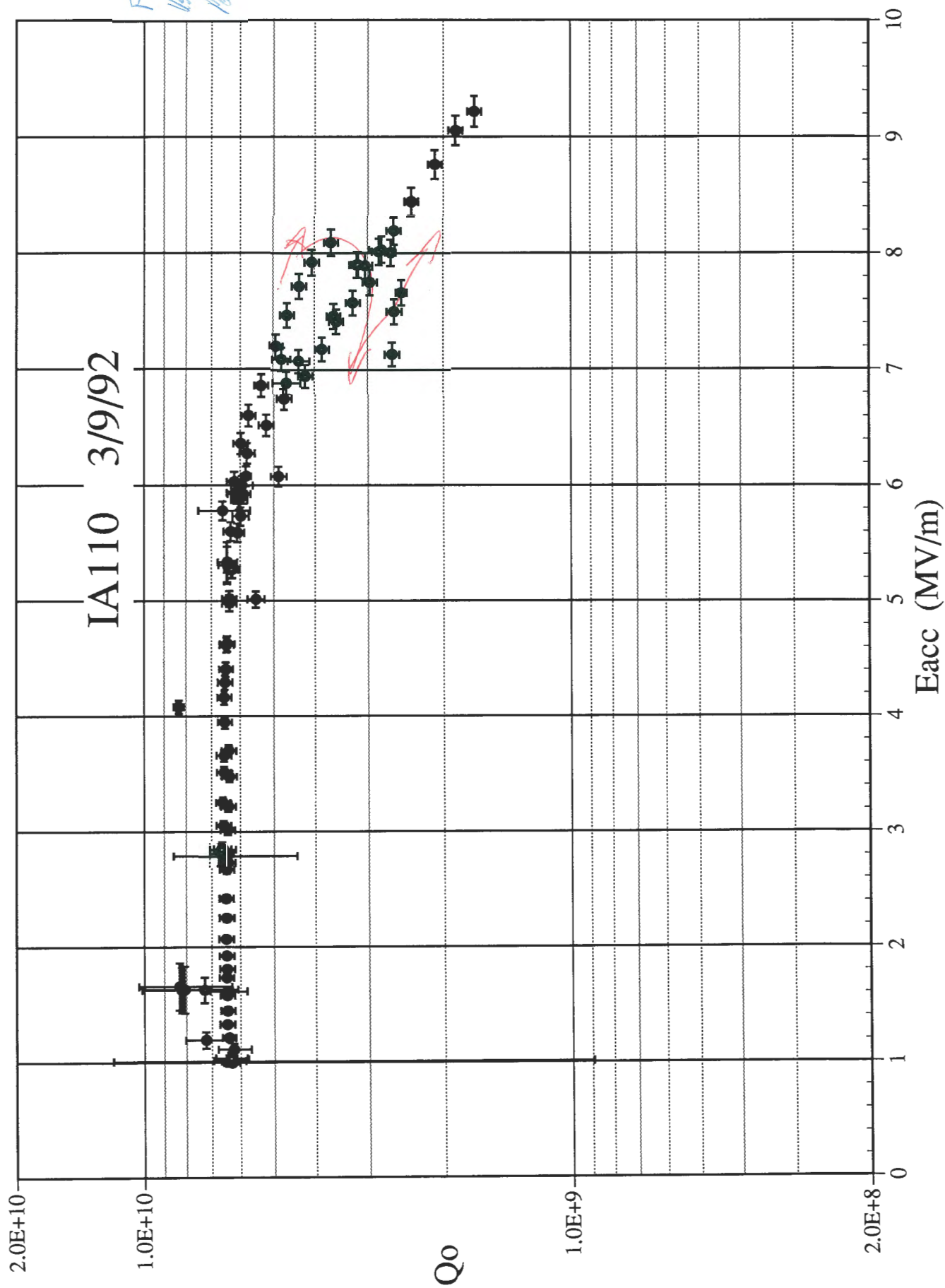
Notes: _____

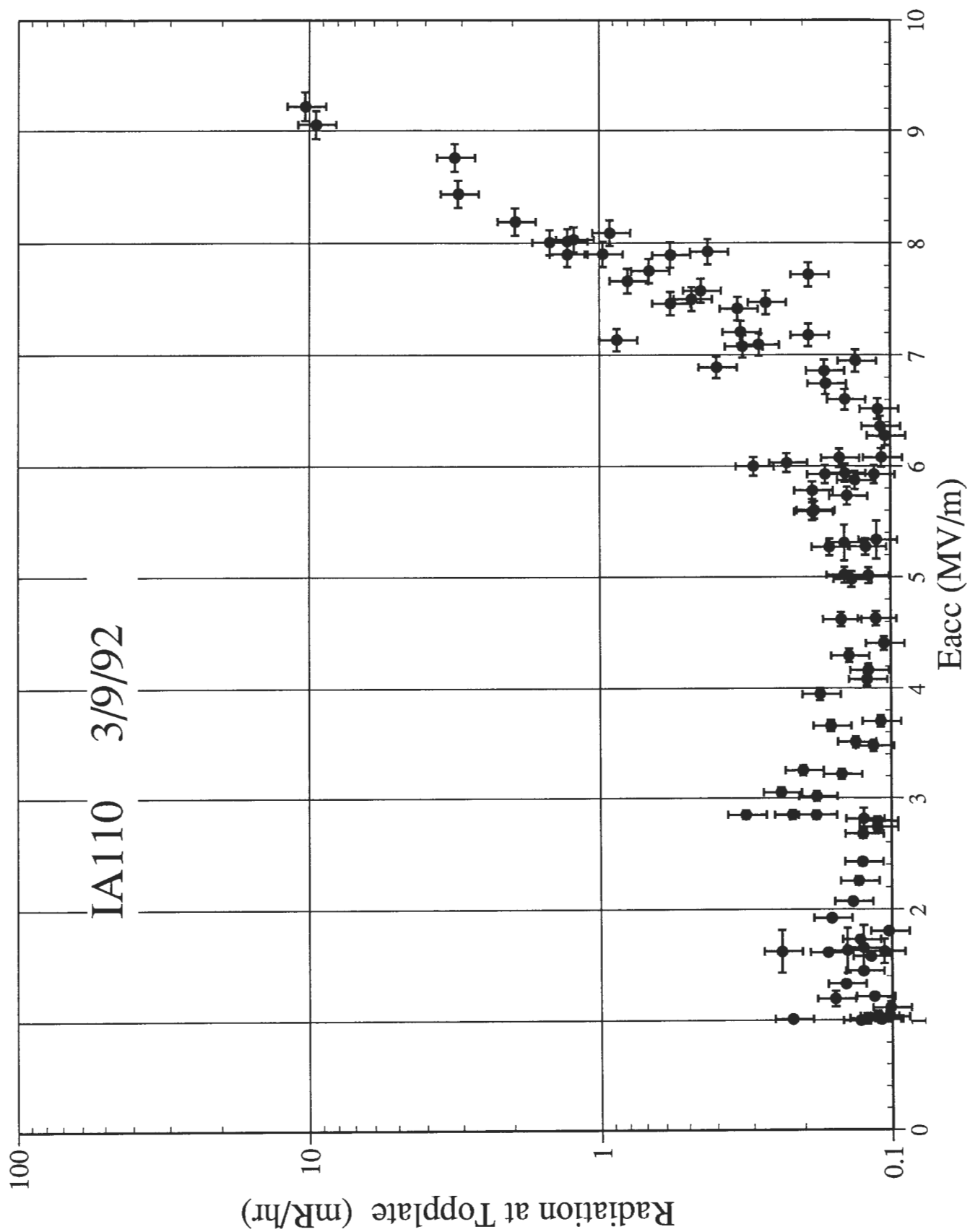
Notes: _____

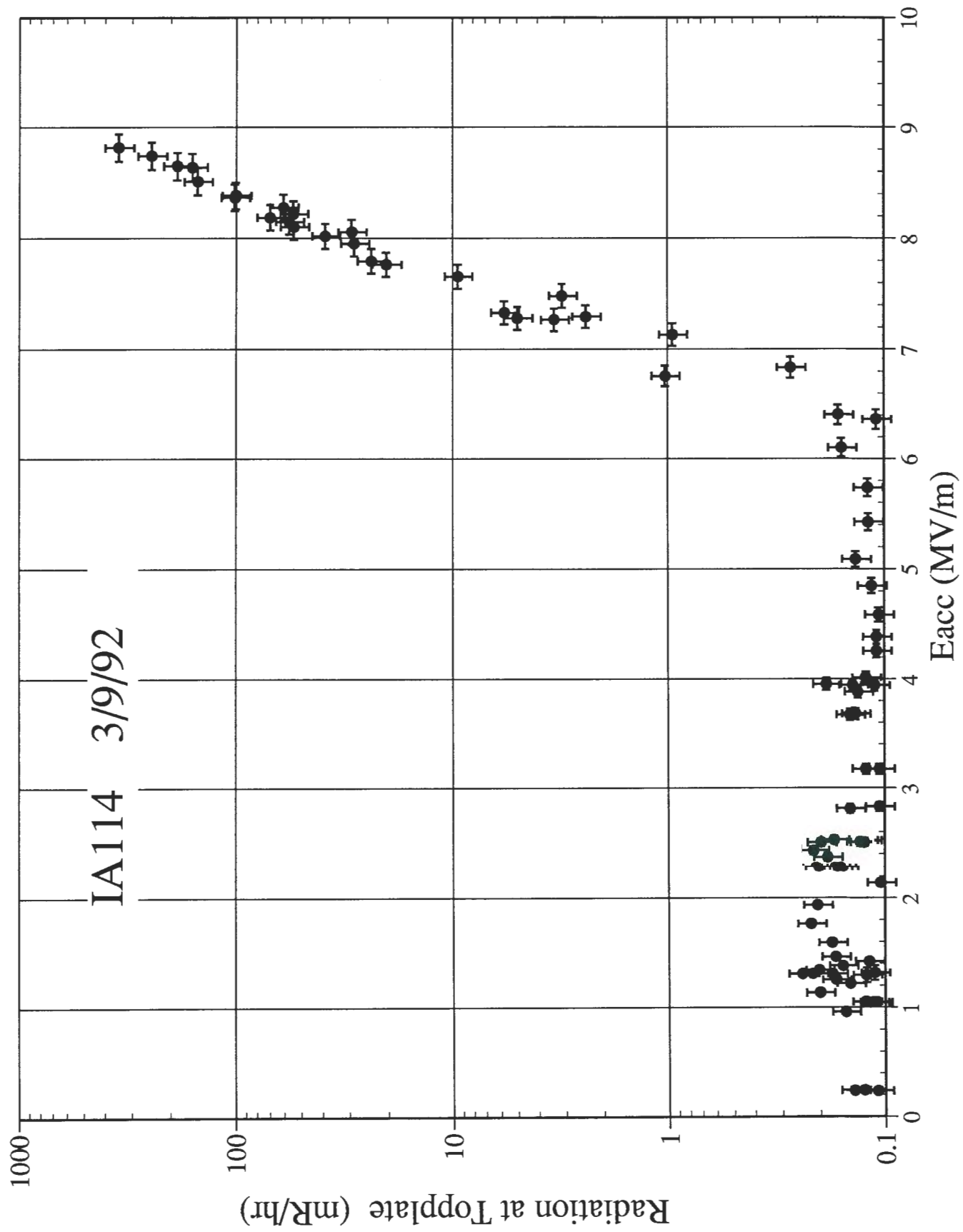
Notes: _____

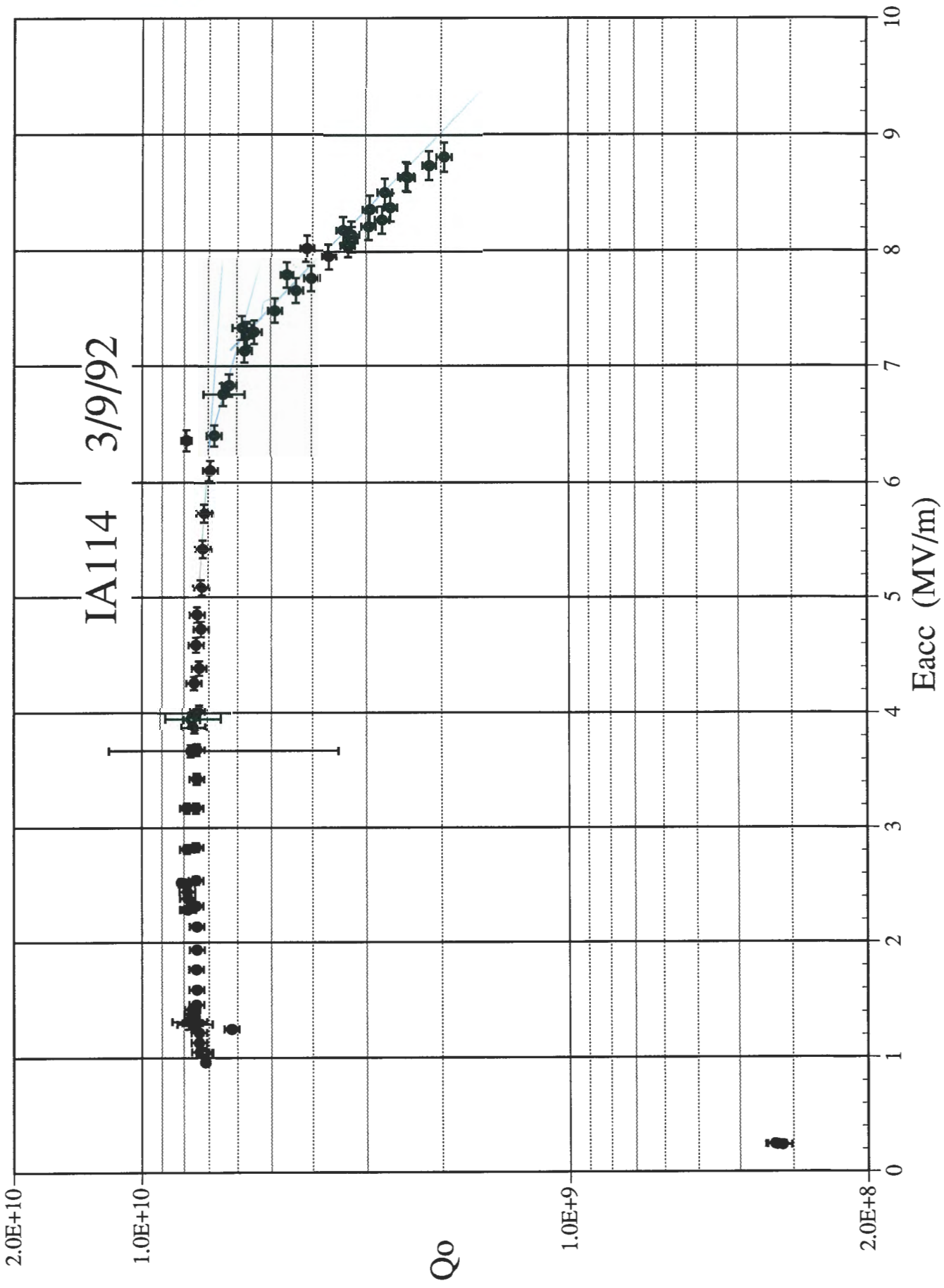




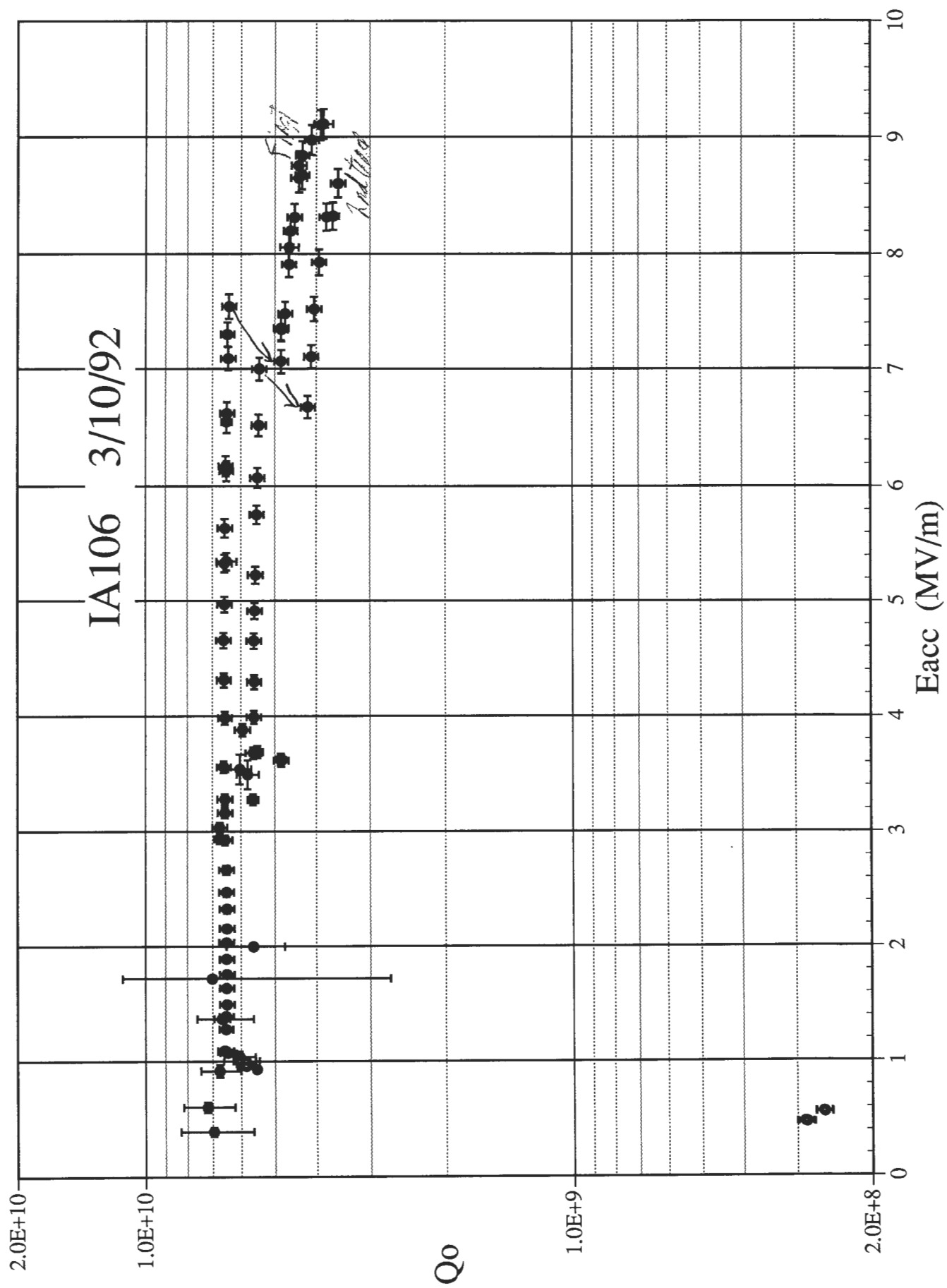


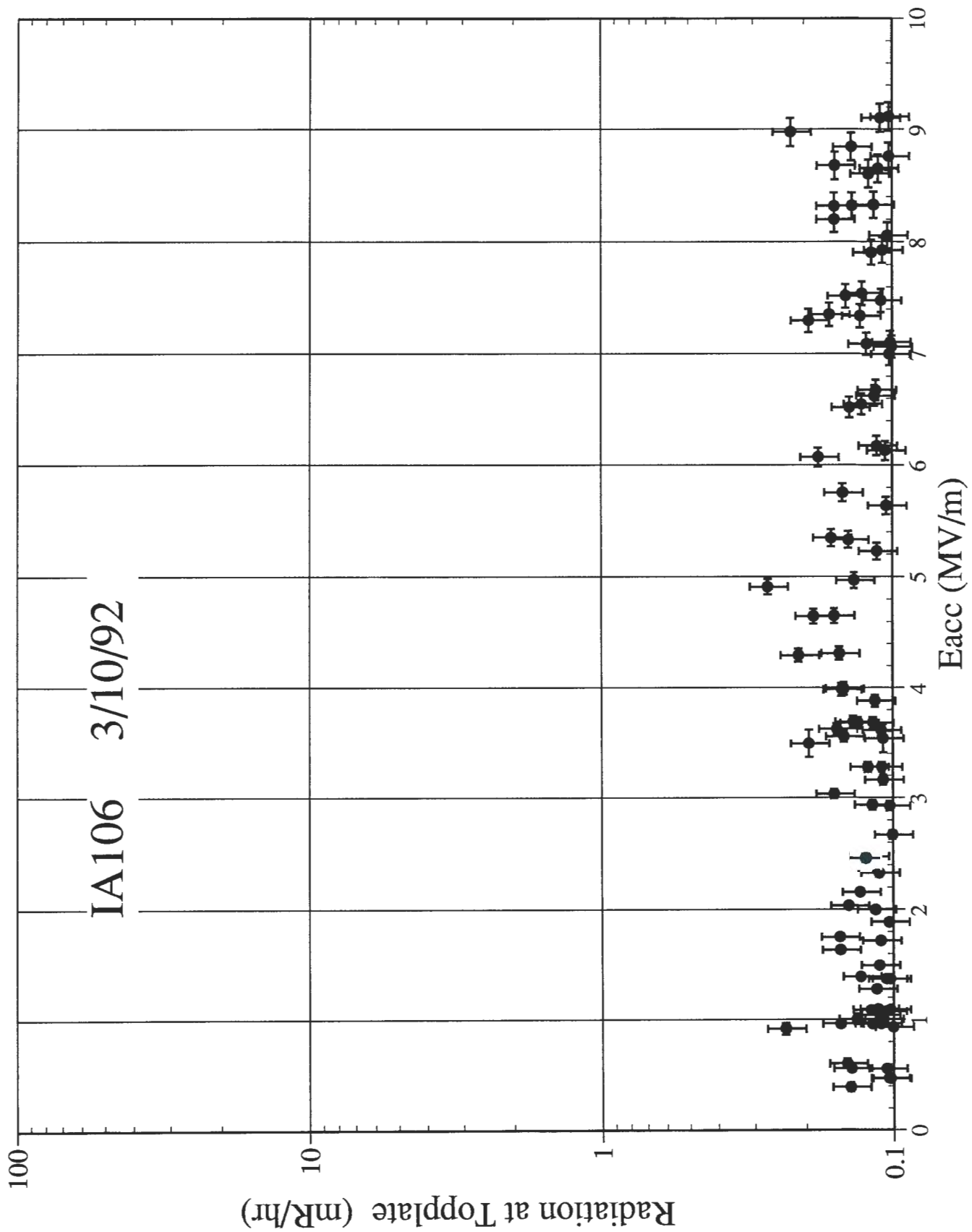


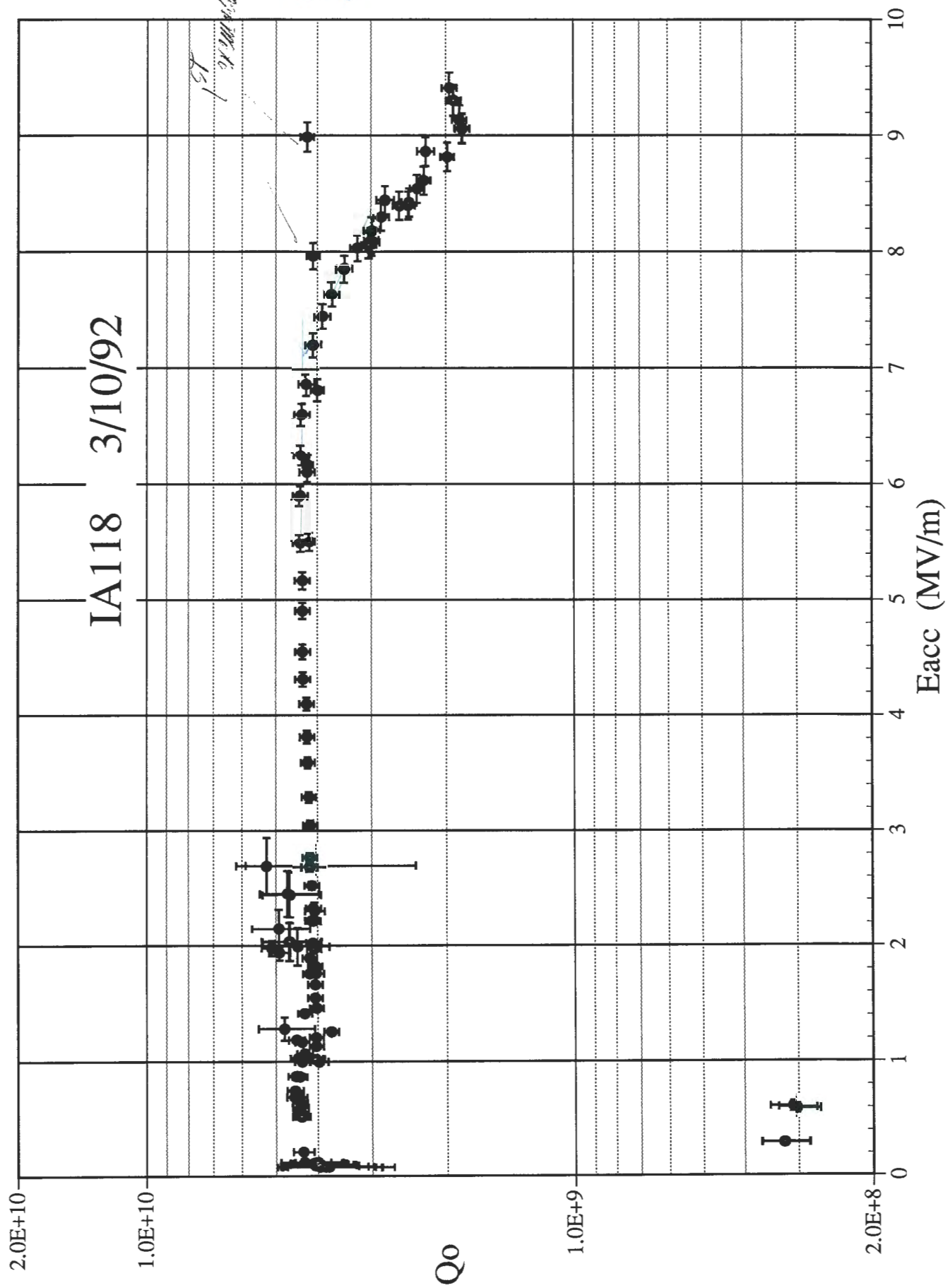




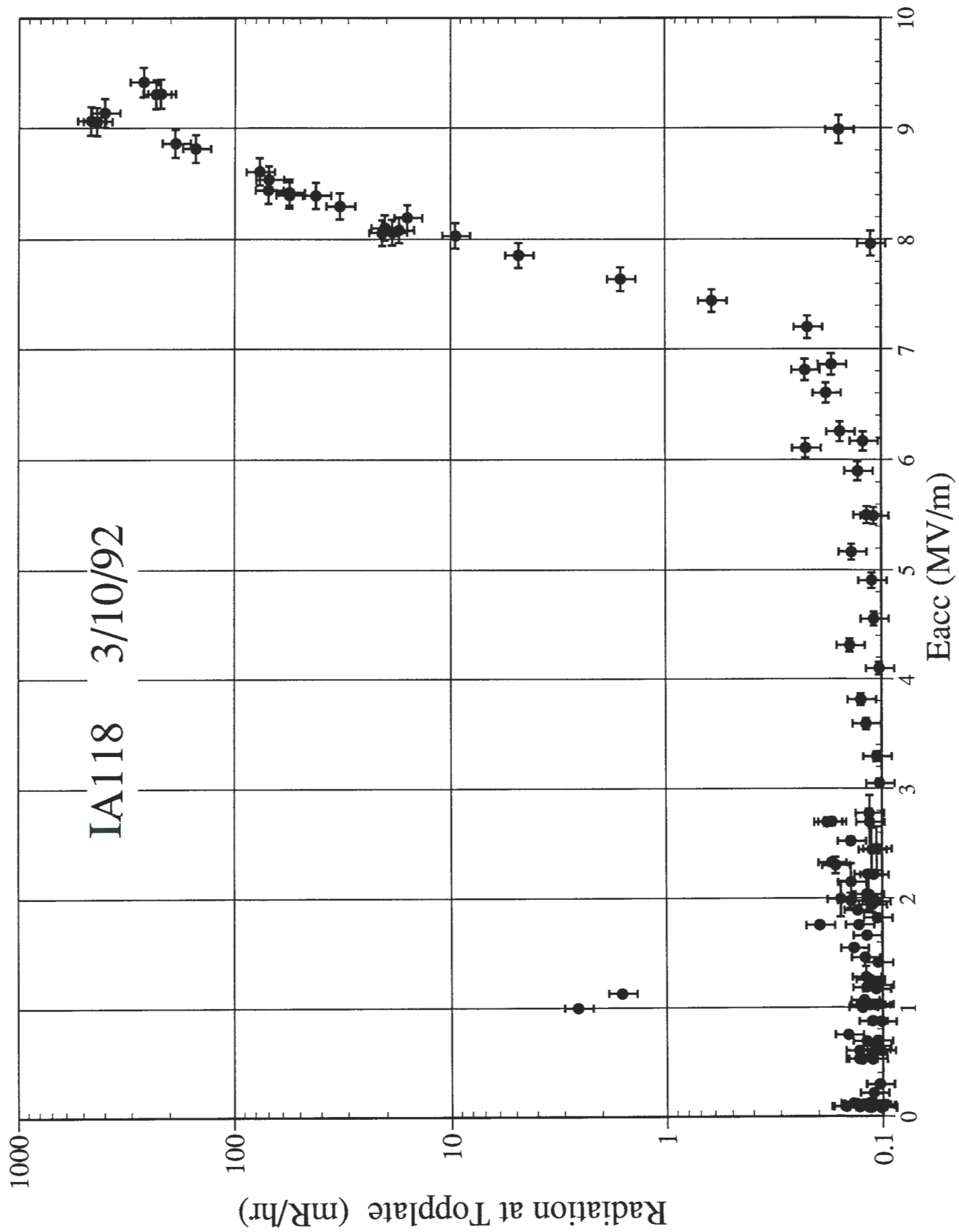
6 8
 FE 6.4 6.8
 1/50 7.9 4.3
 8.5 7.4







FE 7.1, 9.4
US 9.2, 3
0.5 @ 2.4



117	FE	5 McV @	9 E9
	US	6.5 @	5 E9
	OL	8 @	5 E9
	Emax	8 @ 9 @	2.4

147	FE onset	10 @	5 E9
	OL	5 @	8
		4 @	7
	Usable	9 @	5
		6.2 @	4.5
		5 @	4.5
	Max	10 @	5
		6.5 @	2.4
		6 @	2.4

3 curves

IA147

Cavity
Name

Pr [W]

2.53E-2

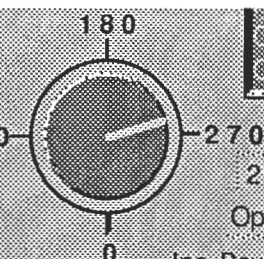
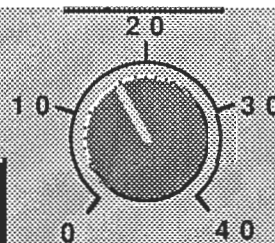
Pt[W]

-1.00E-1

Freq.

[MHz]

1496.9047

Optimize
PhaseSet Mixer
LevelControl
On

D Pressure

Rad (mR/hr)

25.9

0.12

B < 1

B > 1

Date:Time

3/13/92 6:42 PM

254.22

Opt Phase

Inc Power (W)

-0.000

Qo - CW

3.59E9

Eacc - CW

NaN

Corrected Power

Pin = 14.233 Watts

2.8

Pref = 13.746 Watts

2.8

± %

Pt = -0.000 Watts

998

Ploss = 0.487 Watts

114

QL =

-8.464E2

100

Qo* =

0.000E0

NaN

Qext1 =

-8.538E2

1004

Qext2 =

1.200E11

0.0

Qo =

-9.81E4

998

BETA* =

0.0000

NaN

Beta1 =

114.87

113

Beta2 =

-0.000

998

Eacc =

NaN

MV/m ± %

NaN

MEASURE
& LOGAuto Step Power,
Measure and Log

Auto #

Wait

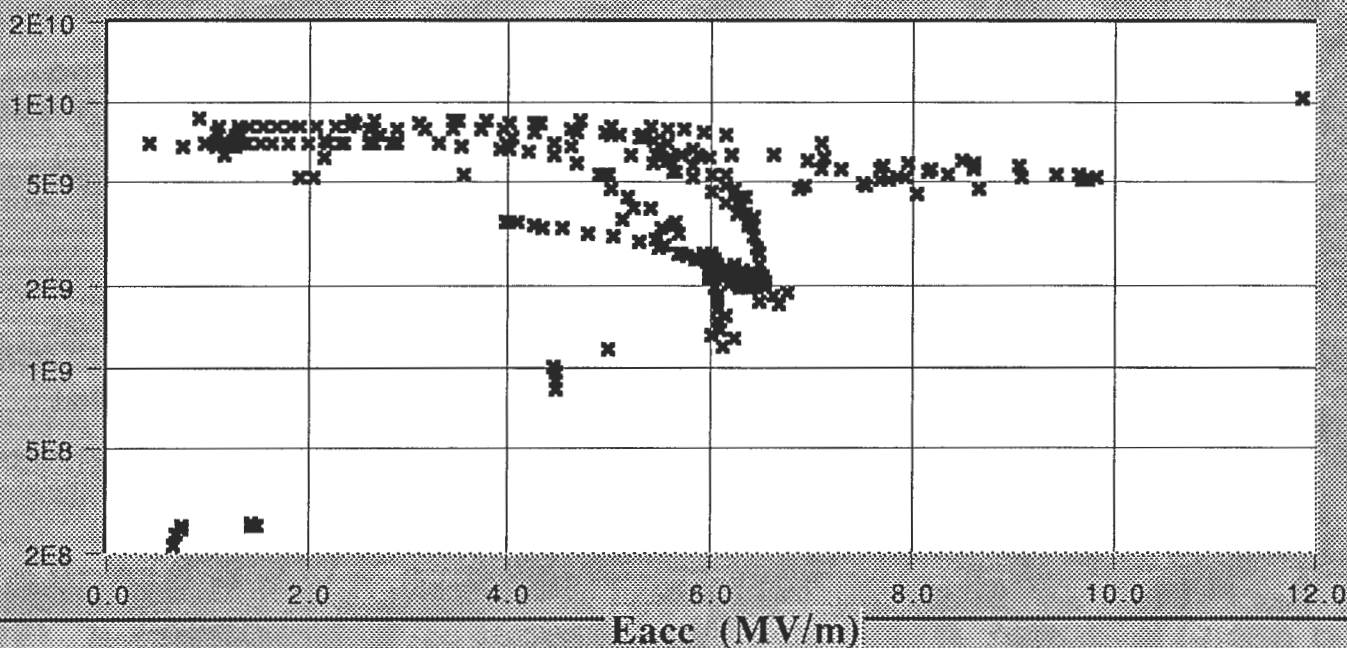
10

2 min

0

Clear
GraphZero Power
Meters

Qo

MEASURE
LOG, &
PRINT

Enter Manual
Cable Cals

Power CORRECTION FACTORS Qext2 Input Value

Input

798.55

1.20e11

% Error

0.0

Pr and Pt
Scope

Reflected

500.19

Tau 1/3 (ms)

0.00

±% 0.0

Transmitted

37.19

7 TOP

7 BOTTOM

8 TOP

8 BOTTOM

3

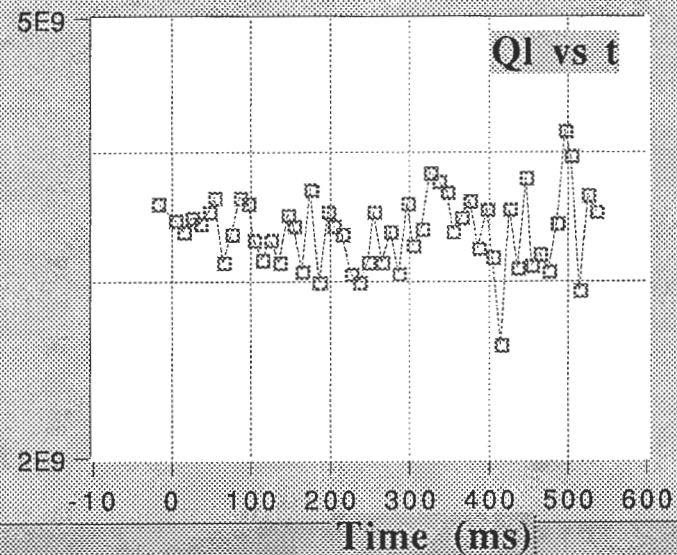
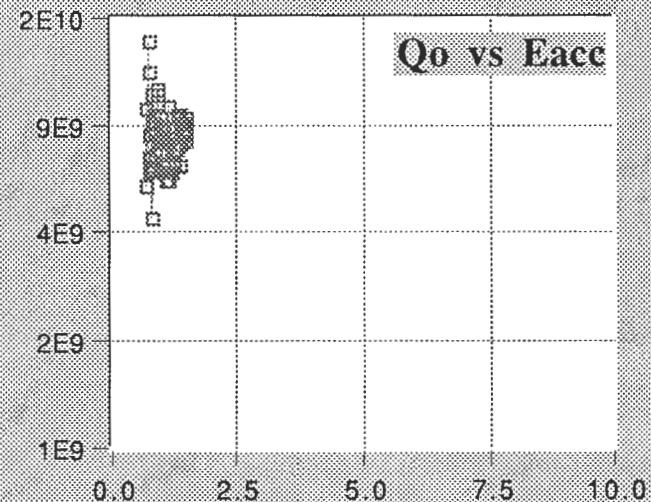
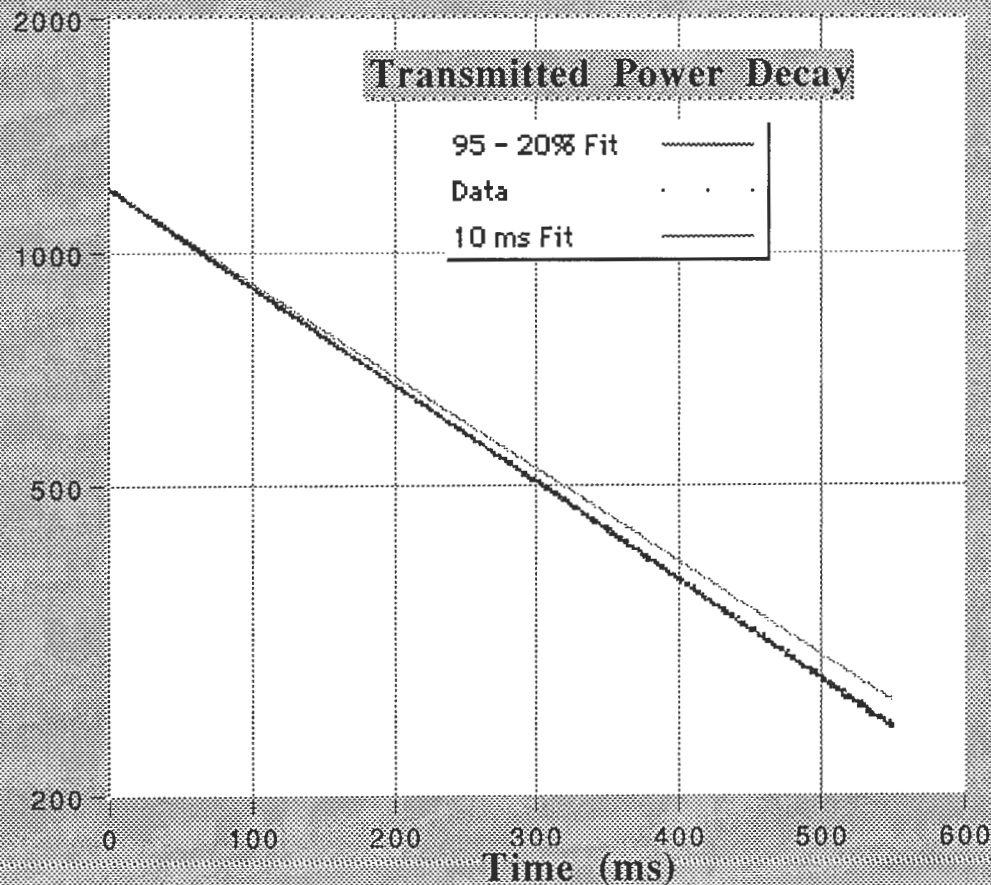
IA147

IA110b

IA147

IA117a

Noname



-0.00 -0.00 -0.00 -0.00 -0.00

Stored Energy Distribution (Joules)

Currently Selected Cavity

8 Top

Idle

Auto Measure

P1 (W) 1.78E-2

Delta Dwell mS

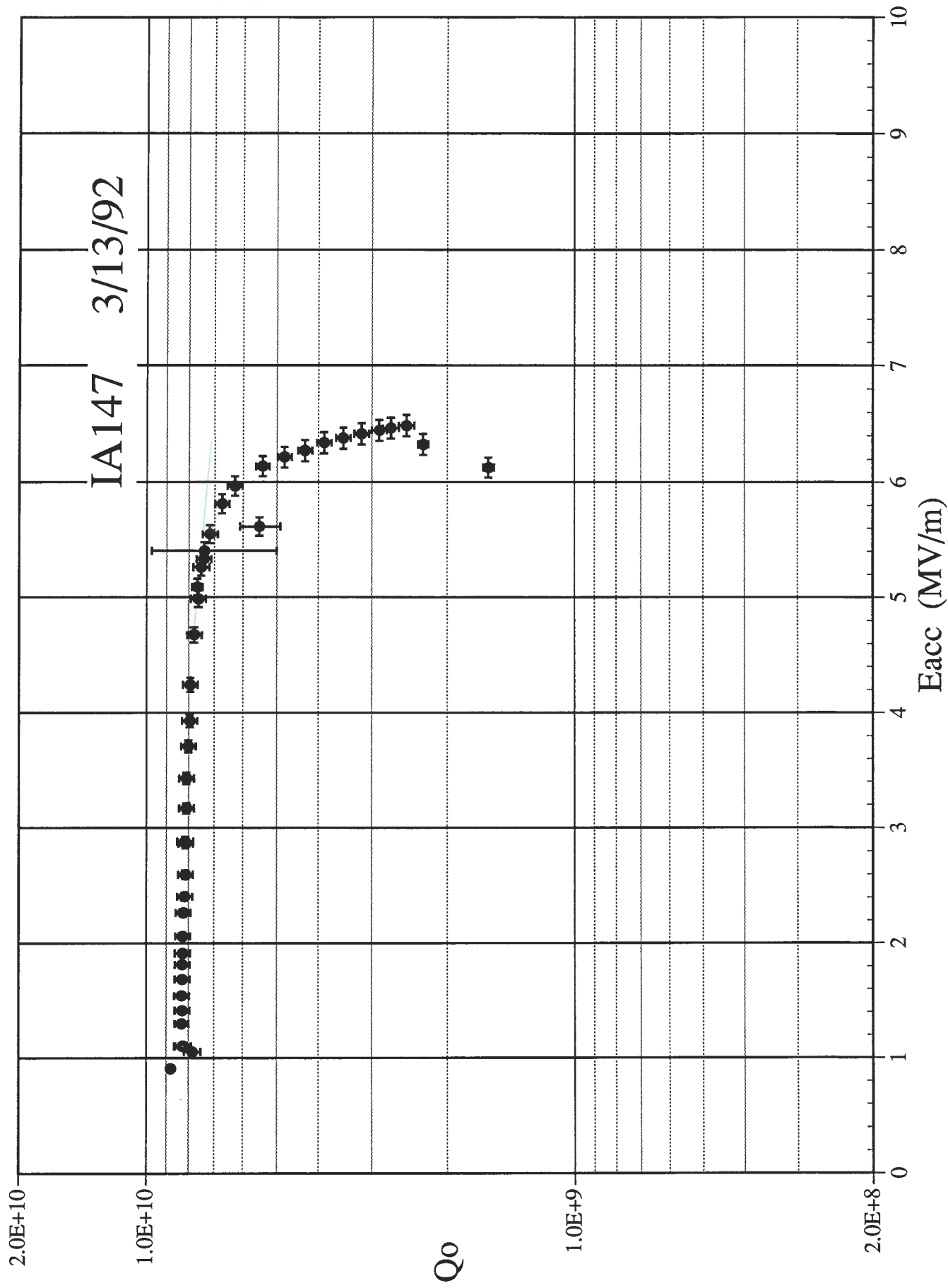
40

Atten (dB)

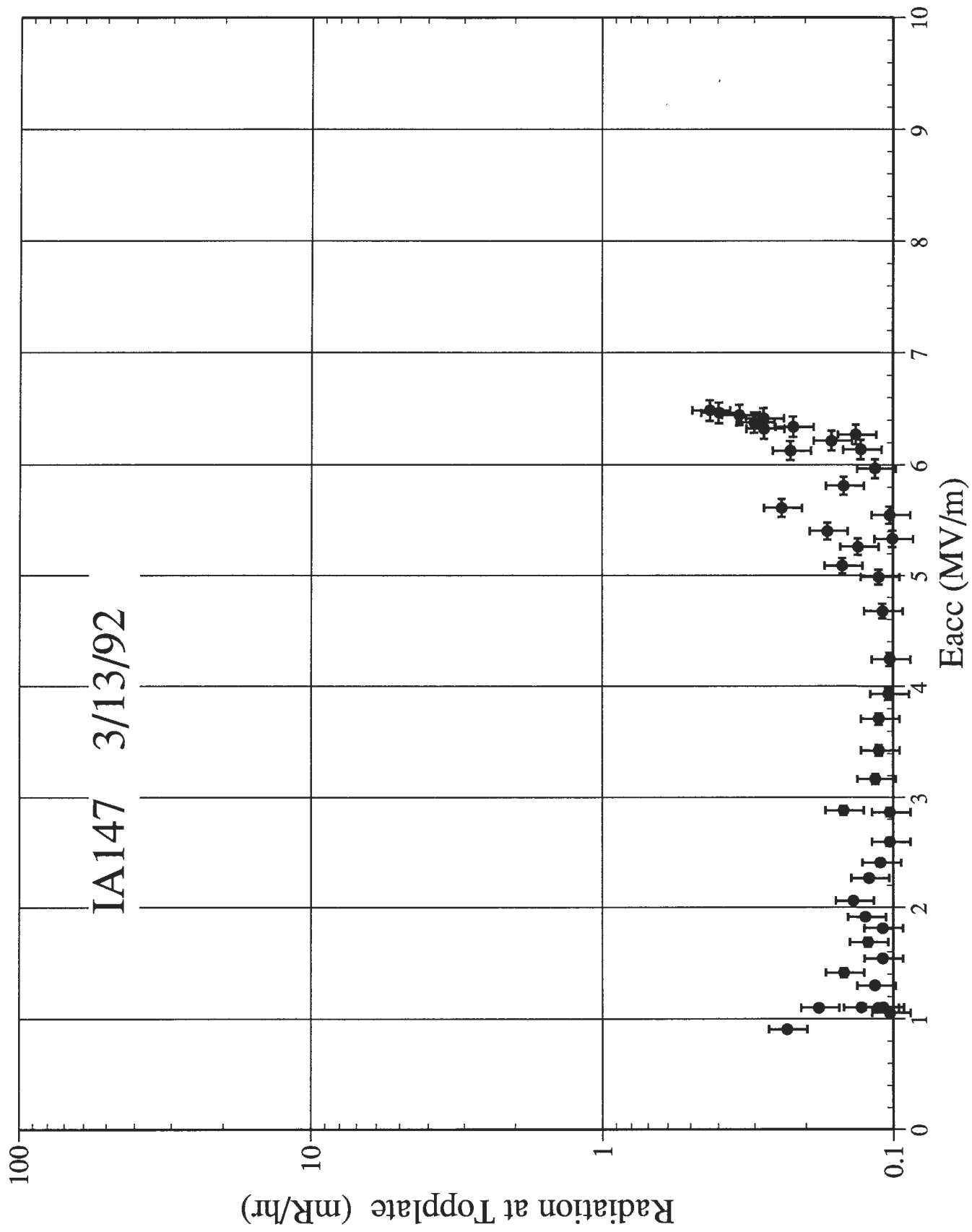
16.00

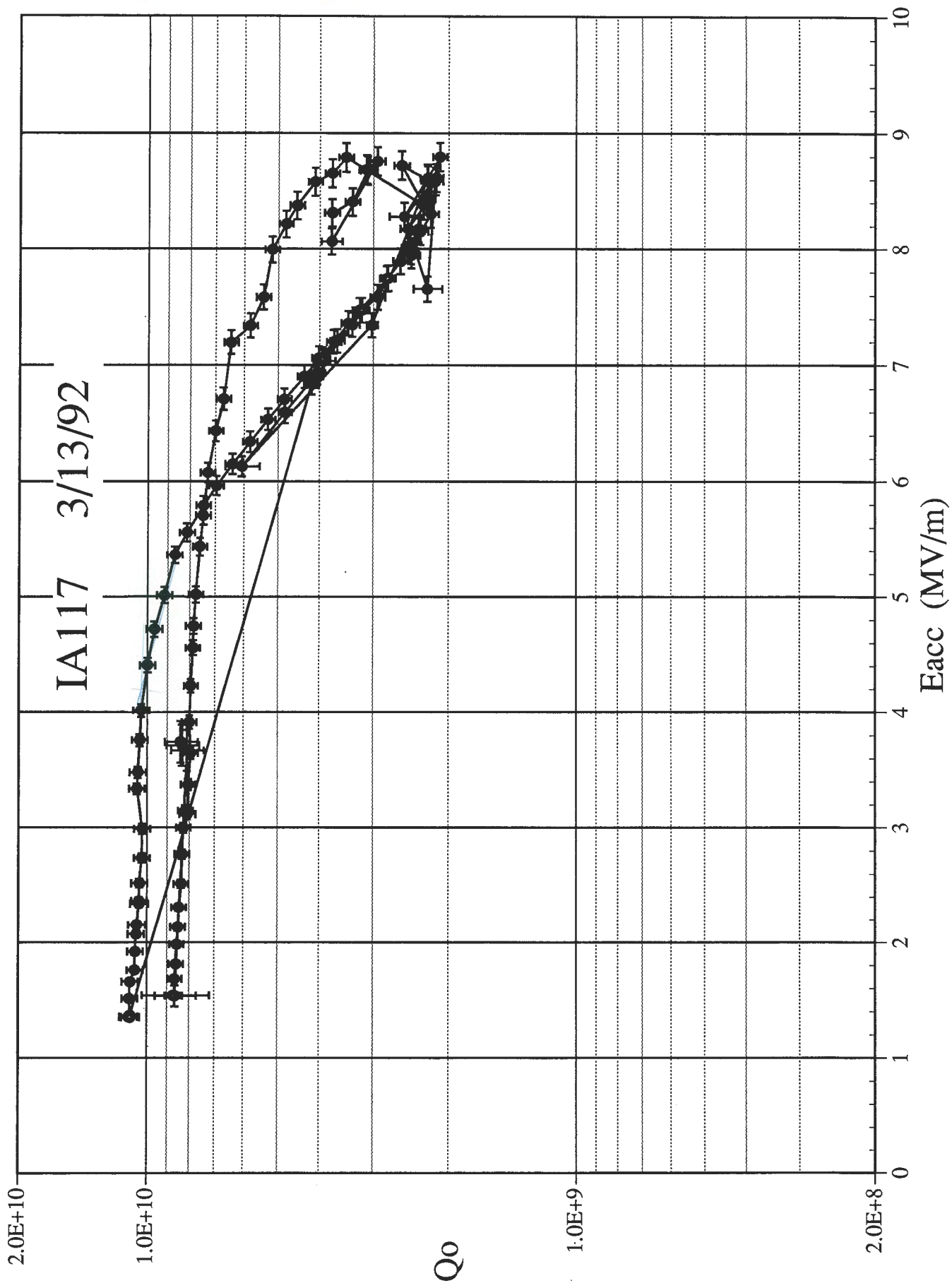
Theta (degrees)

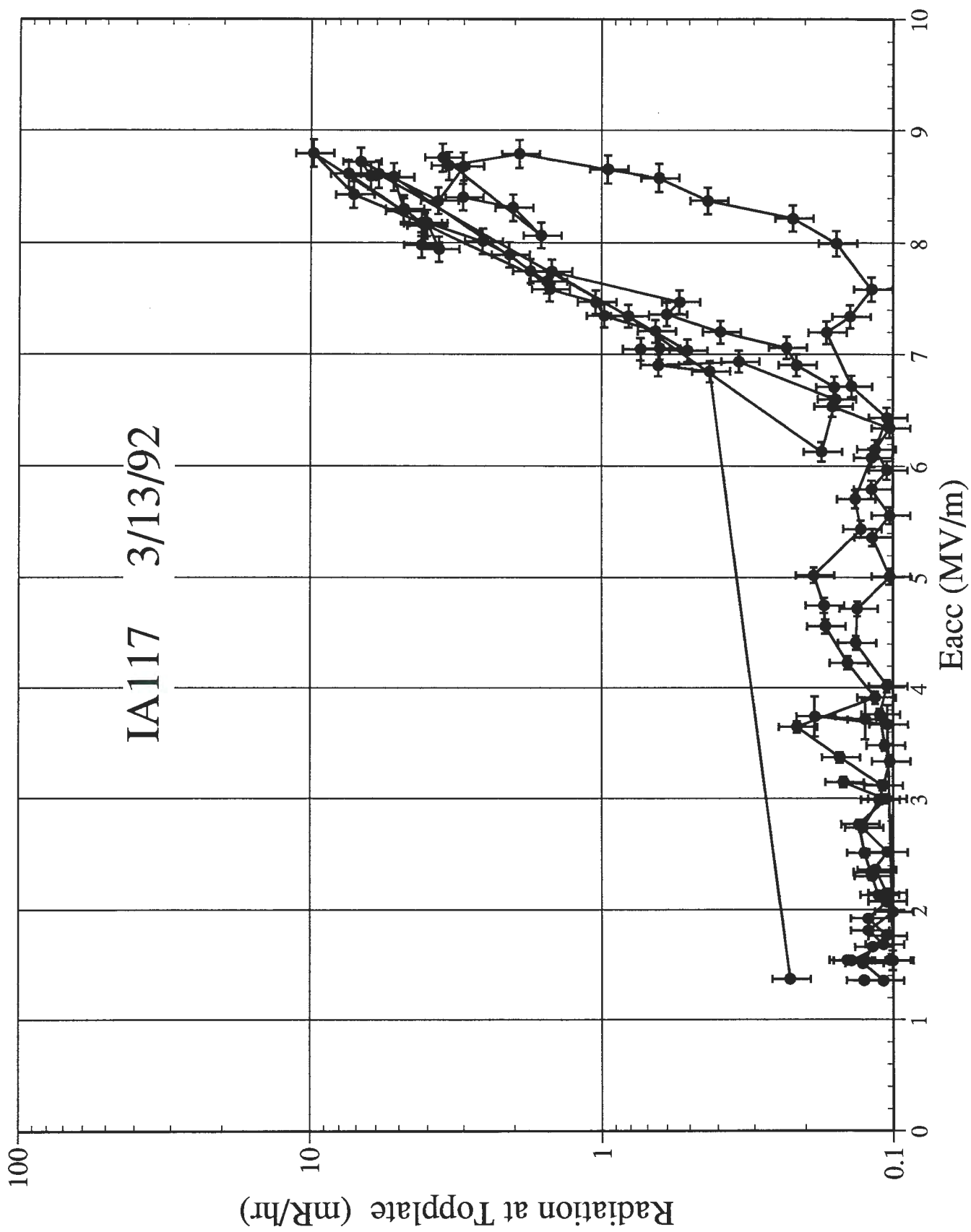
254.0



FE 5.9074
5.9062 u
6.3046
6.5074







INSPECTION REPORT

Part number	Rev #	serial numbers	part name	Qty on IR	unit of meas.	lot qty	Insptd qty	rejected qty
111595 111	0	109/133	CAVITY PAIR ASSEMB	1	1	1	1	?
PO #	item #		Supplier	Inspector	date	COTR	IR #	
				<i>[Signature]</i>	7/6/92			

DEFECT DATA

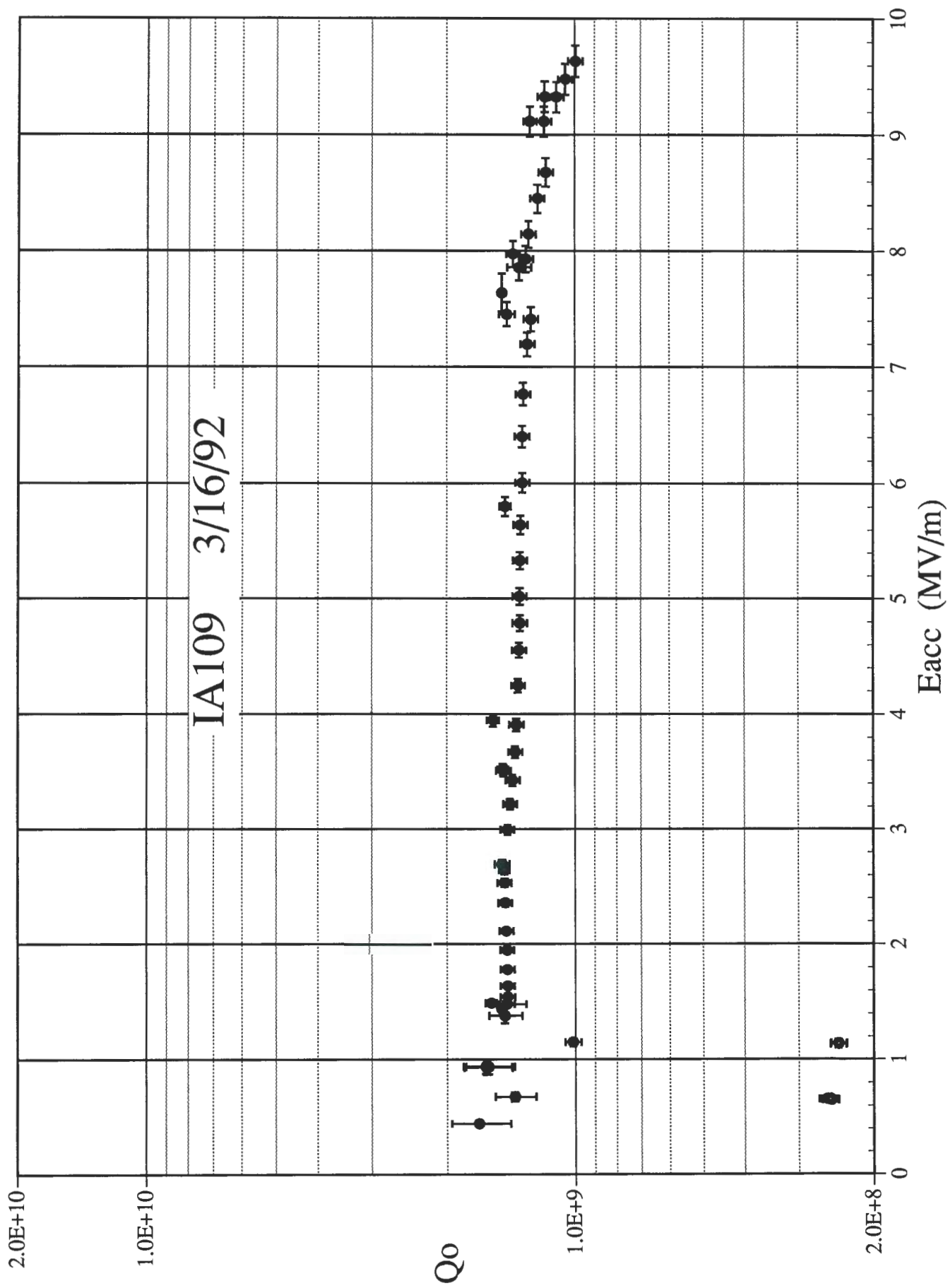
ltr	qty	description
A	1	CAVITY 109 $Q \approx 1.5 \times 10^9$ Flat to 9.5 MeV/m $\Leftrightarrow$ 3.8 MeV/m @ allowed RF load (5W)
A	1	CAVITY 133 $Q = 1.1 \times 10^{10}$ Flat to 8 MeV/m $\Leftrightarrow$ ~9 MeV/m @ allowed RF load (5W)
CAVITY 109 DOES NOT MEET $Q > 2.4 \times 10^9$ SPEC IN DESIGN HANDBOOK, BUT PAIR GOOD FOR > 6 MeV, 20% ABOVE REQUIREMENT.		

DISPOSITION

ltr	qty	disposition instructions
-----	-----	--------------------------

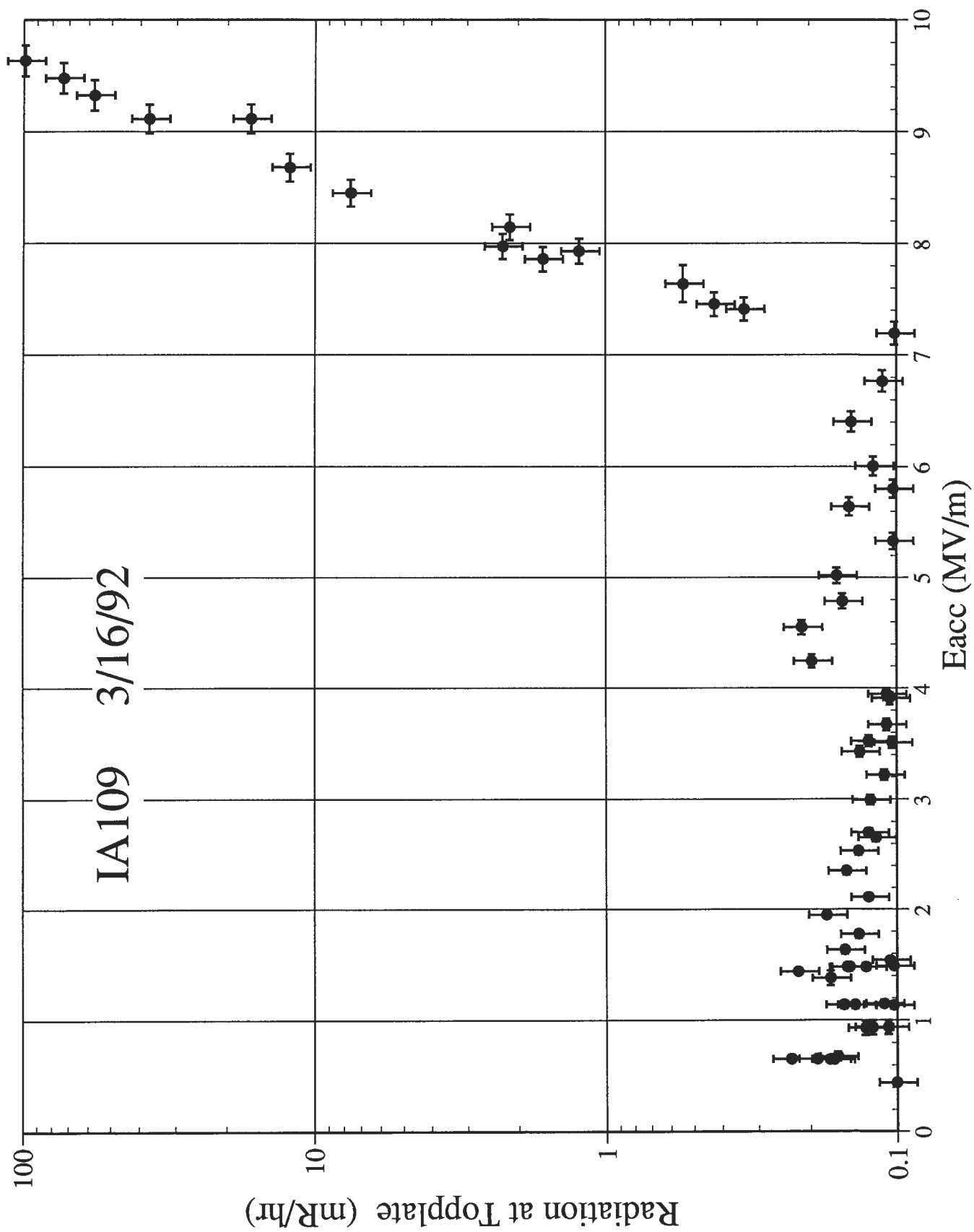
accept - discussed with C. Keemann 7/6/92 by HF Dylla
[Signature]
 3-16-92.

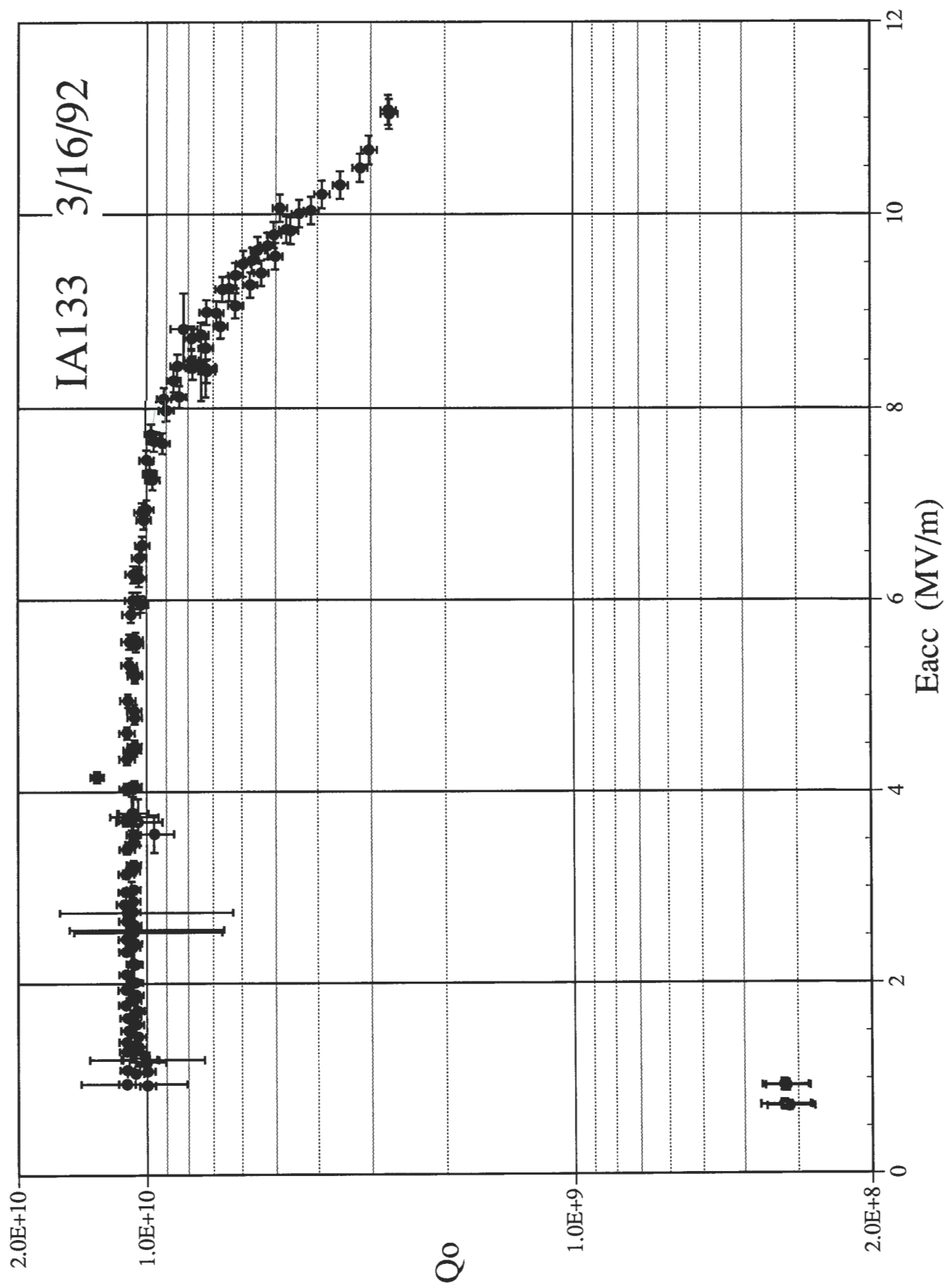
IR close:	Qty scrap	Qty rty	qty accept <i>pas</i>	qty new IR	qty reworked
Approvals:	QC <i>[Signature]</i>	Prod. Mgr.	enrg/phys	2nd level mgr (if req) <i>[Signature]</i>	HF Dylla (if req) <i>[Signature]</i>

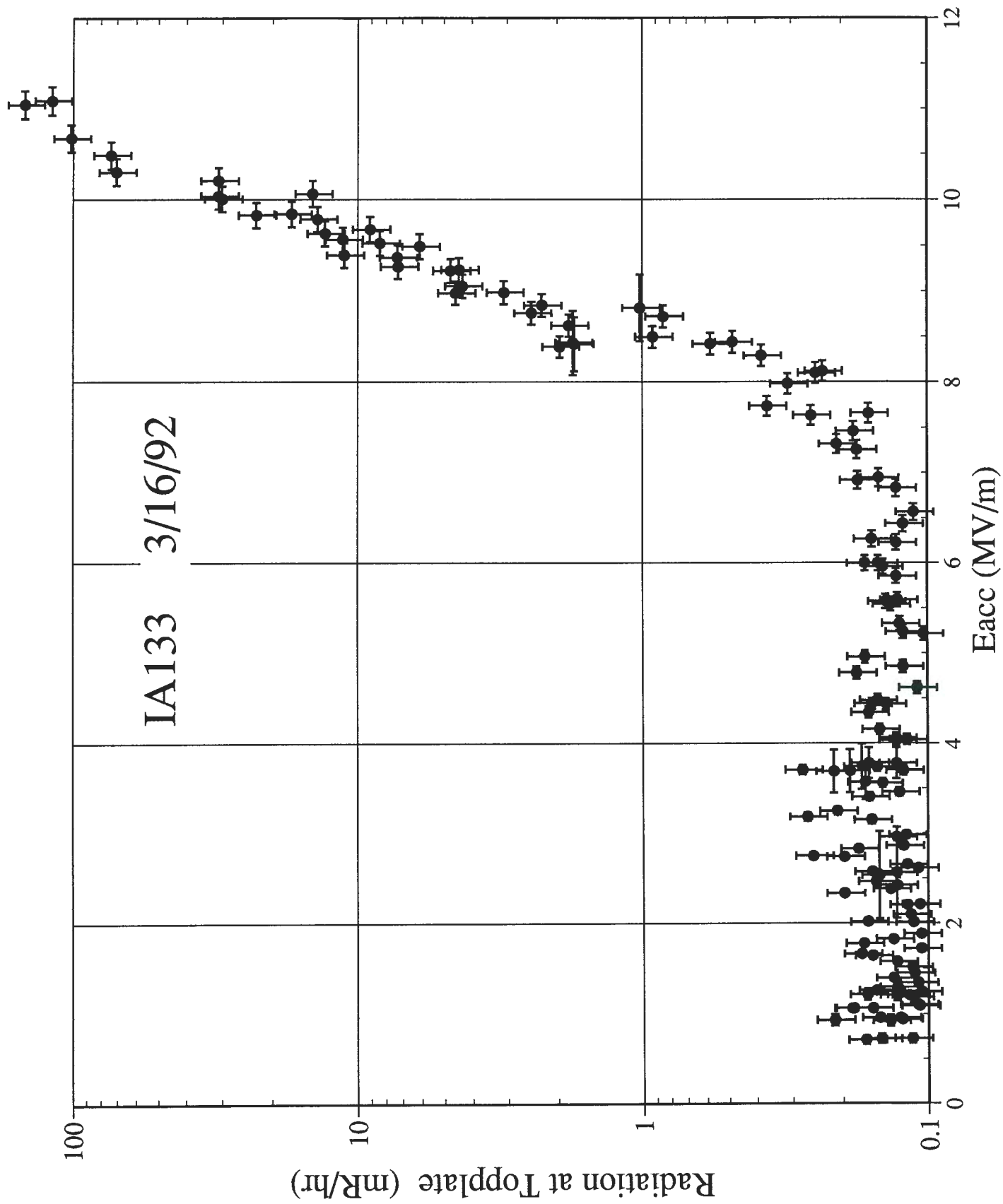


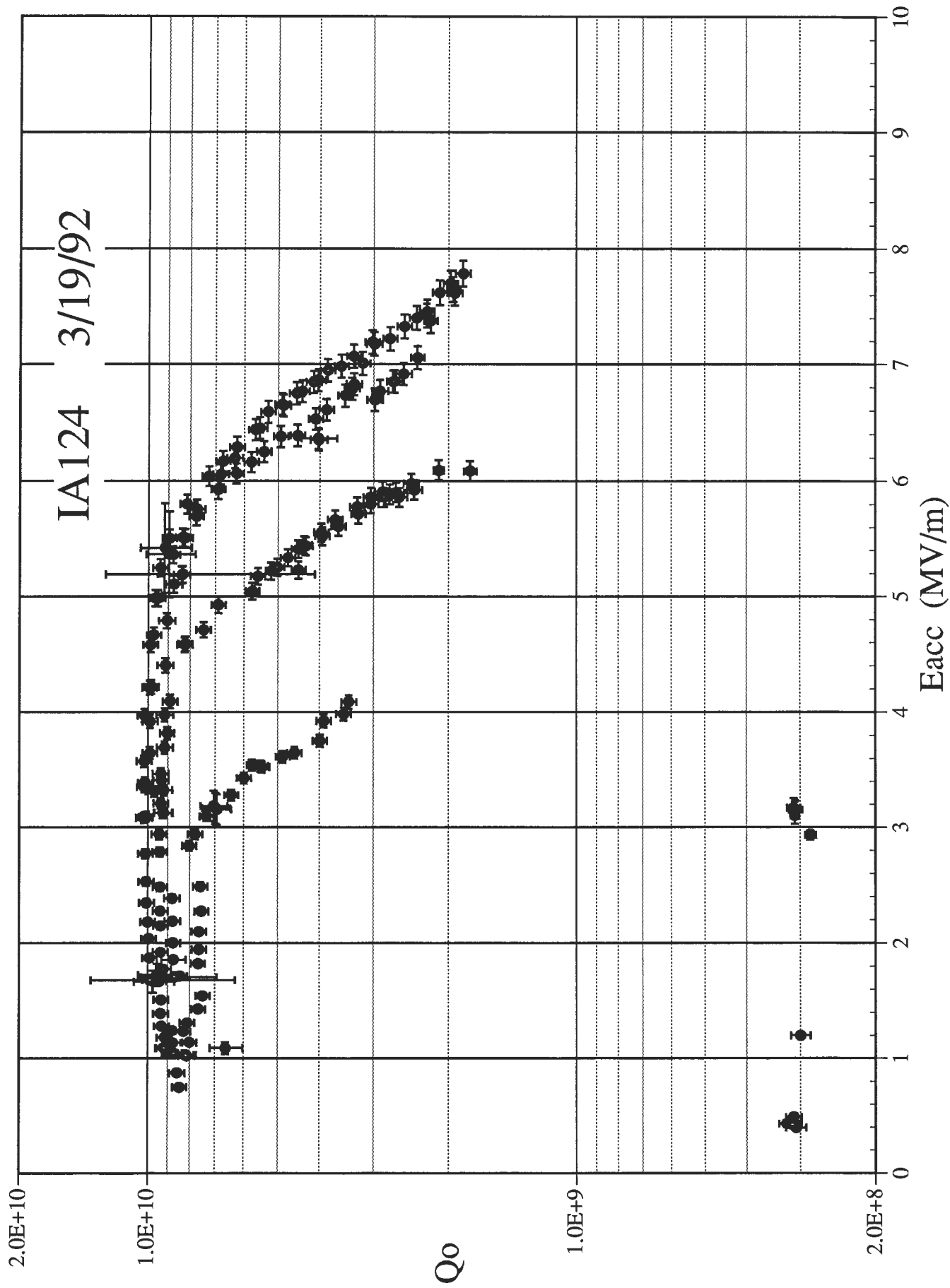
14.9

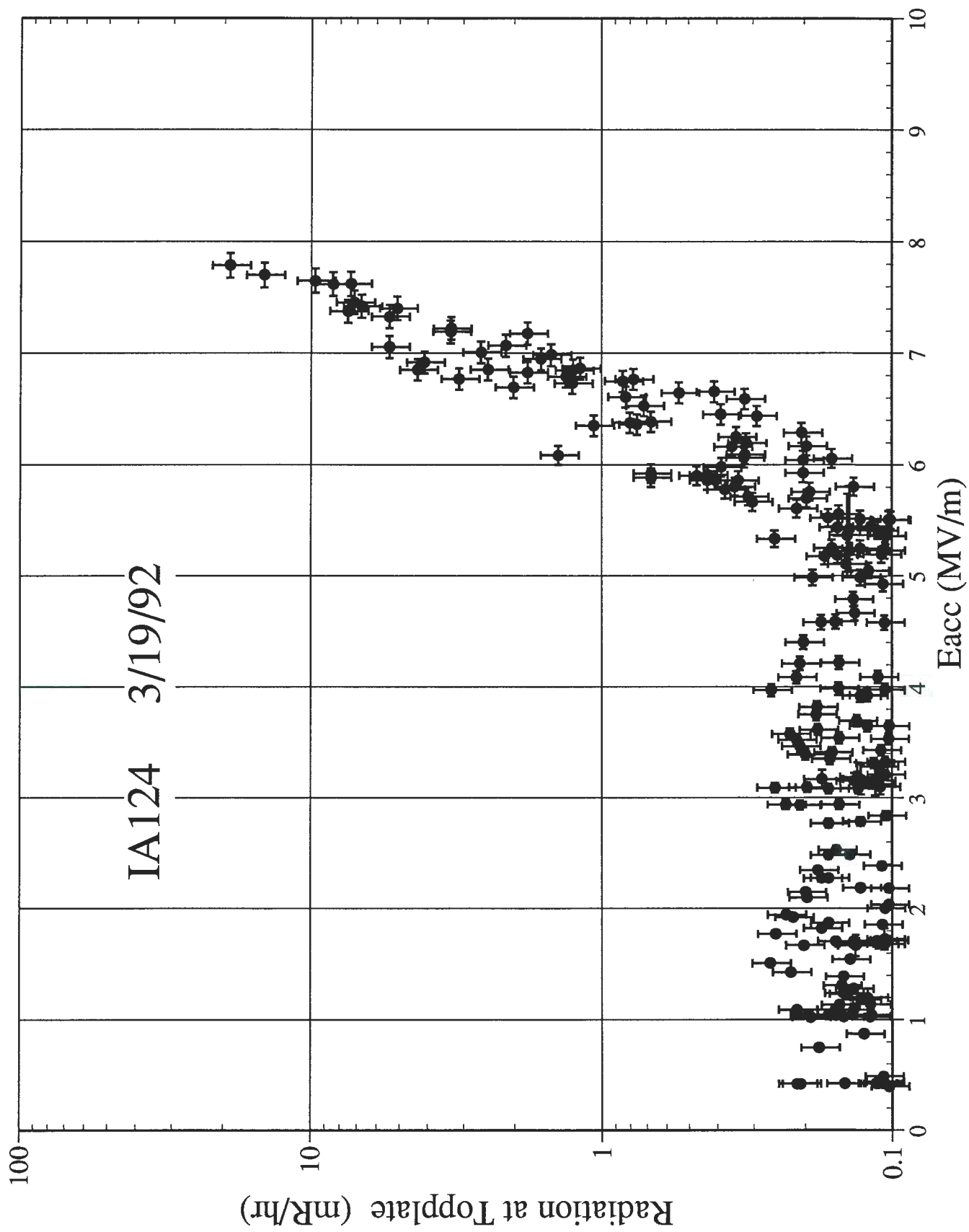
14.9

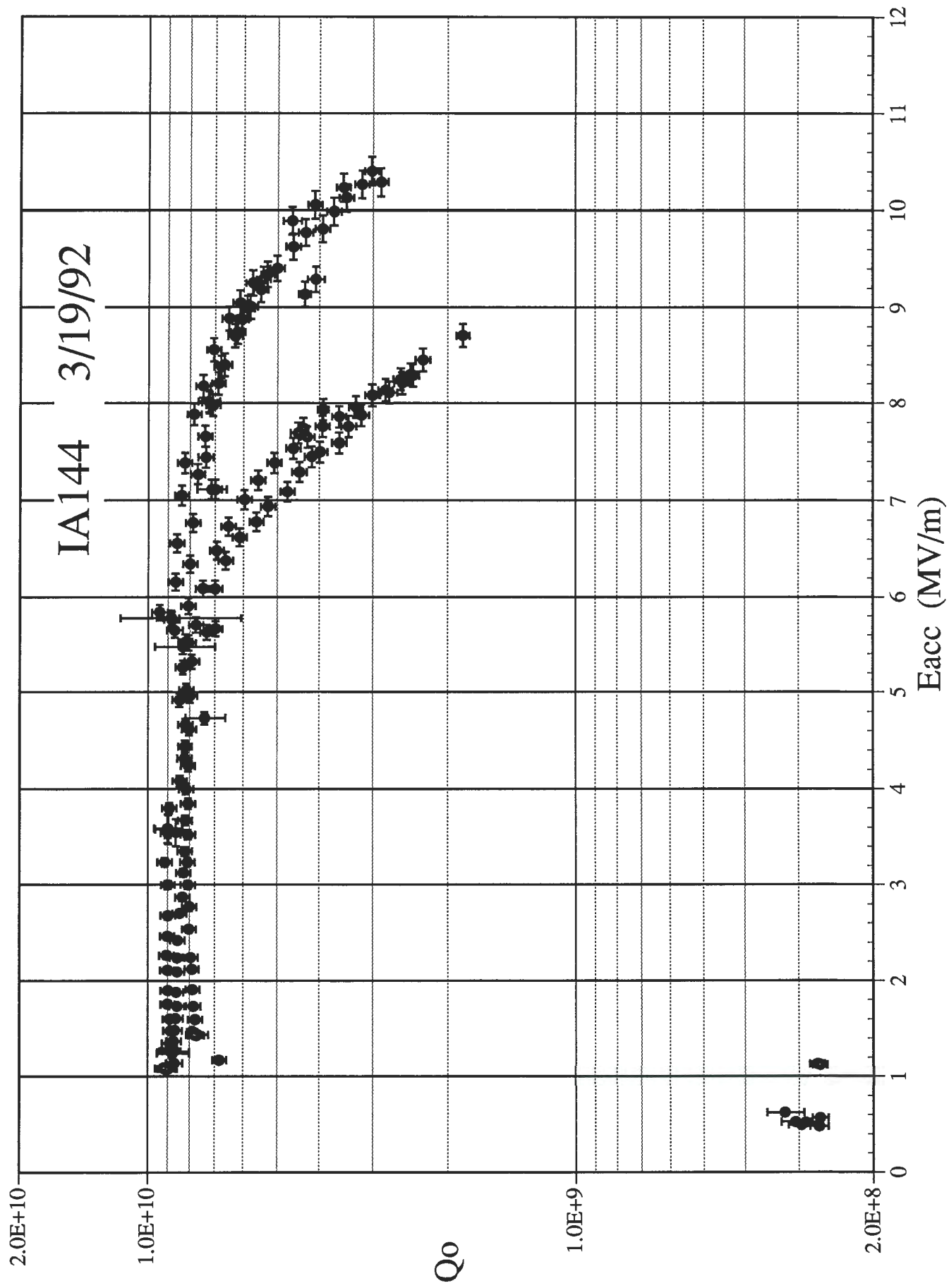


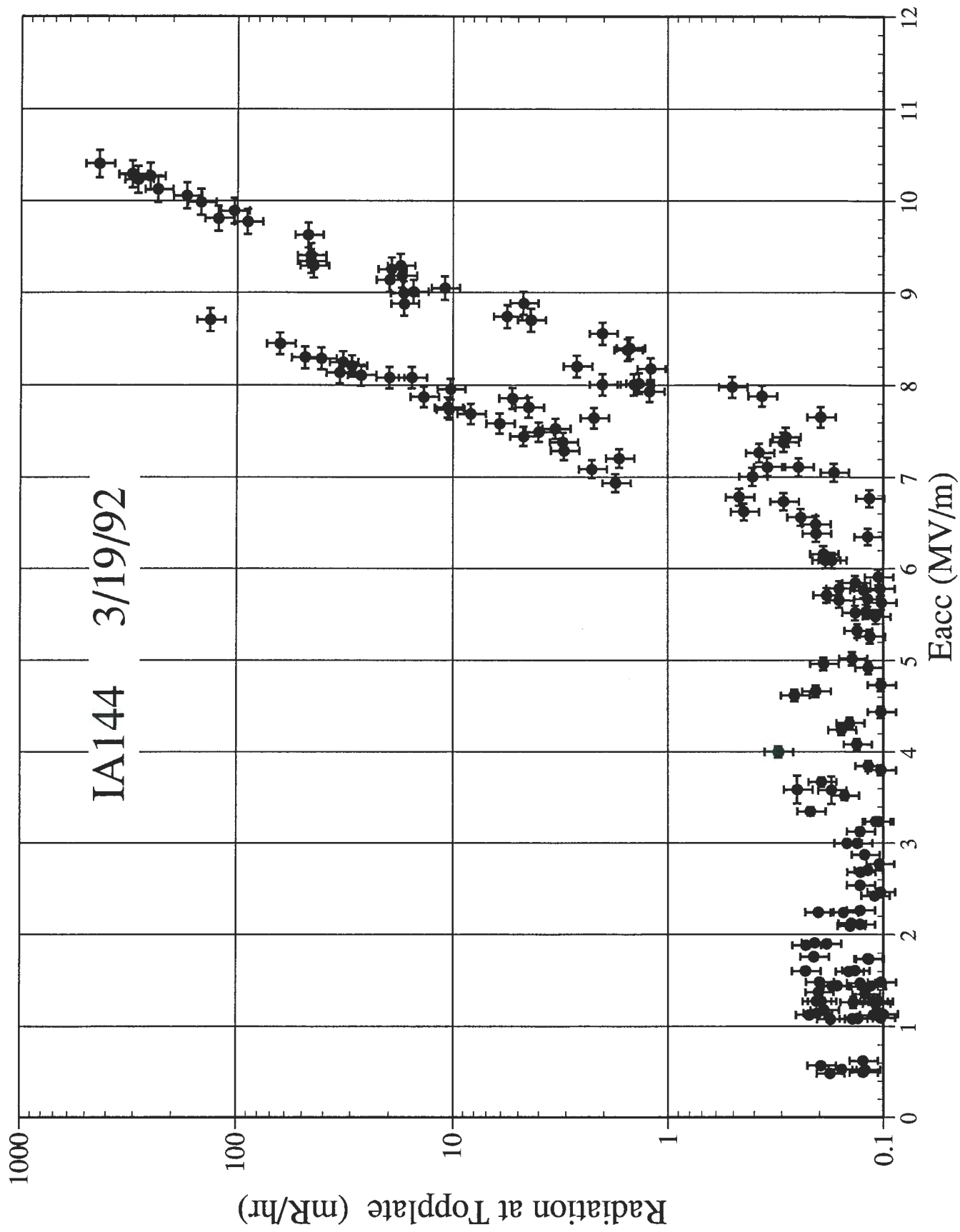


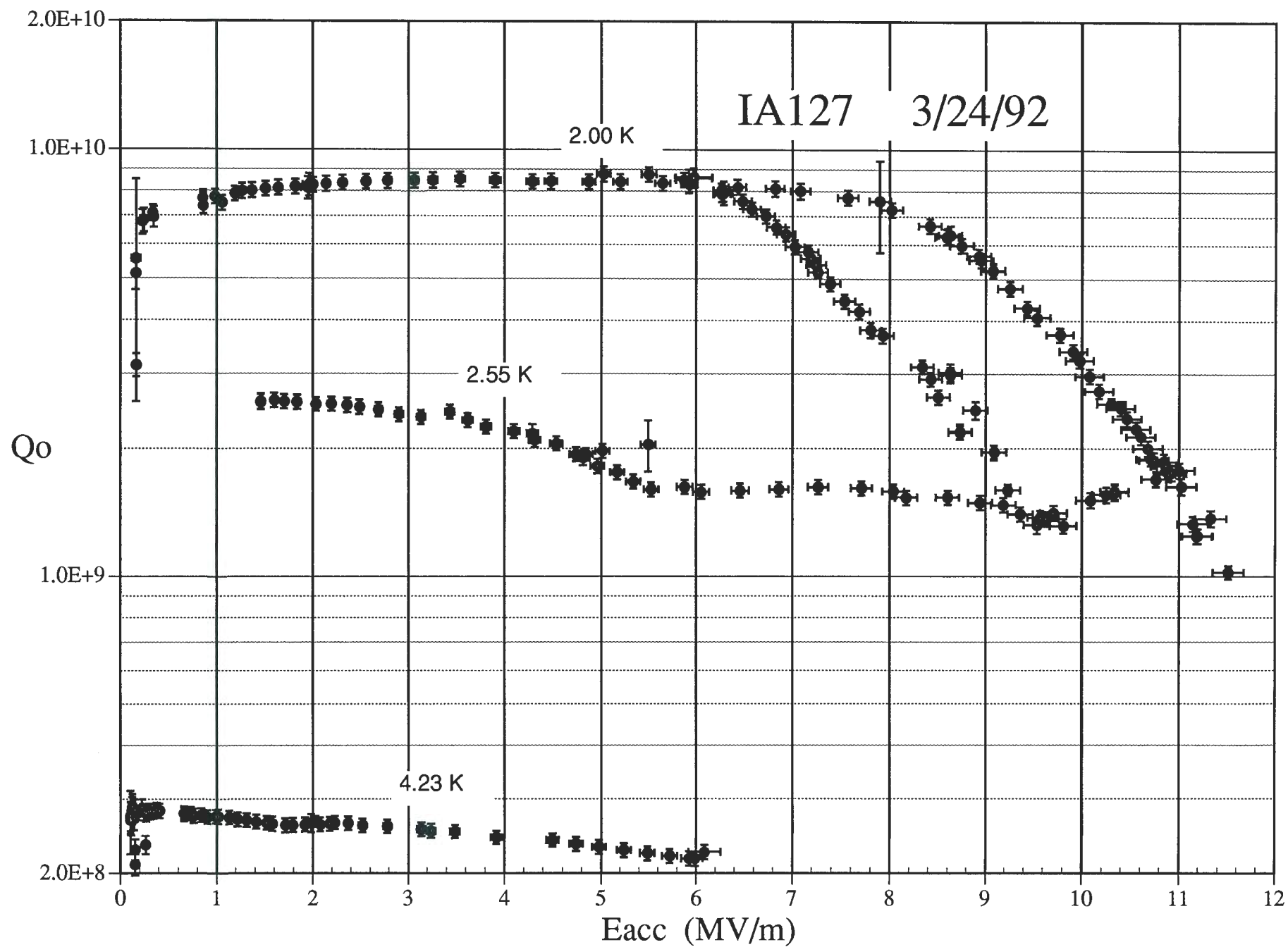


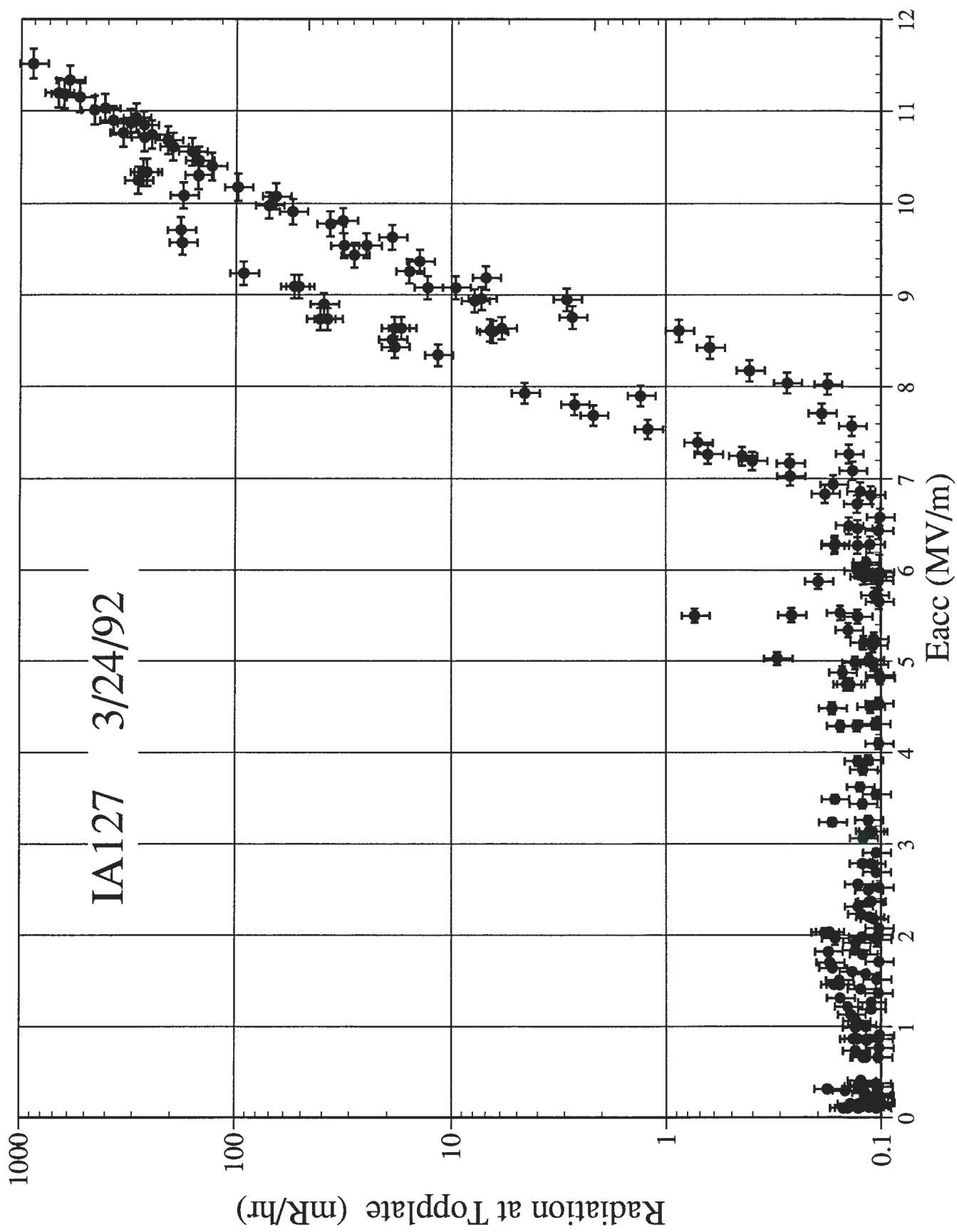


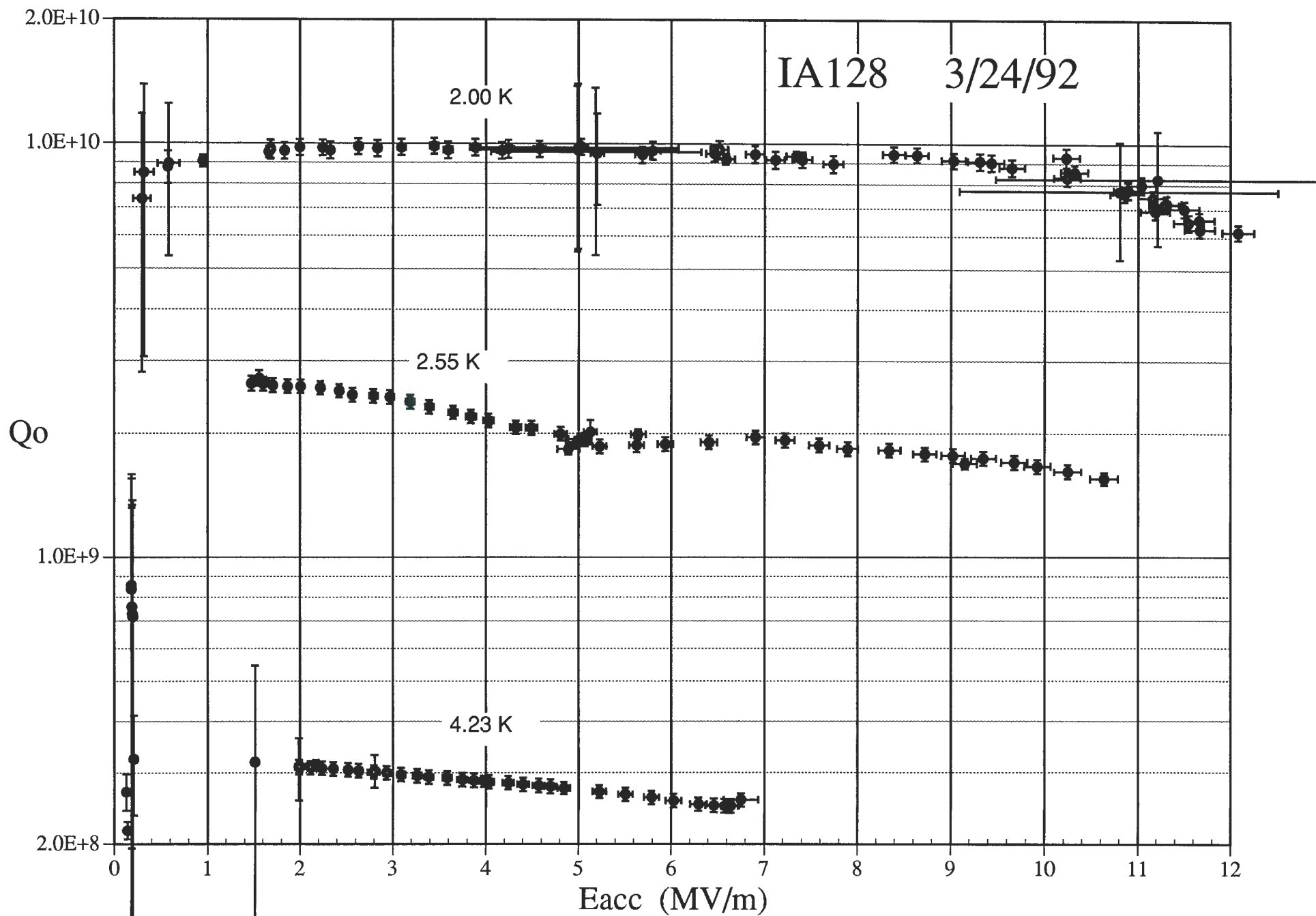


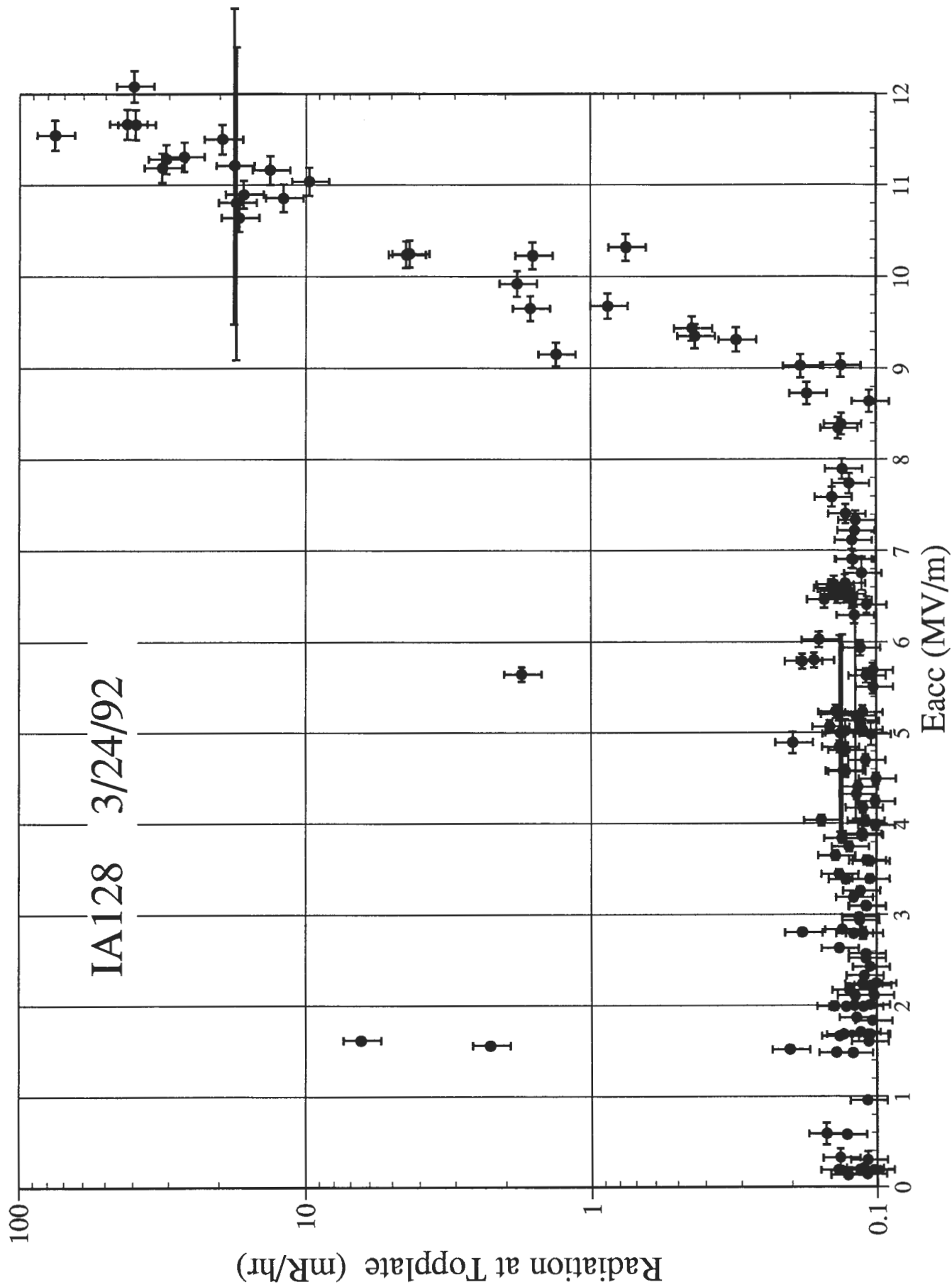


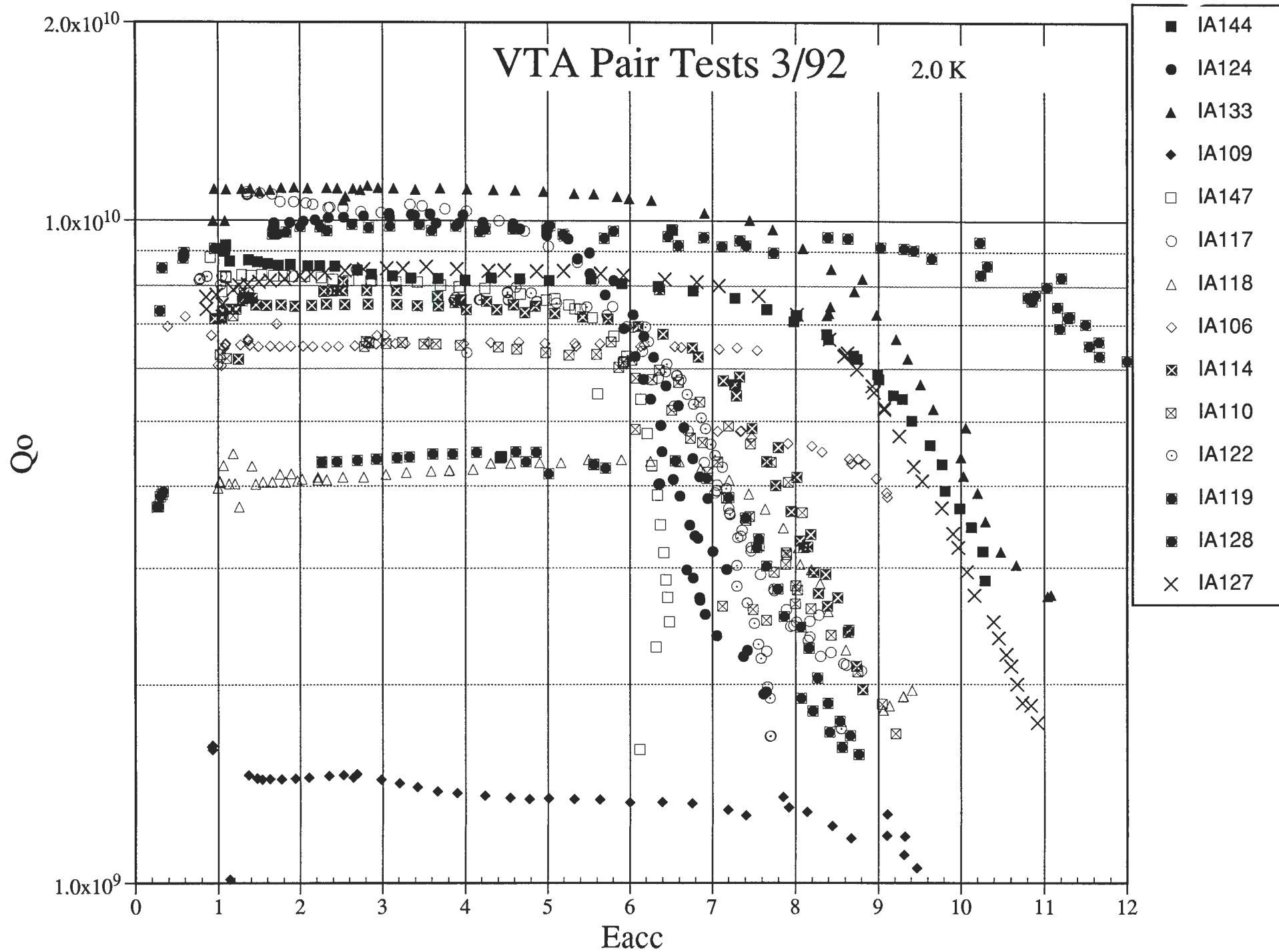


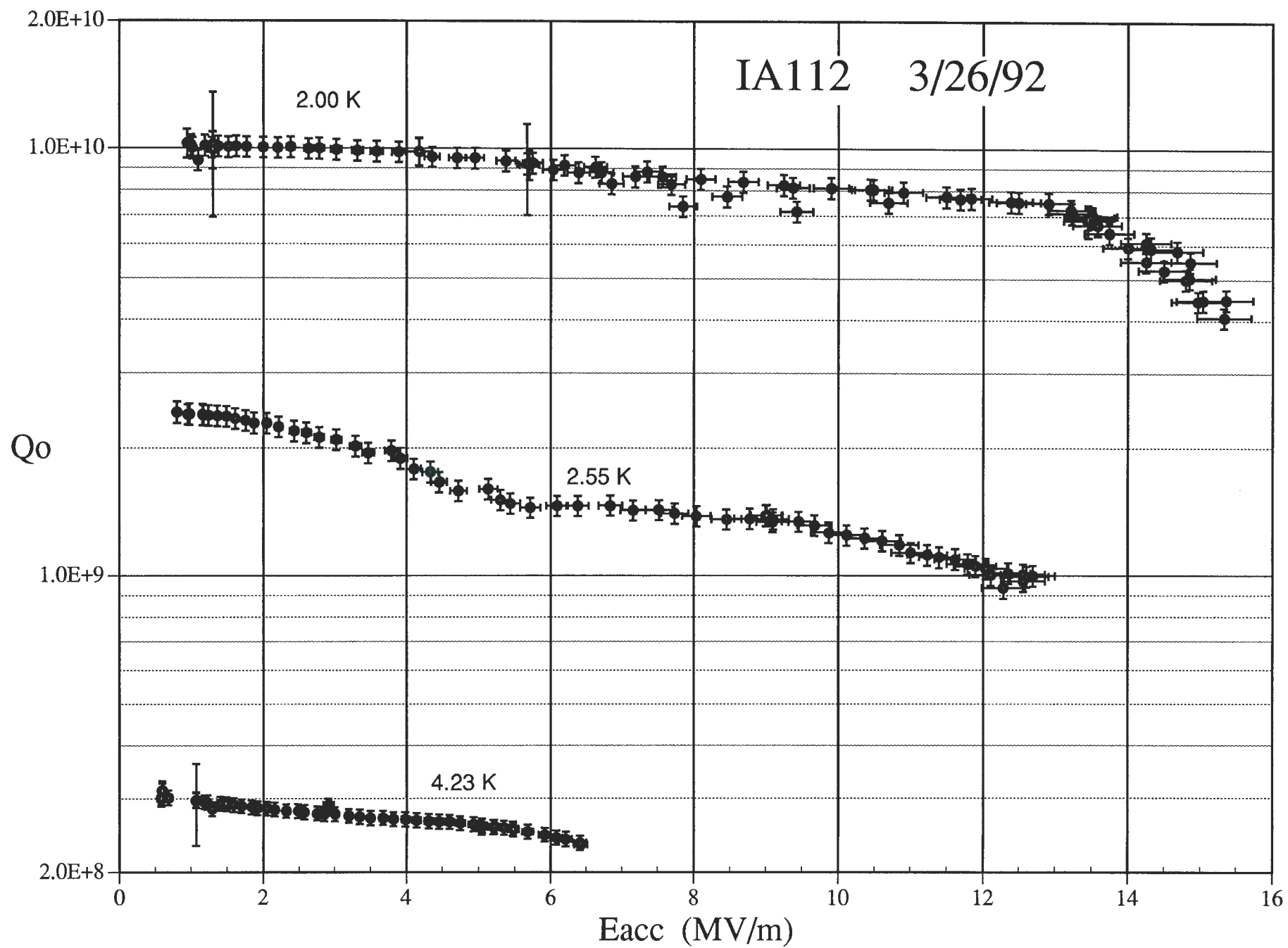


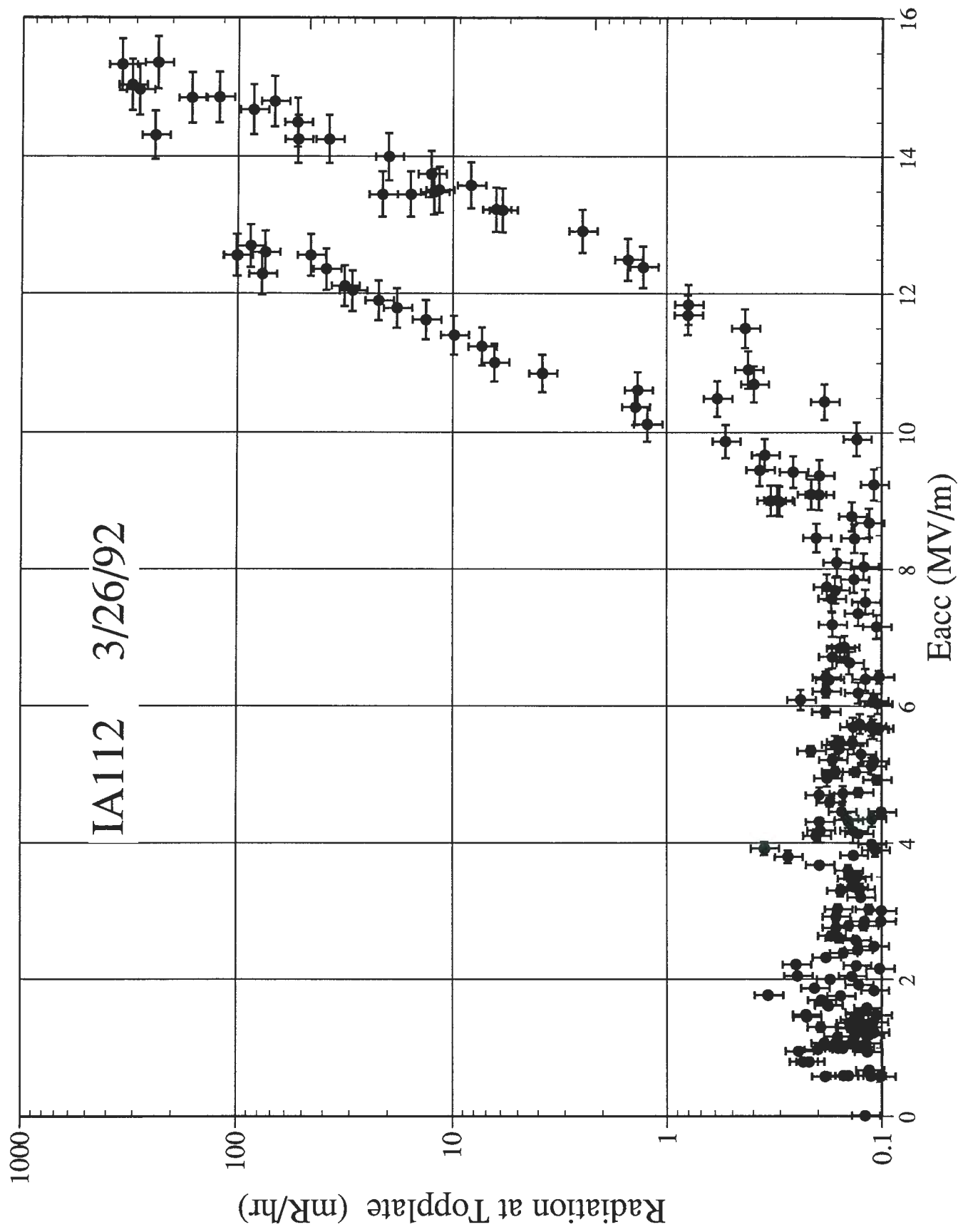


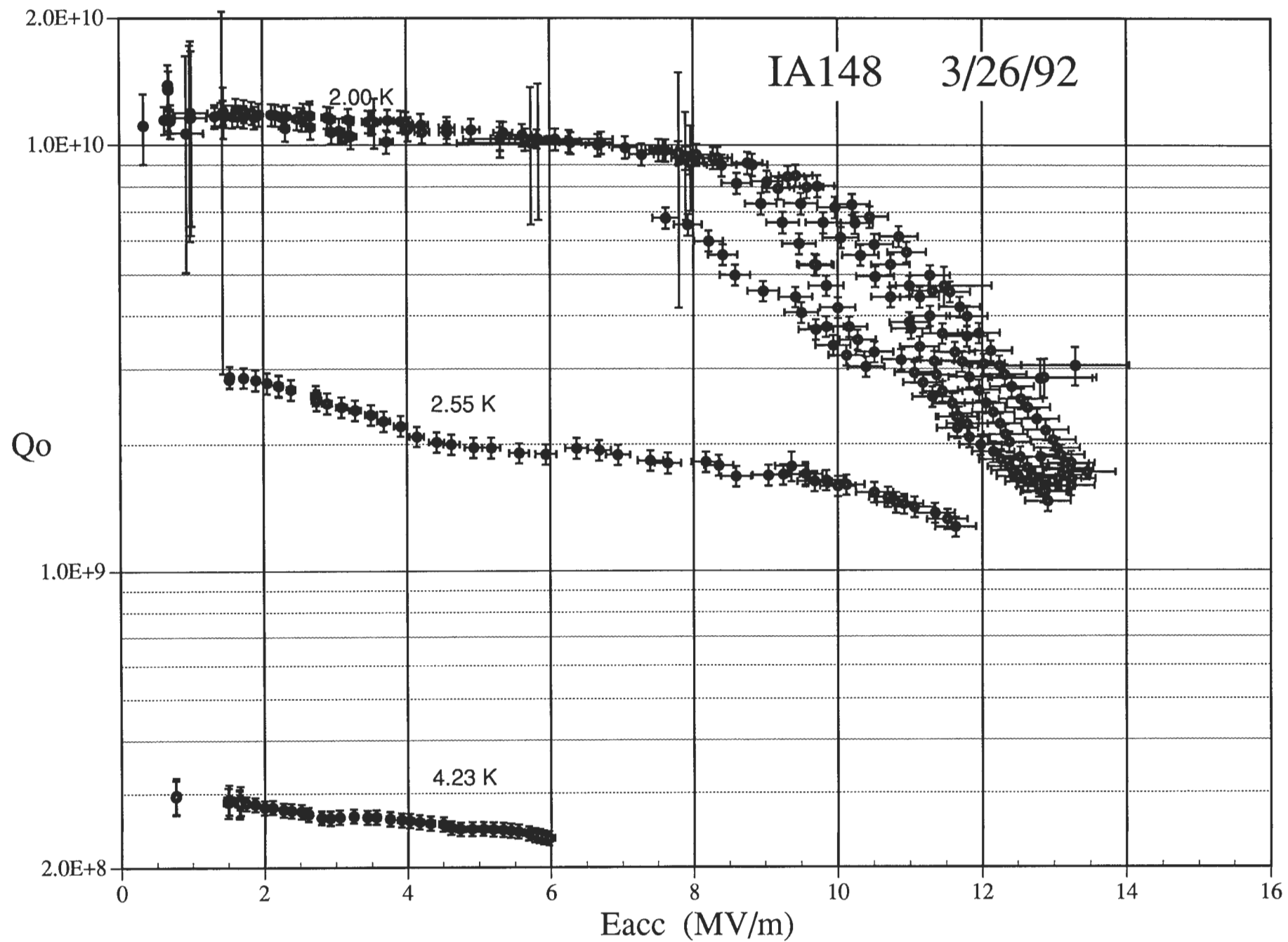


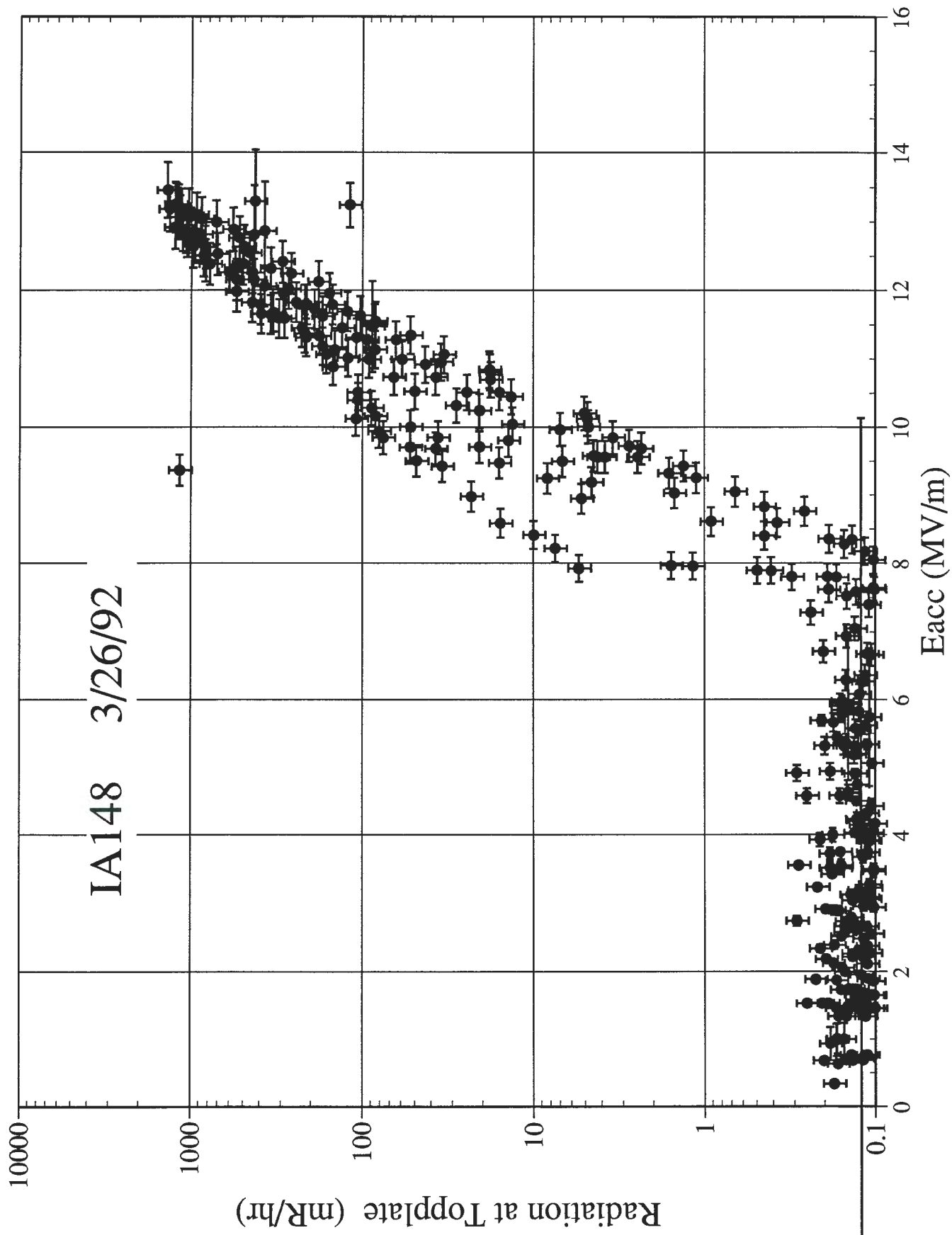


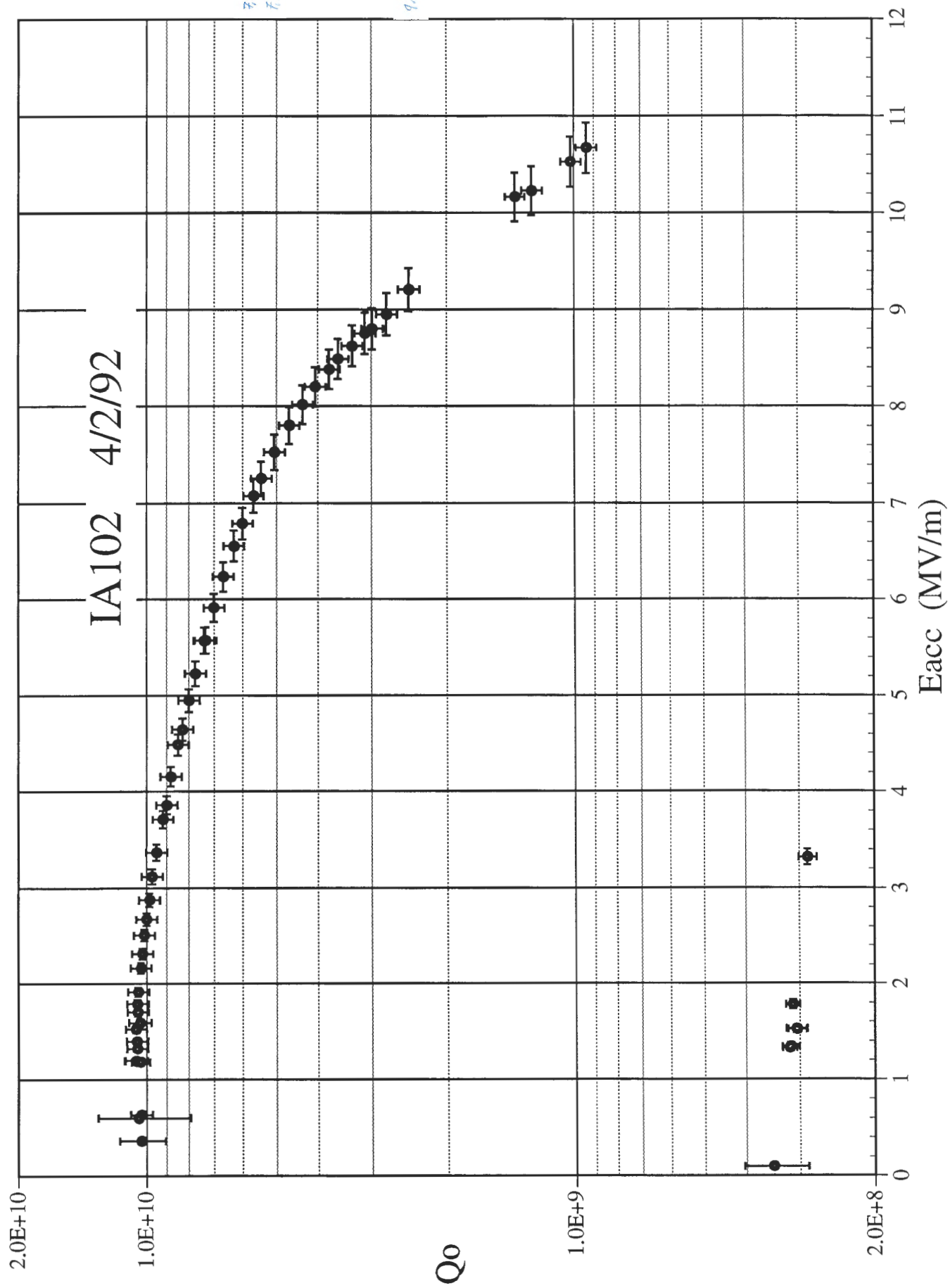


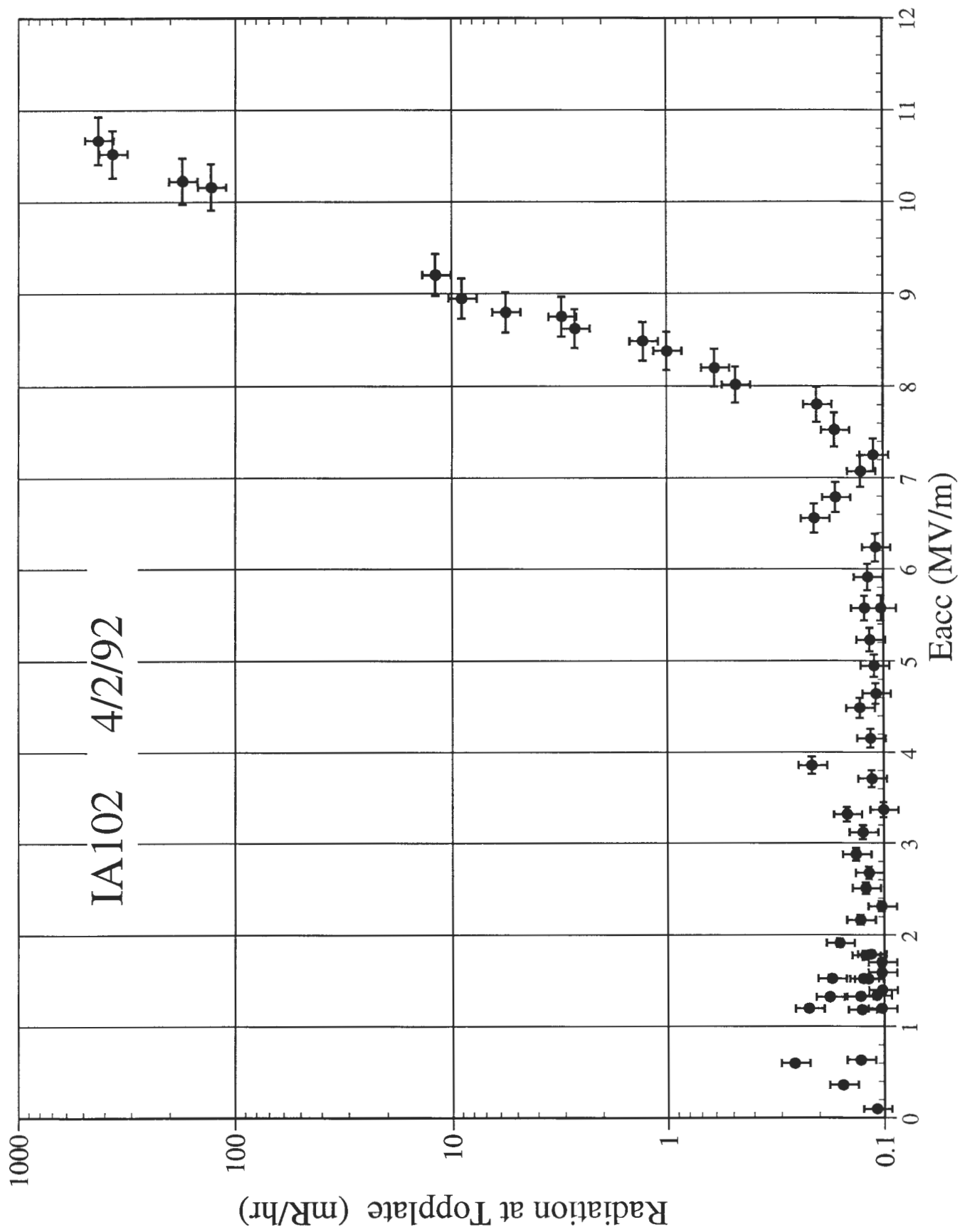


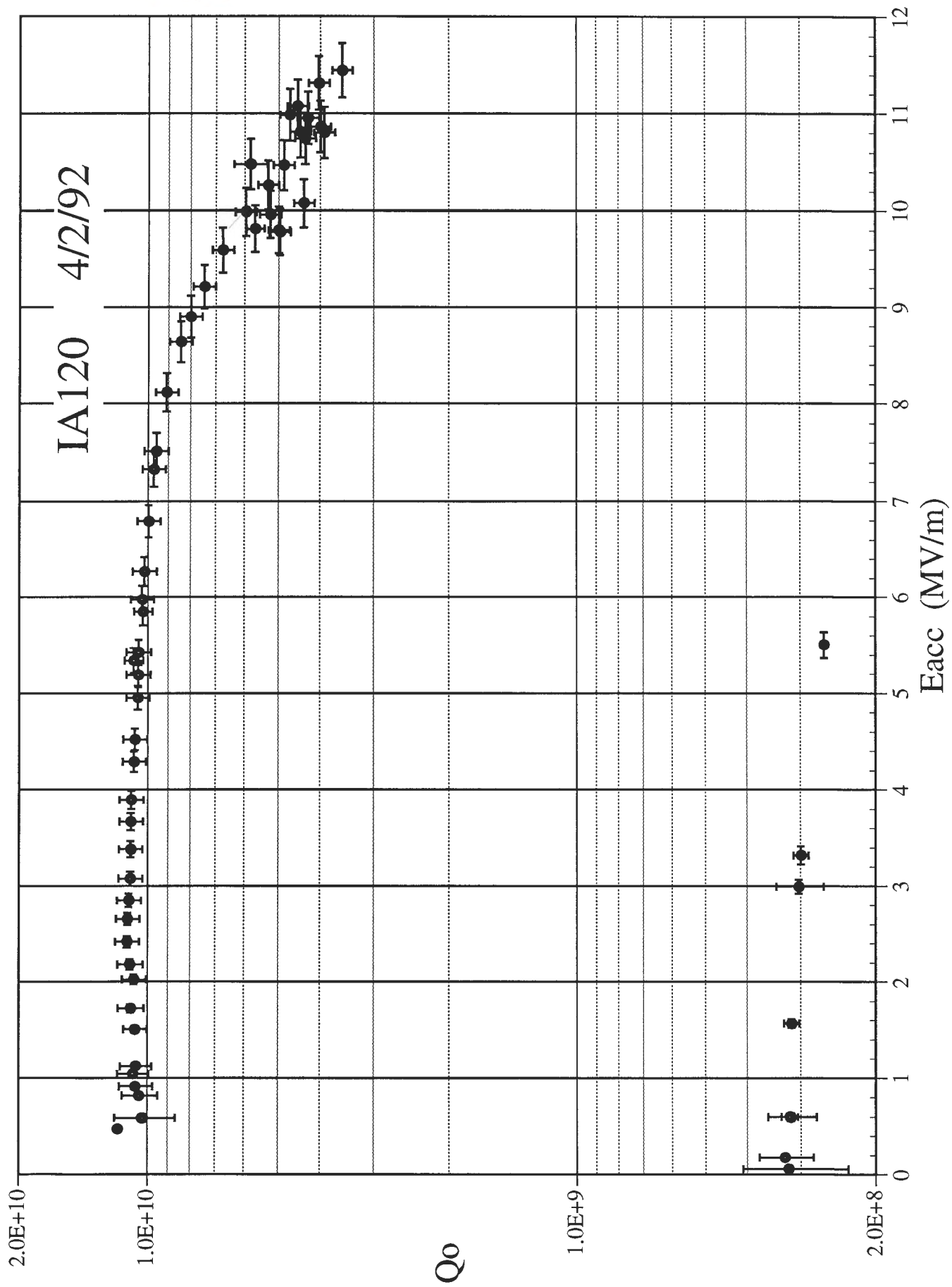




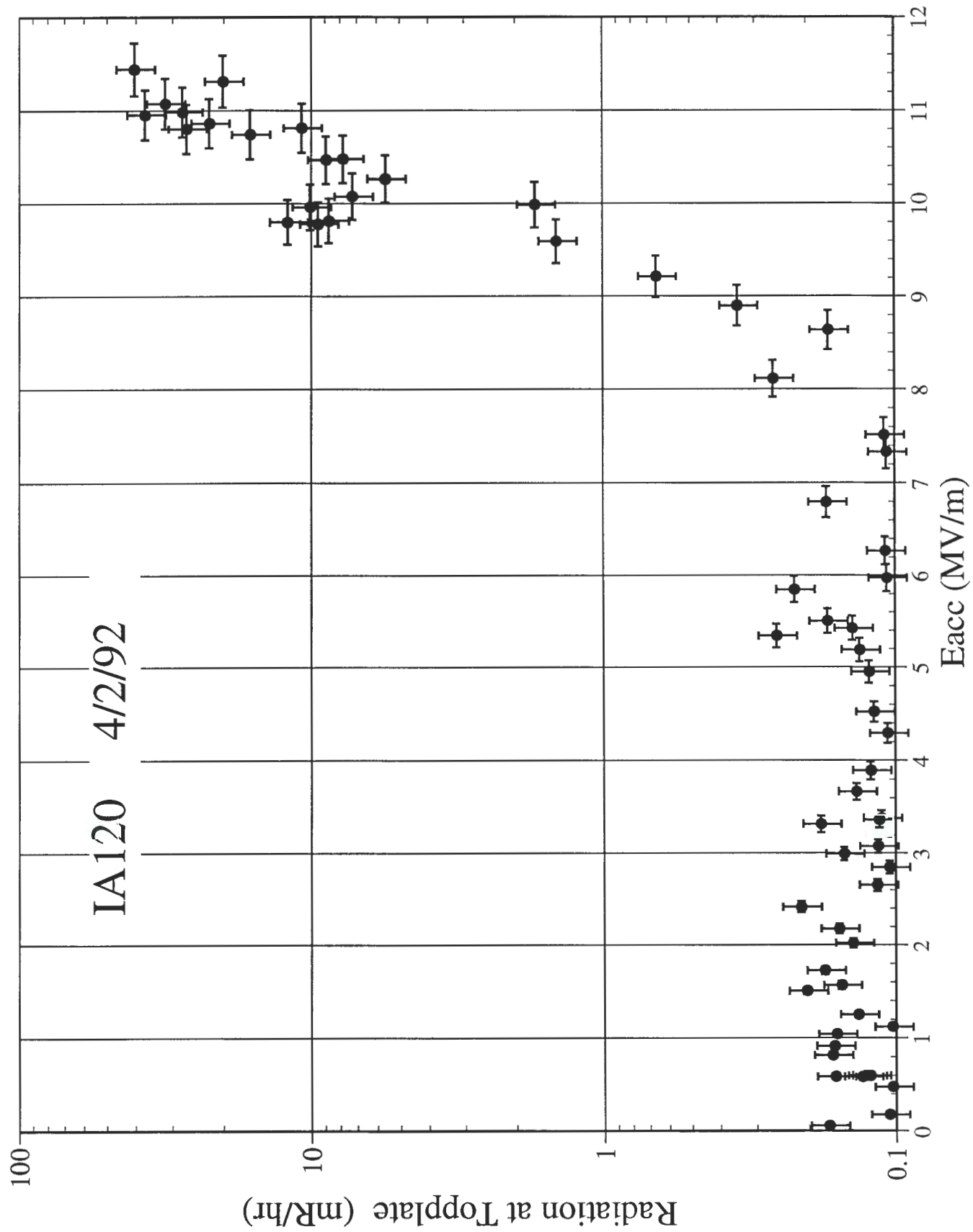


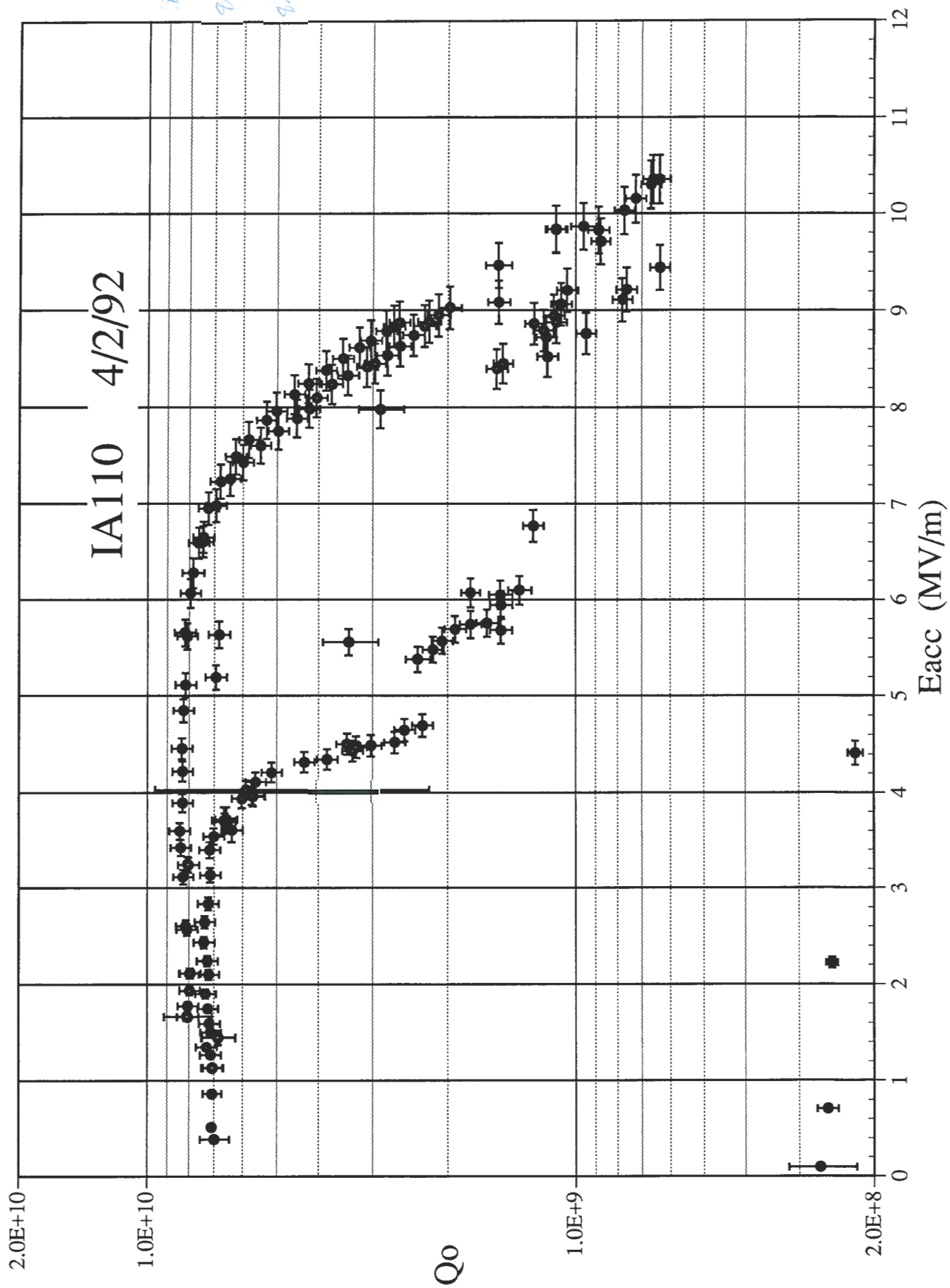


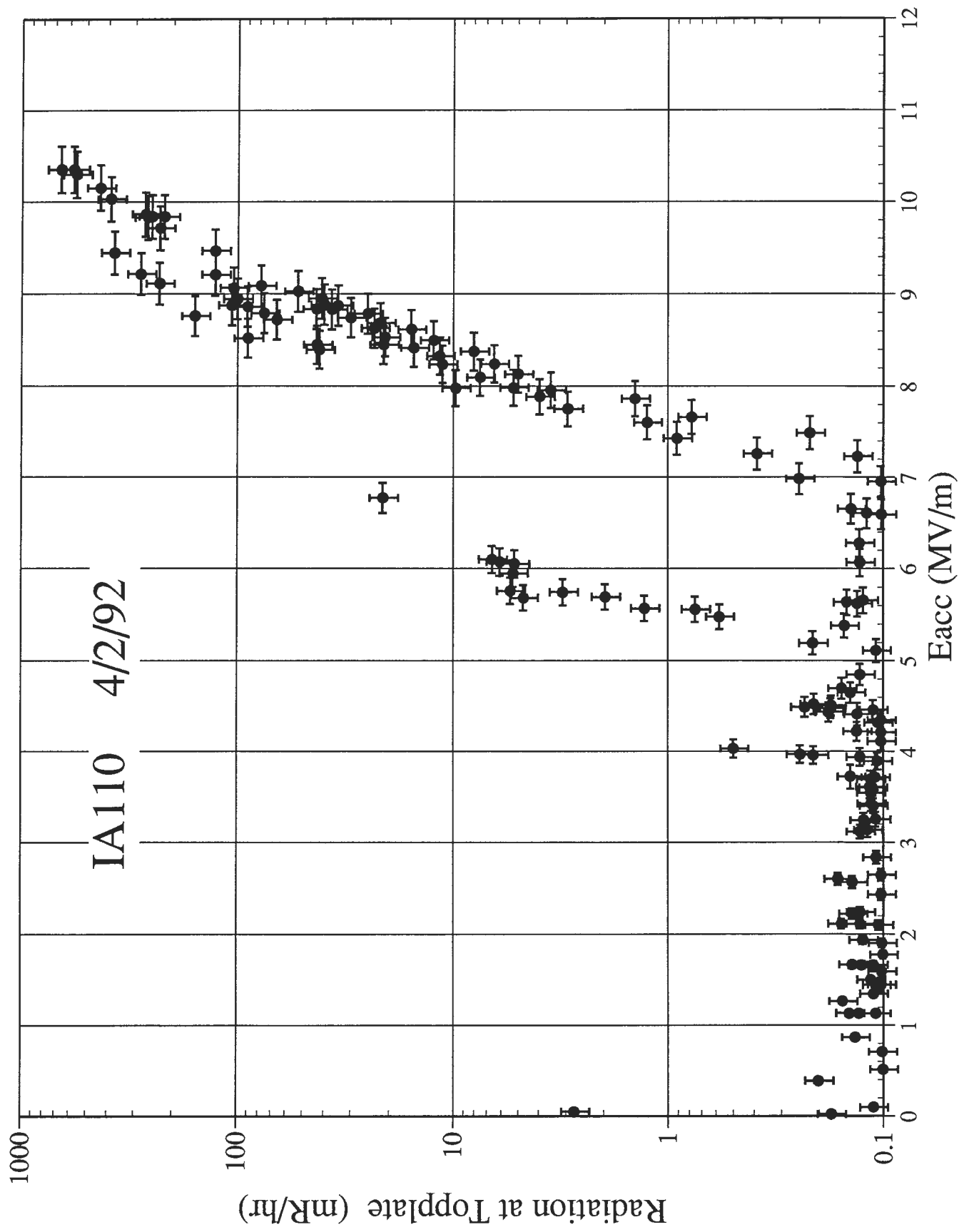


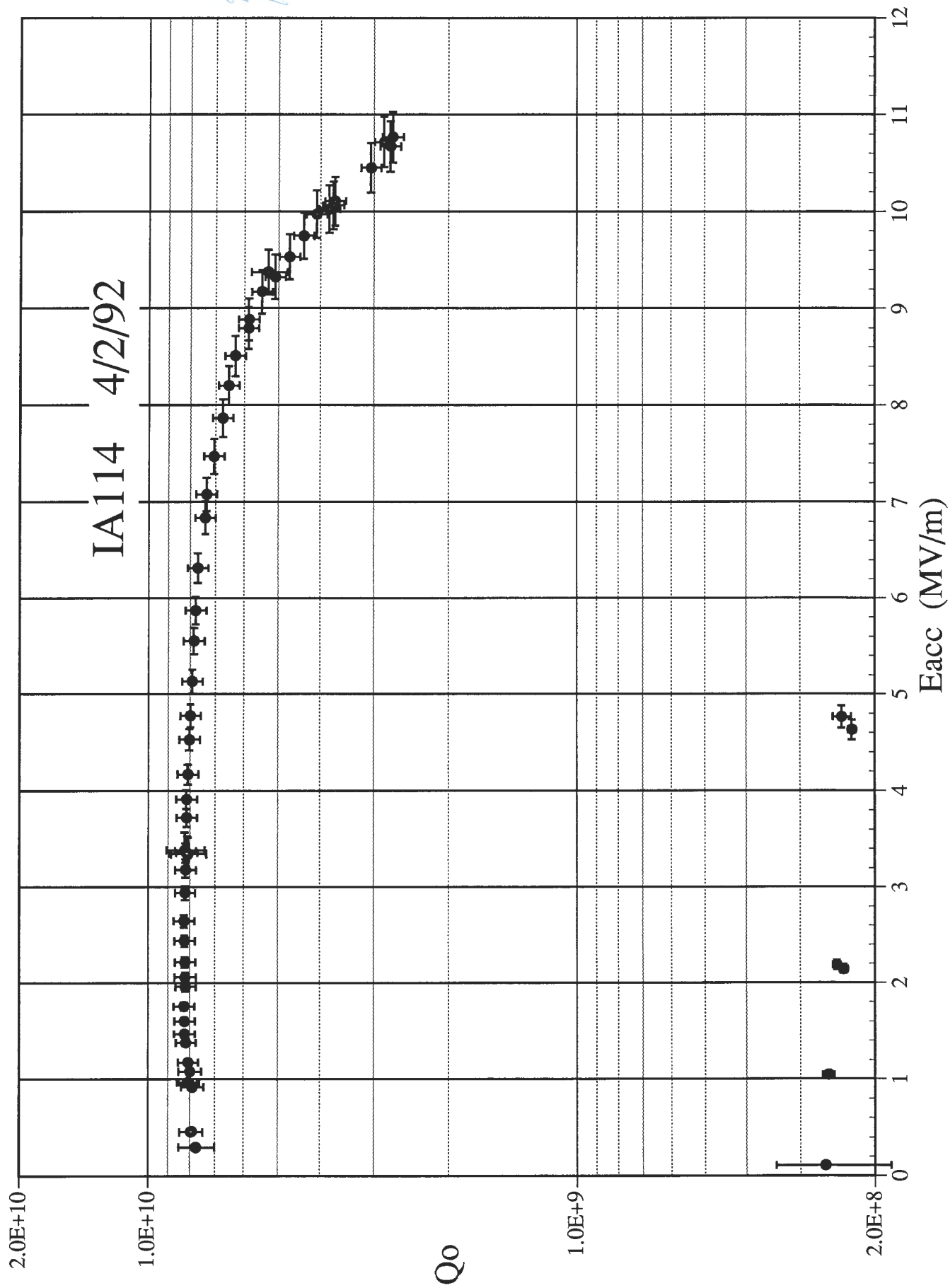


7.6 @ 9.5
10.7 @ 5.7
11.5 @ 9.5

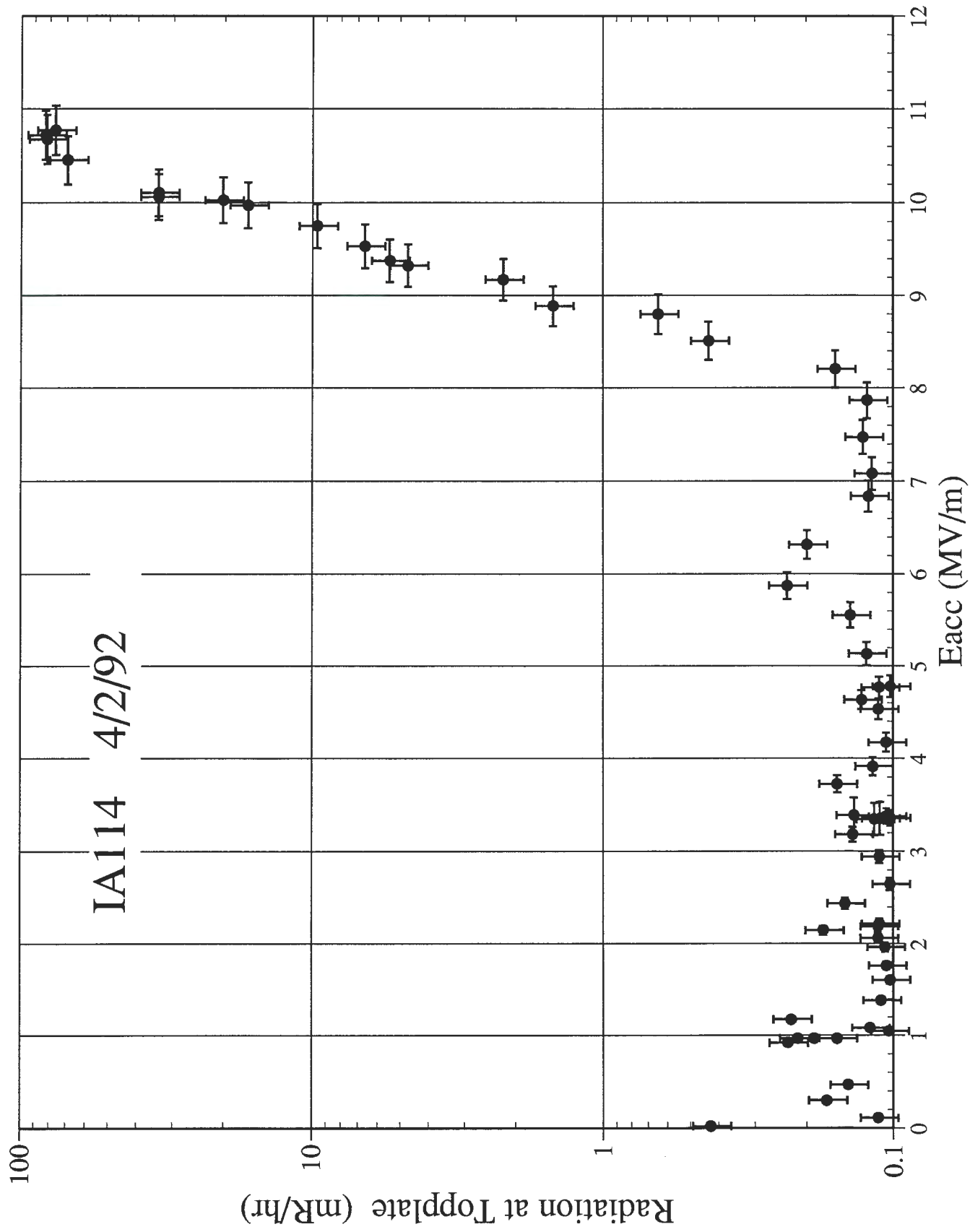


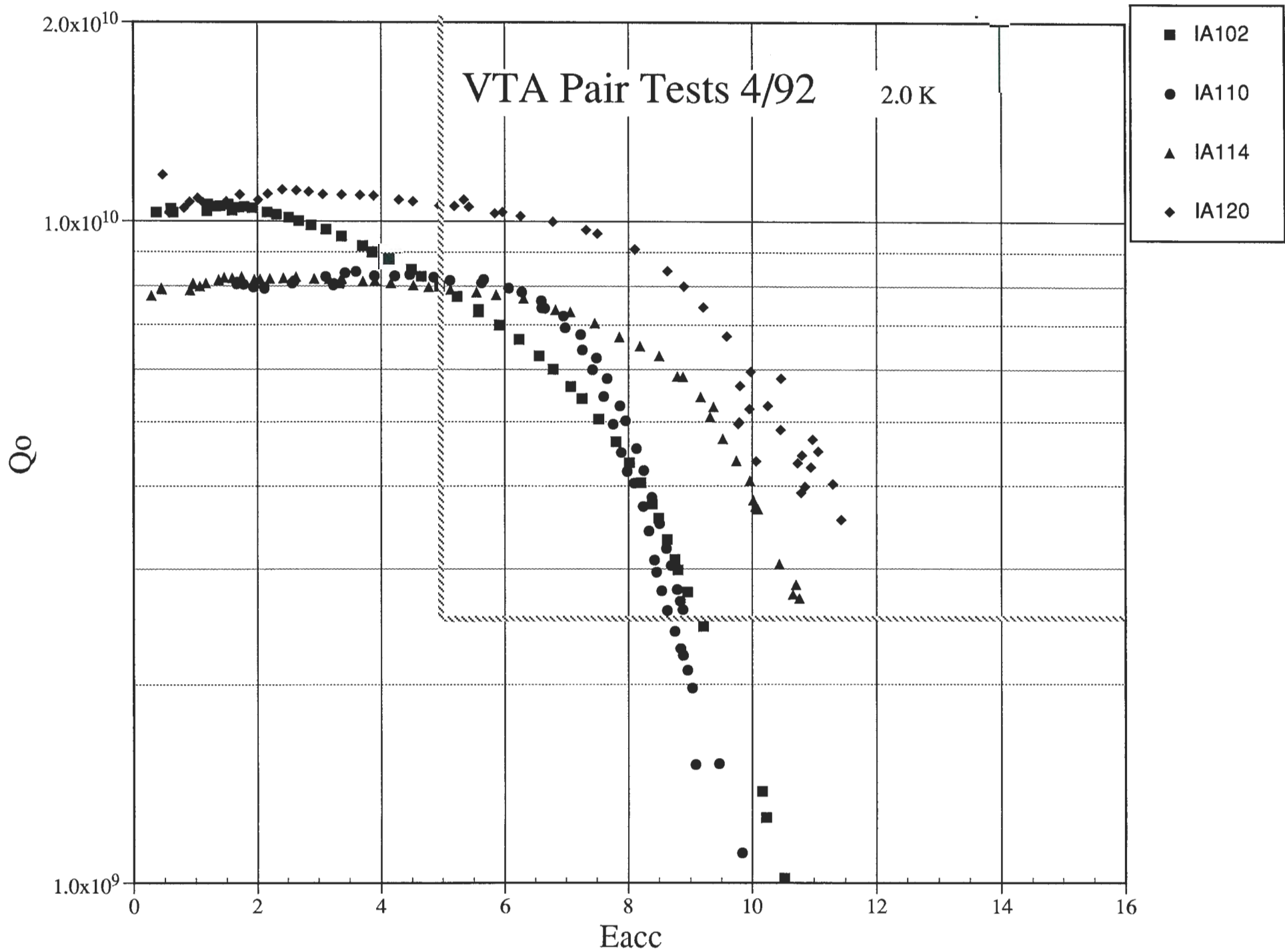


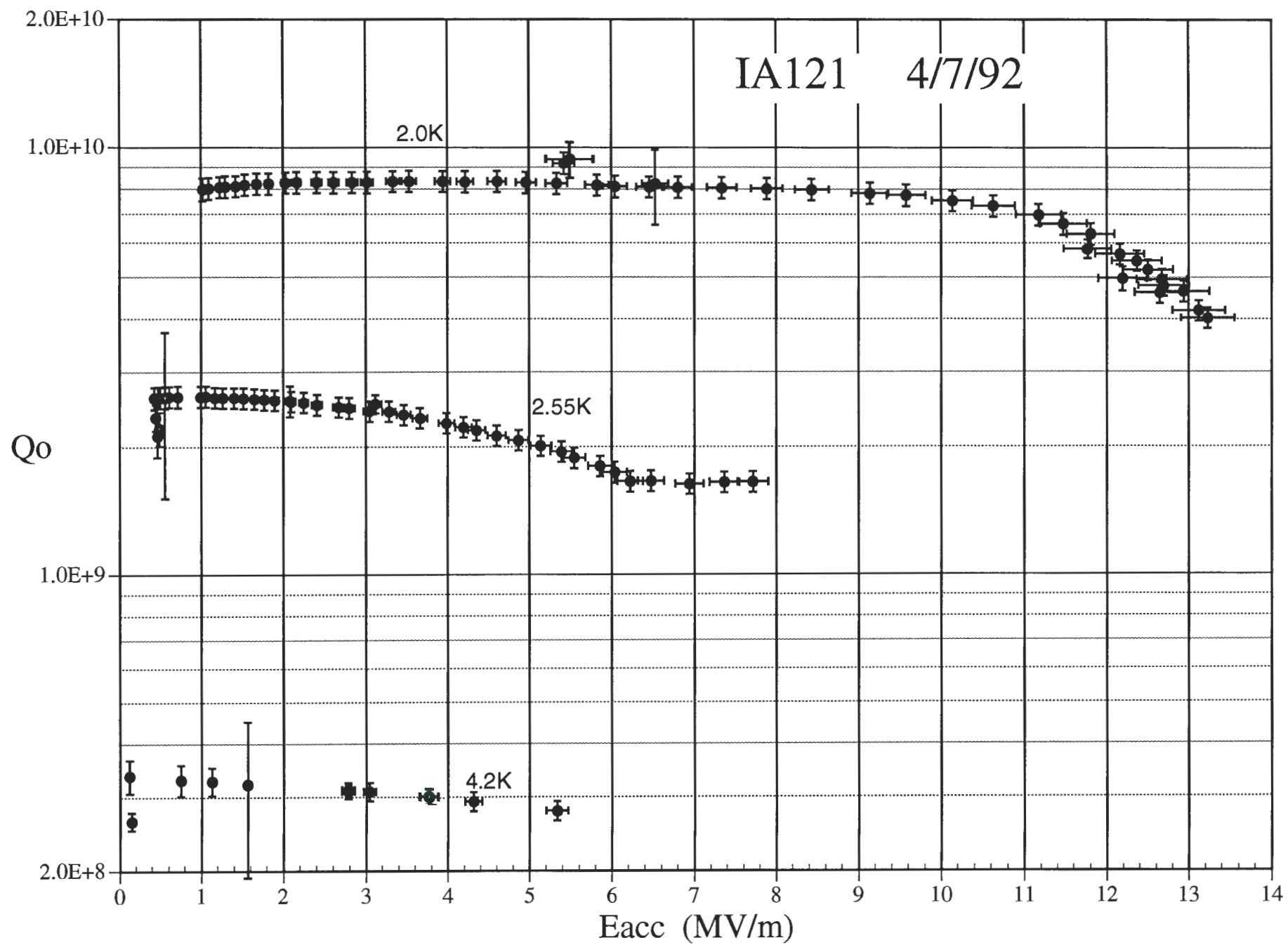


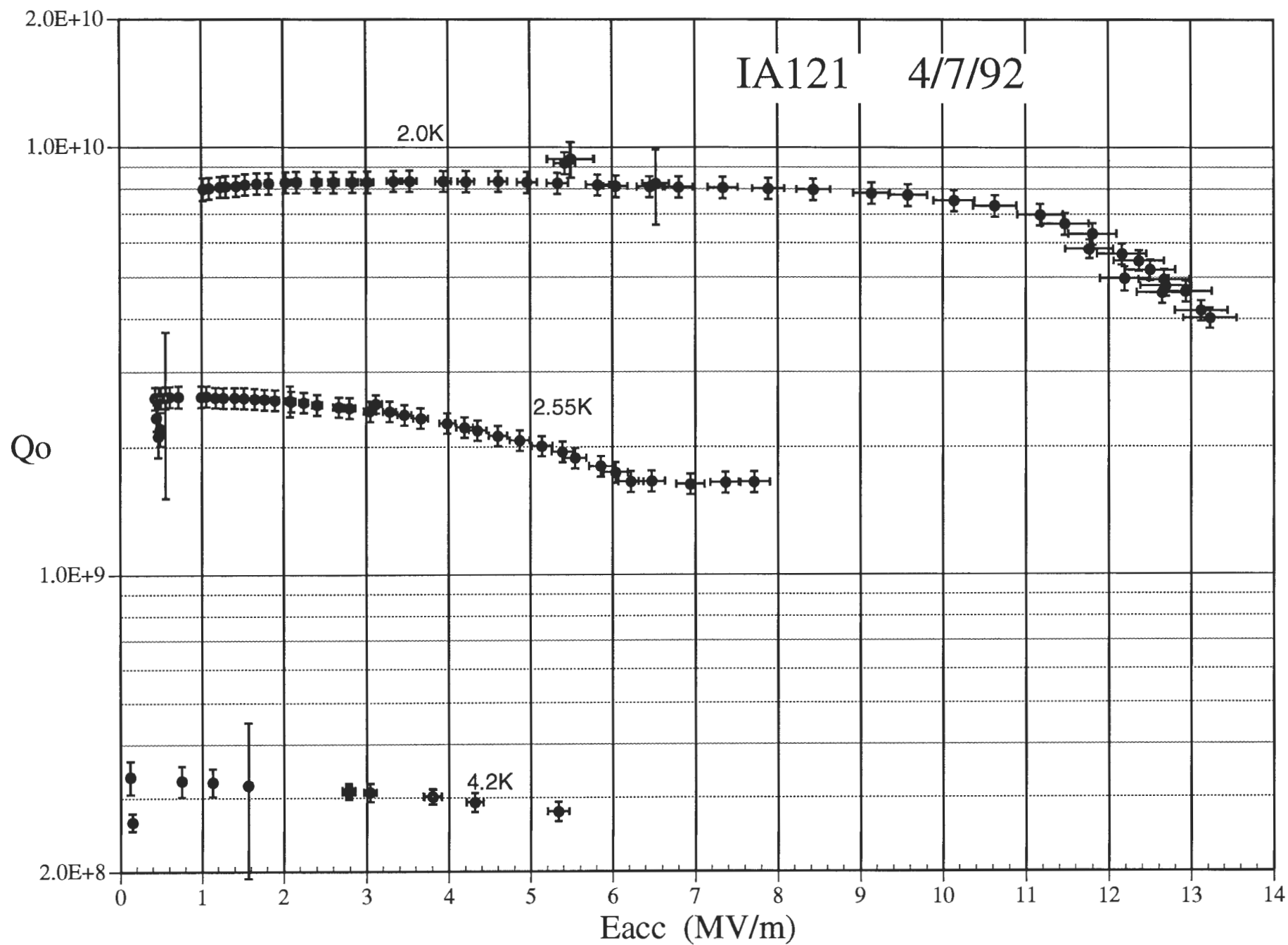


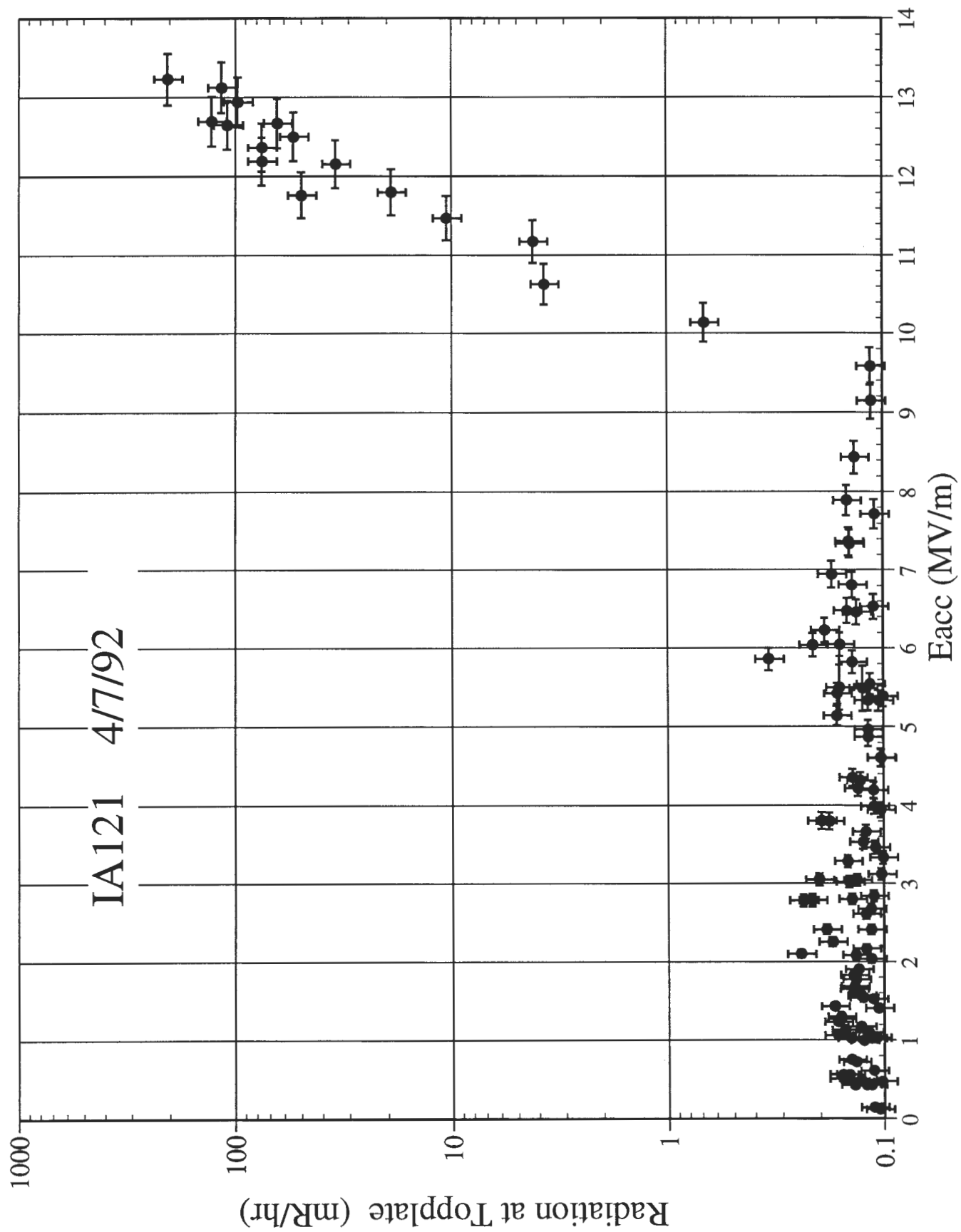
90 6.7
95 0.45
10.7 0.27

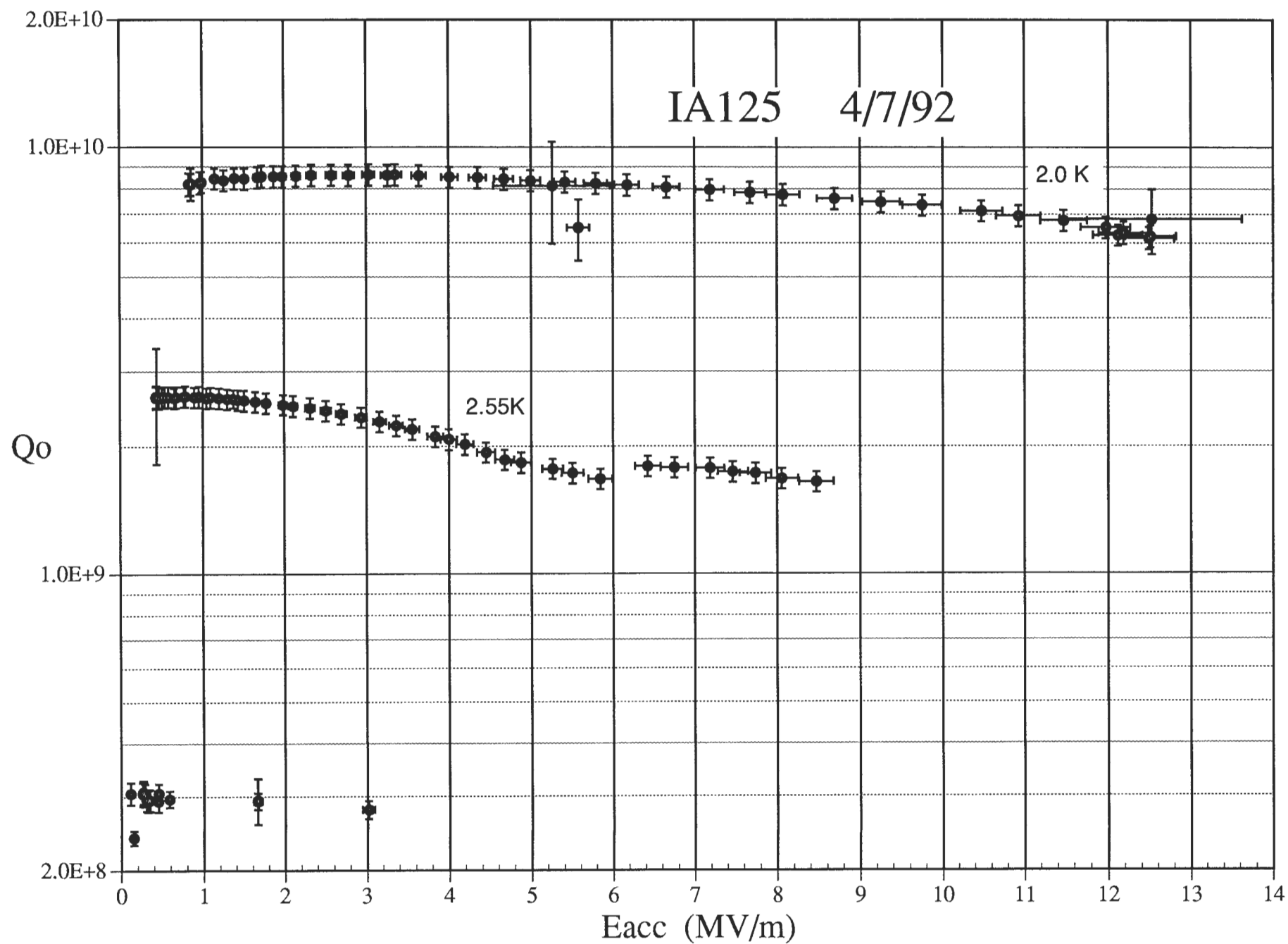


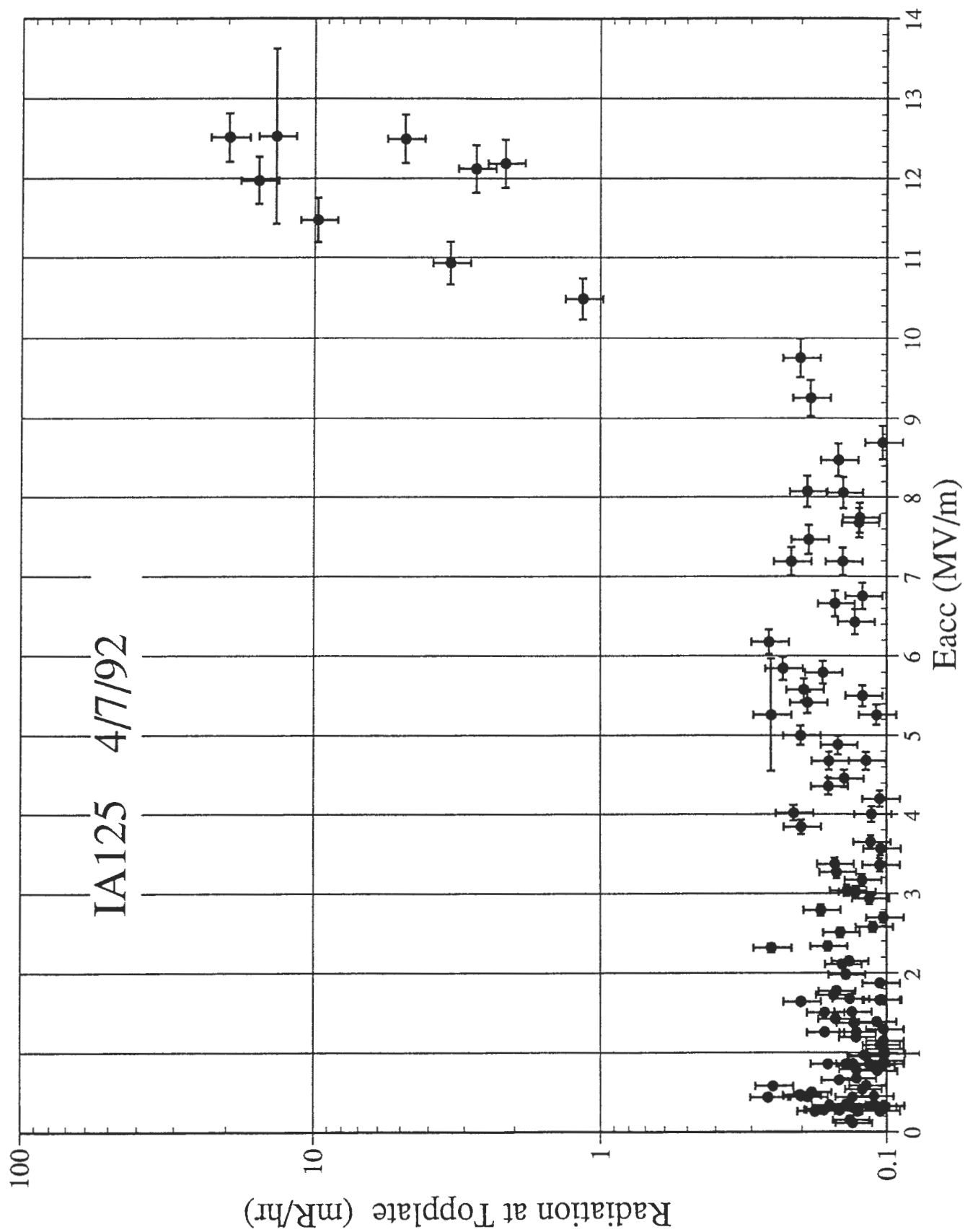


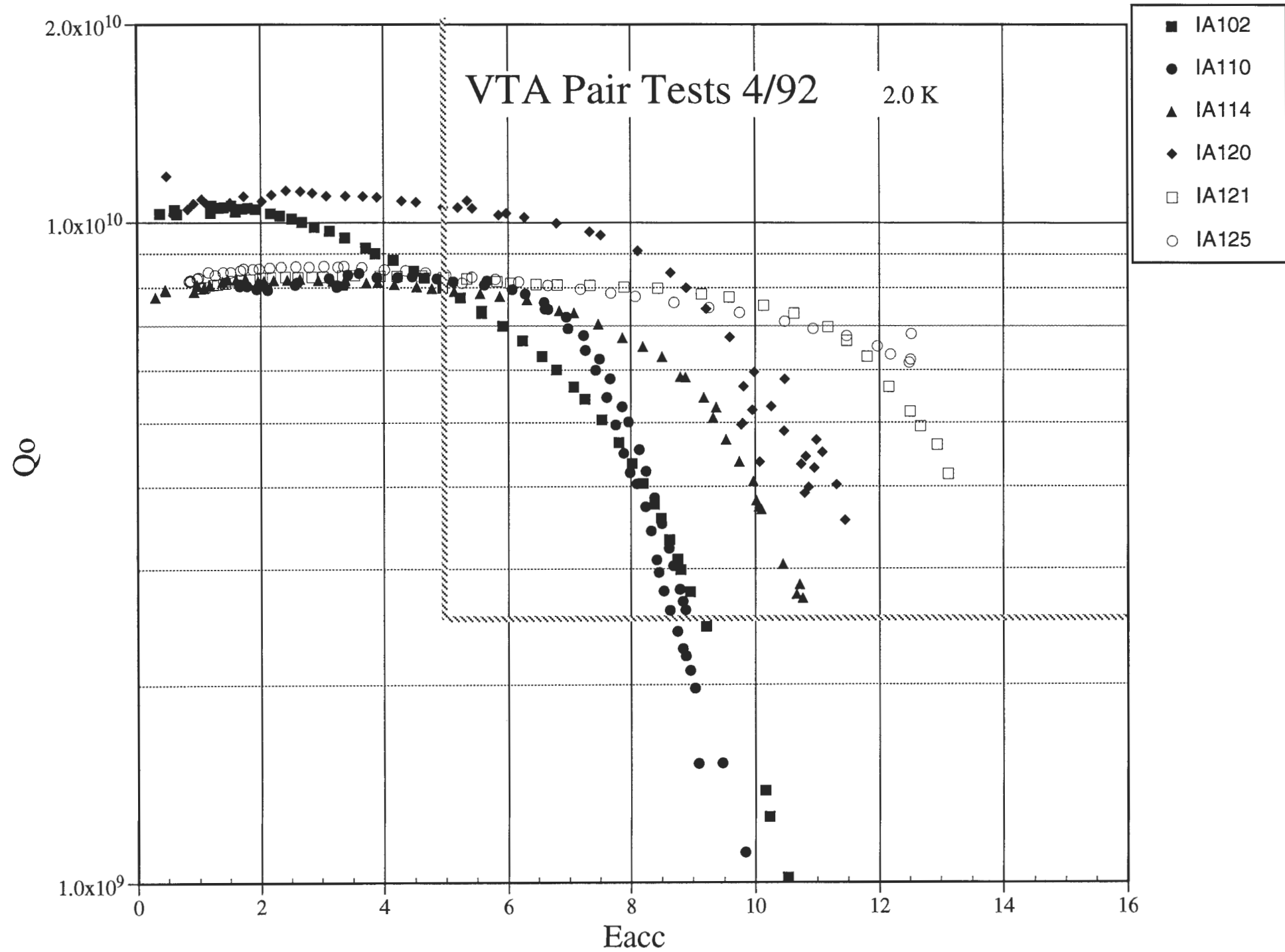


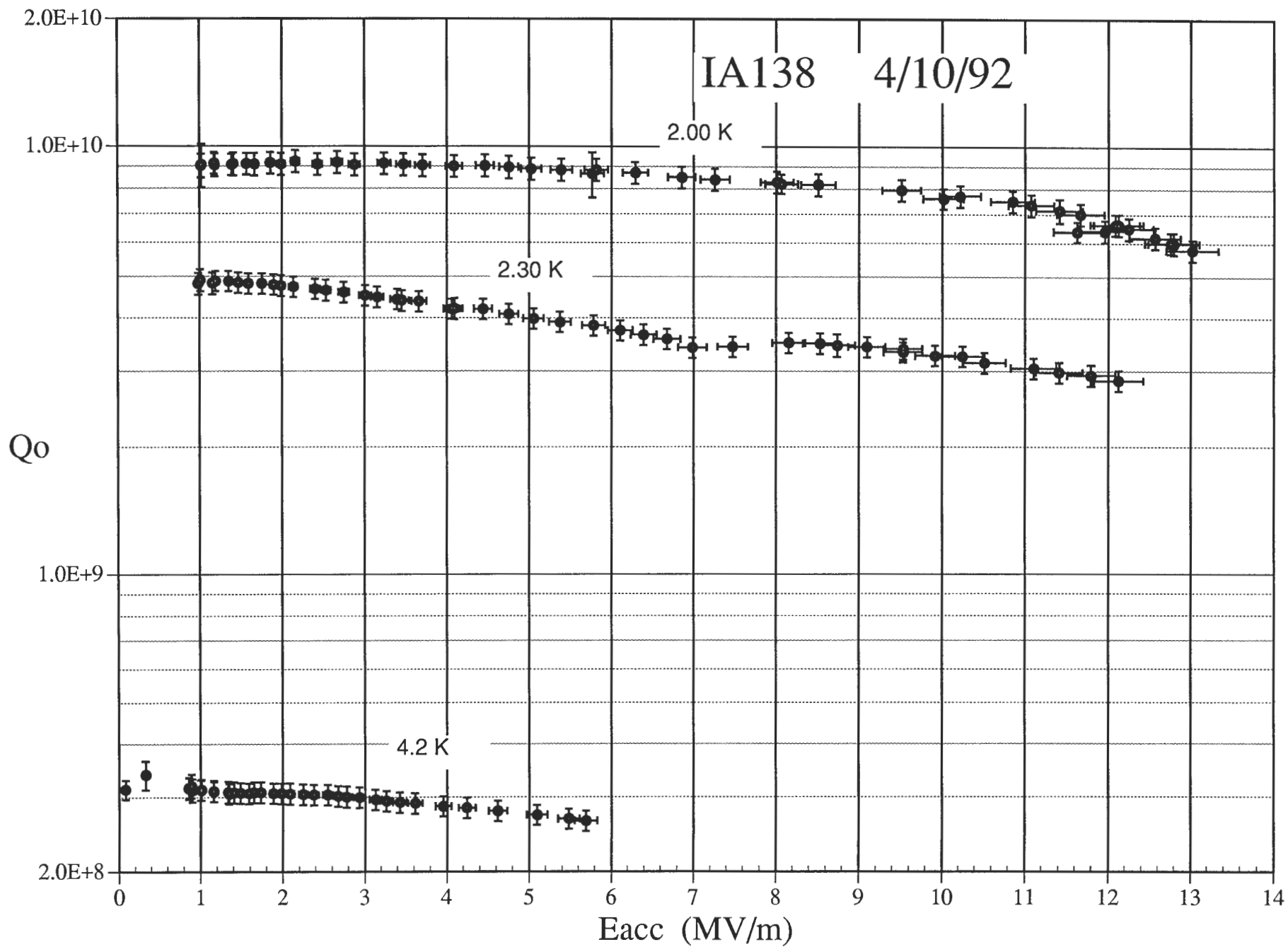


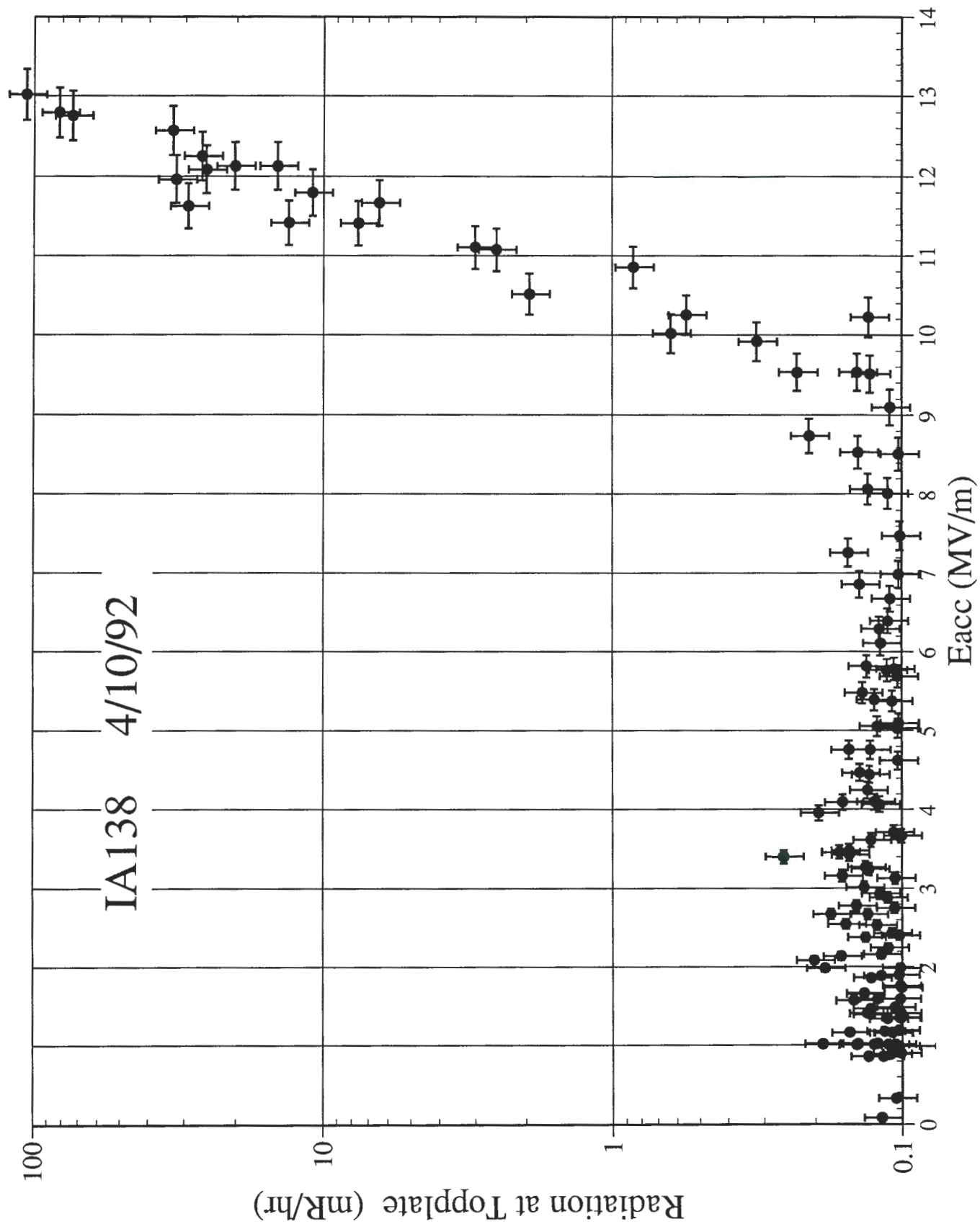


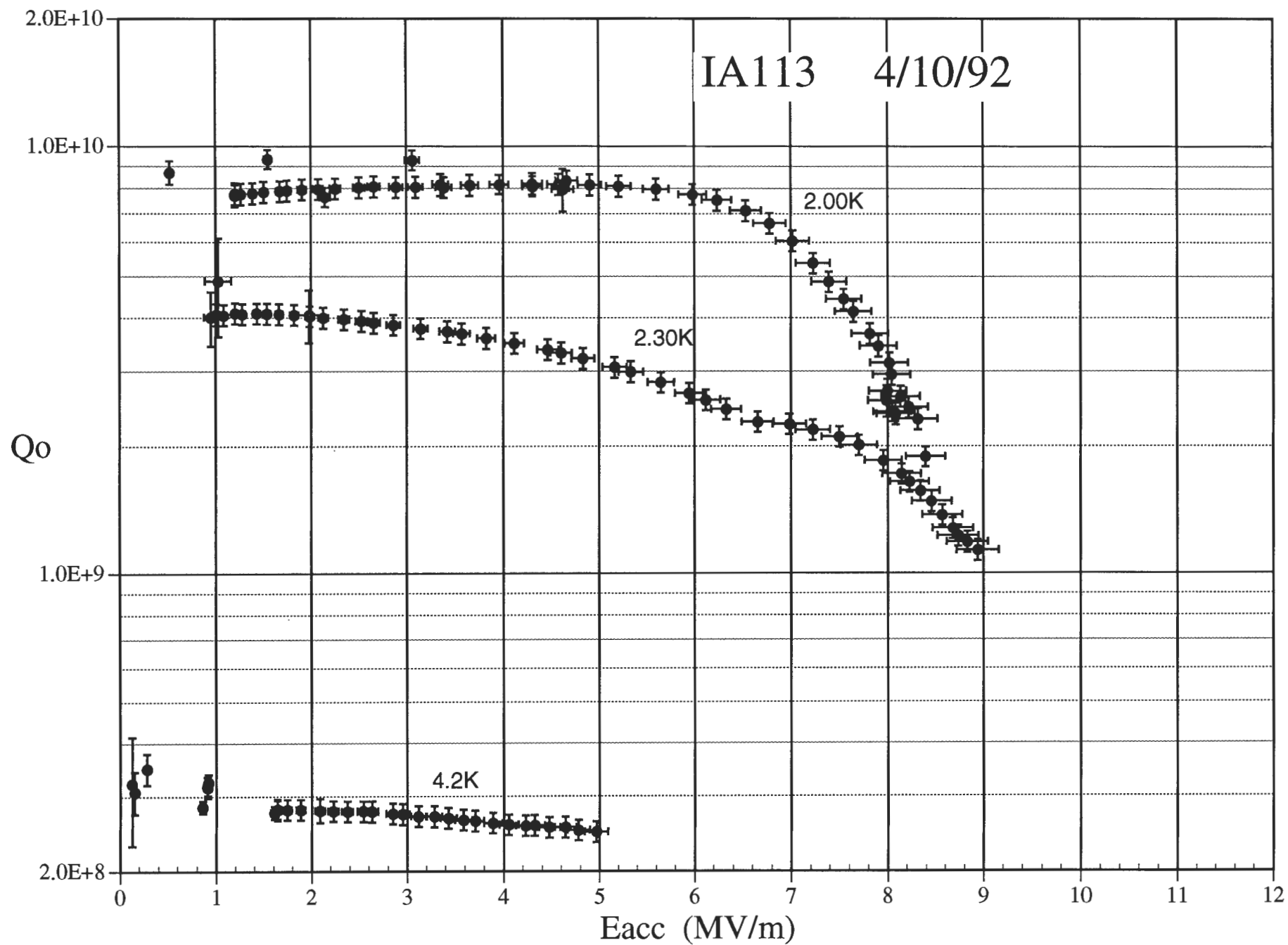


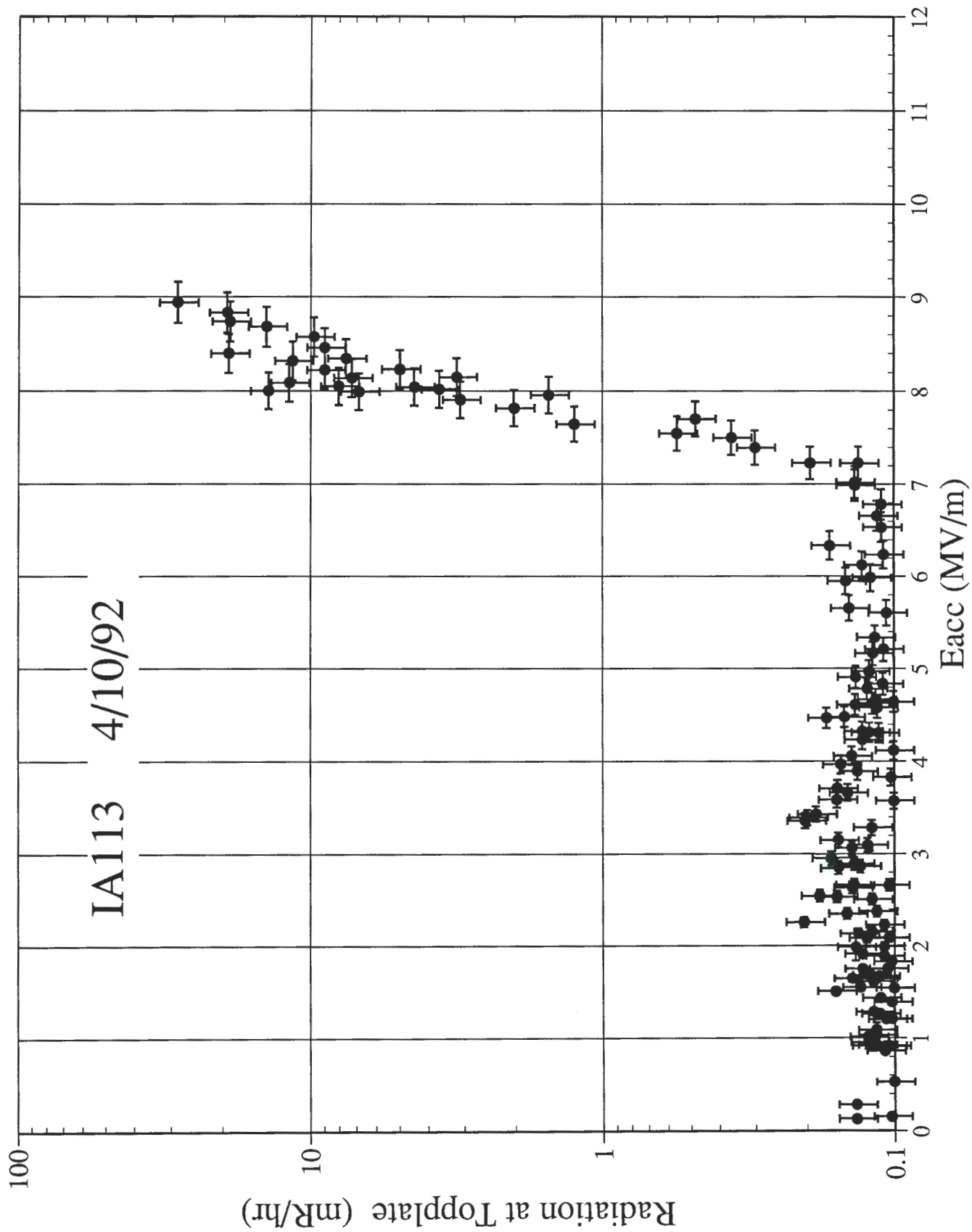


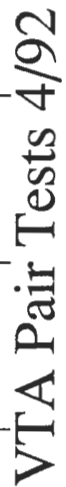


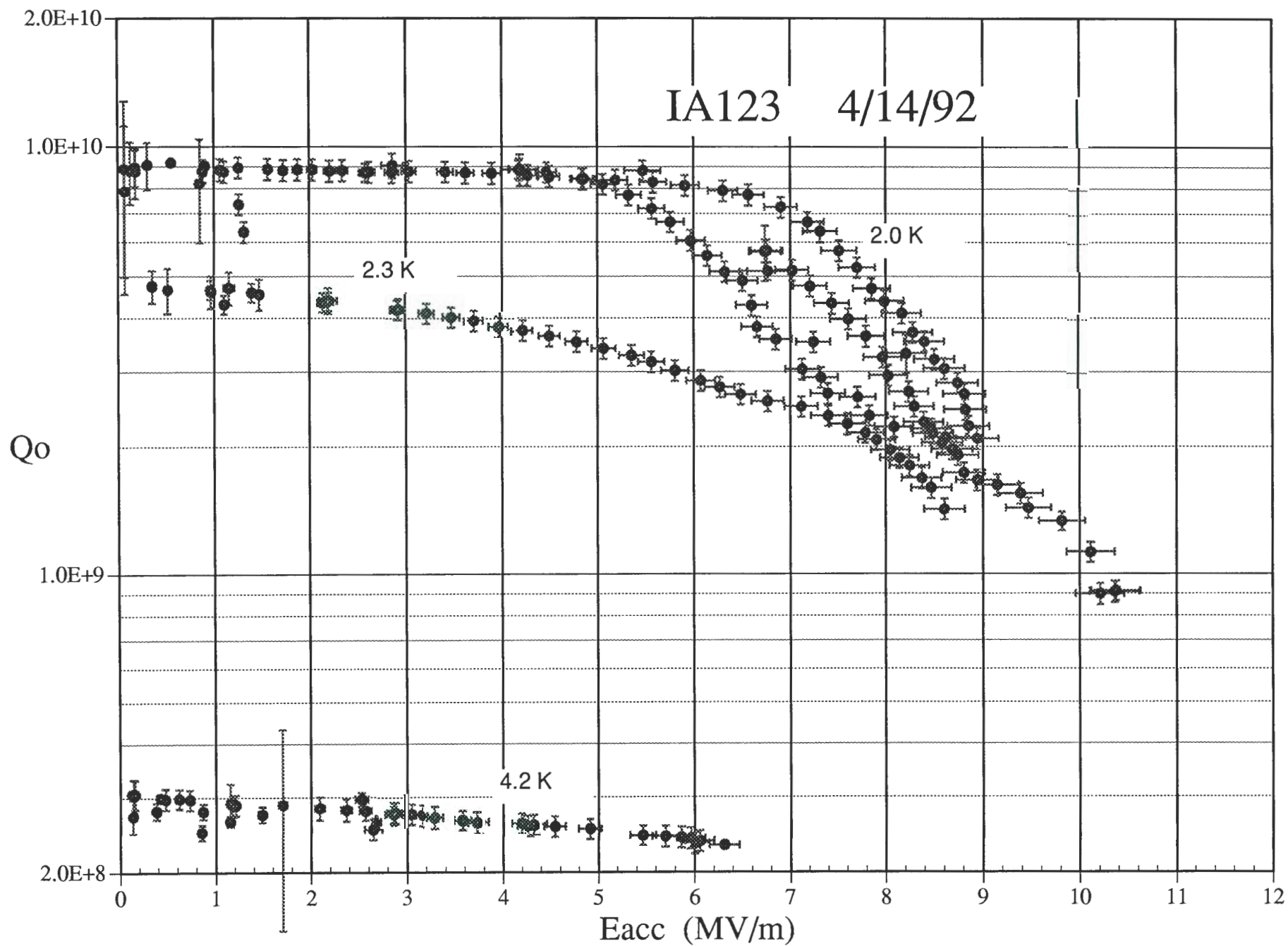


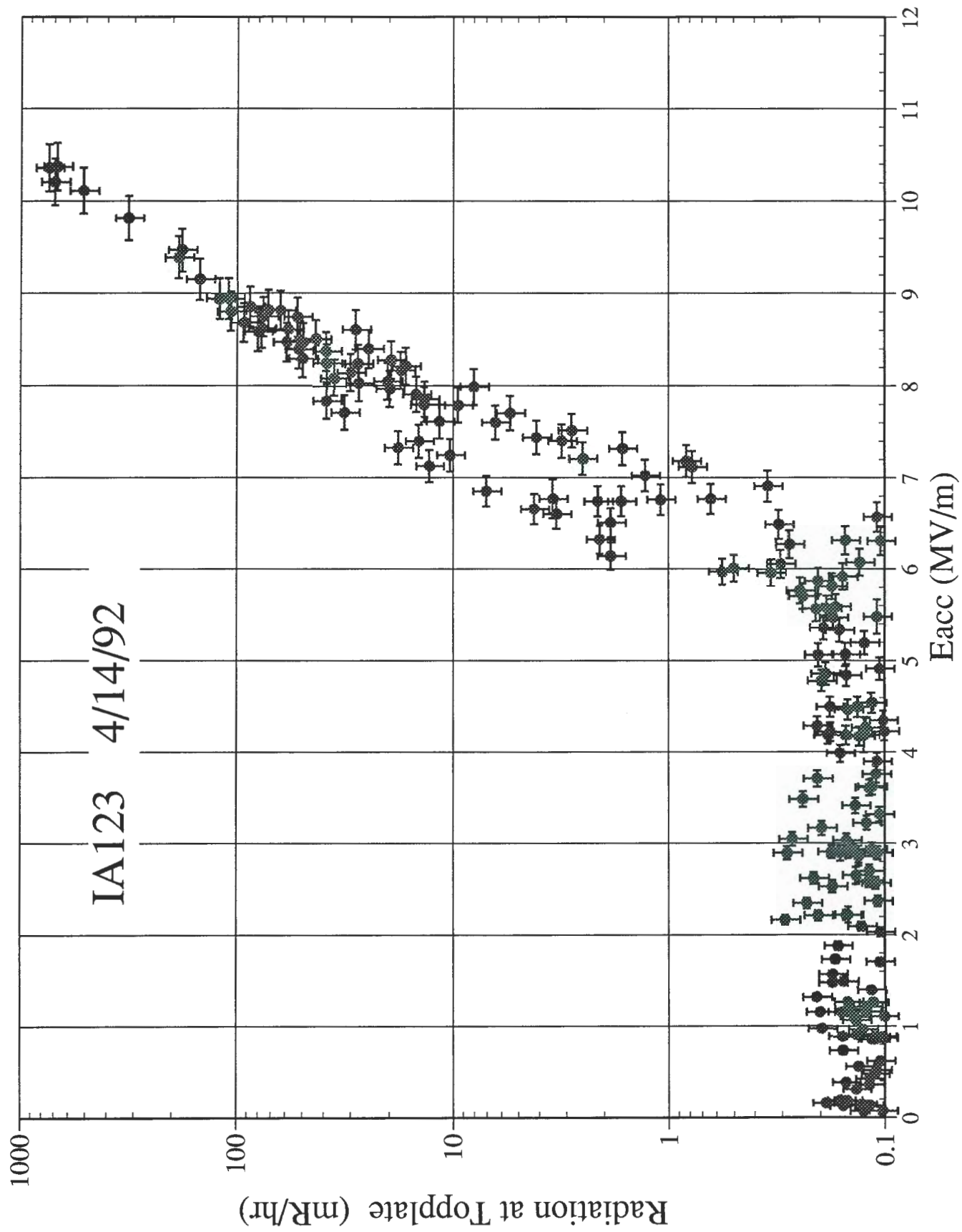


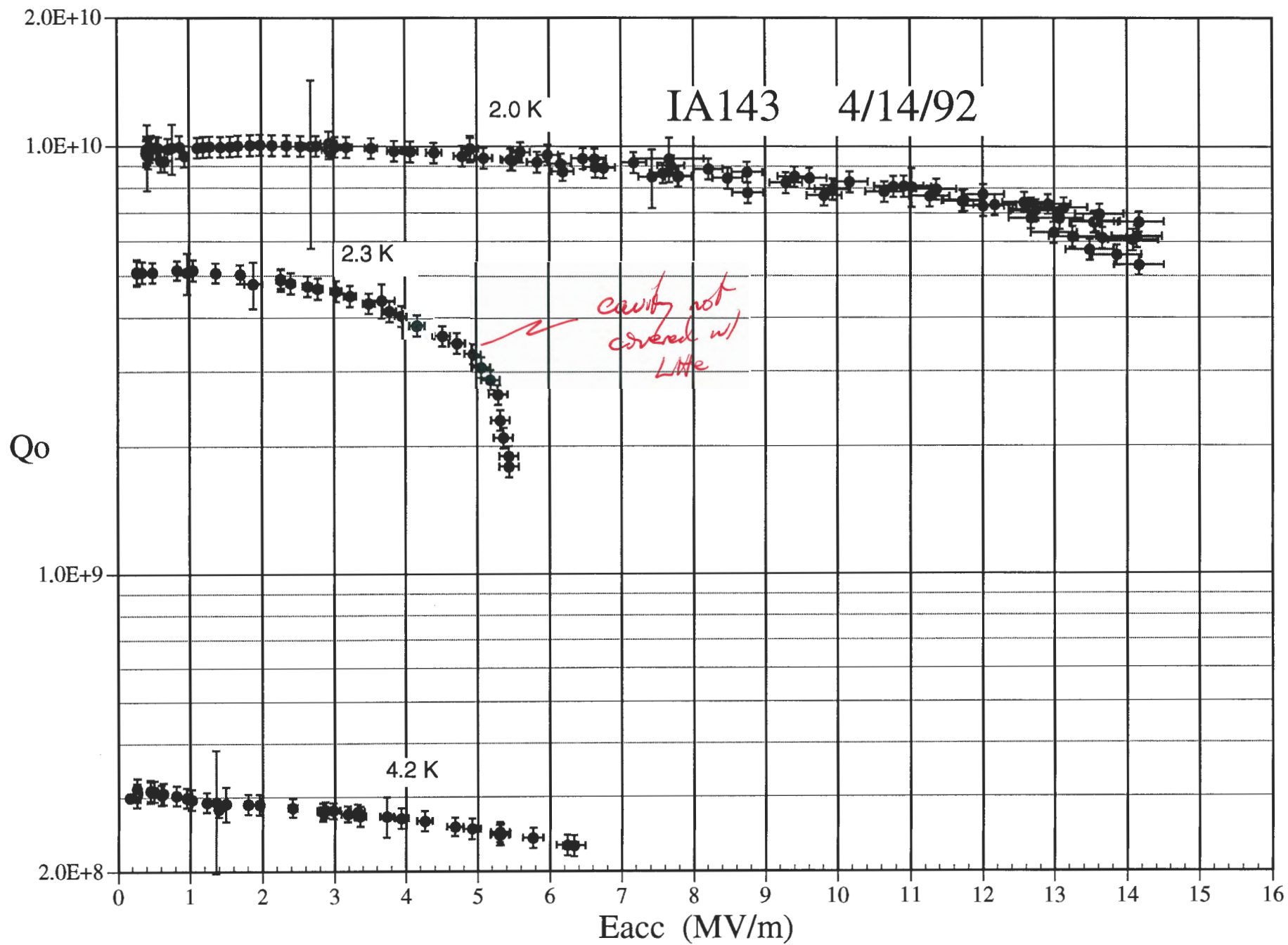


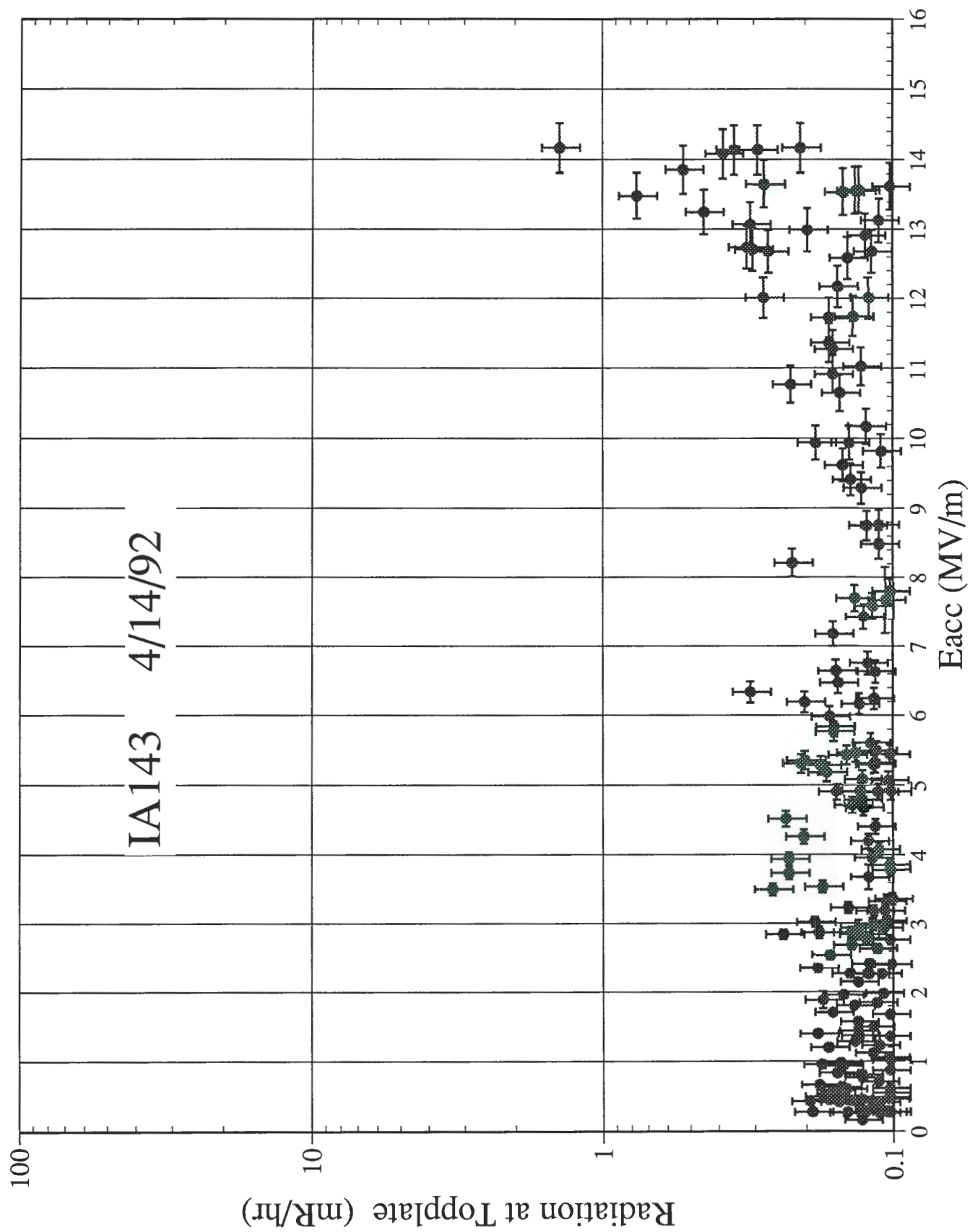


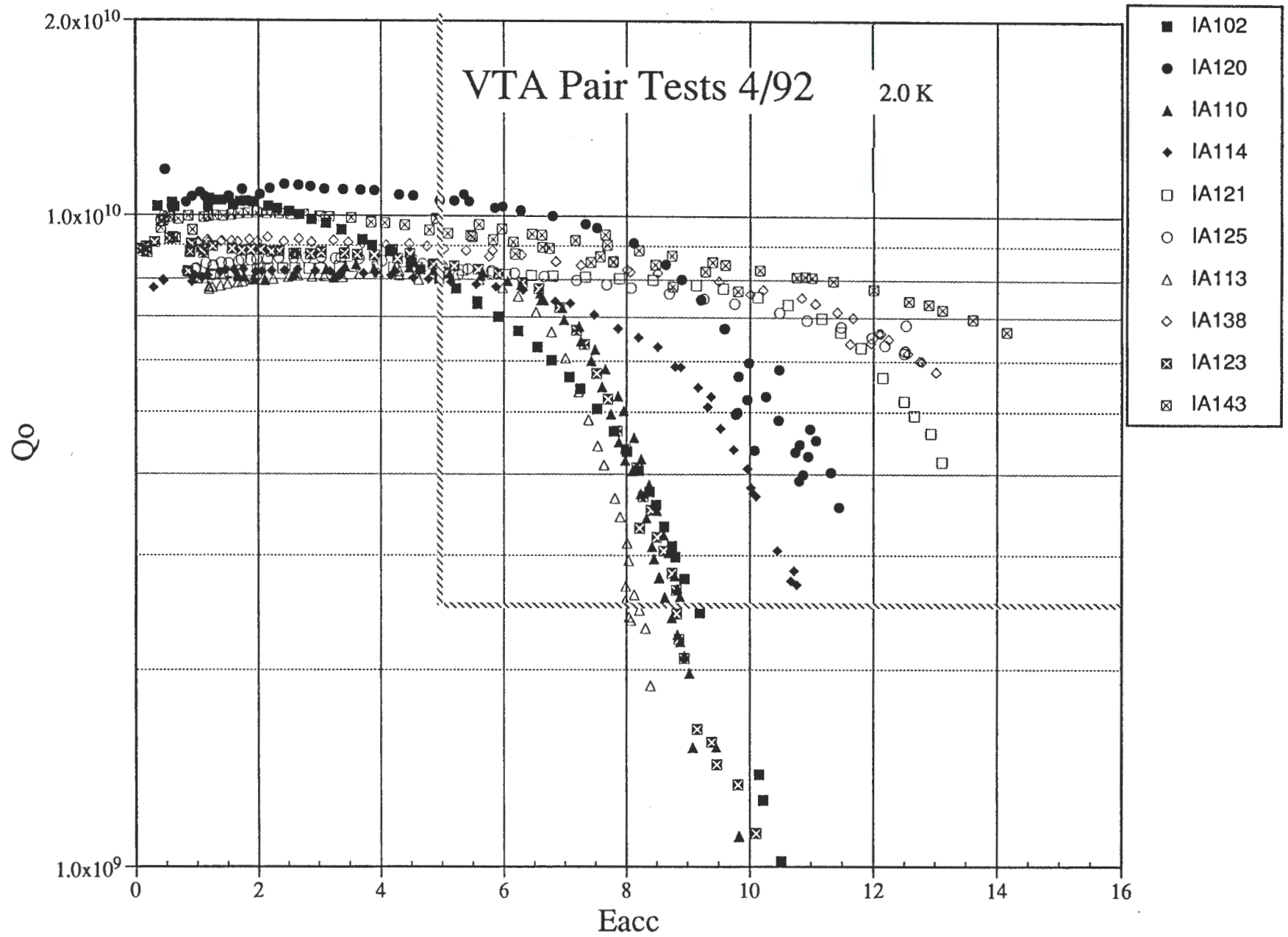


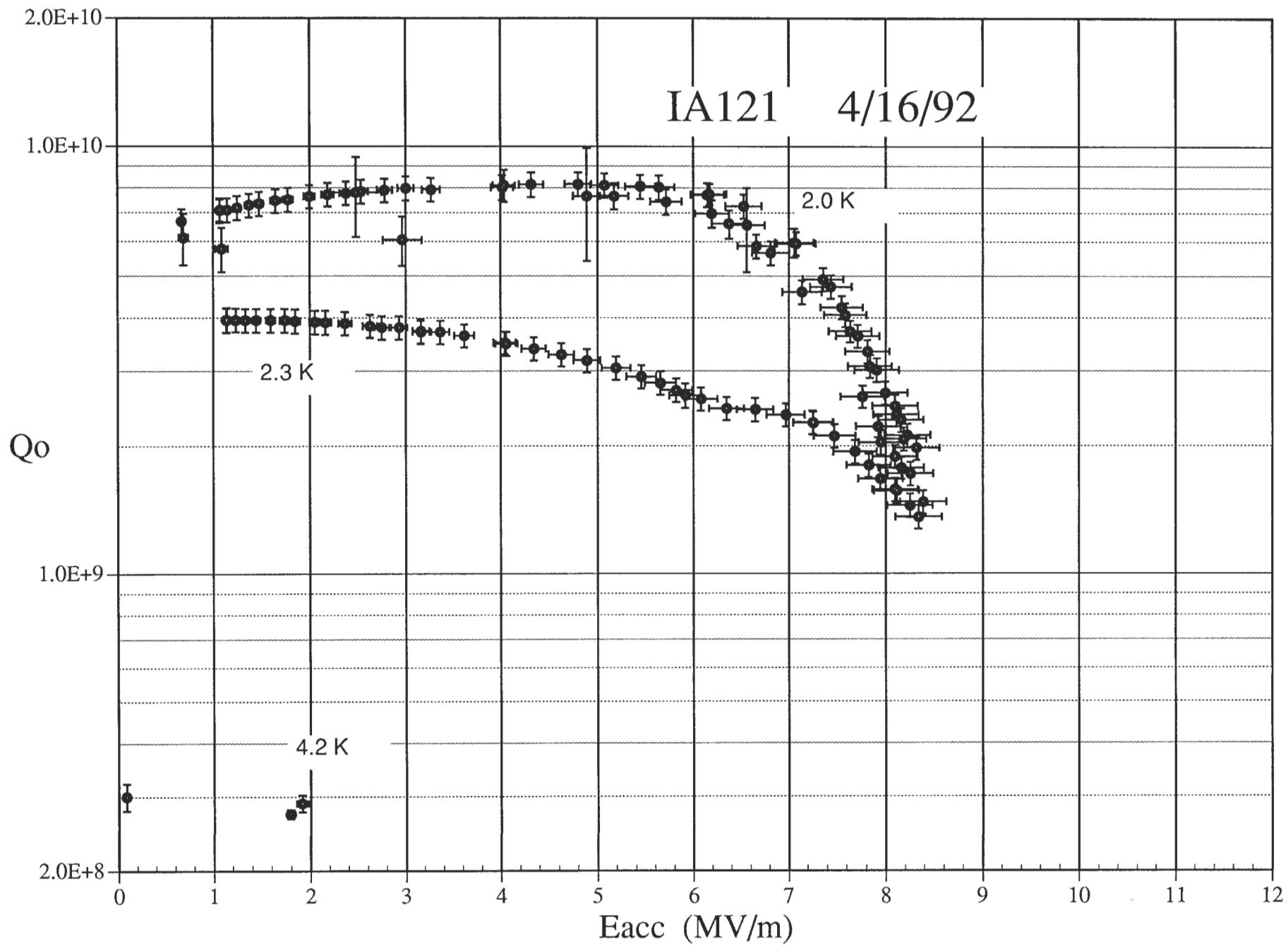


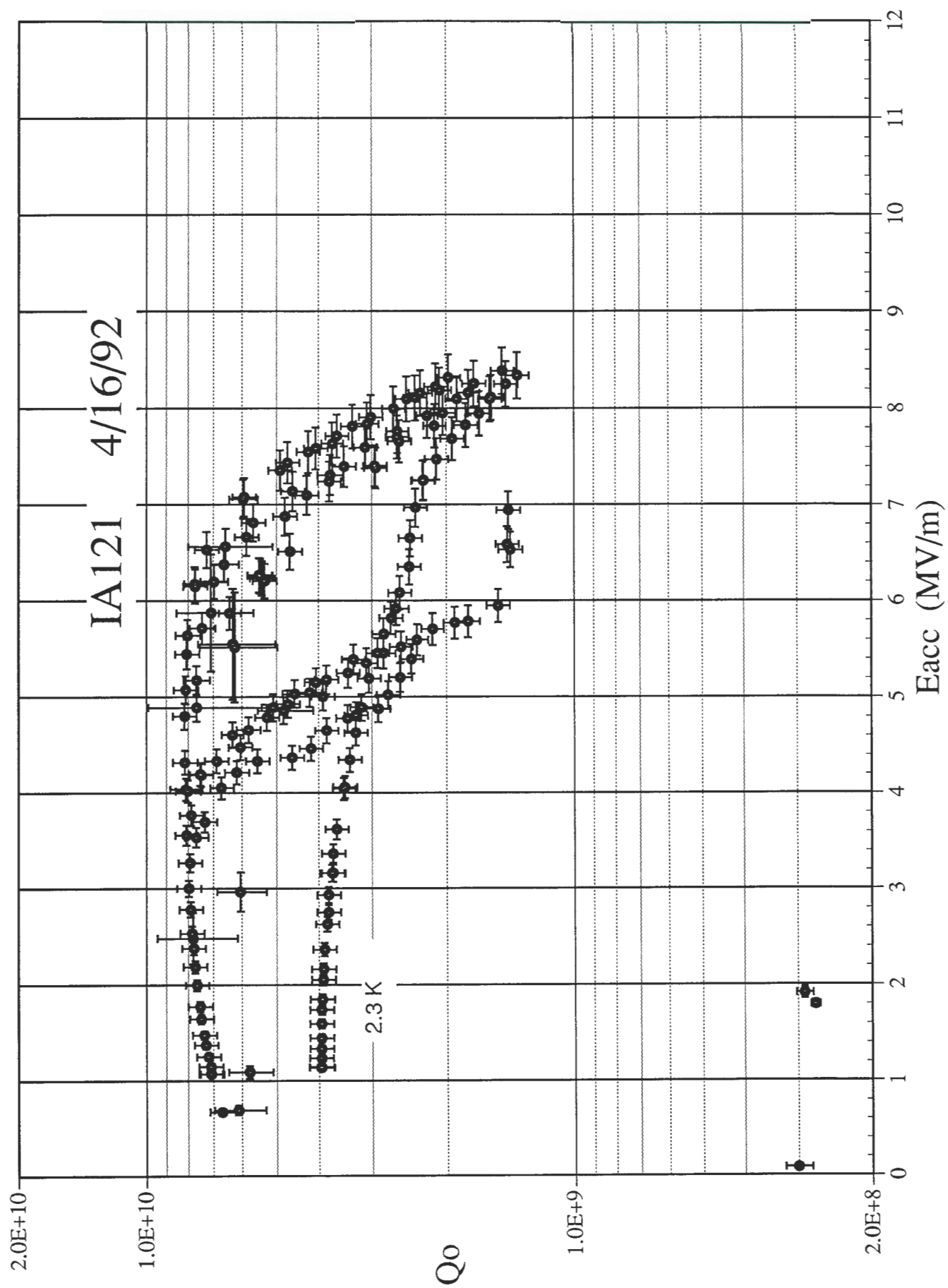


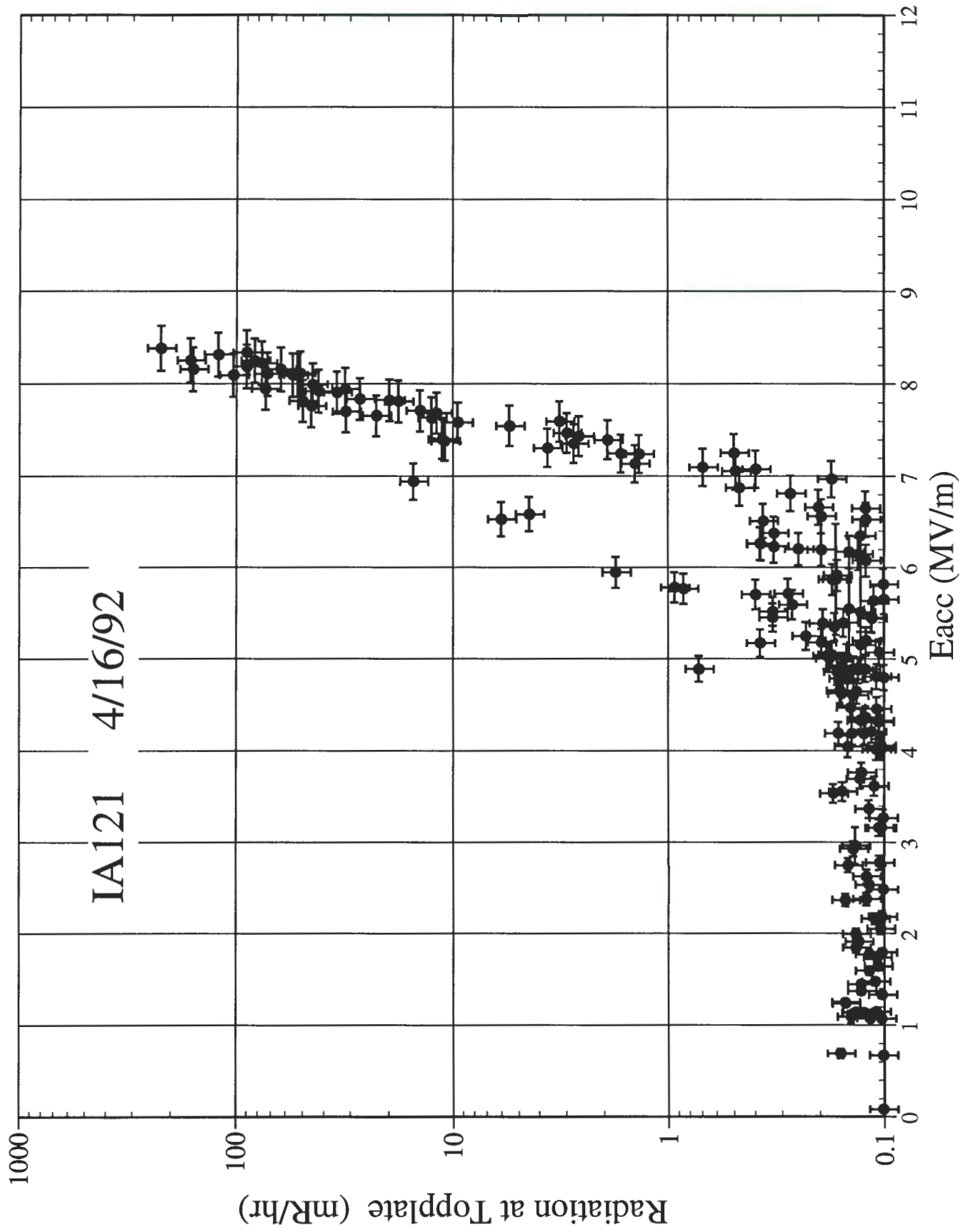


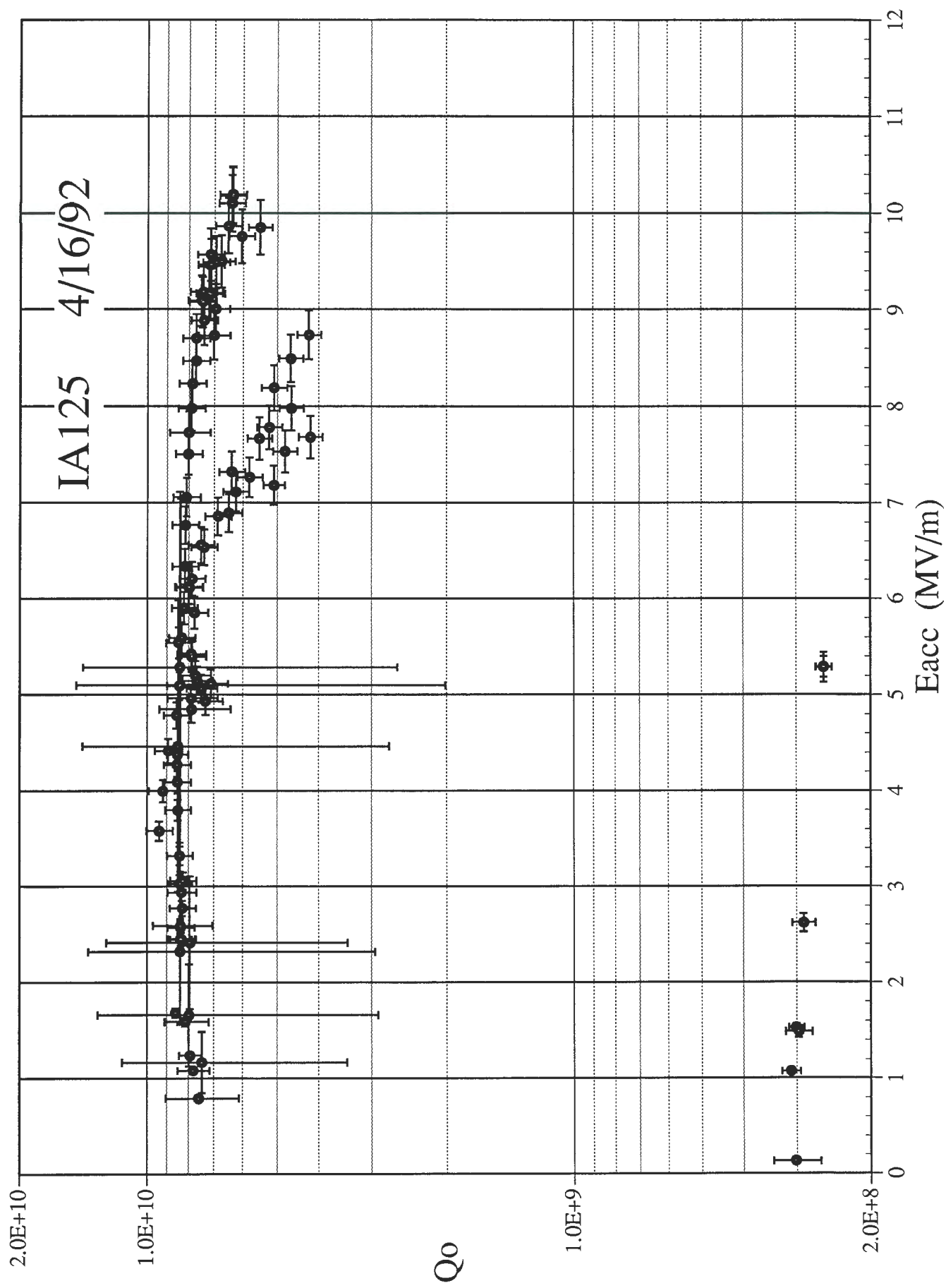


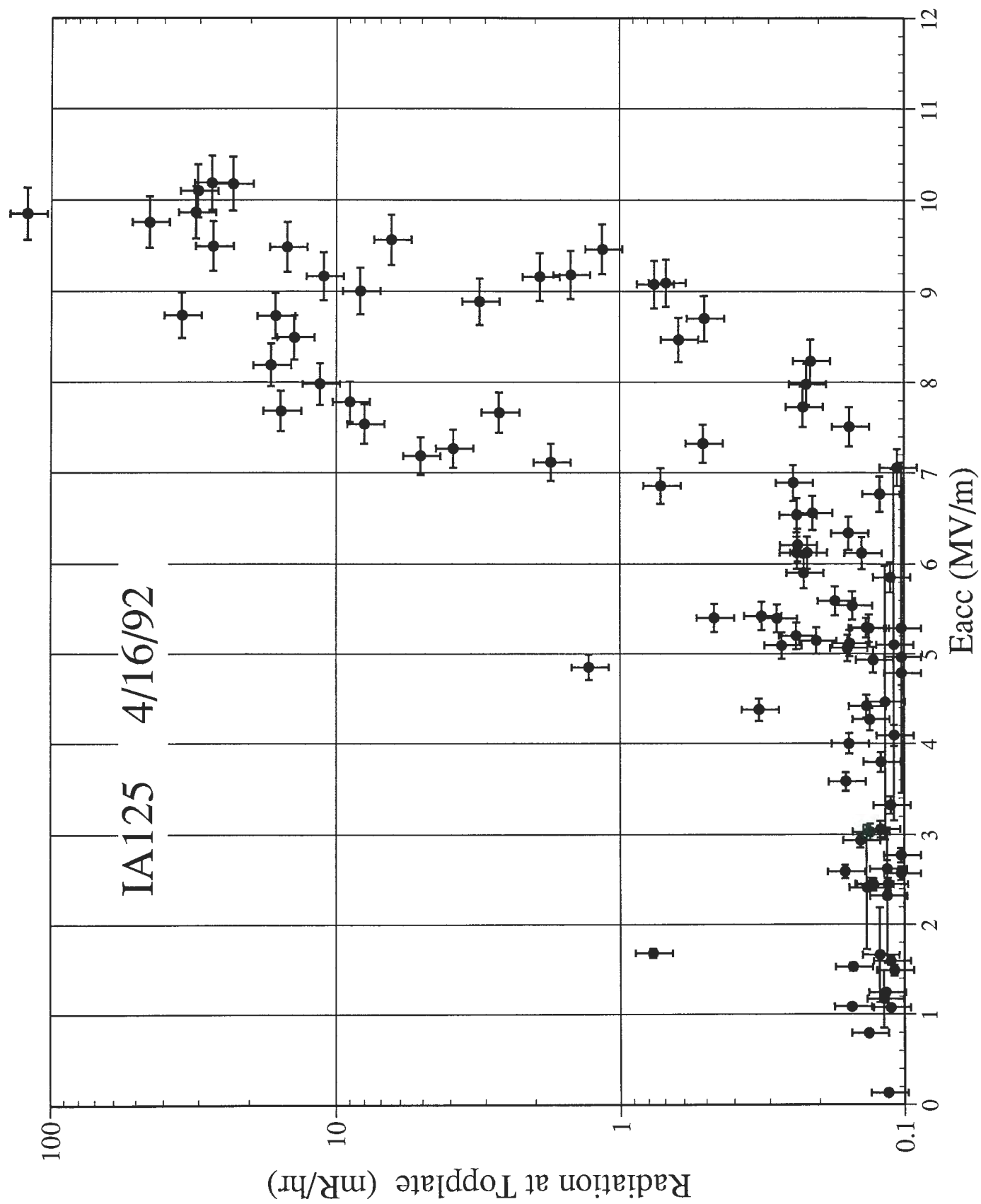


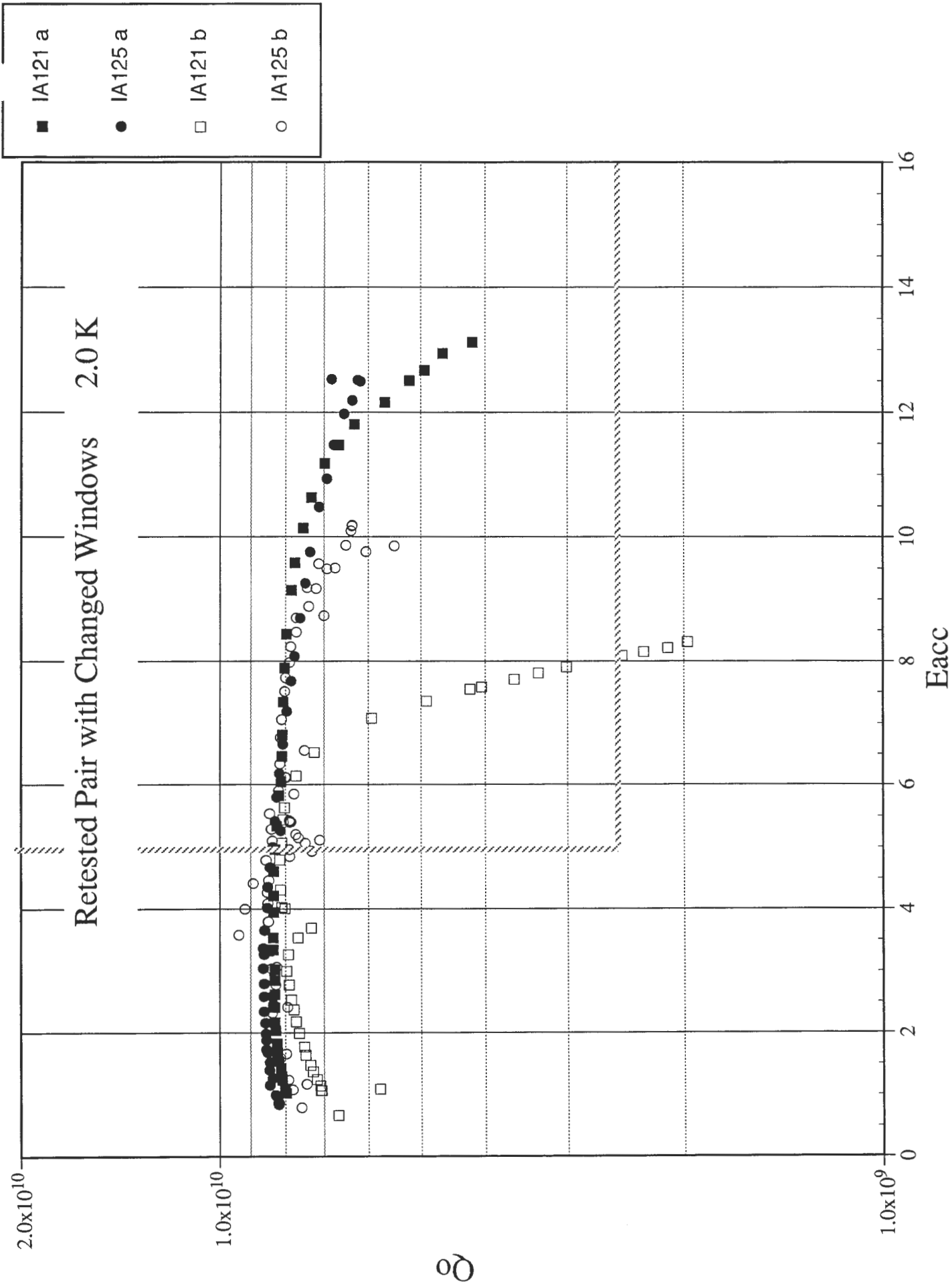


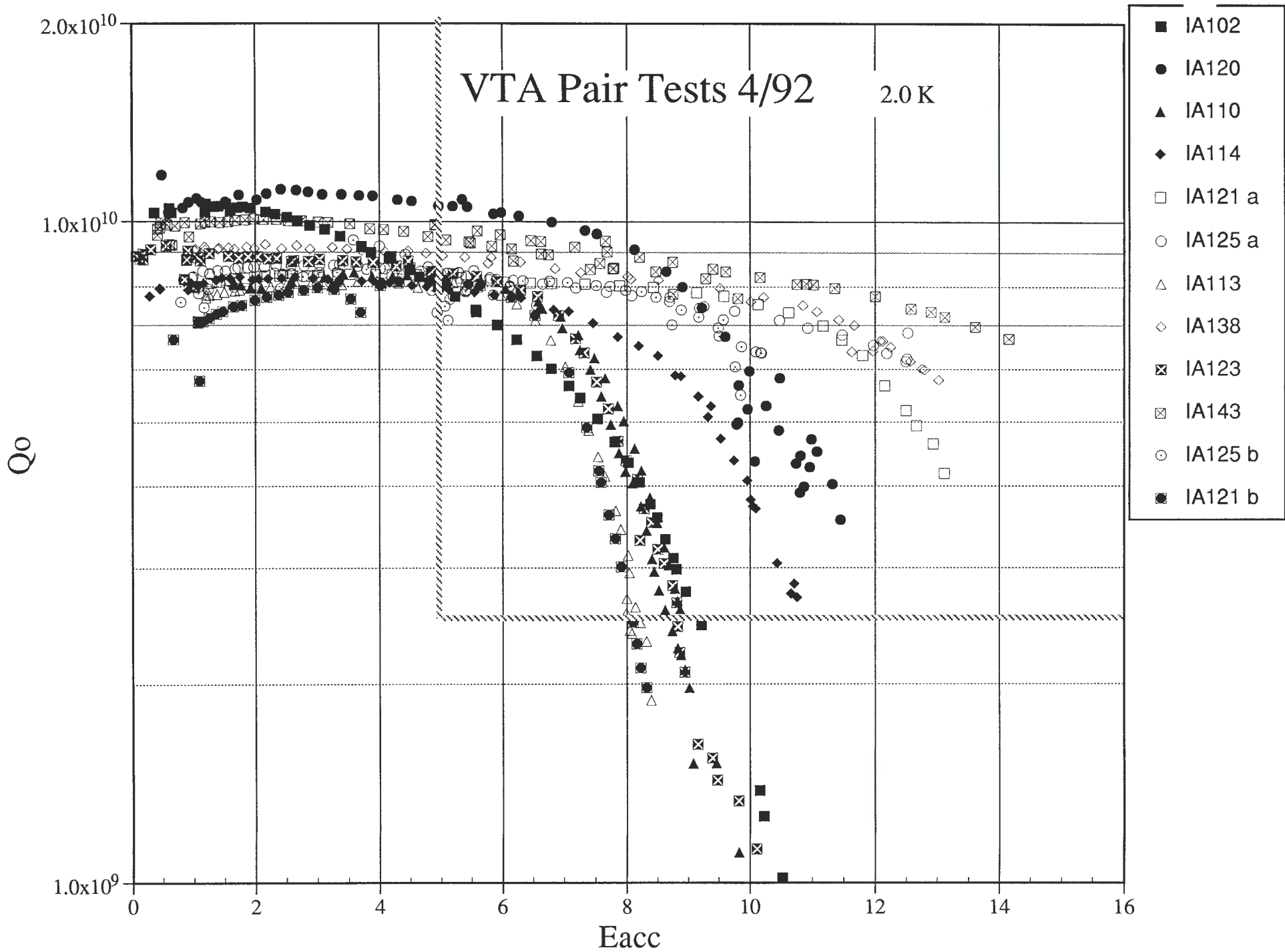


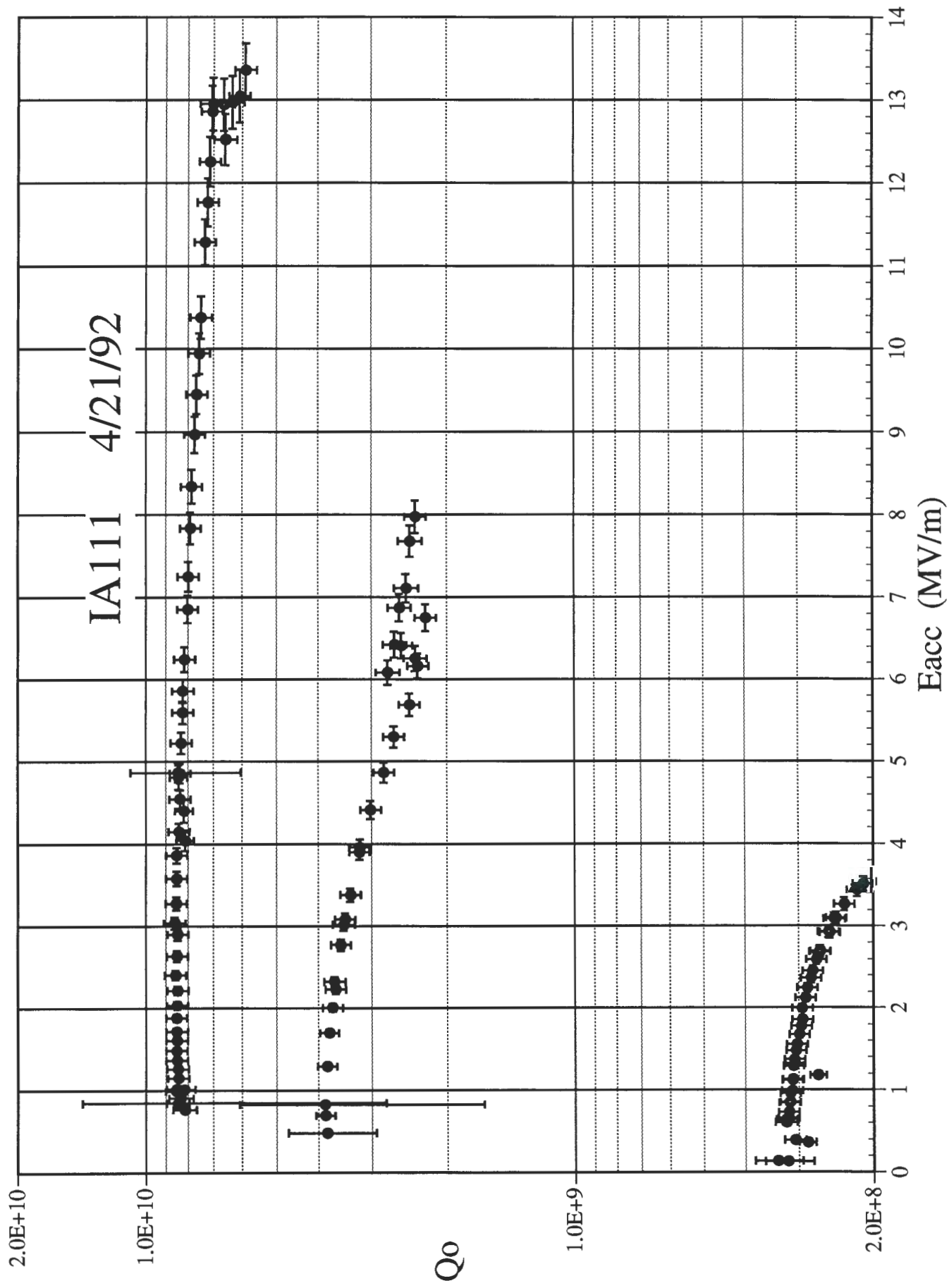


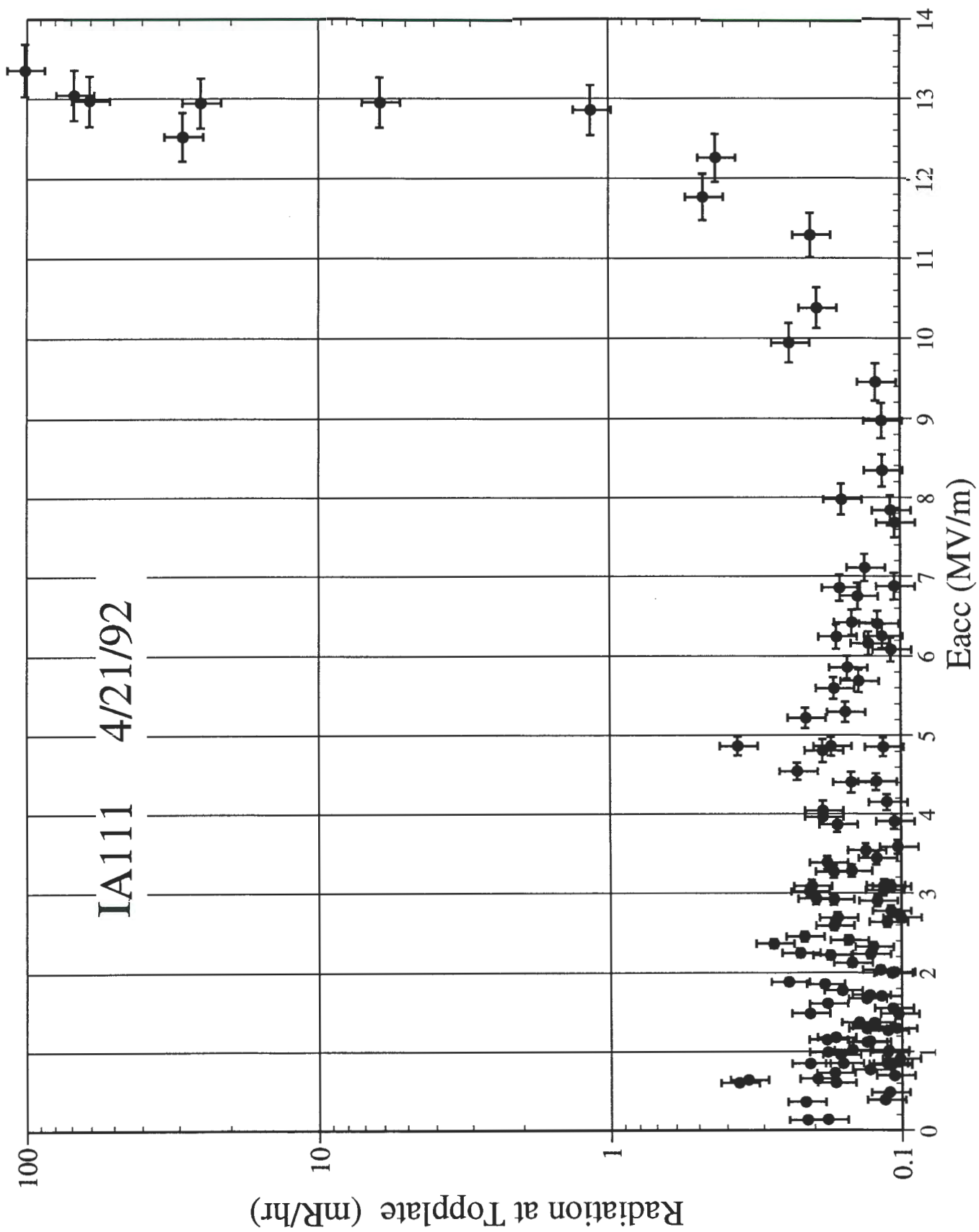


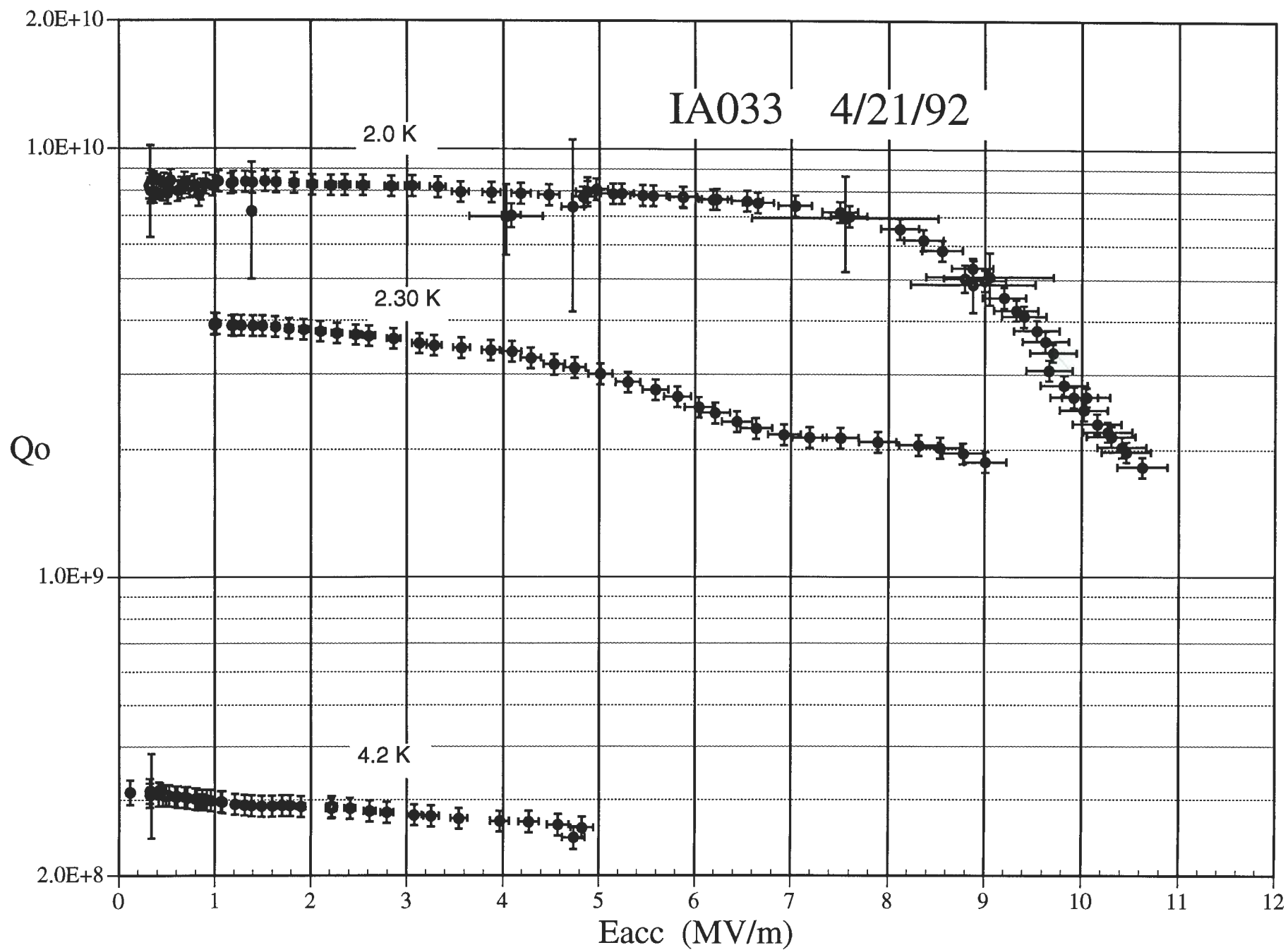




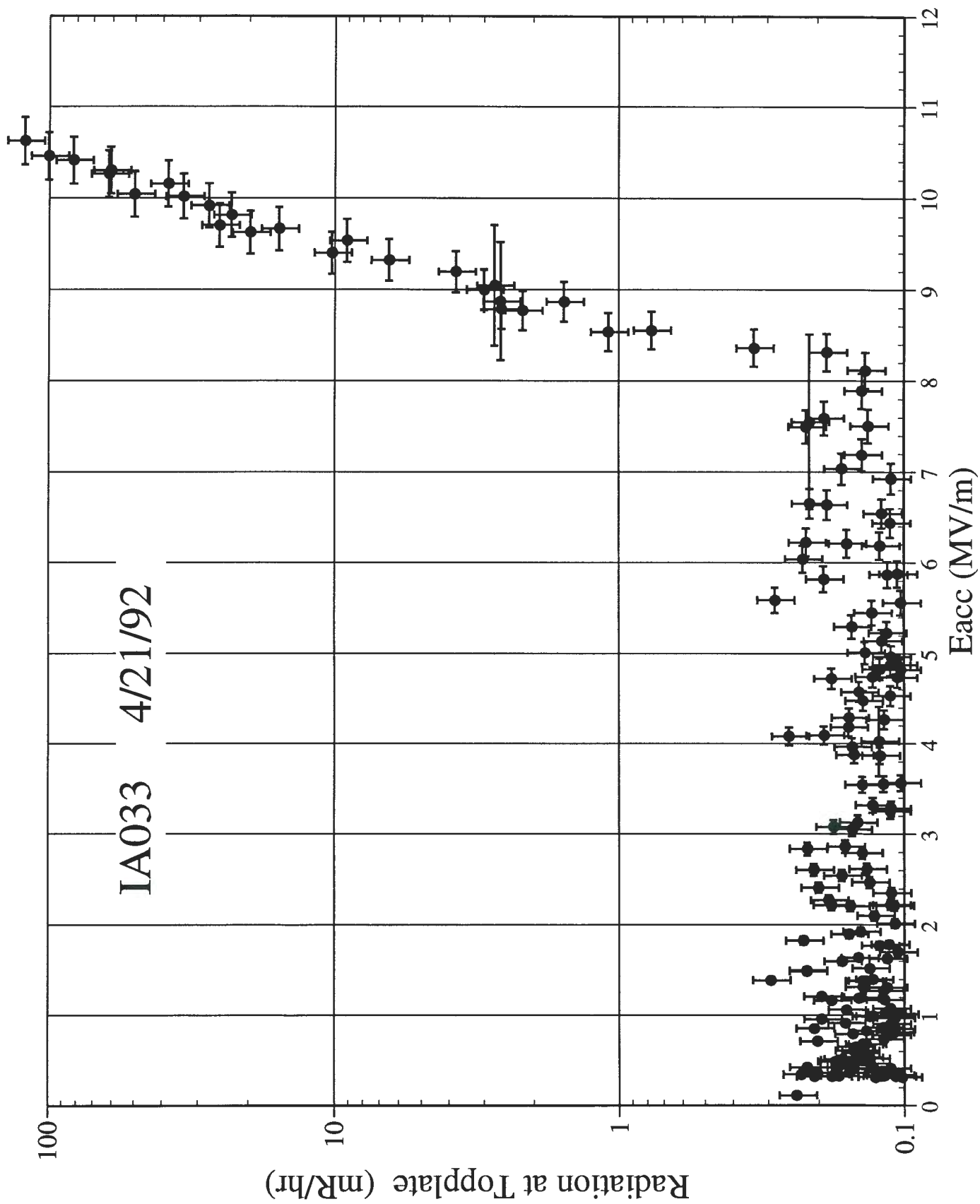








9, 7
9.2, 4.5
10, 2.4



Q_0 2.0×10^{10} 1.0×10^{10} 1.0×10^9

0

2

4

6

Eacc

8

10

12

14

16

VTA Pair Tests 3/92

2.0 K

□ IA141

● IA124

□ IA133

● IA109

□ IA147

● IA117

□ IA118

● IA106

□ IA114

● IA110

□ IA122

● IA119

□ IA128

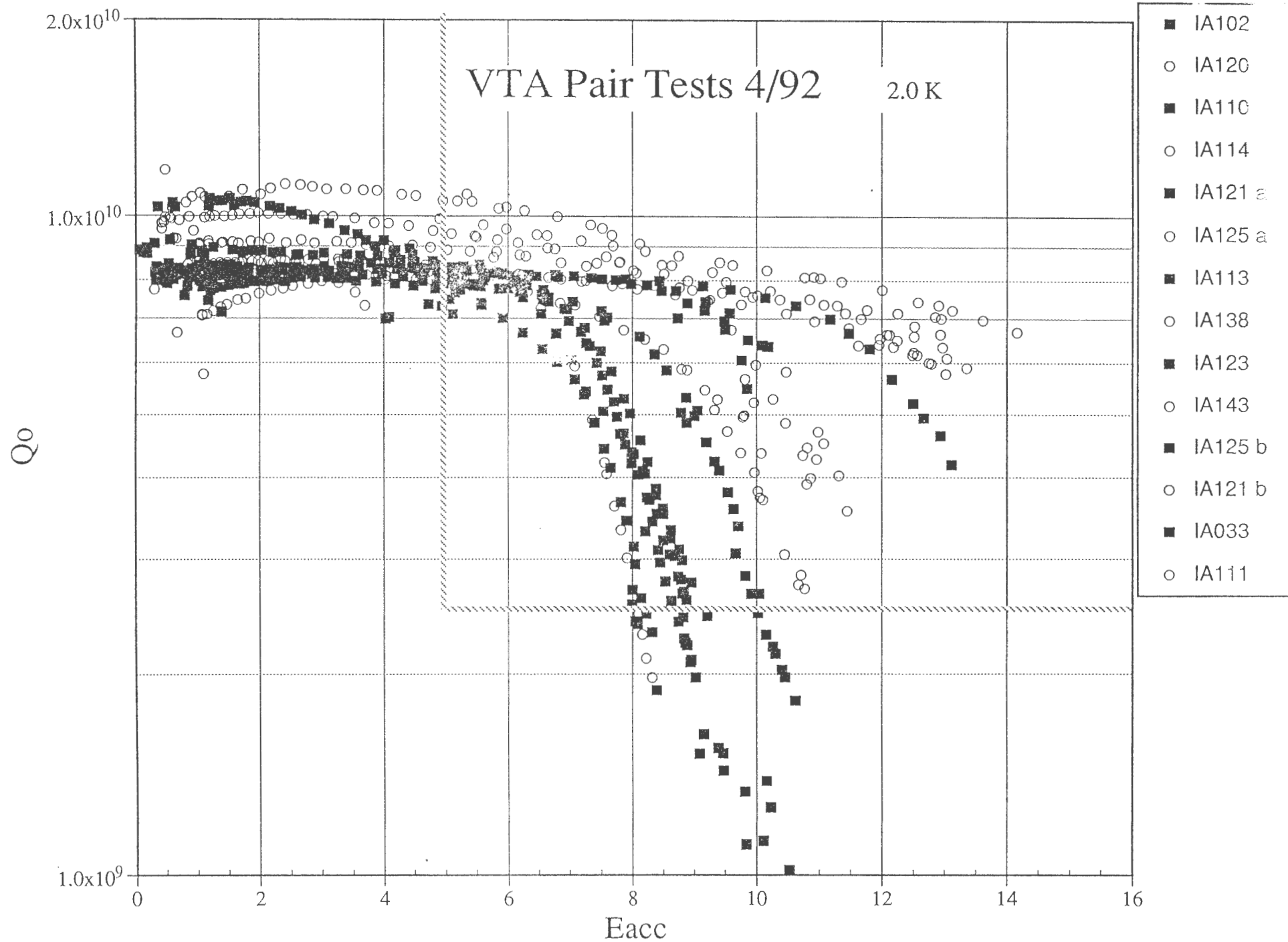
● IA127

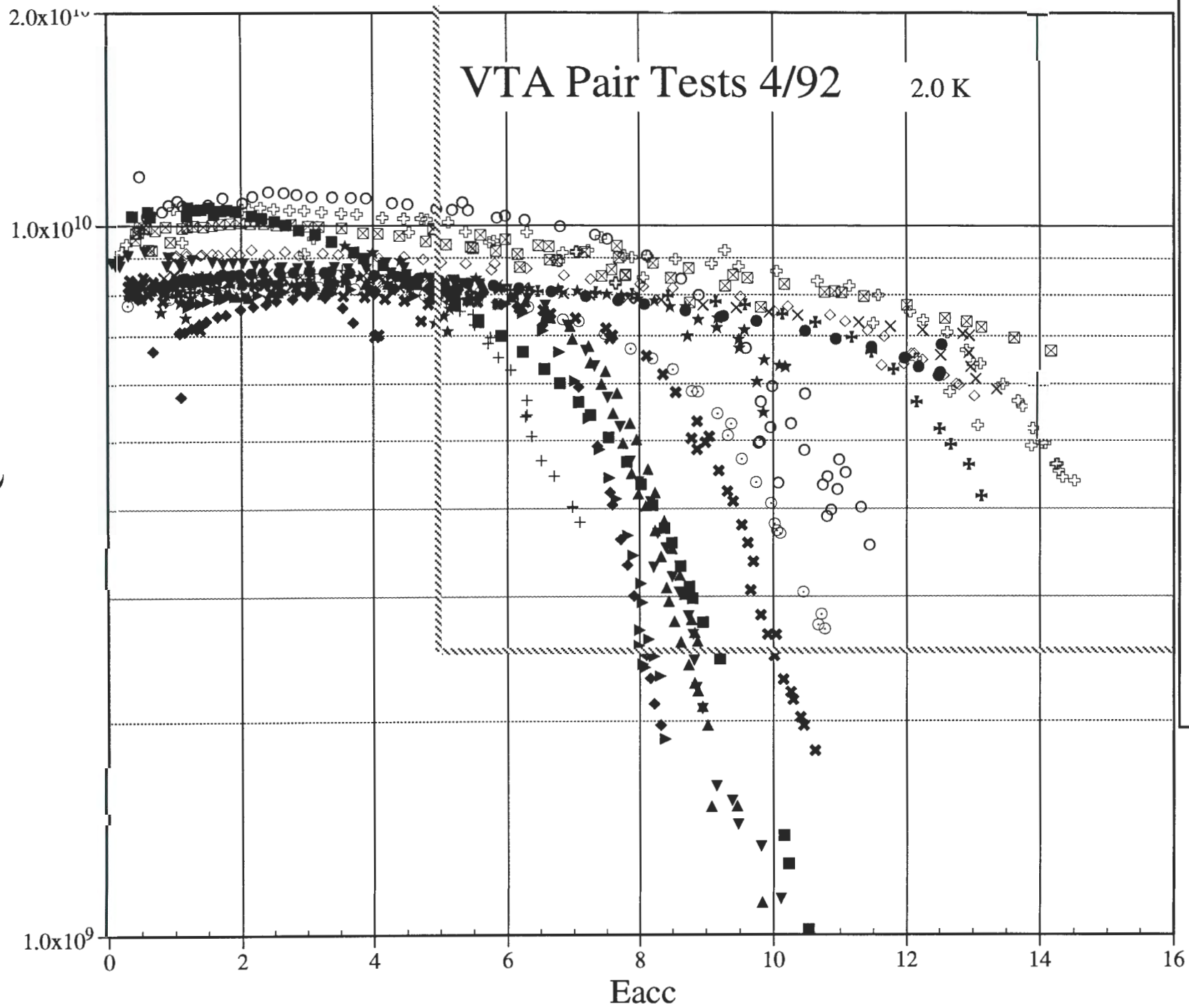
□ IA148

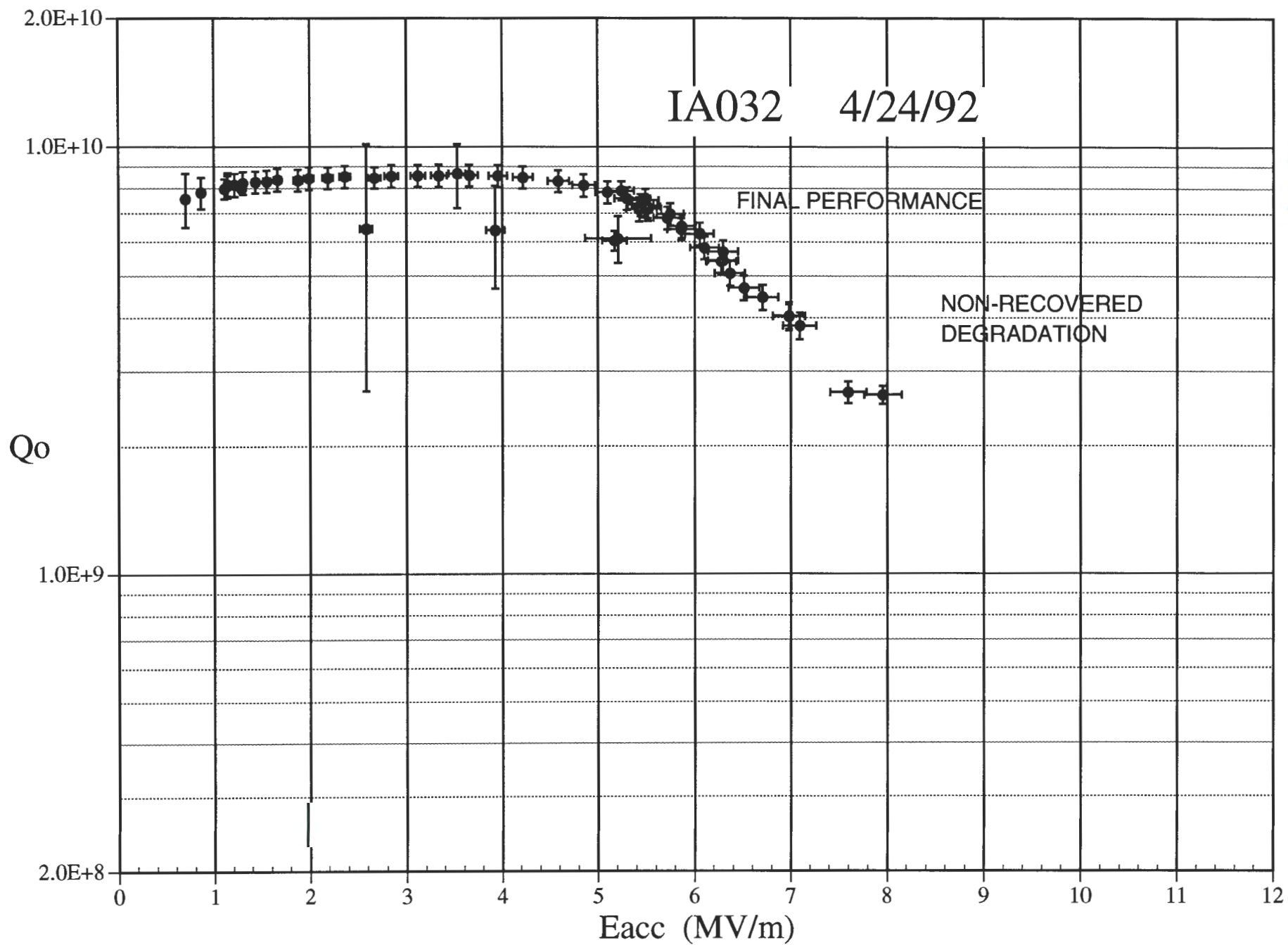
● IA112

VTA Pair Tests 4/92

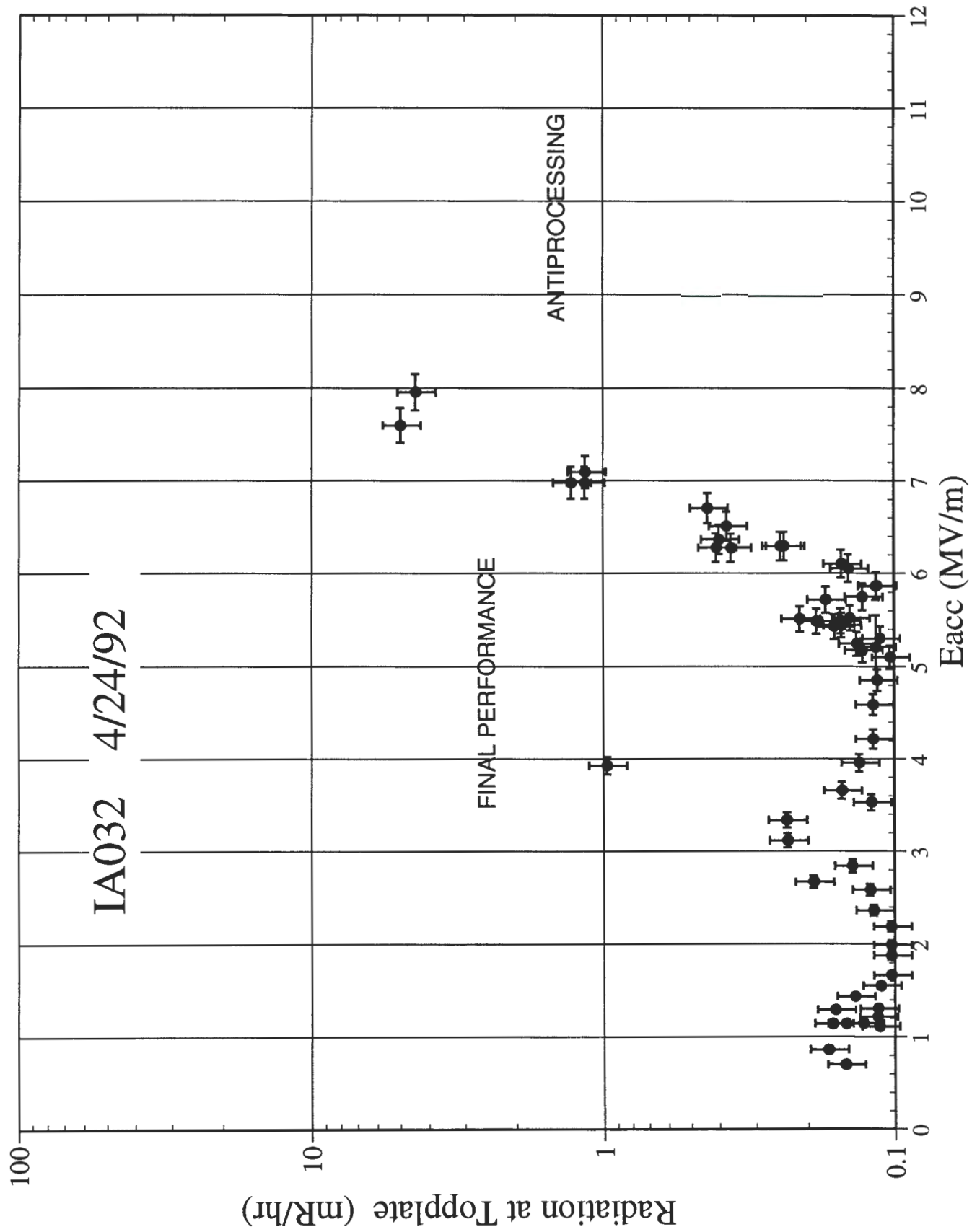
2.0 K

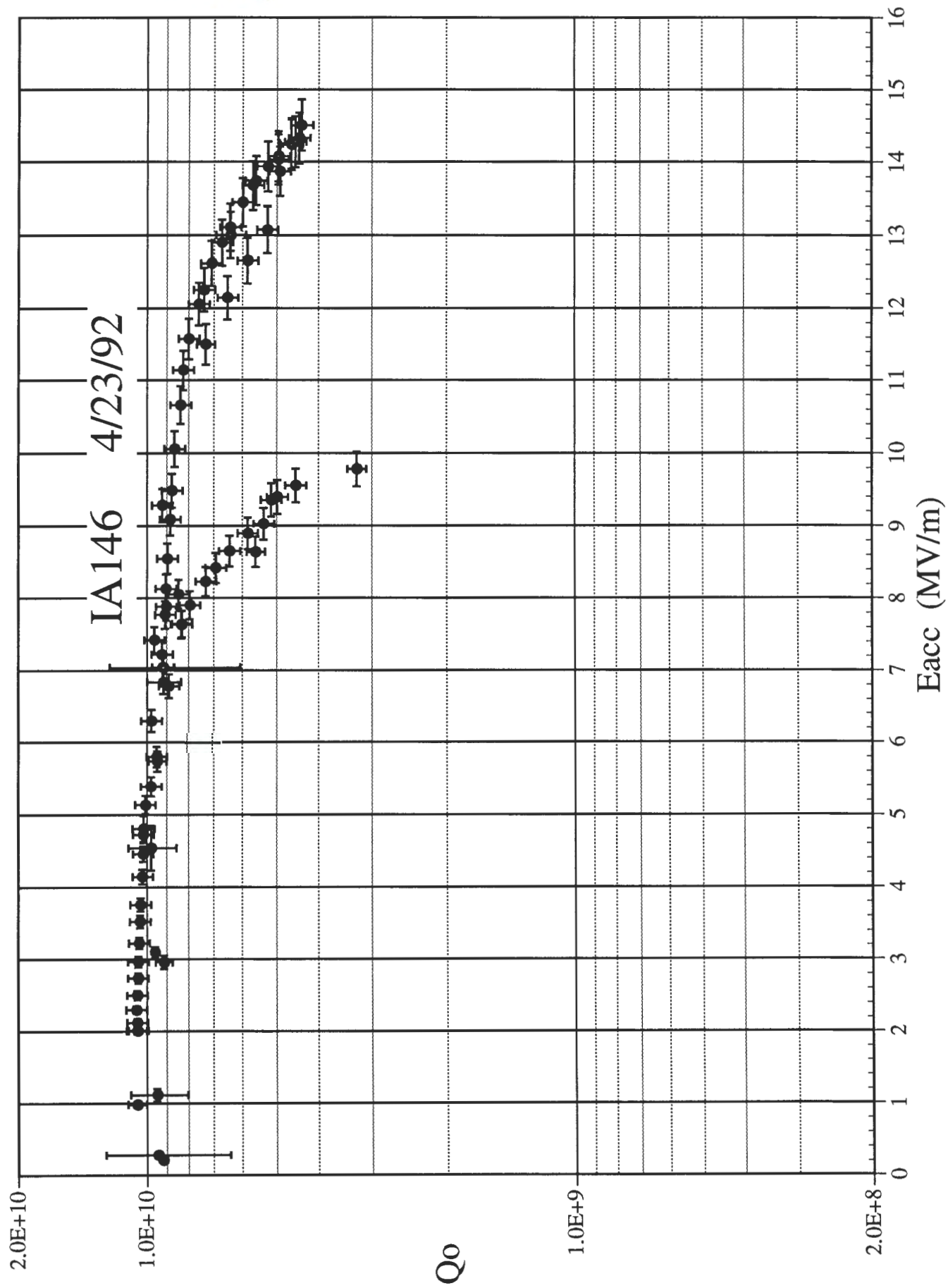


Q_0 

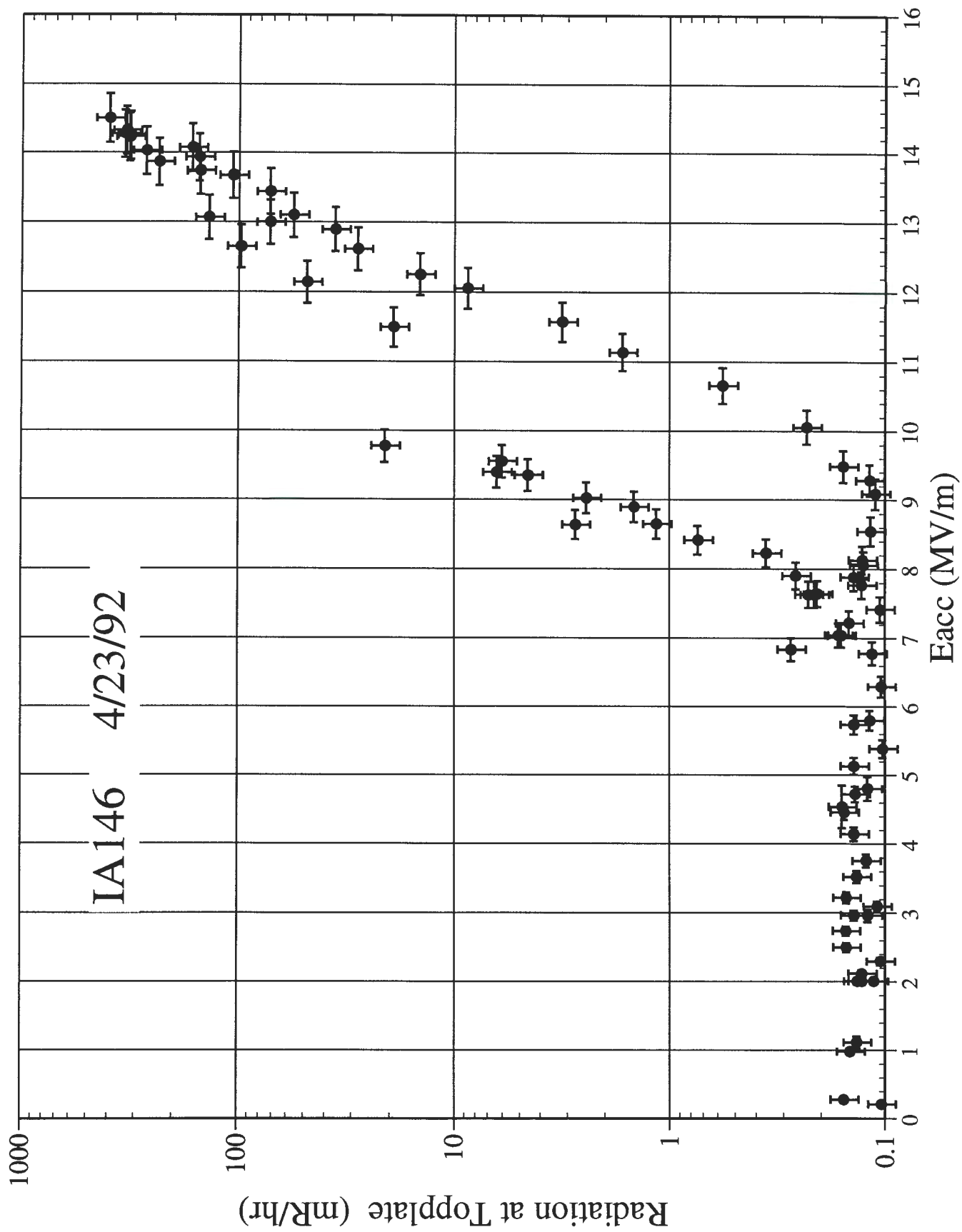


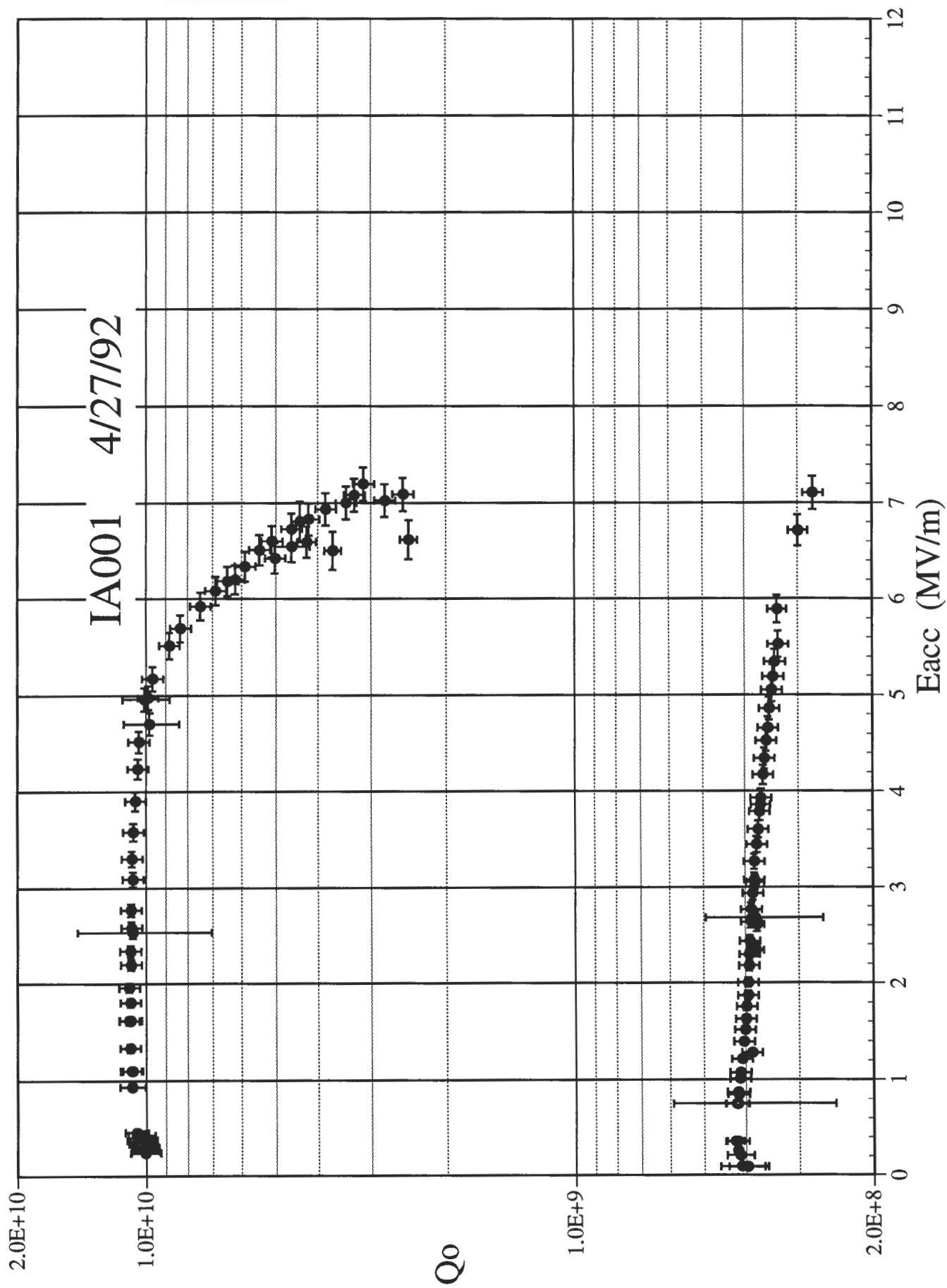
FE 5@8
15 6.5@4.6
8@2.5



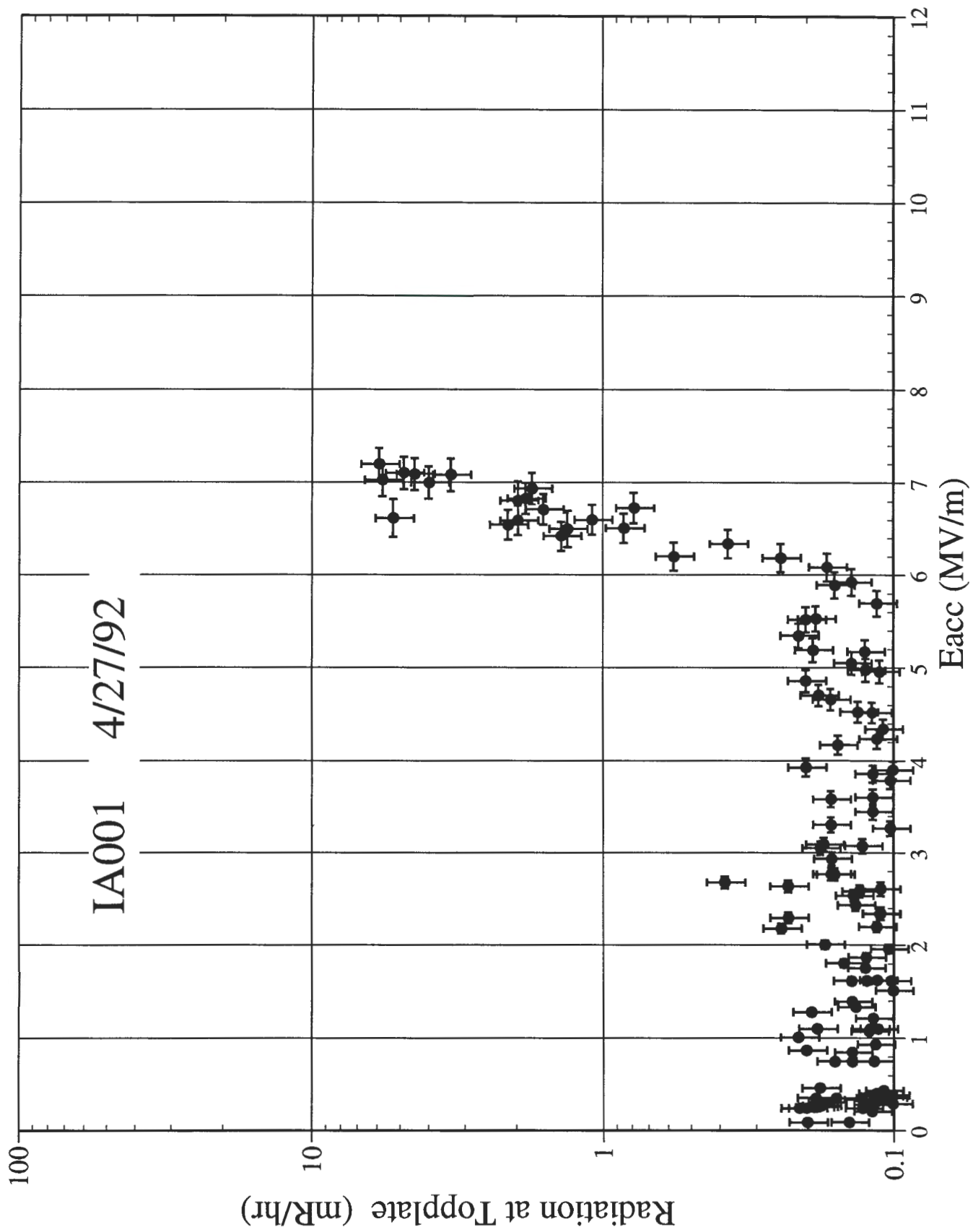


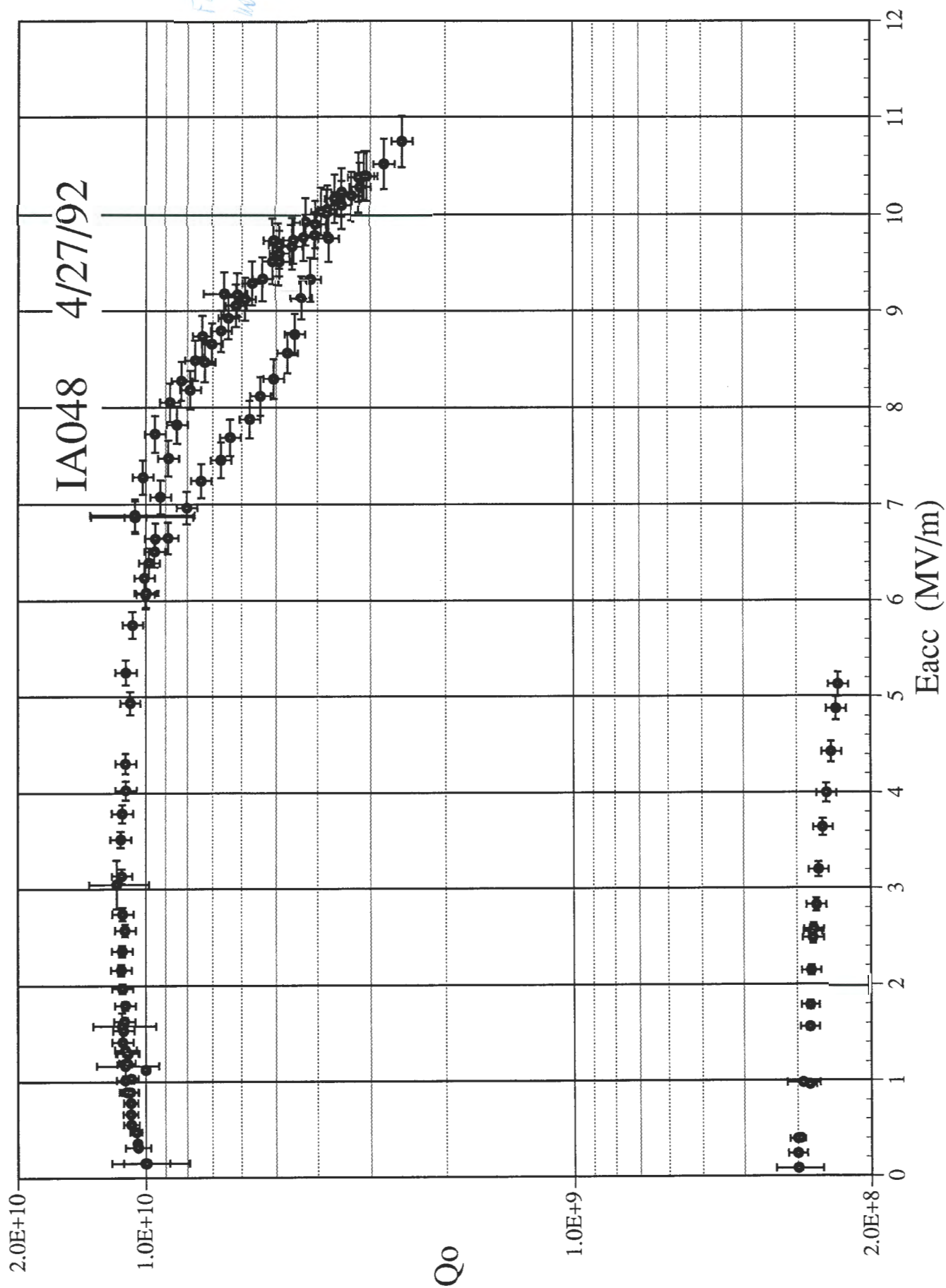
909
13.506
14.9042

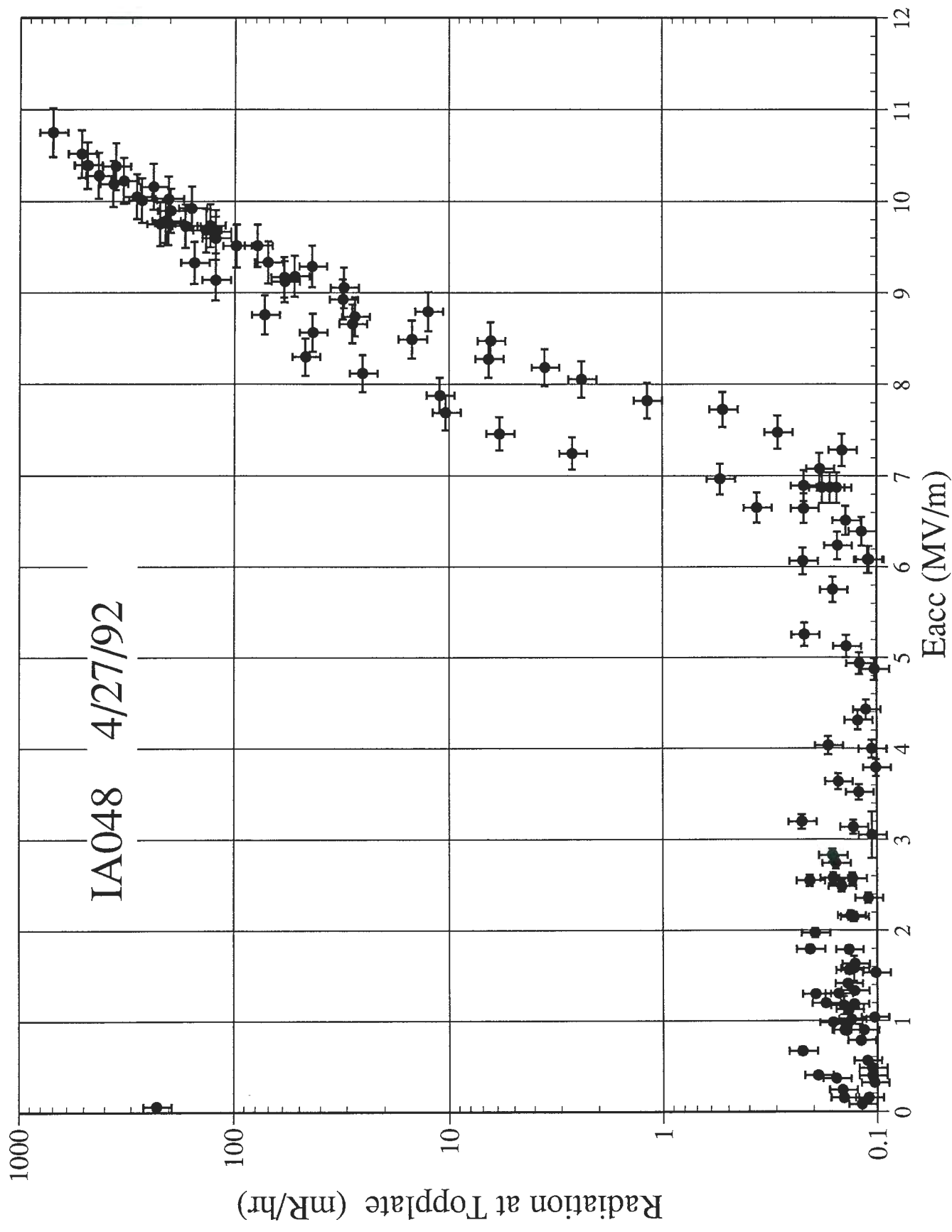


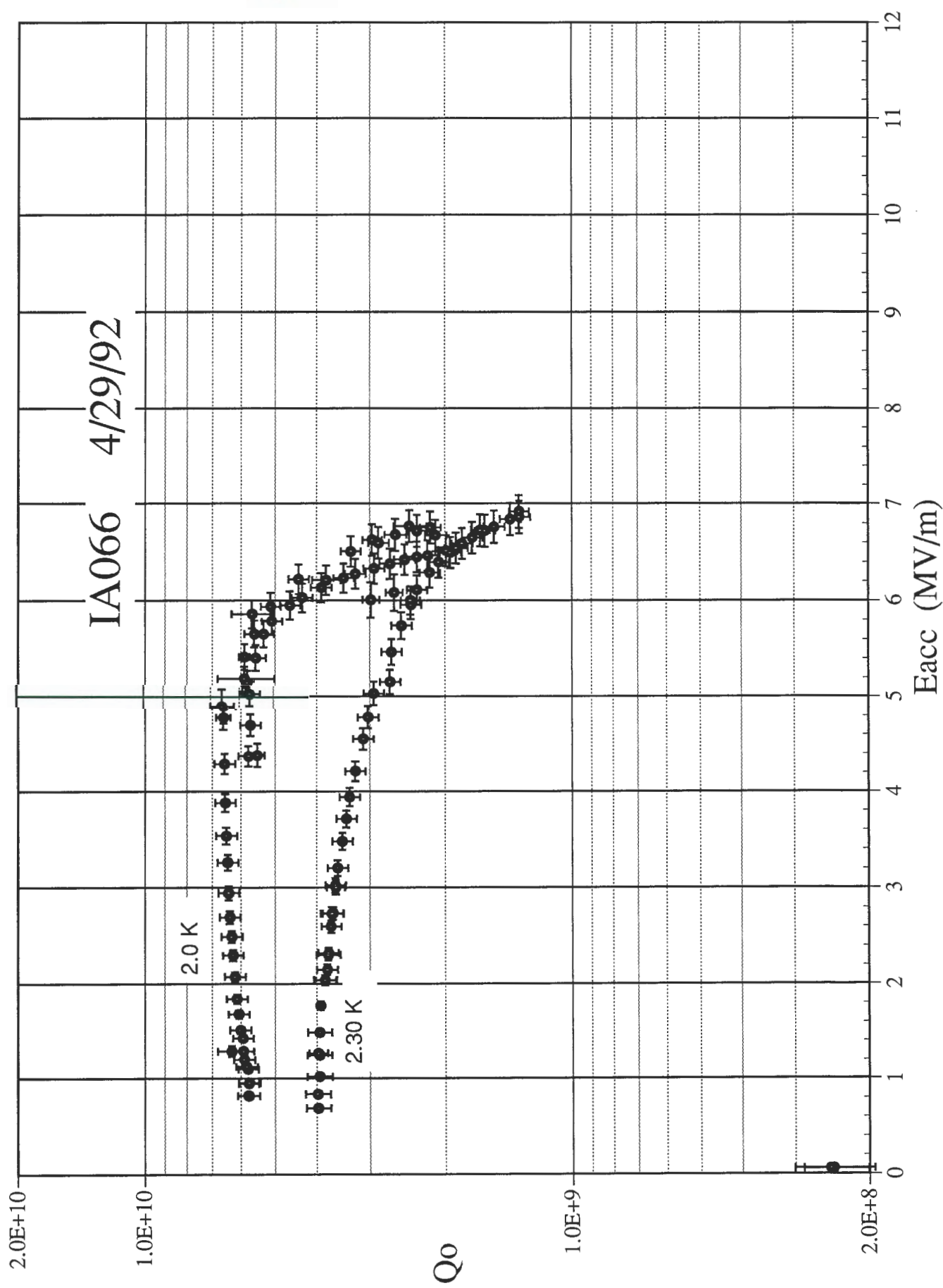


FE 5.2e10
6.6e5.1
7.2e3

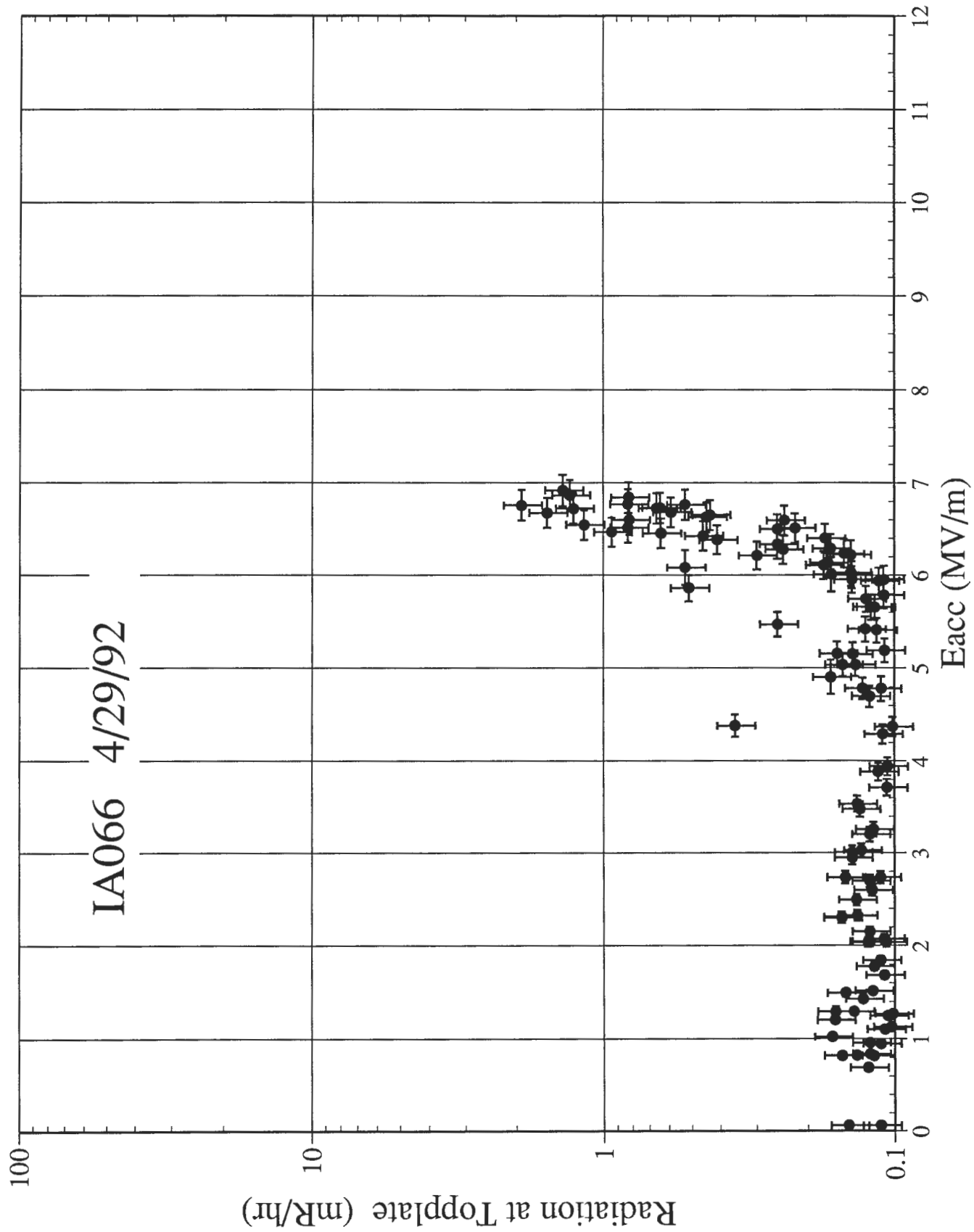


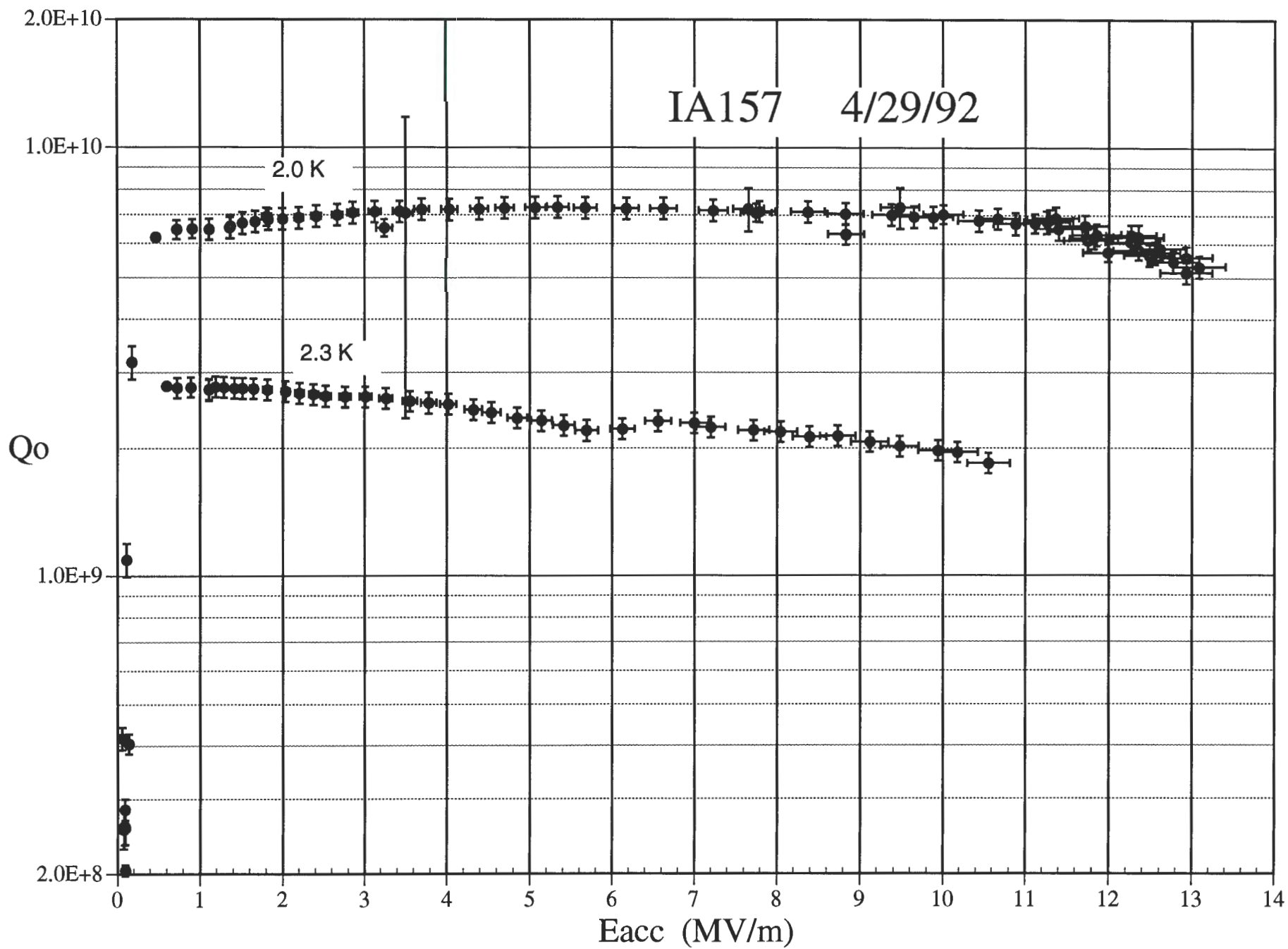




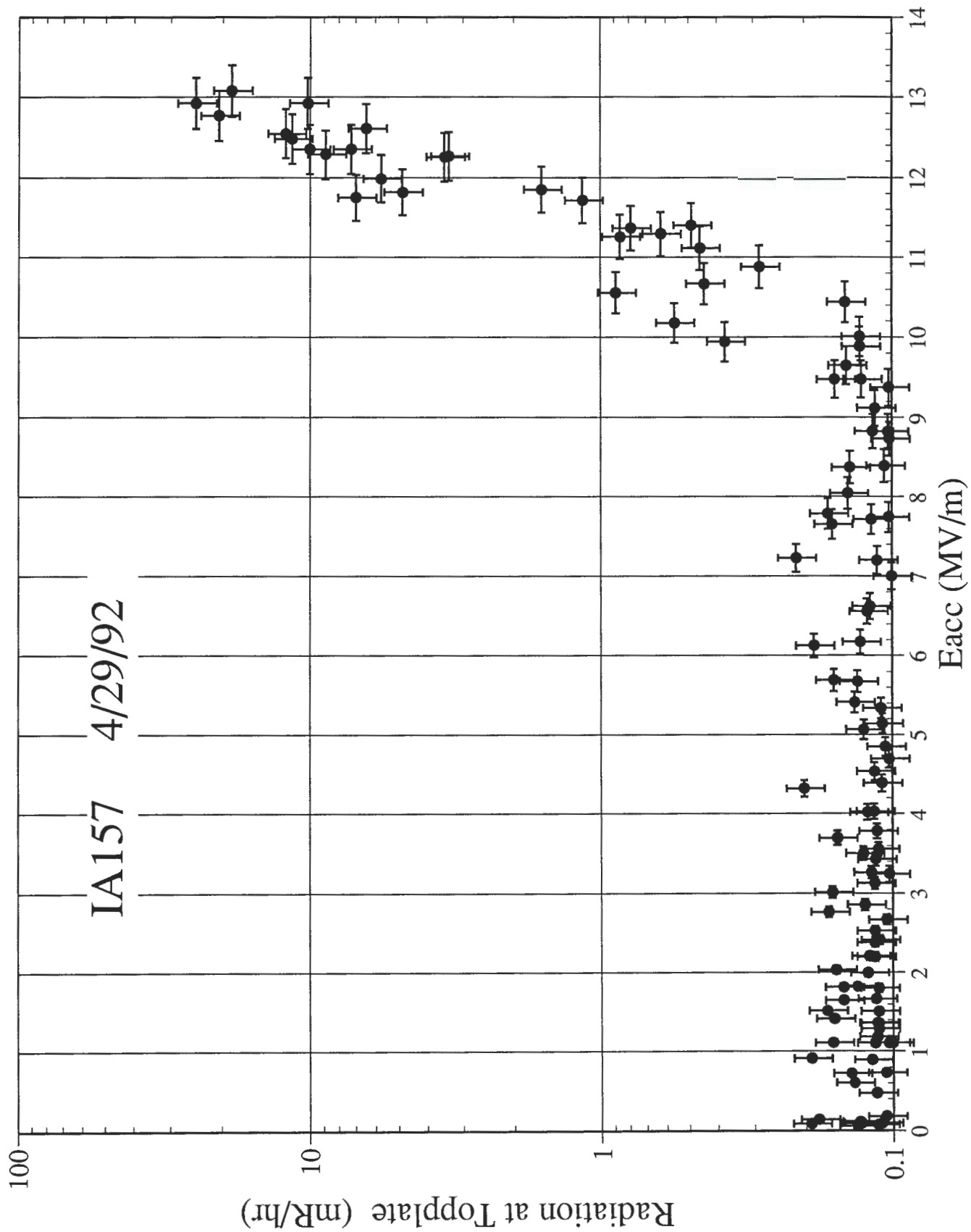


$F \approx 5.6 @ 6.0$
 $W \approx 6.1 @ 4.0$
 $6.4 @ 2.4$

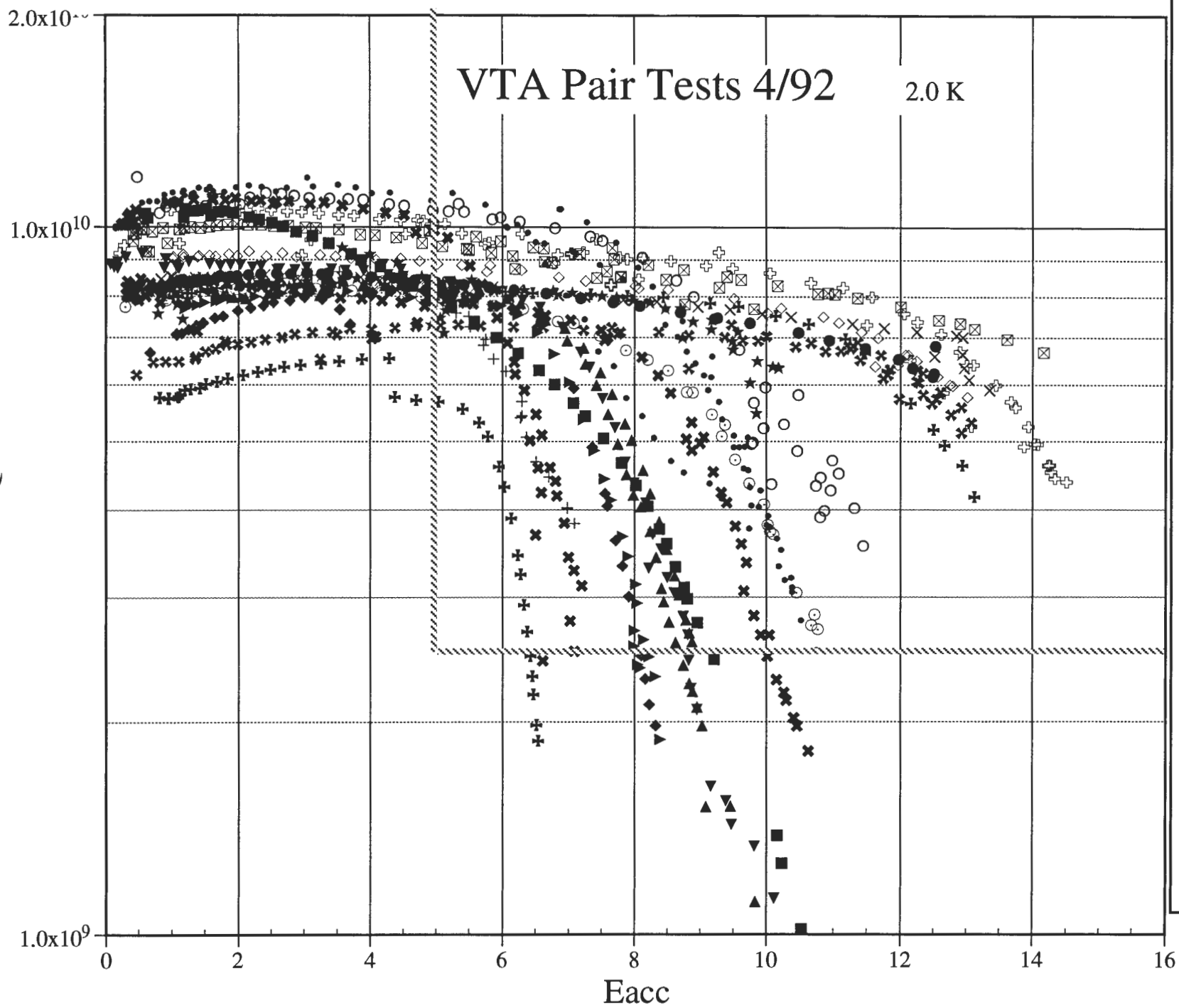




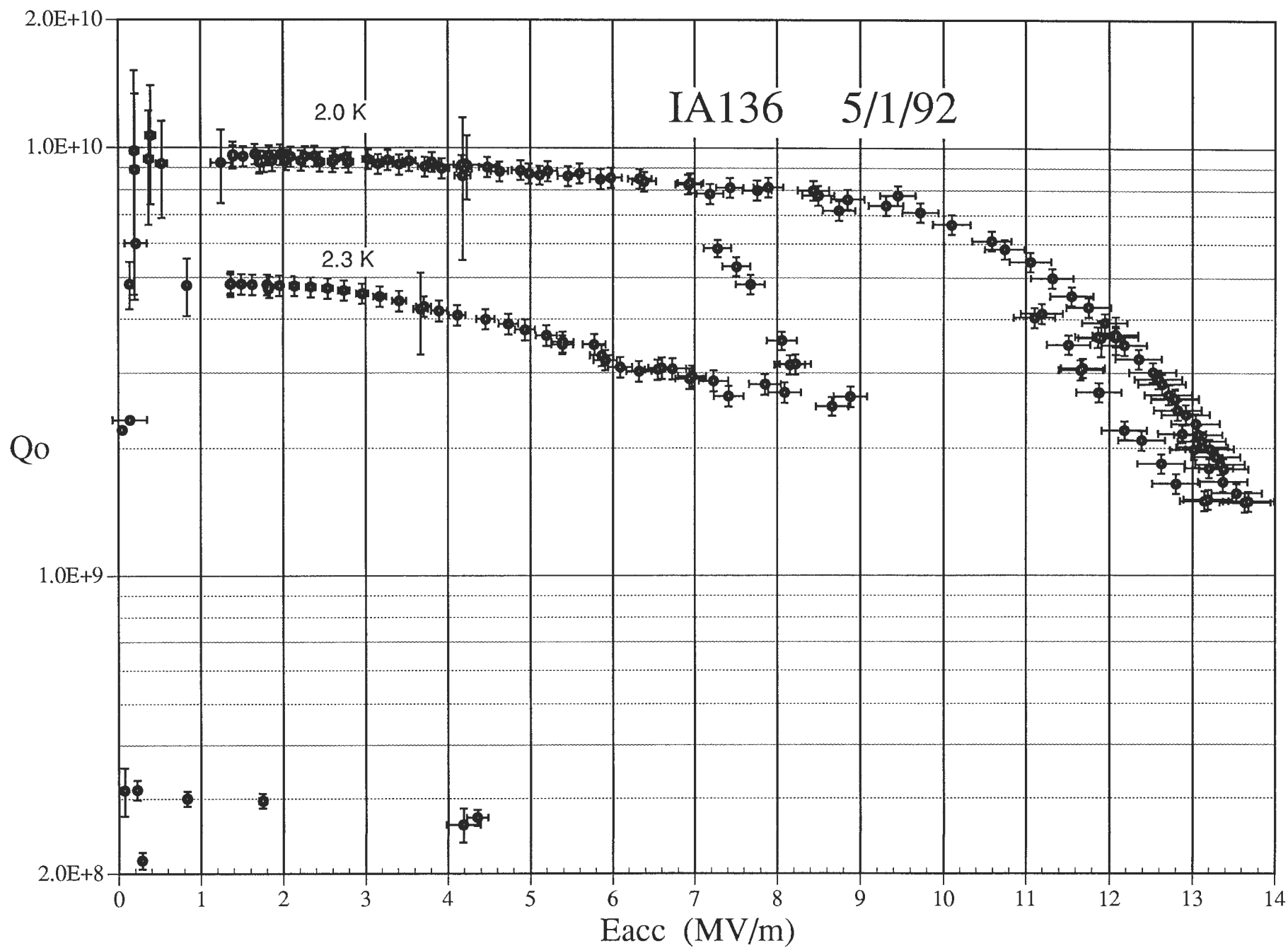
FE 10.4@10
ve 17.1@6.1
Q0 13.1@5.2

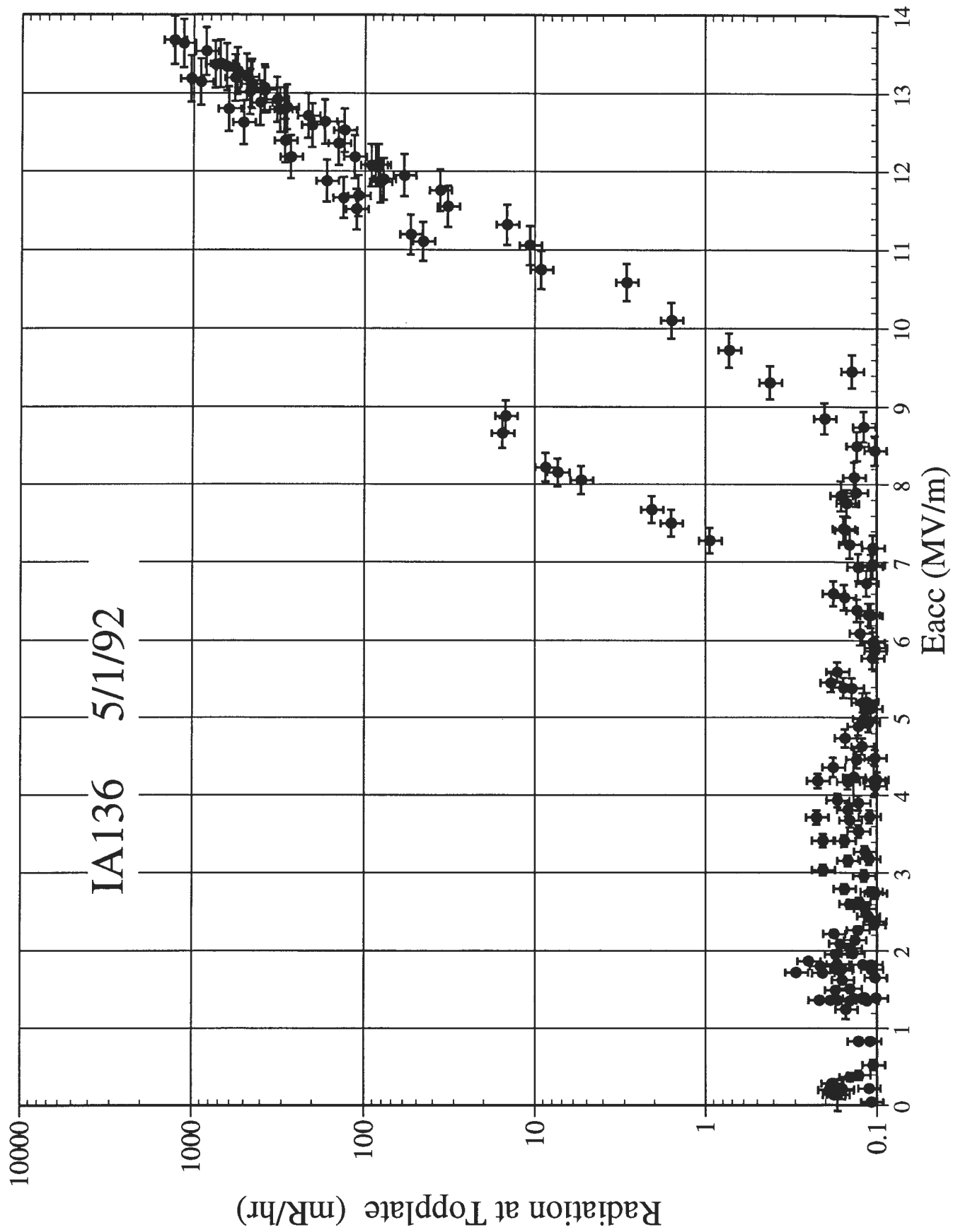


Q_0

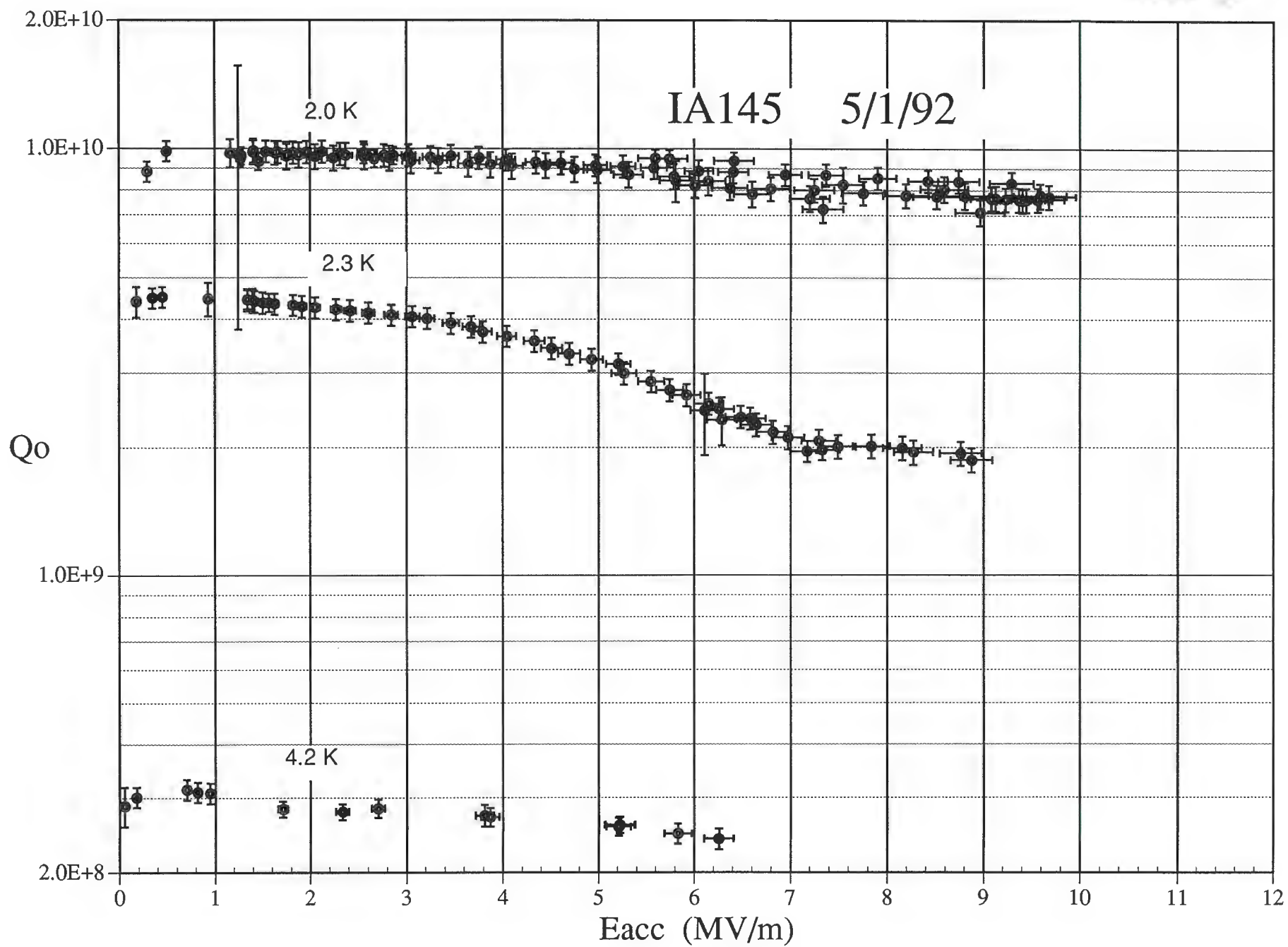


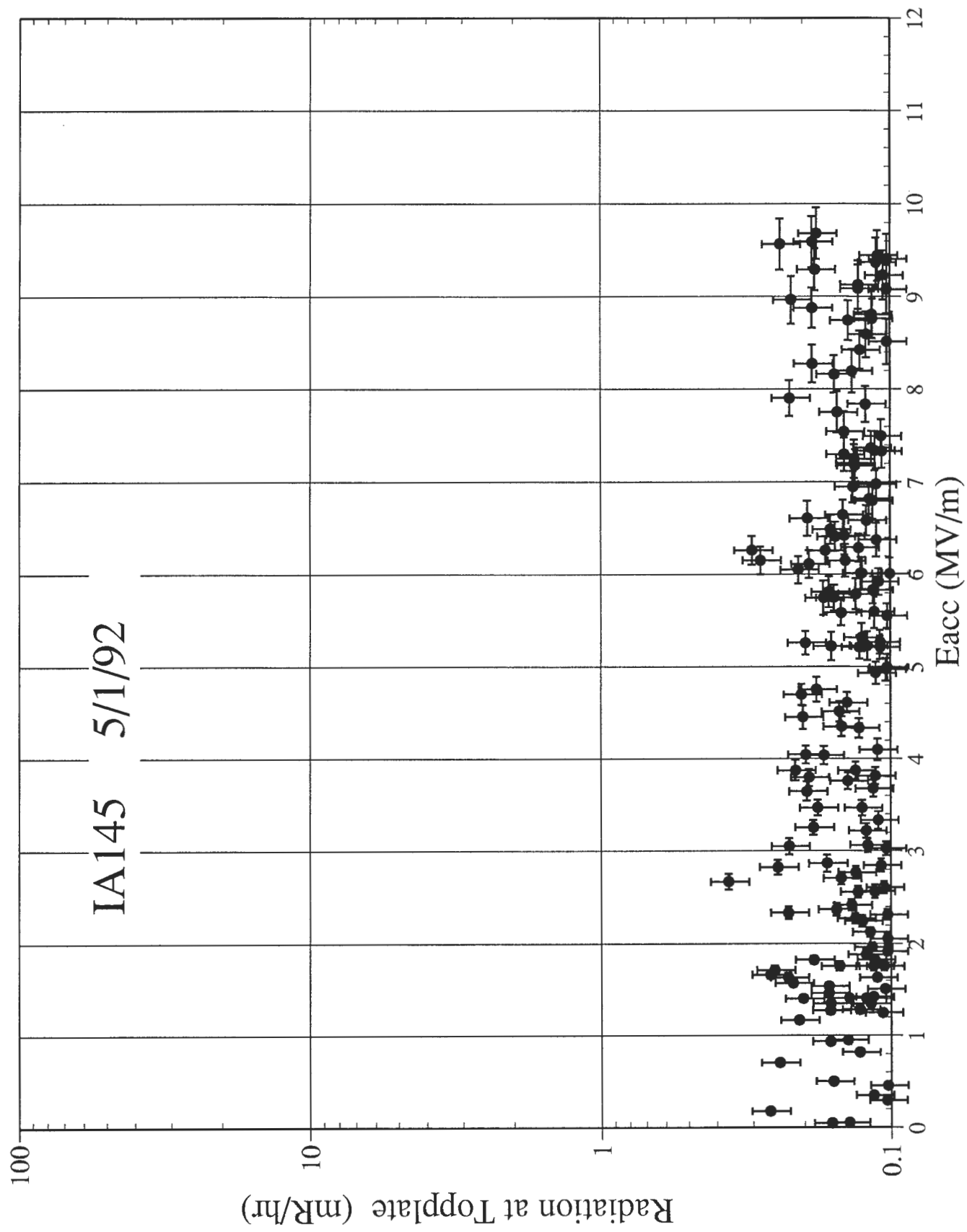
- IA102
- IA120
- ▲ IA110
- ◊ IA114
- + IA121 a
- IA125 a
- IA113
- ◊ IA138
- ▼ IA123
- ⊠ IA143
- ★ IA125 b
- ◆ IA121 b
- × IA033
- × IA111
- + IA032
- ⊕ IA146
- × IA001
- Q_0
- + IA066
- * IA157



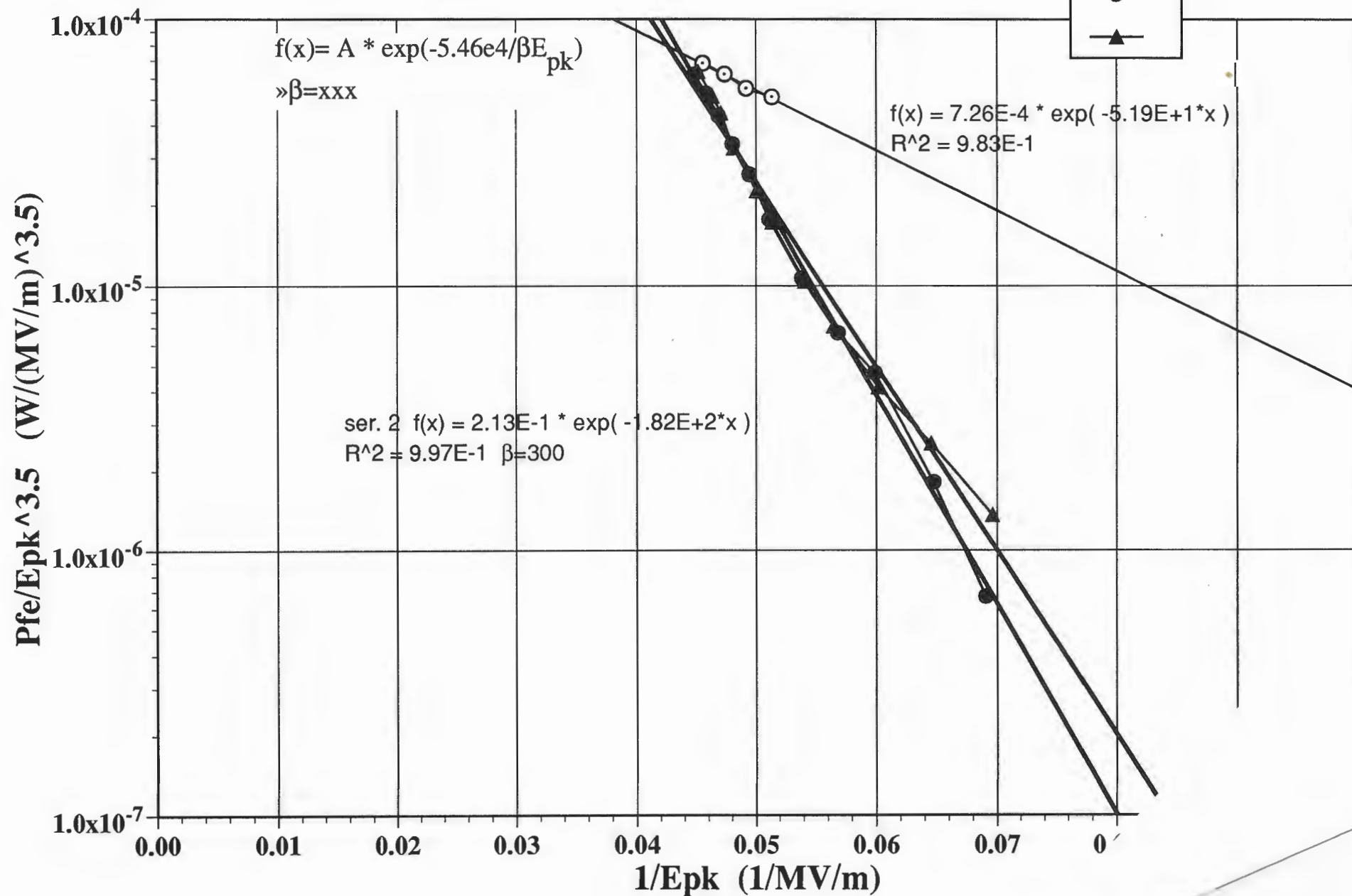


on bottle
5/1/92

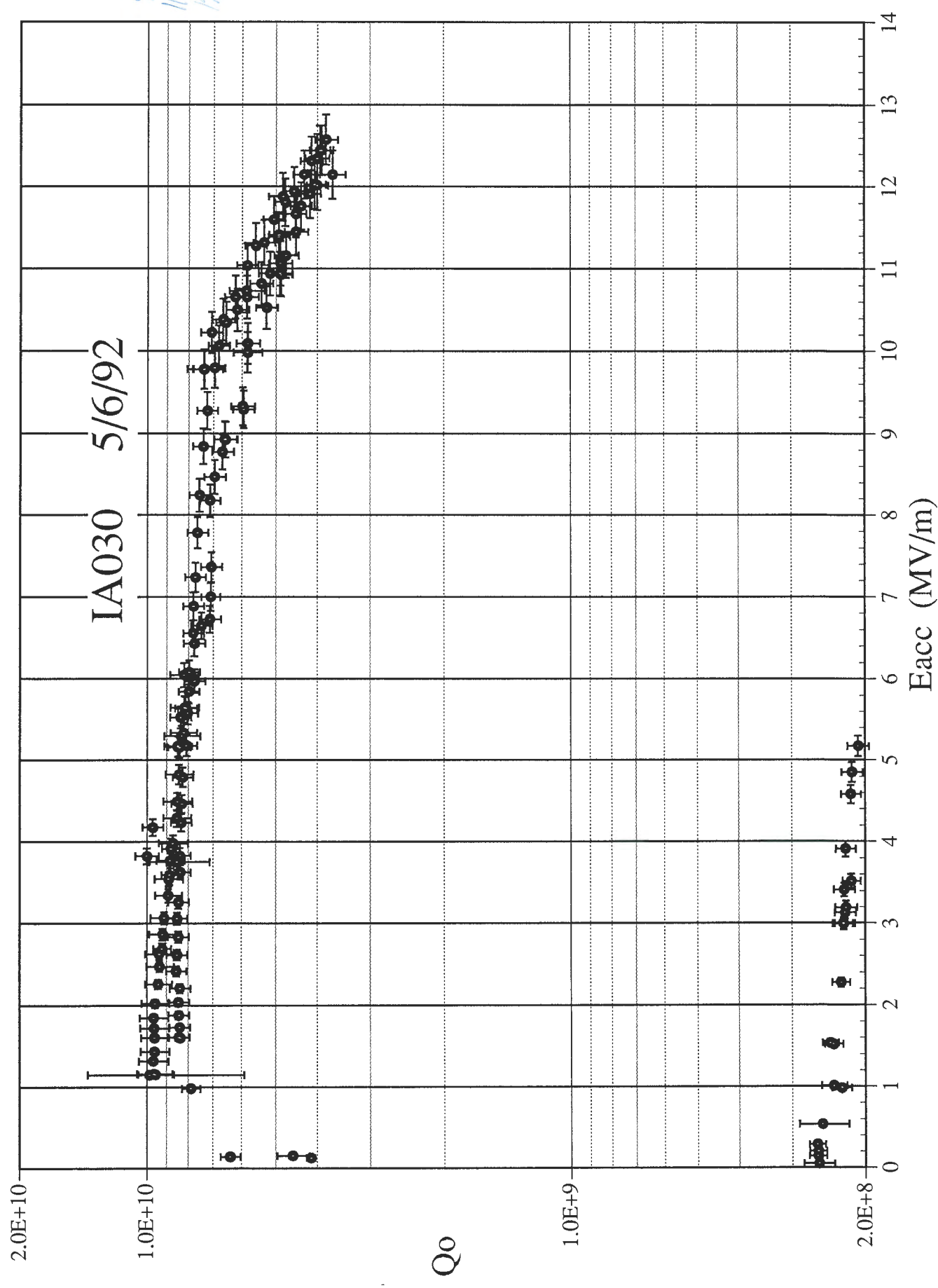


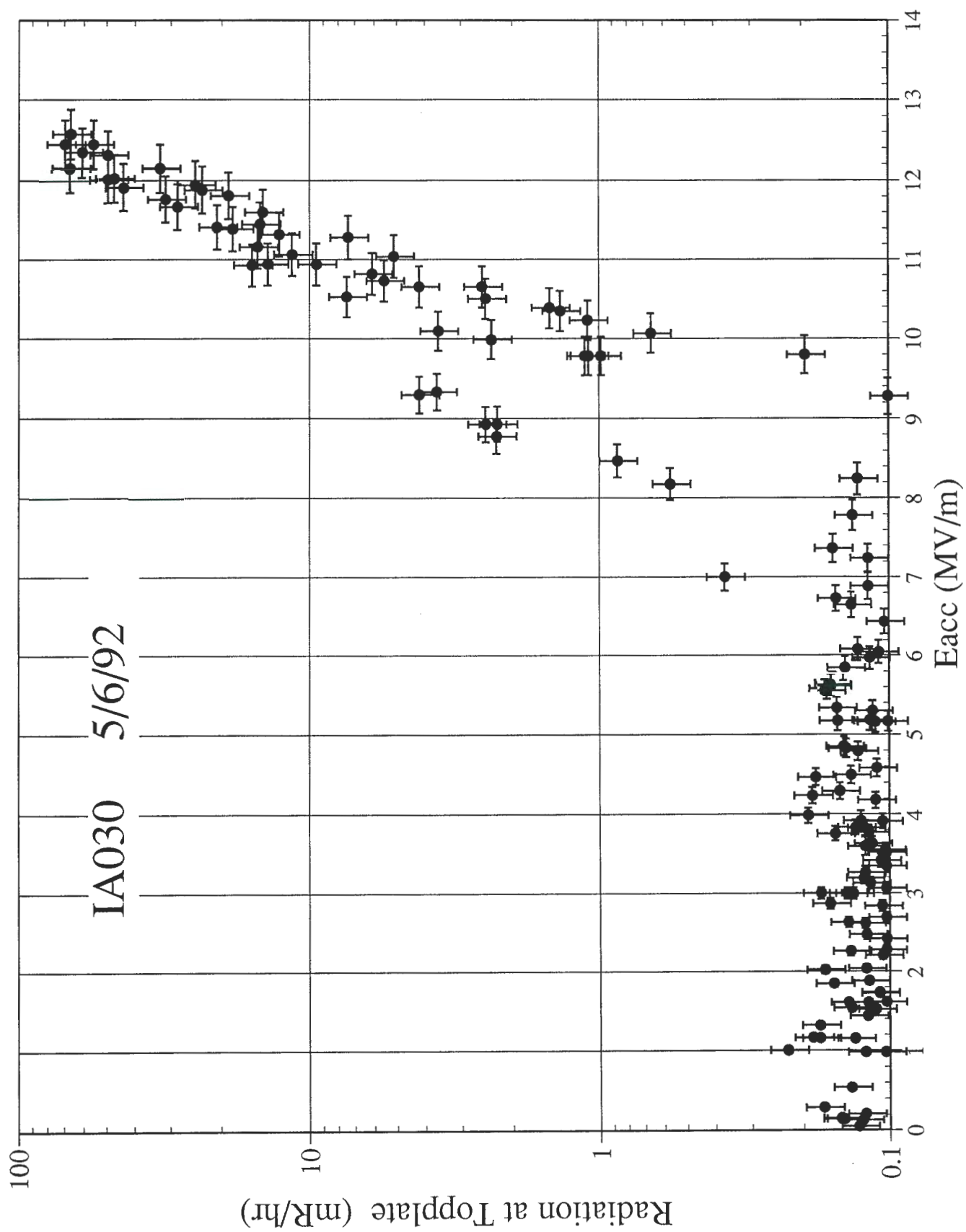


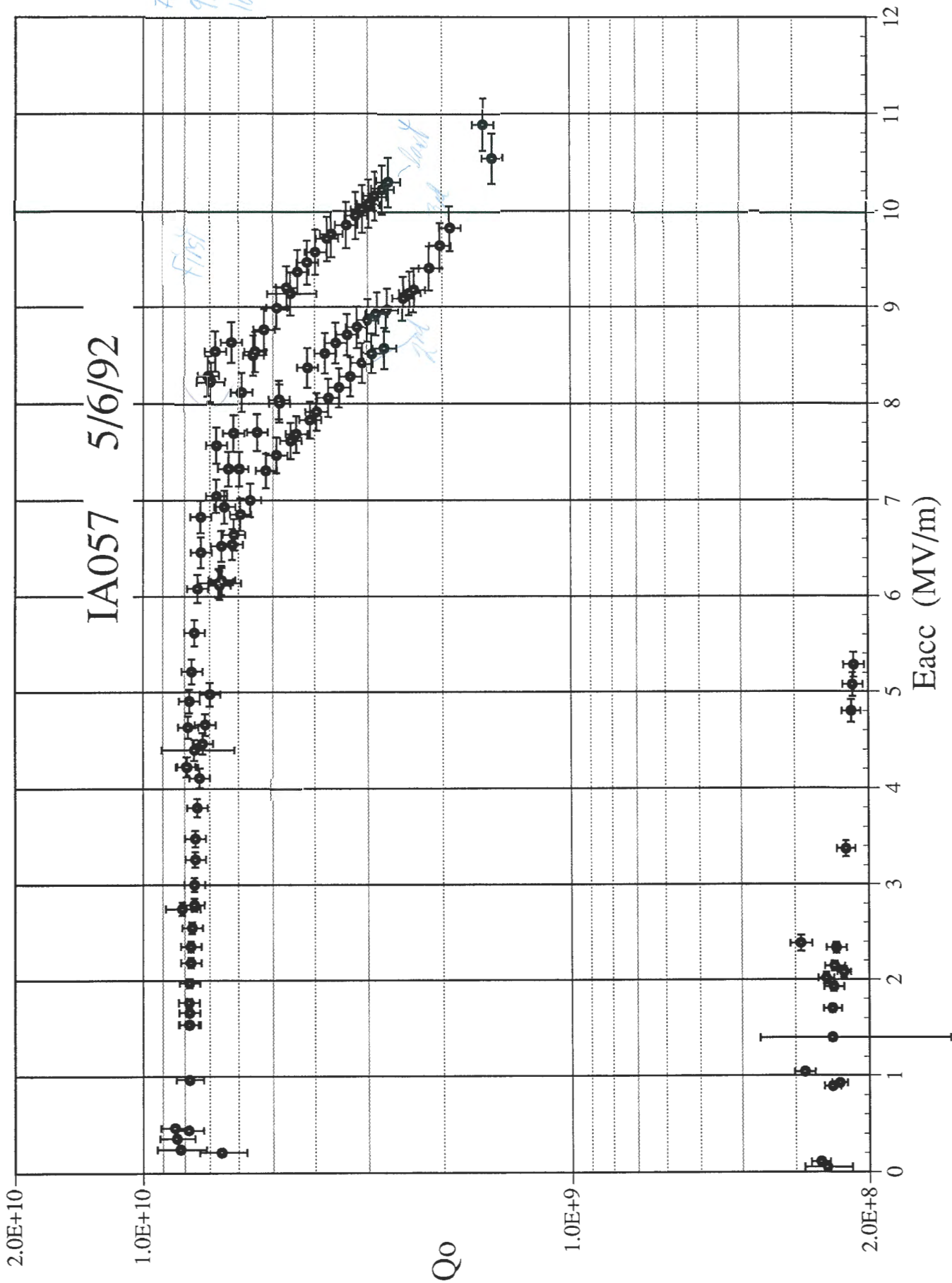
IA193c 5/4/93



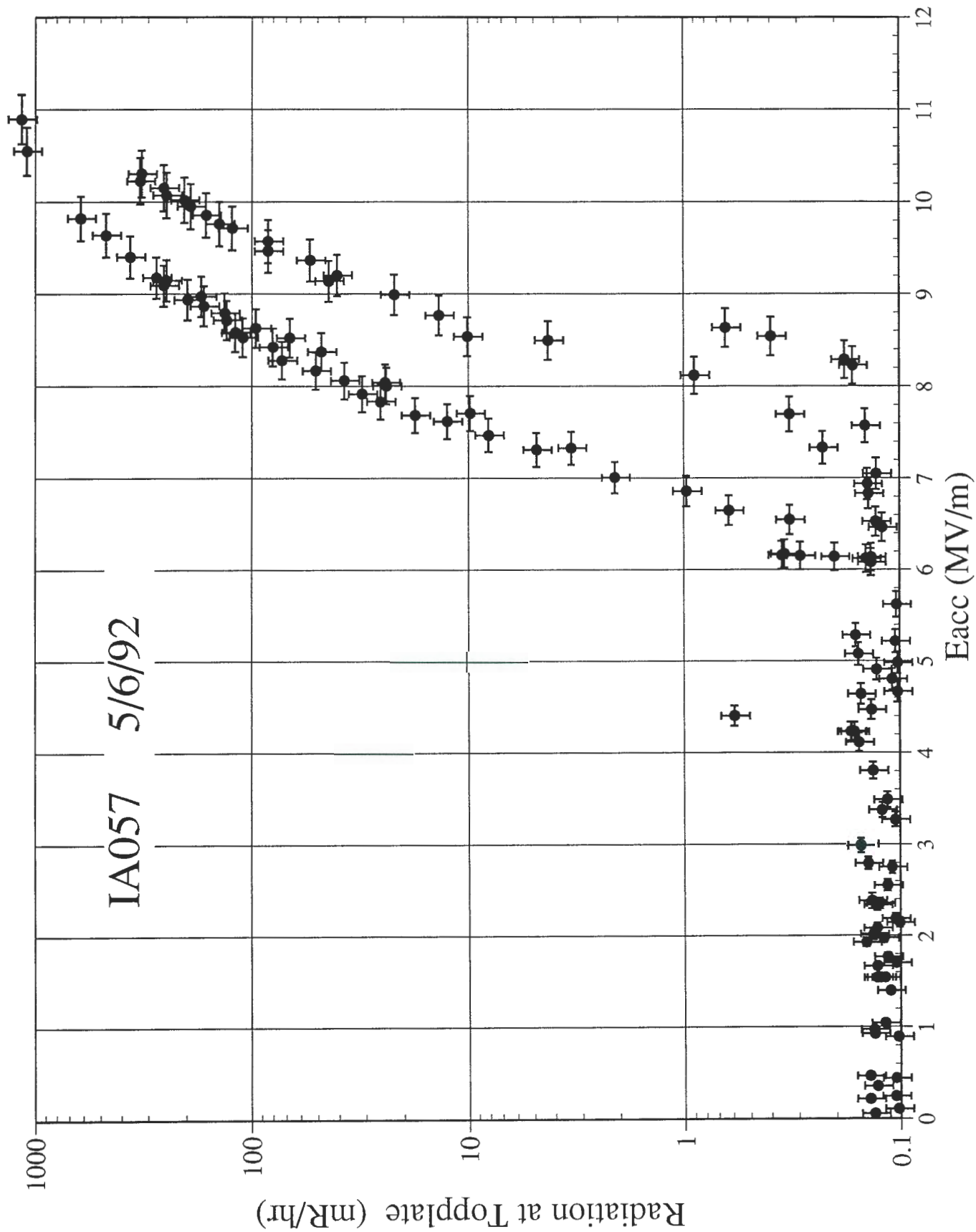
9.2072
11.6049
12.6029

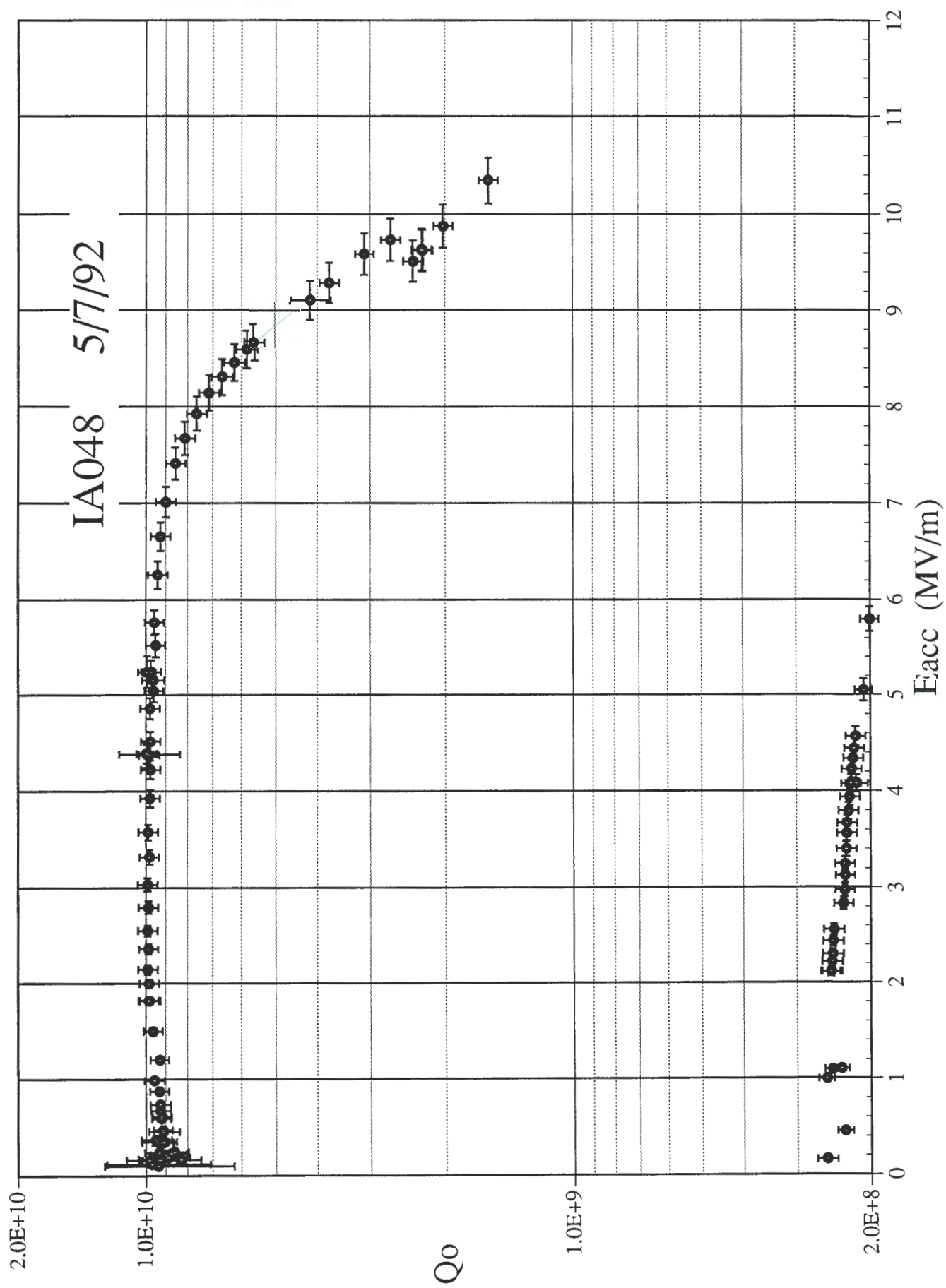




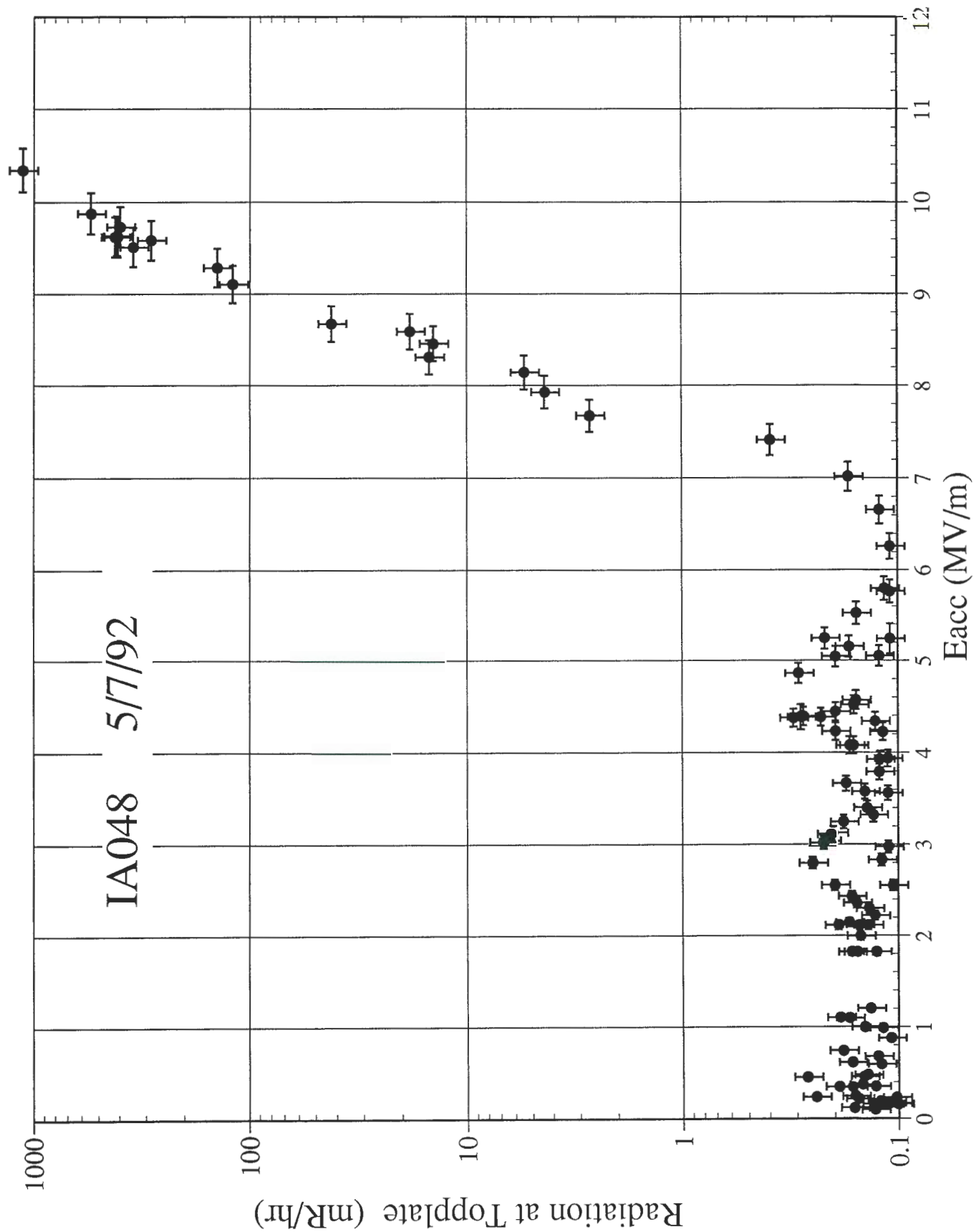


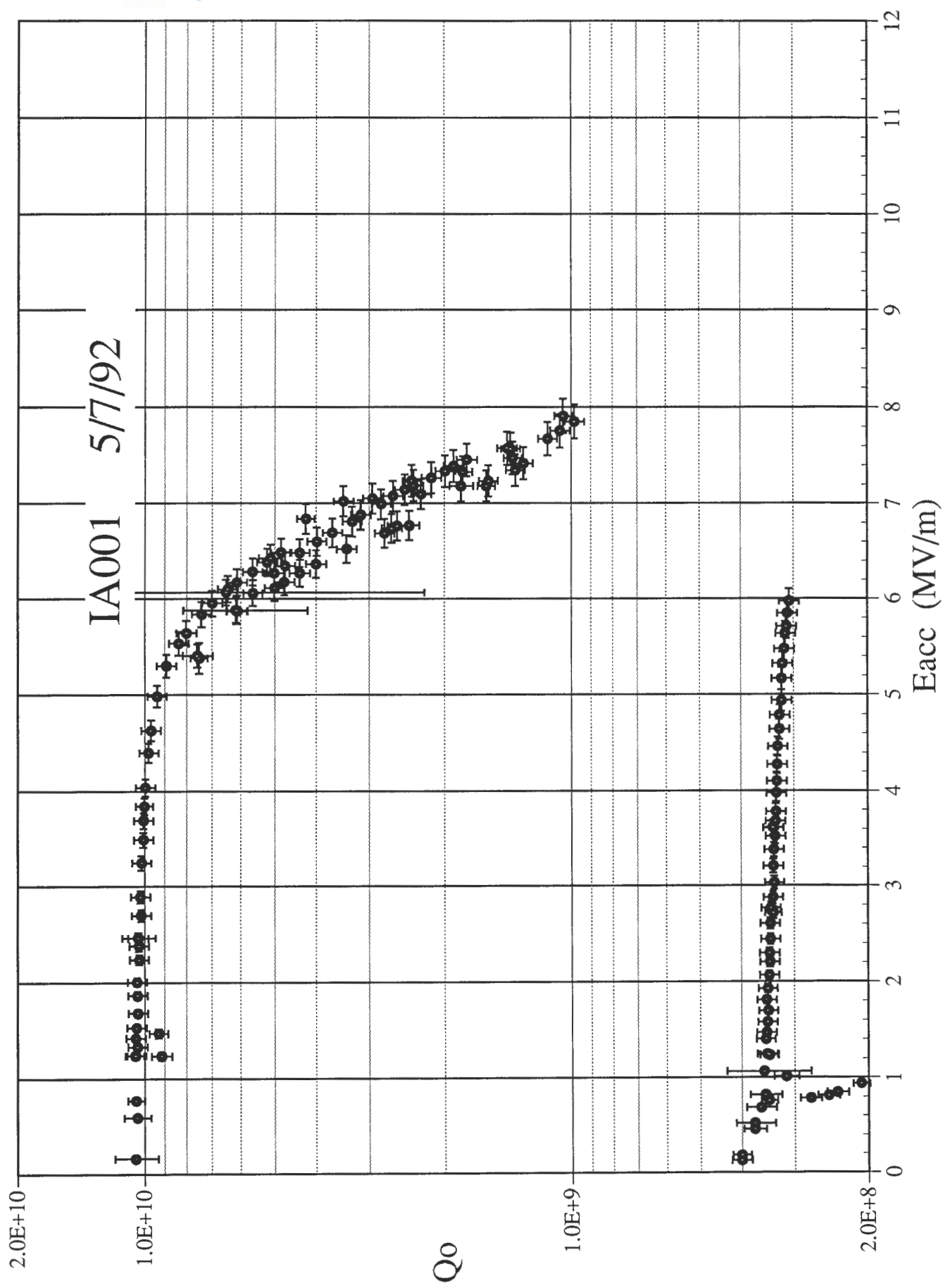
7.907
9.9094
10.9026



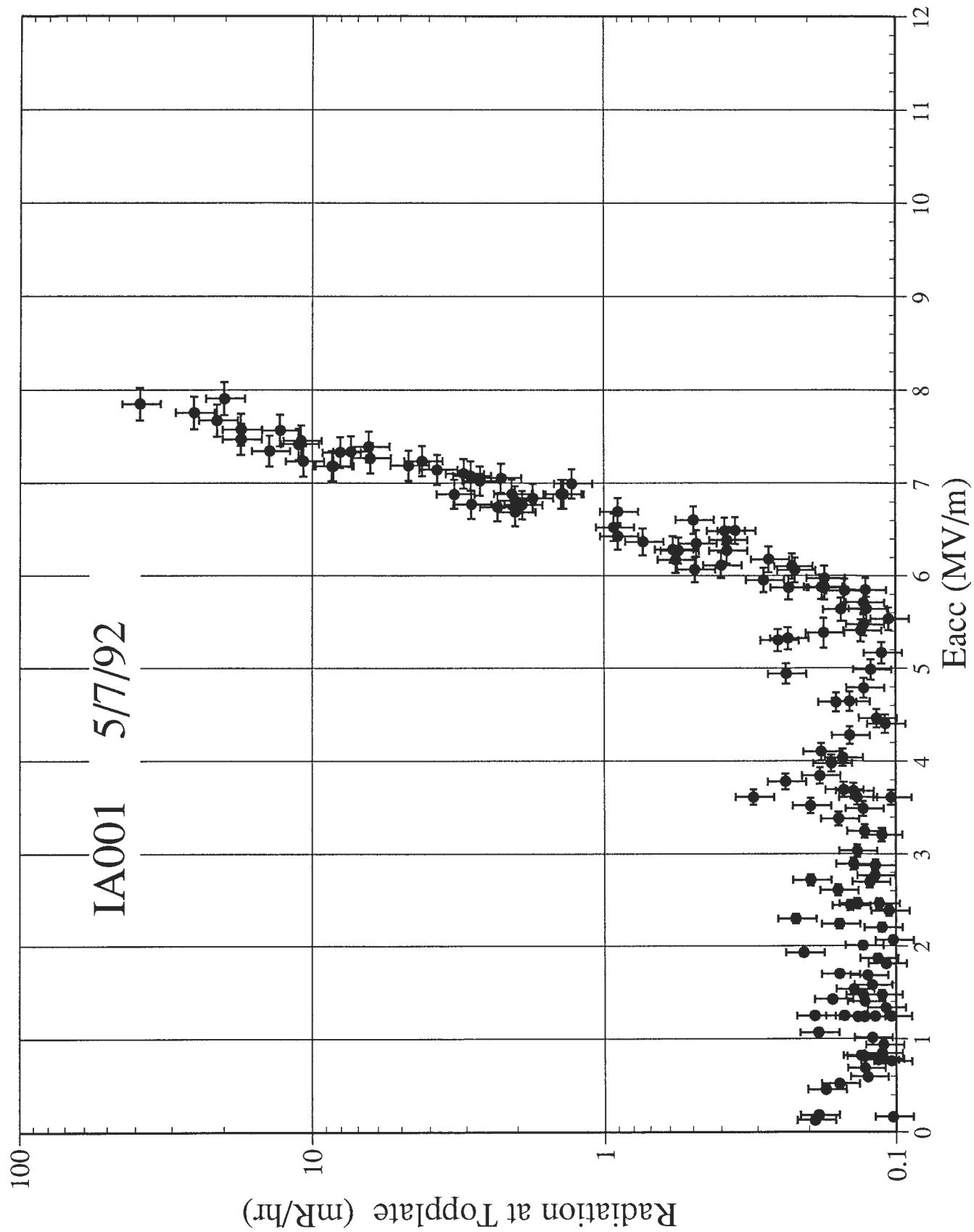


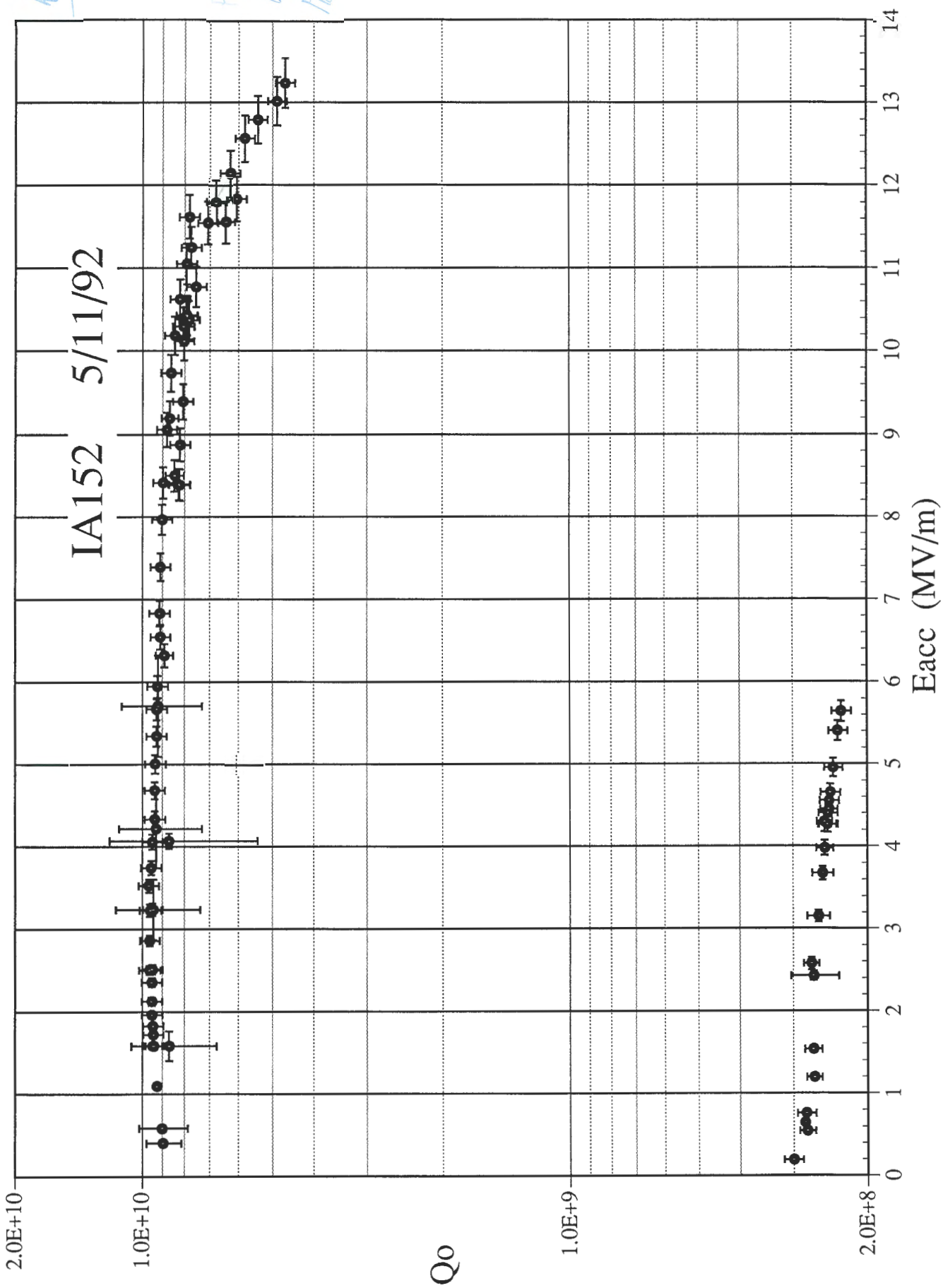
709
96074





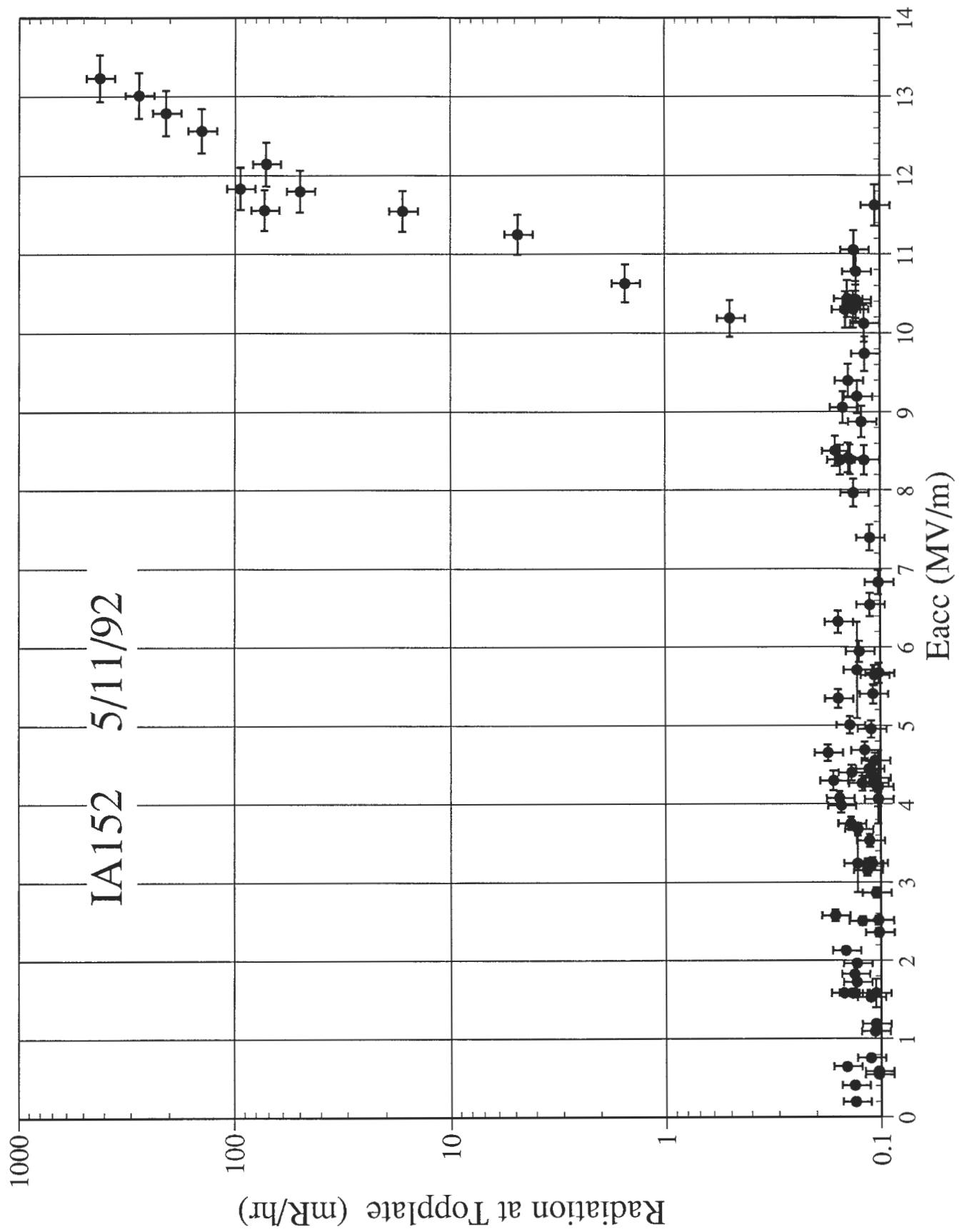
5.969
6. 4.7
8. 2



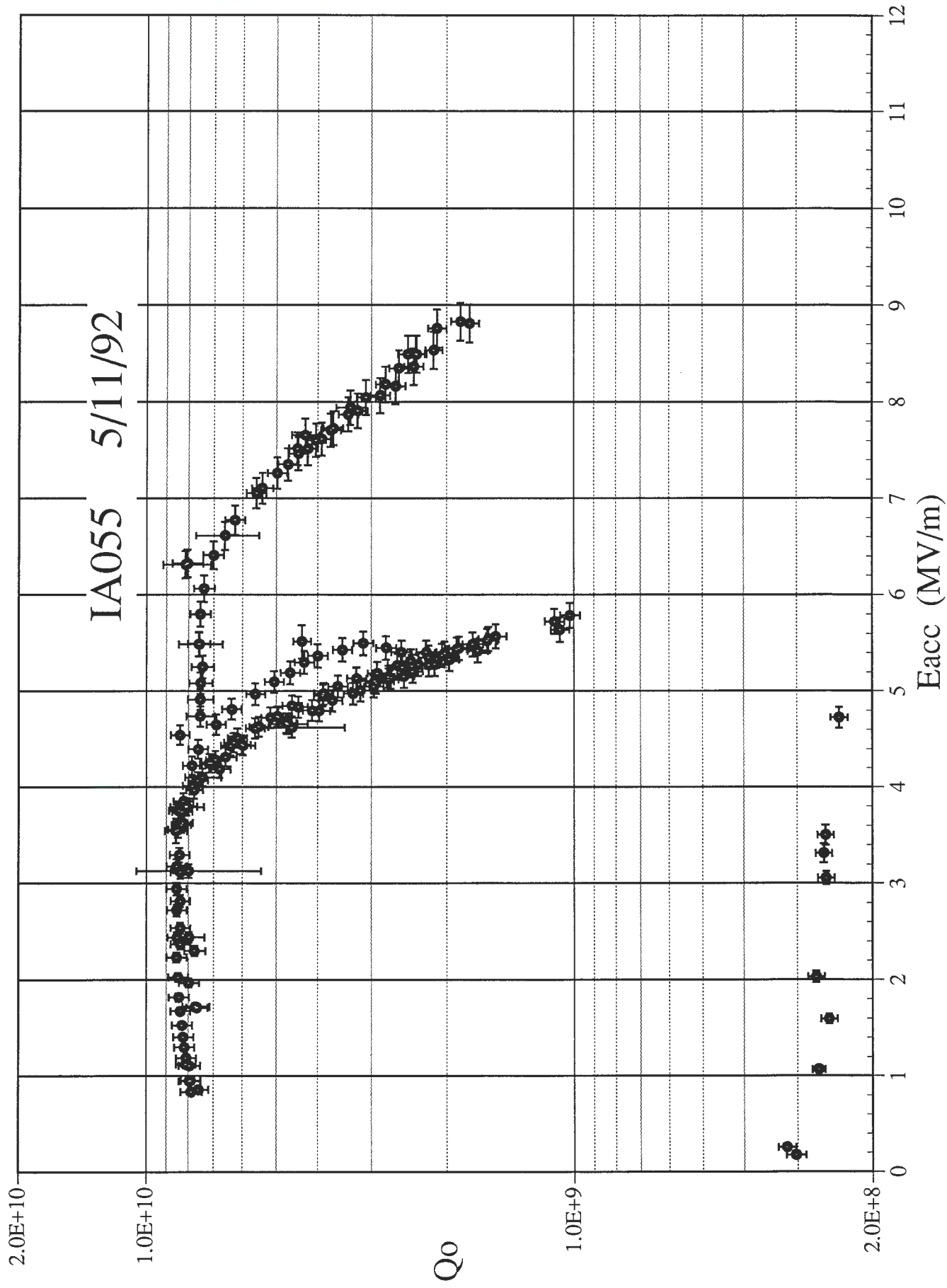


bottom

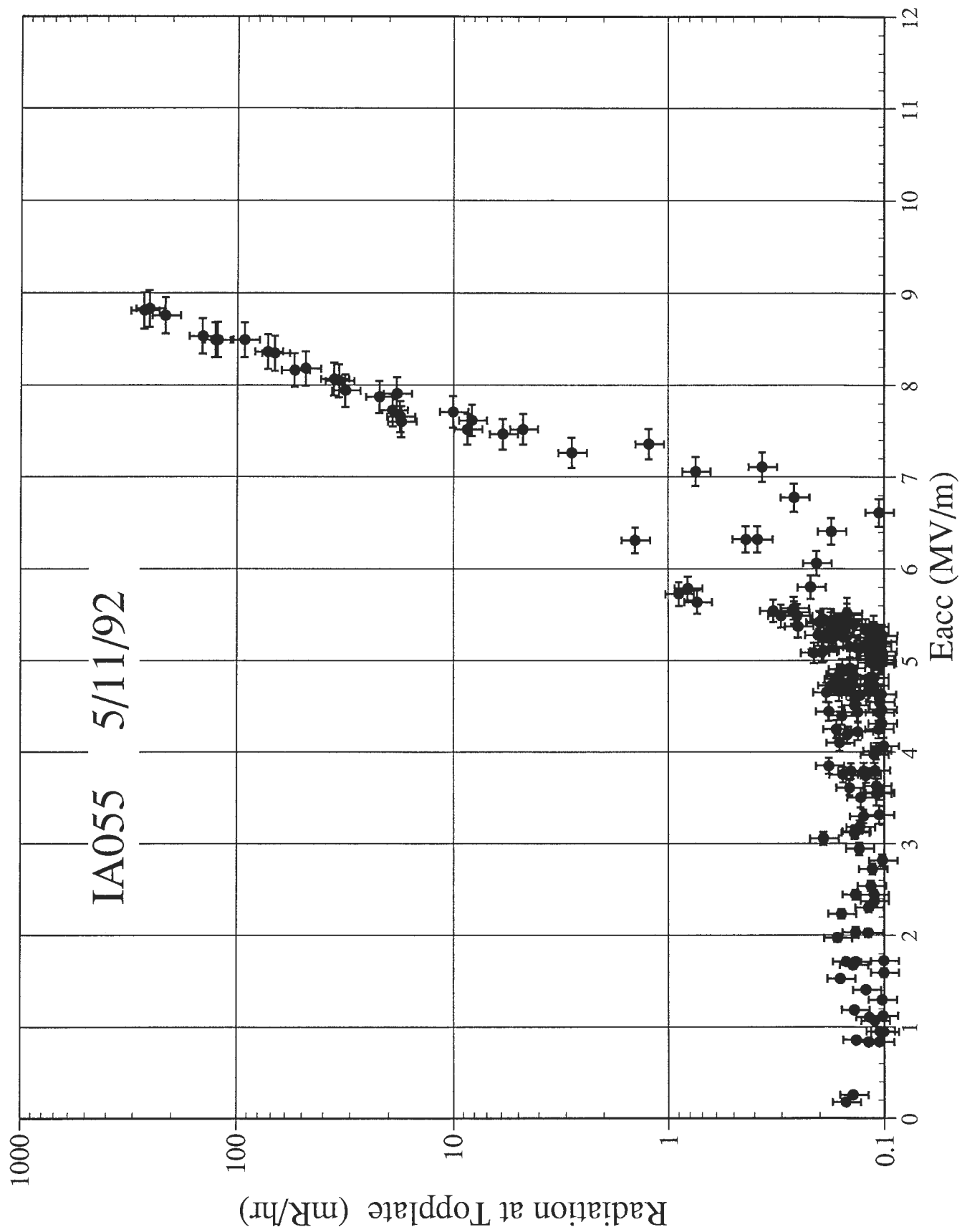
PS 9607.5
46 17.206.1
May 1992 4.7



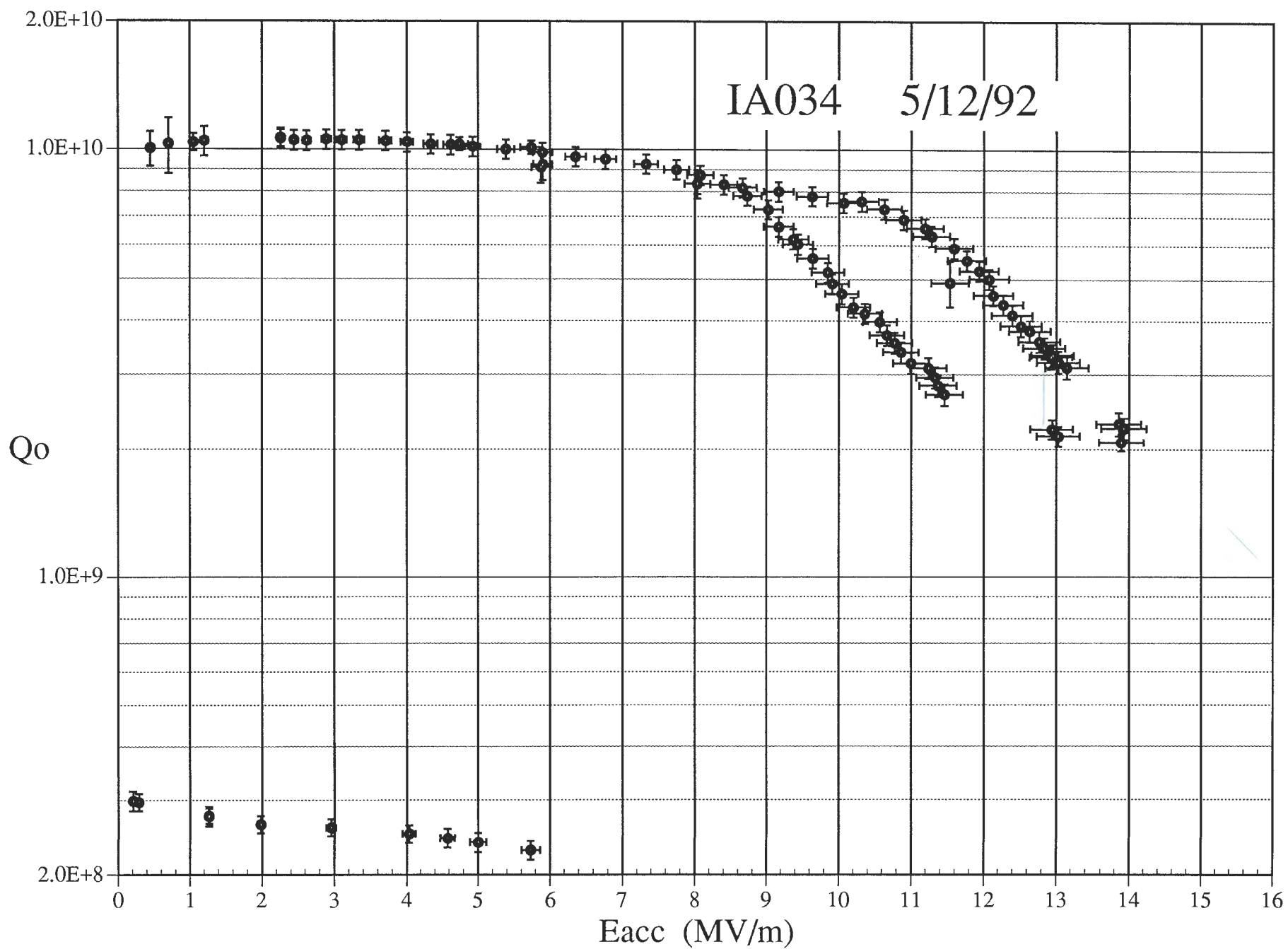
TOP



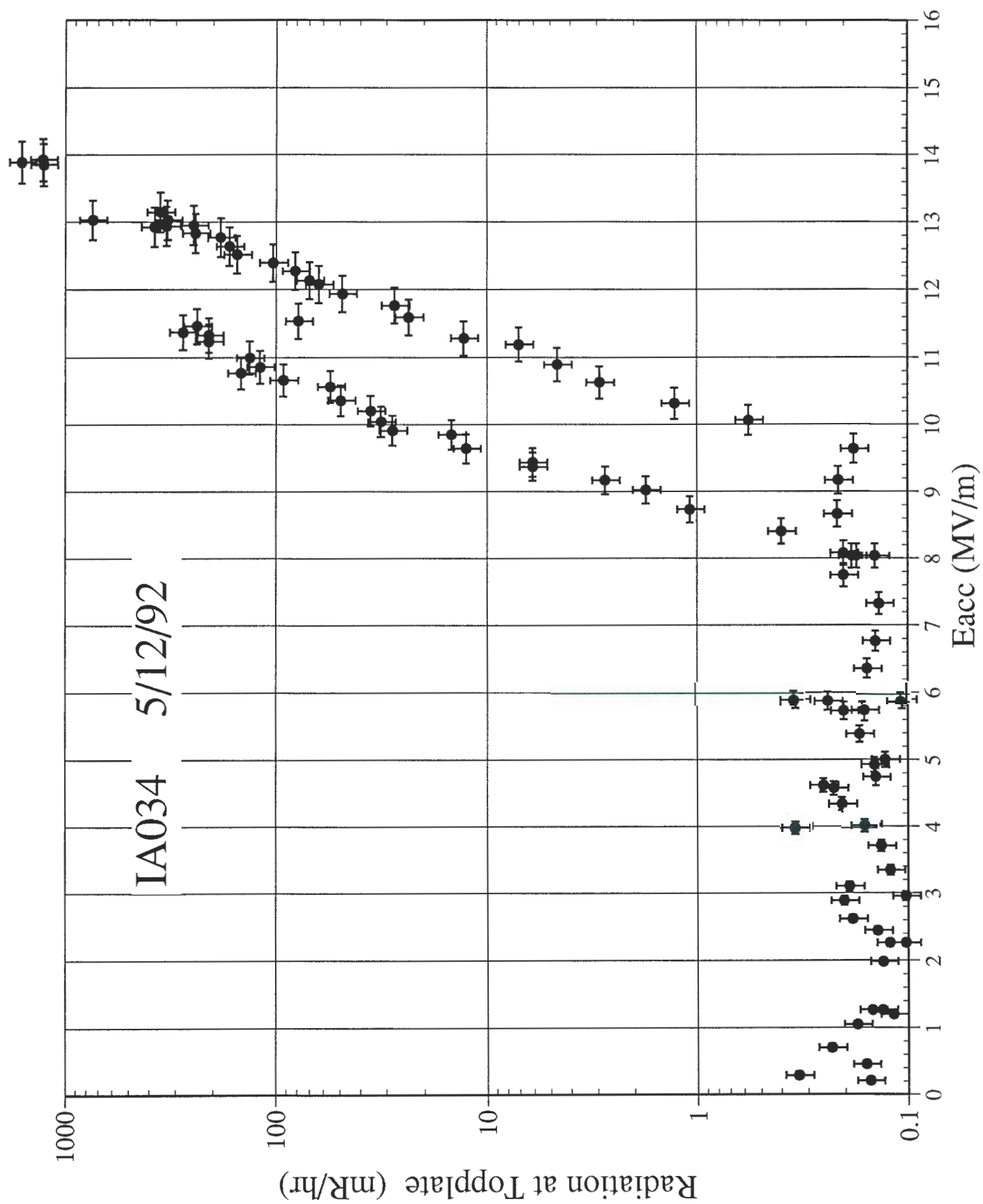
6.0072
7.304.6
8.302.9



Kotm

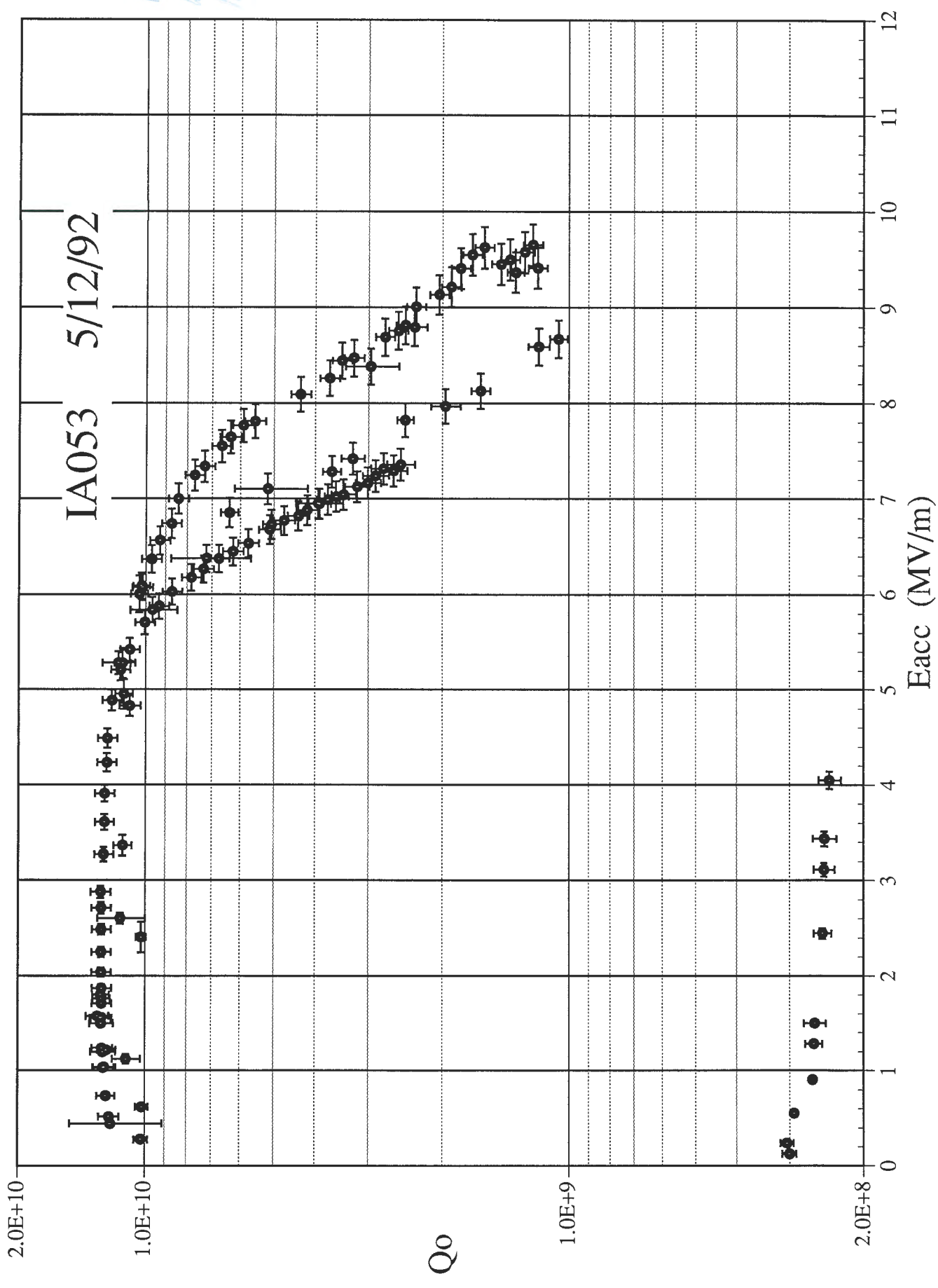


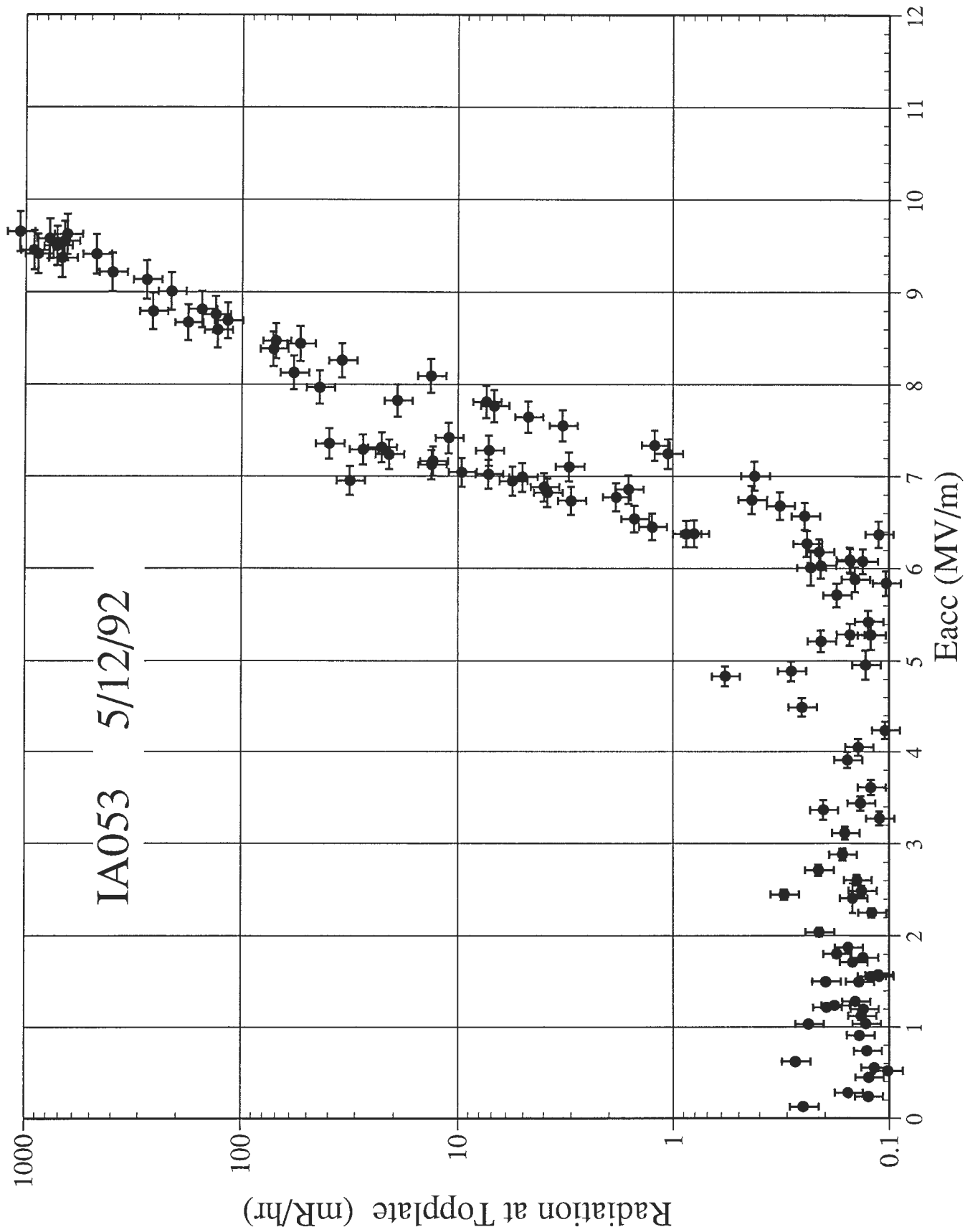
9.6 @ 7.8
12.1 @ 4.4
19.8 @ 2.4

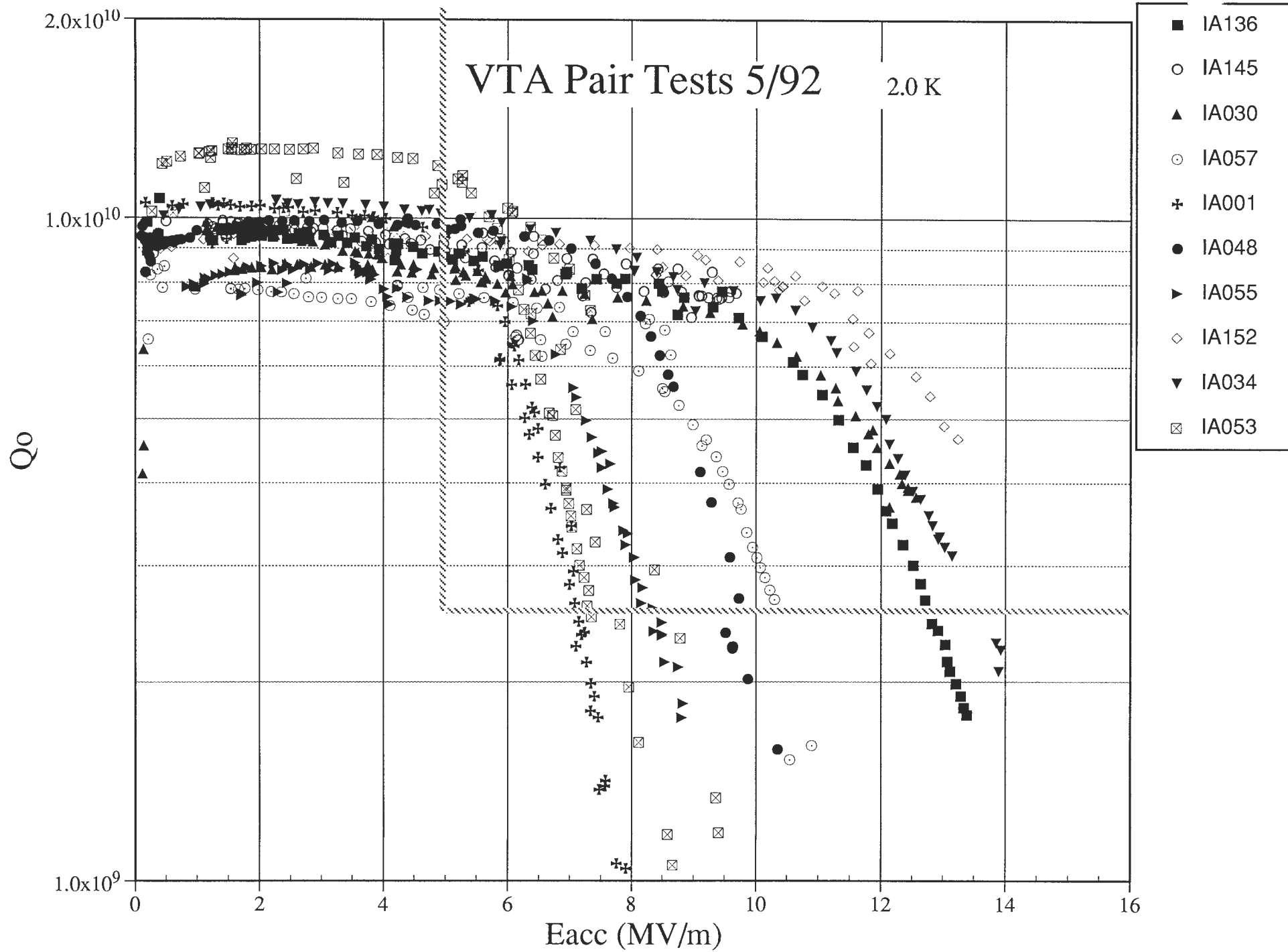


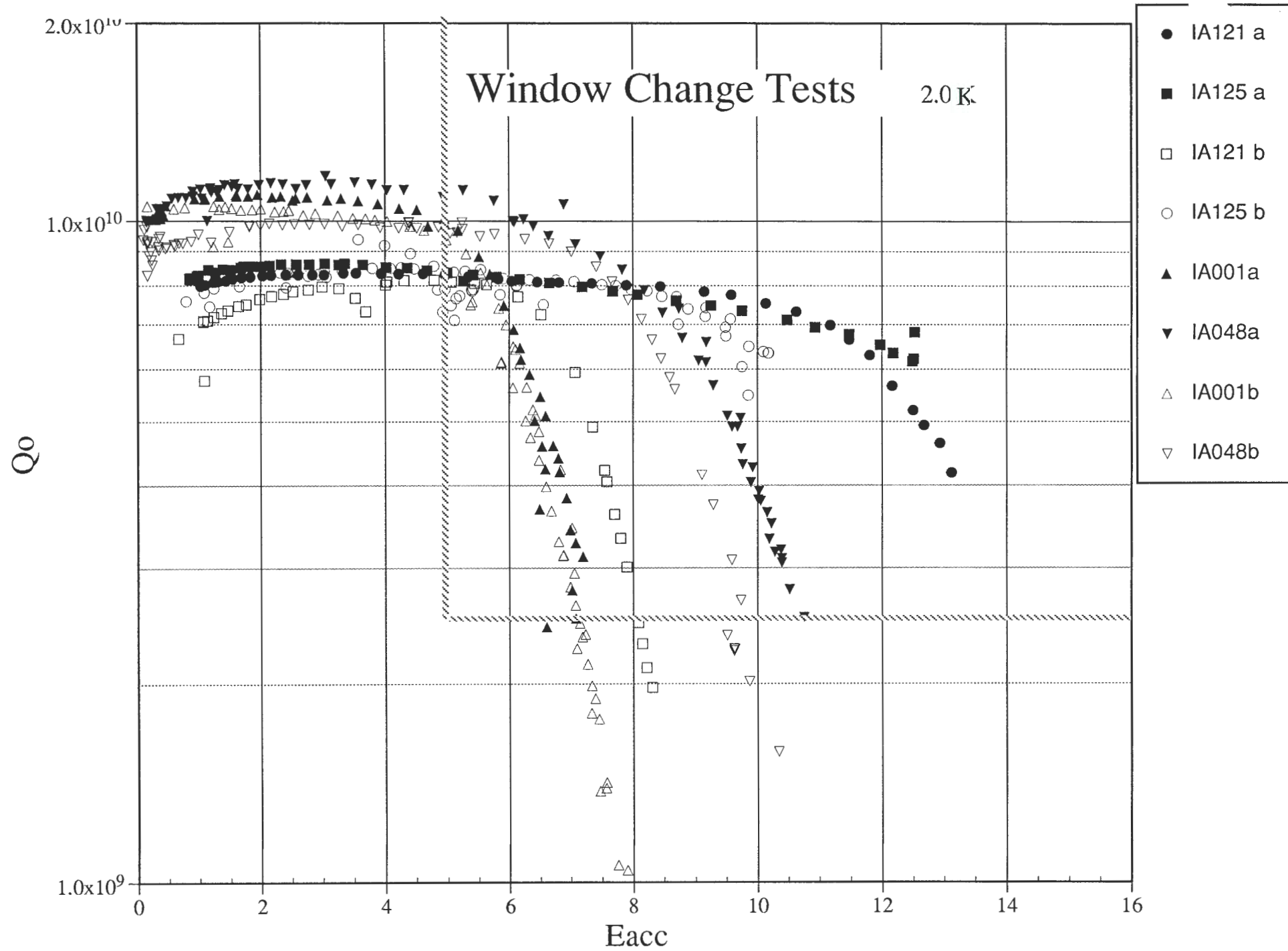
Top

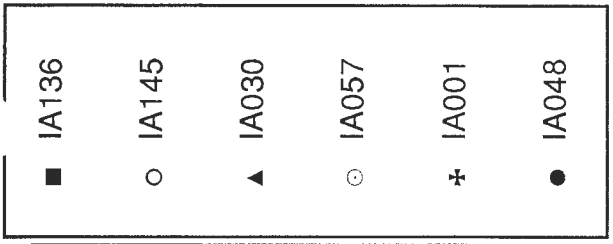
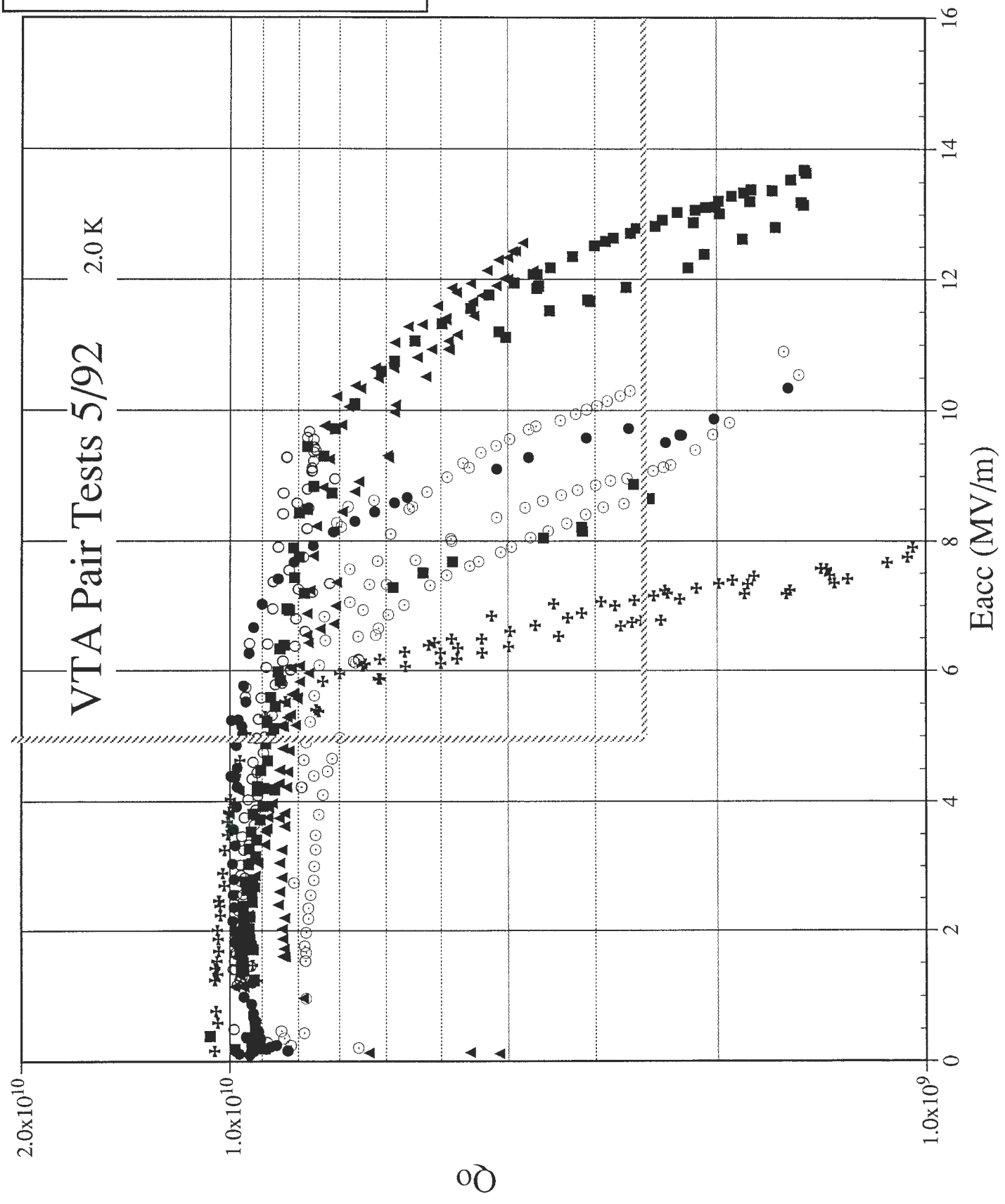
FS 60 10
W 770 59
H₂ 4.60 2.4

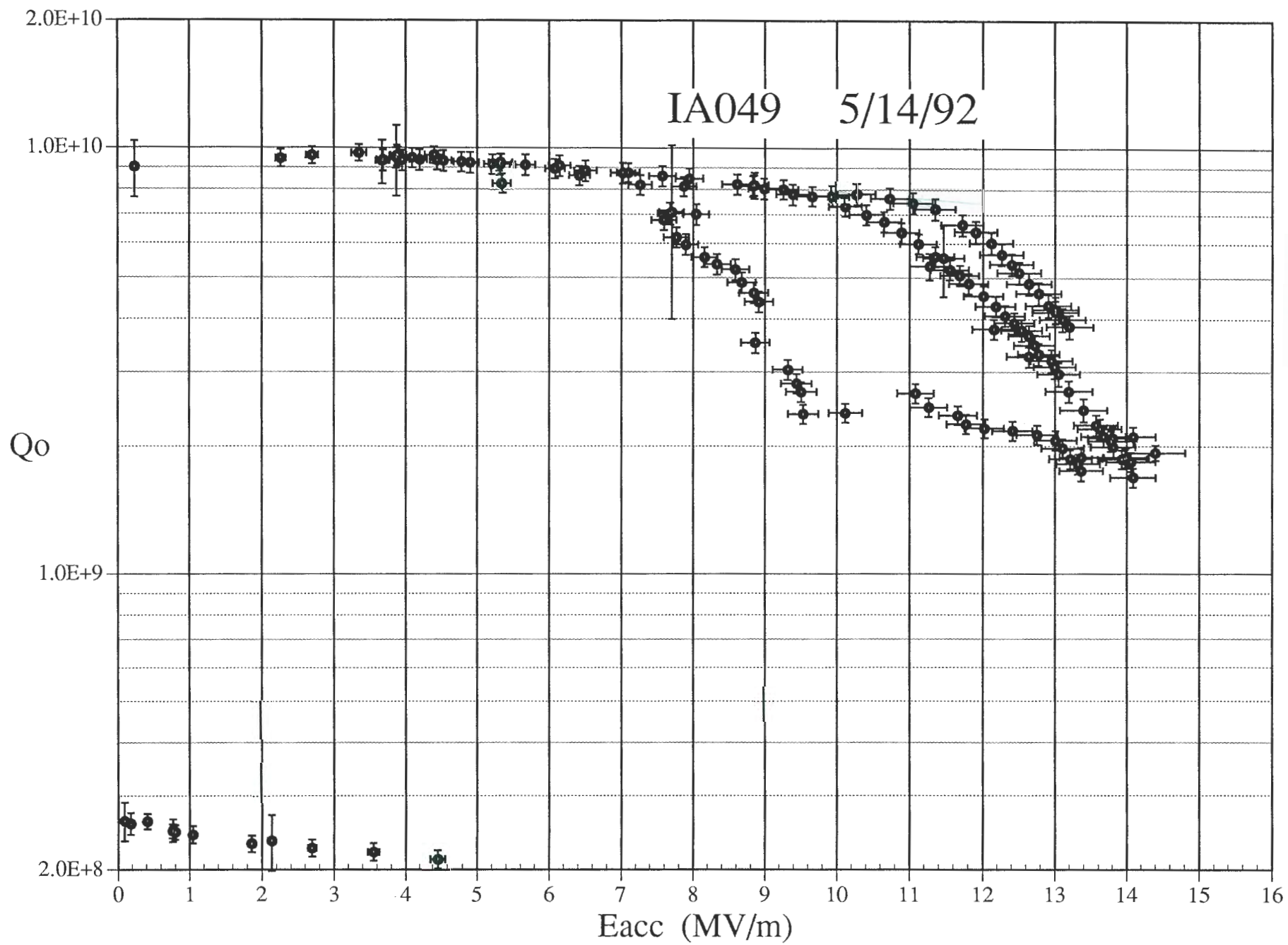


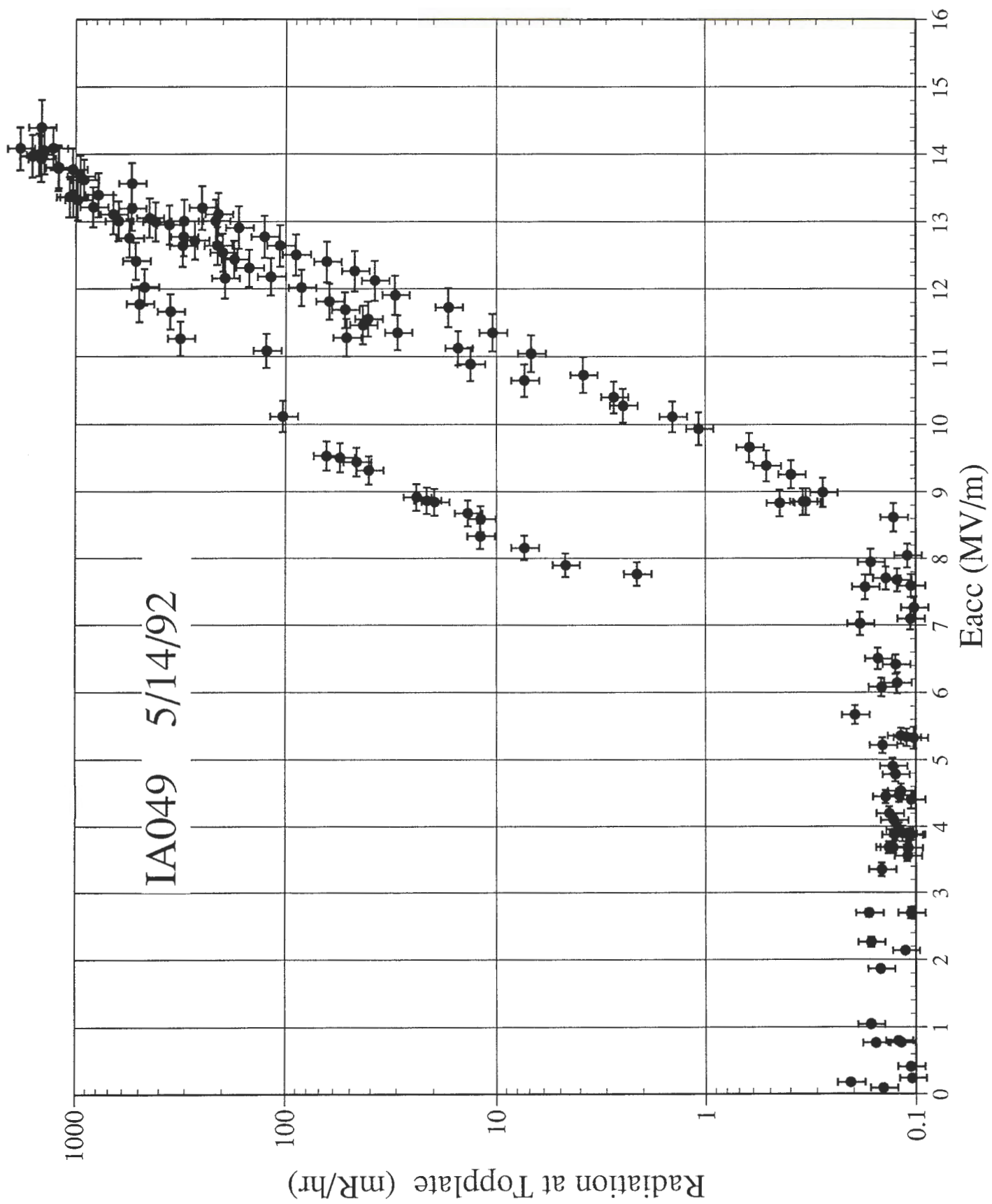


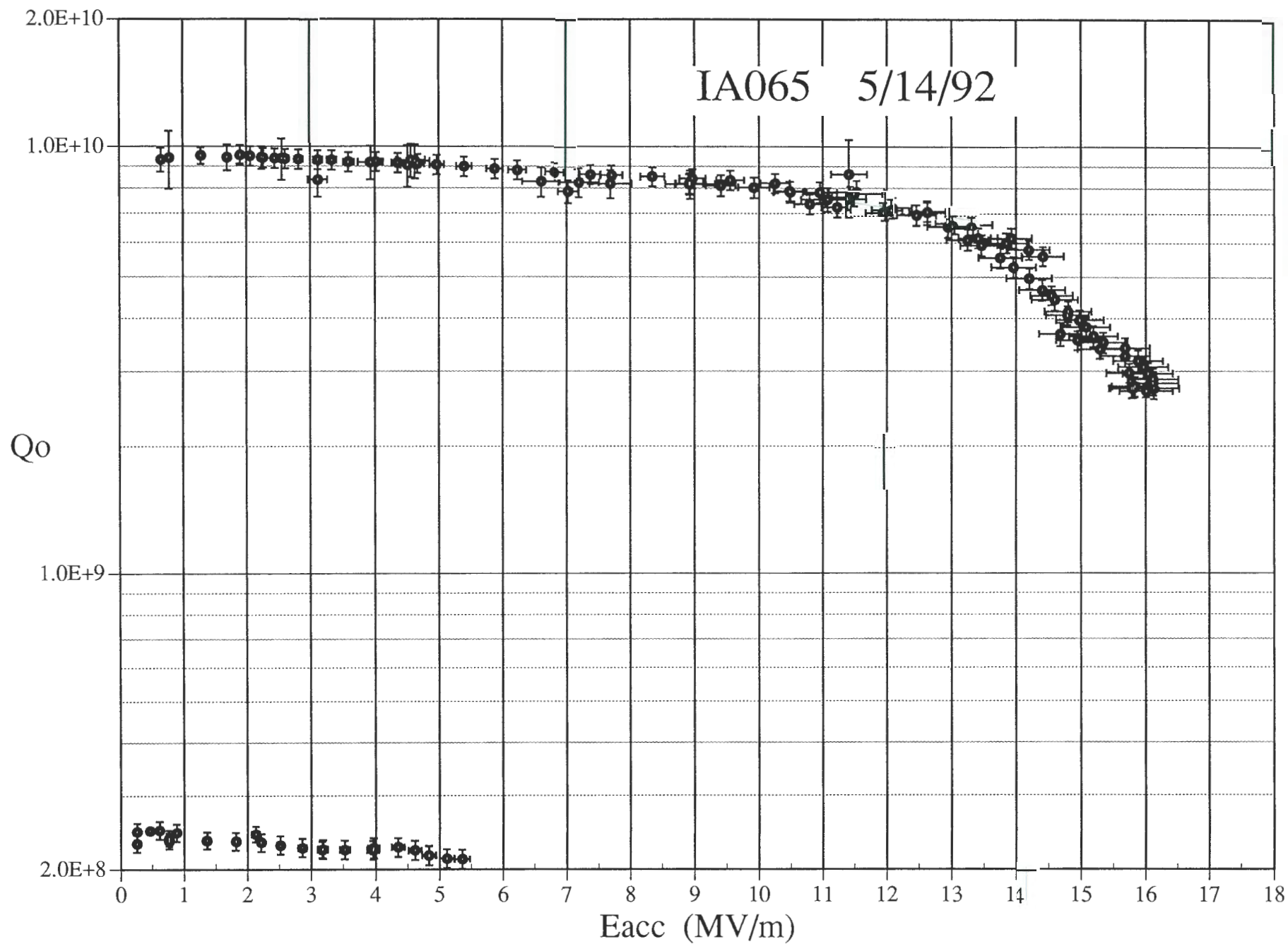




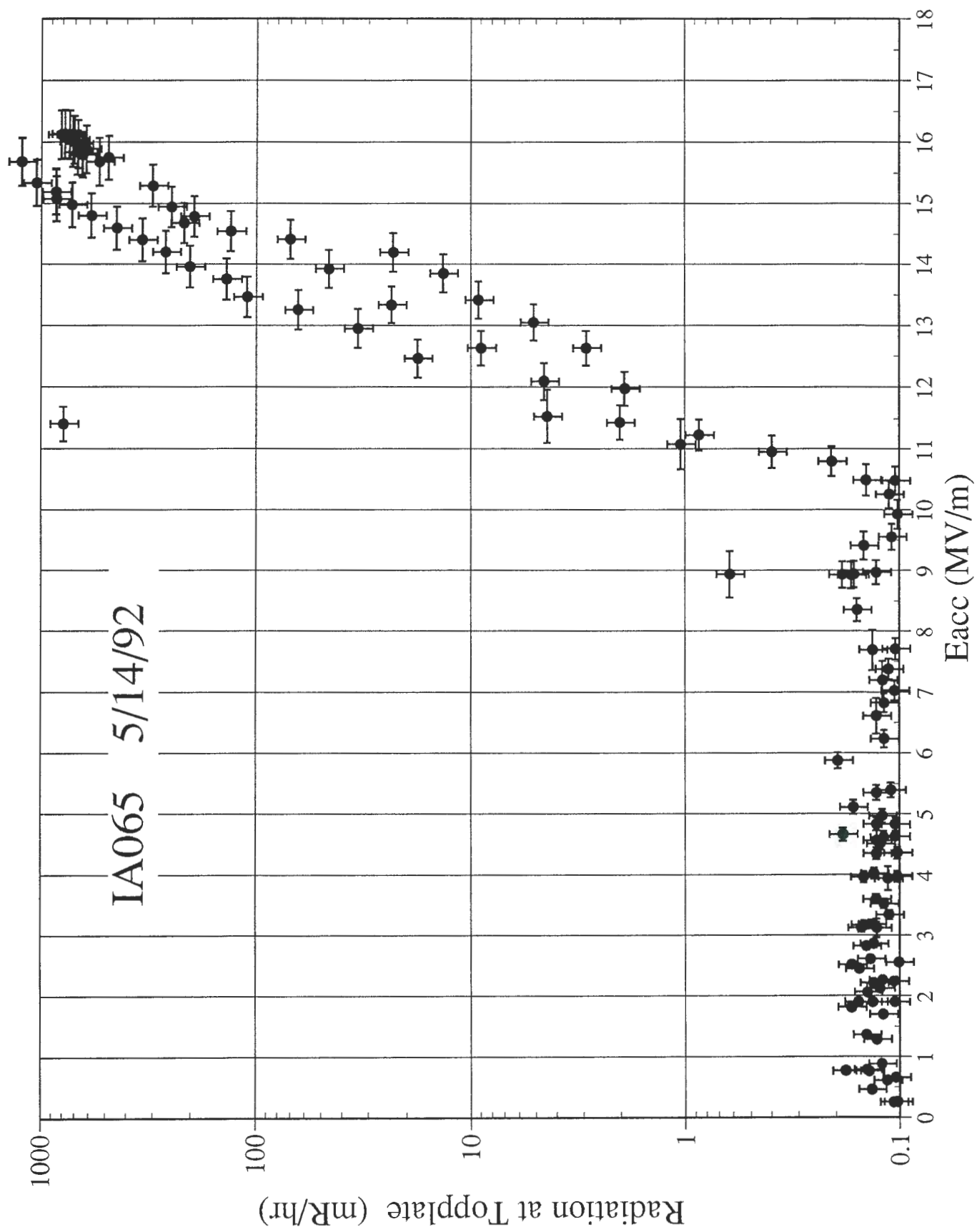


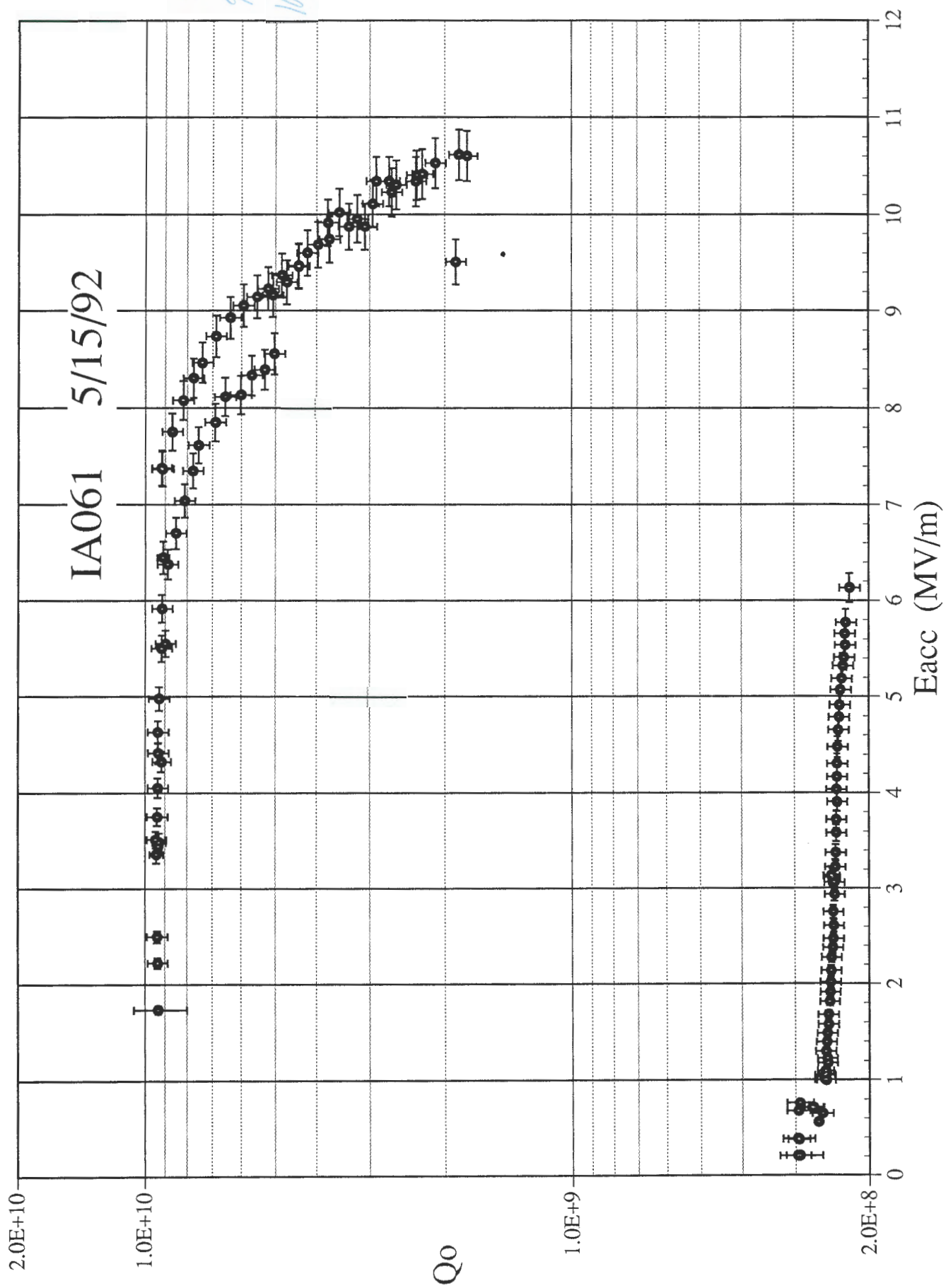


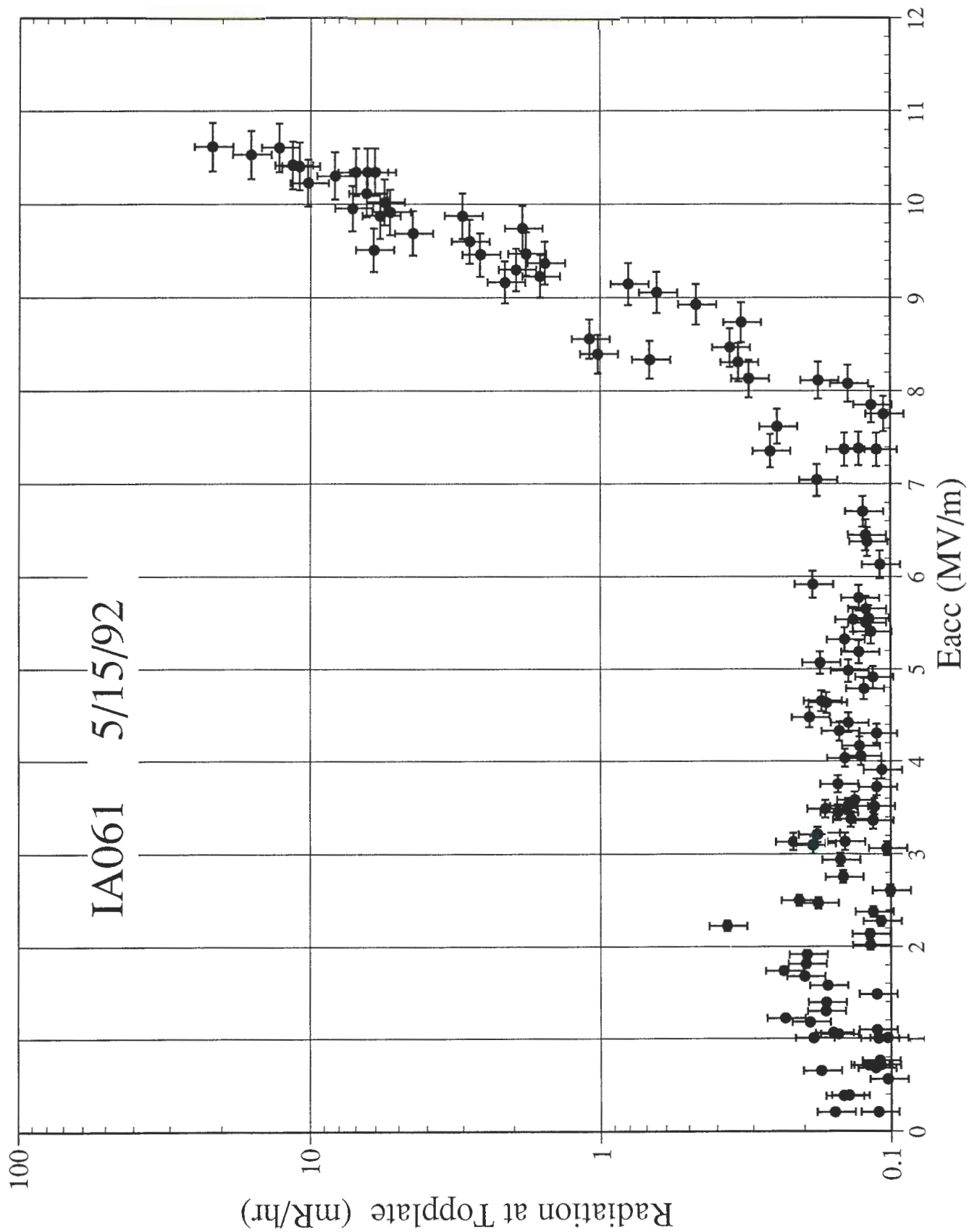


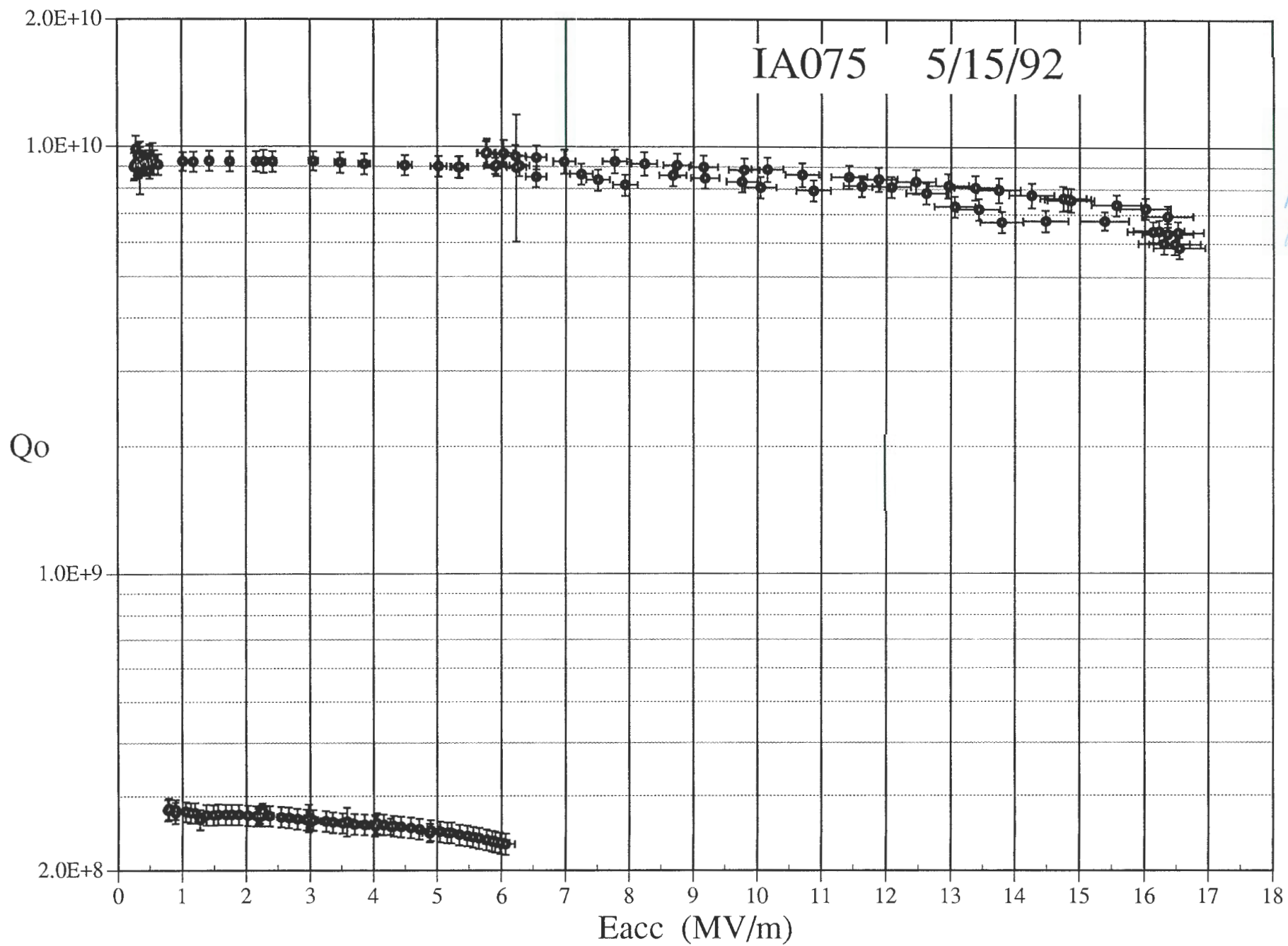


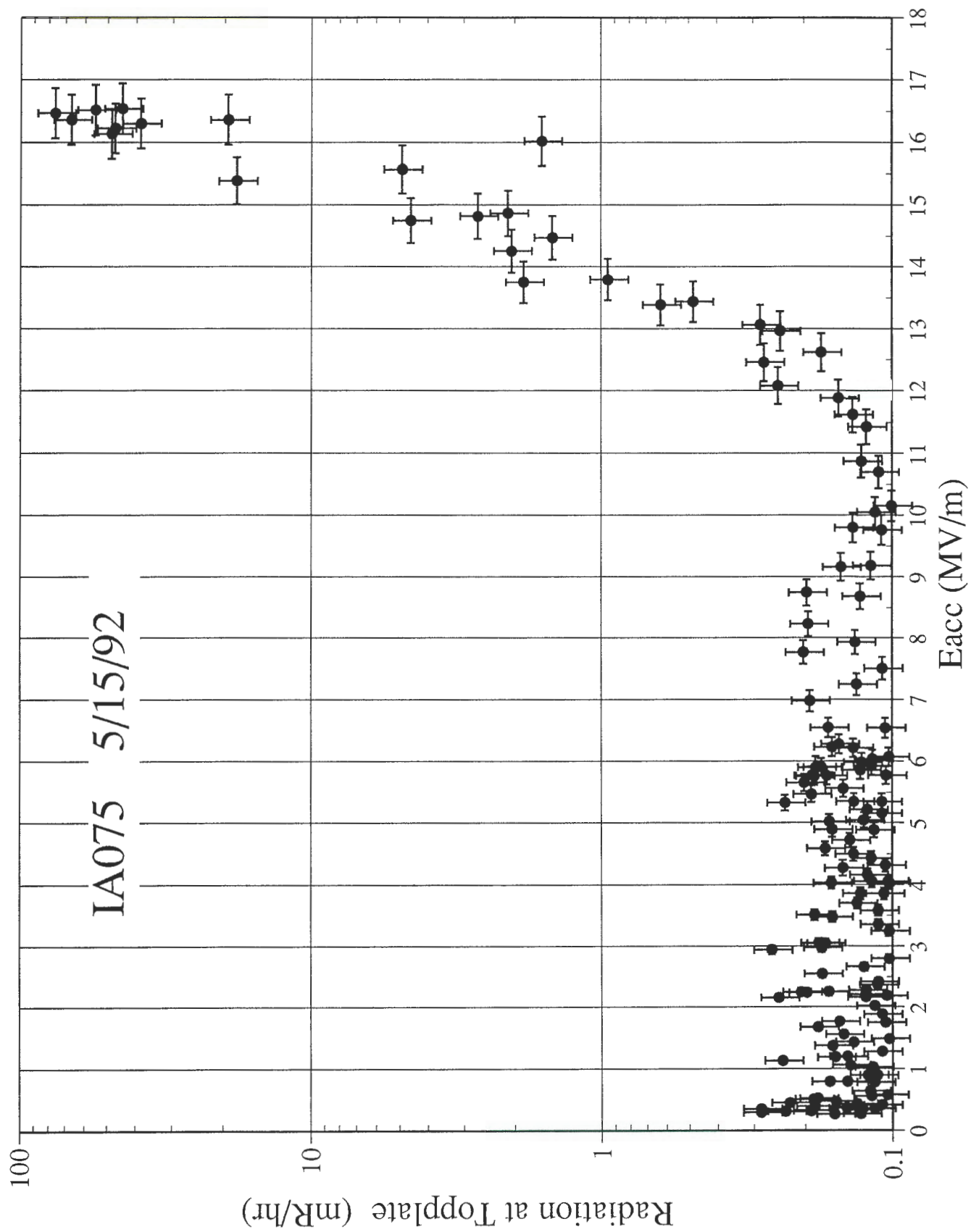
10.5 @ 8 FE
14.2 @ 5 UA
16.1 @ 2.6 K_{sp}

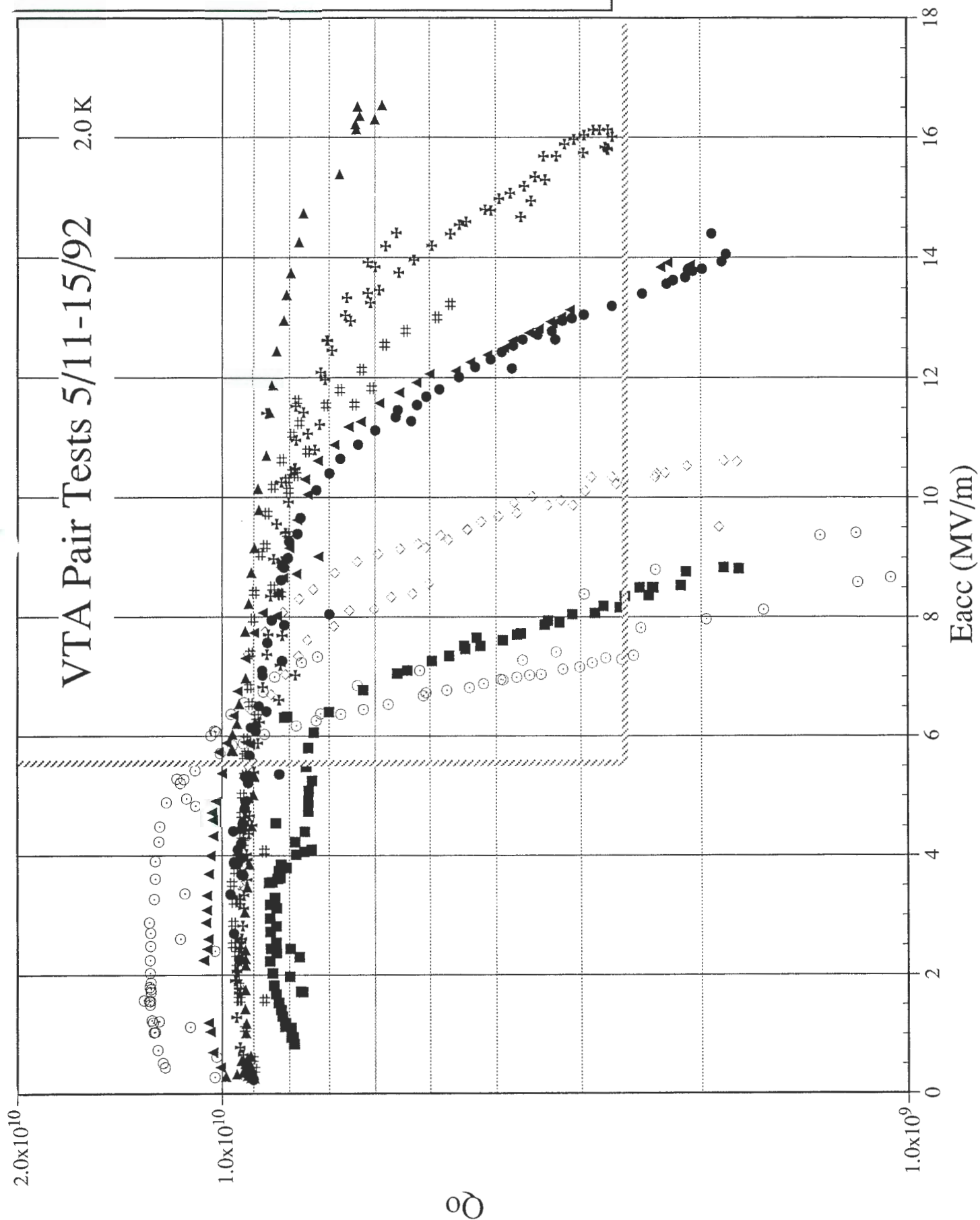


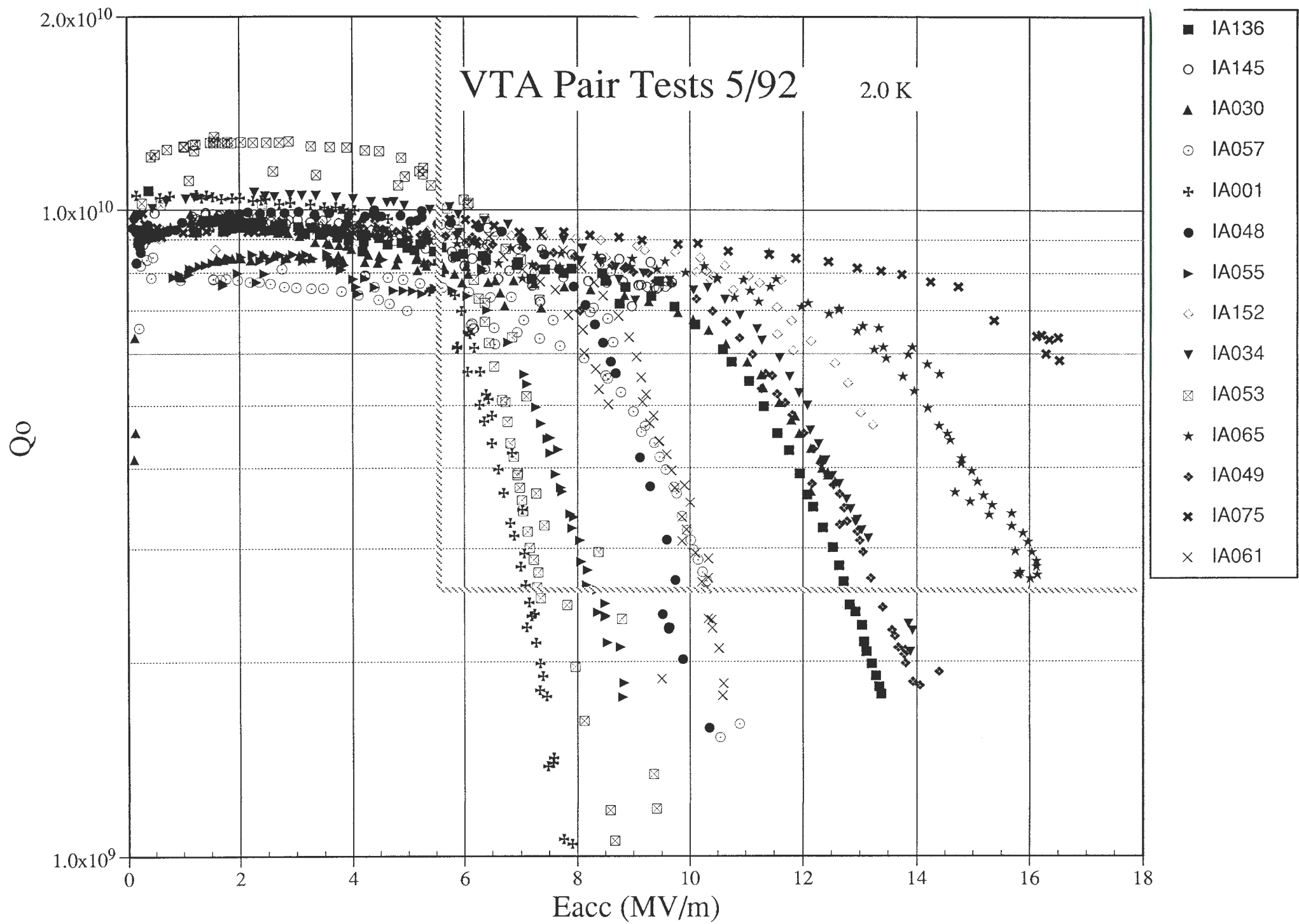


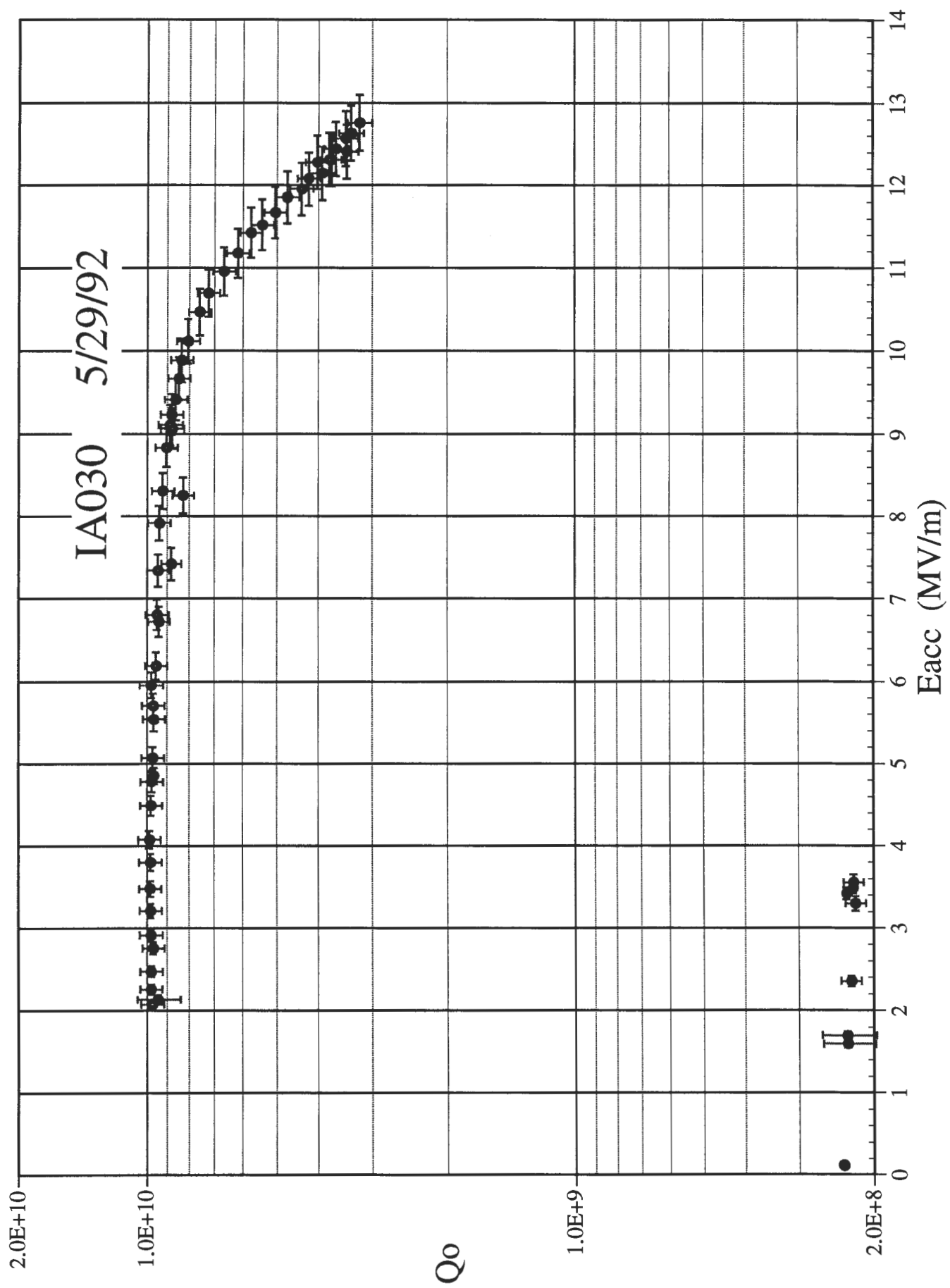


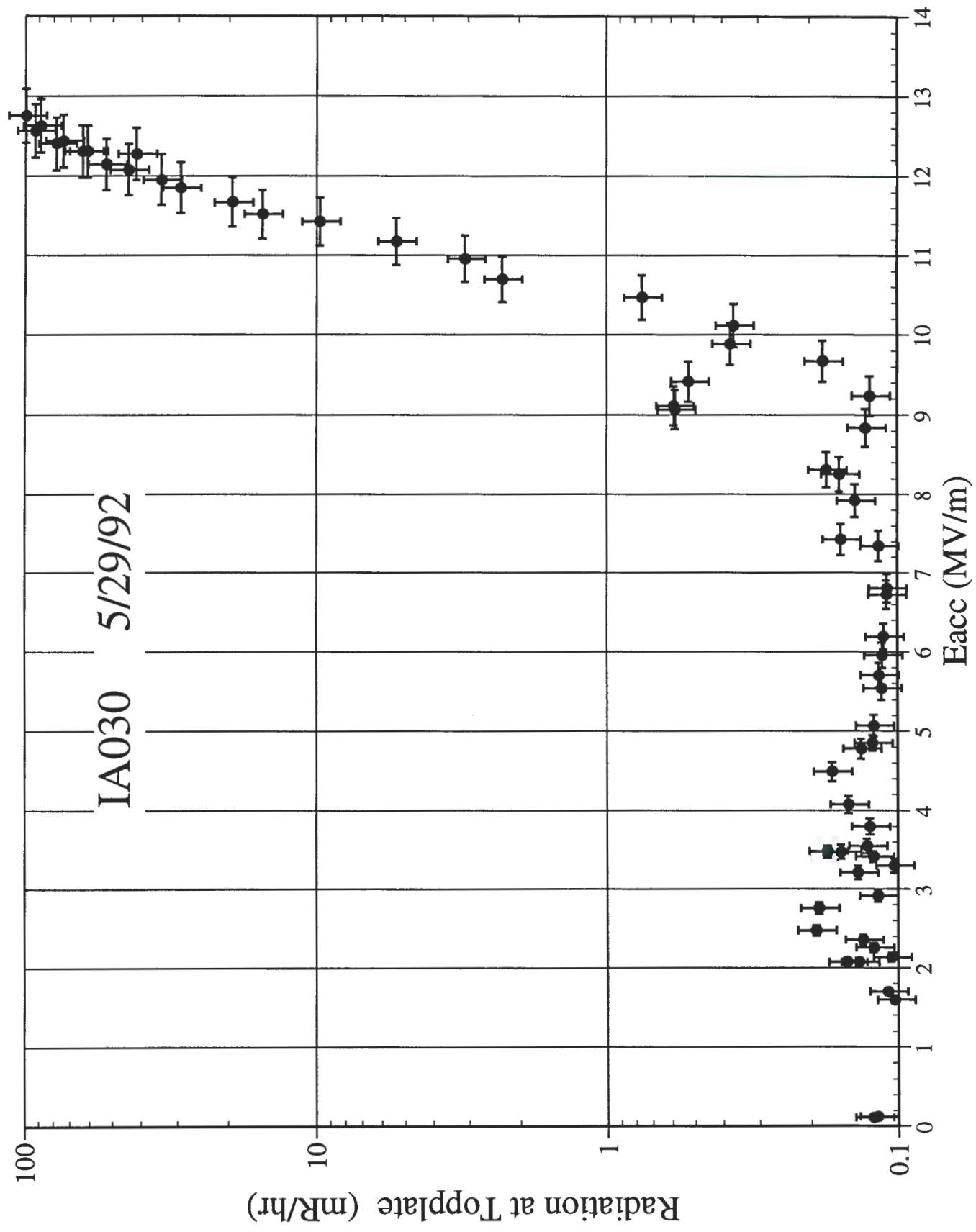


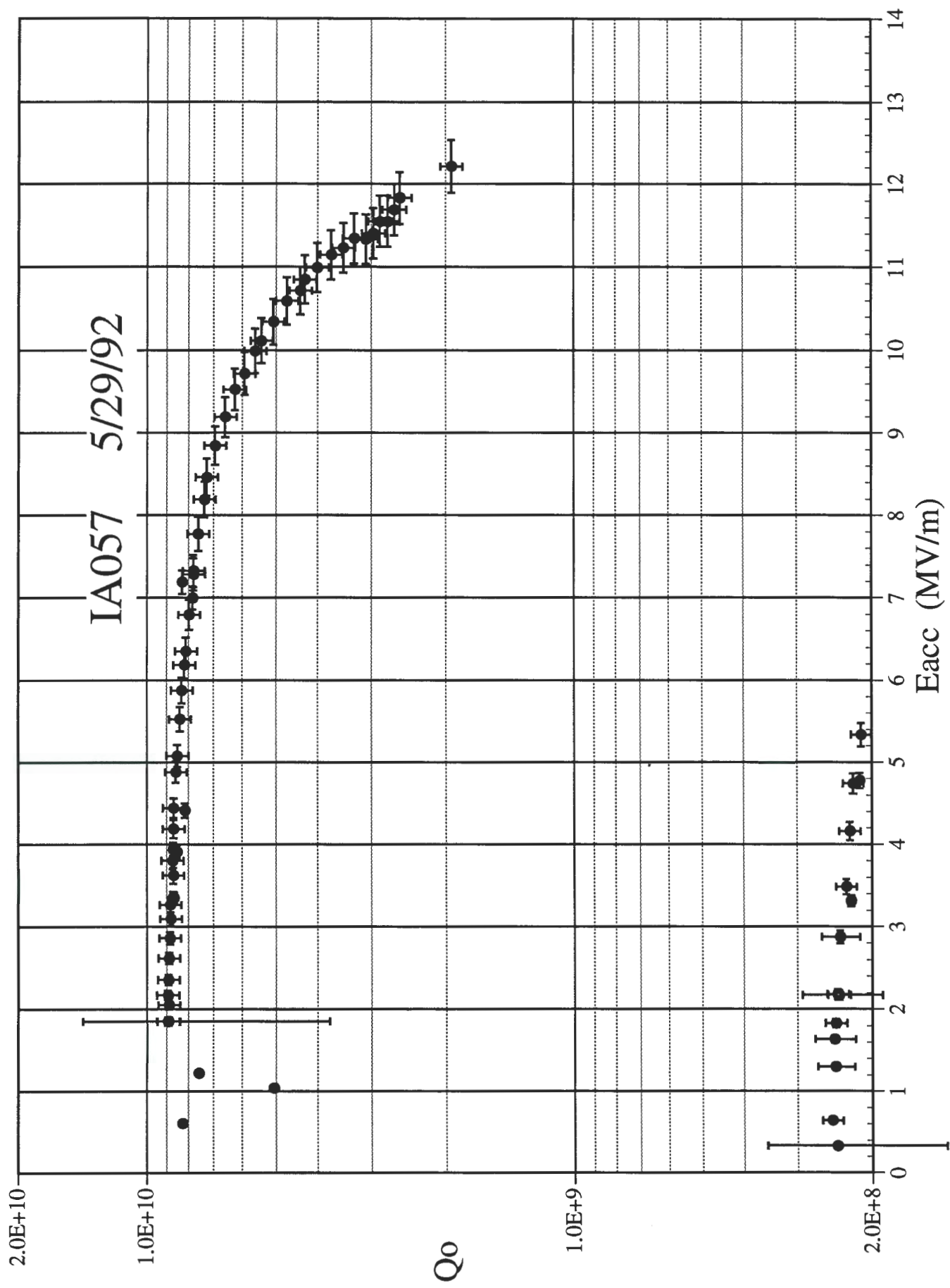


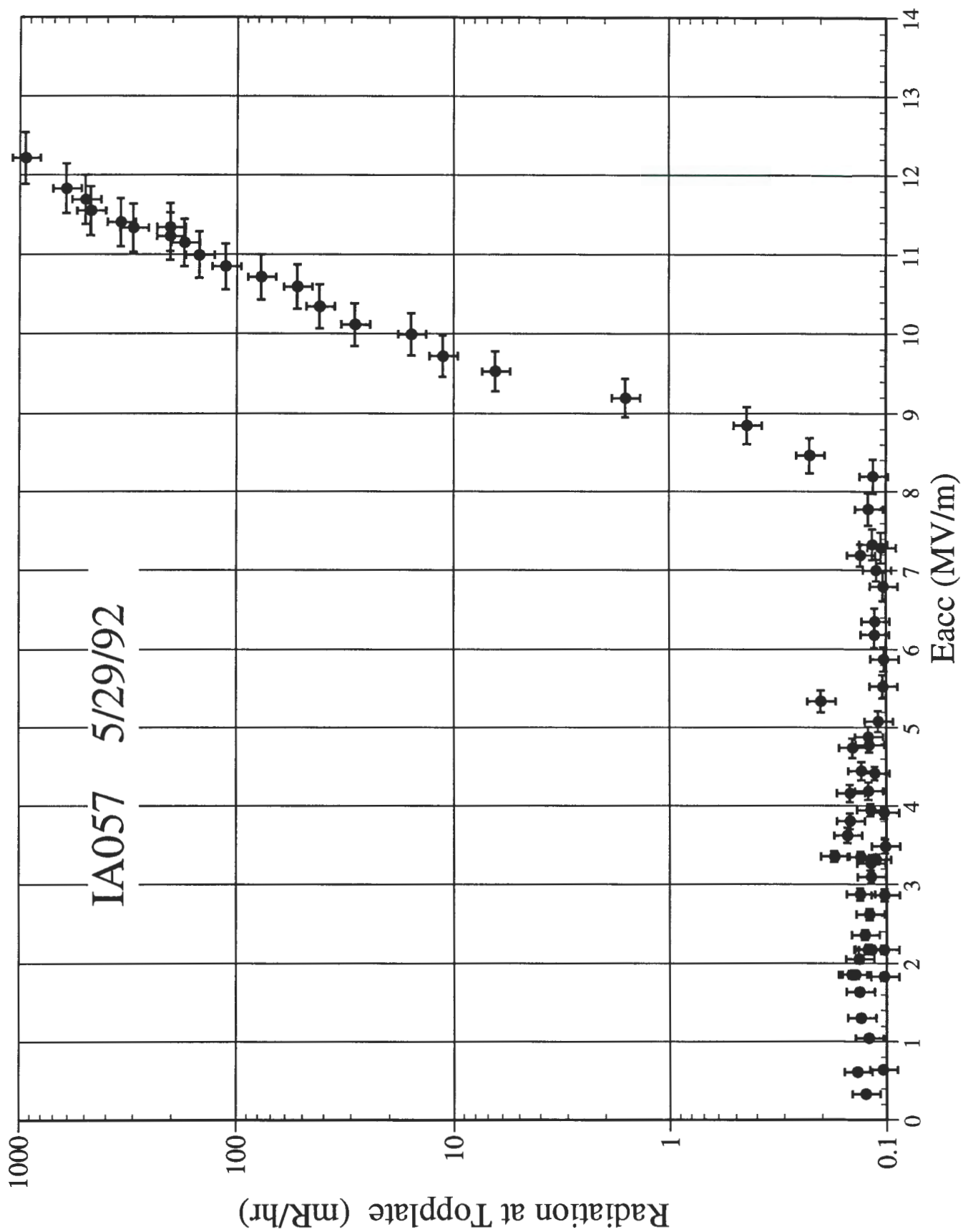


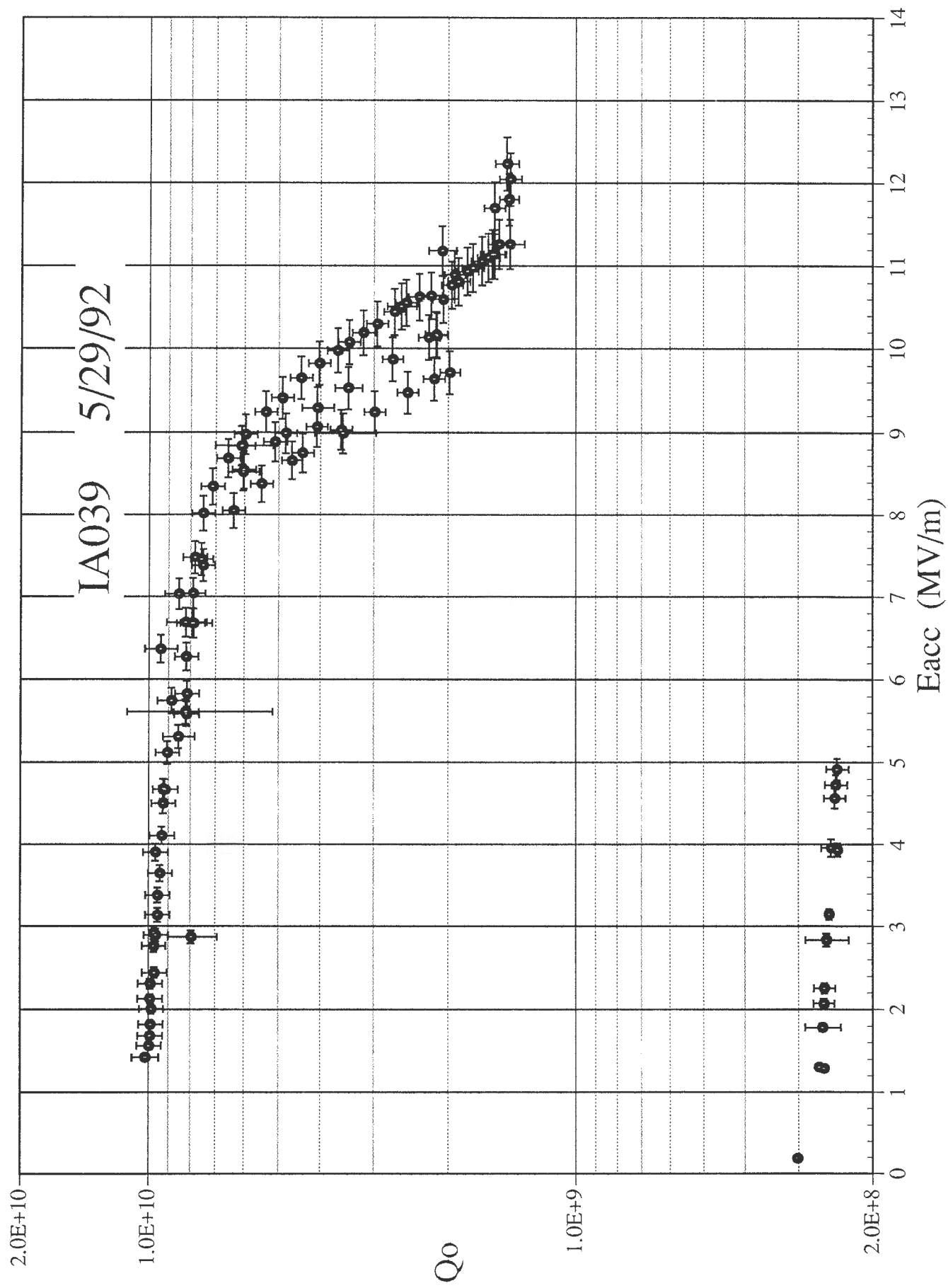


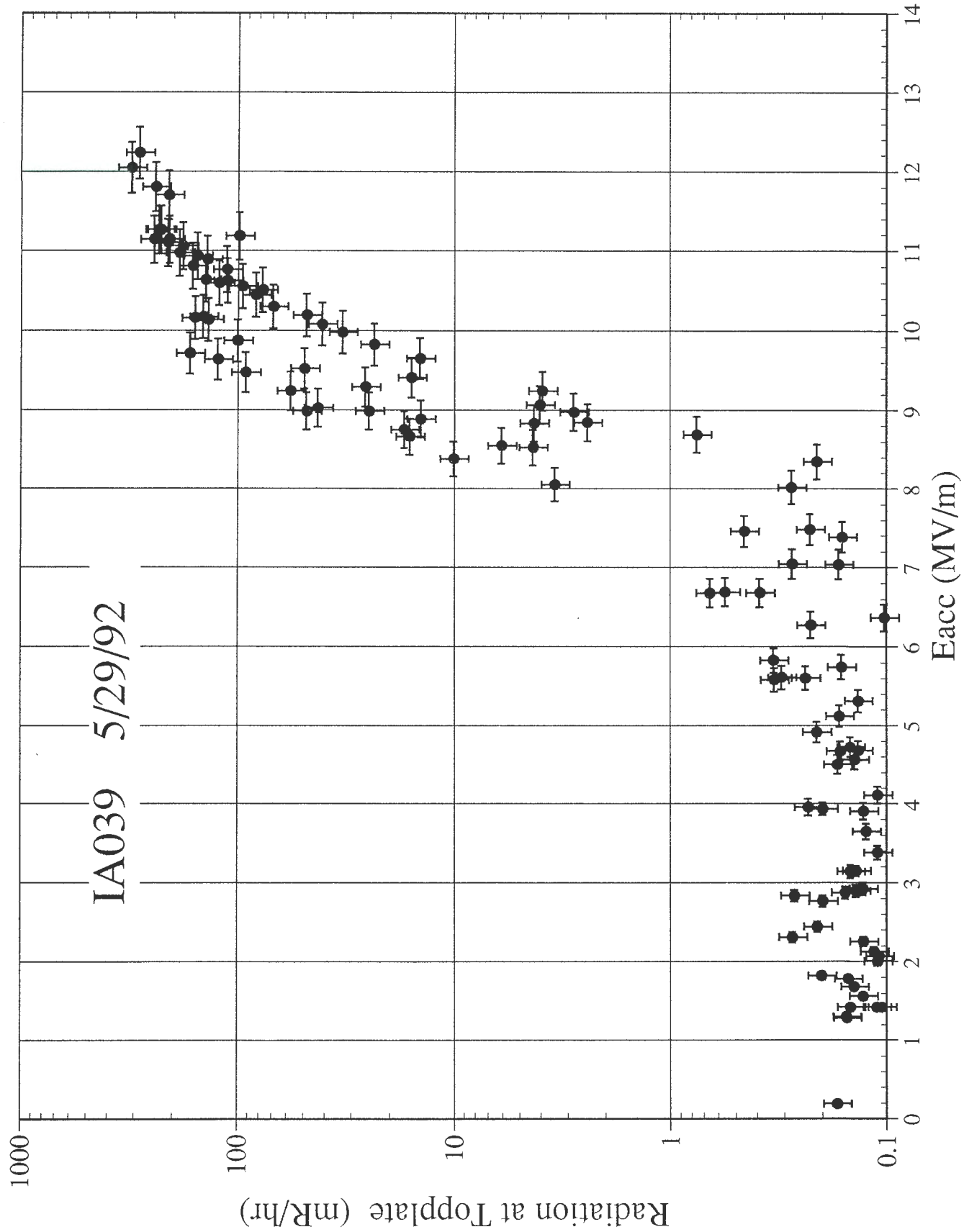


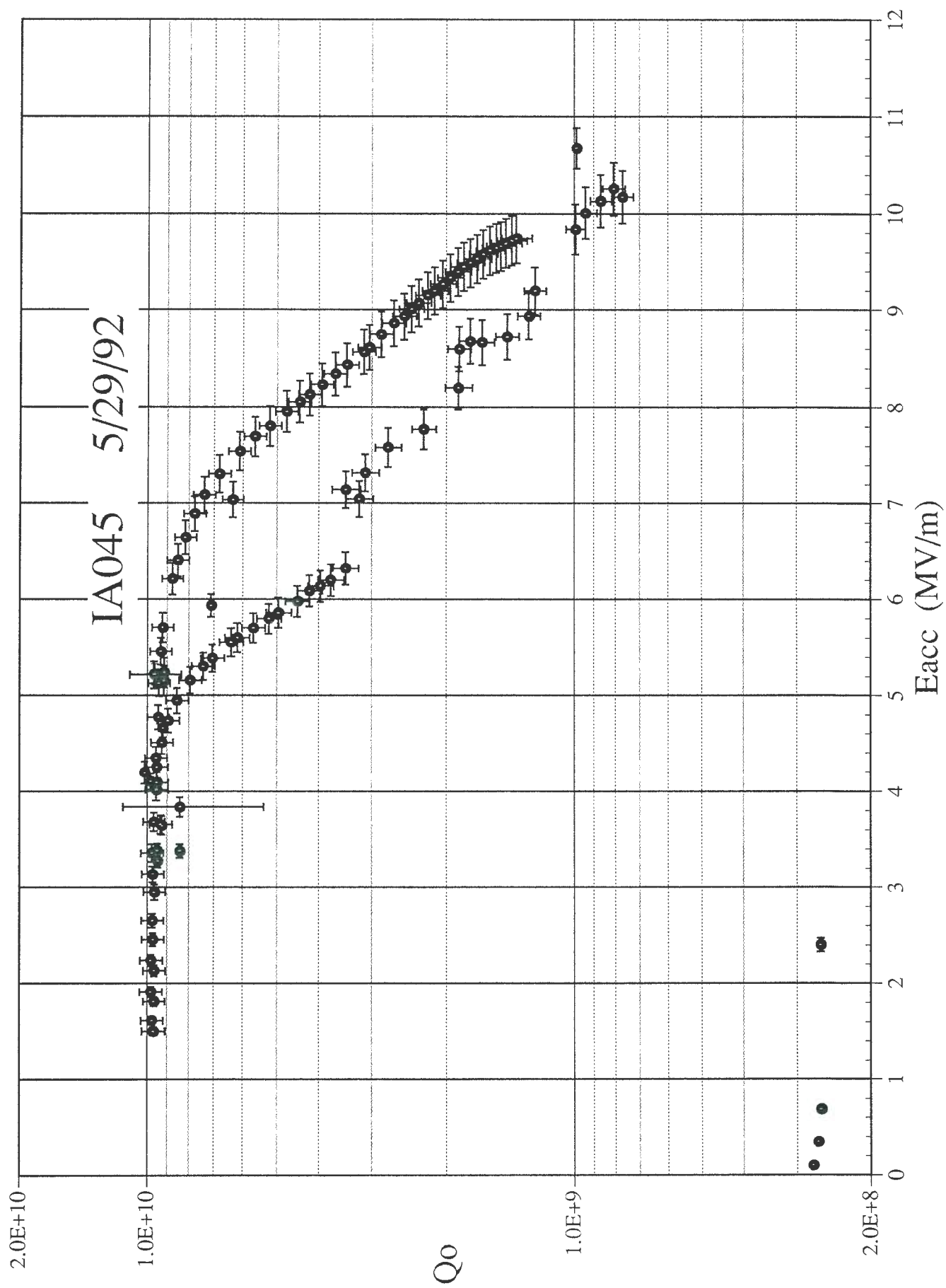


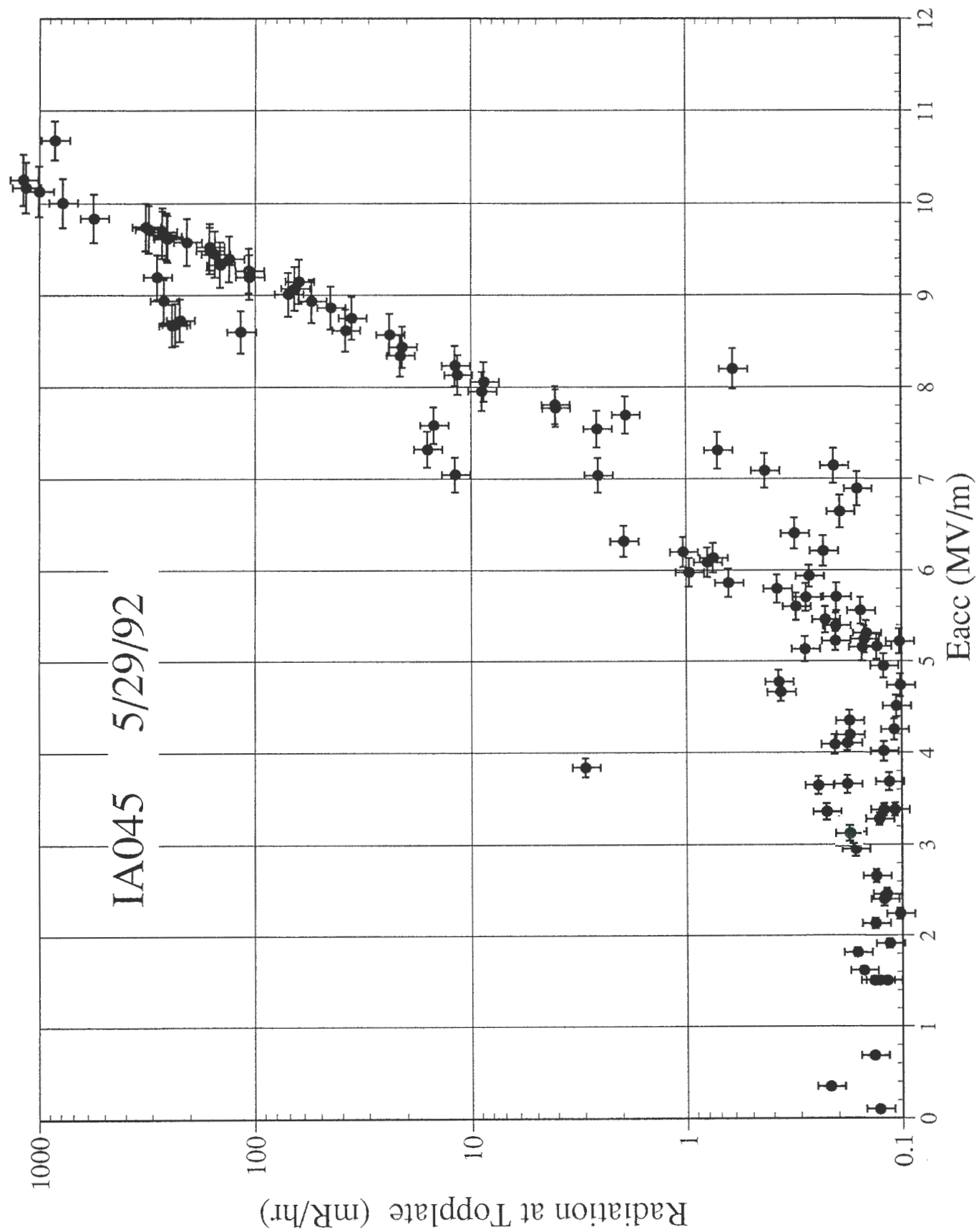


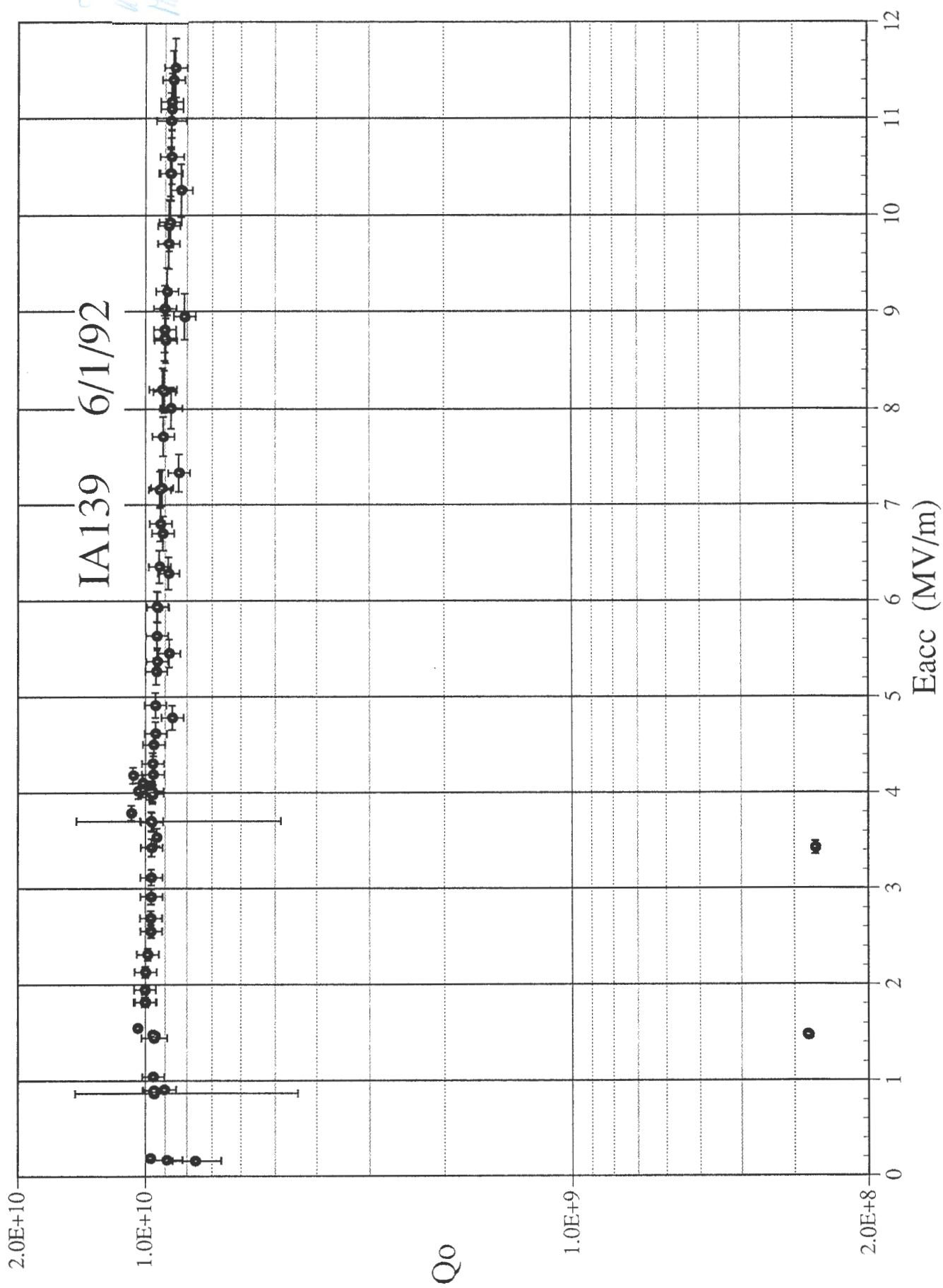




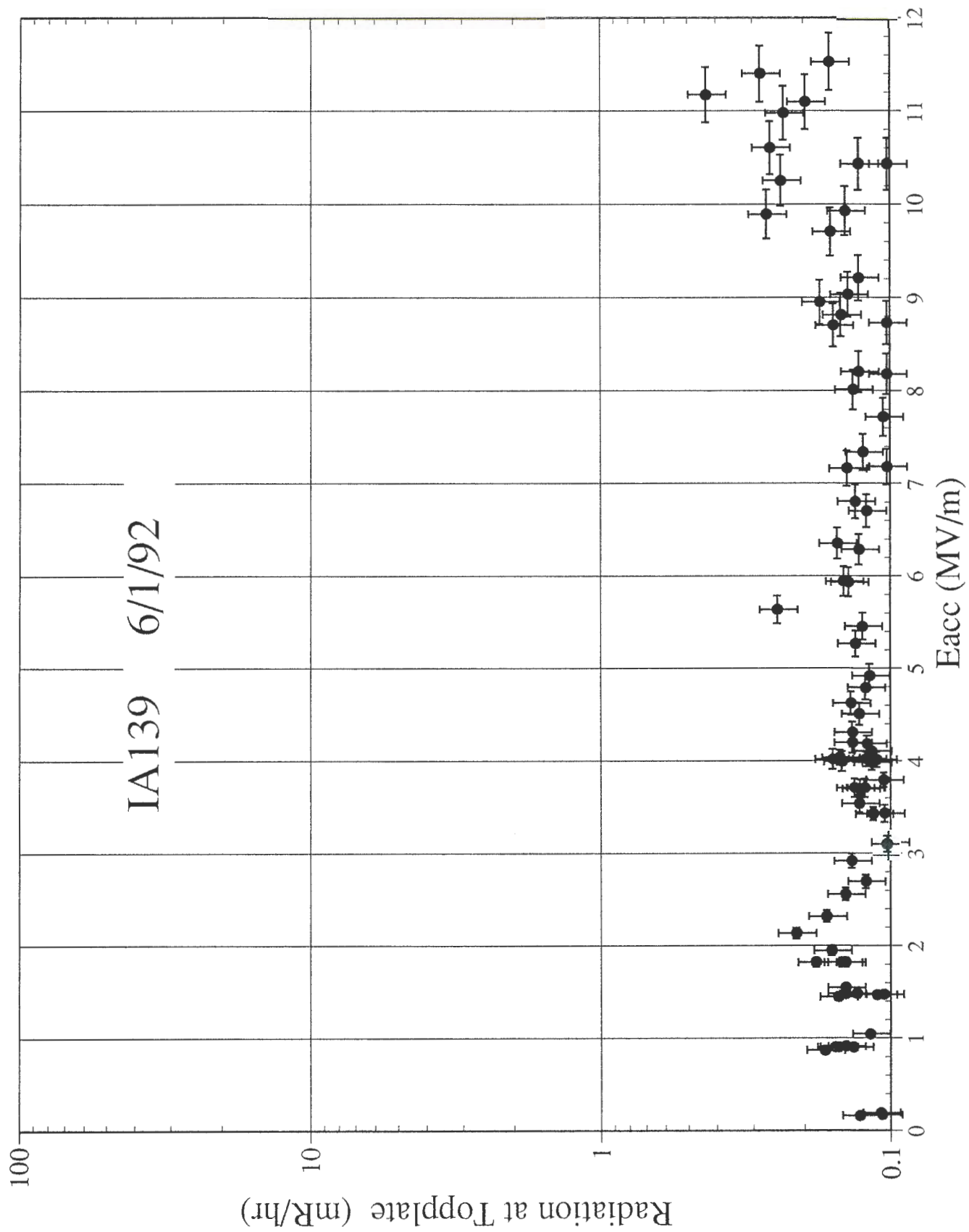


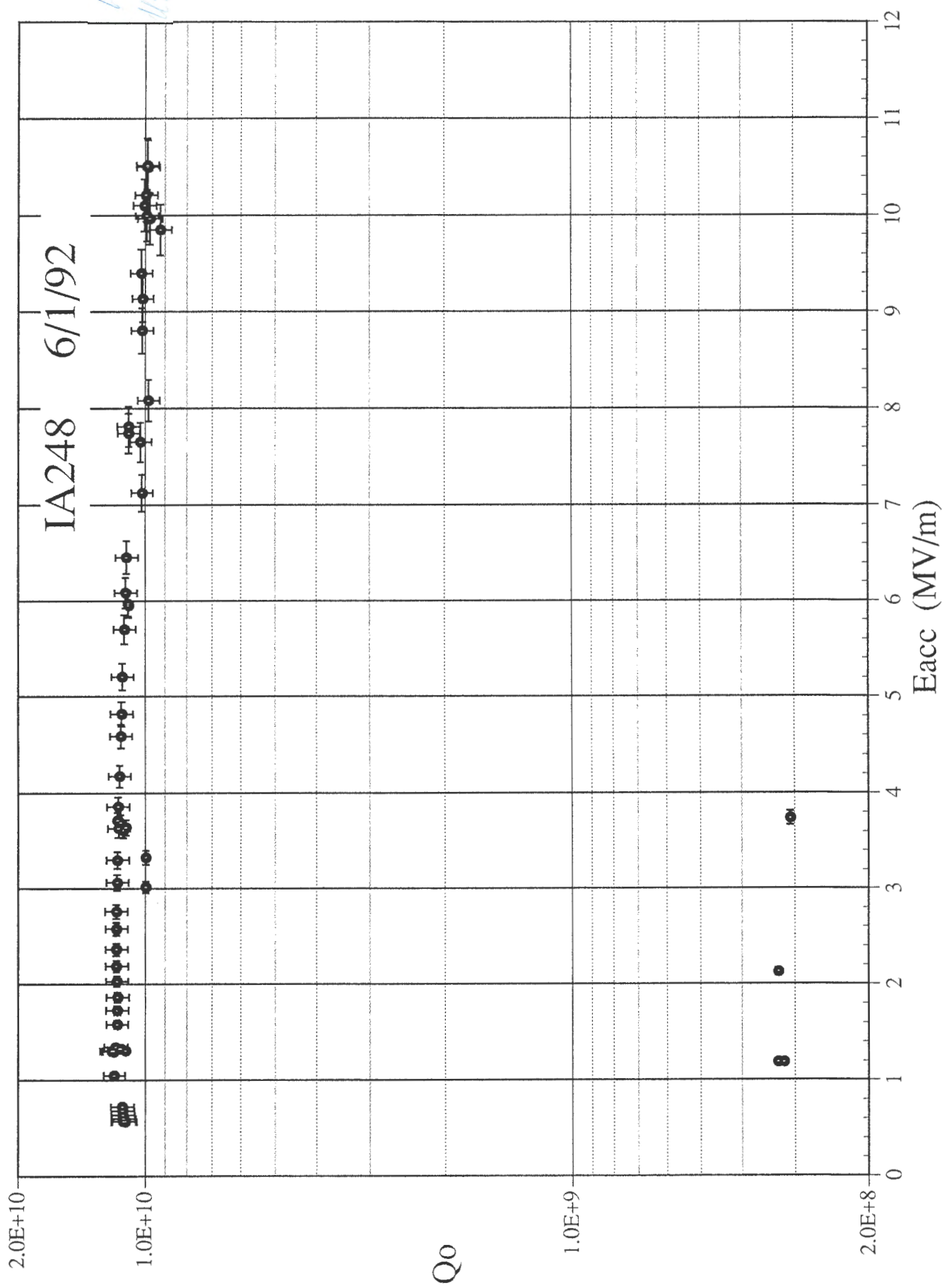


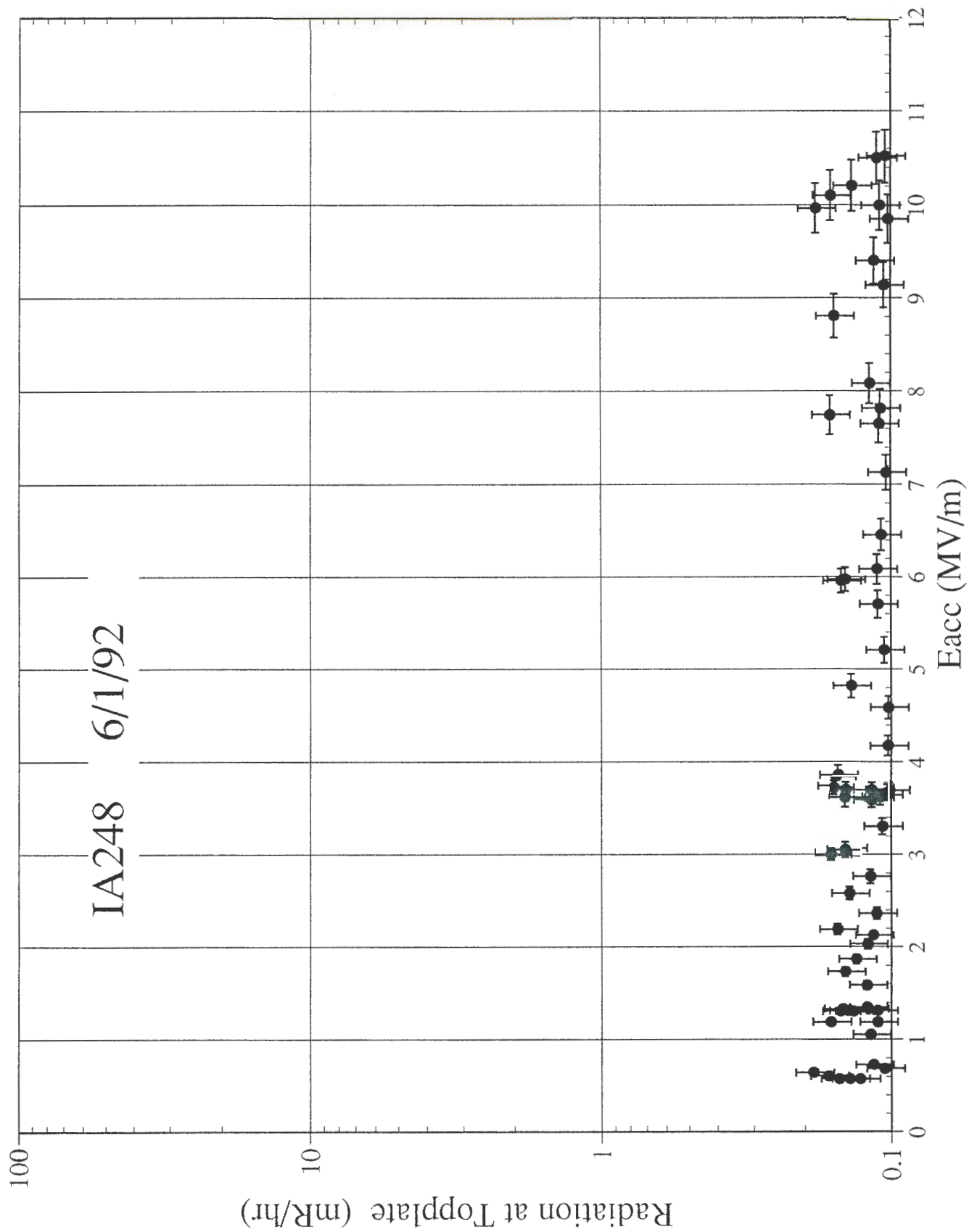


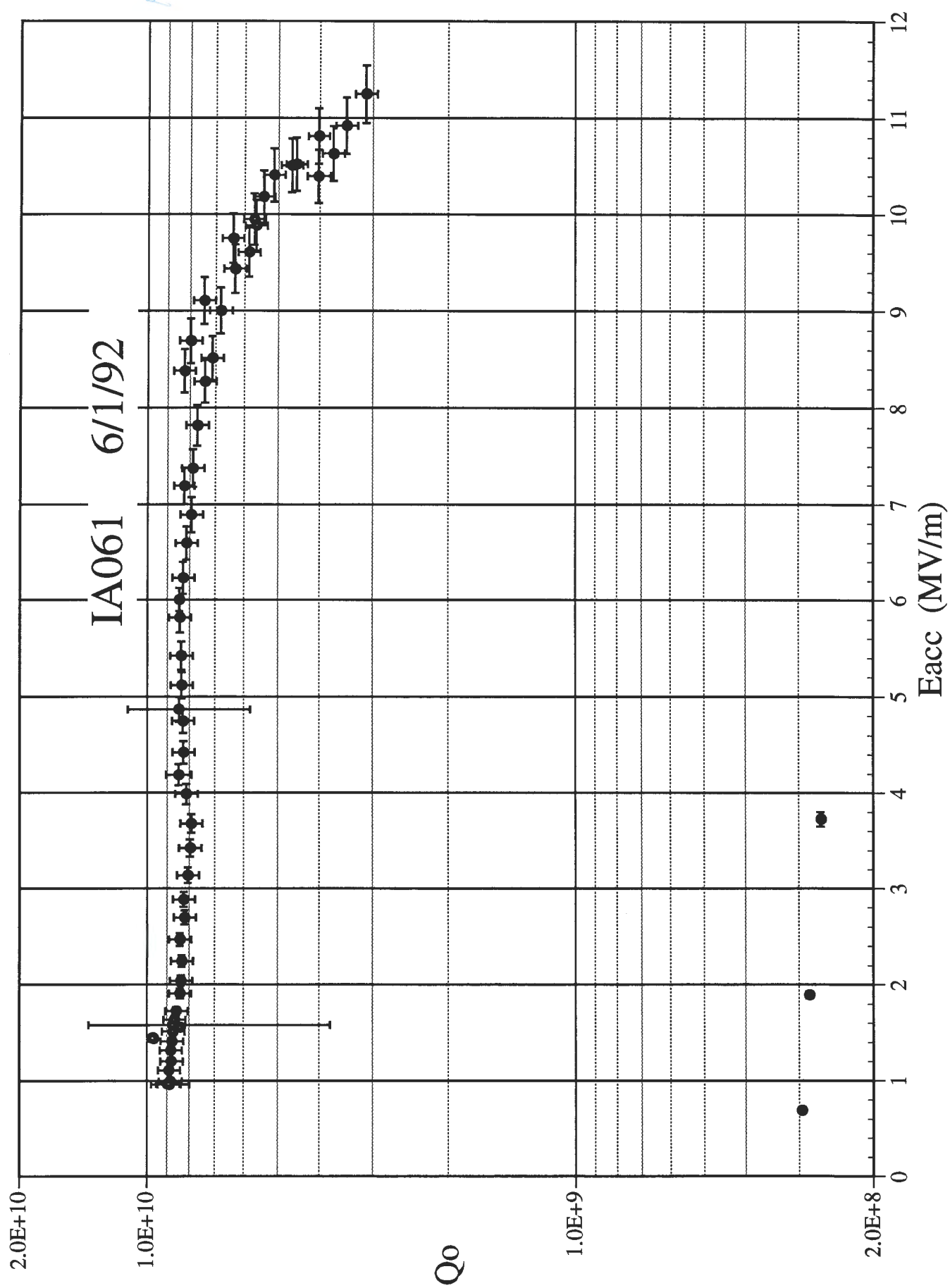


$\sigma = 11.50\%$
 $\mu = 10.50\%$
 $\mu = 11.50\%$

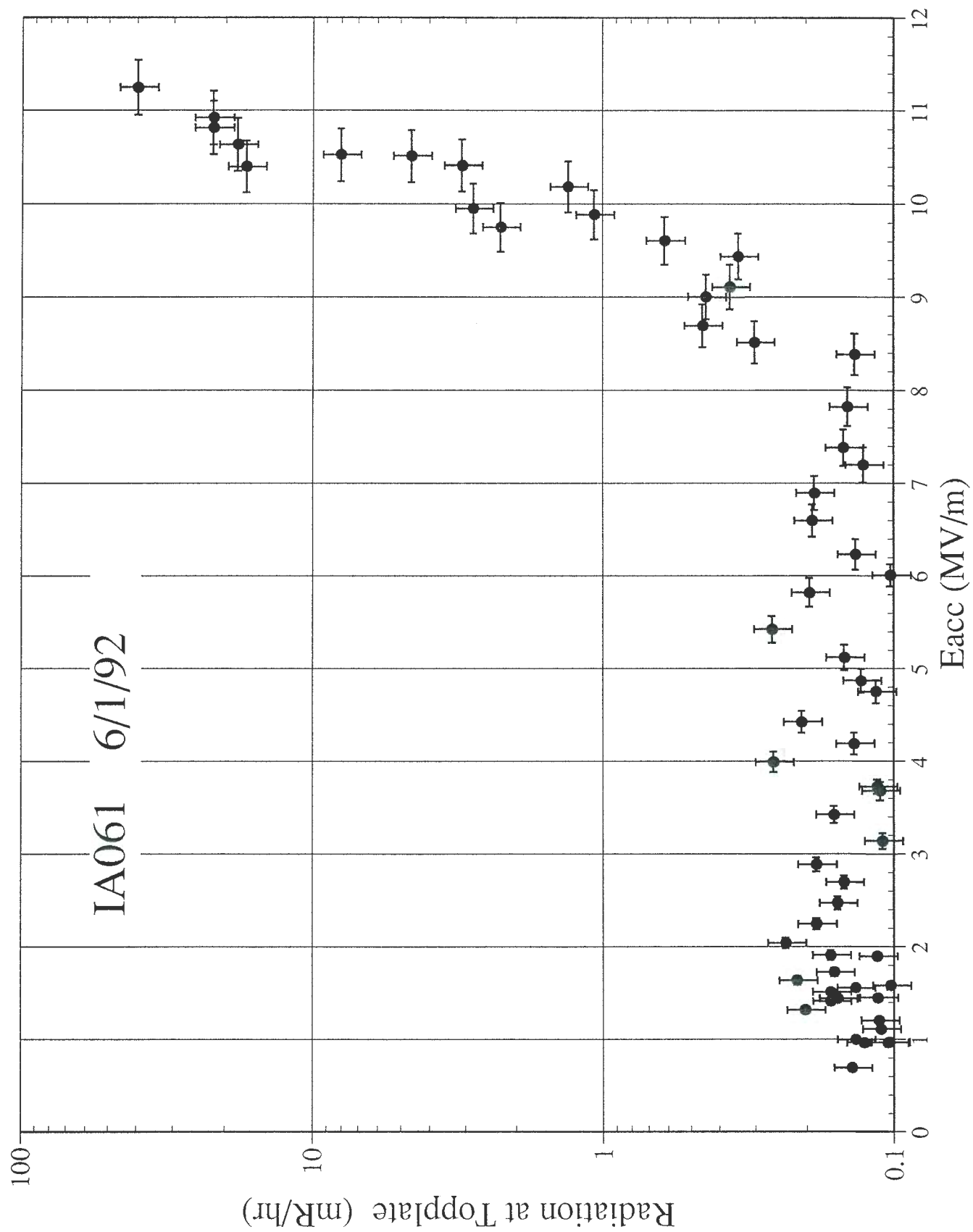


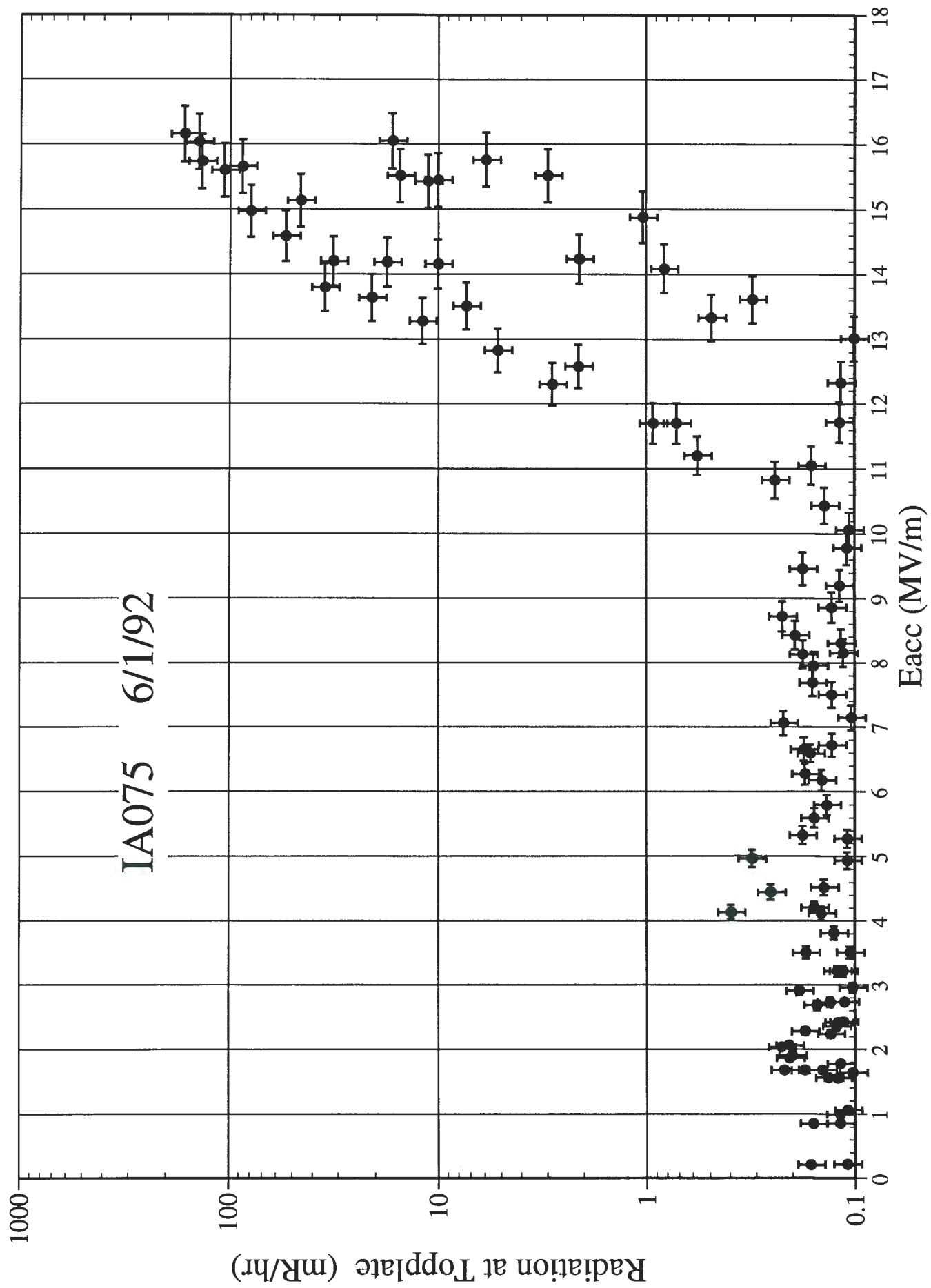


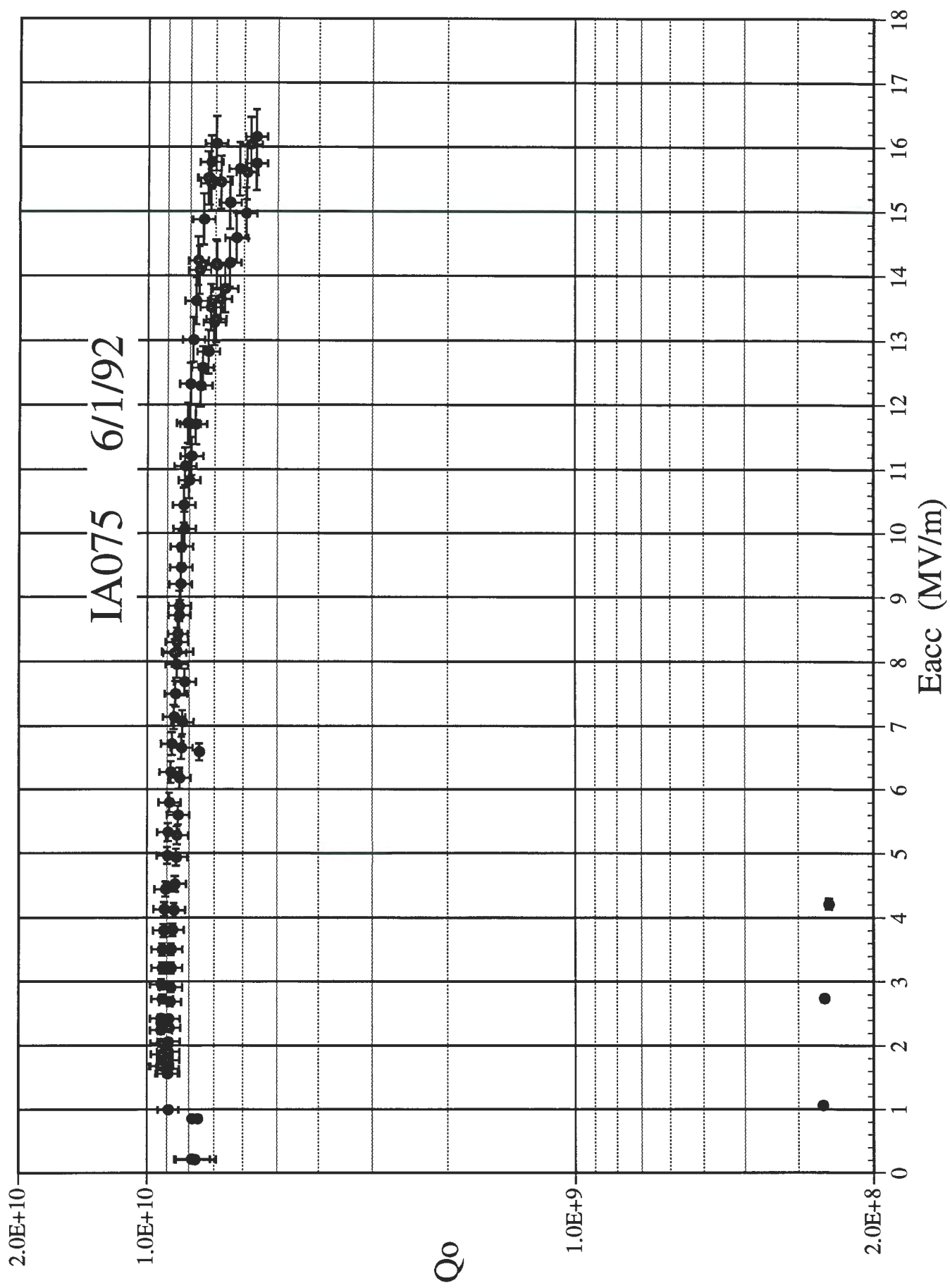




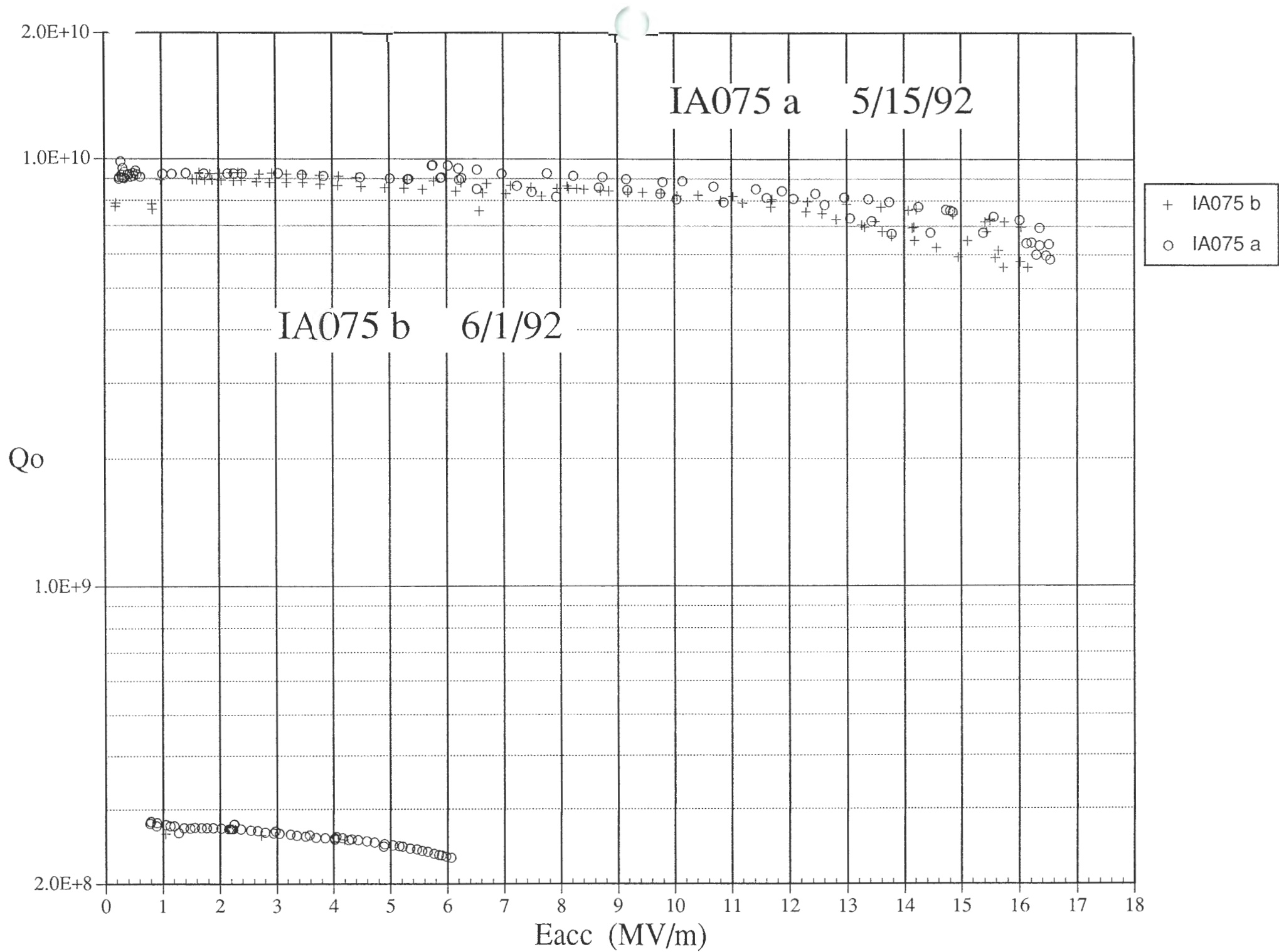
FE 8.40 9.1
10.9 0 4.7
11.2 0 3.1

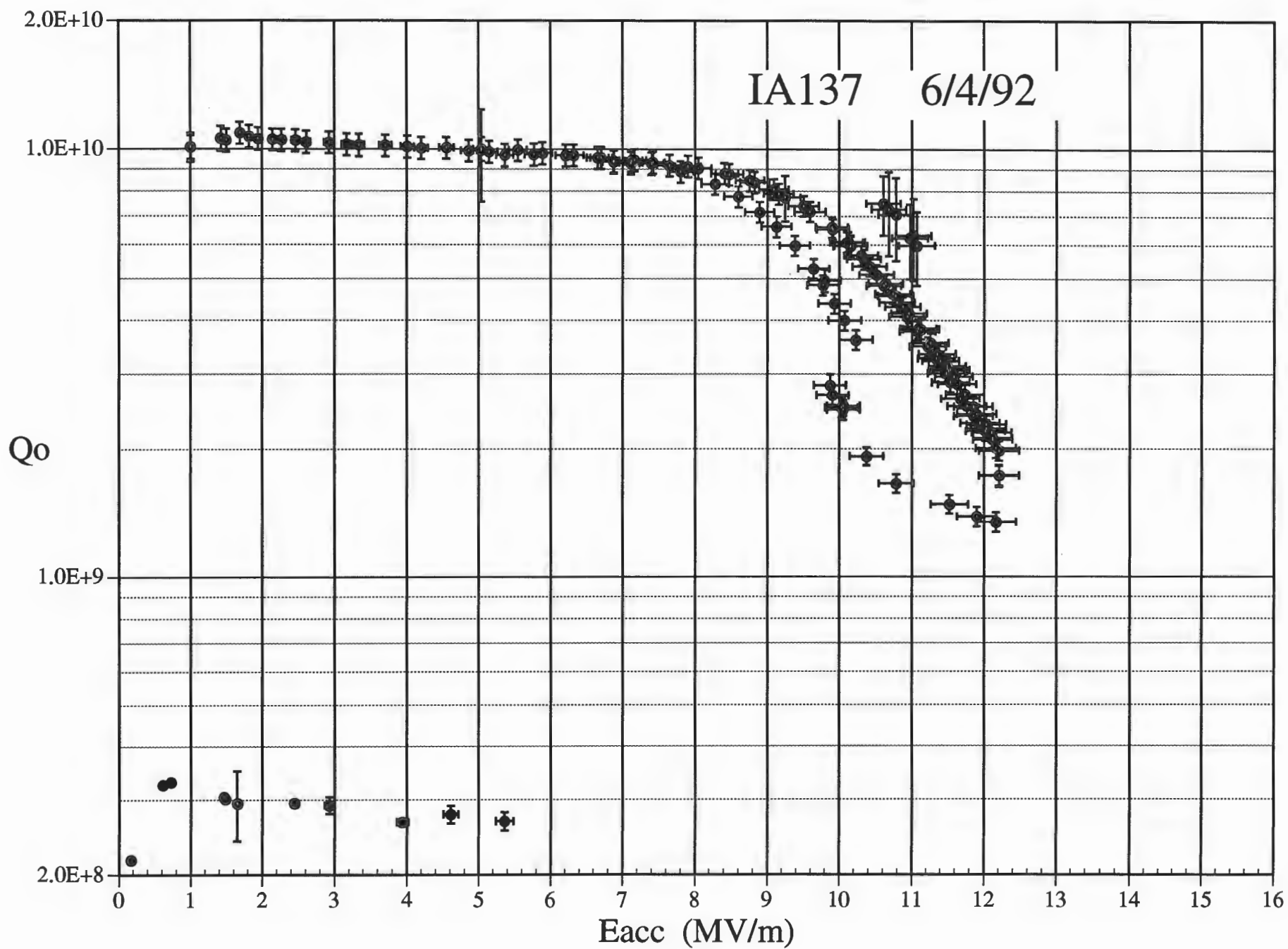






15.2, 7.2
14.2, 7



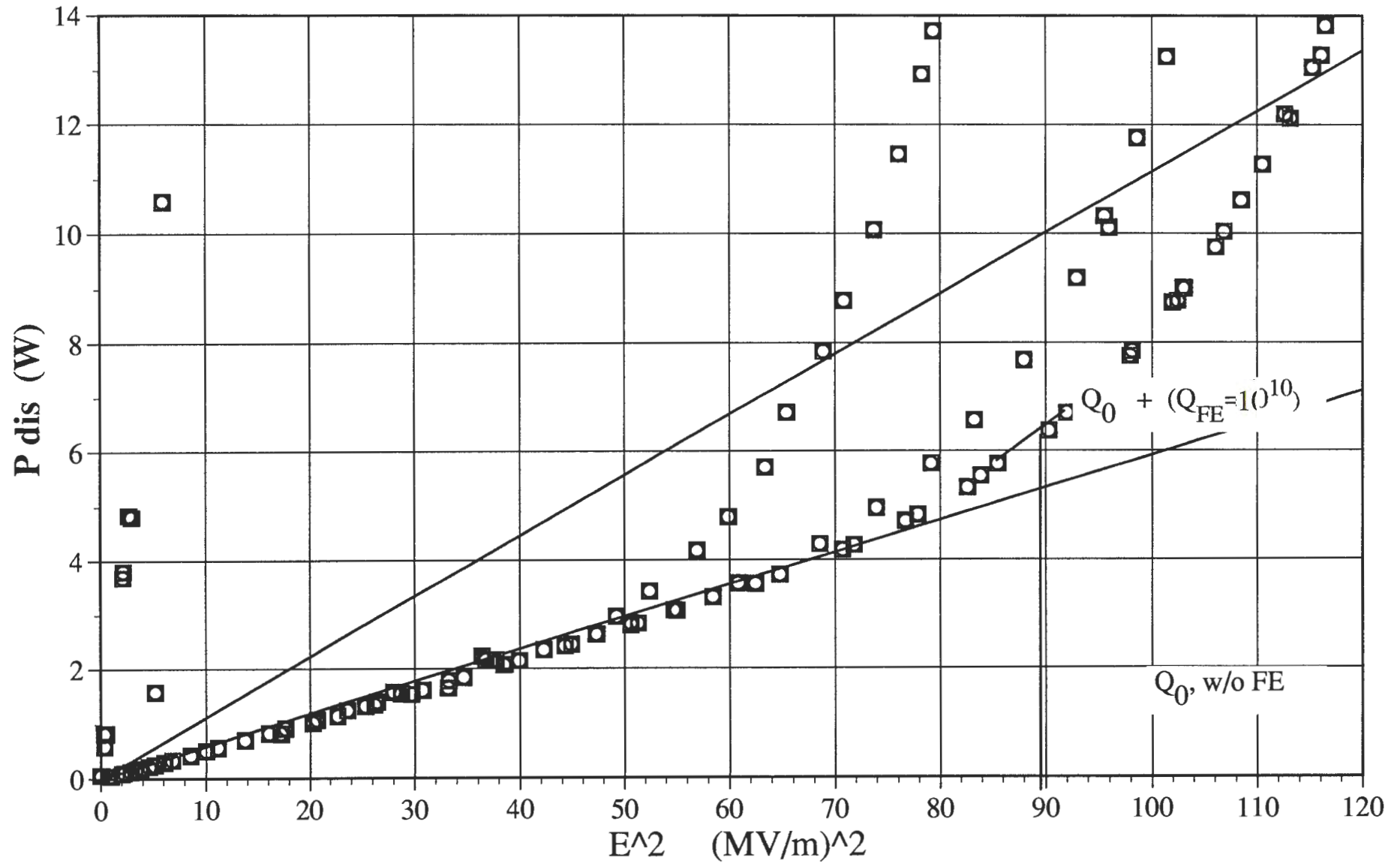


409

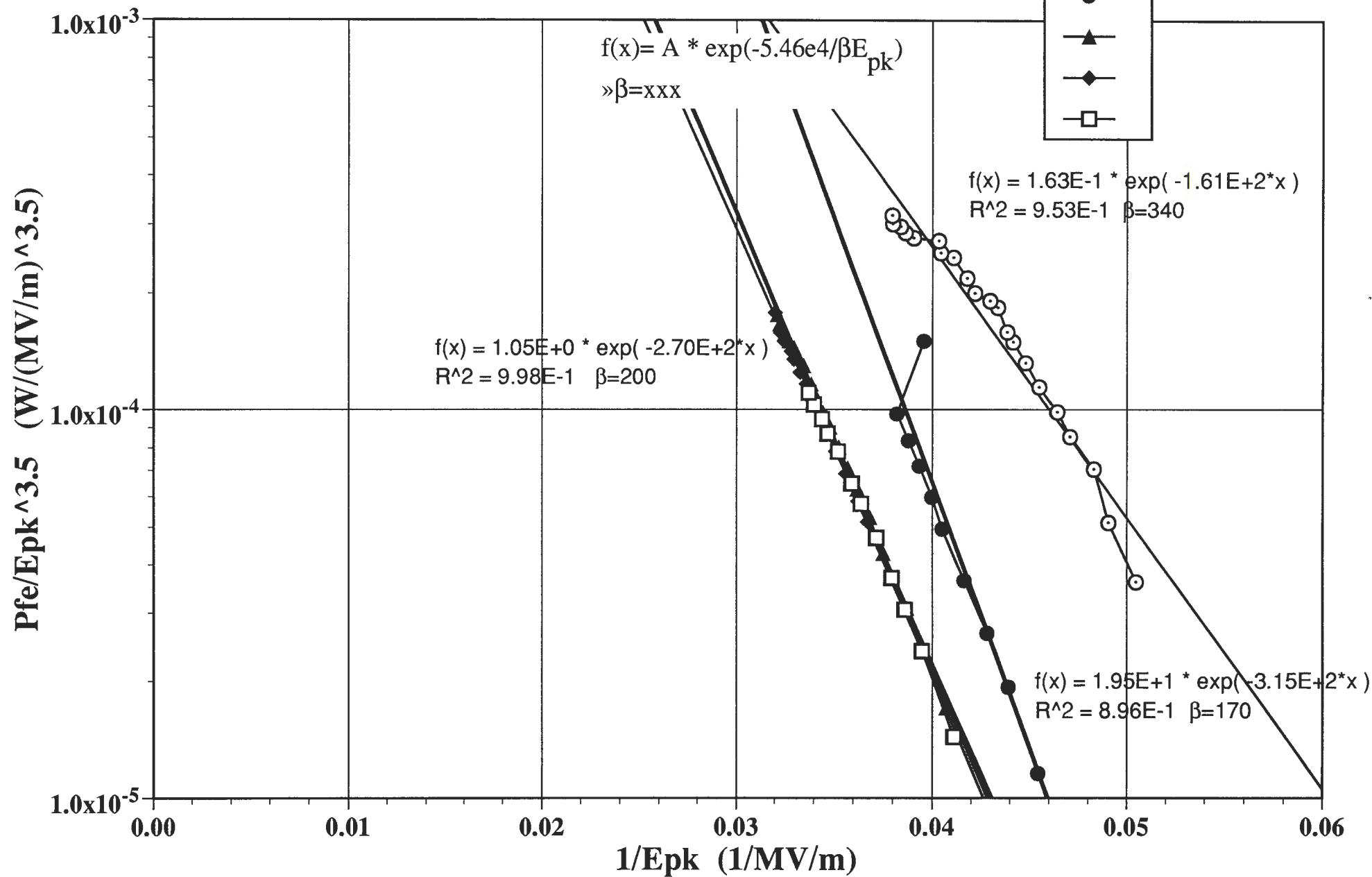
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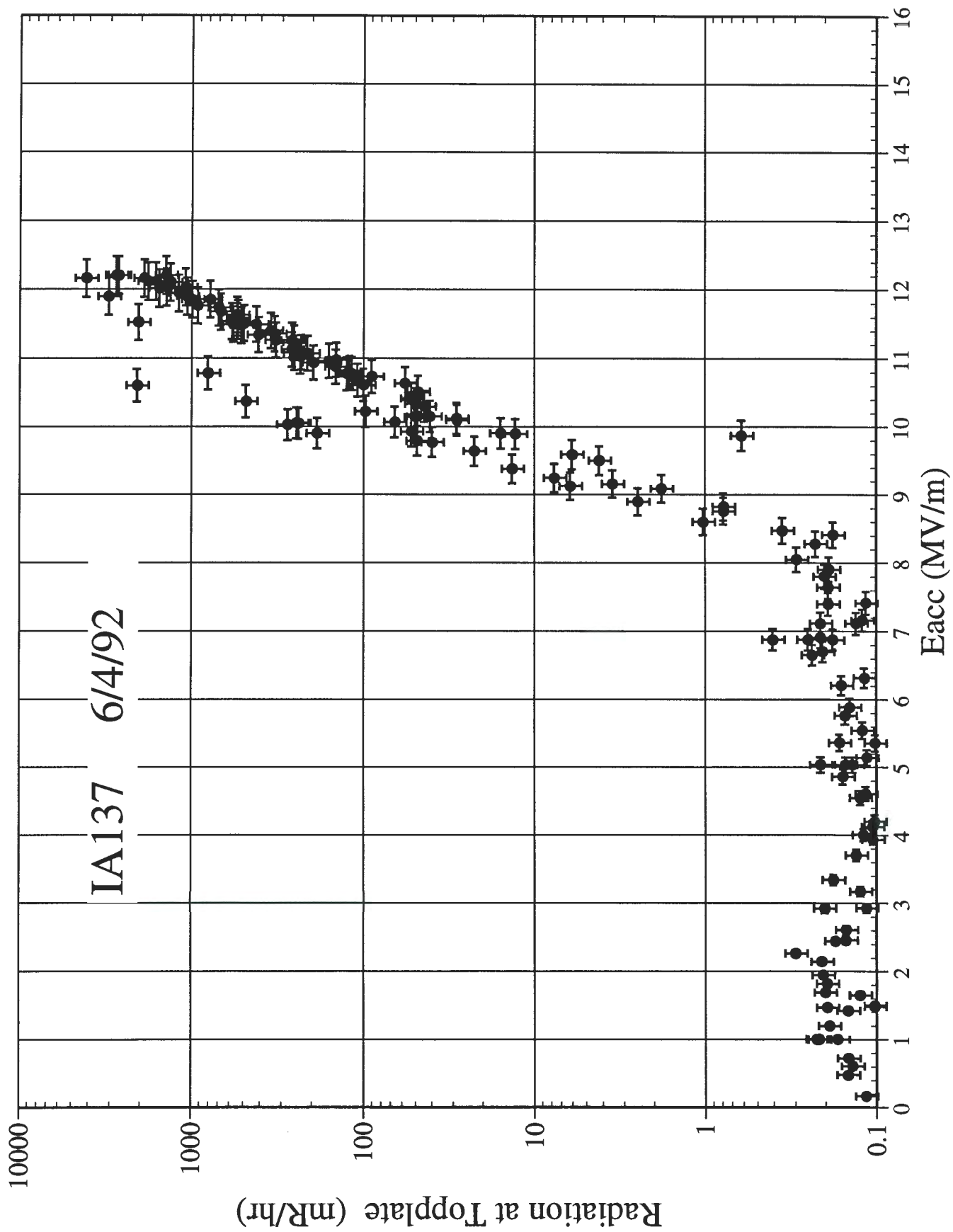
11.902.4

IA137 6/4/92

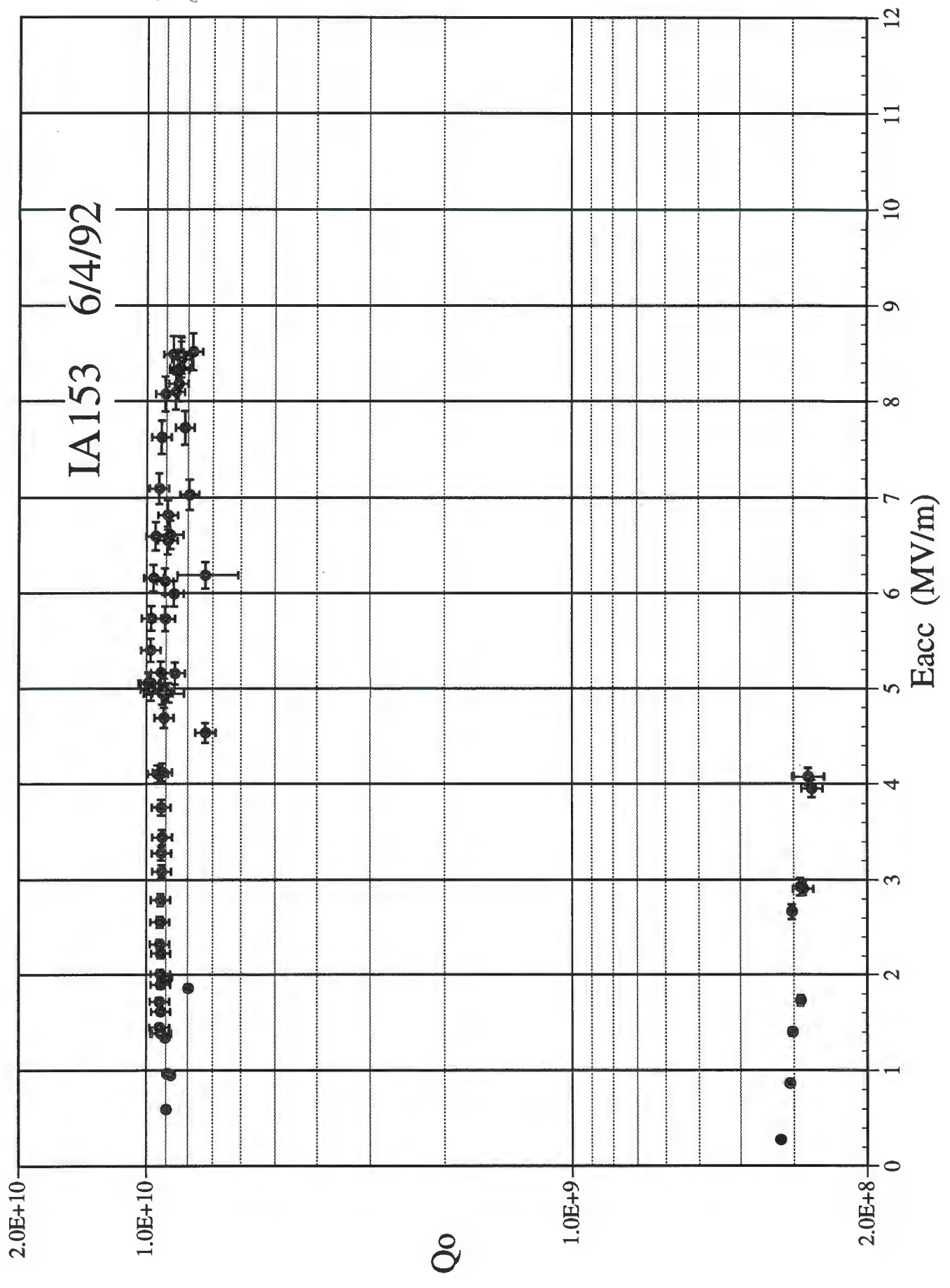


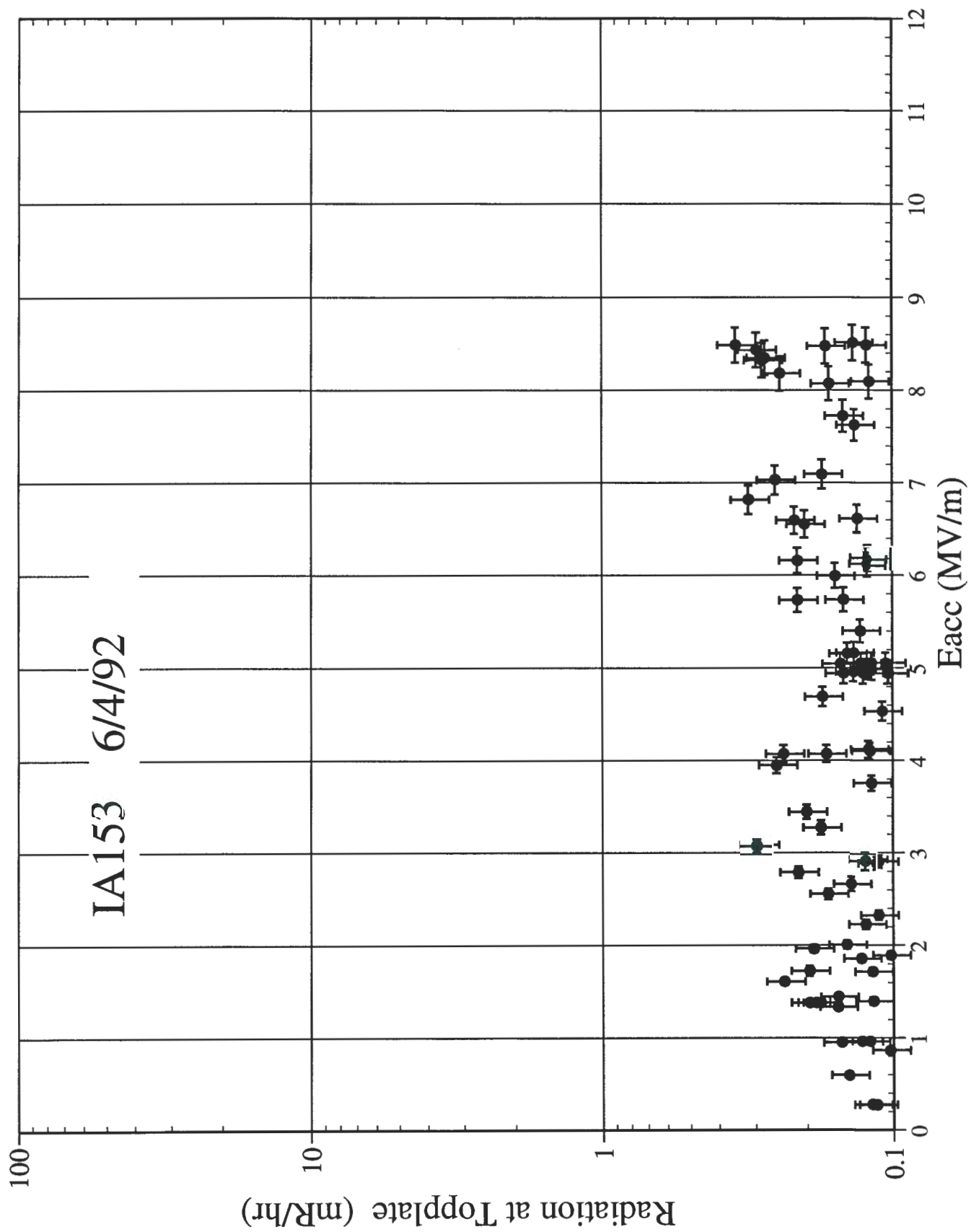
IA137 6/4/92

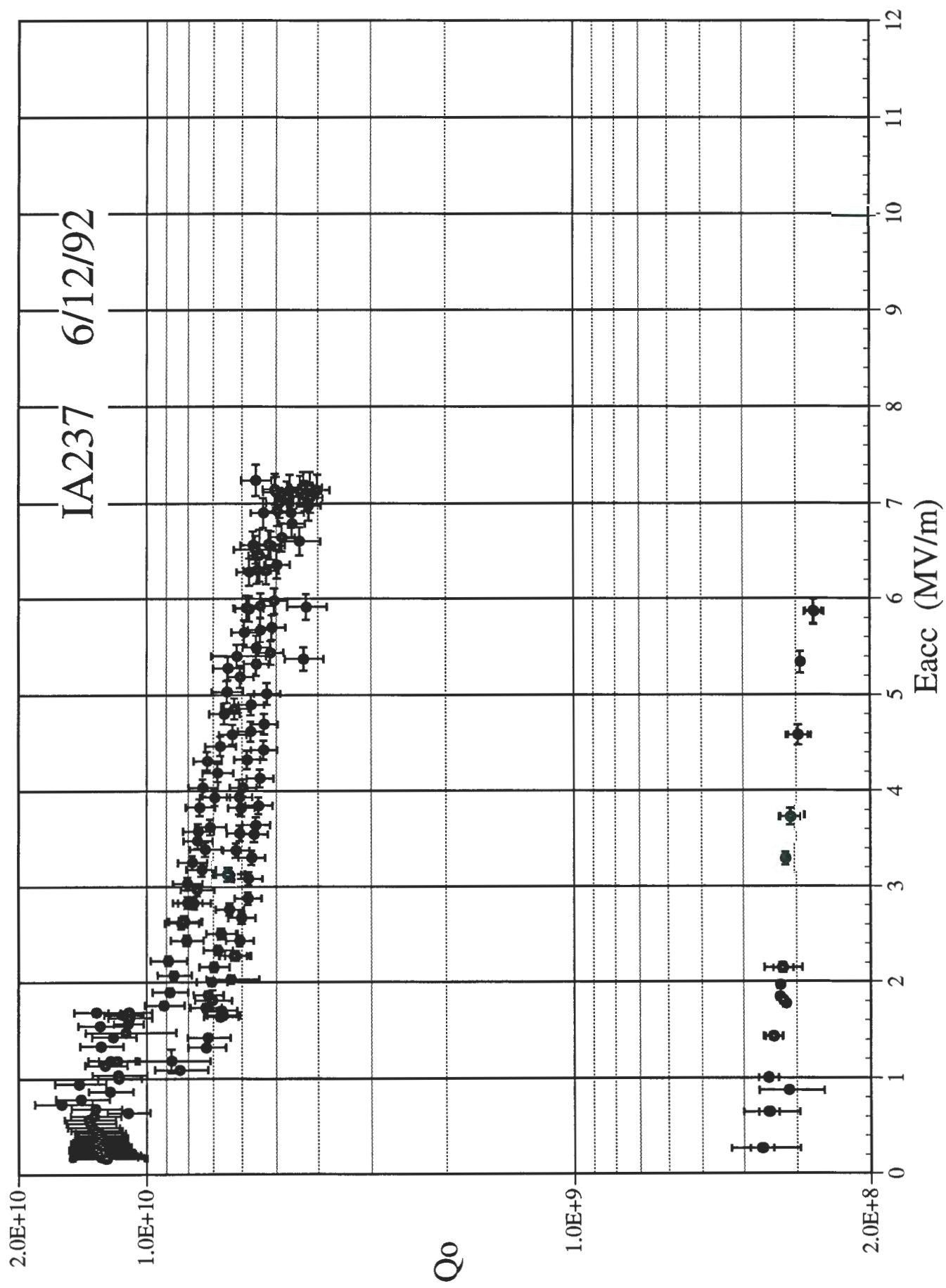


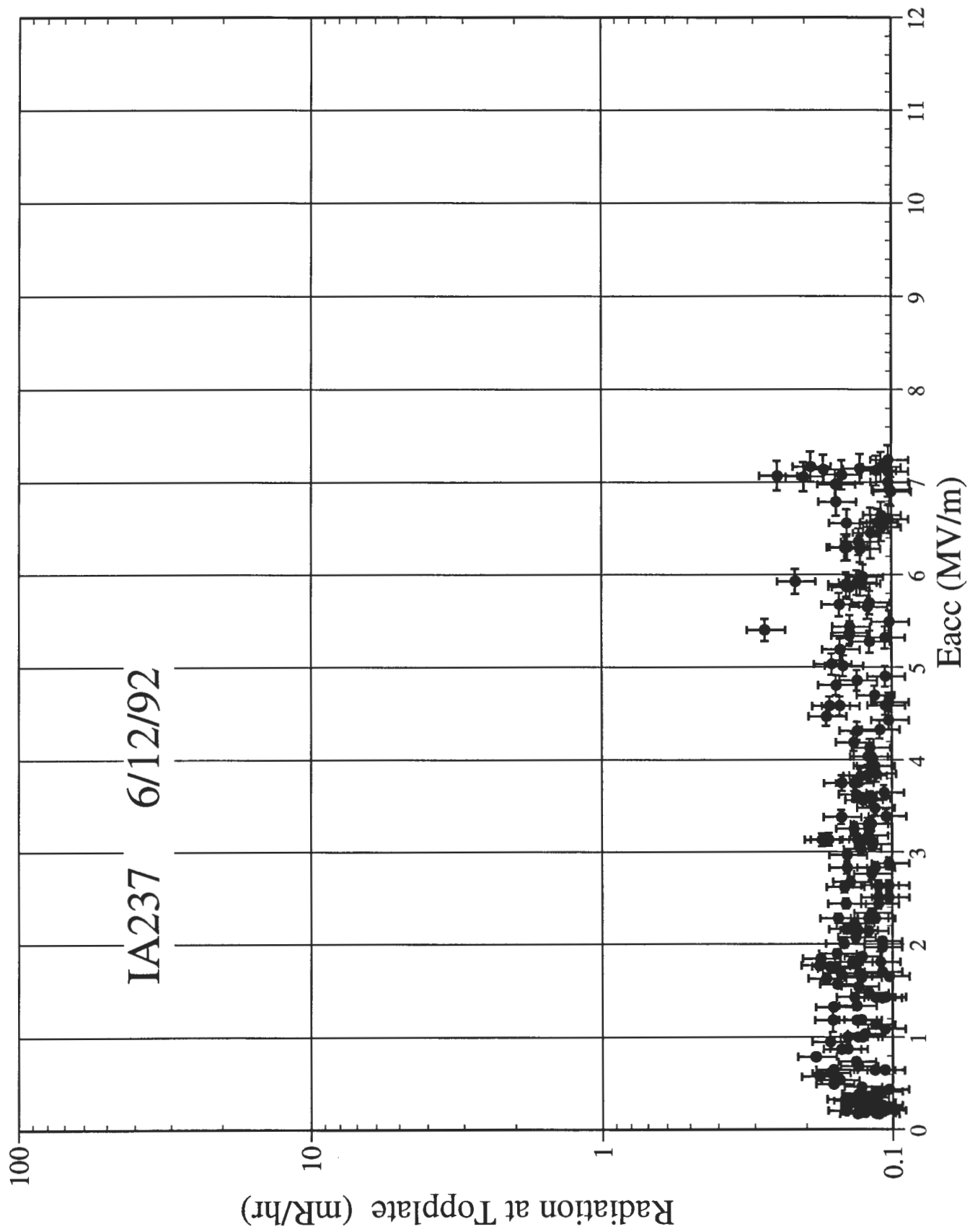


FE, Had 6.50015
W 7.50 9.1

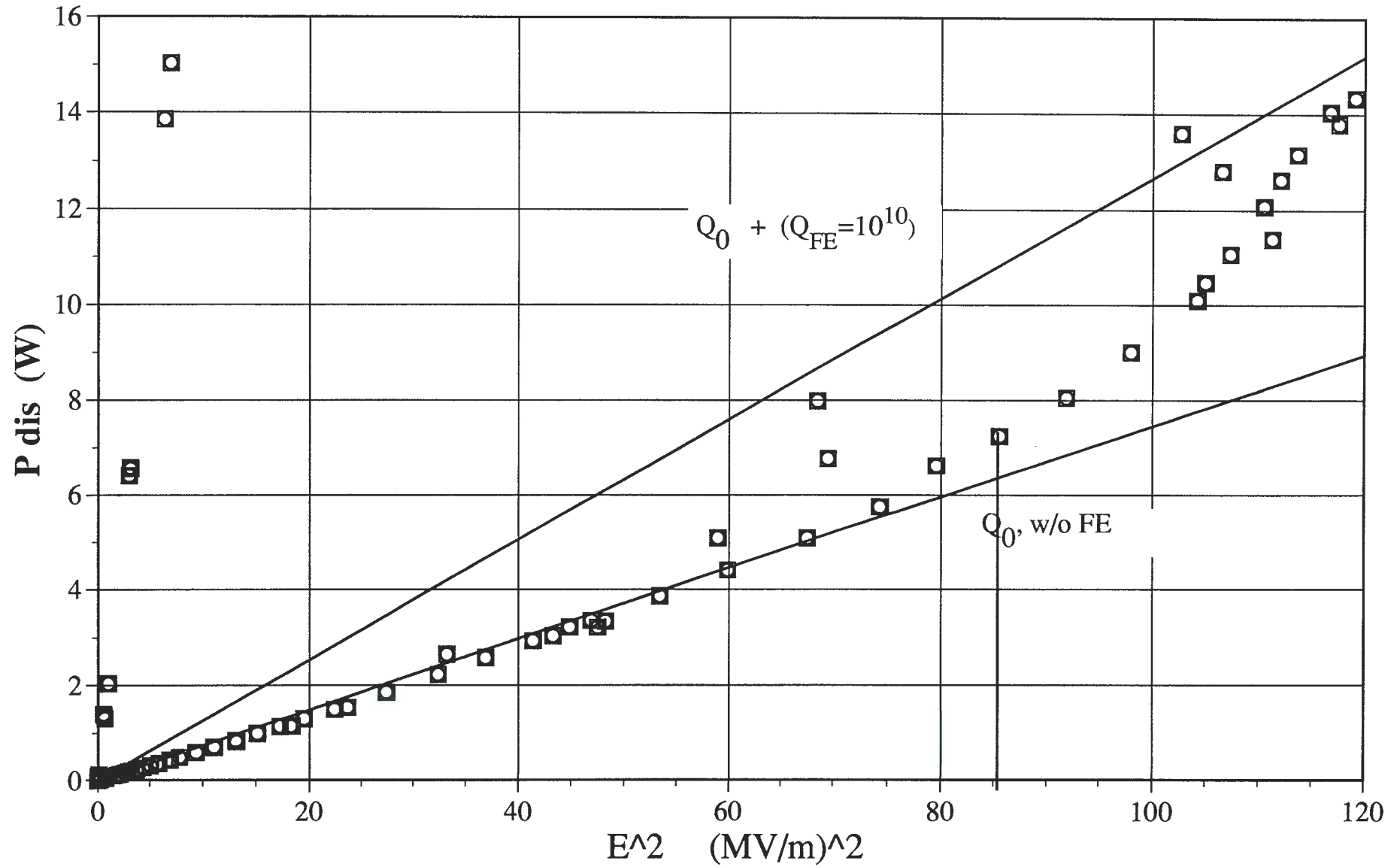




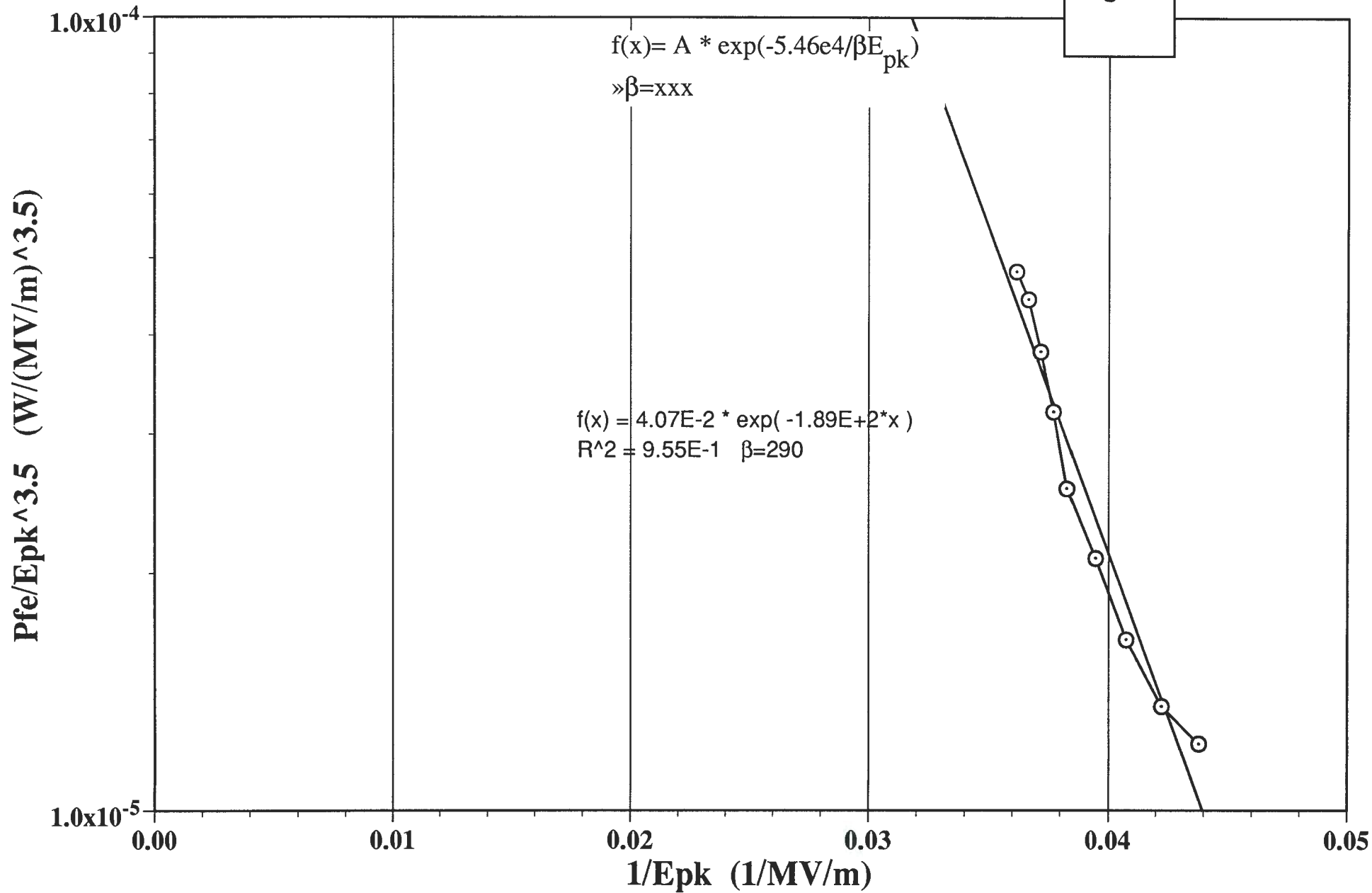


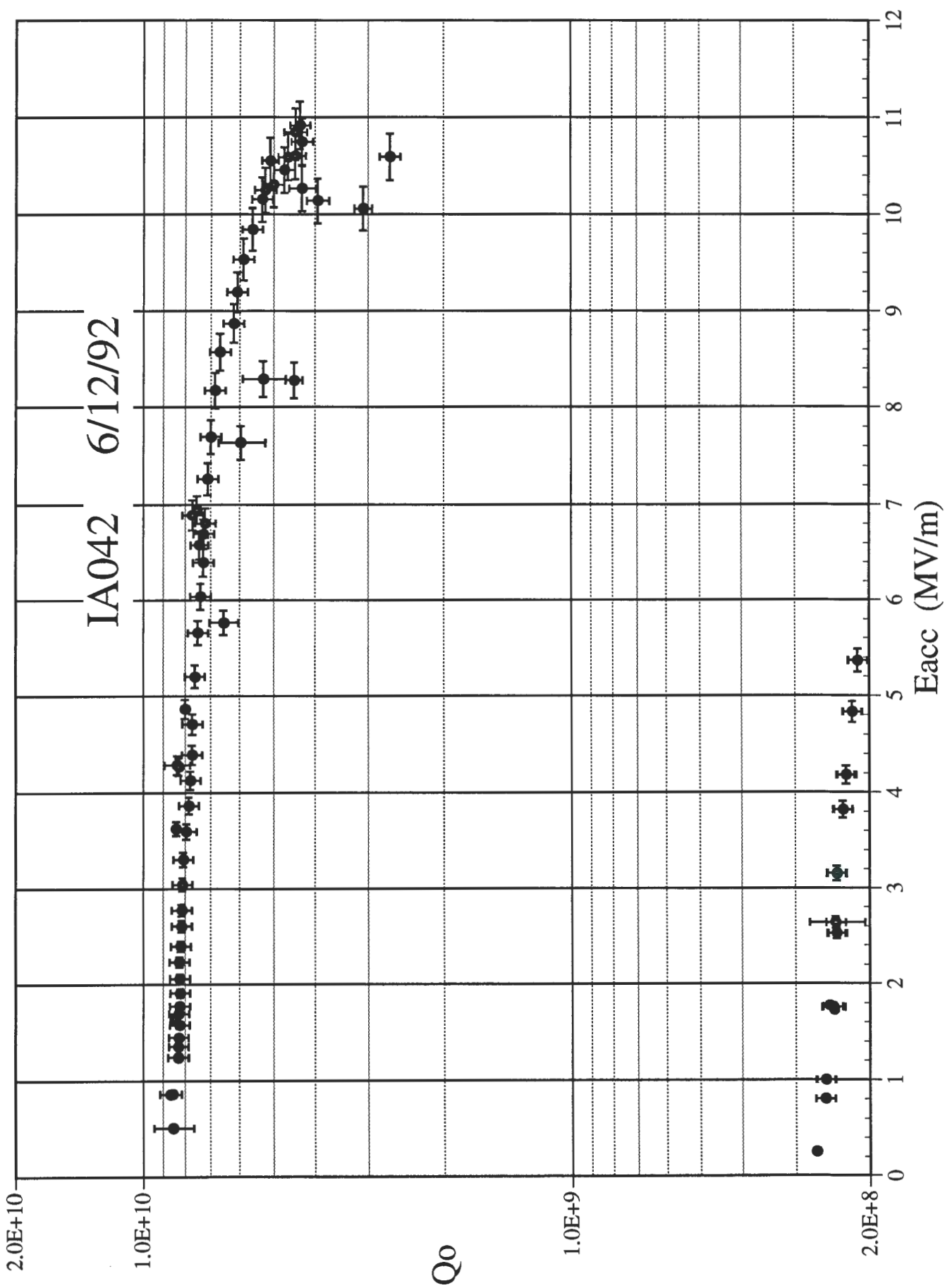


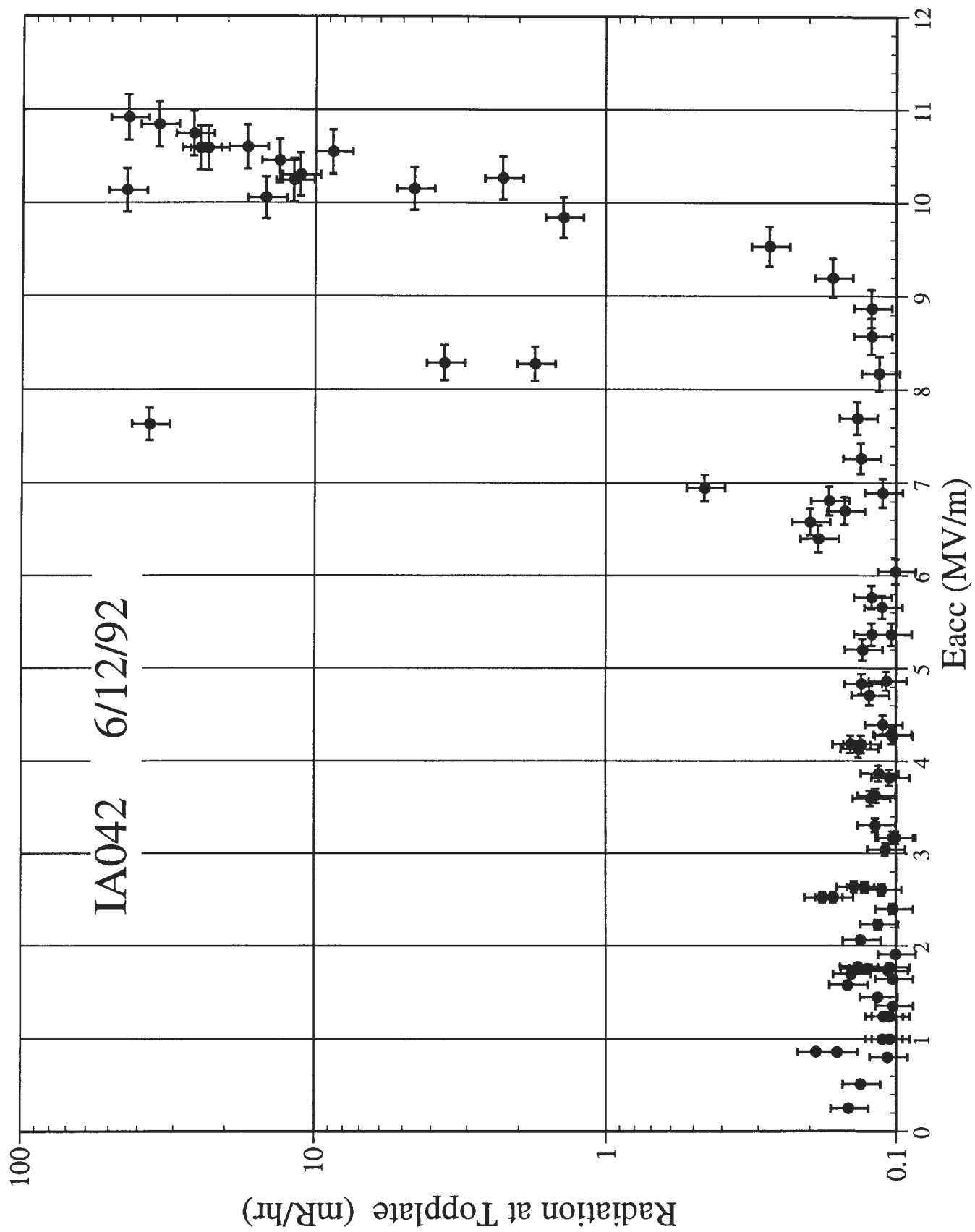
IA042 6/12/92



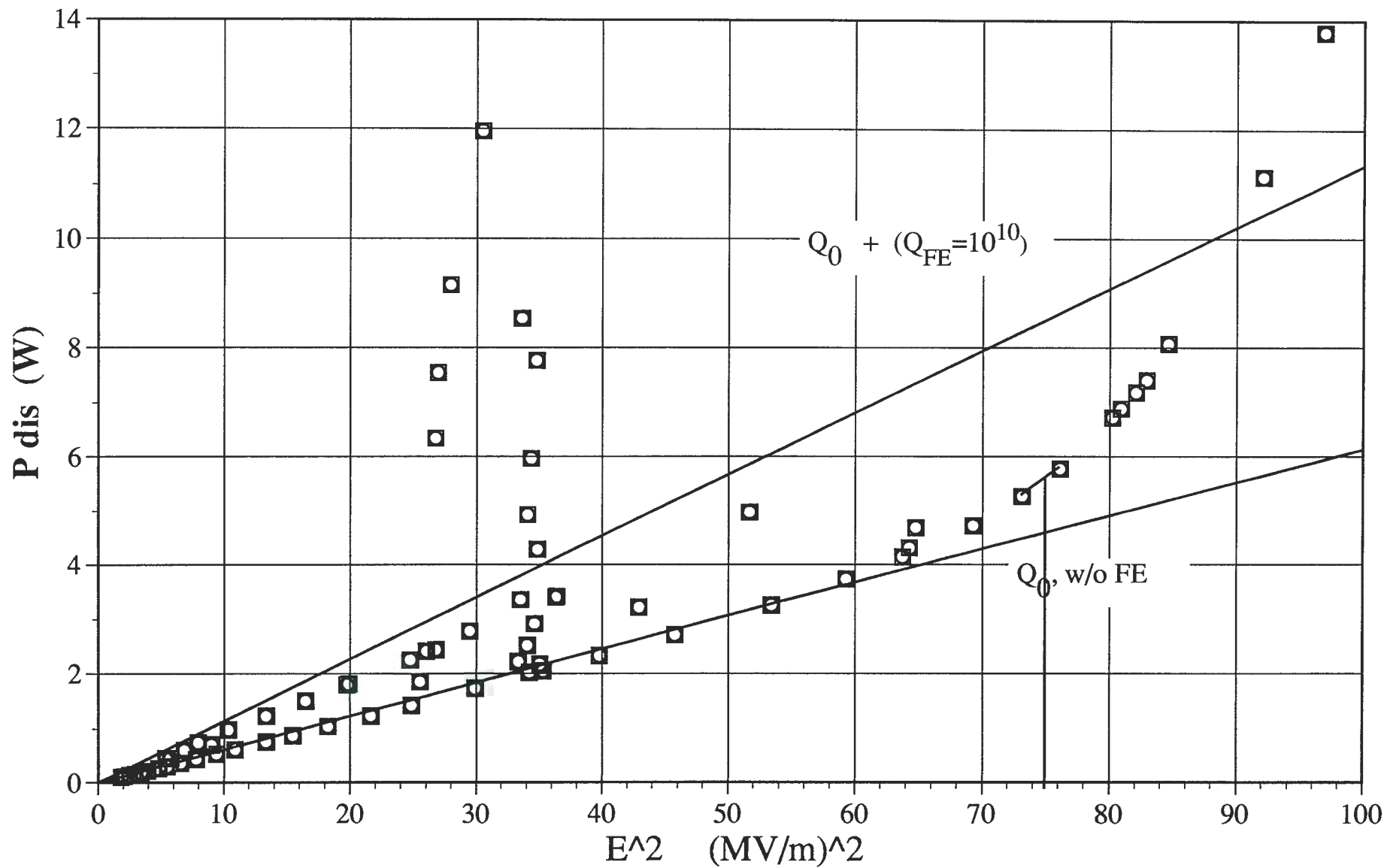
IA042 6/12/92



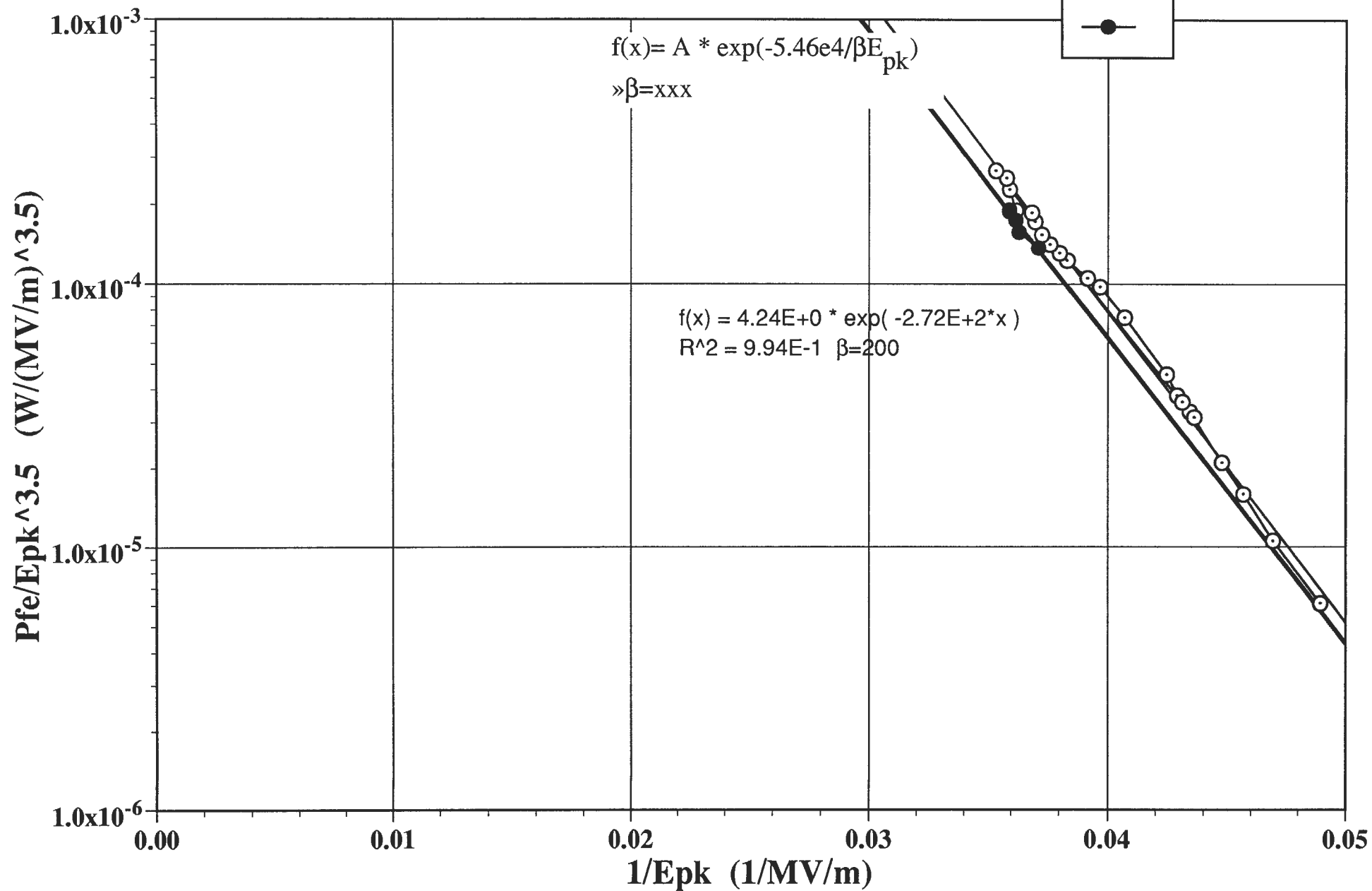




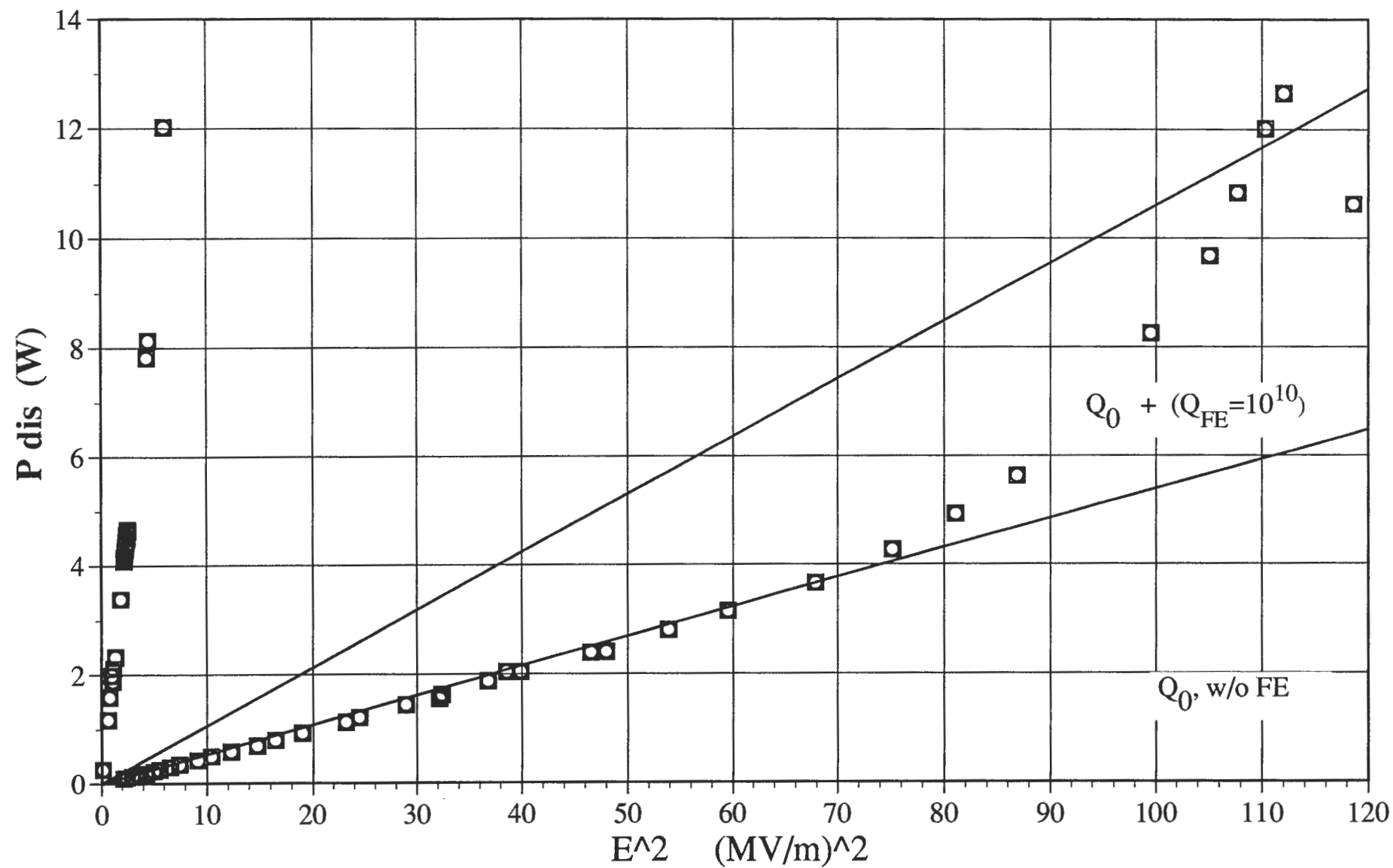
IA047b 6/16/92



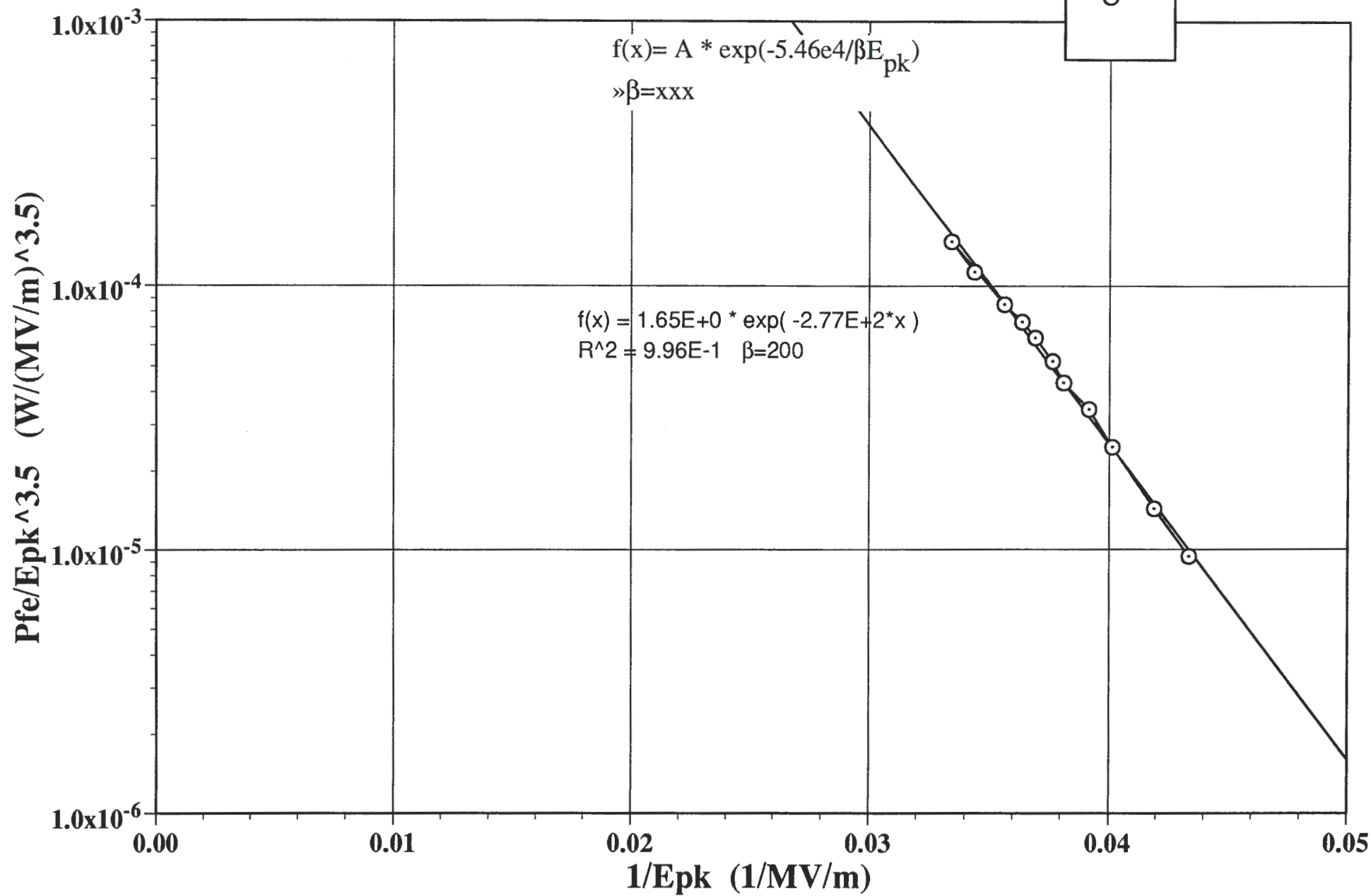
IA047b 6/16/92

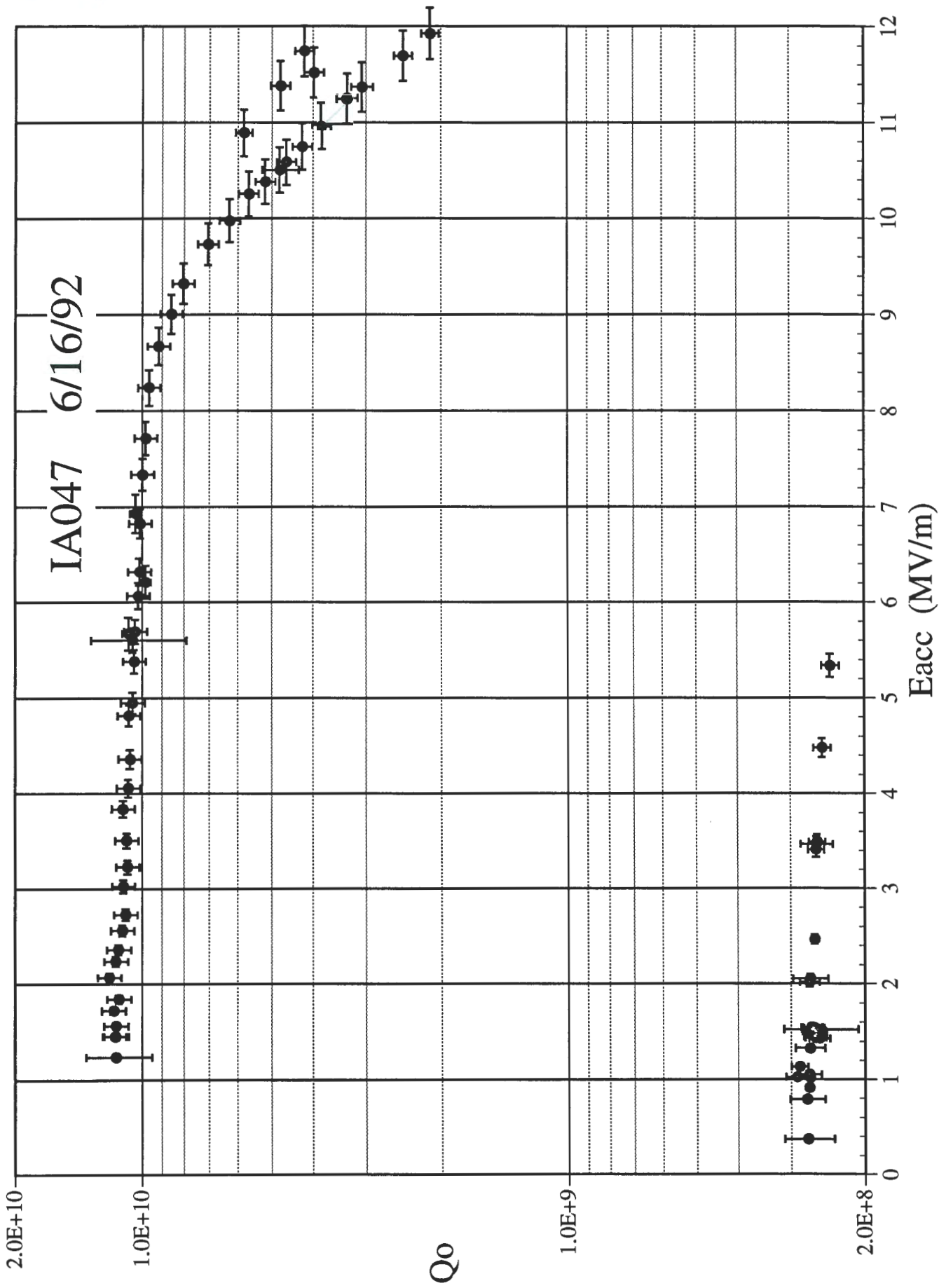


IA047c 6/16/92

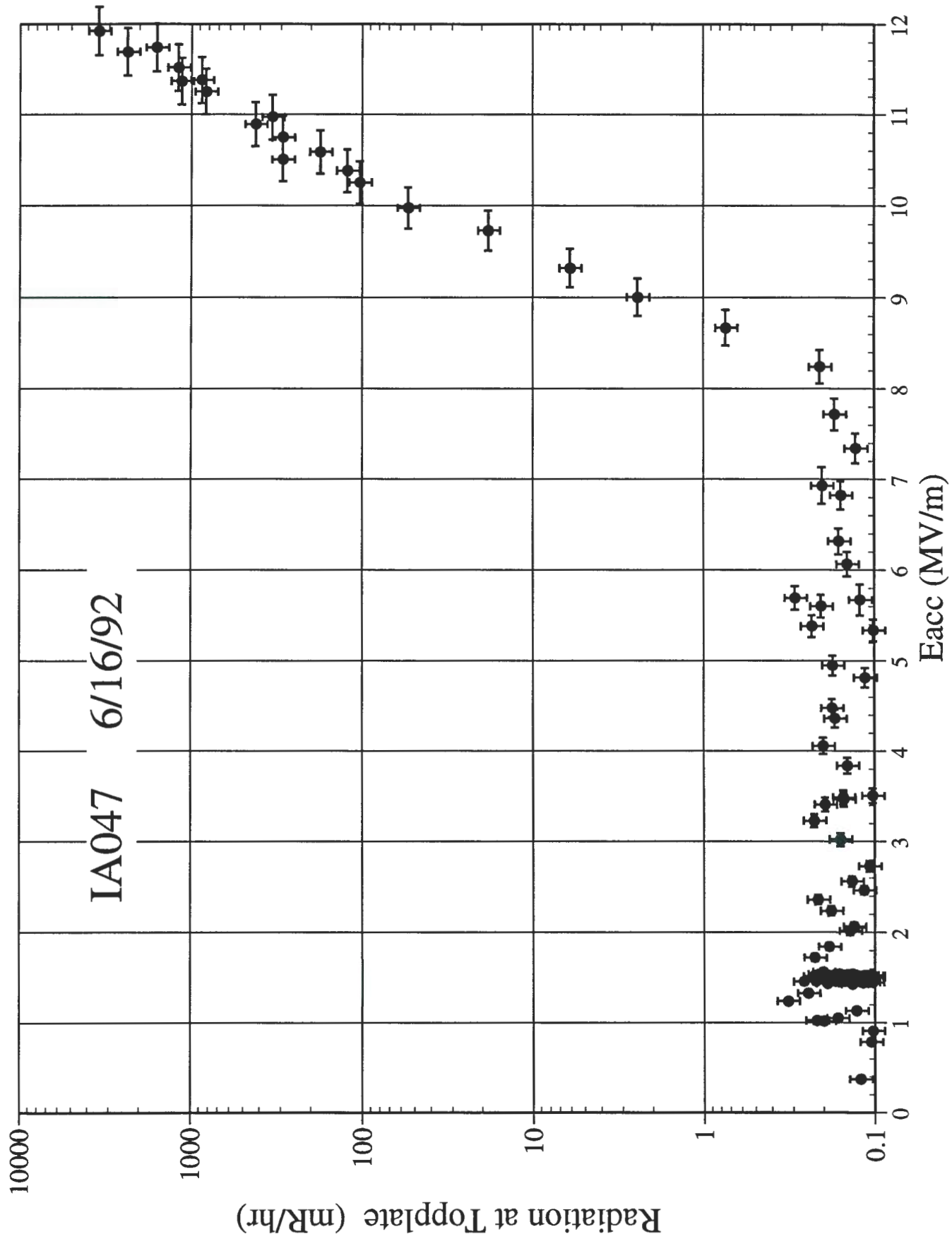


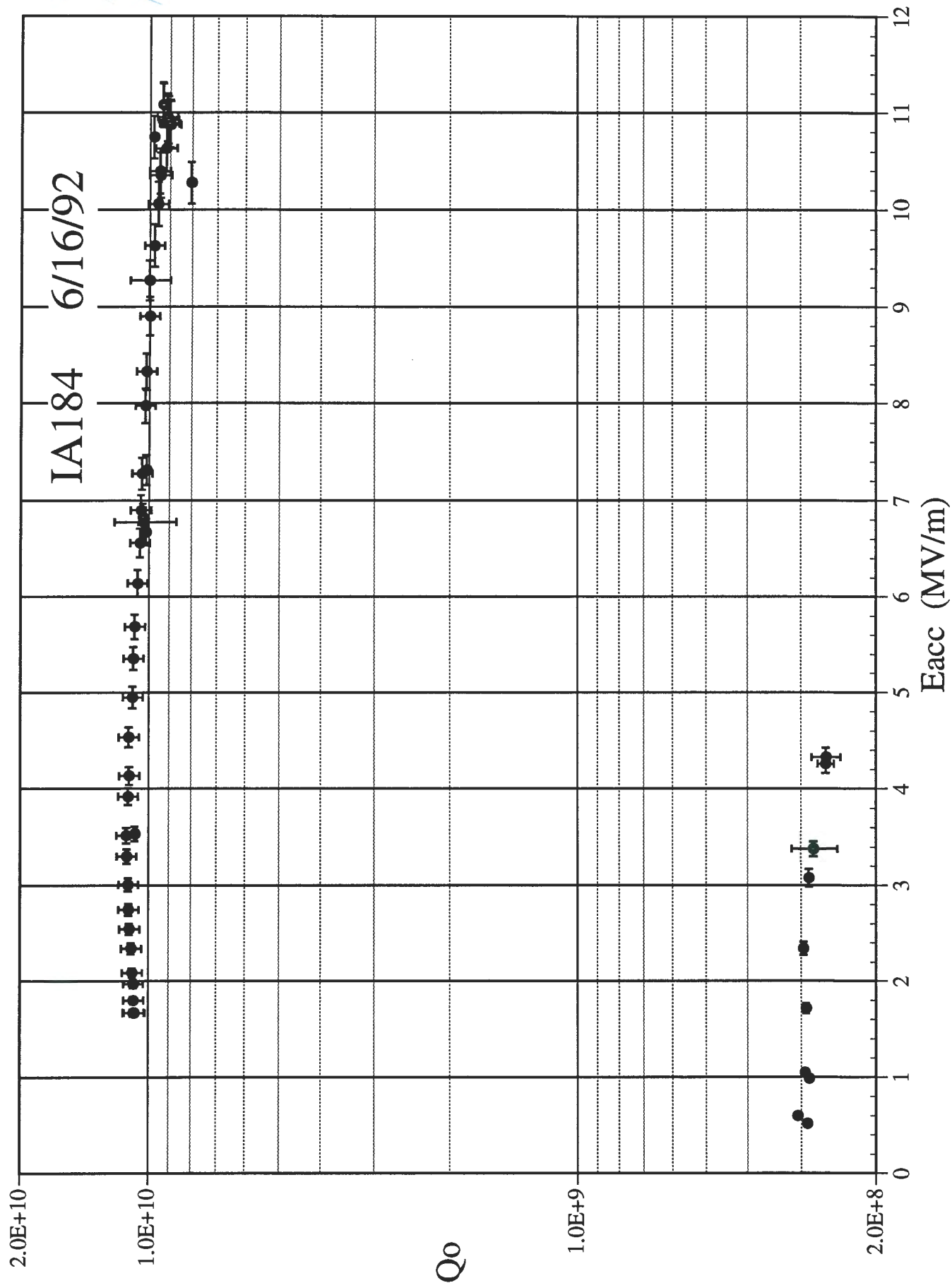
IA047c 6/16/93



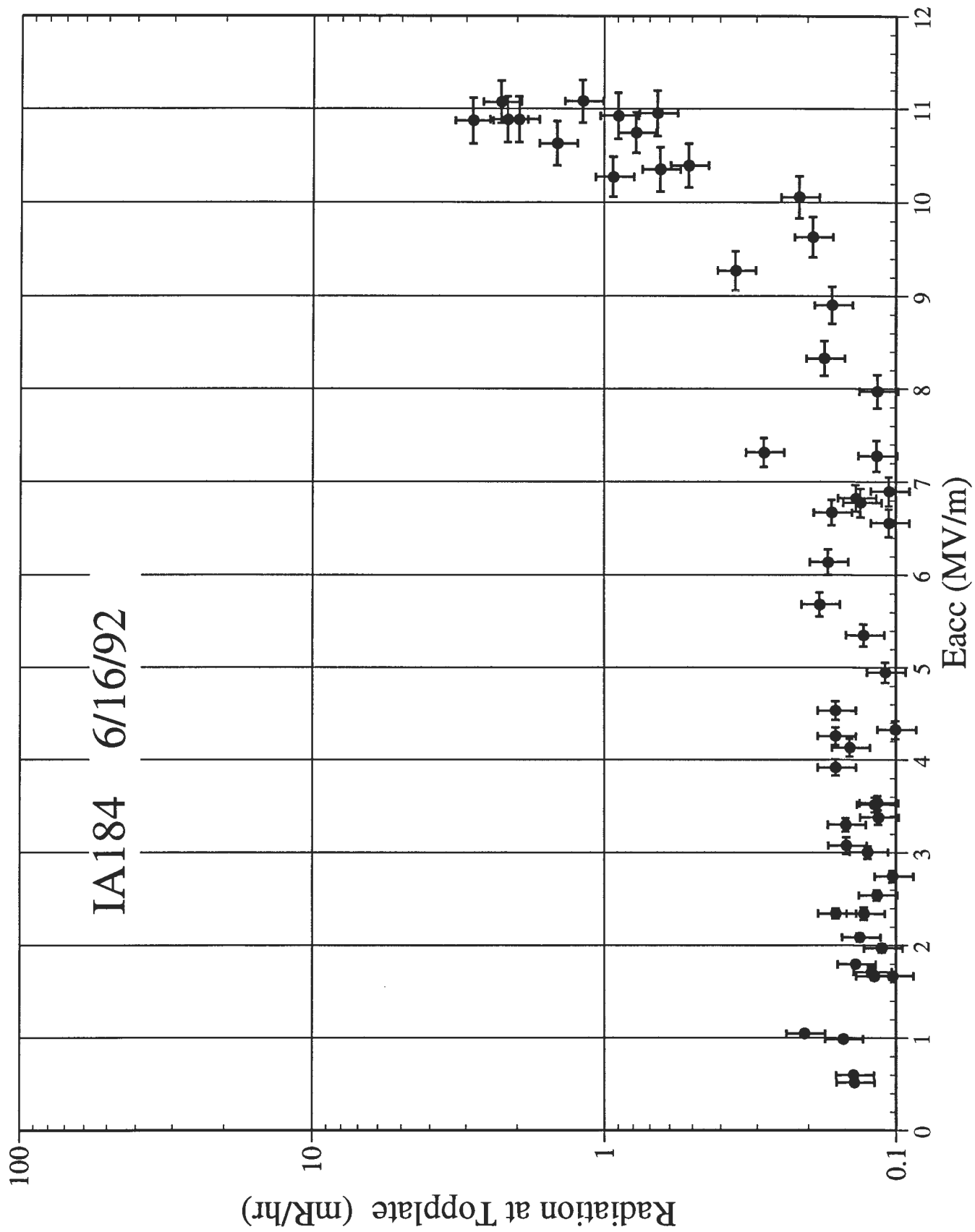


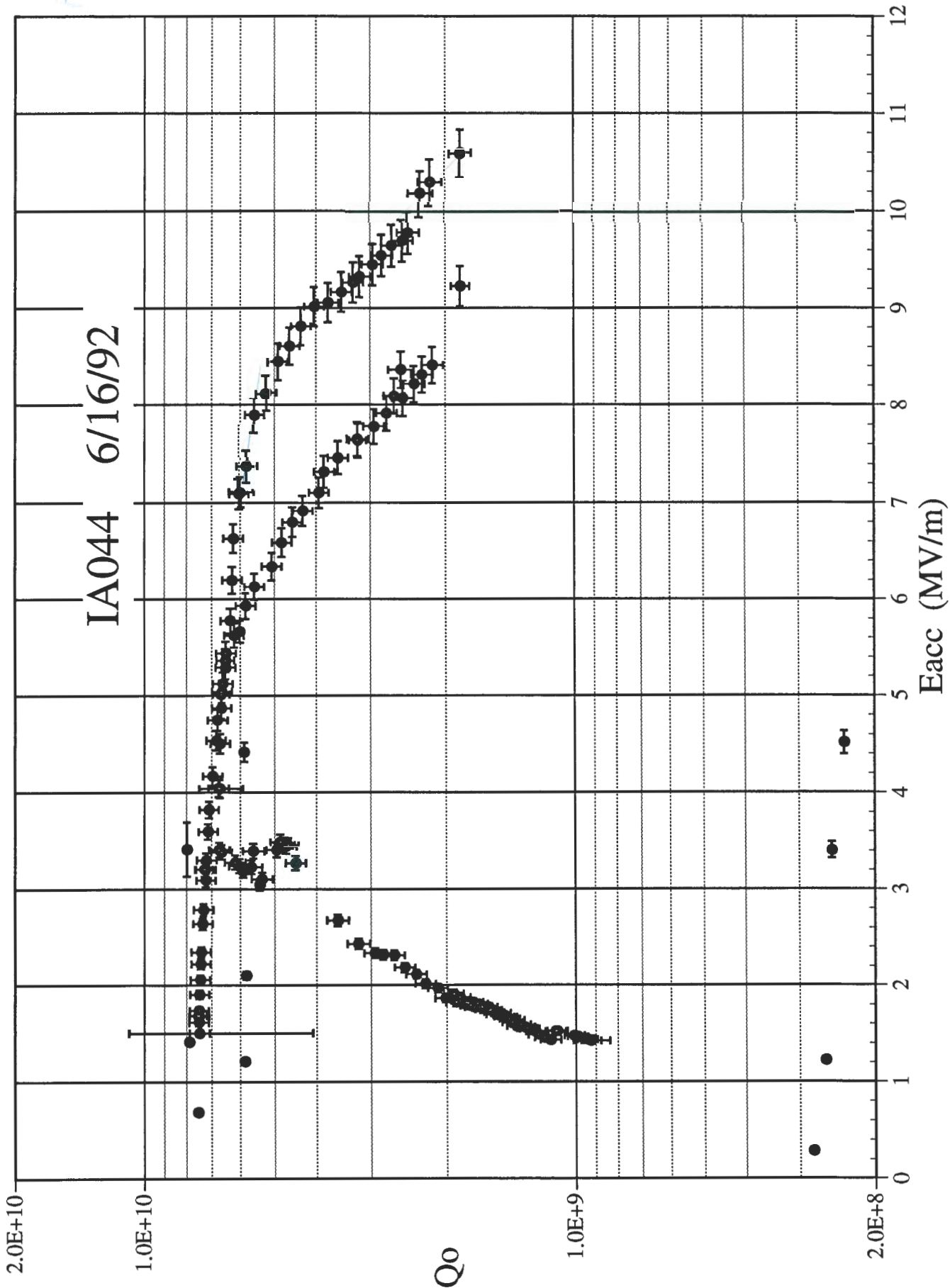
1.7E+10
1.6E+10



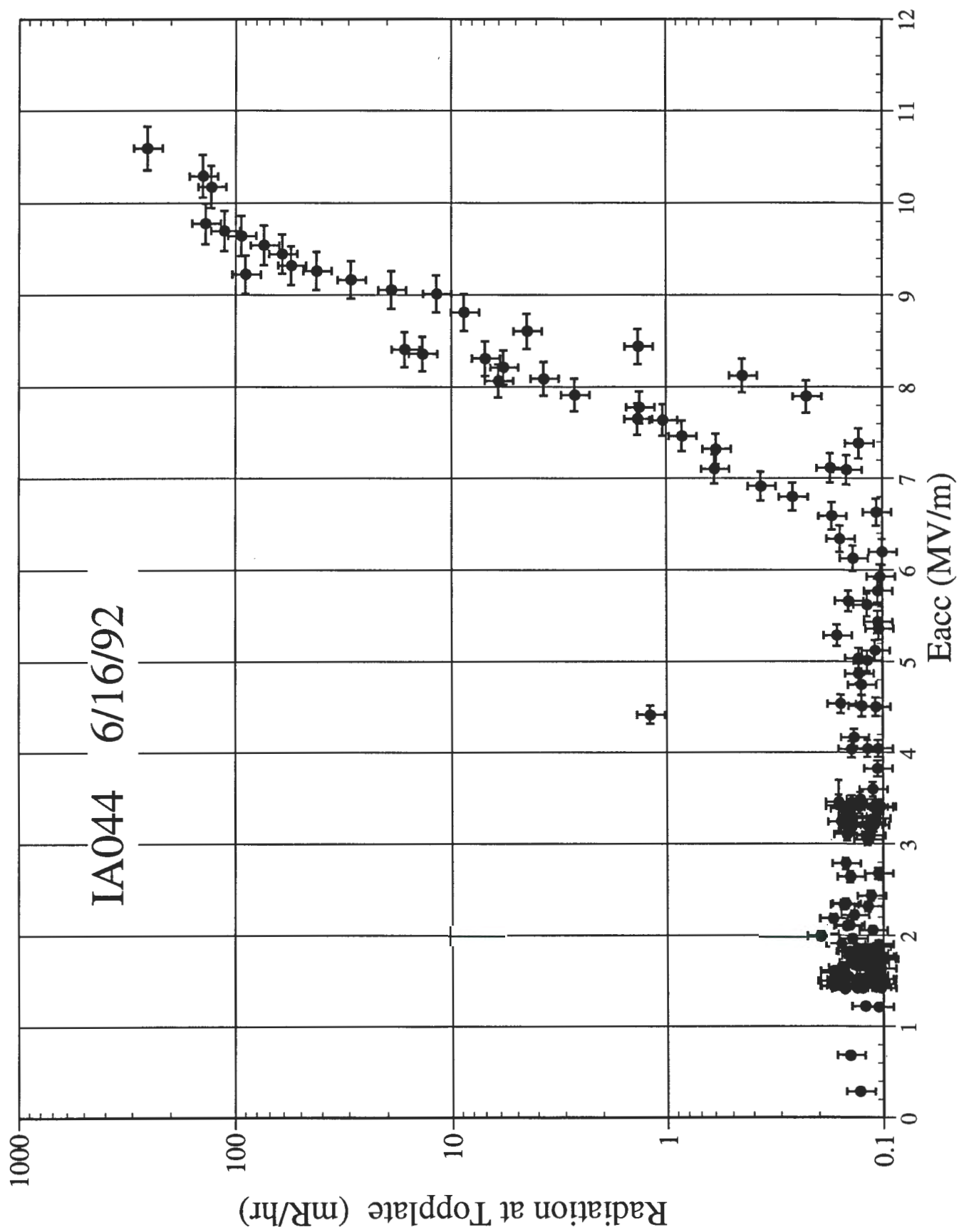


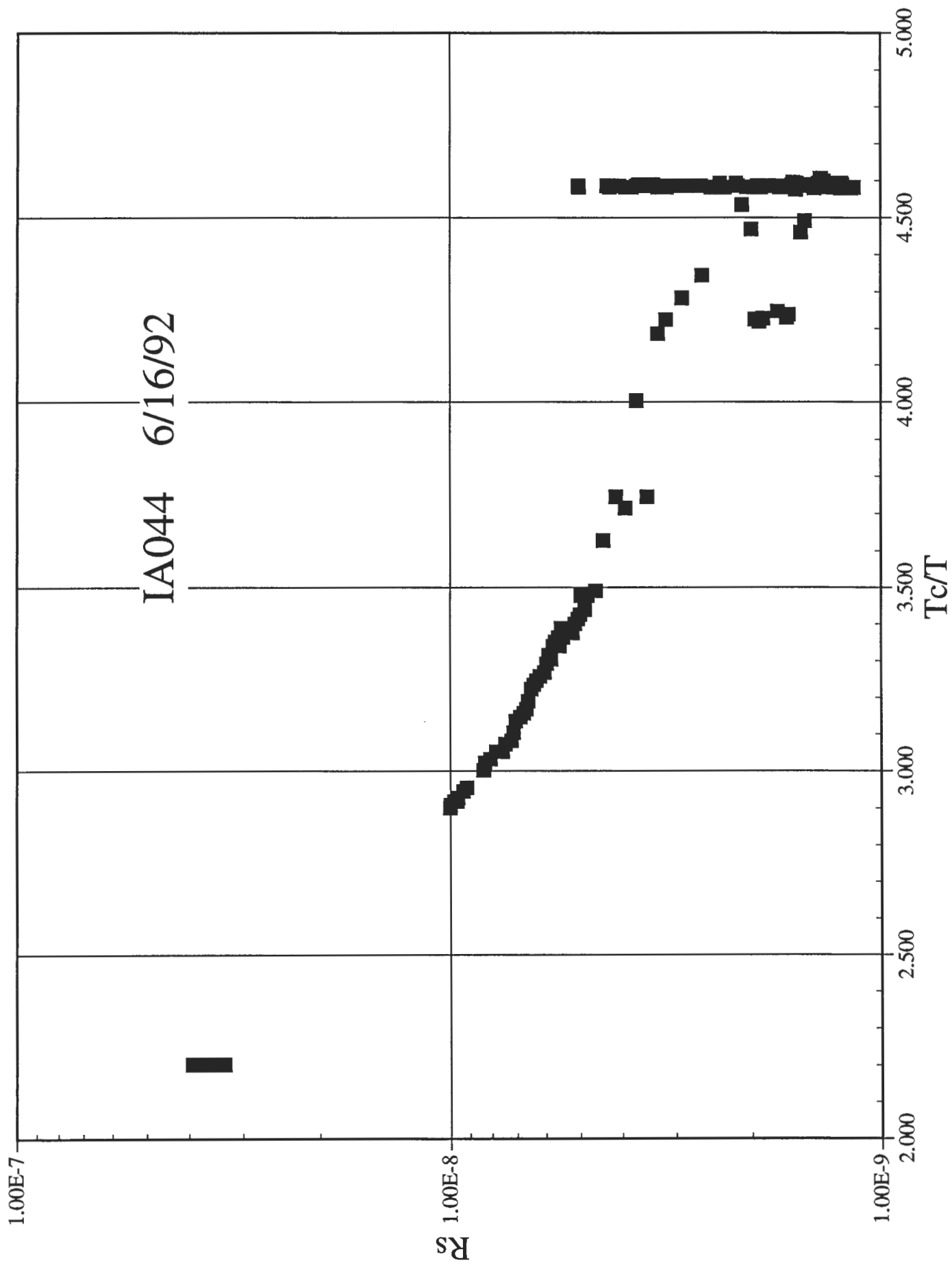
FE 10.00 %
LS 10.10 %
MA 11.09

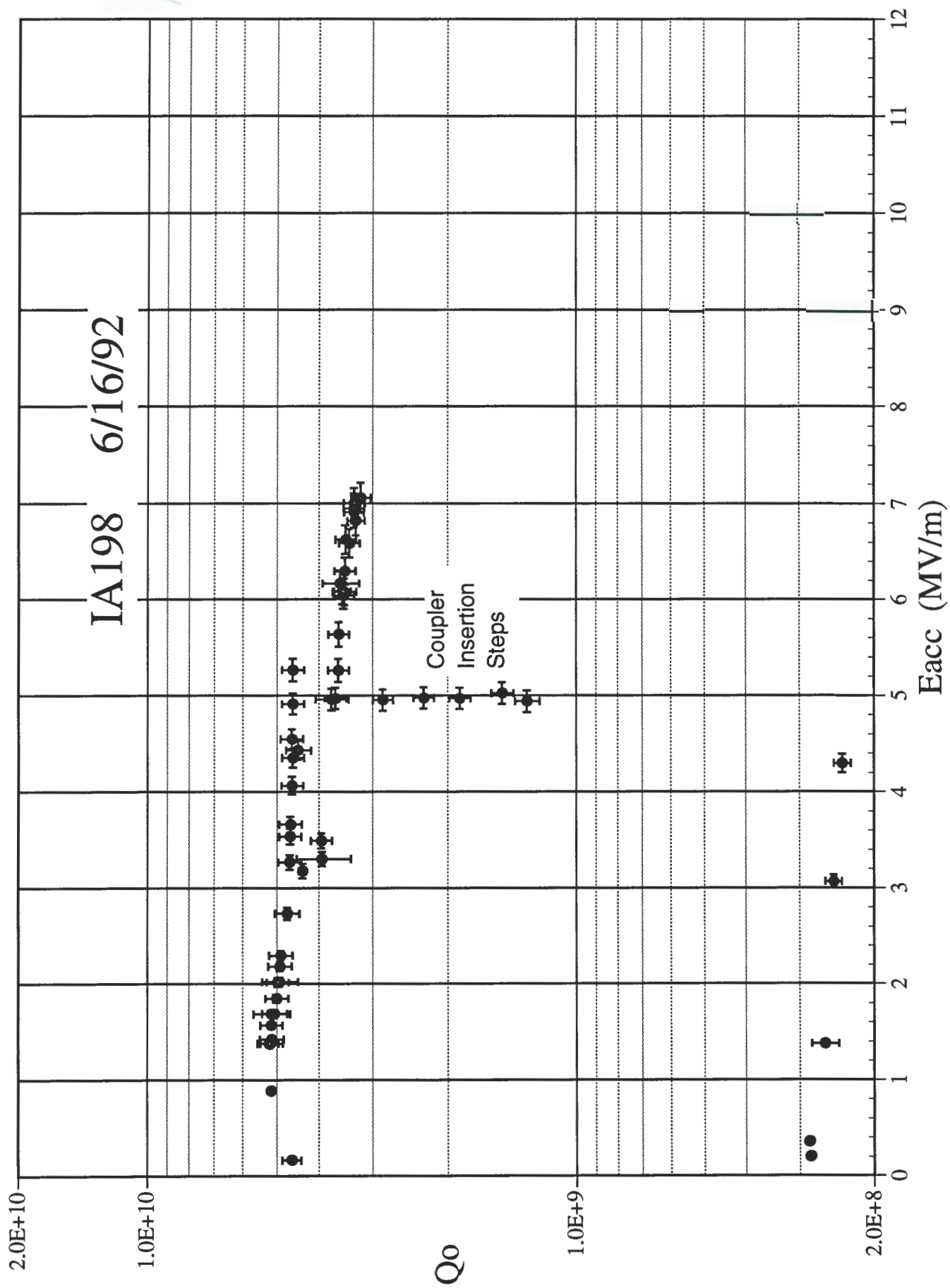




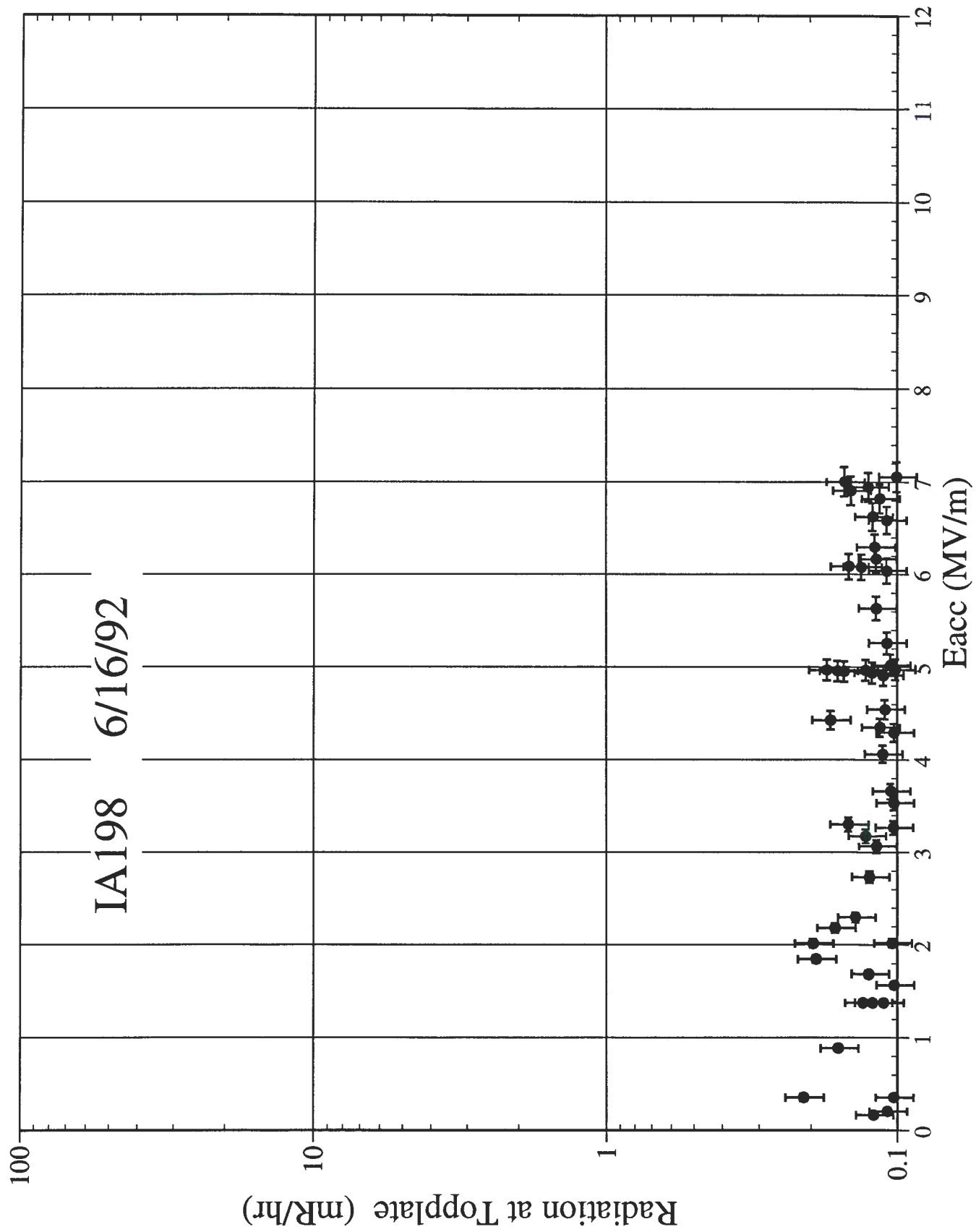
7.60 5.7
9.80 4.2
10 0 2.4

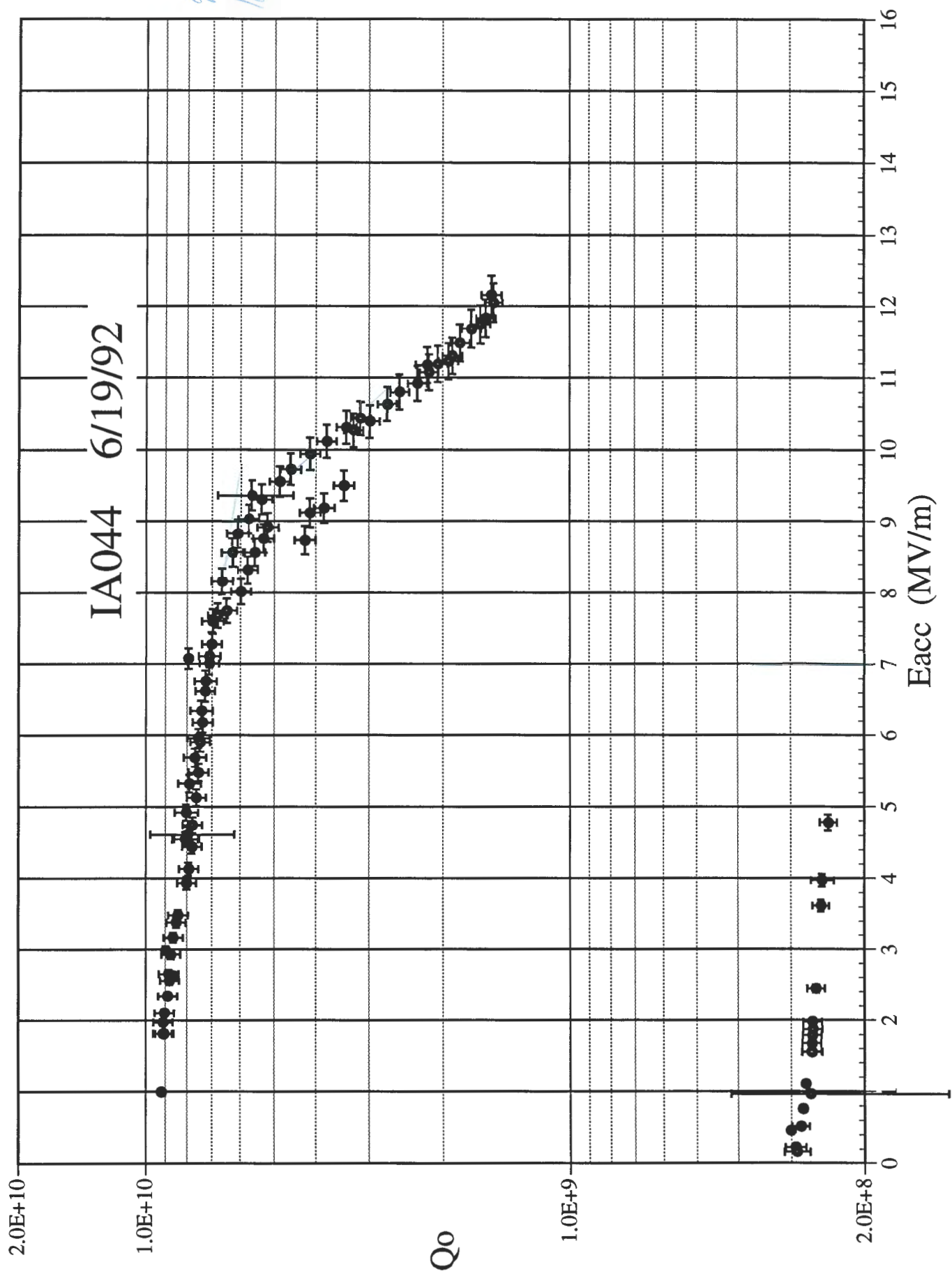




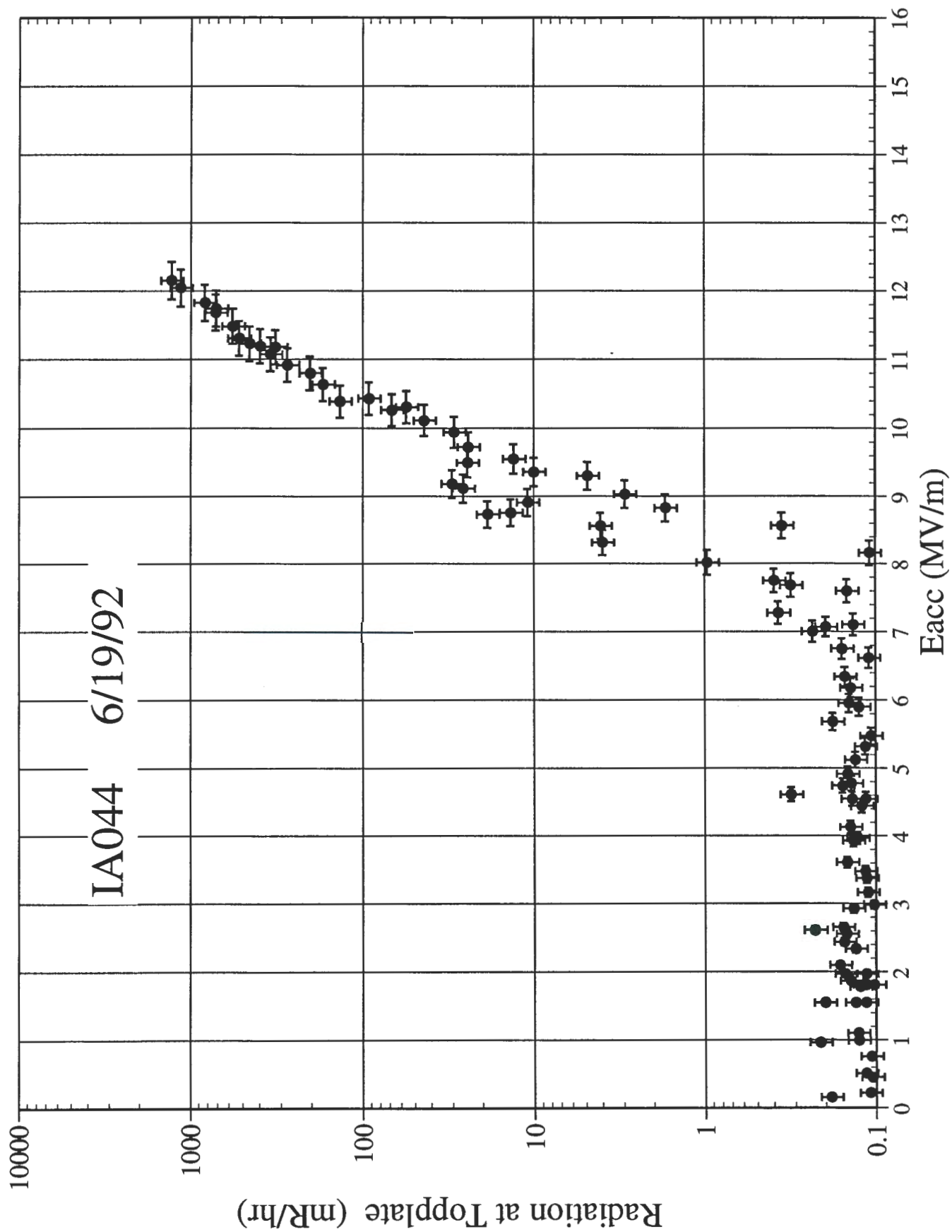


70
146 6.90
174 7.0

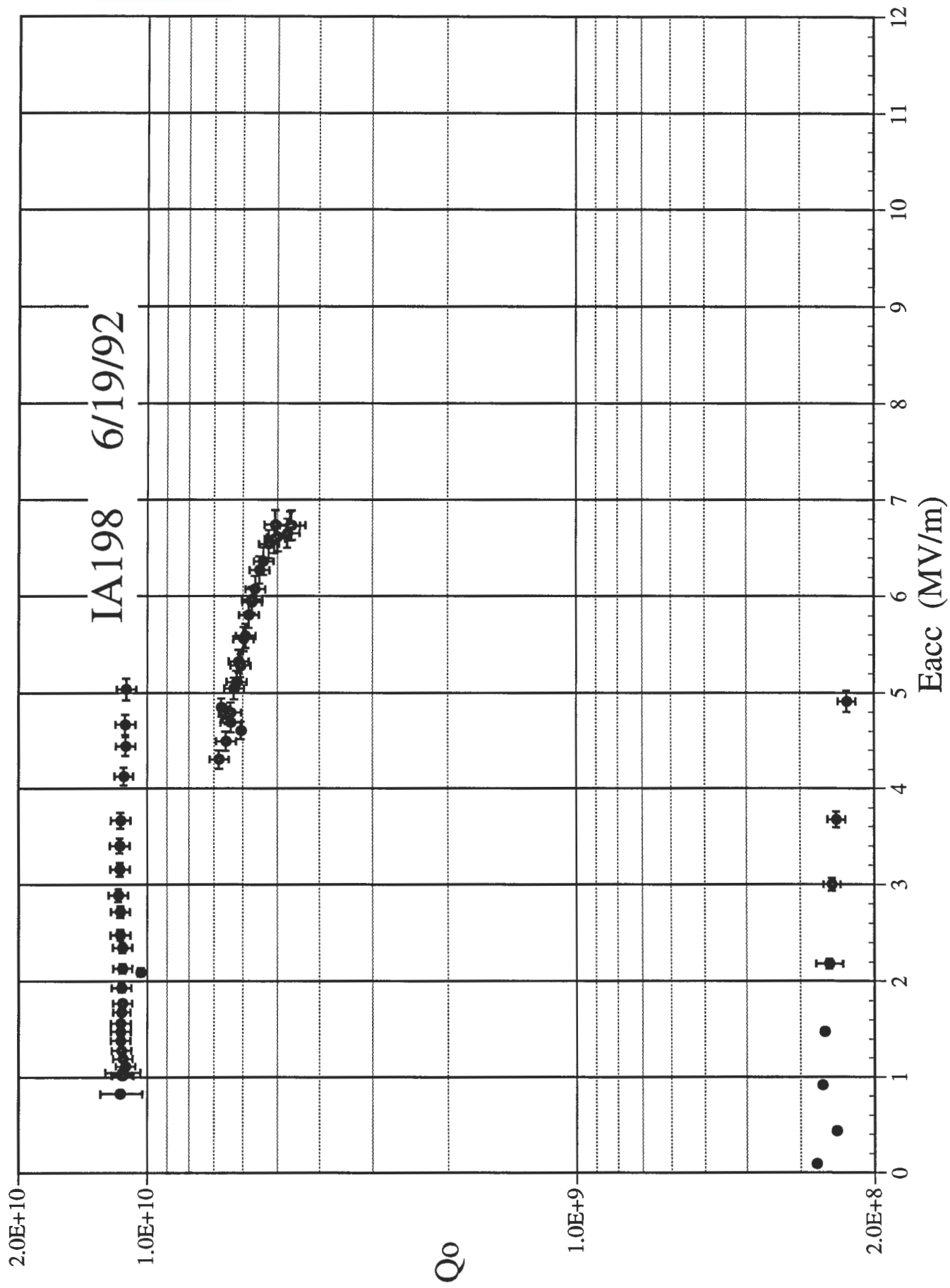


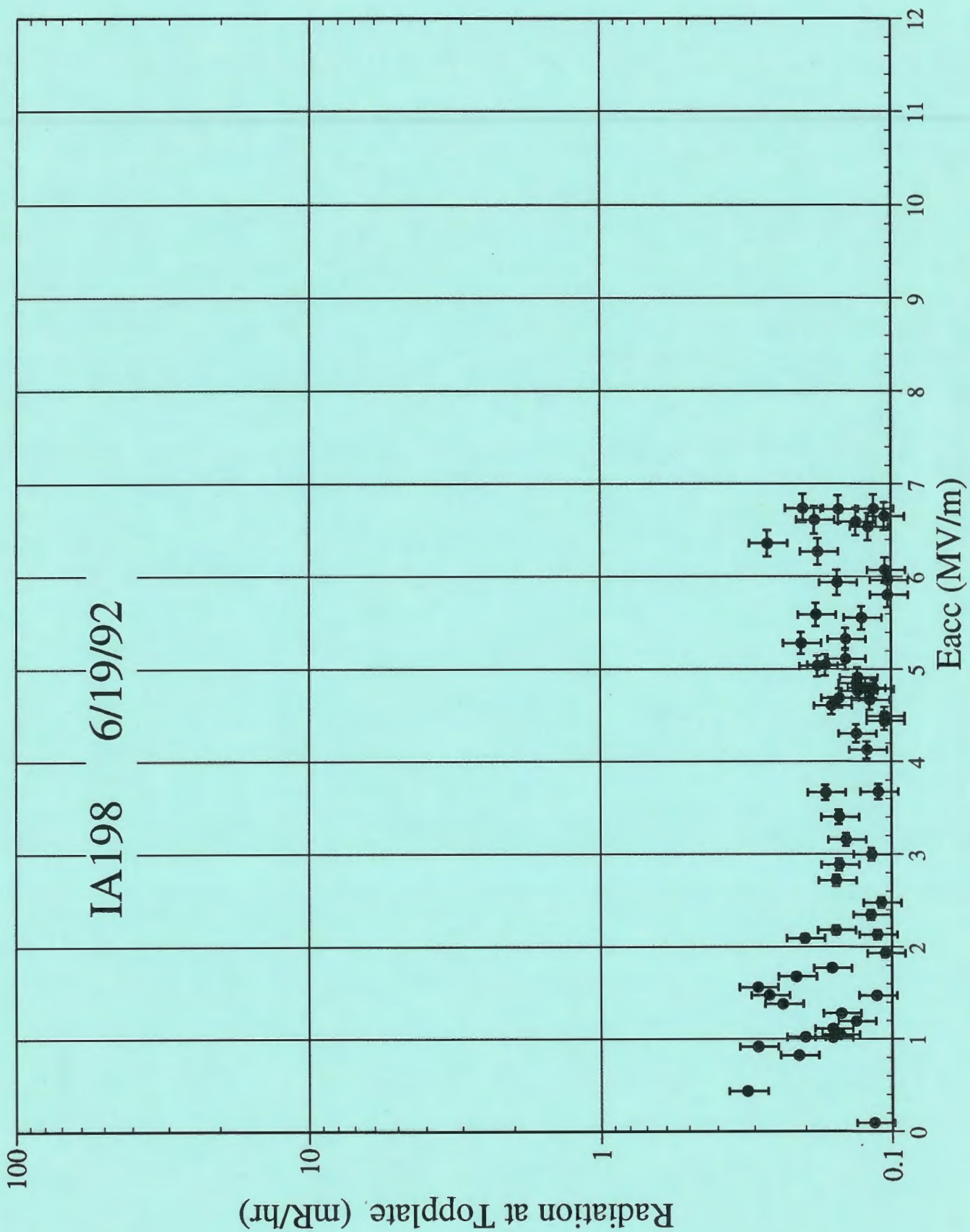


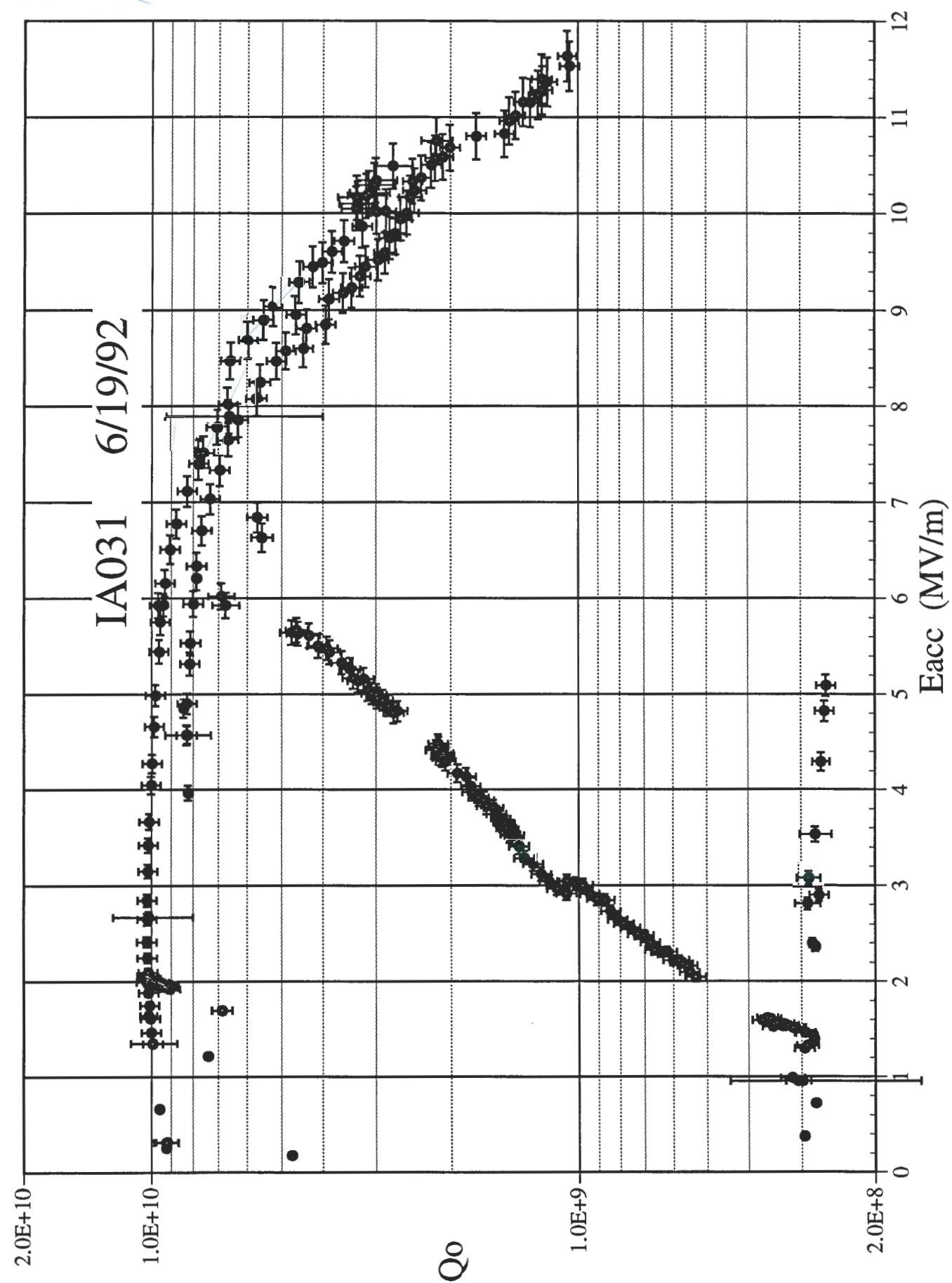
90 5.5
96 4.7
10.5 6.4



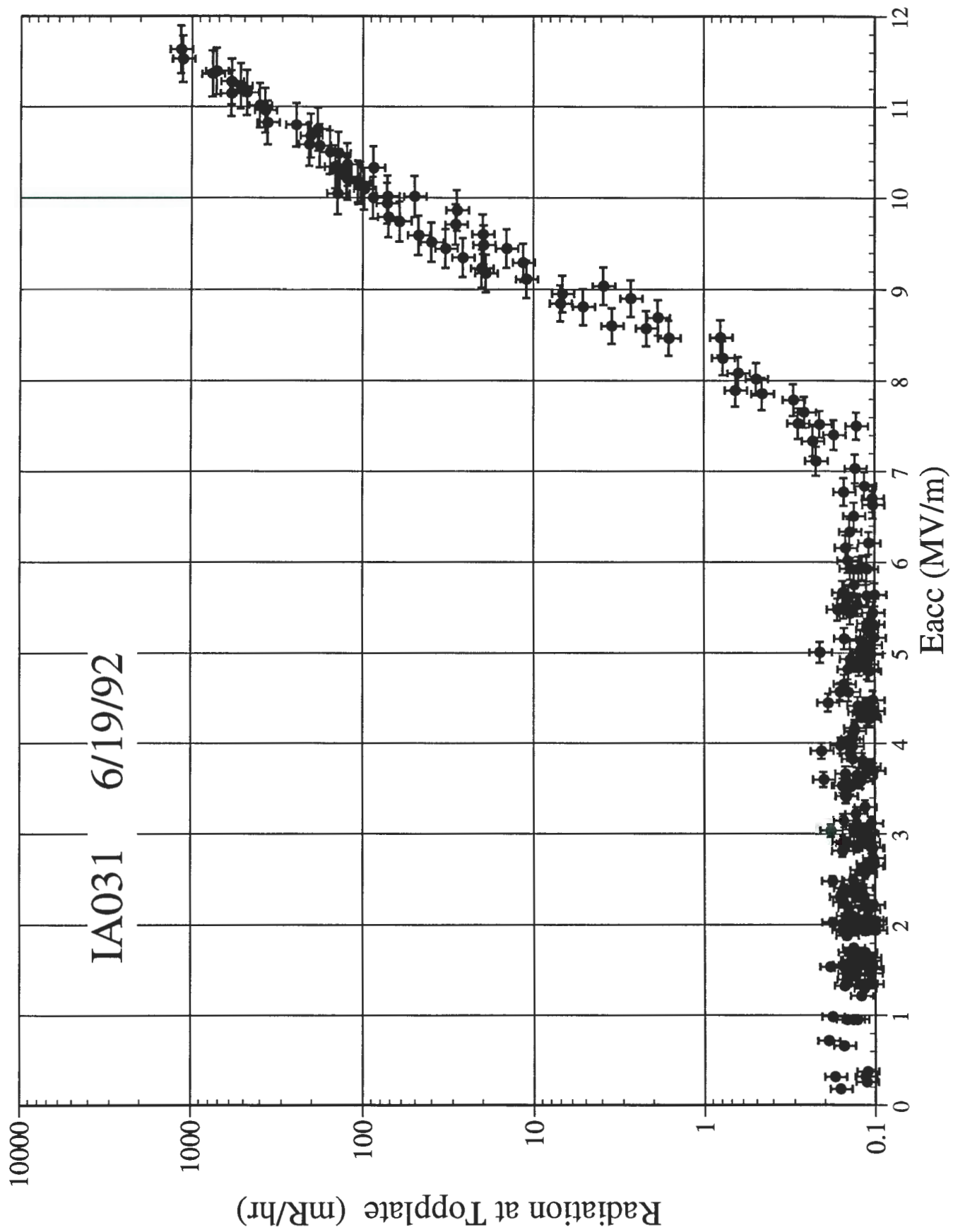
6.805
6 @ 5,6
6.905

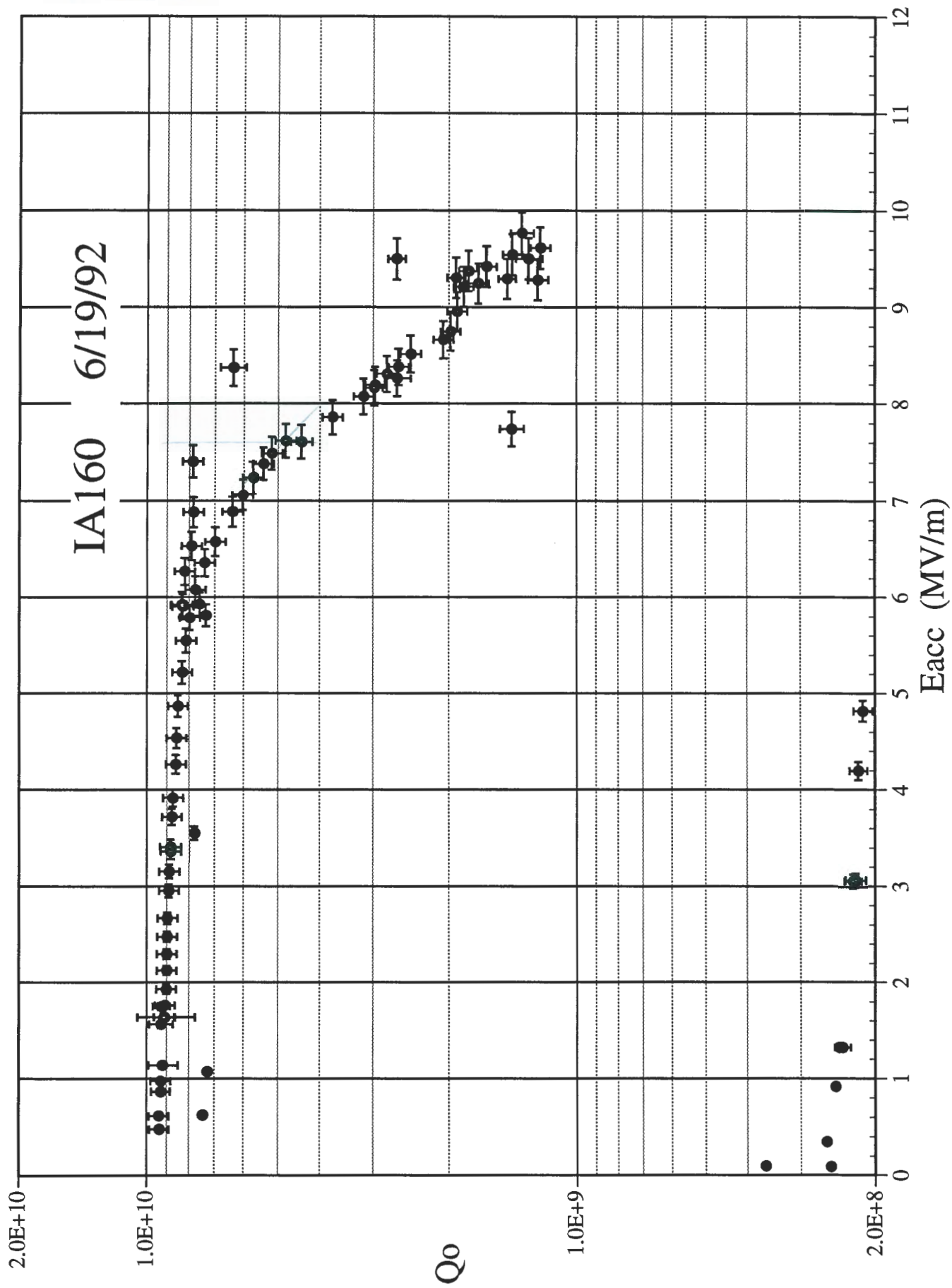






6.60 9
9.00 5.1
10.90 2.4

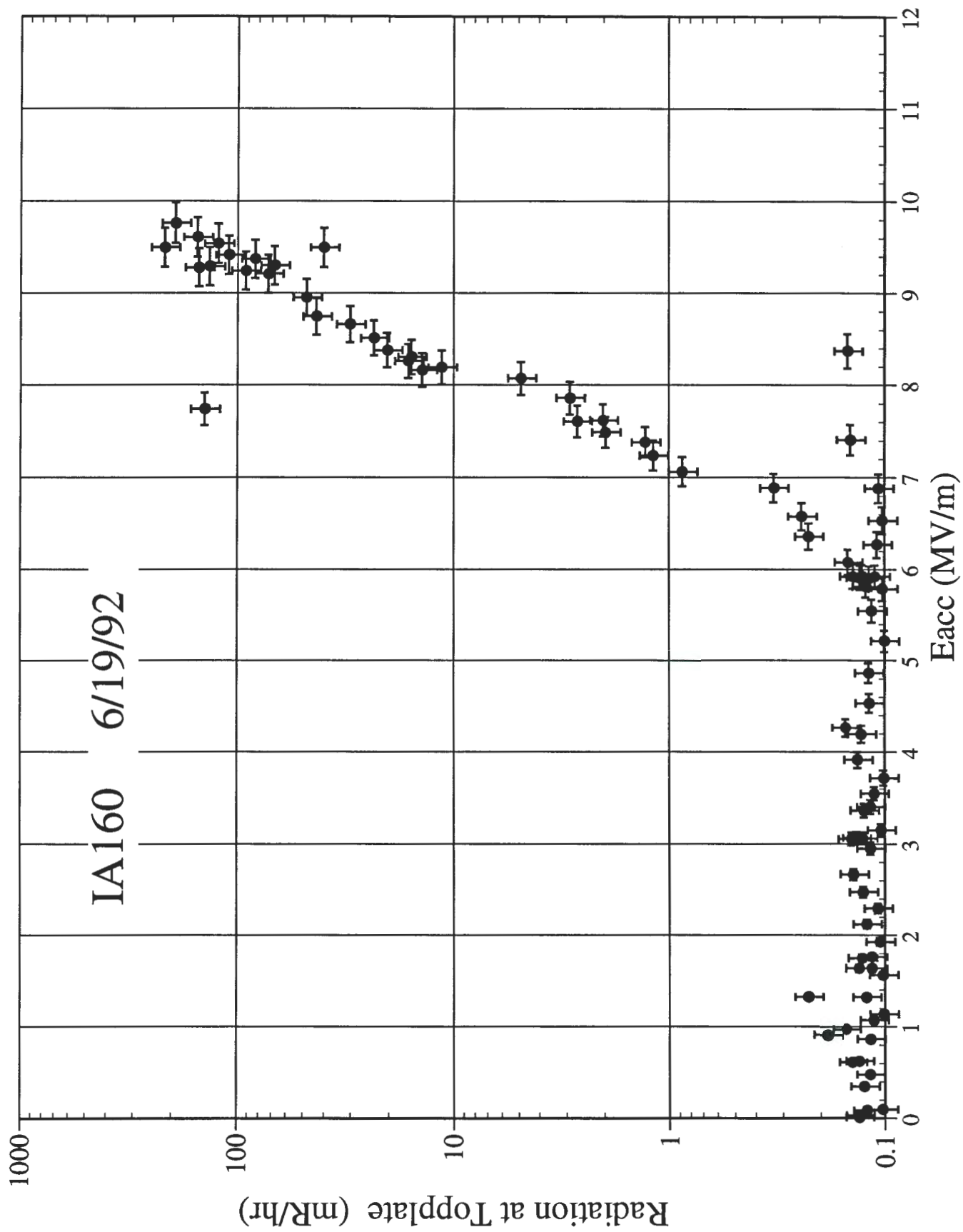


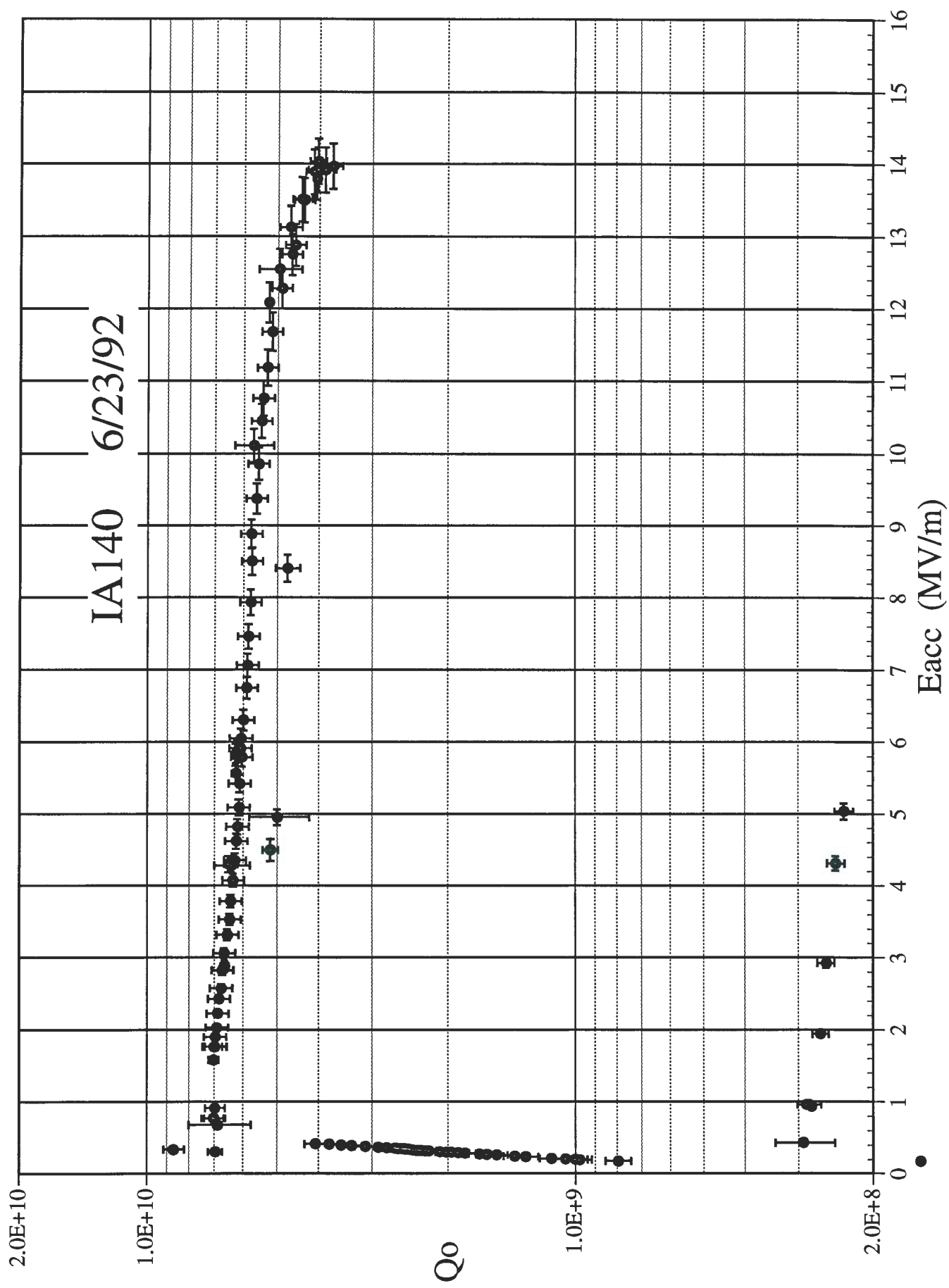


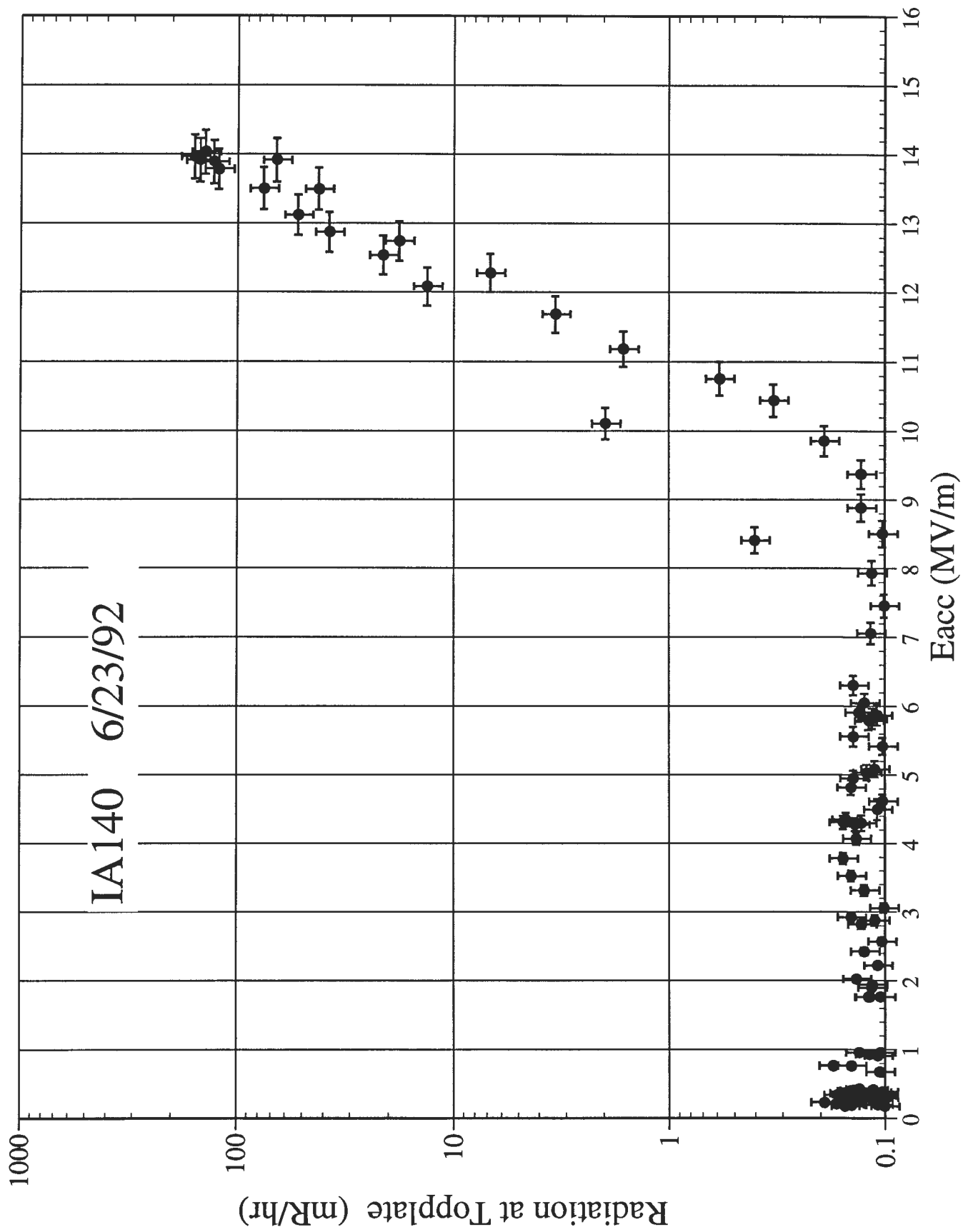
608

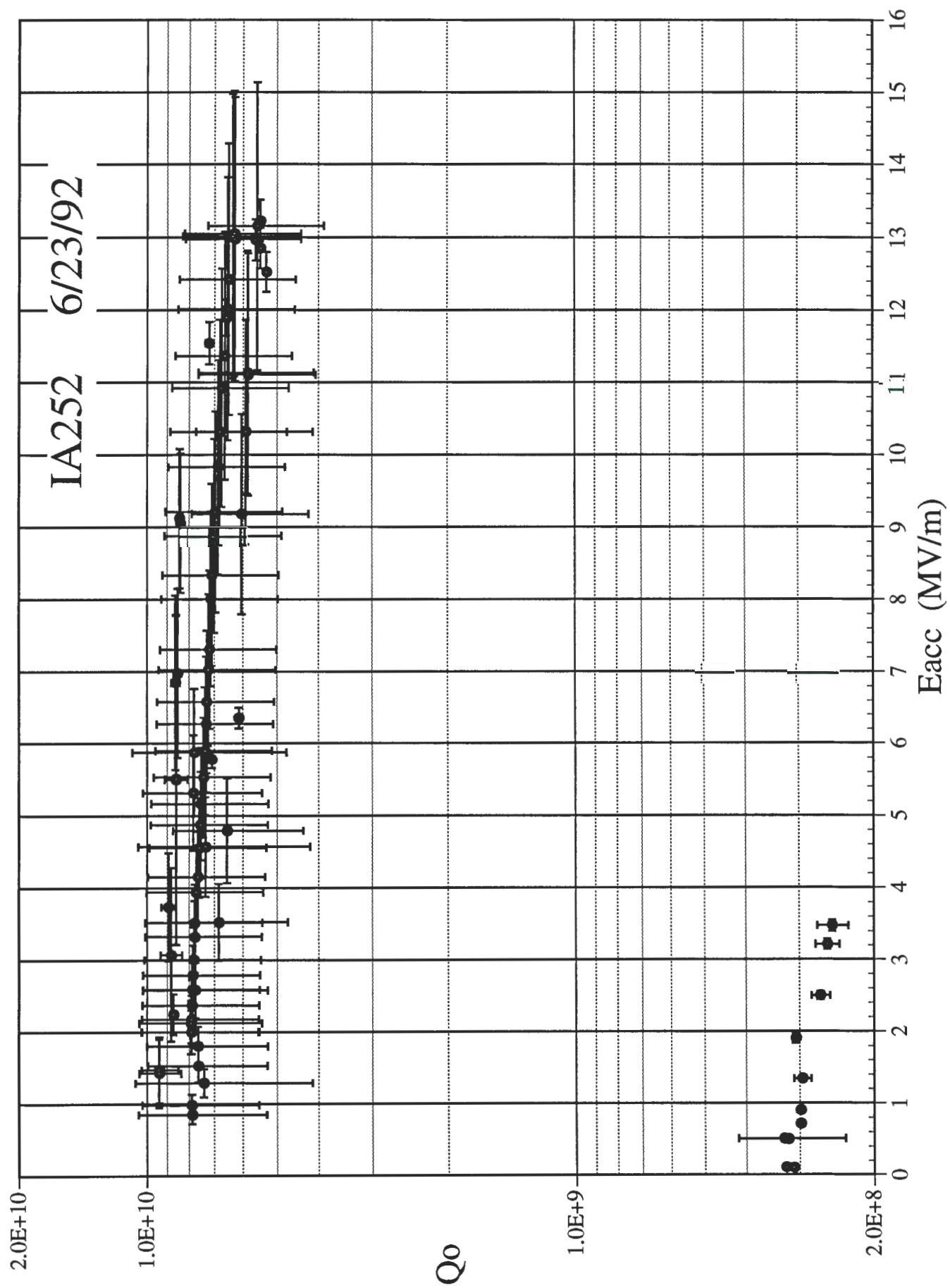
7.6, 18

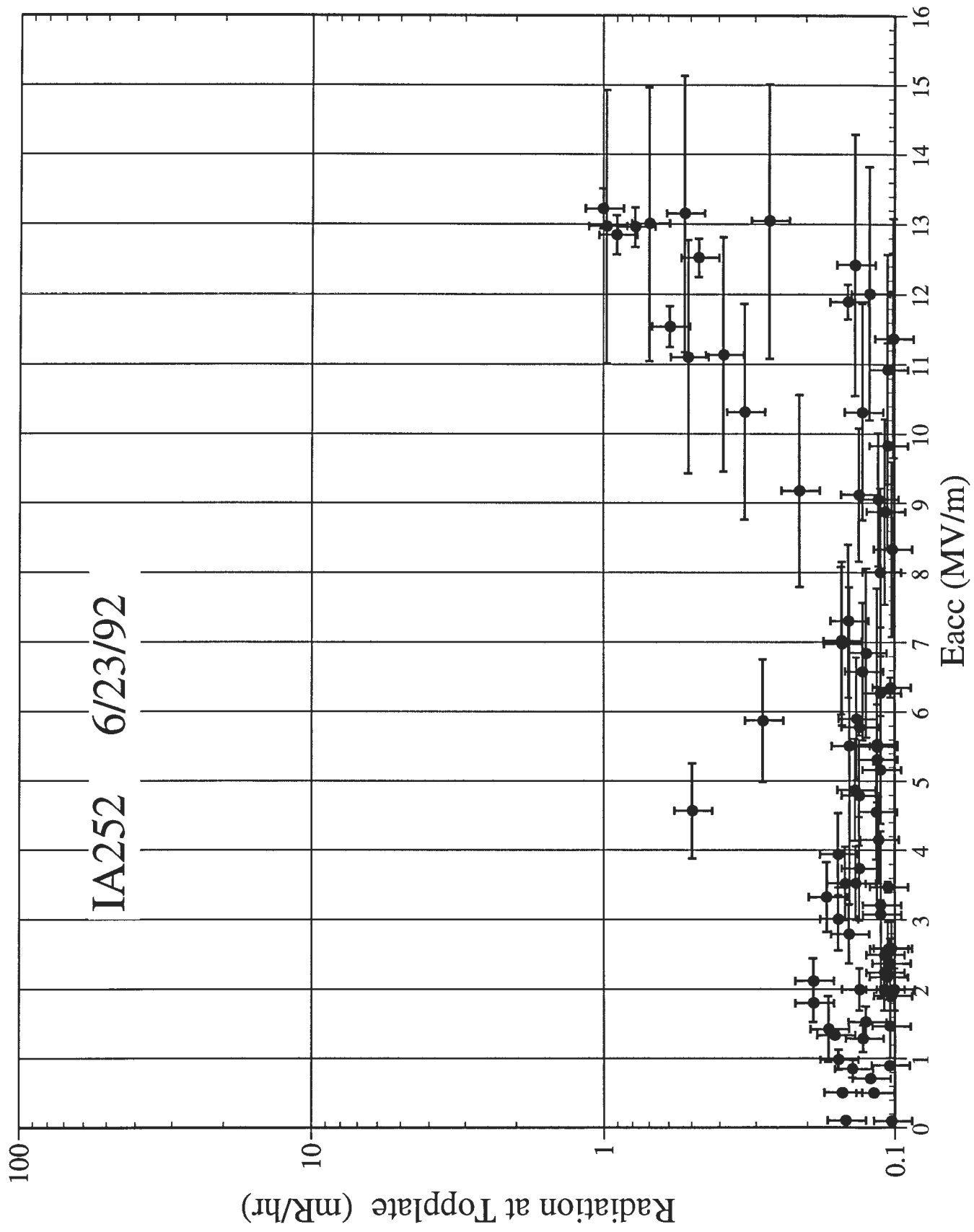
8.50 2.4

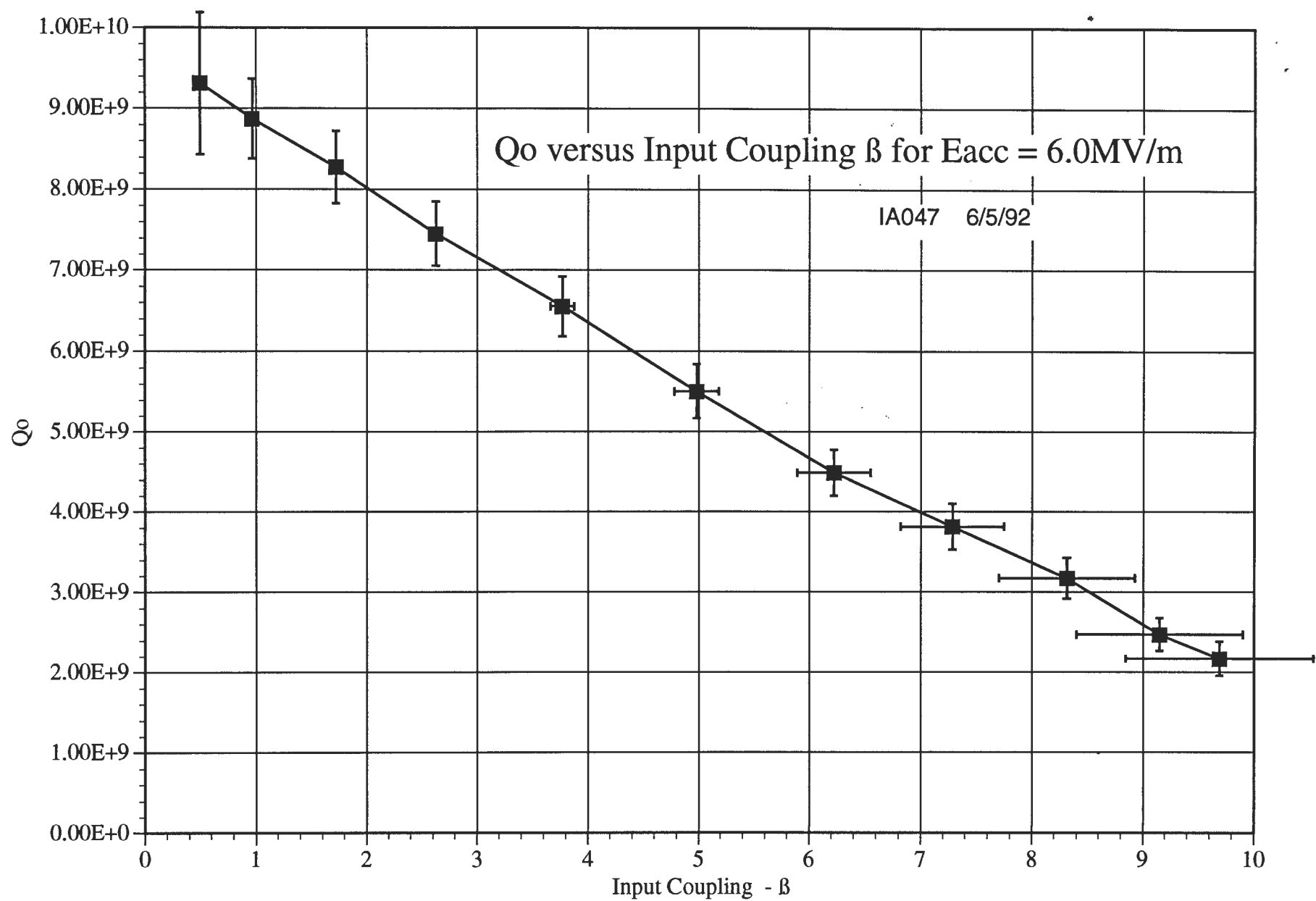


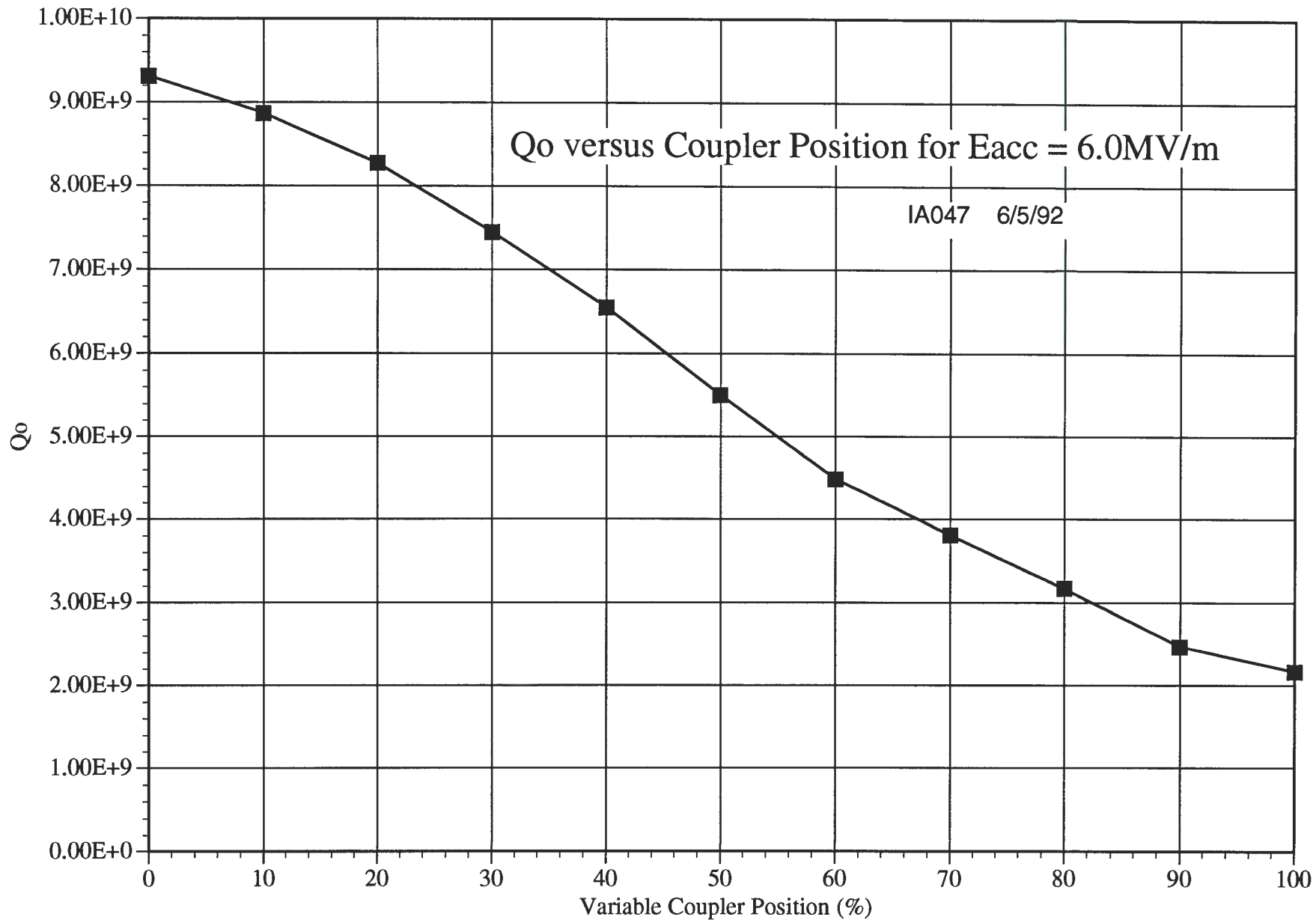




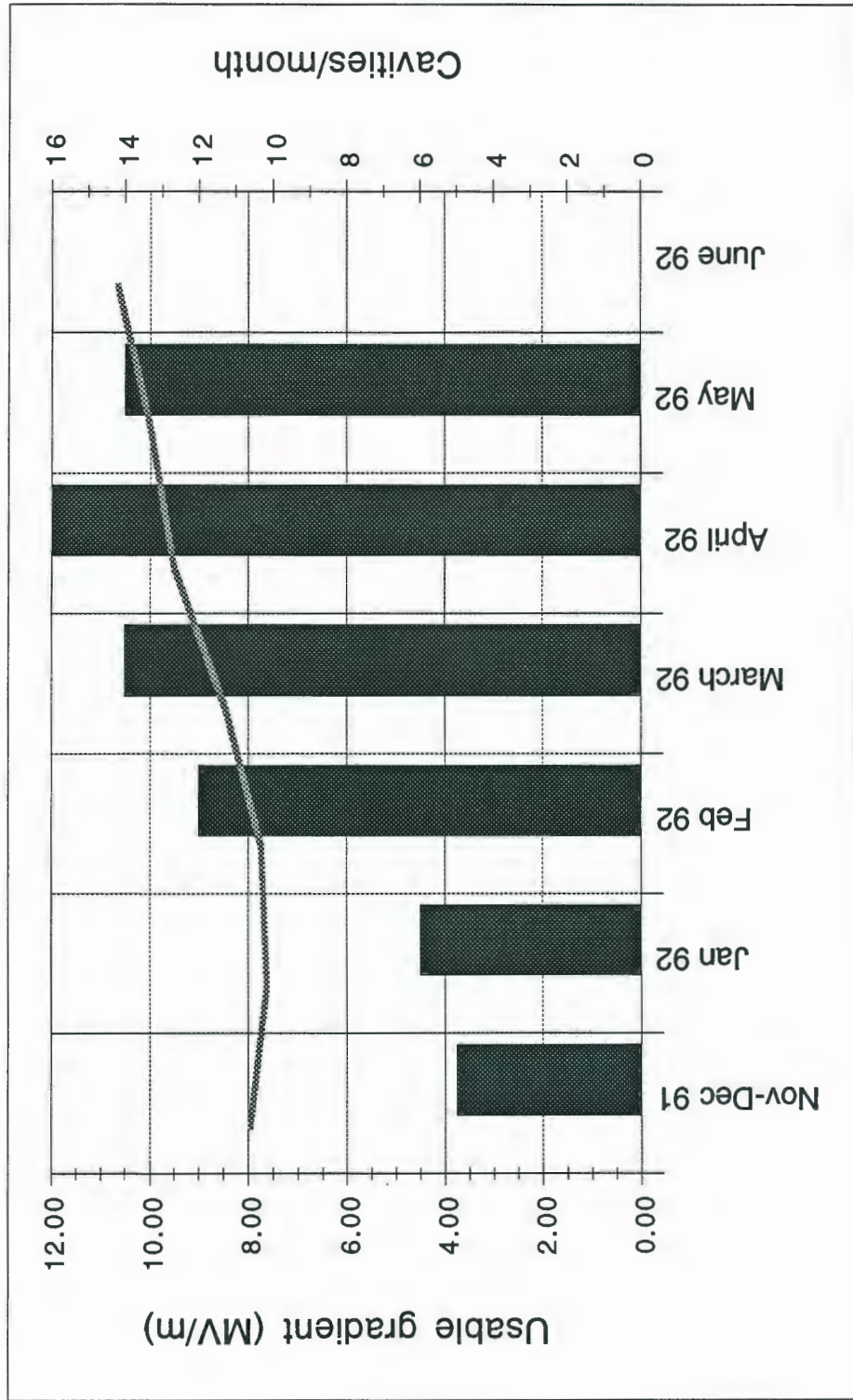




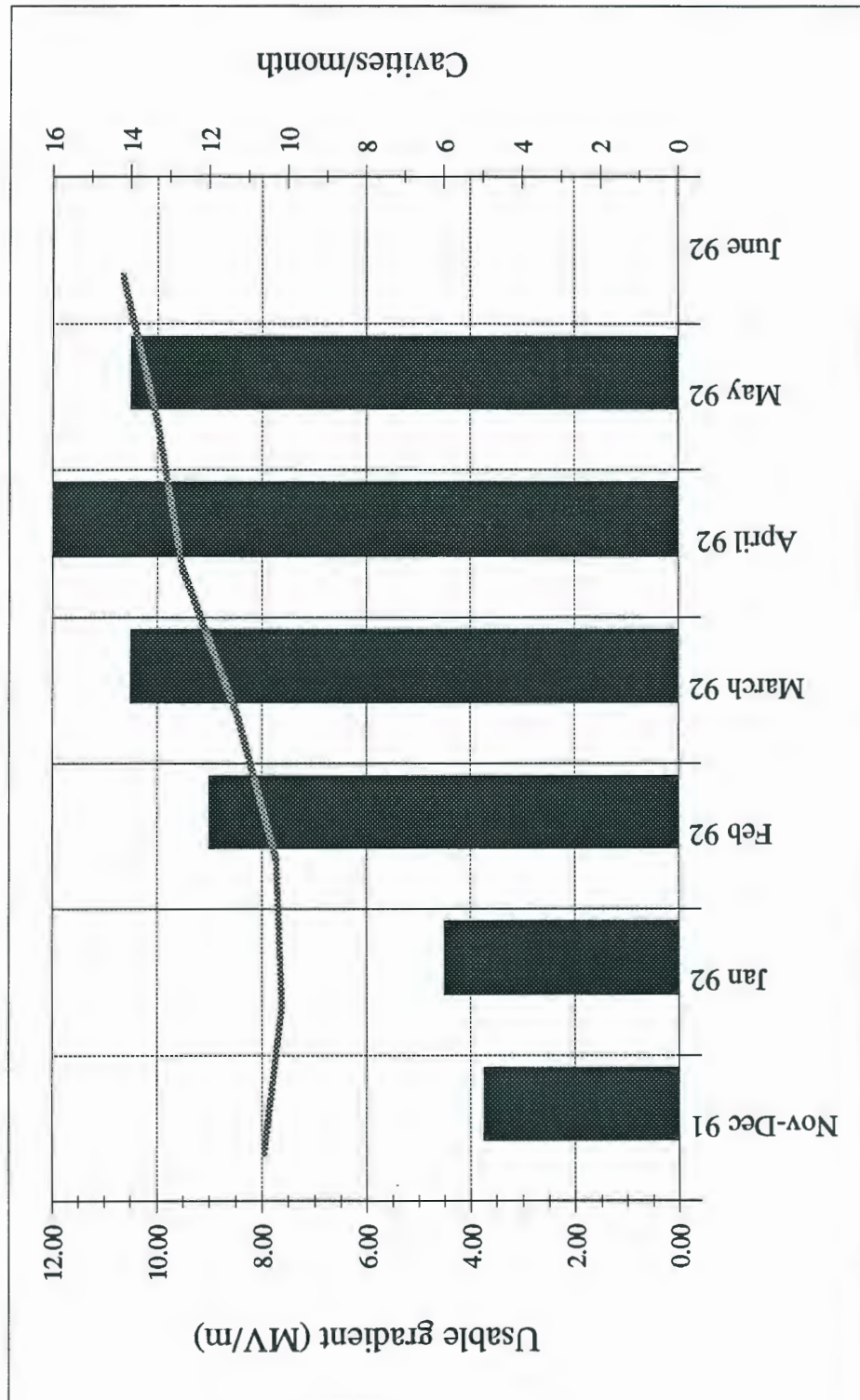


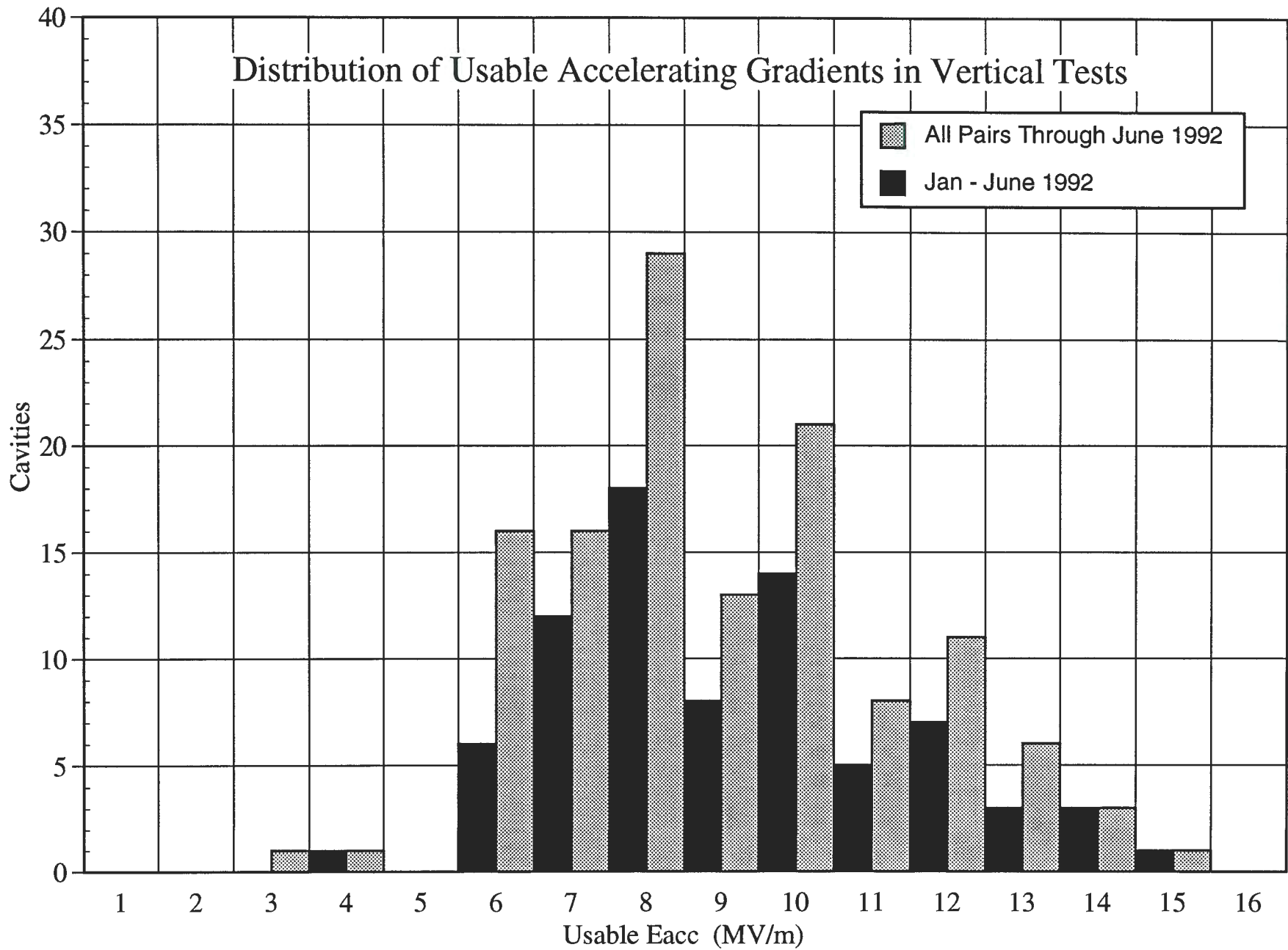


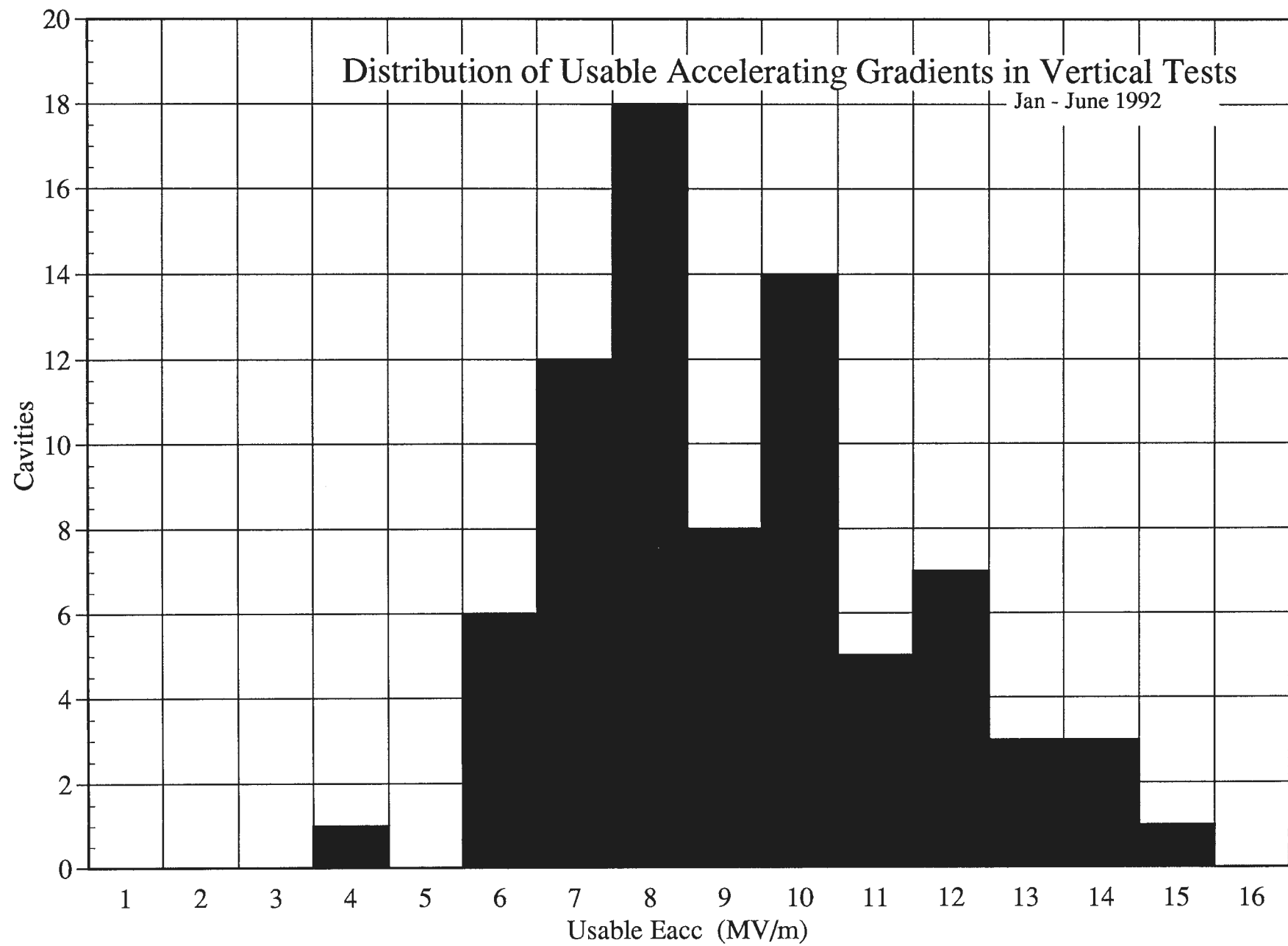
CEBAF VTA Mean Gradients vs time

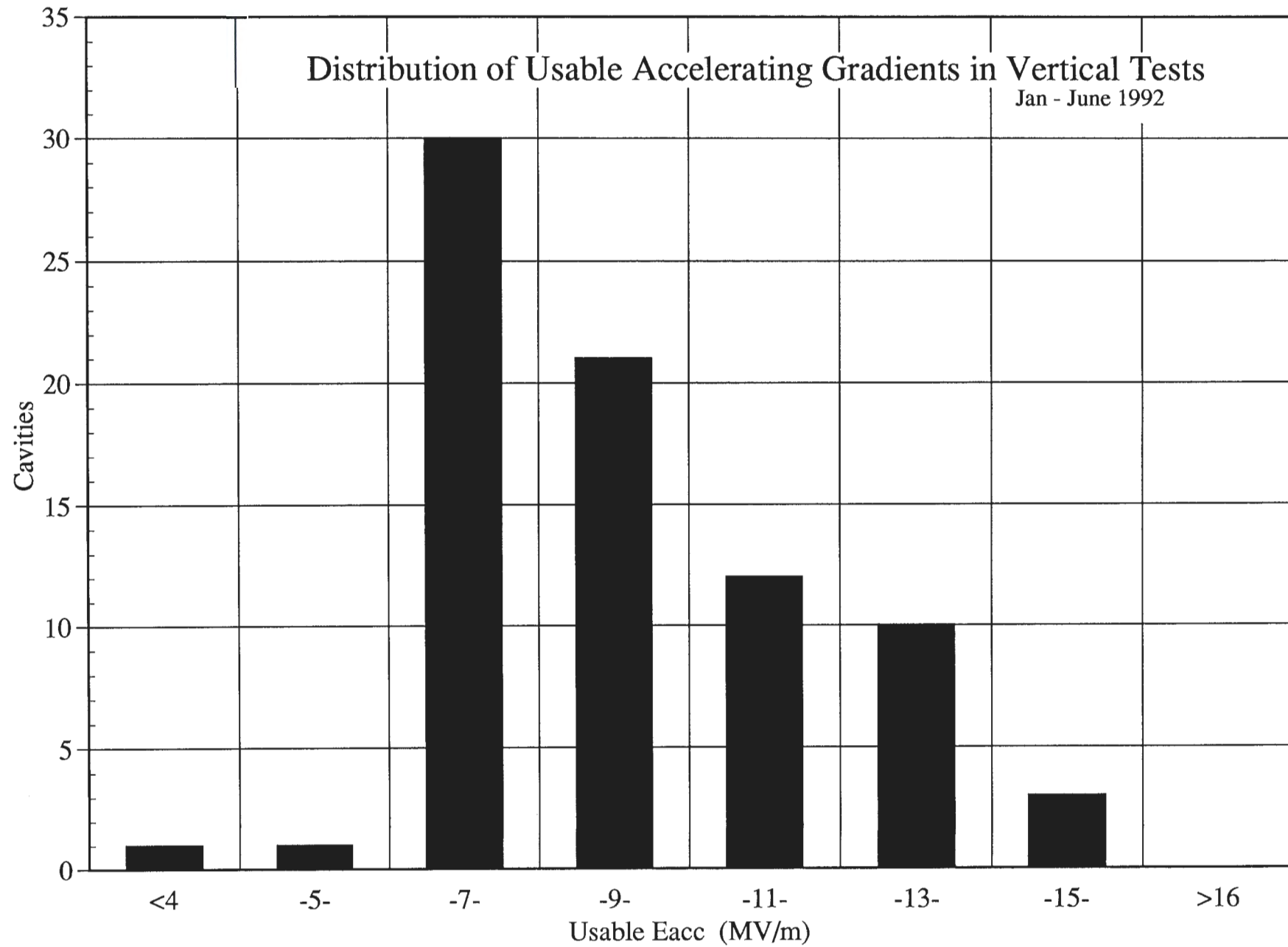


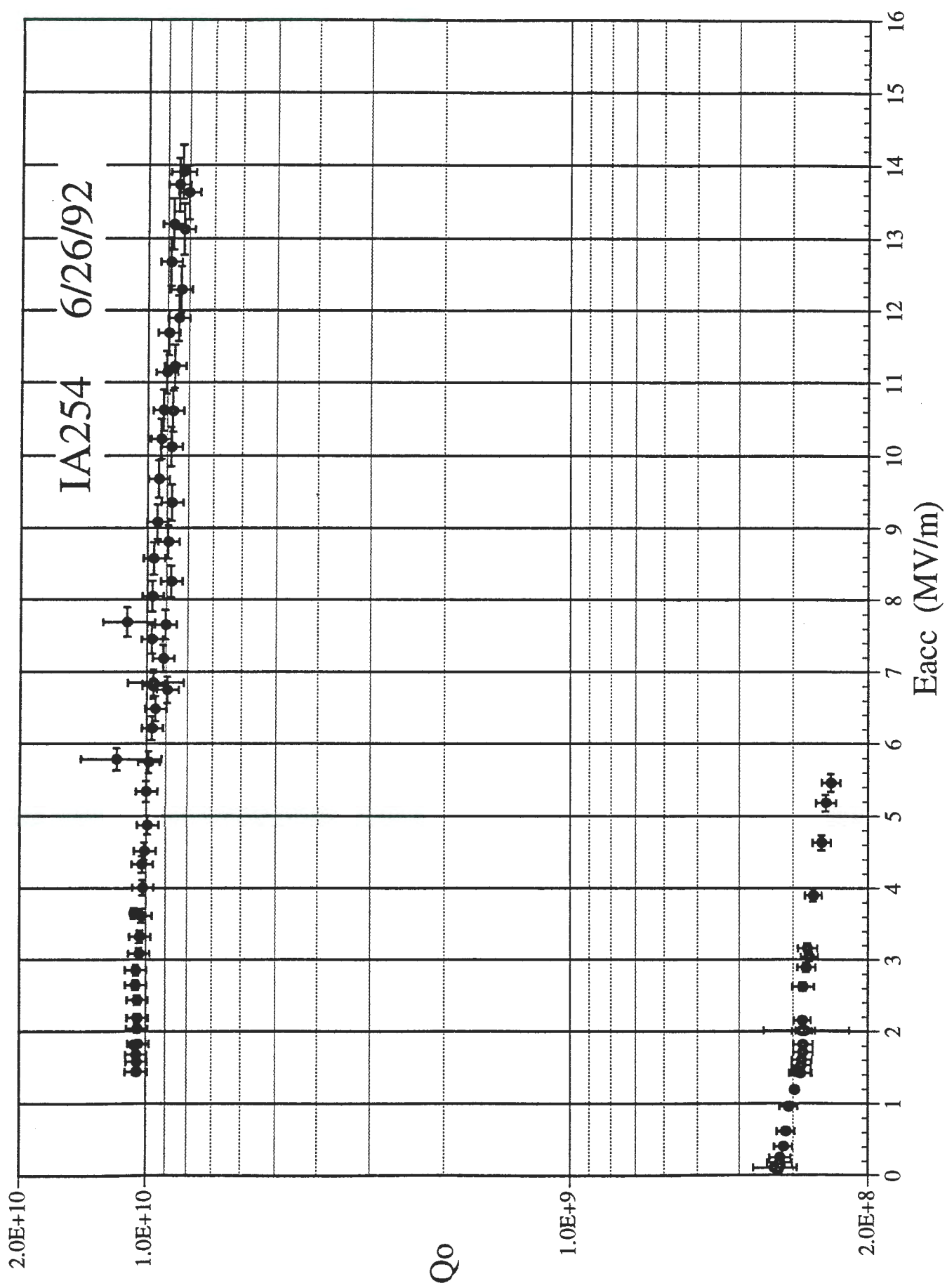
CEBAF VTA Mean Gradients vs time

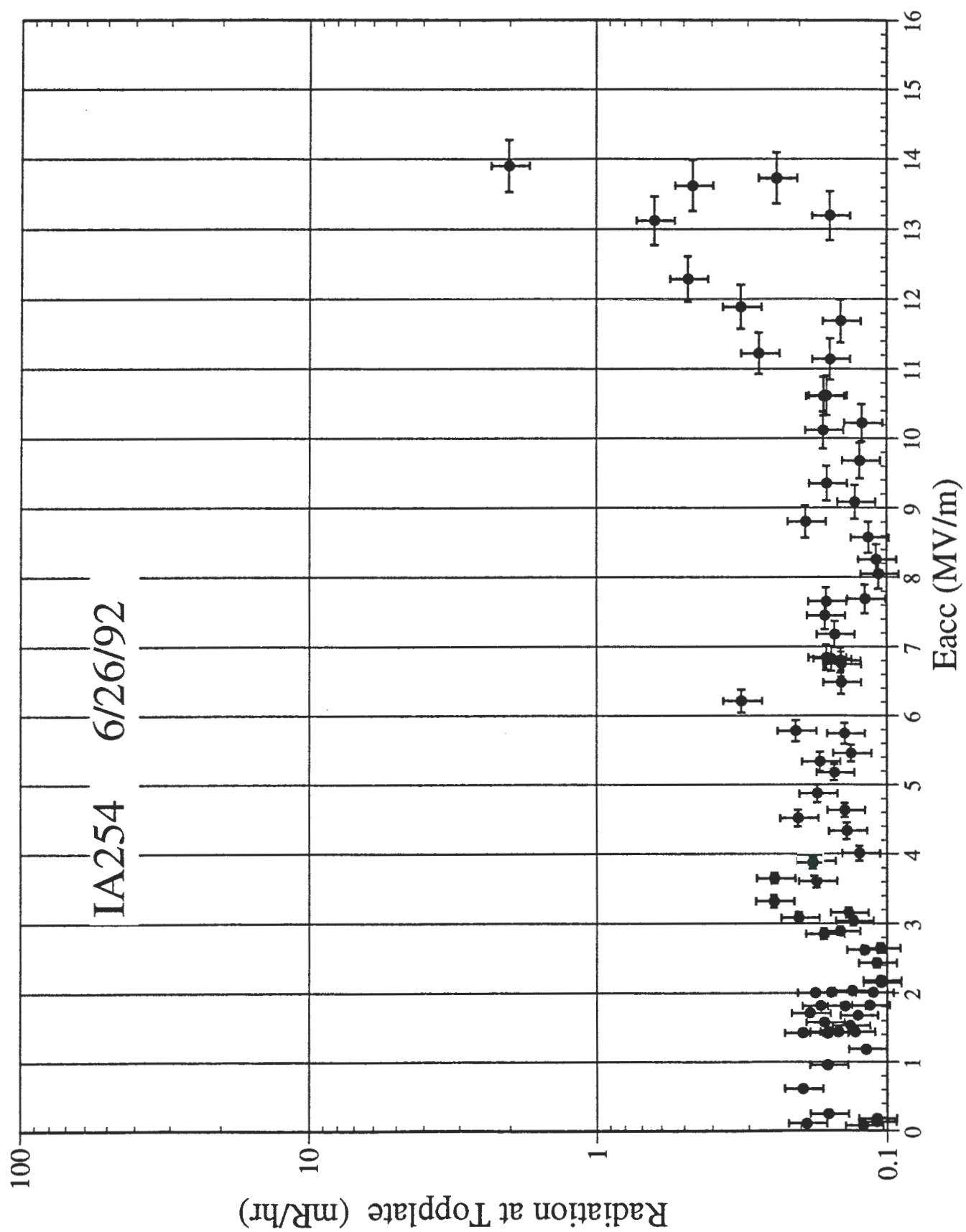


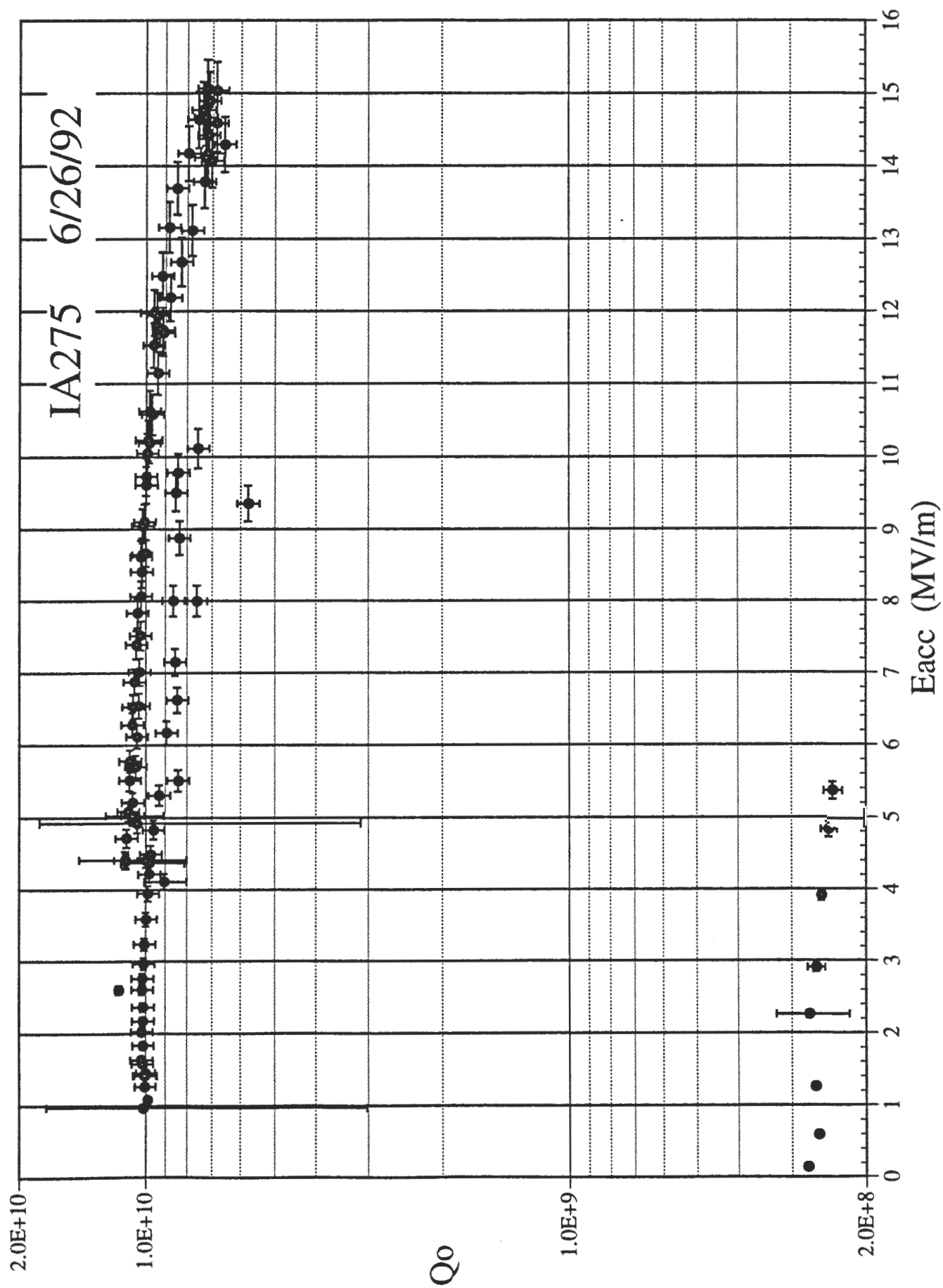


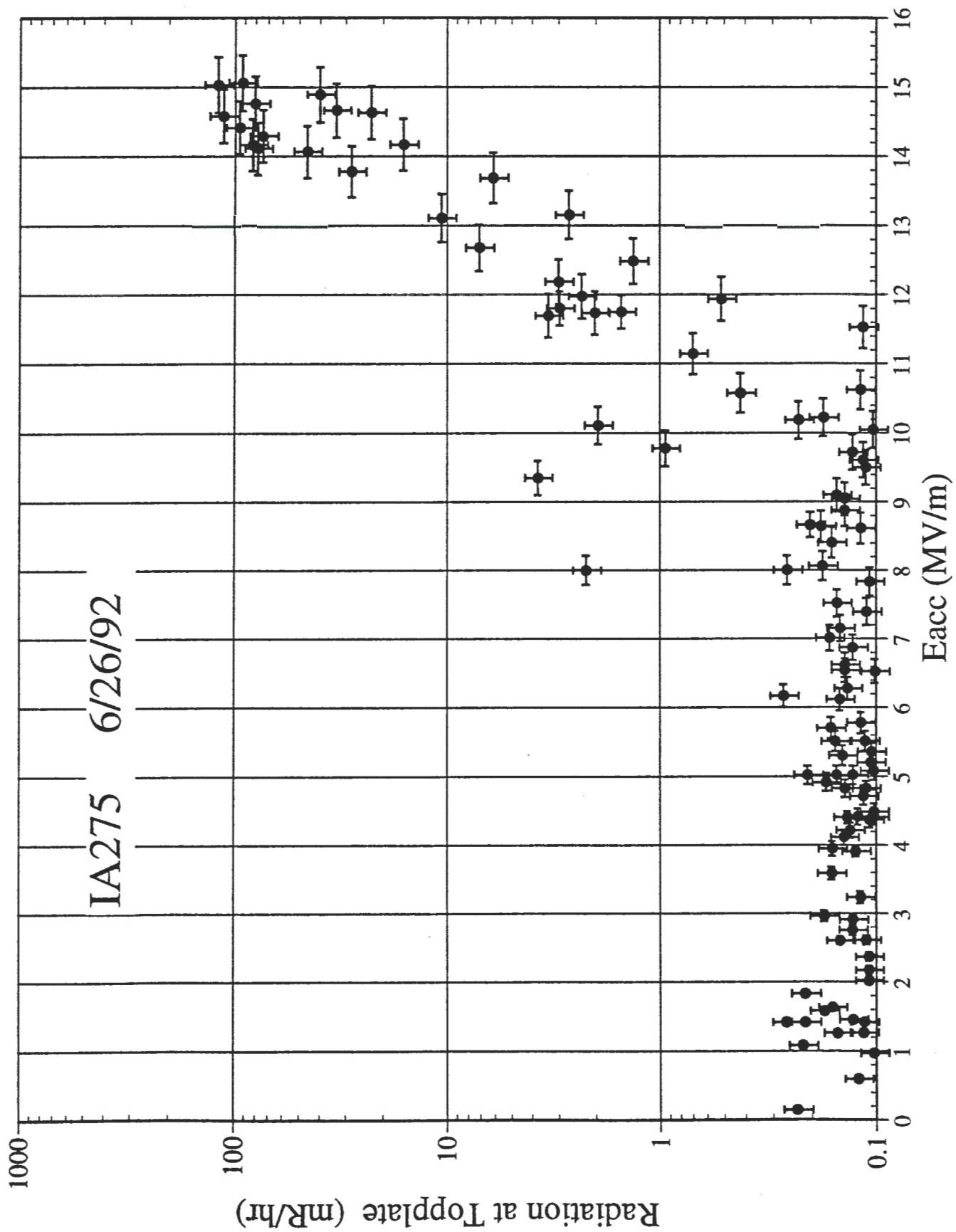




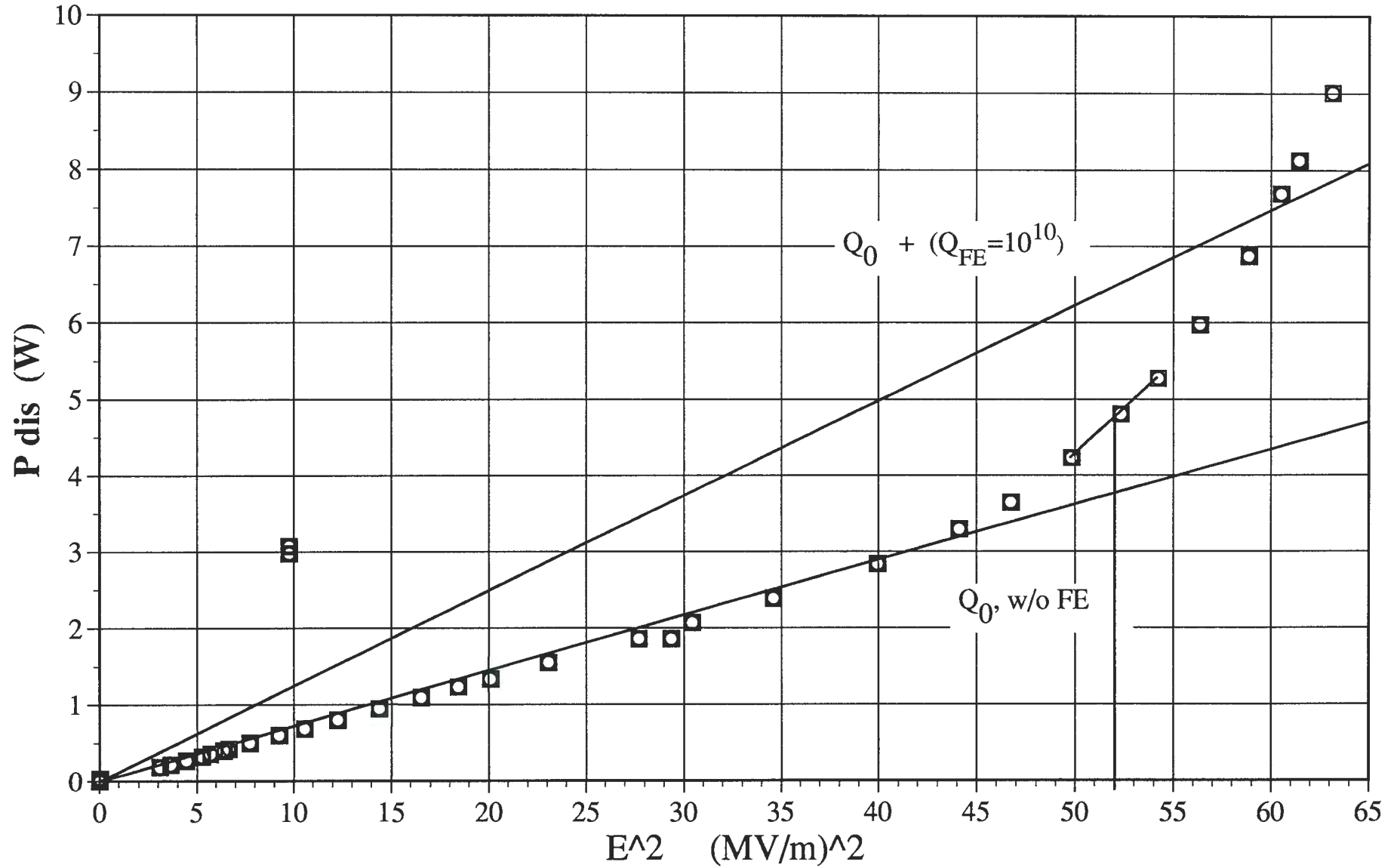


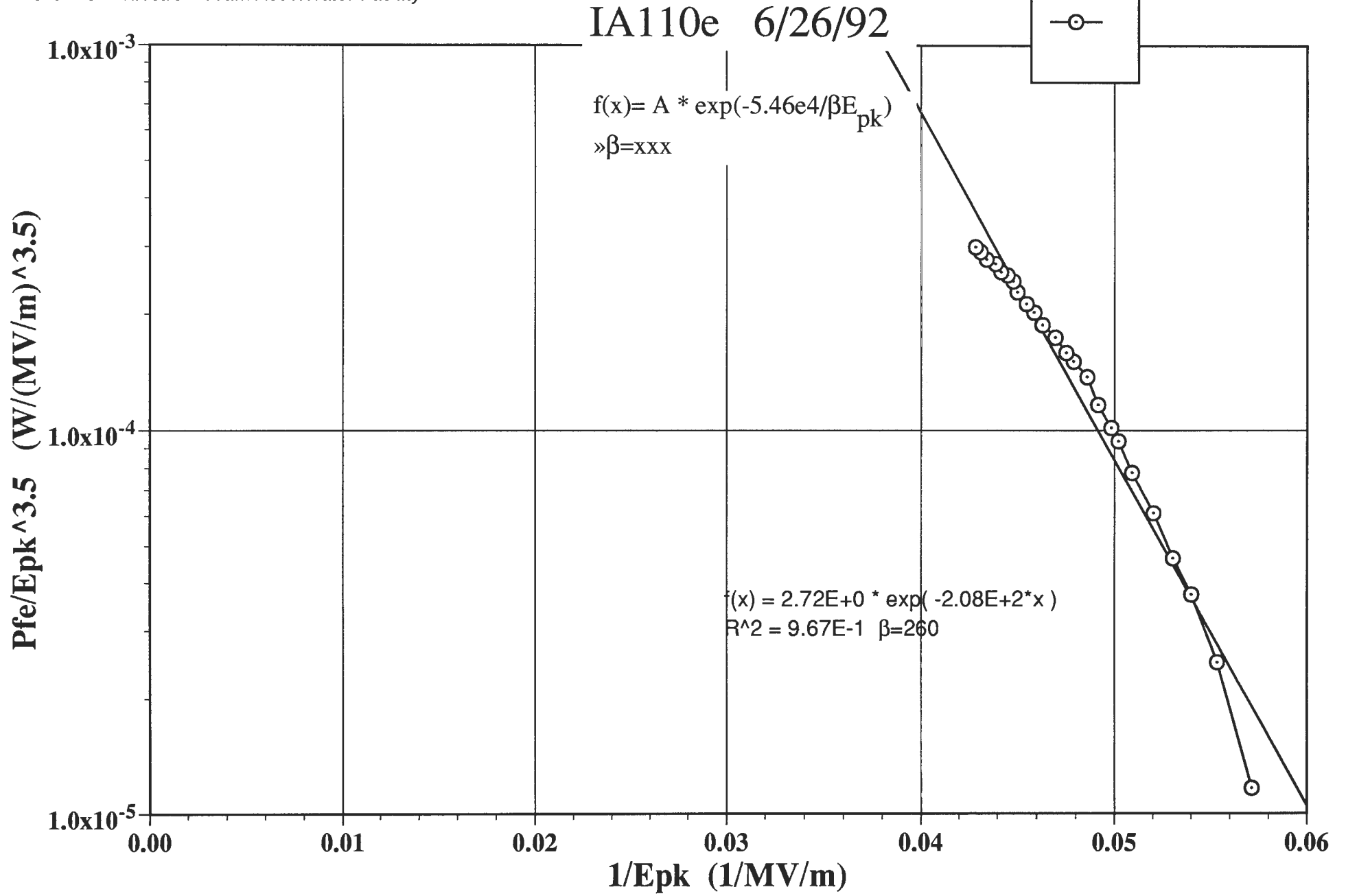


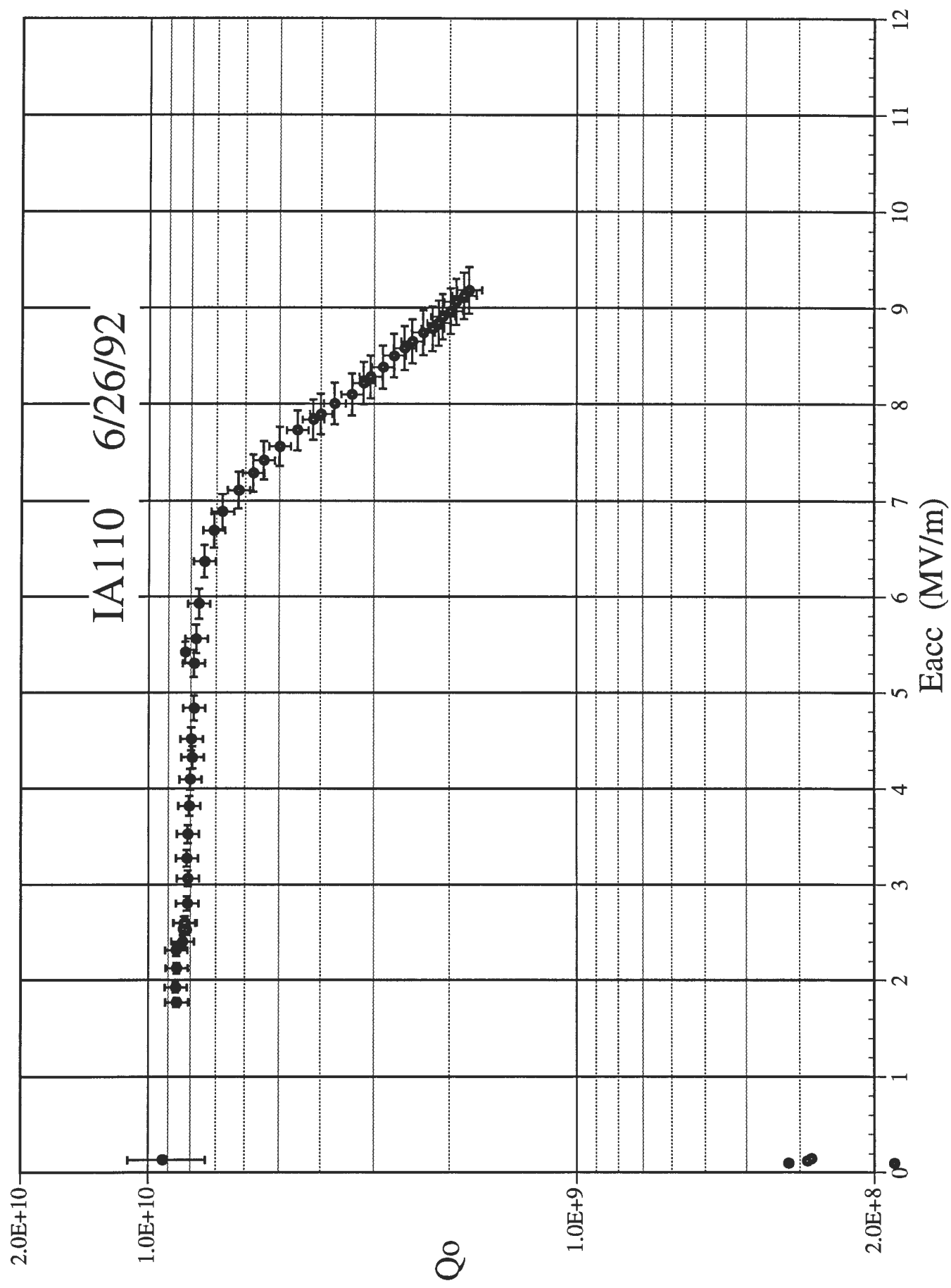


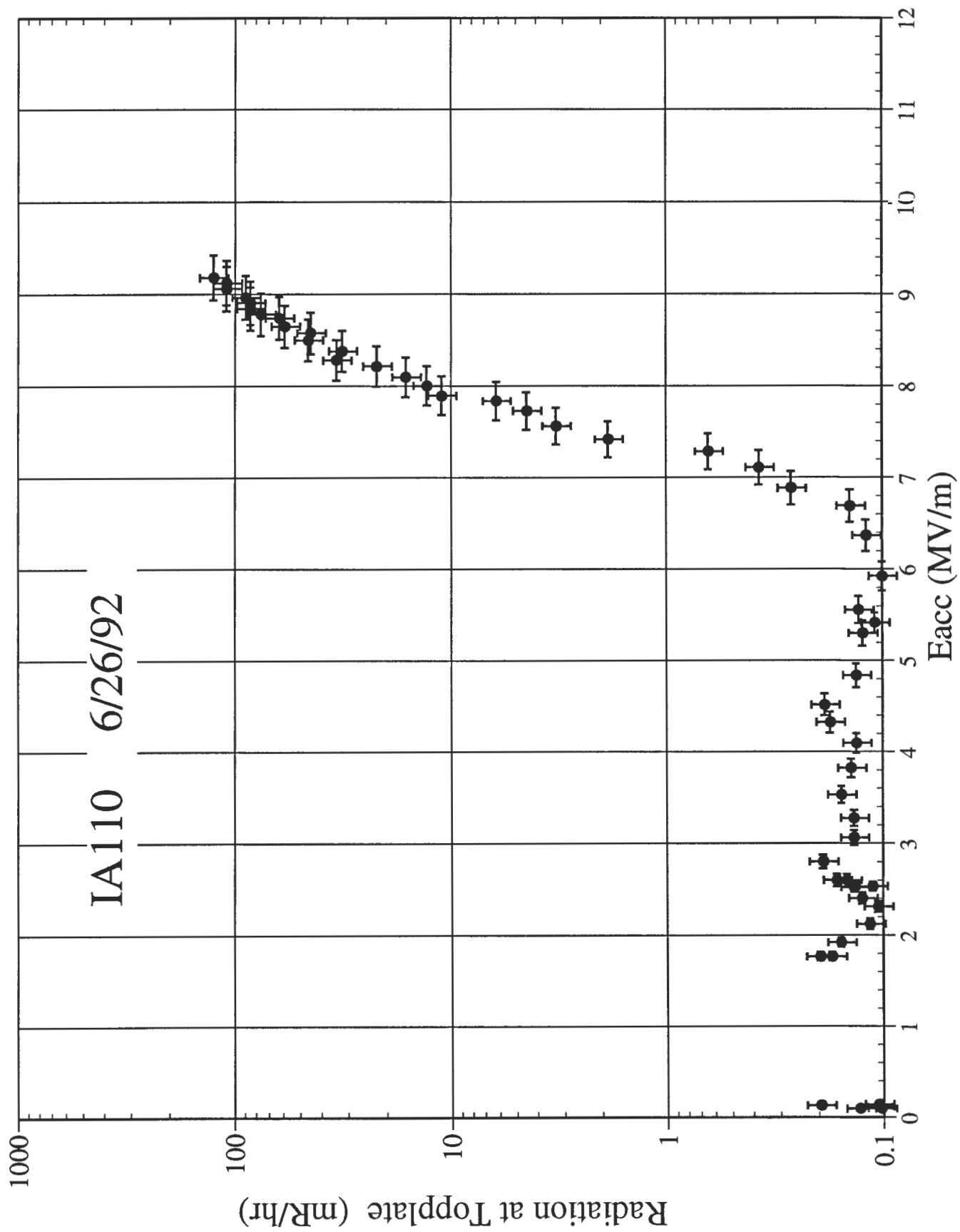


IA110e 6/26/92

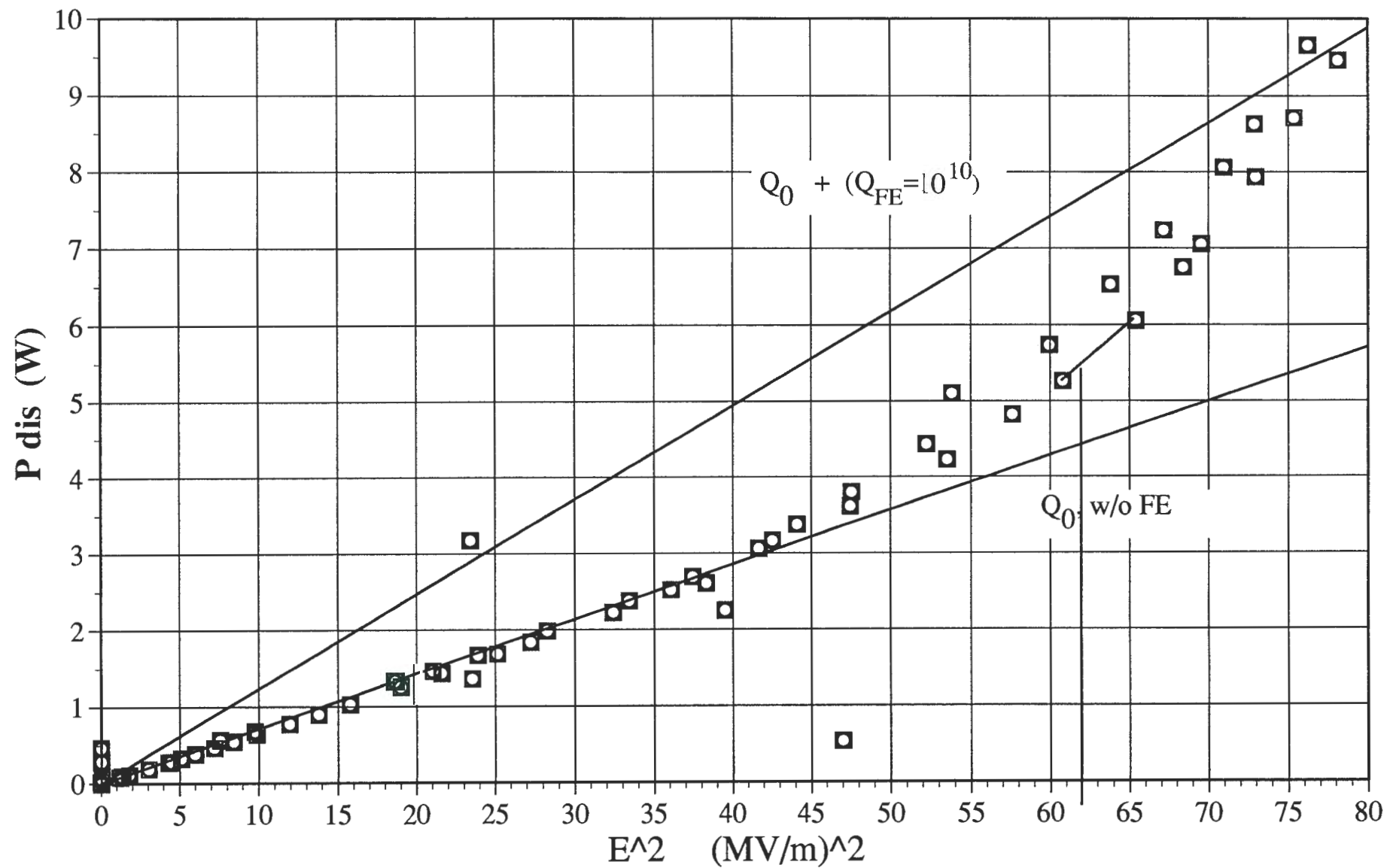




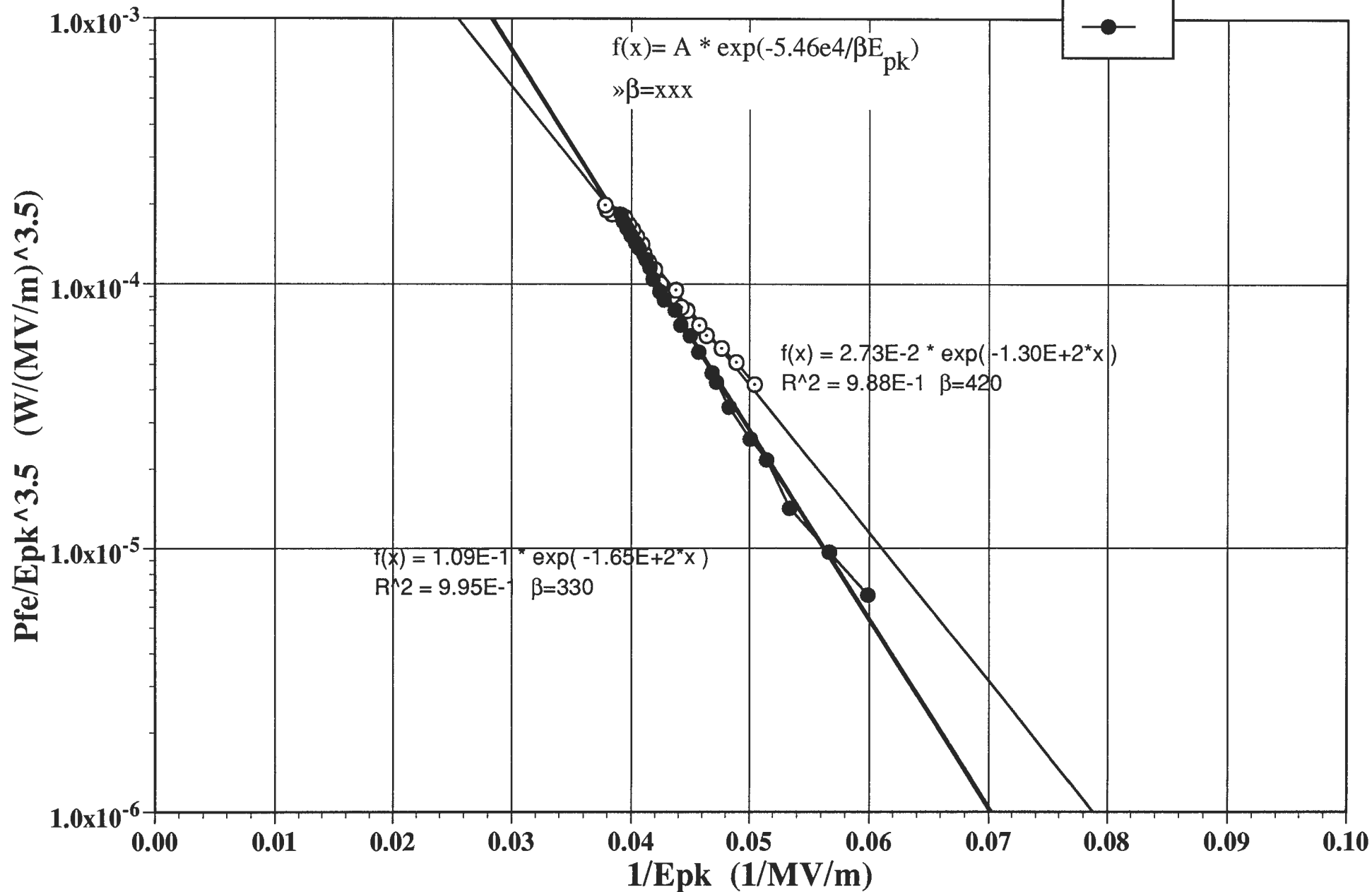


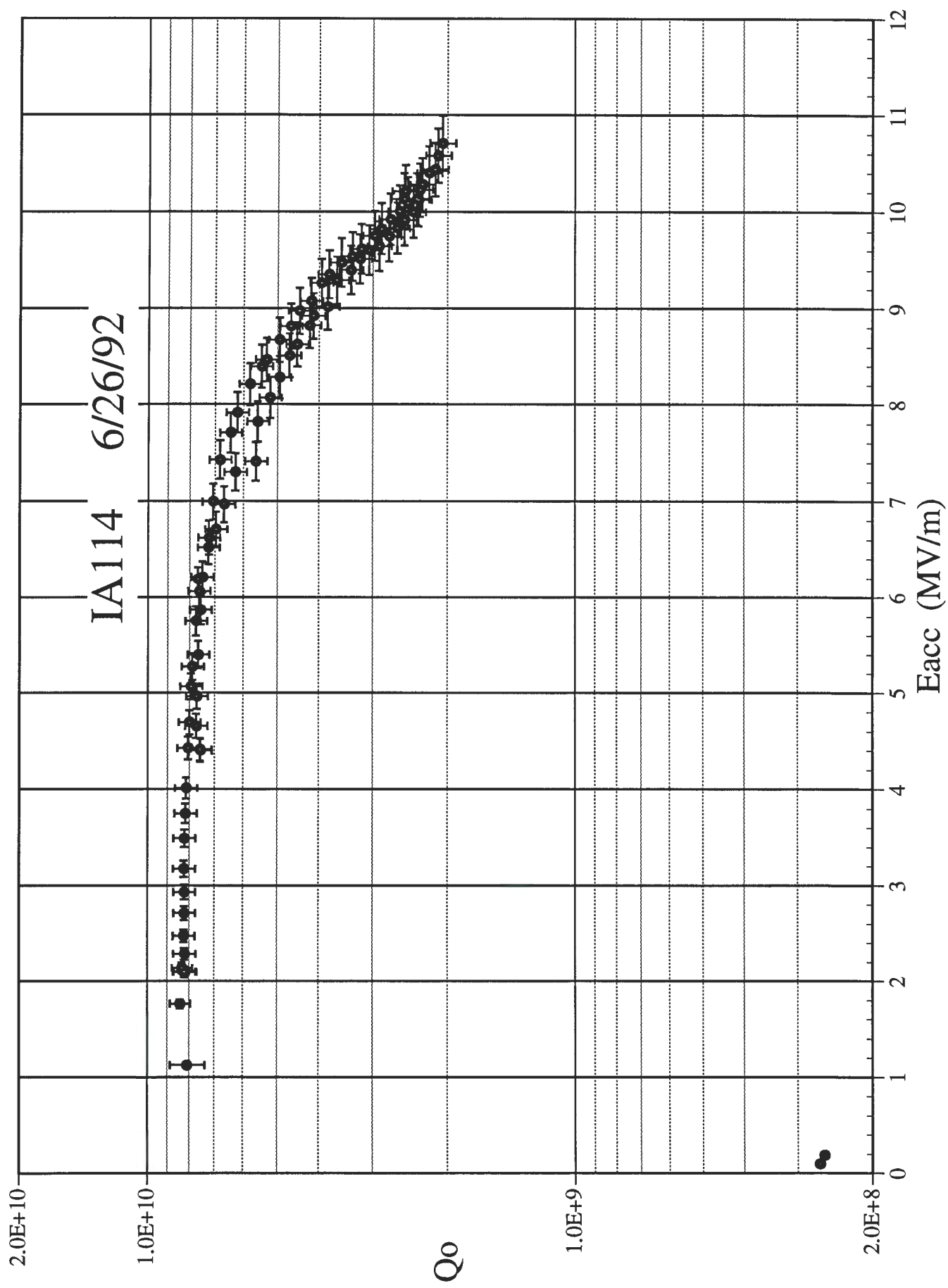


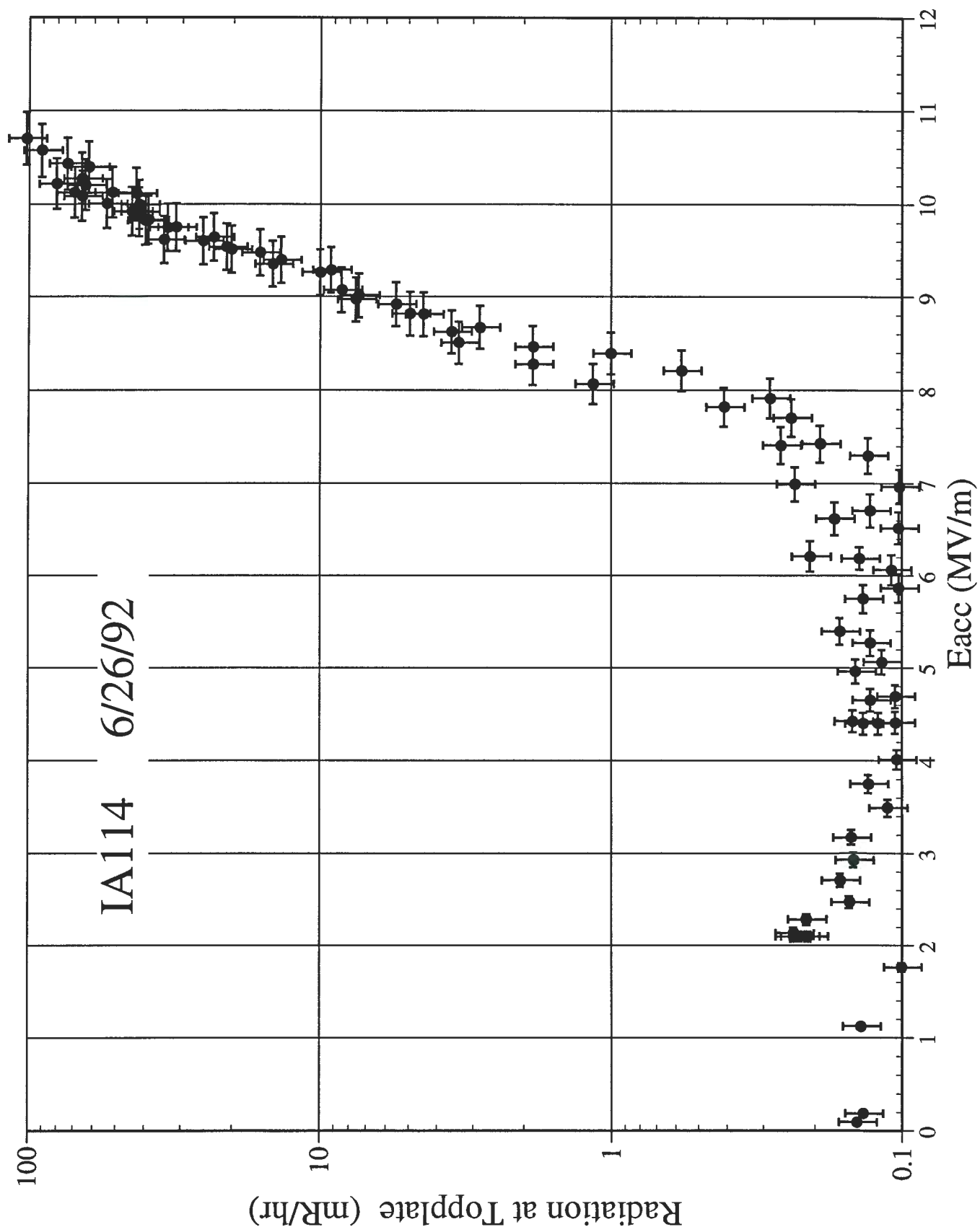
IA114e 6/26/92

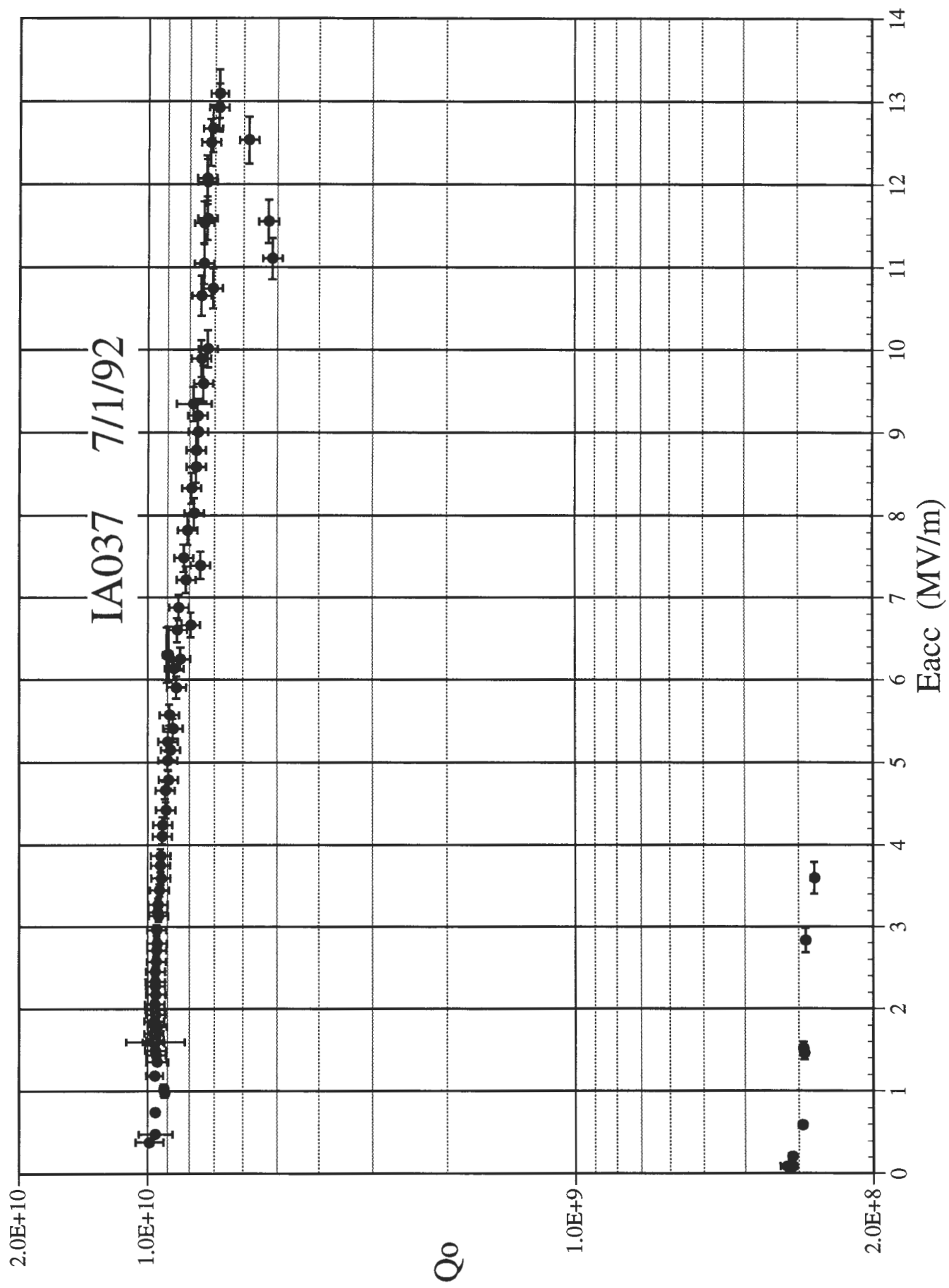


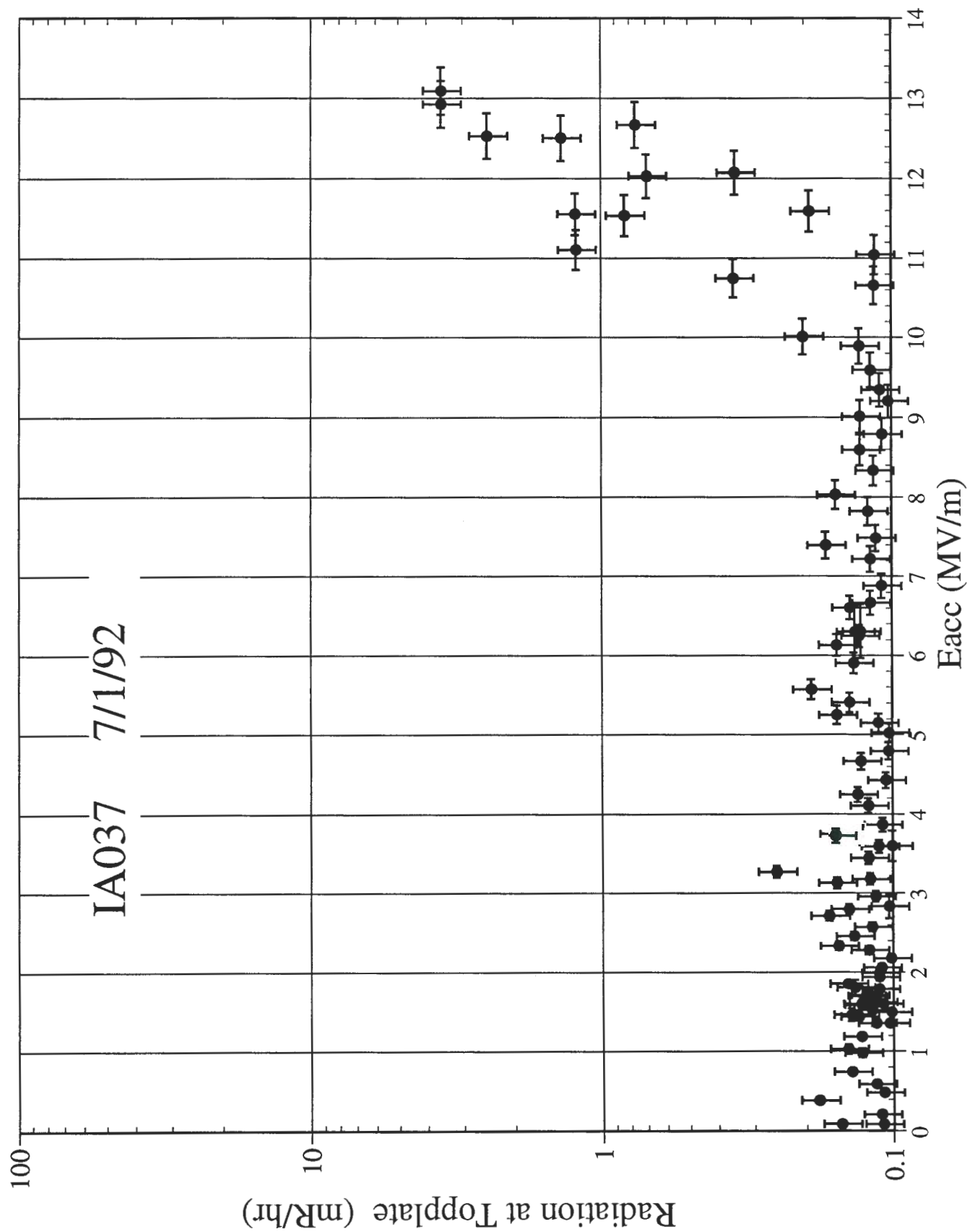
IA114e 6/26/92

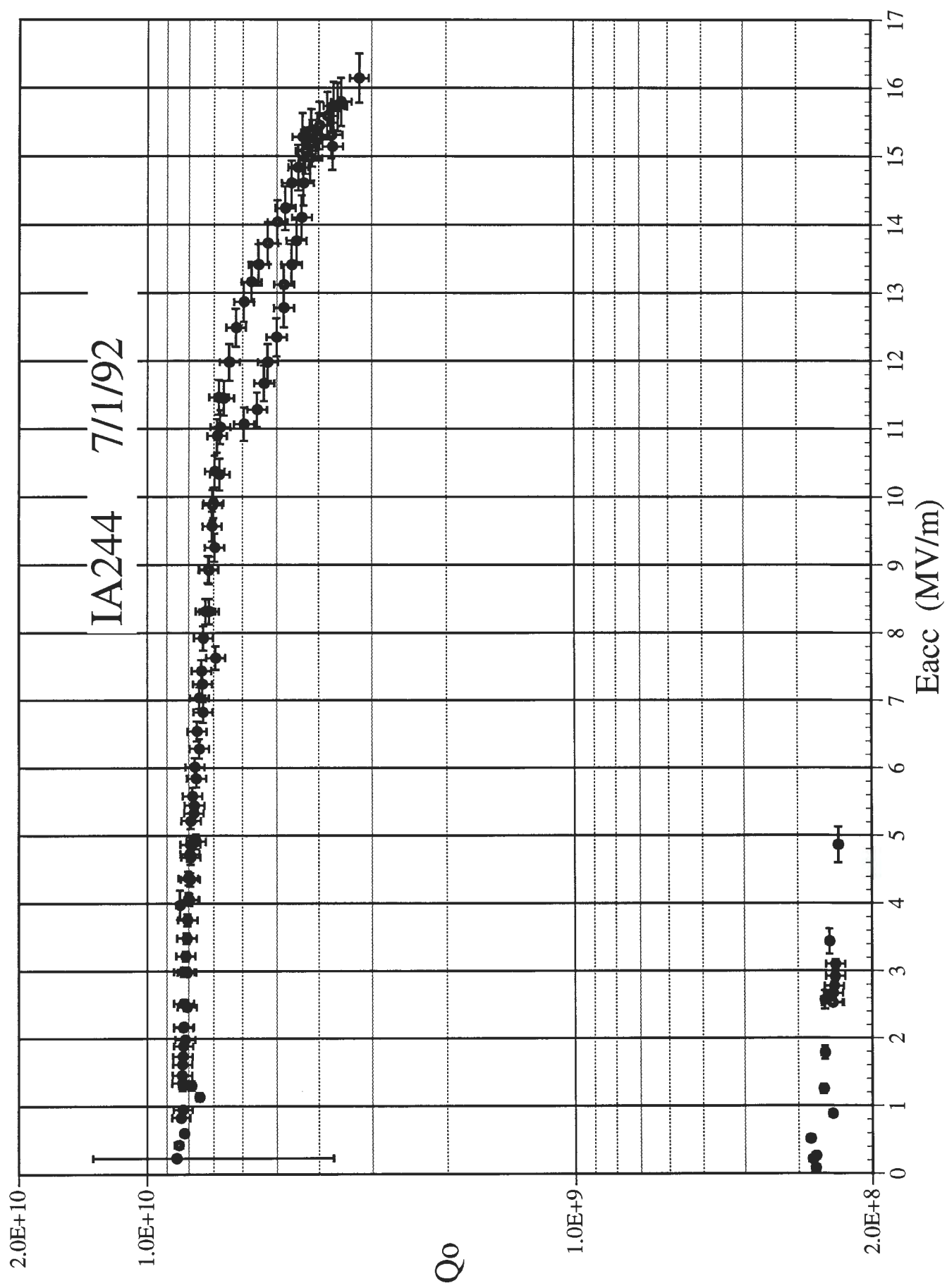


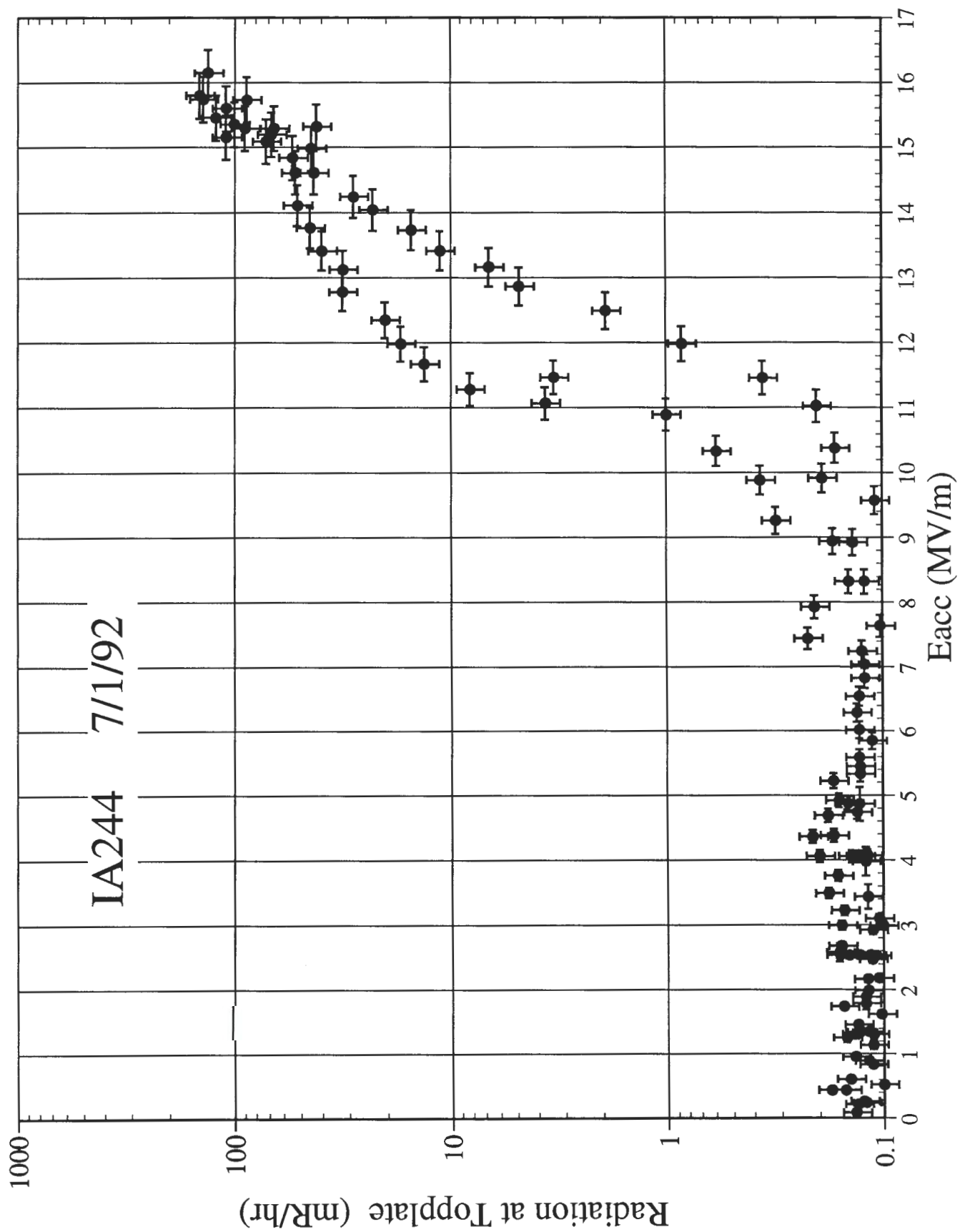


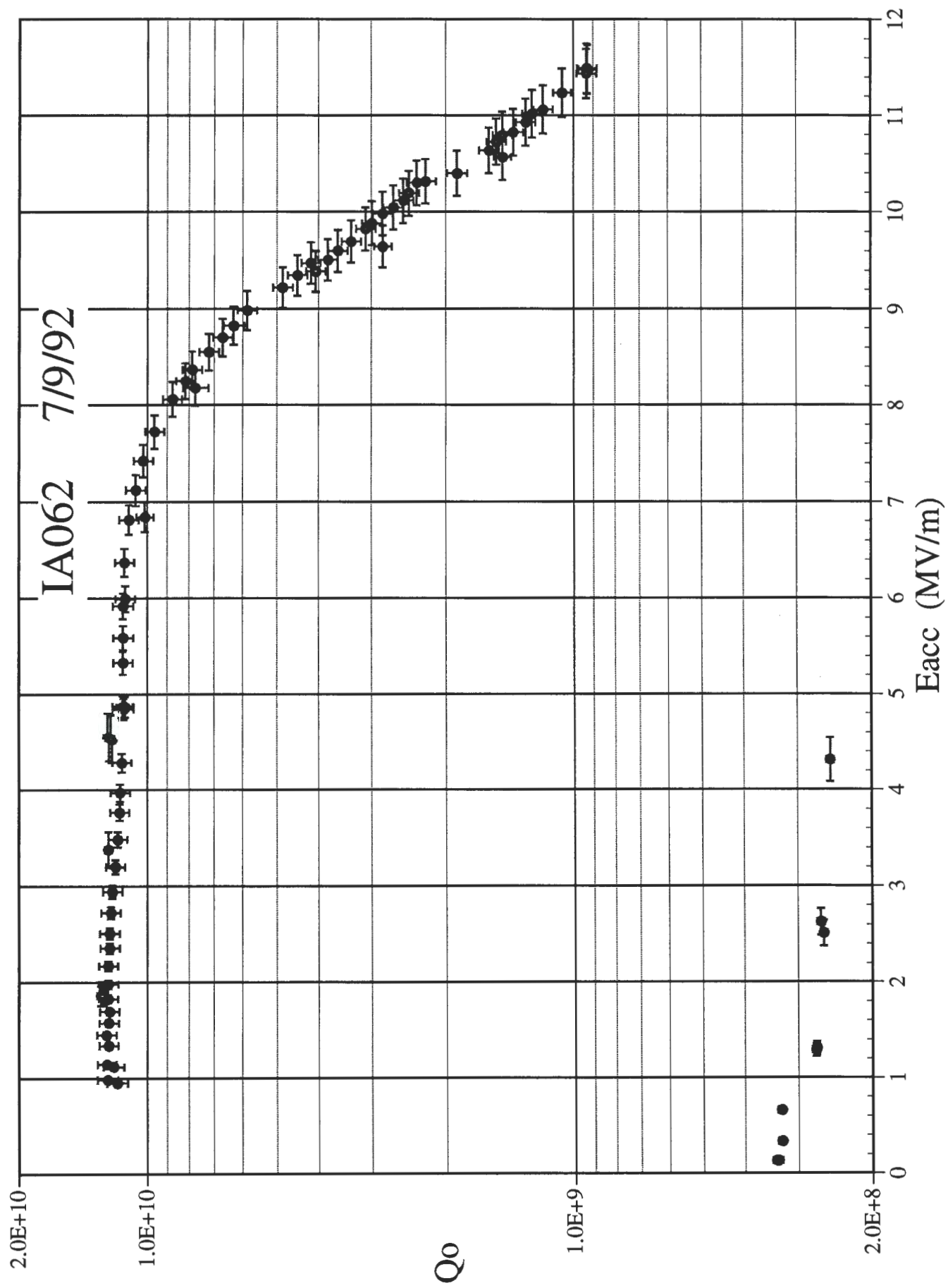


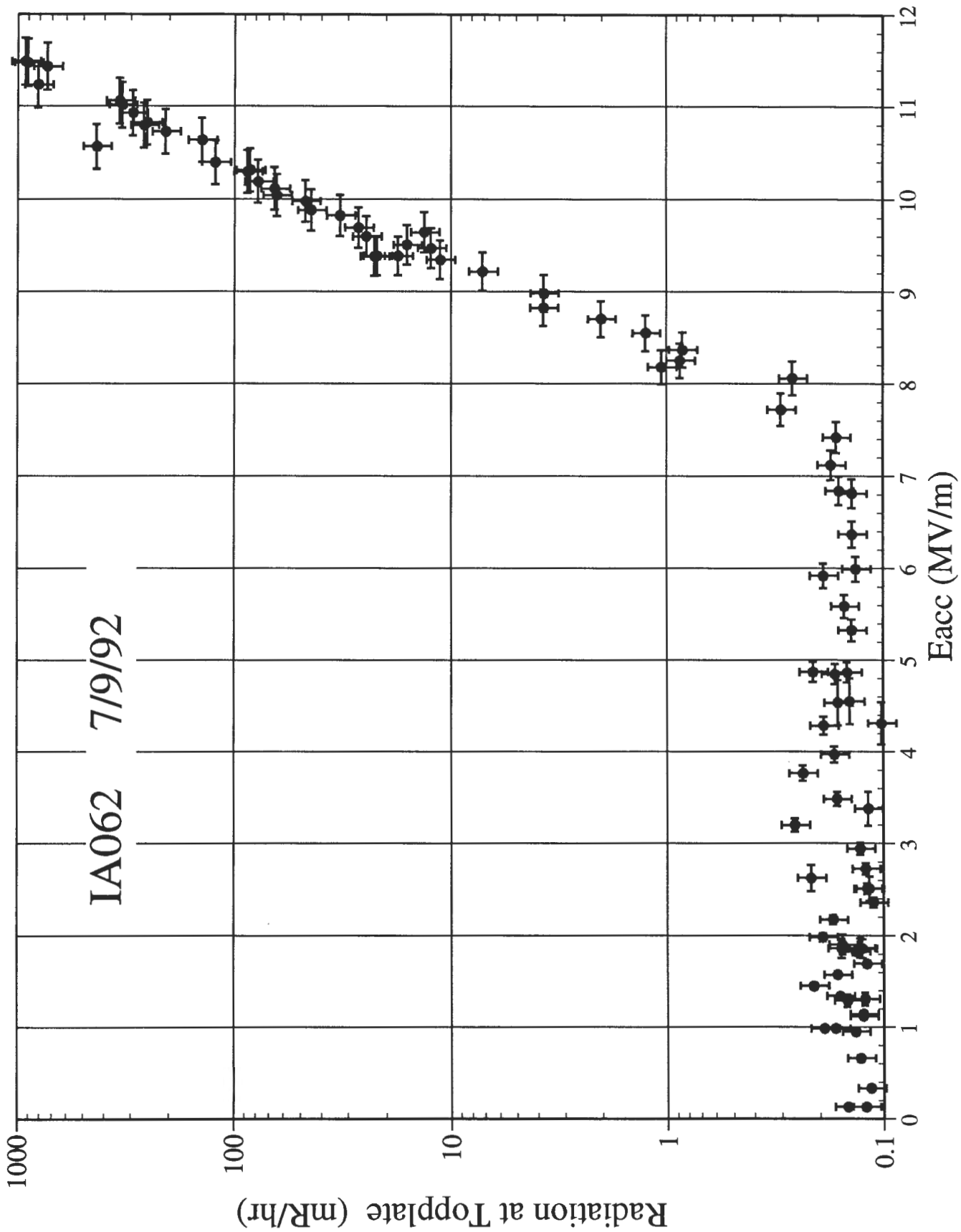


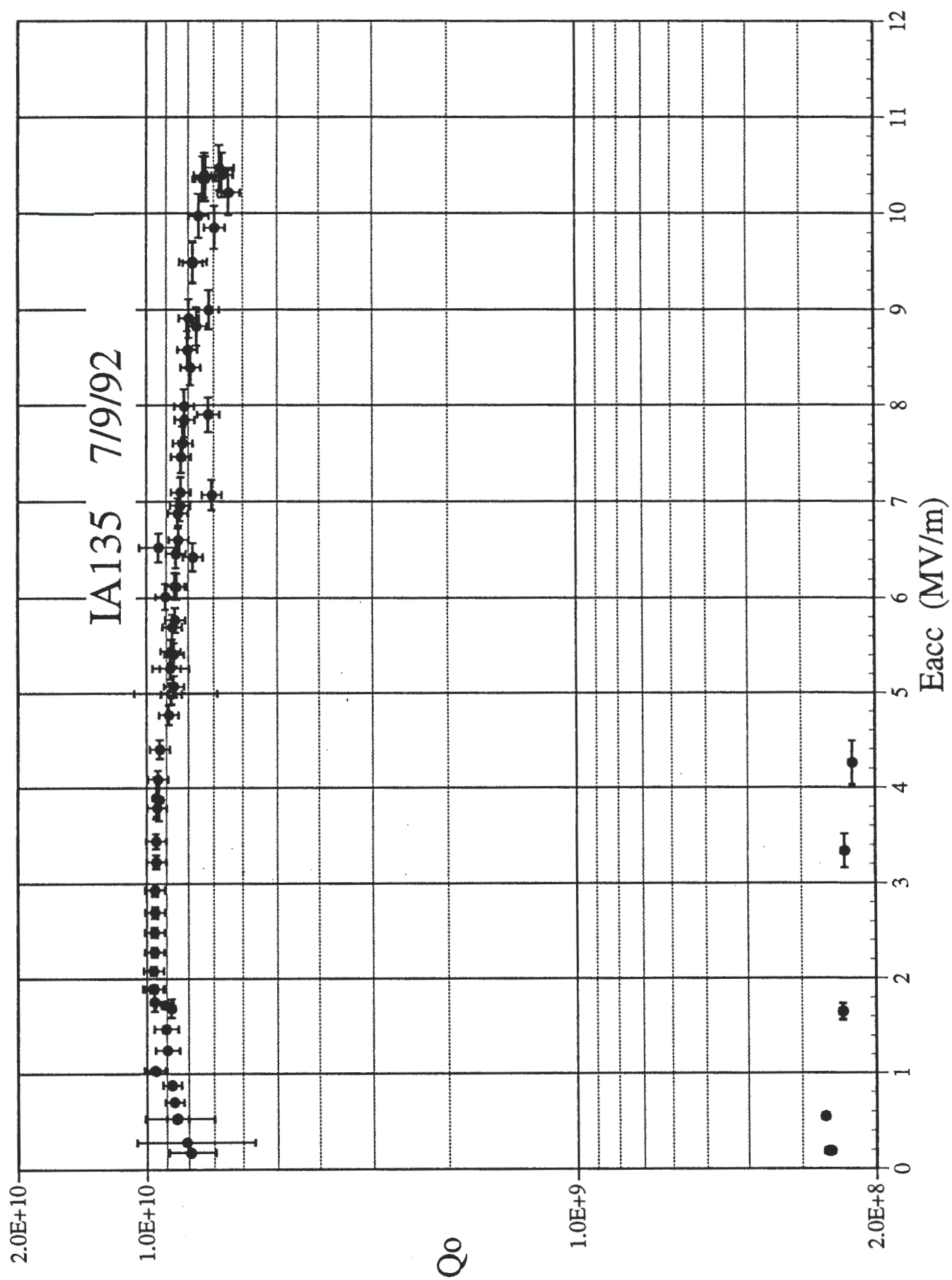


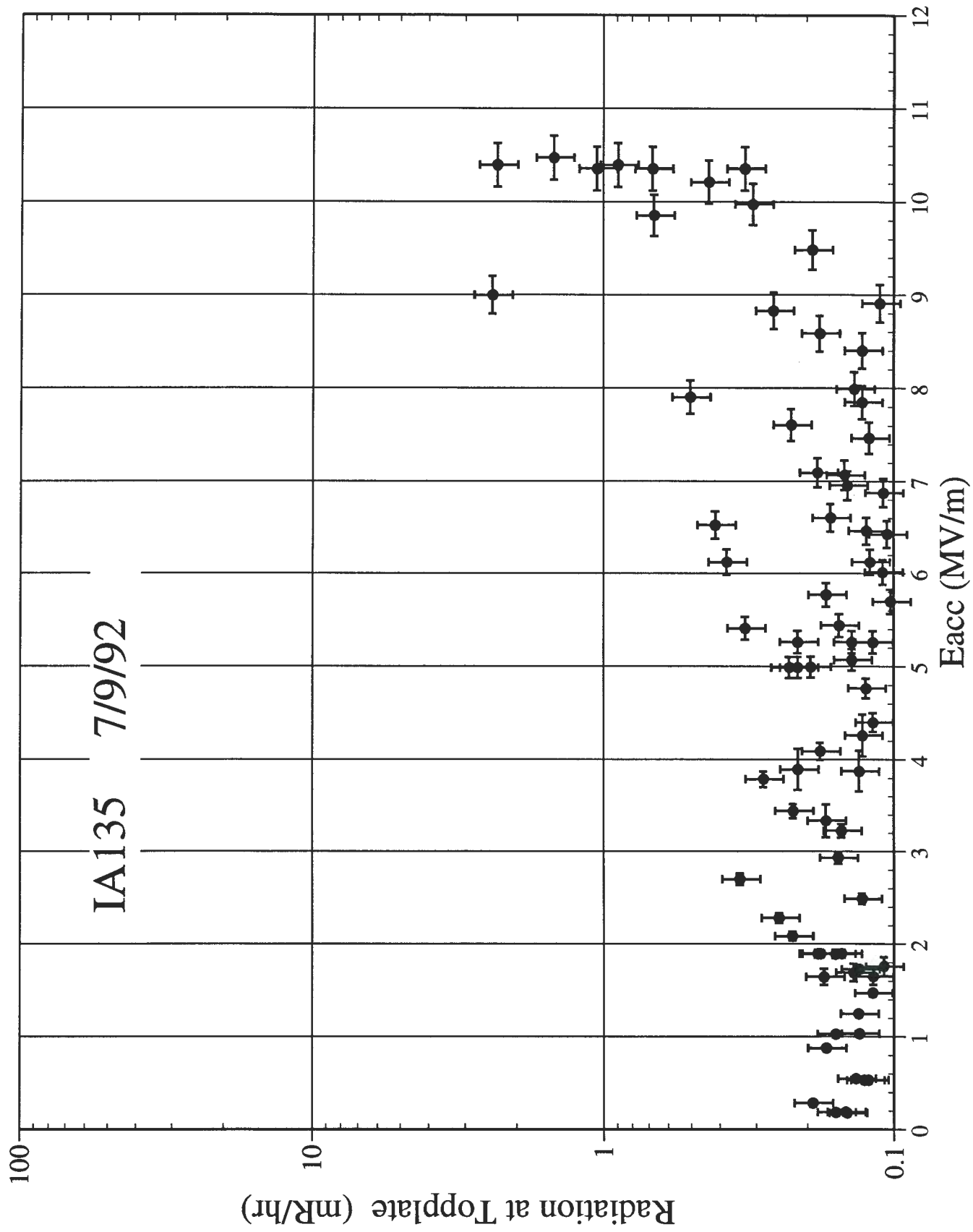


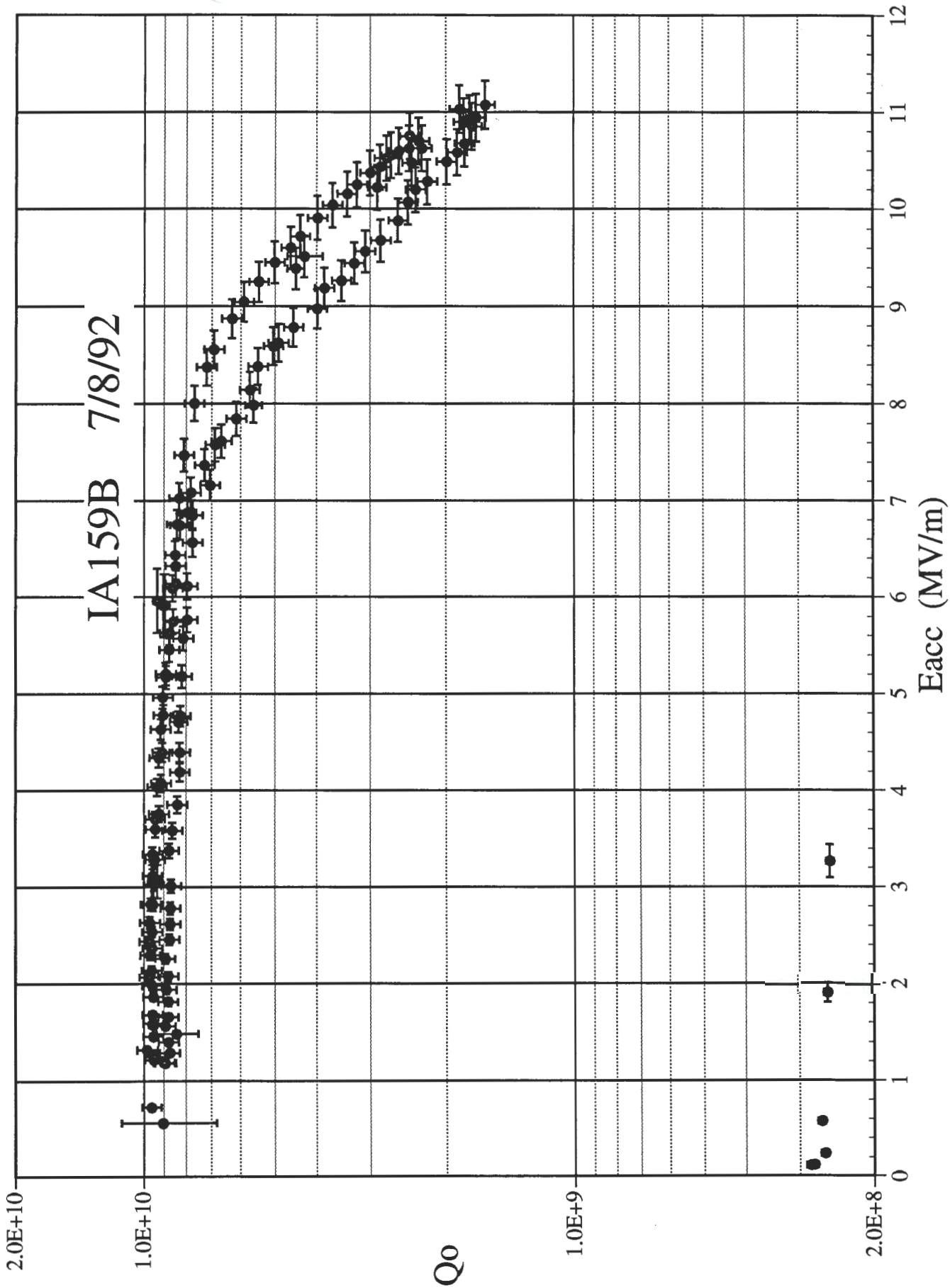


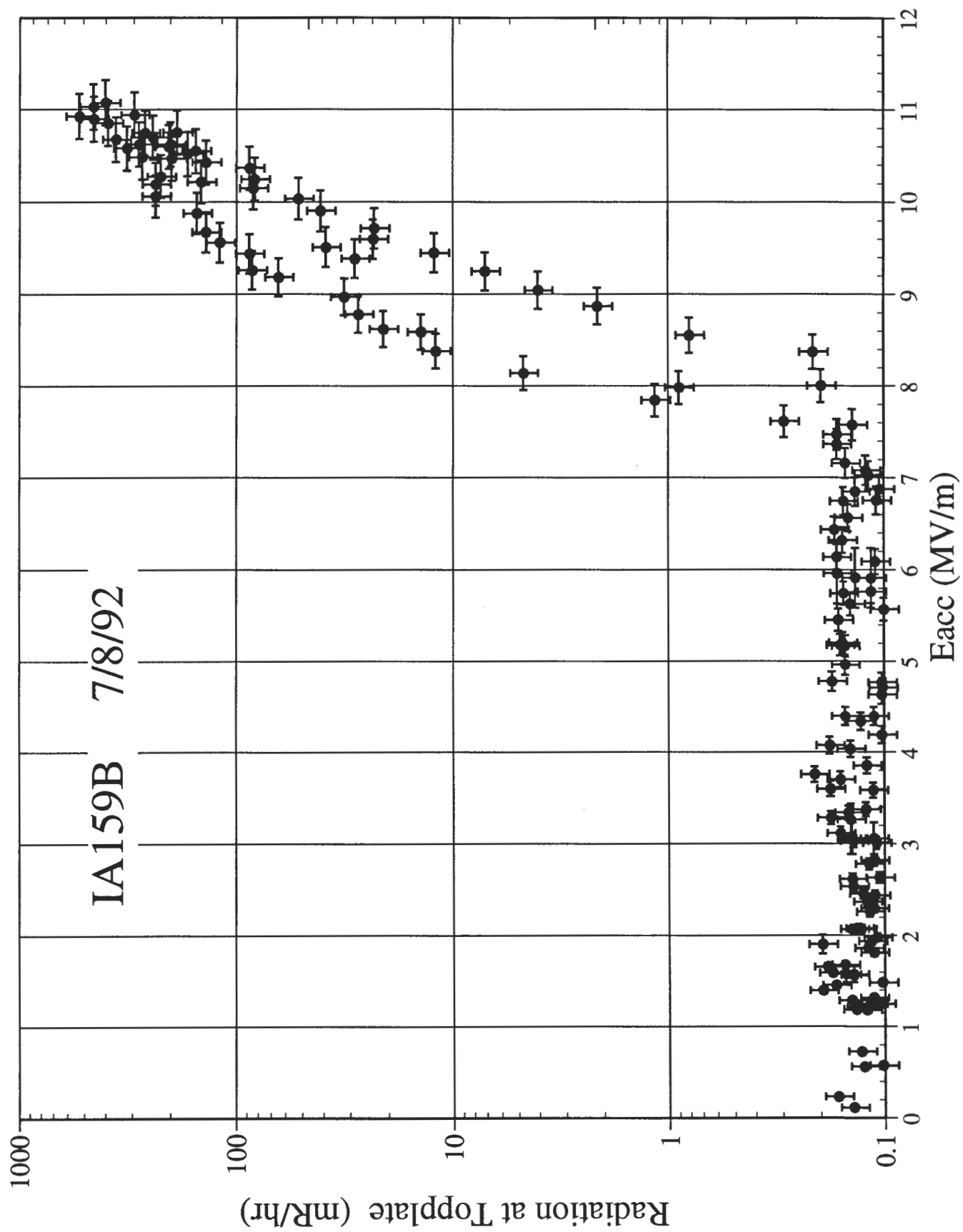


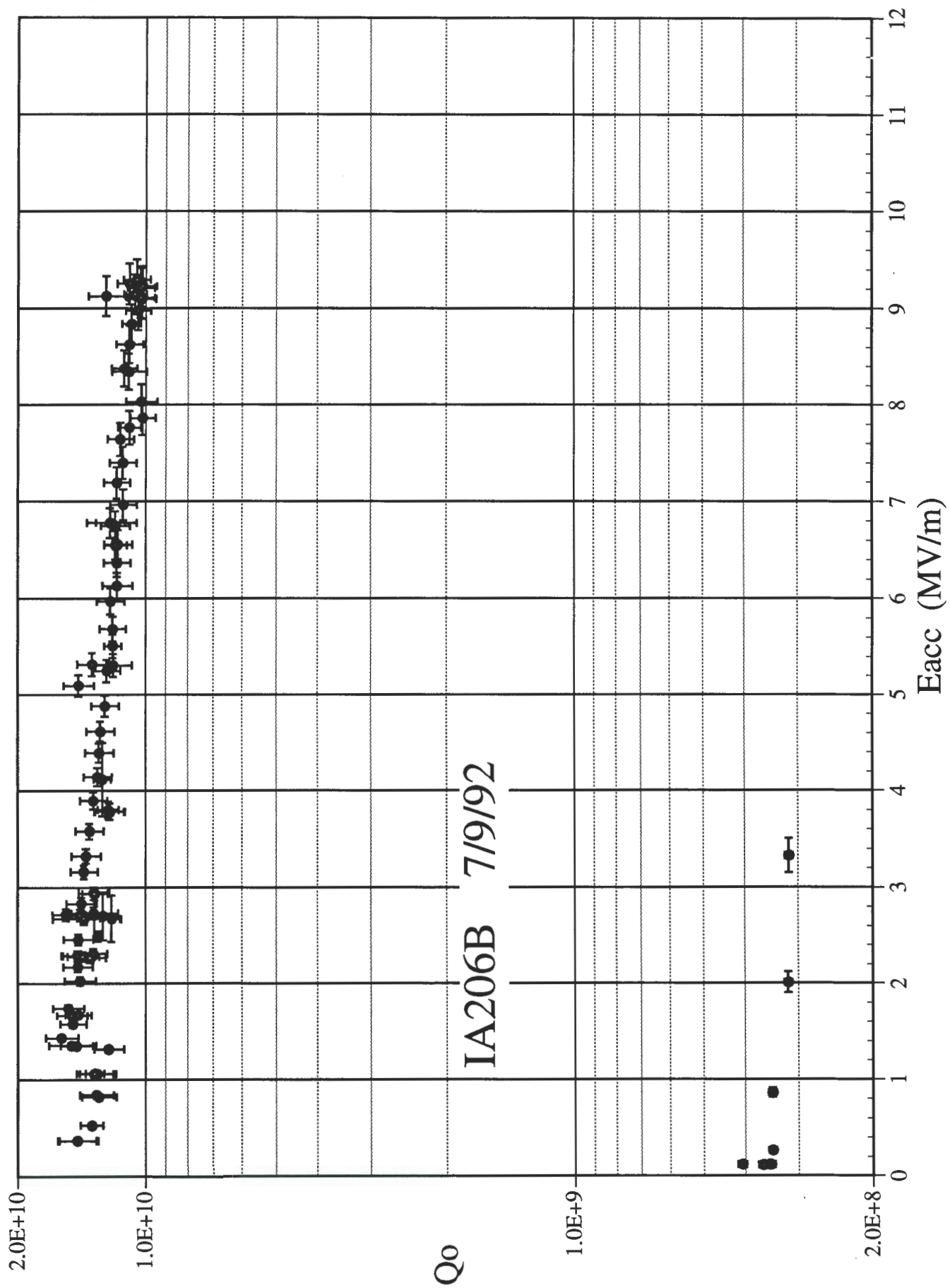


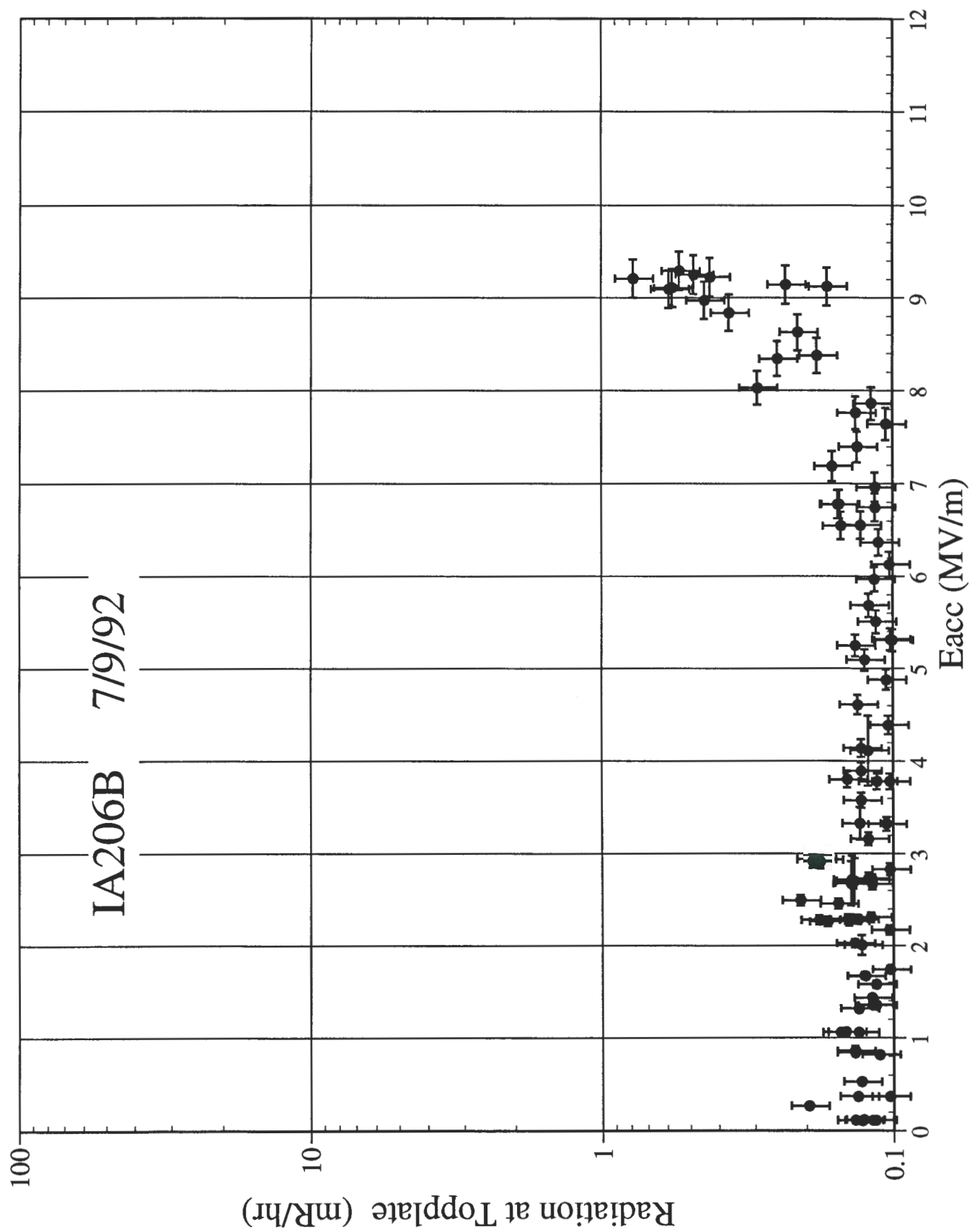


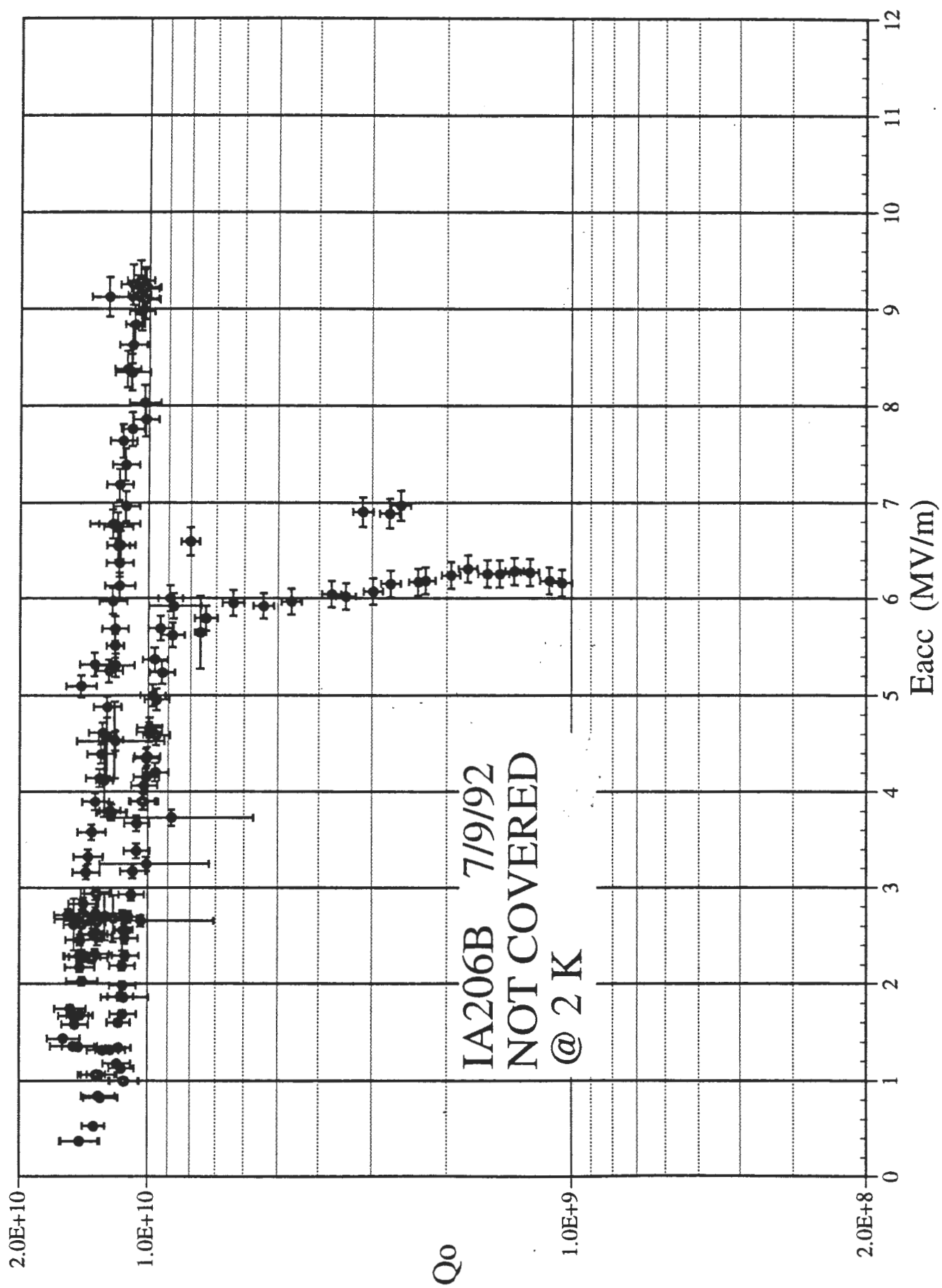


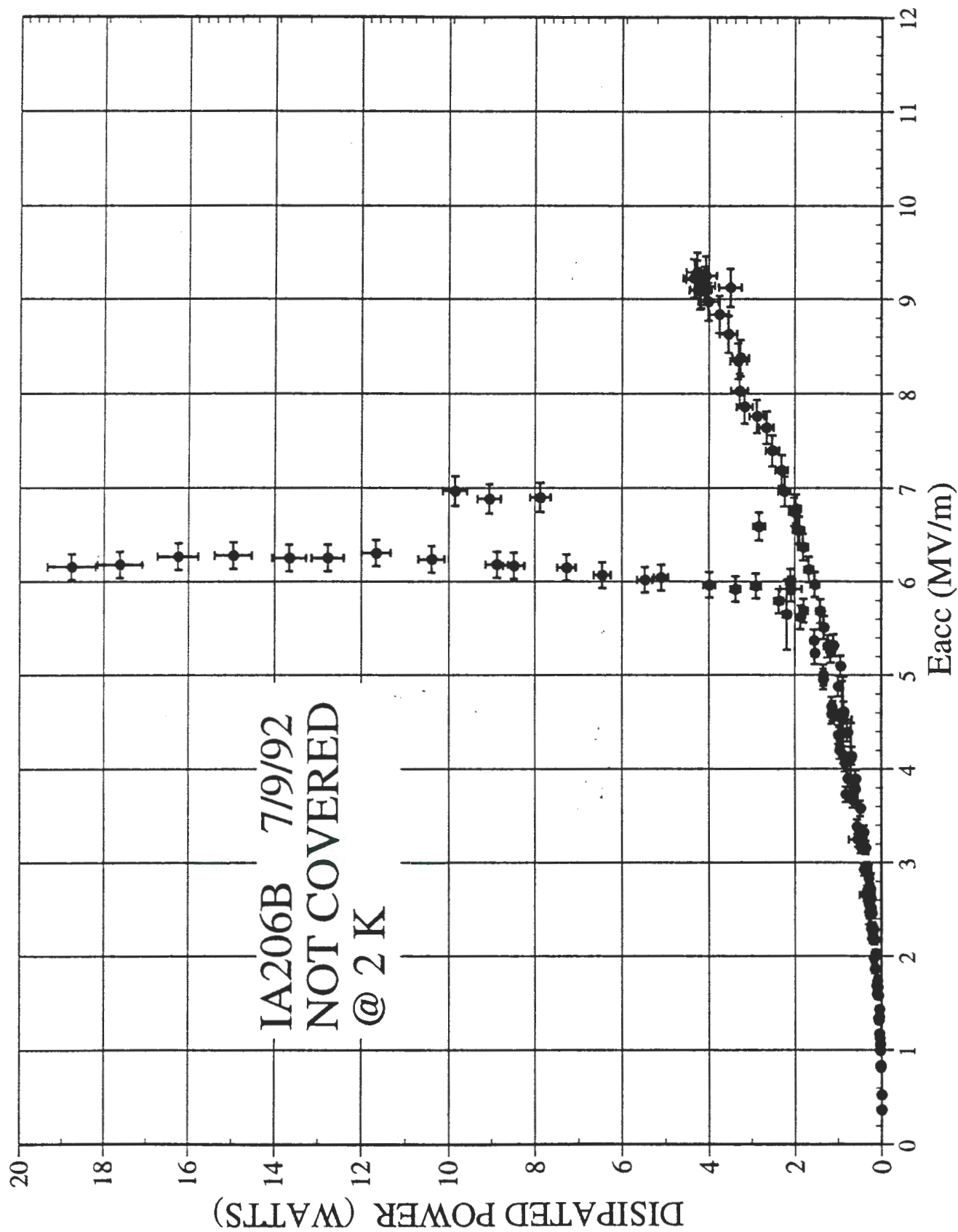


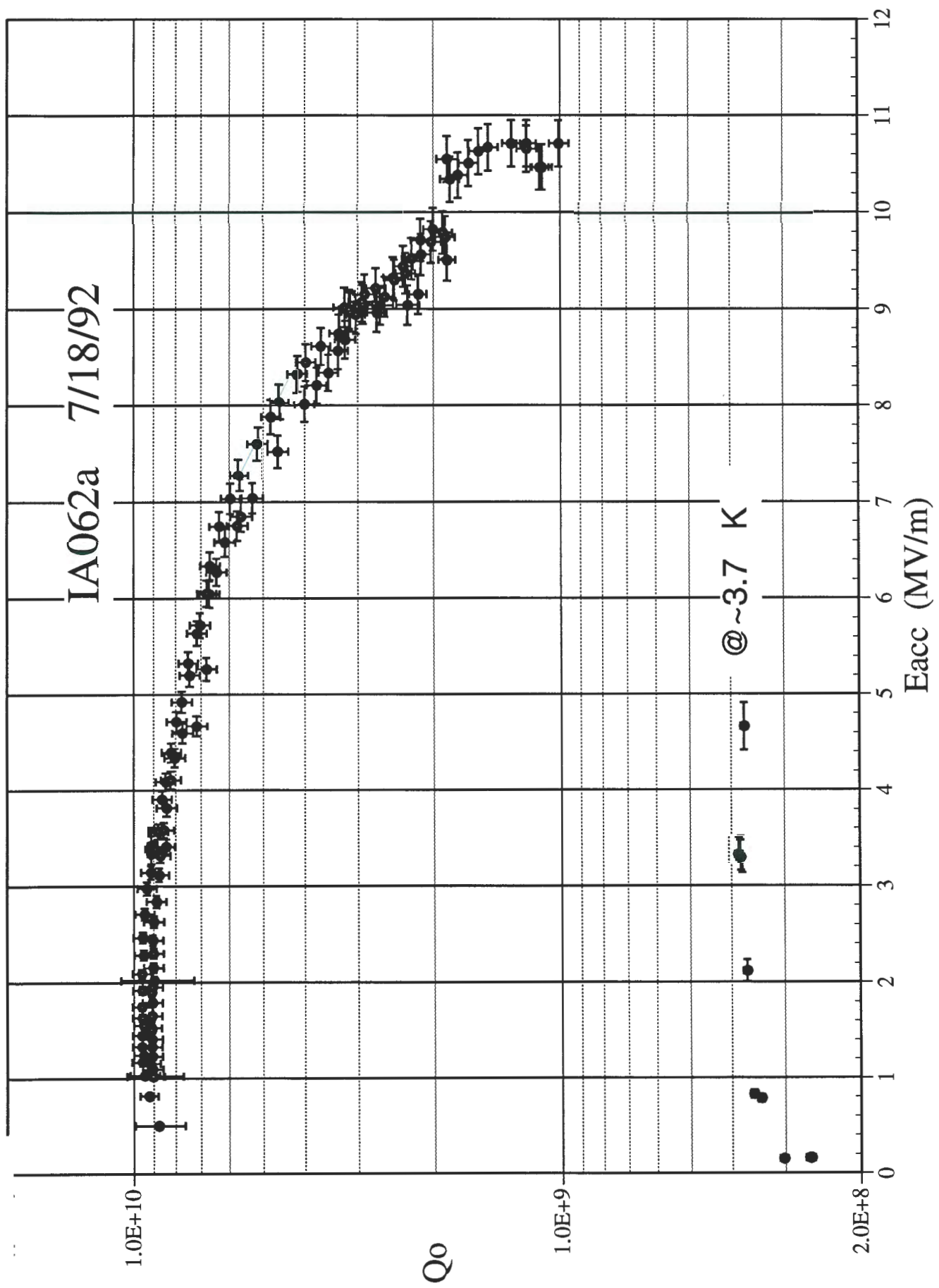


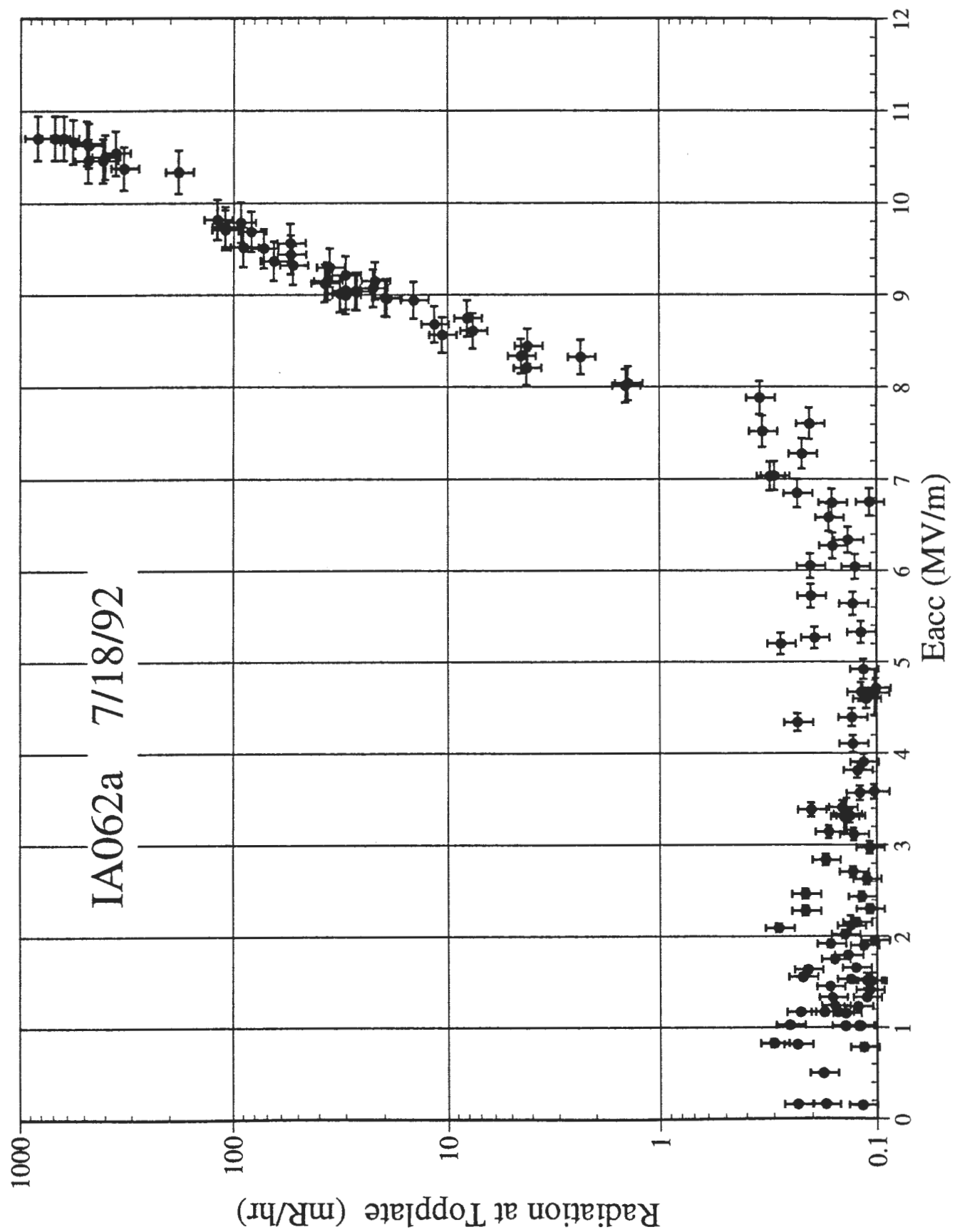


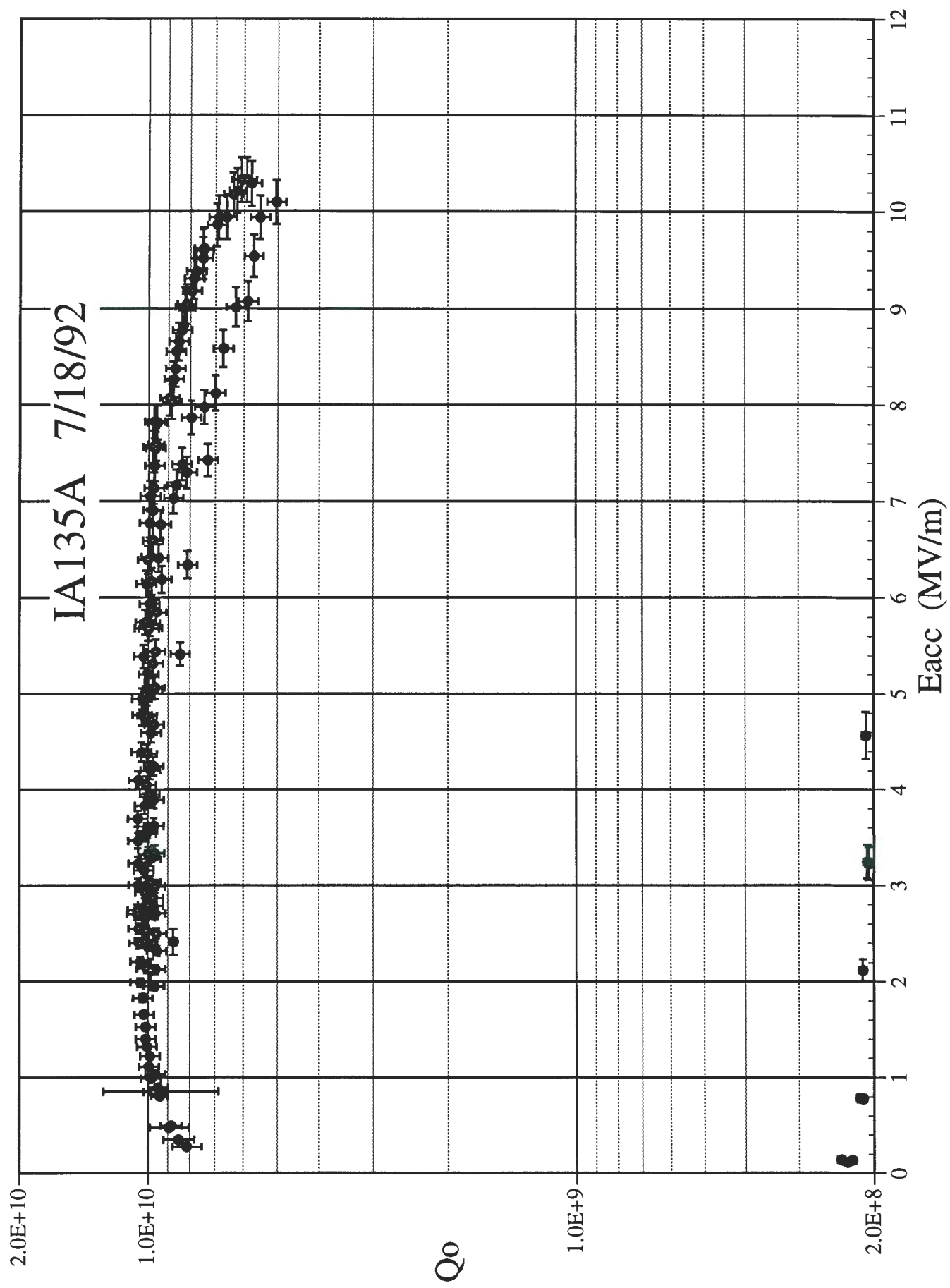


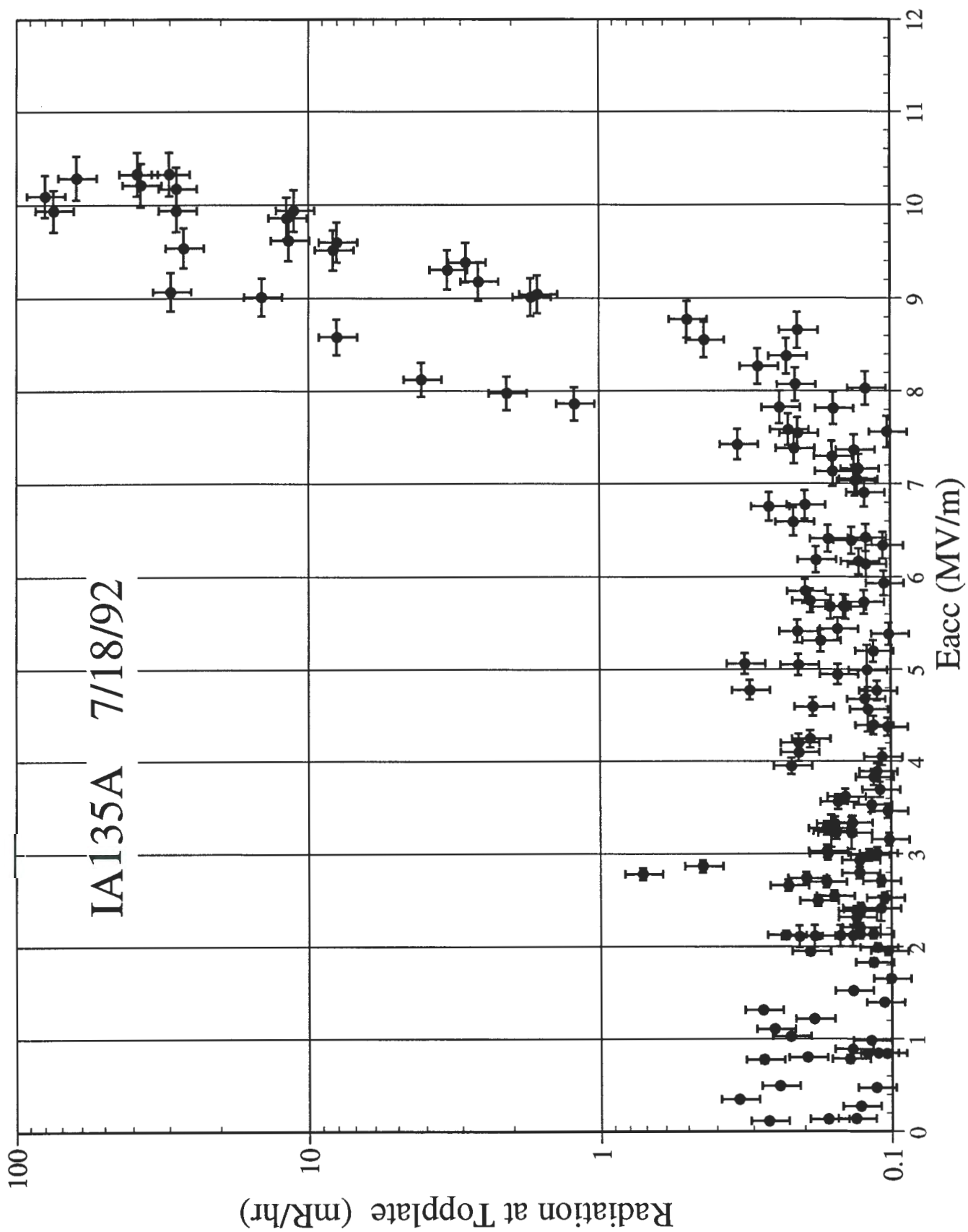




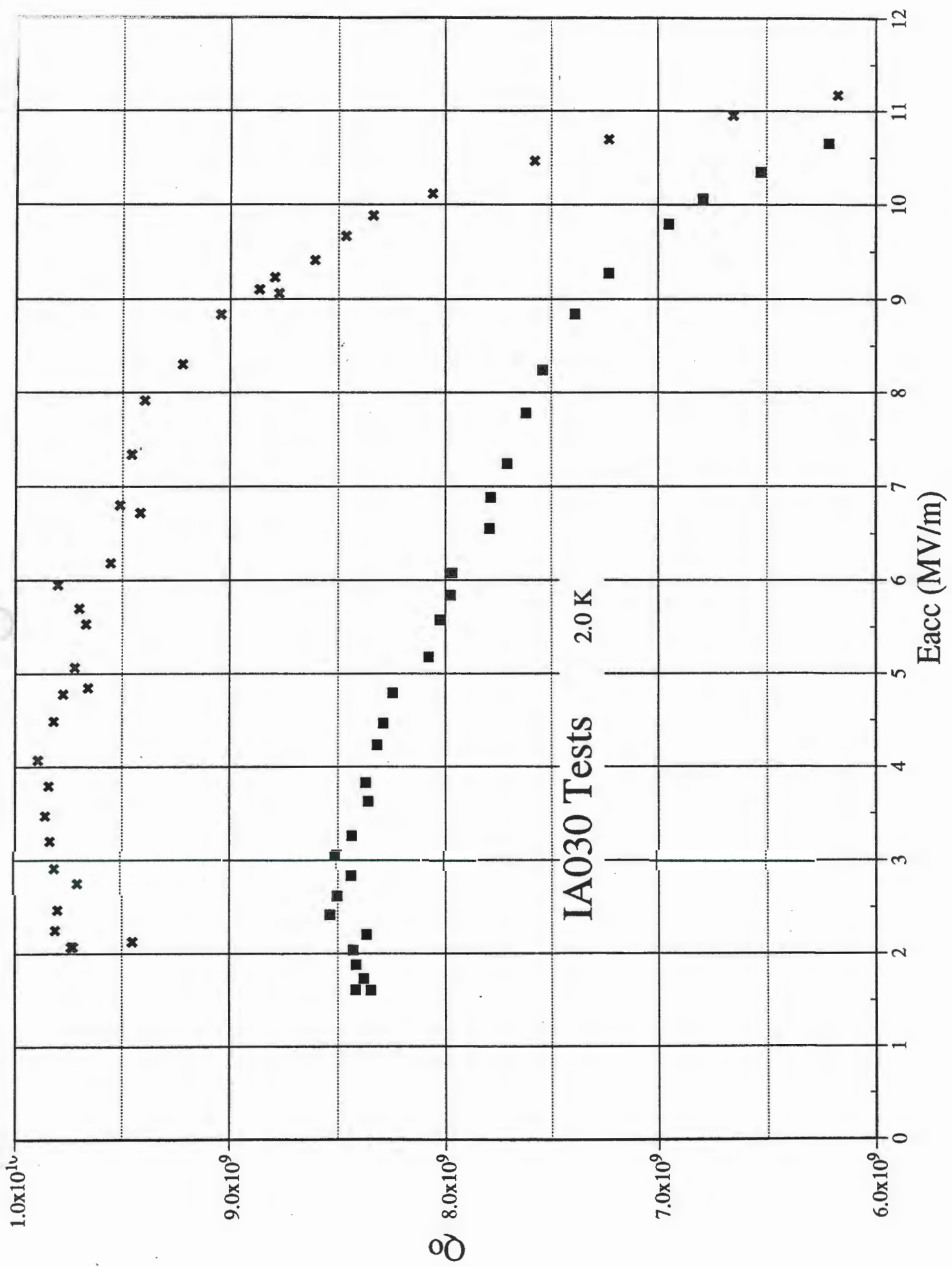


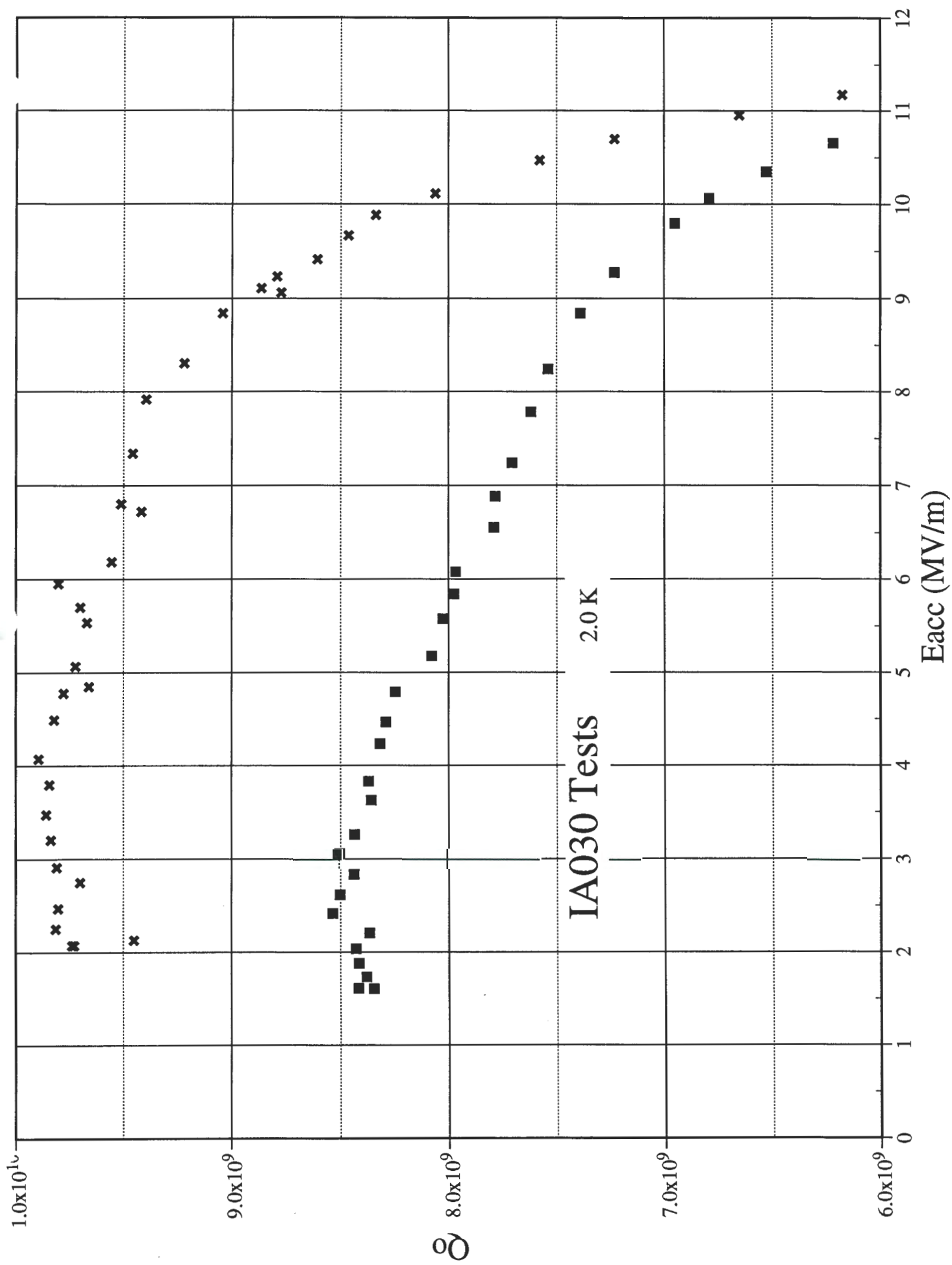


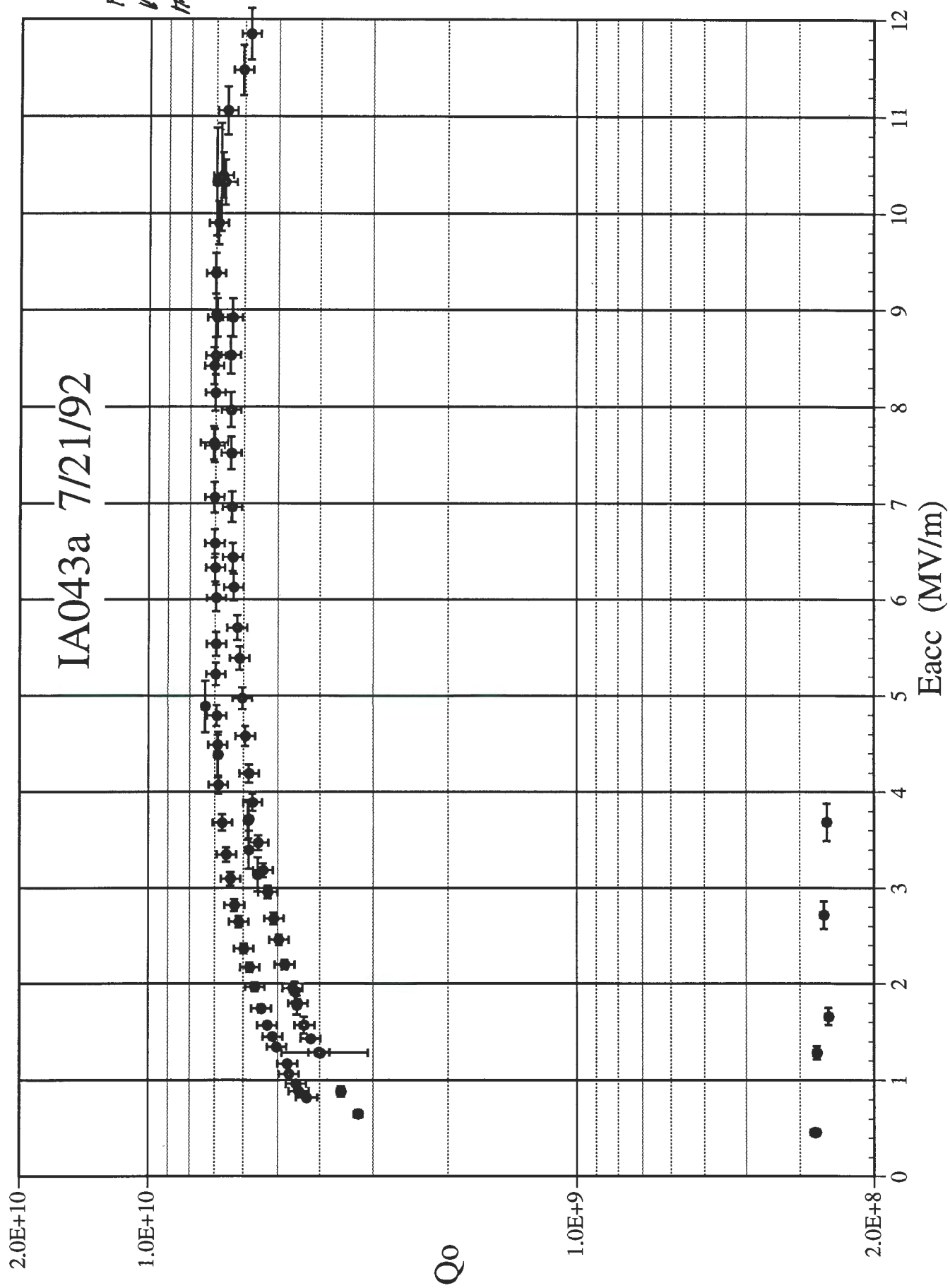




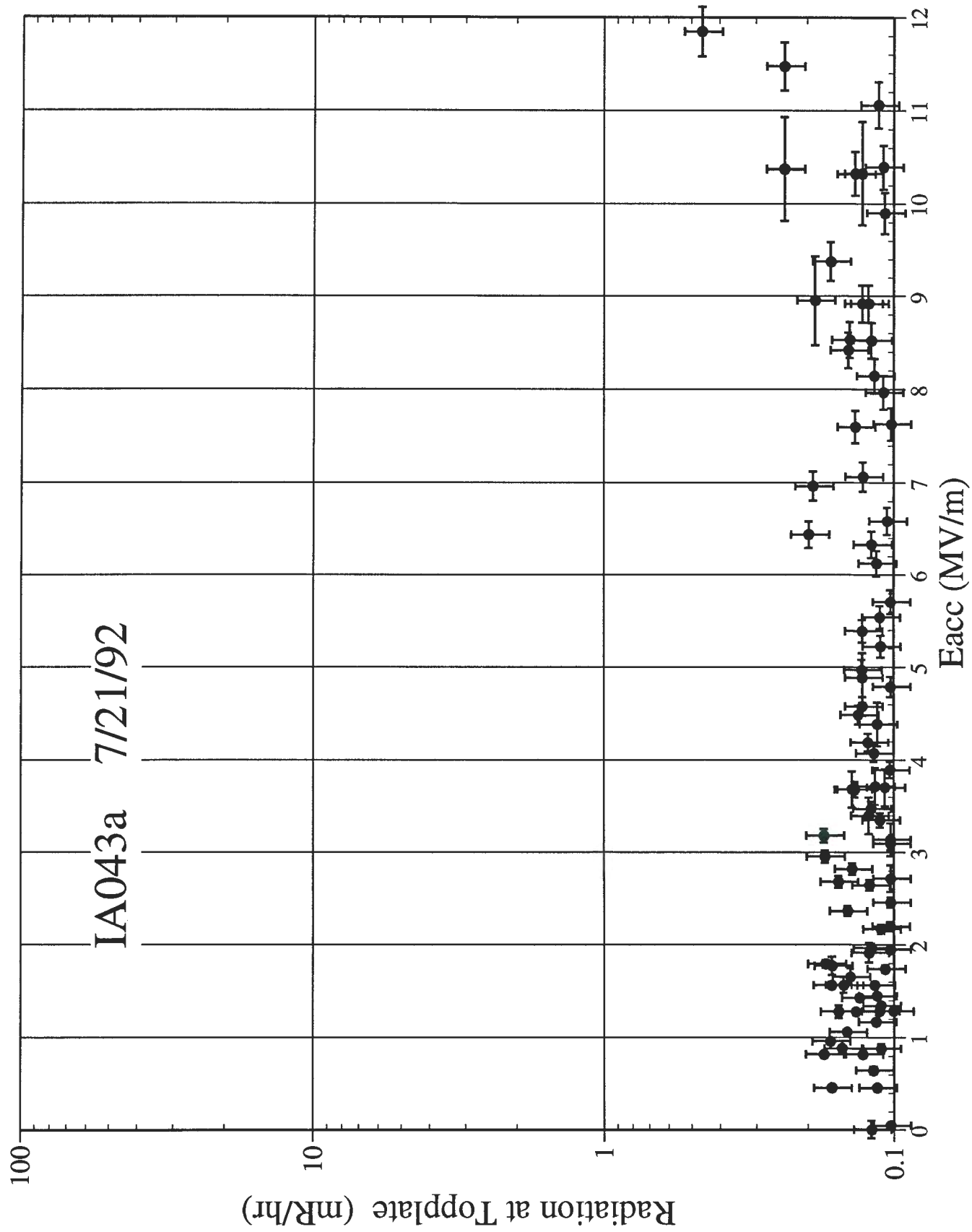
W + W/L shield

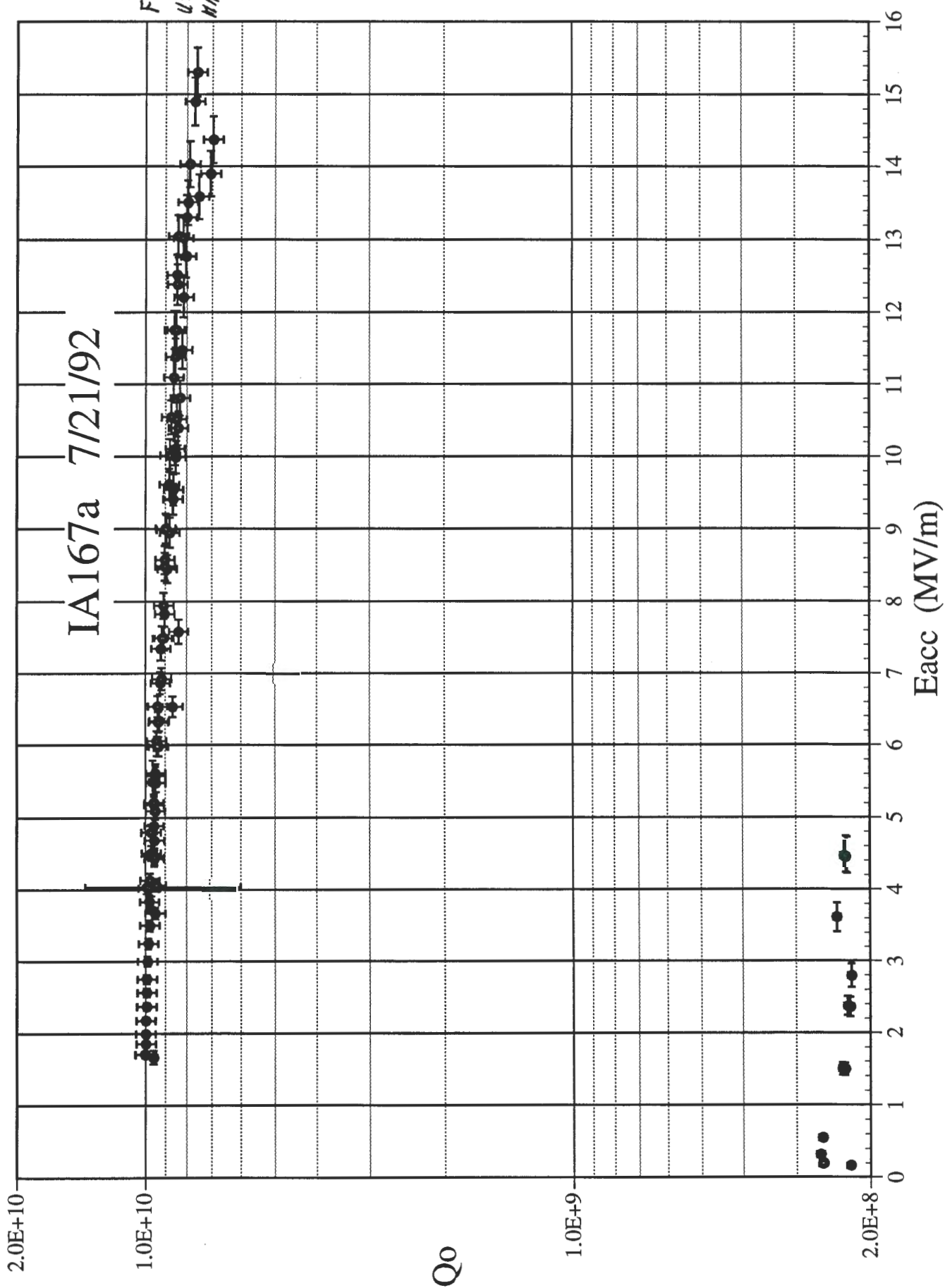




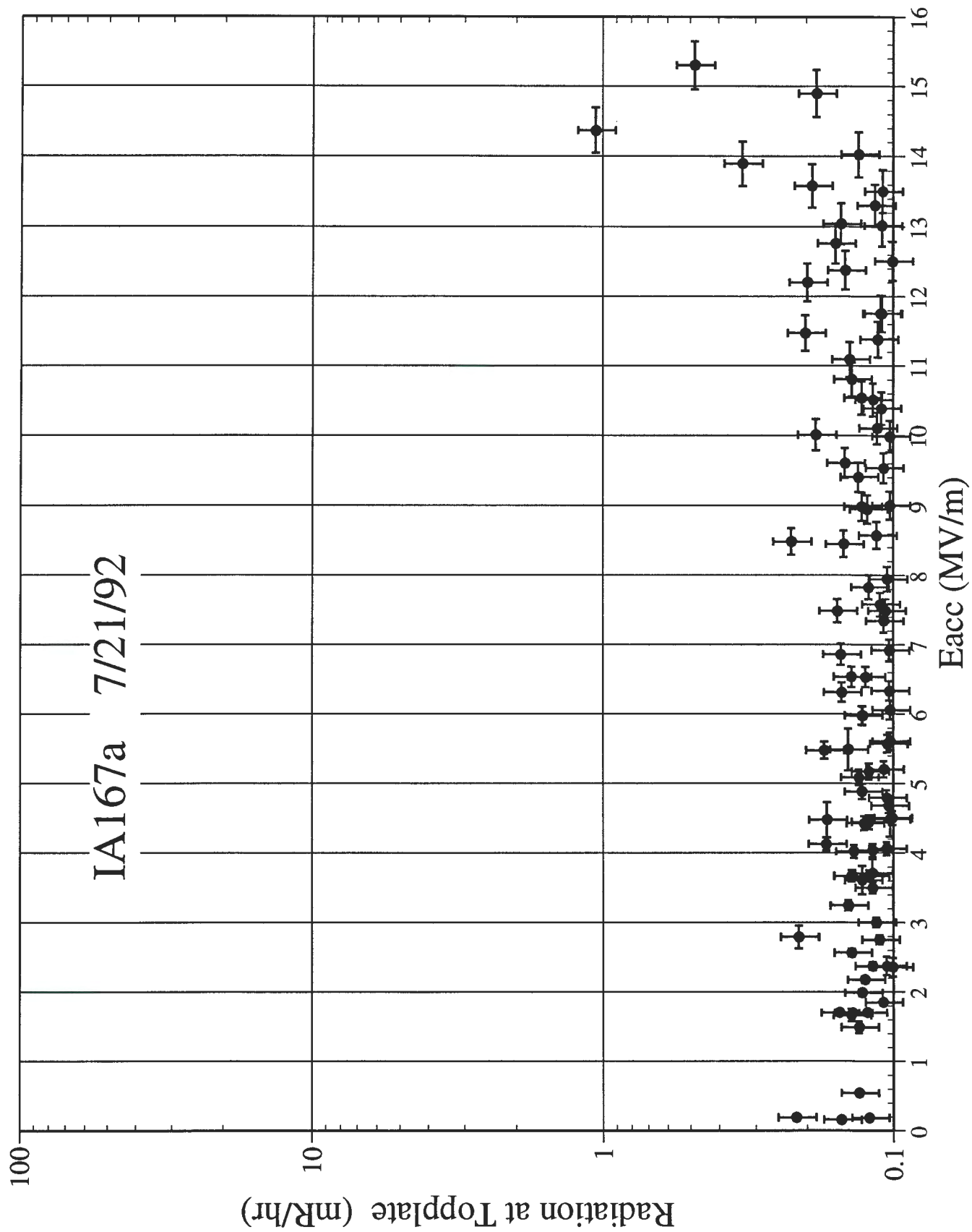


FE 1106.8
VS 10.806.6
MAX 11.905.9

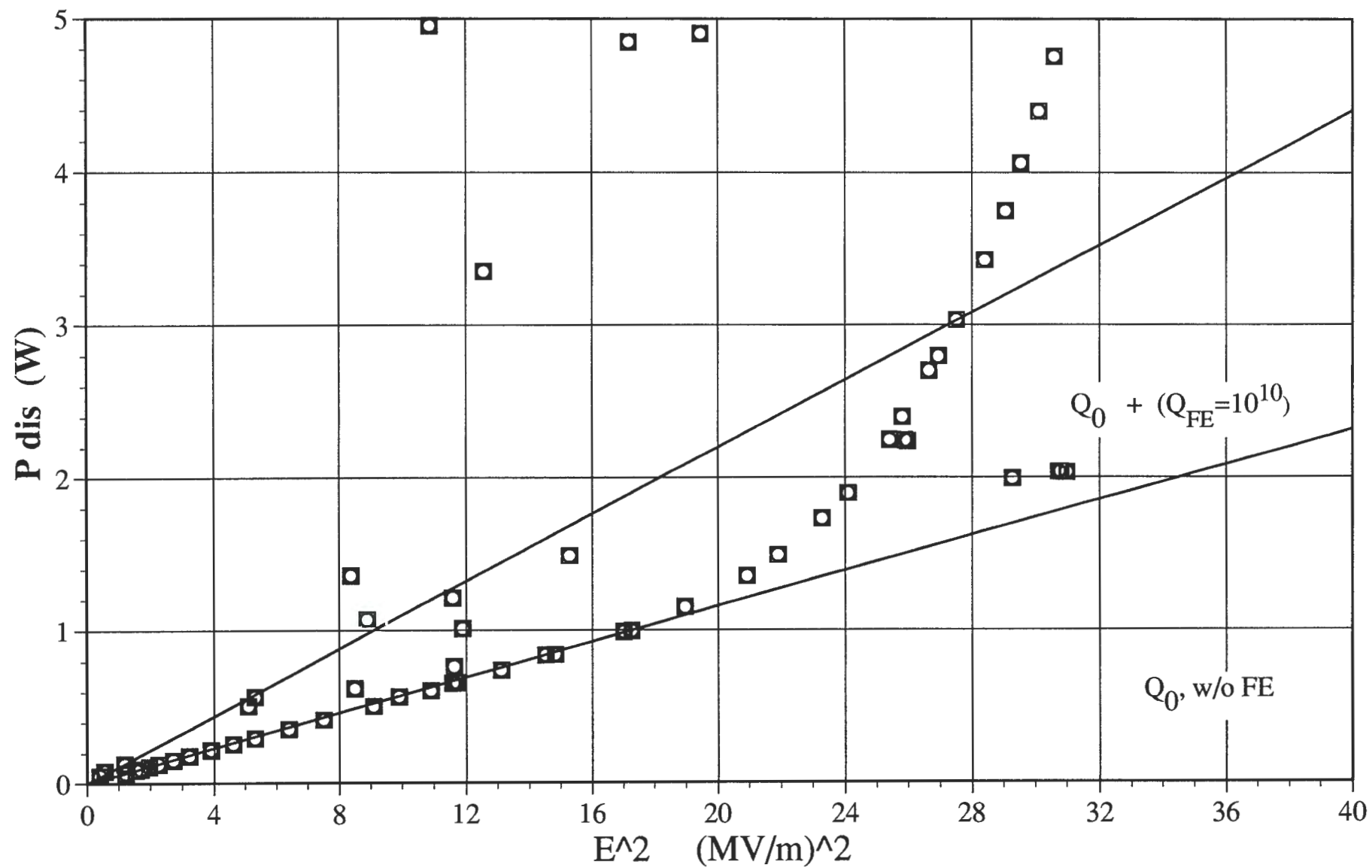




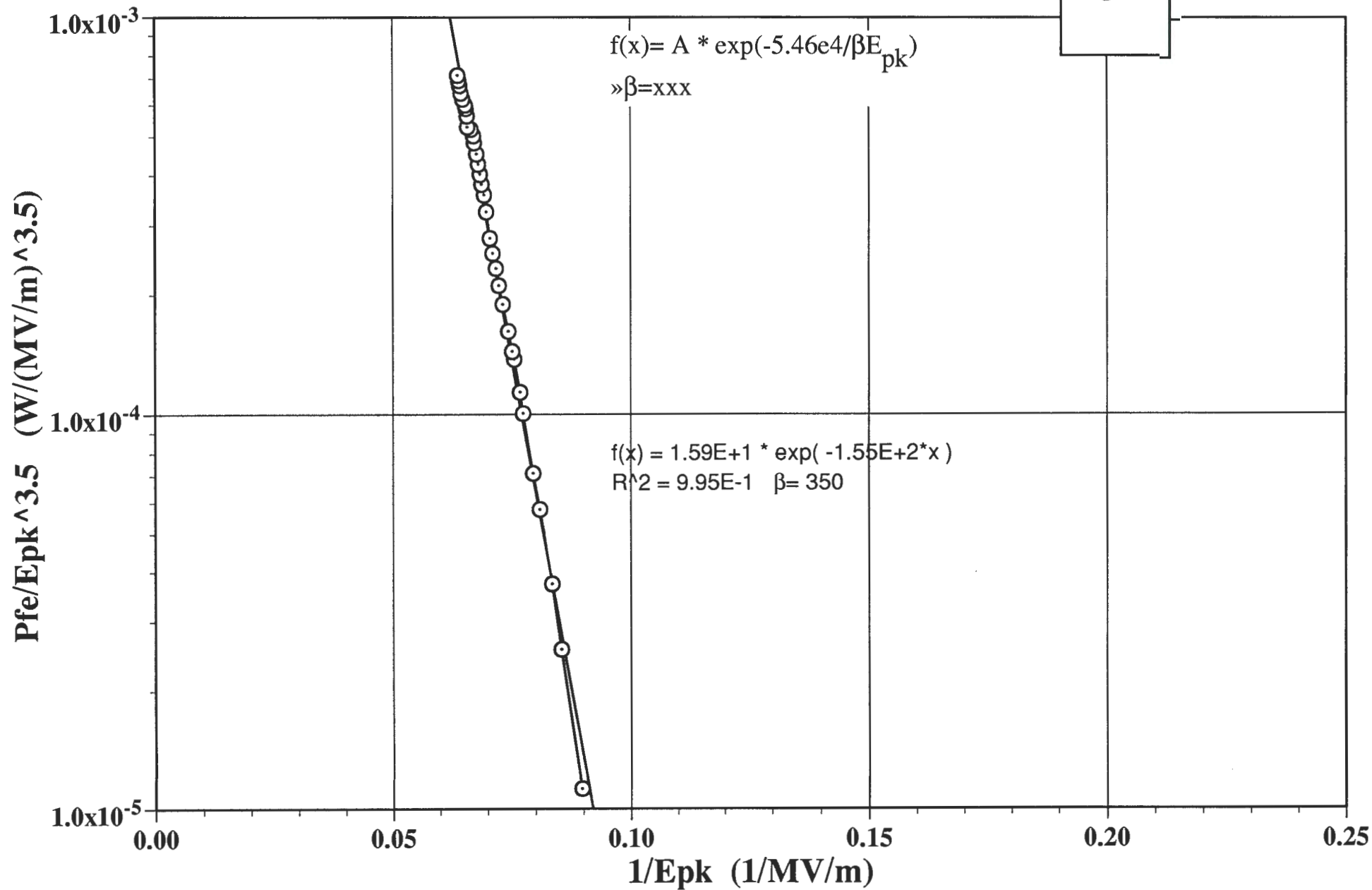
FE 15.0 7.6
US 14.3 7.8
MA 15.9 7.5

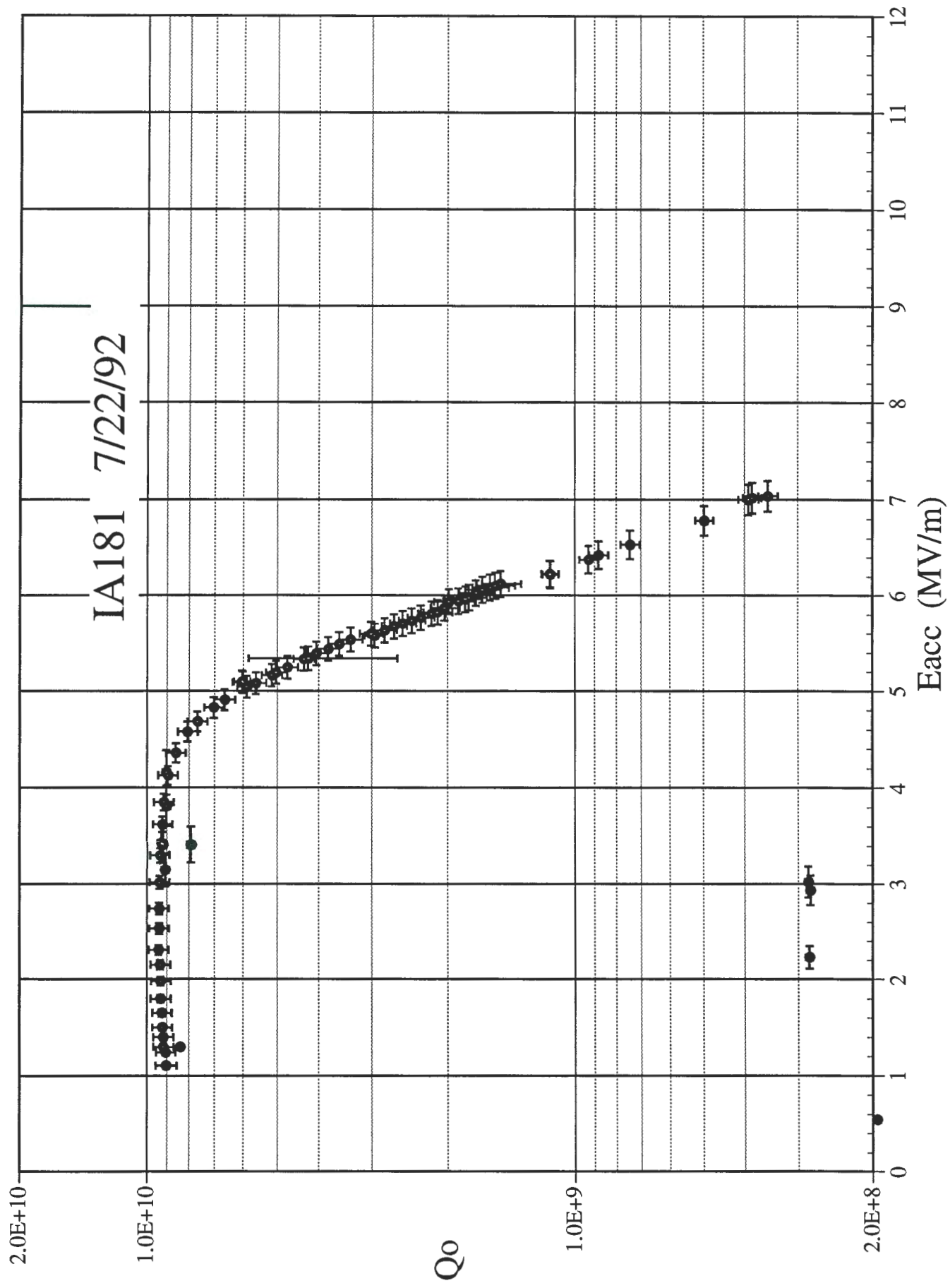


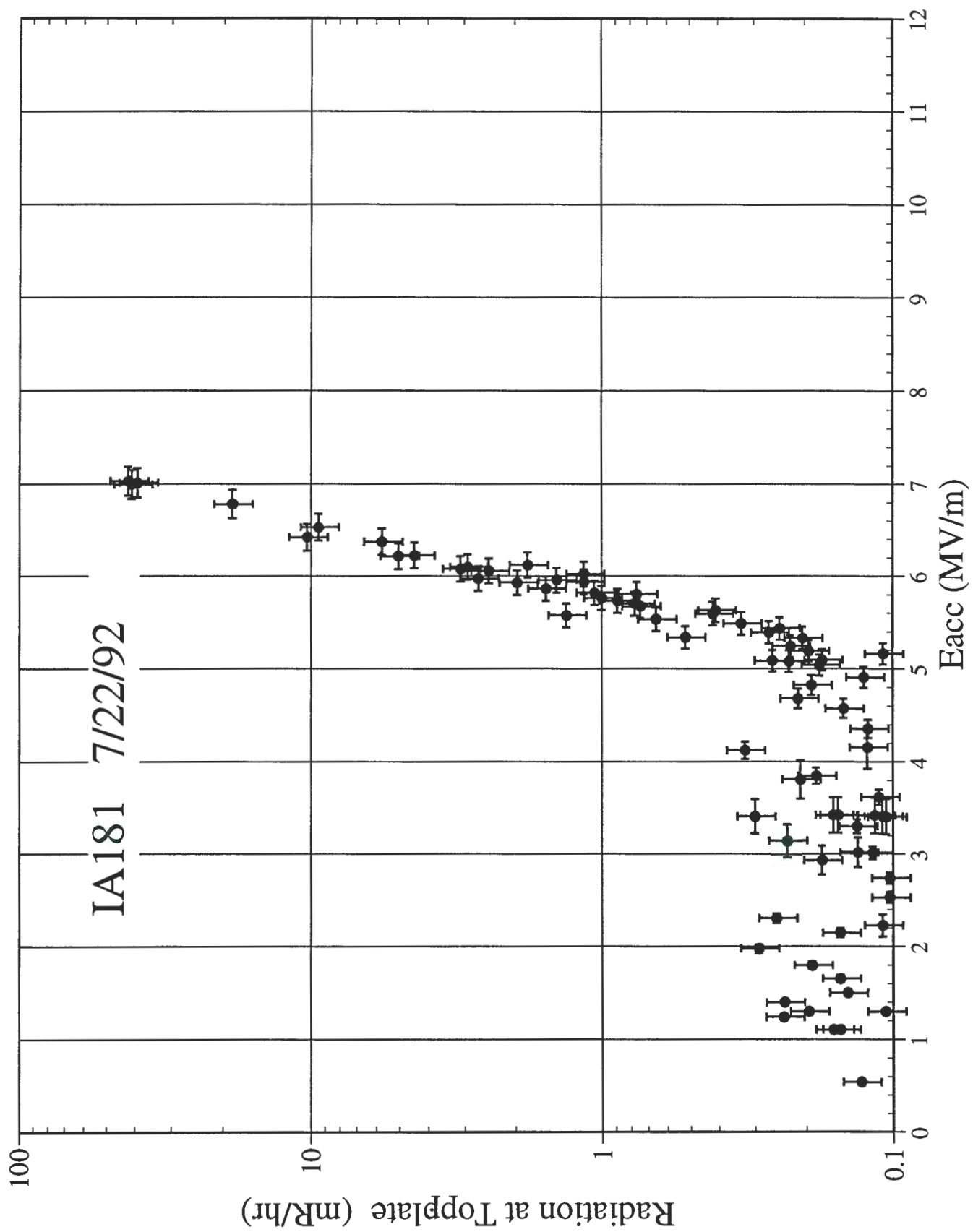
IA181 7/22/92

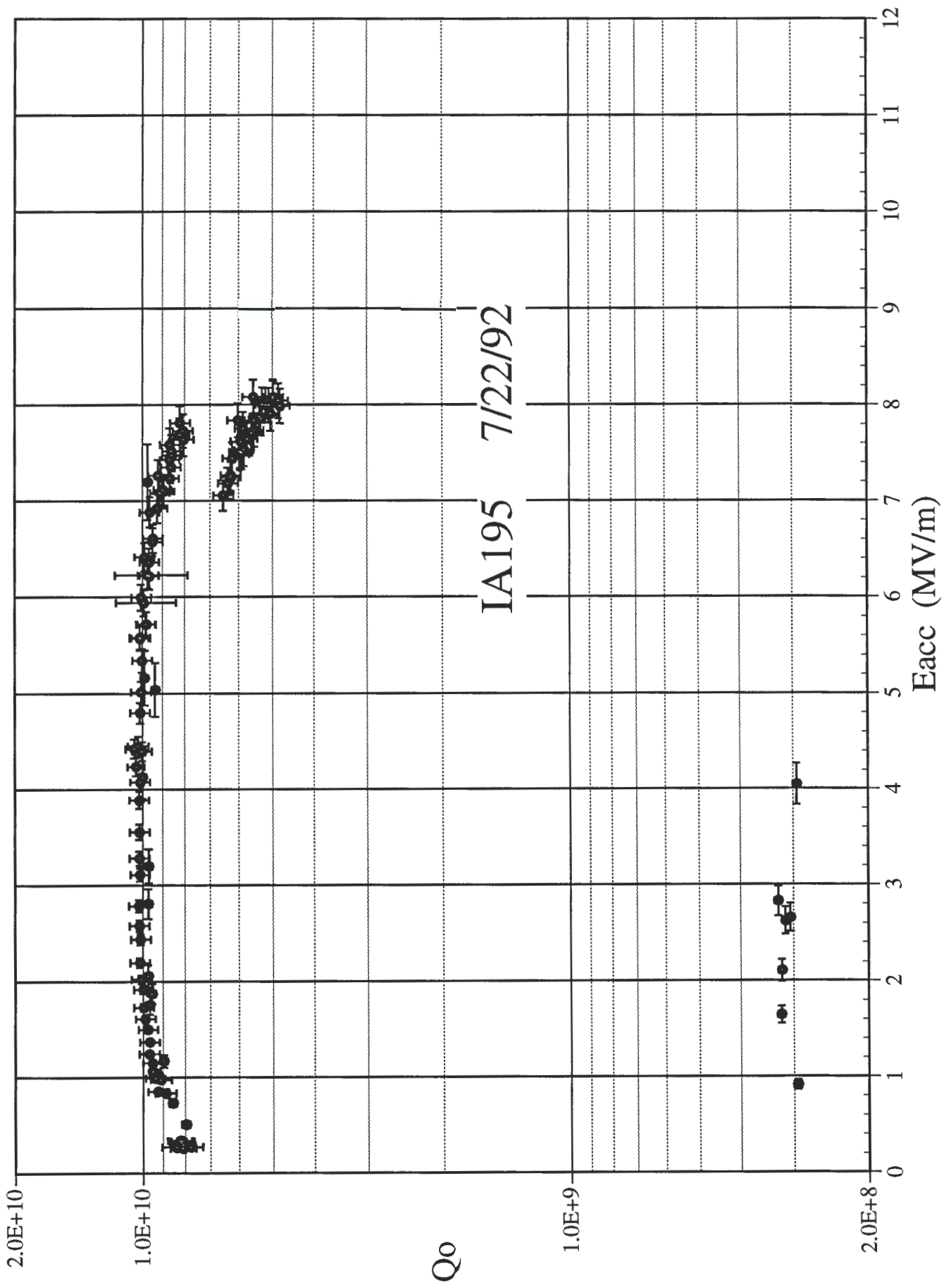


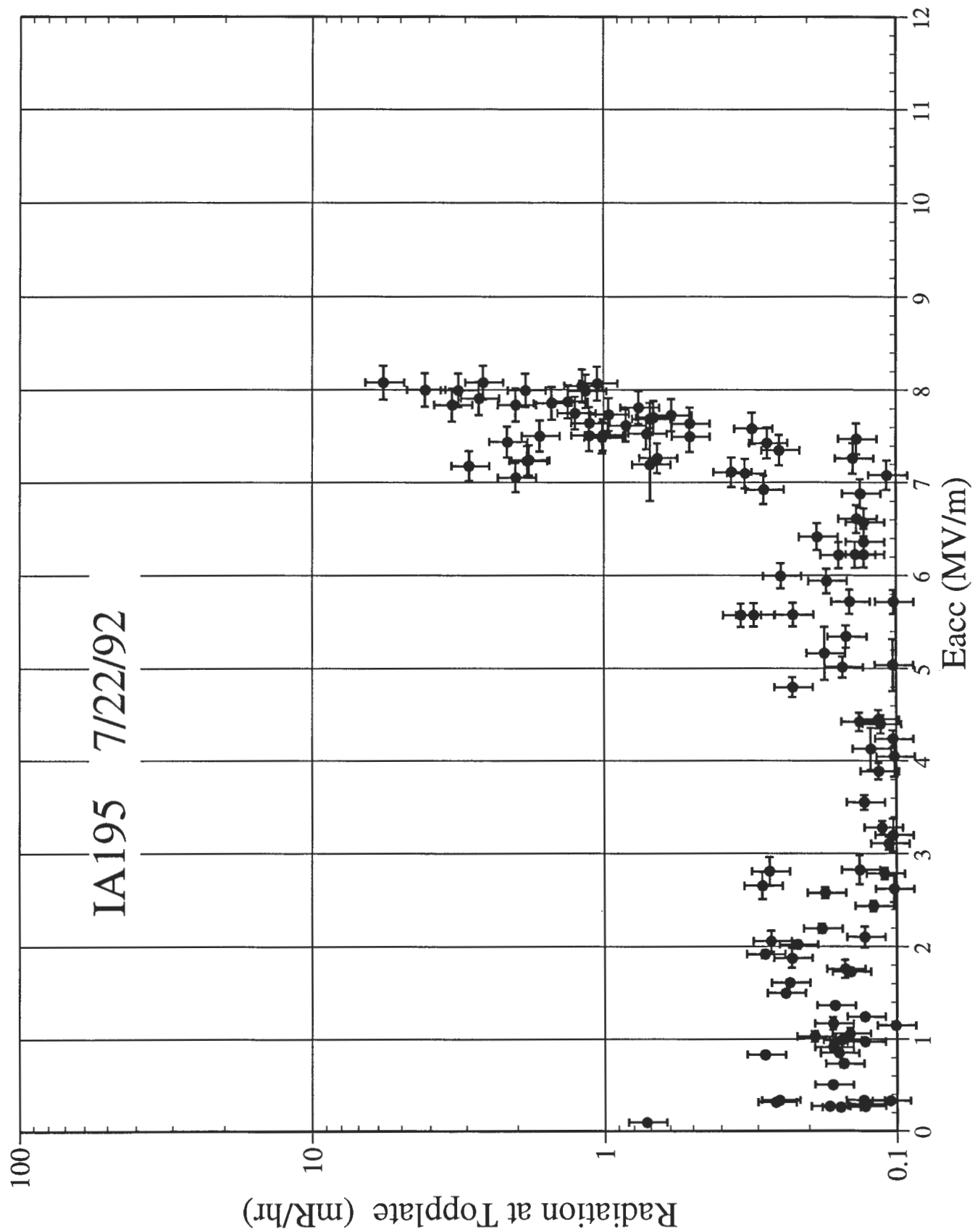
IA181 7/22/92











VTA RF Test Summary Sheet

23 March 1992

Cavity: IA 187

Date: 27 July 1992

Dewar #: 7

☐ Top
☒ Bottom

Topplate # 1x

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	4.2	<u>1496.9709</u>	<u>.294</u>	<u>90</u>	<u>1.07</u>
π	2.0	<u>1497.0477</u>	<u>10.1</u>	<u>-</u>	<u>1.02</u>
4 π /5	2.0				
3 π /5	2.0				
2 π /5	2.0				
π /5	2.0				
Hat	2.0	<u>1429.3</u>	<u>1.52</u>	E5	

Gradient Limitation

Quench @ Eacc= _____

Input limitation power limited

FE Loading @ Eacc= _____

Radiation Tolerance @ _____ mR/hr

Other : _____

Eacc	Qo
MV/m	E9

1.0 10.1

5.0 10.1

8.0 10.1

10.0 8.4

Eacc 13.5 3.11

Eacc usable 12.4 5.0

HOM Data

Freq	Q1
------	----

1980 1982

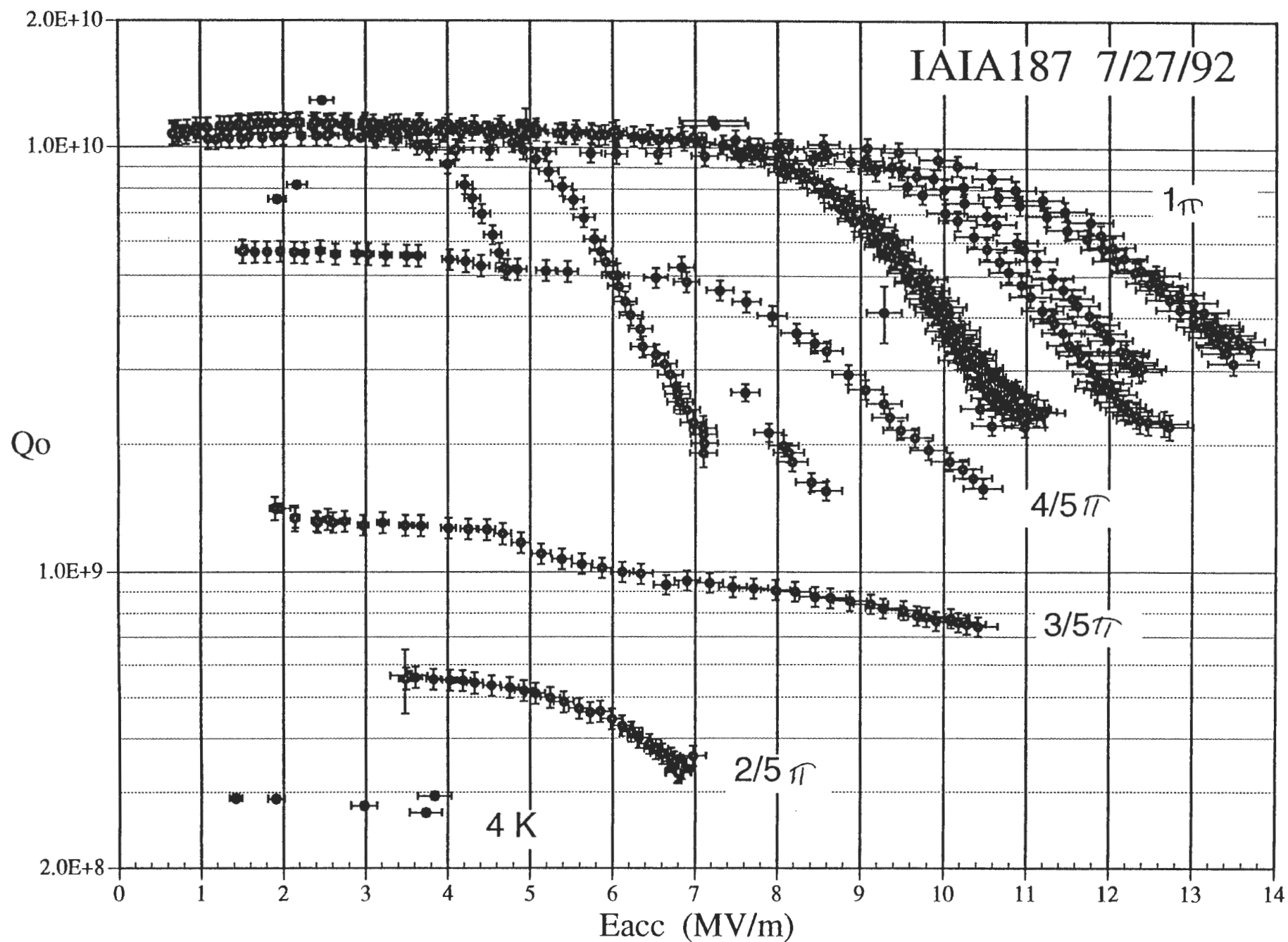
1975.9 3300

Operator

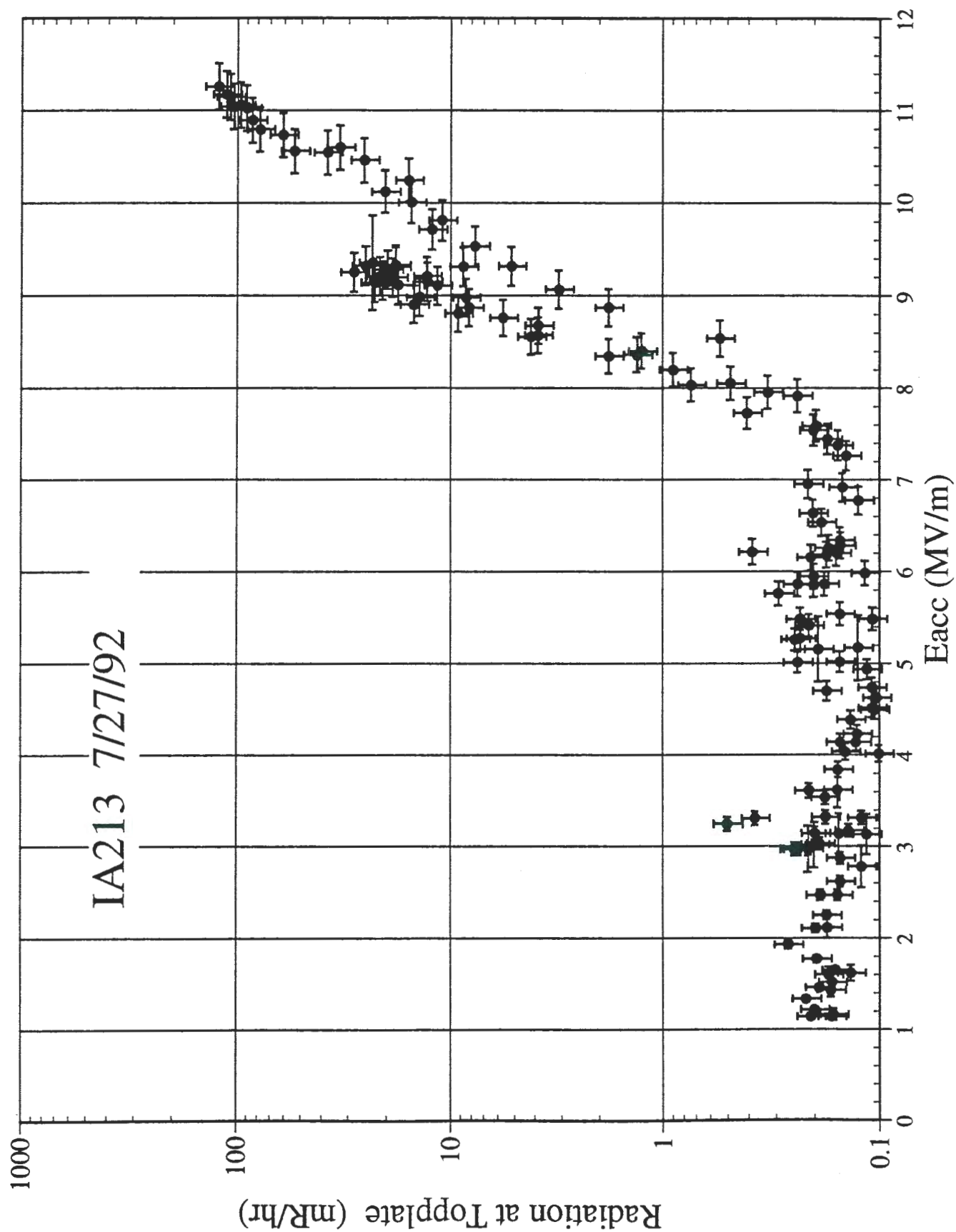
PWK

Onset of measurable Radiation : _____

Notes: _____
 Notes: _____
 Notes: _____
 Notes: _____
 Notes: _____
 Notes: _____
 Notes: _____



ALL MODES ARE CALIBRATED TO 1497.5 MHz



VTA RF Test Summary Sheet

23 March 1992

Cavity: IA213

Date: 27 July 1992

Dewar #: 7

☒ Top
☐ Bottom

Topplate # 1X

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	4.2	<u>1497.0153</u>	<u>.33</u>	<u>60</u>	<u>1.22</u>
π	2.0	<u>1491.1100</u>	<u>15.2</u>	<u>-</u>	<u>1.30</u>
4 π /5	2.0				
3 π /5	2.0				
2 π /5	2.0				
π /5	2.0				
Hat	2.0	<u>1428.3</u>	<u>0.99</u> E5		

Gradient Limitation

Quench @ Eacc= 9.28

Input limitation

FE Loading @ Eacc= _____

Radiation Tolerance @ _____ mR/hr

Other : _____

Eacc	Qo
MV/m	E9
1.0	<u>15.4</u>
5.0	<u>15.2</u>
8.0	<u>16.6</u>
10.0	
Eacc	<u>9.28</u> <u>5.36</u>
Eacc usable	<u>8.28</u> <u>9.32</u>

HOM Data

Freq	Q1
<u>1981.4</u>	<u>1507</u>
<u>1977.7</u>	<u>2725</u>

Operator _____

Onset of measurable Radiation : _____

Notes: Very strongly overcoupled $\beta=15$

Notes: _____

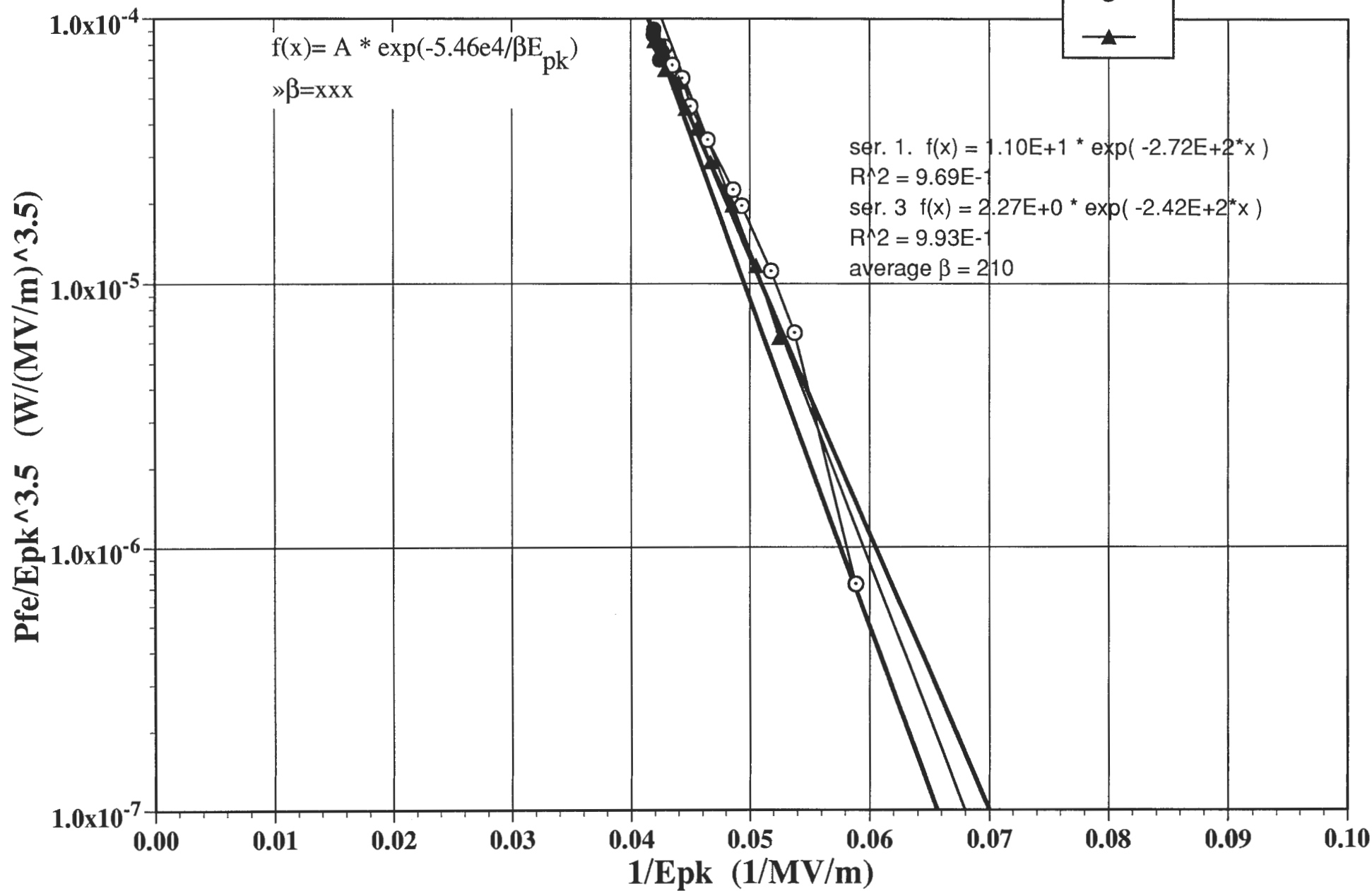
Notes: _____

Notes: _____

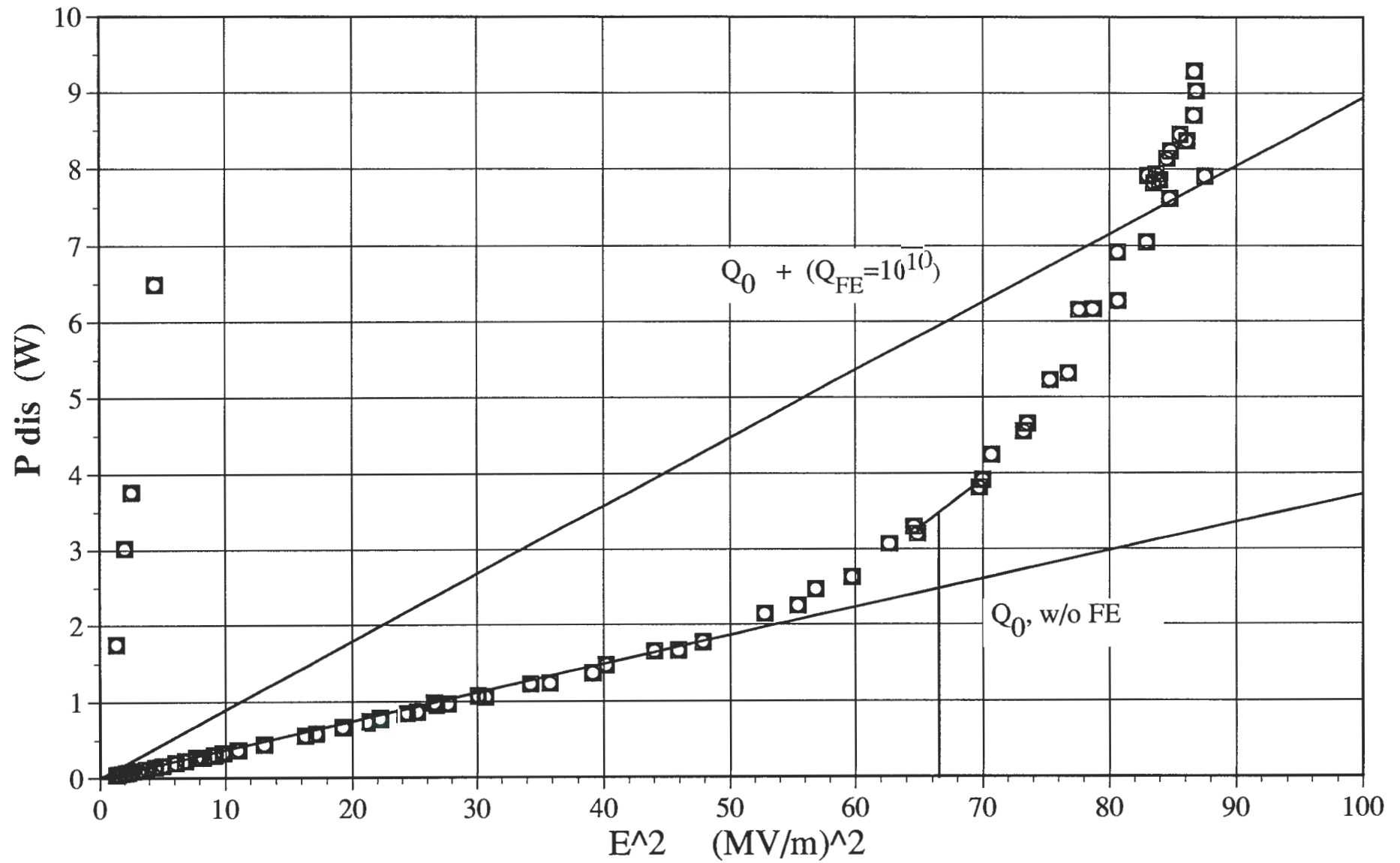
Notes: _____

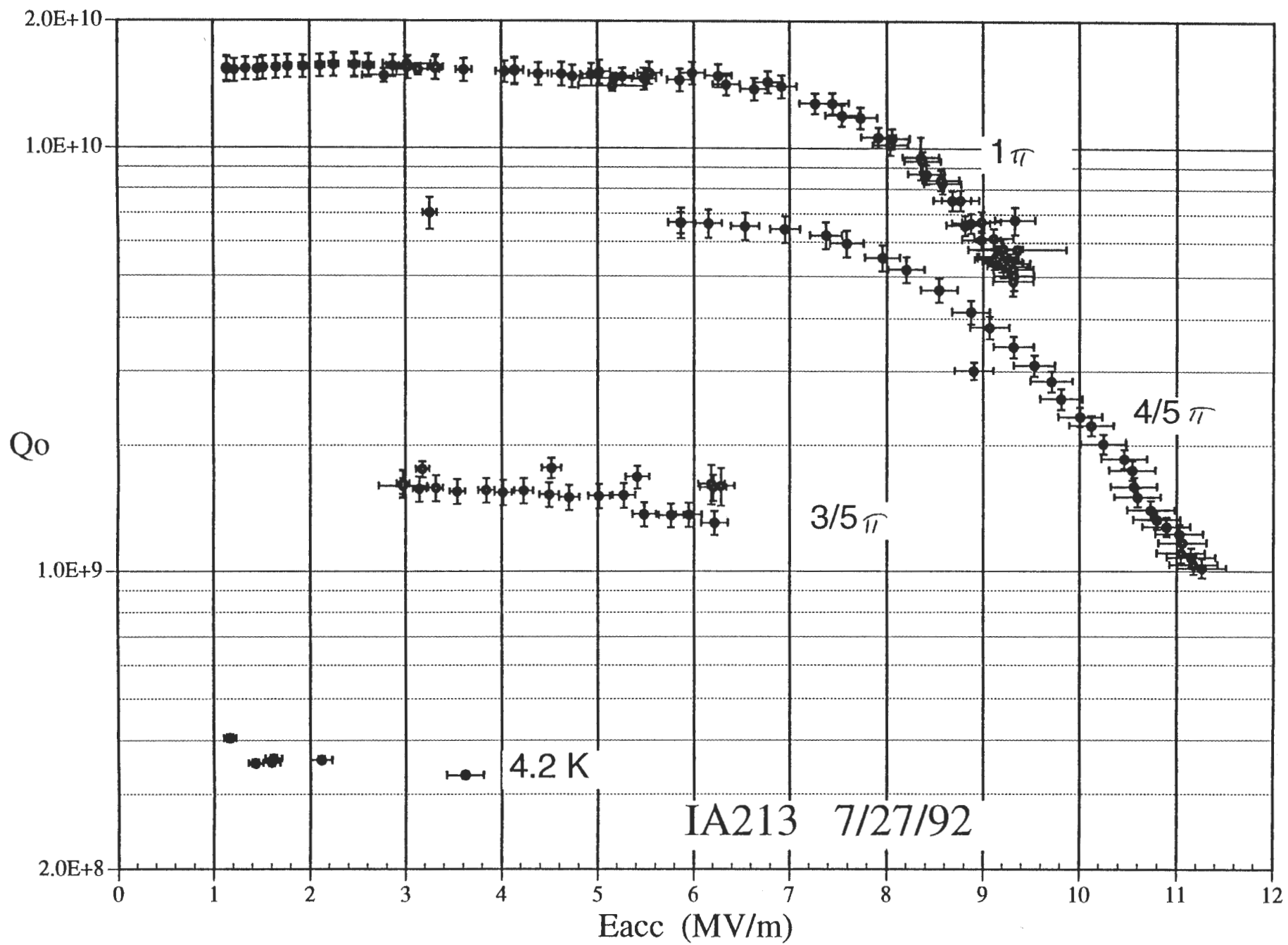
Notes: _____

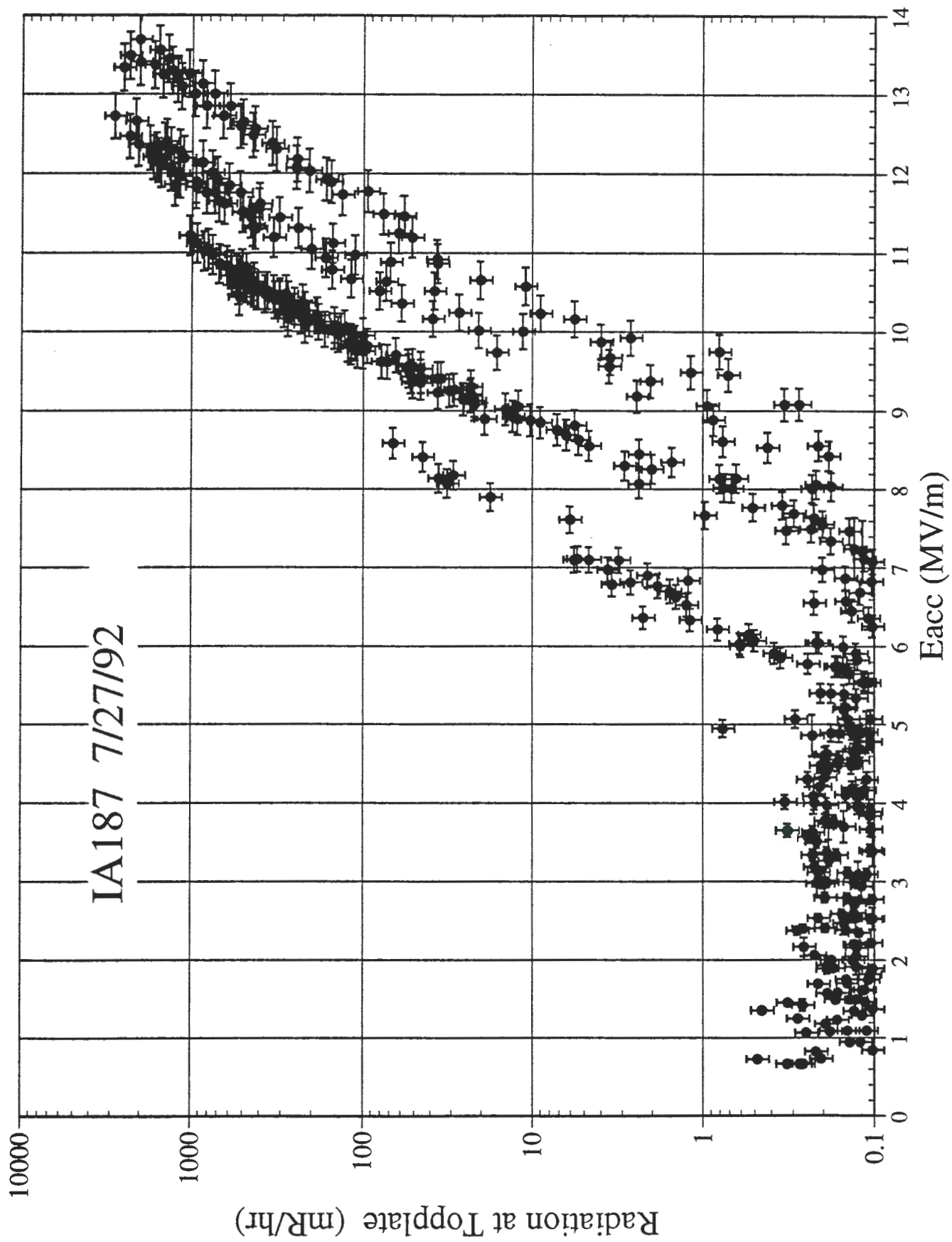
IA213 7/27/92

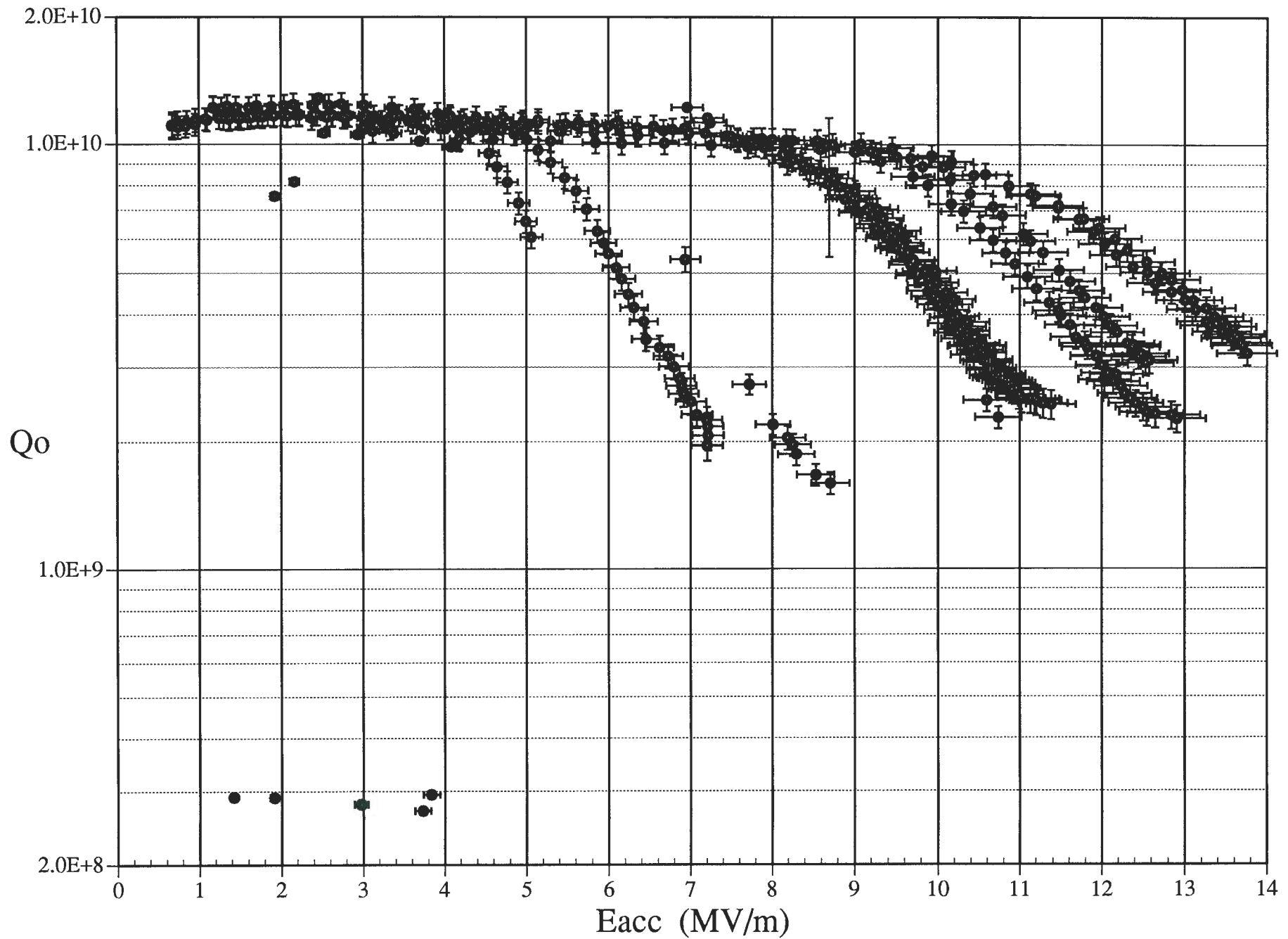


IA213 7/27/92

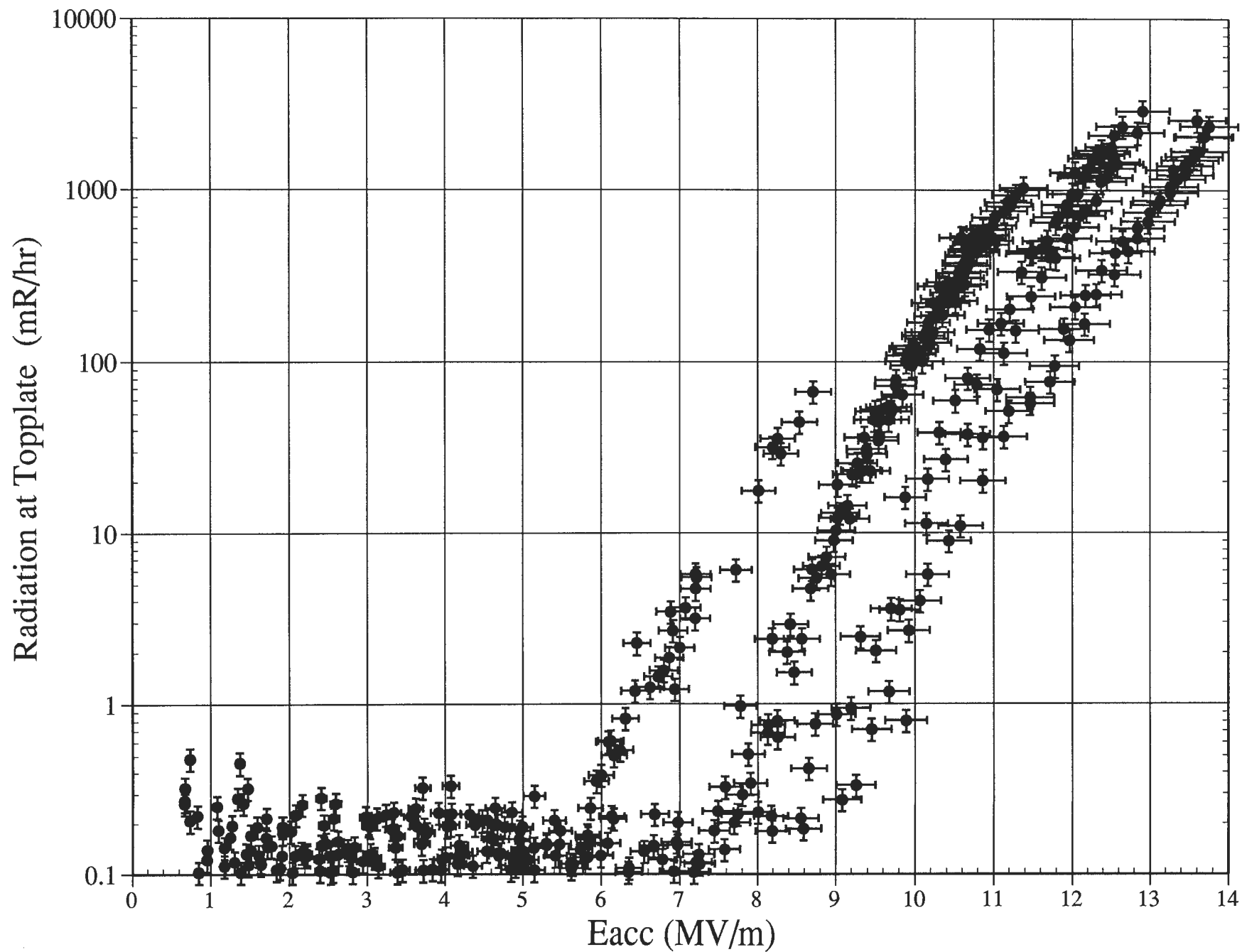




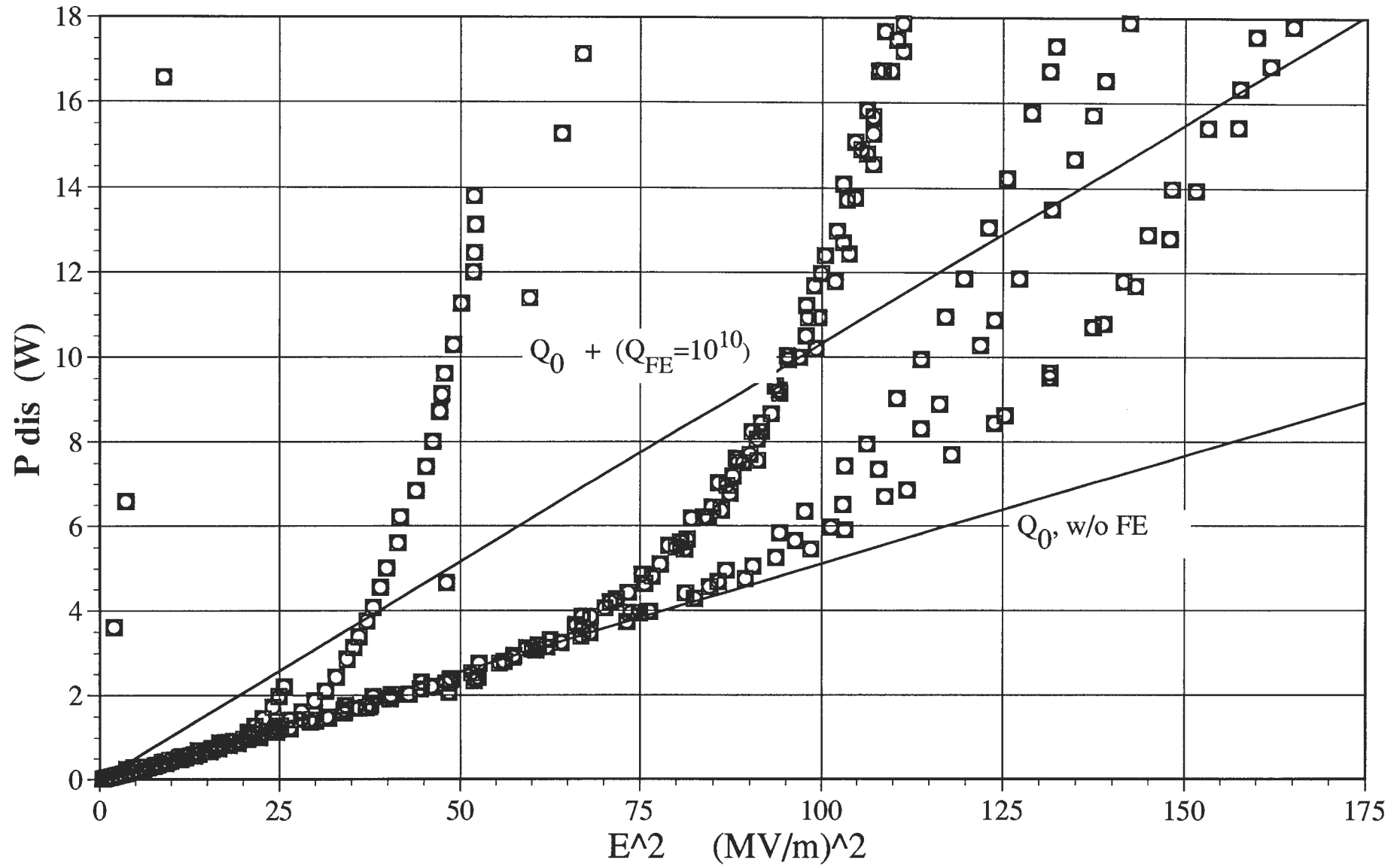




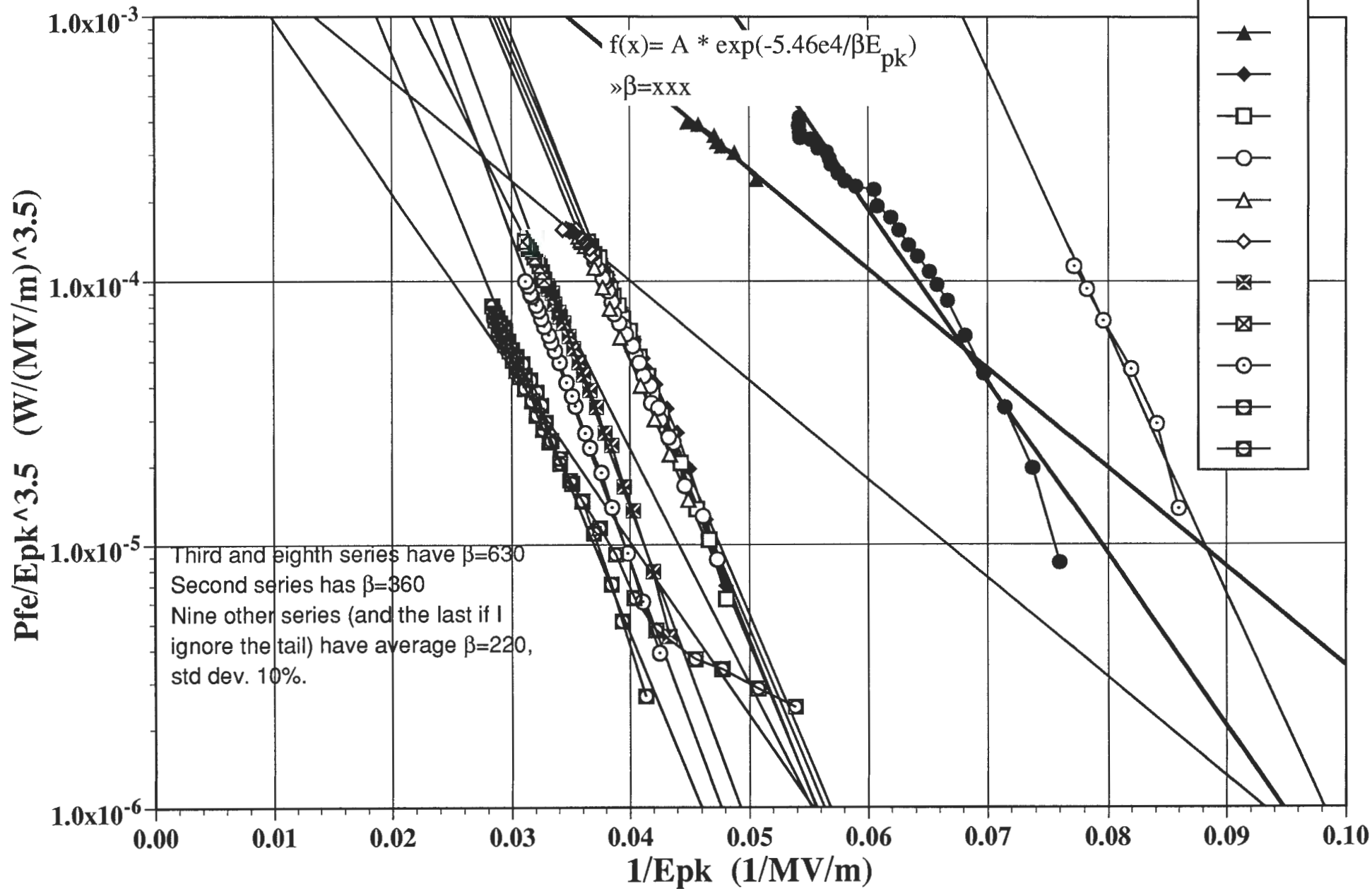
IA187 7/28/92



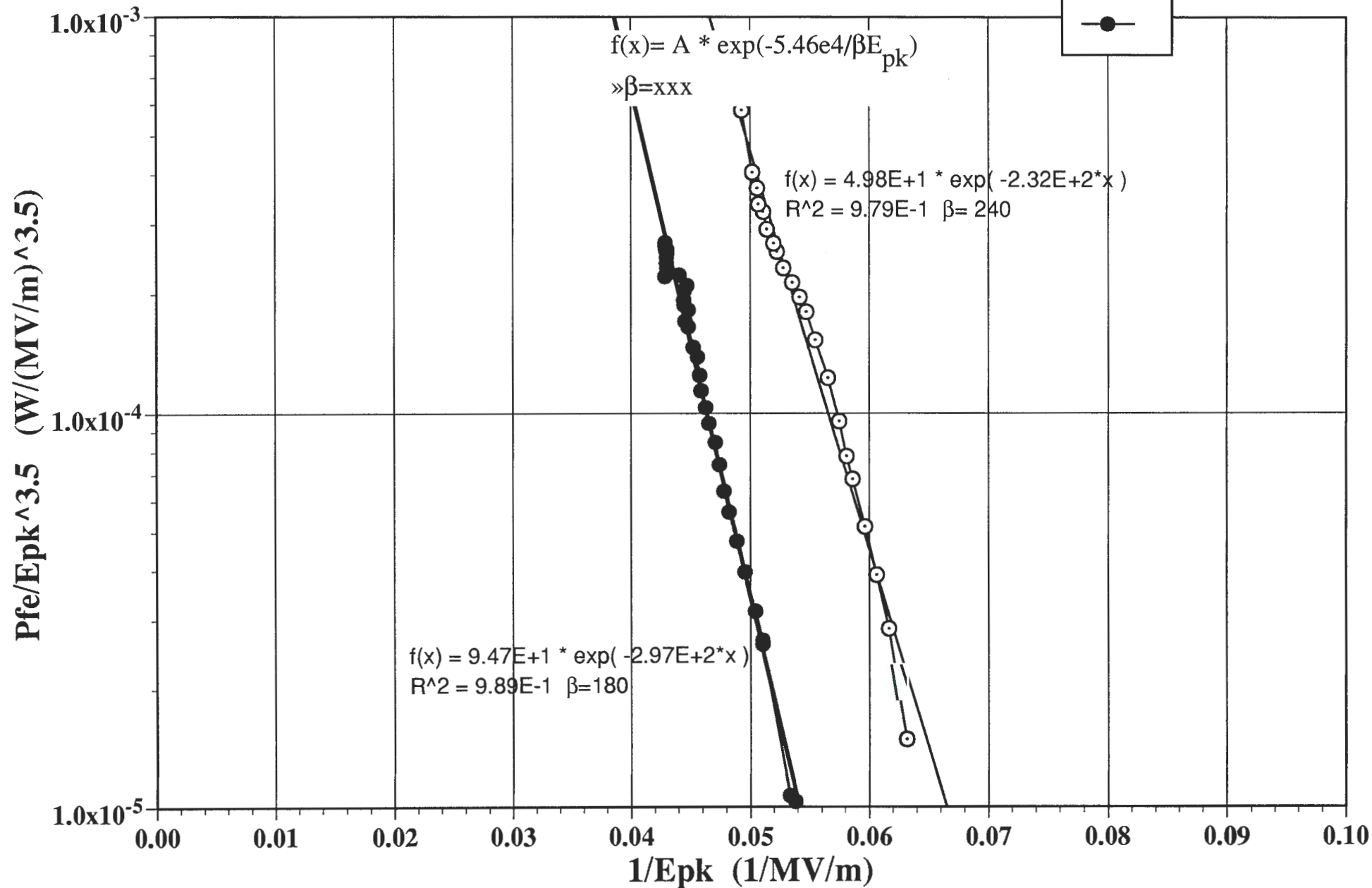
IA187 7/28/92



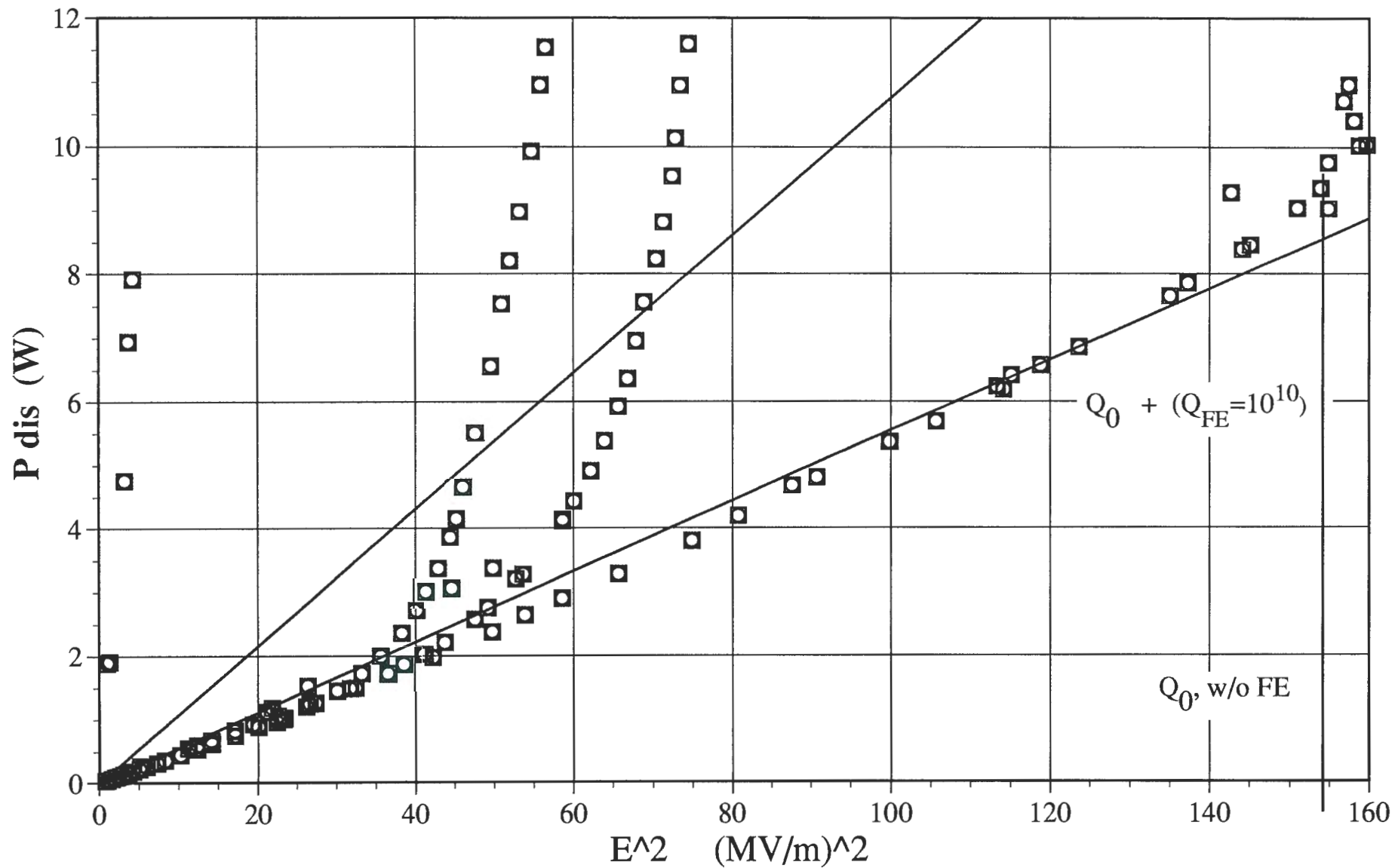
IA187 7/28/92

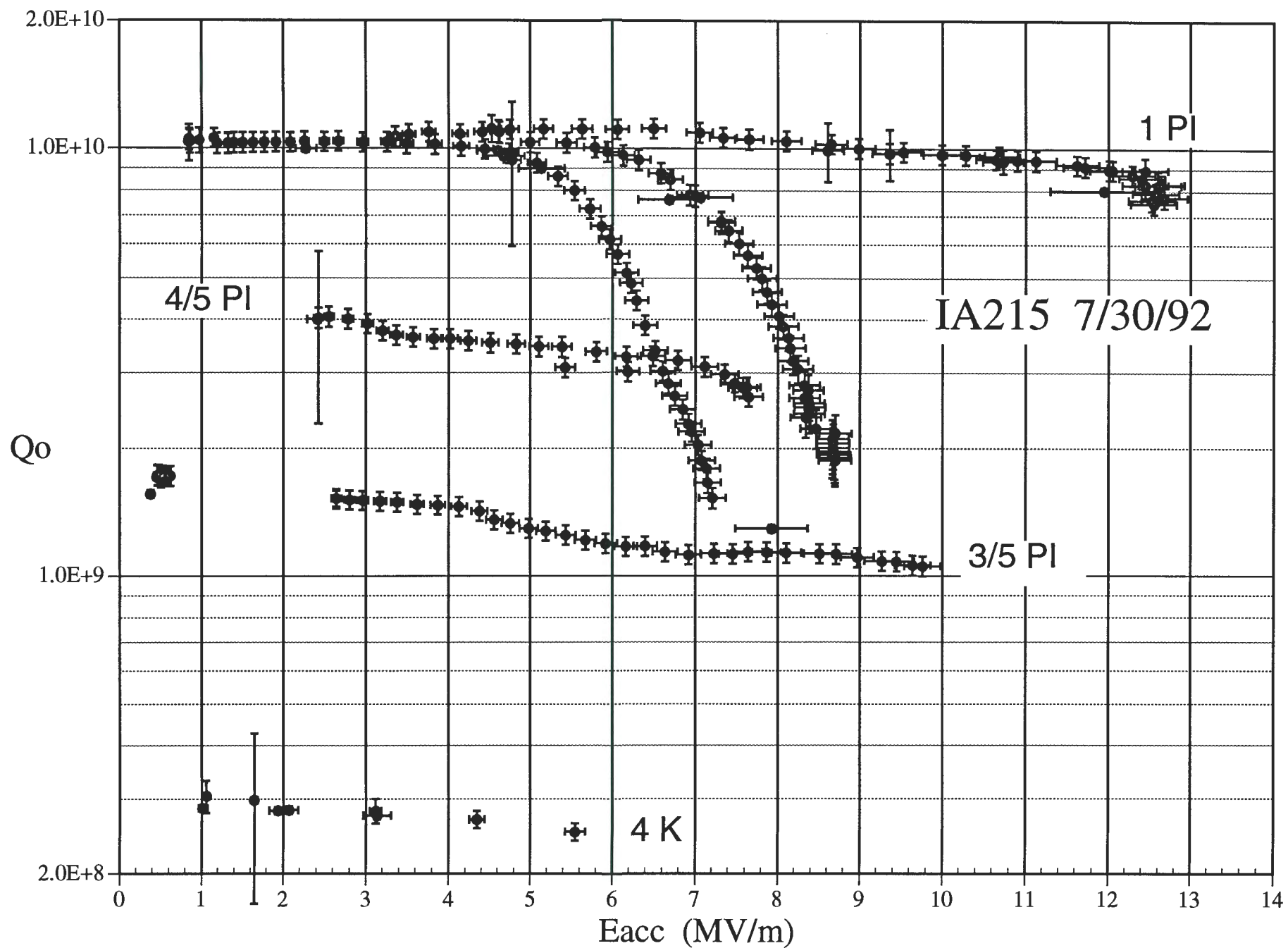


IA215 7/30/92

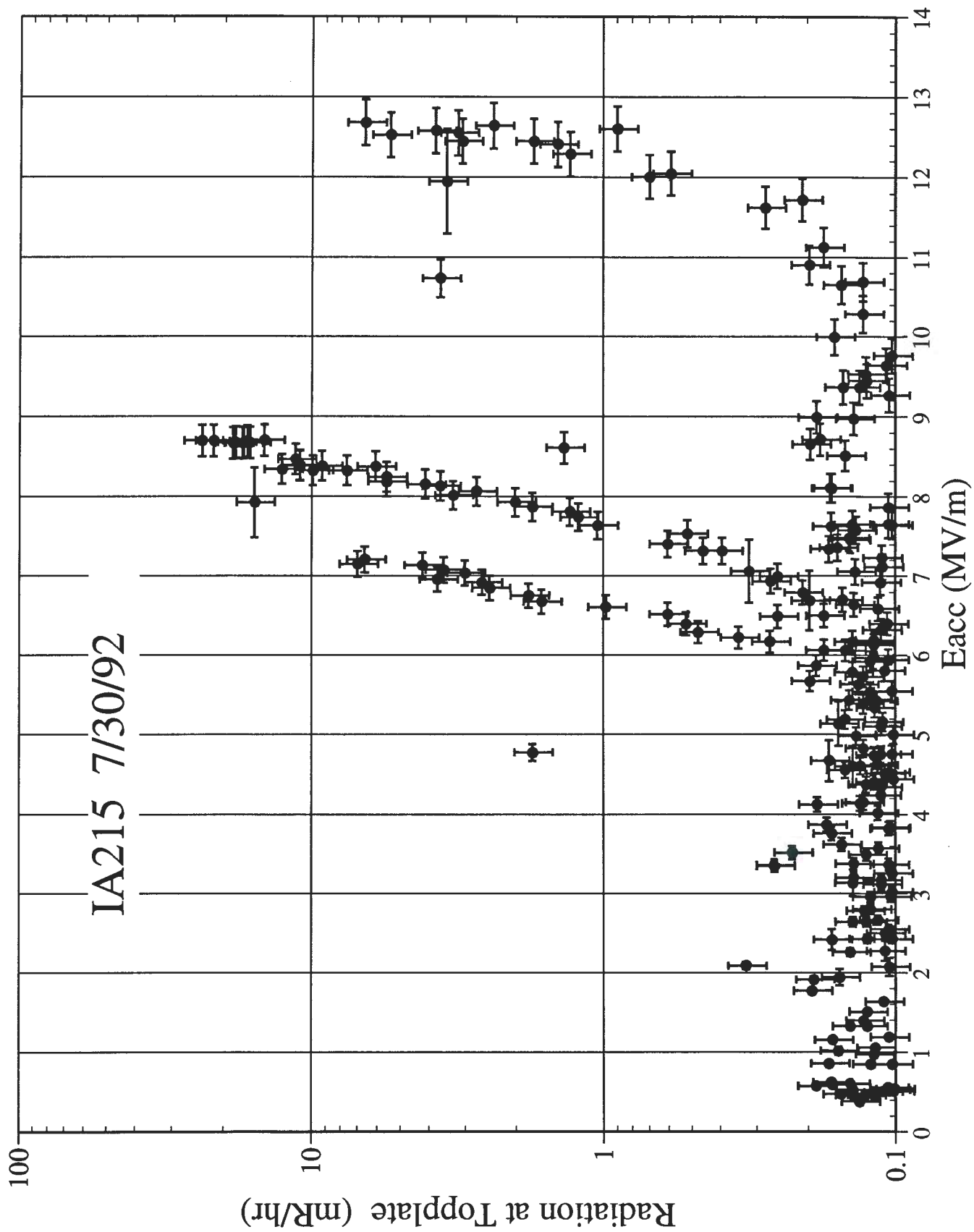


IA215 7/30/92

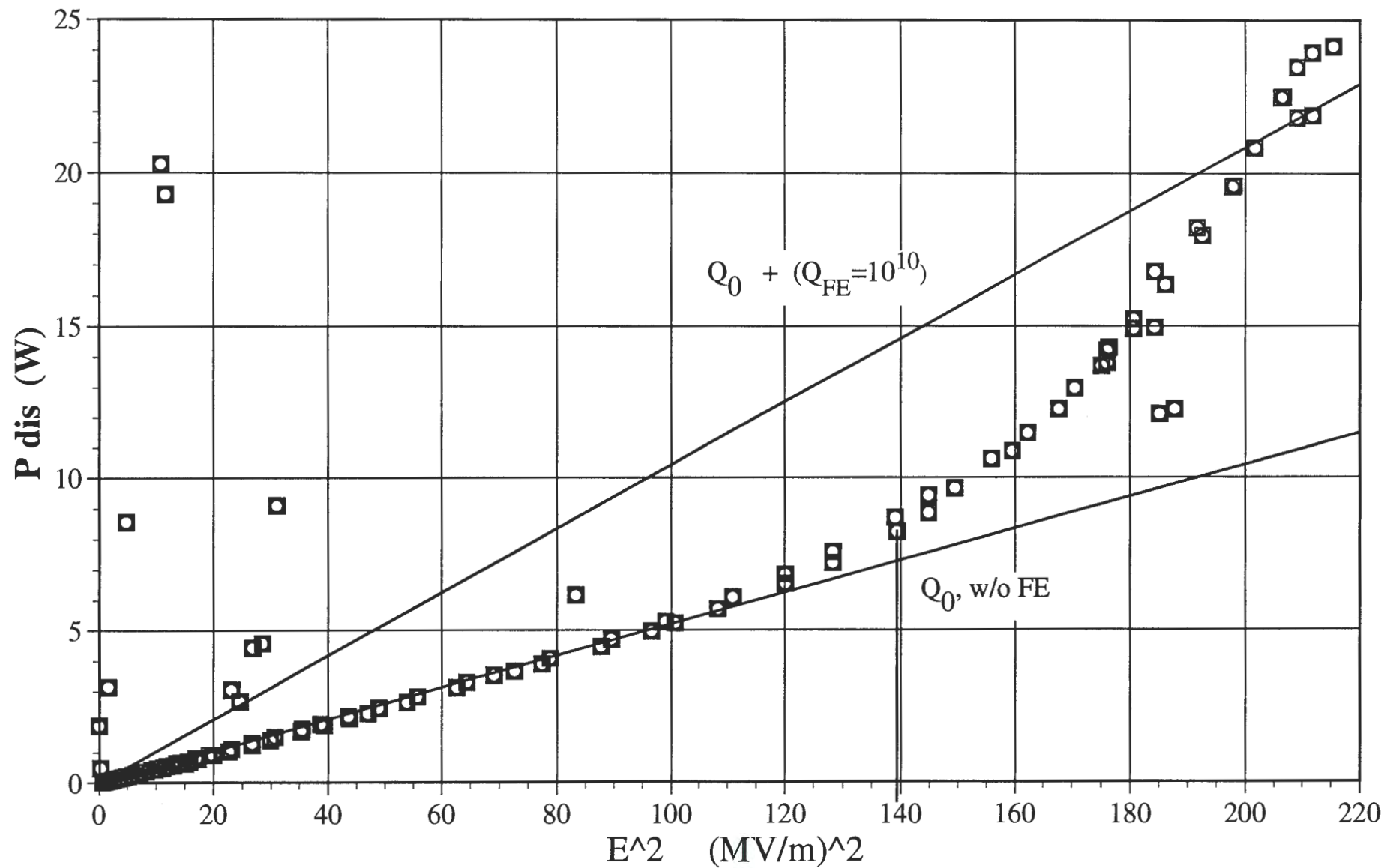




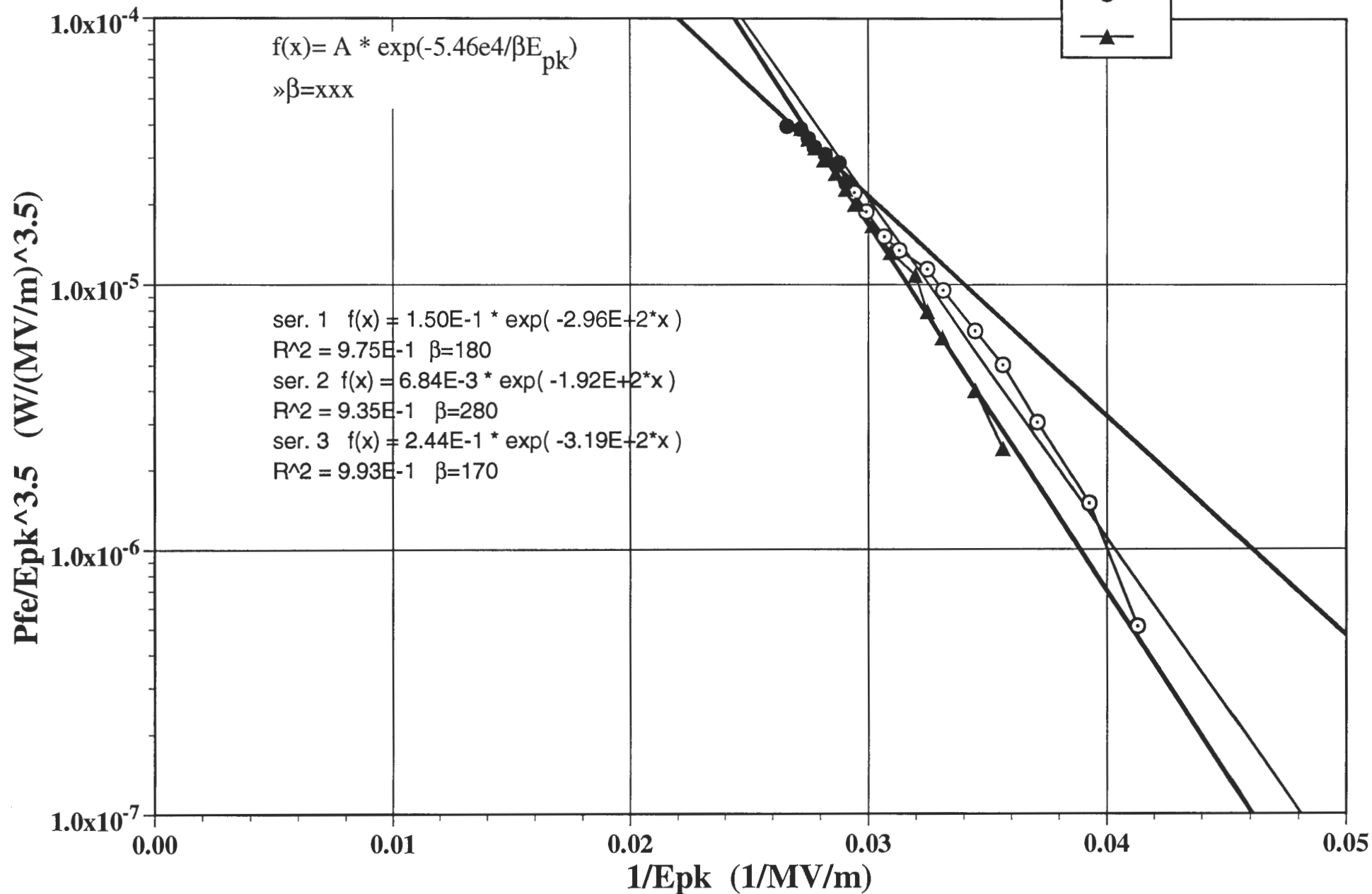
CABLES CALIBRATED FOR 1 PI MODE ONLY

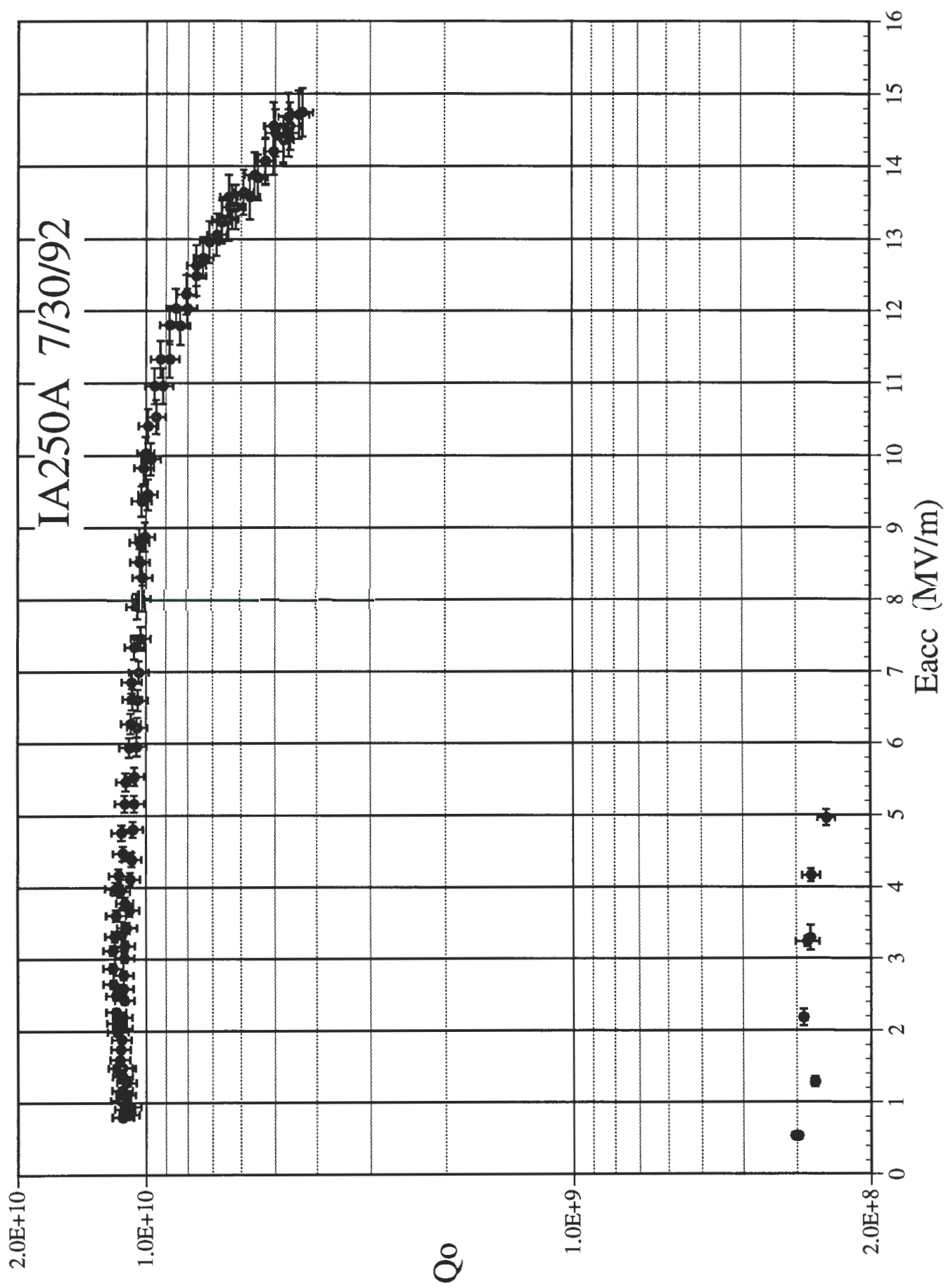


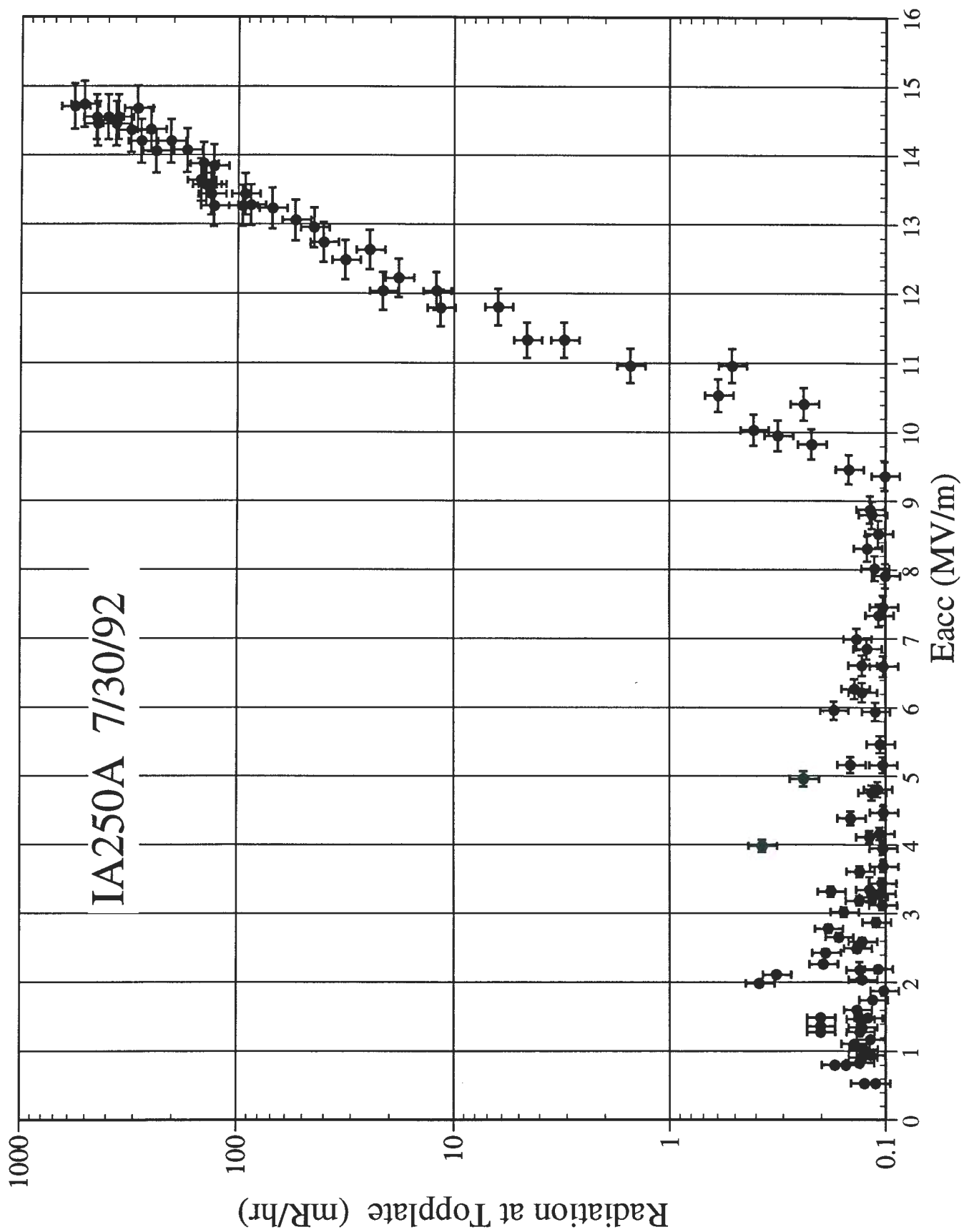
IA250a 7/30/92

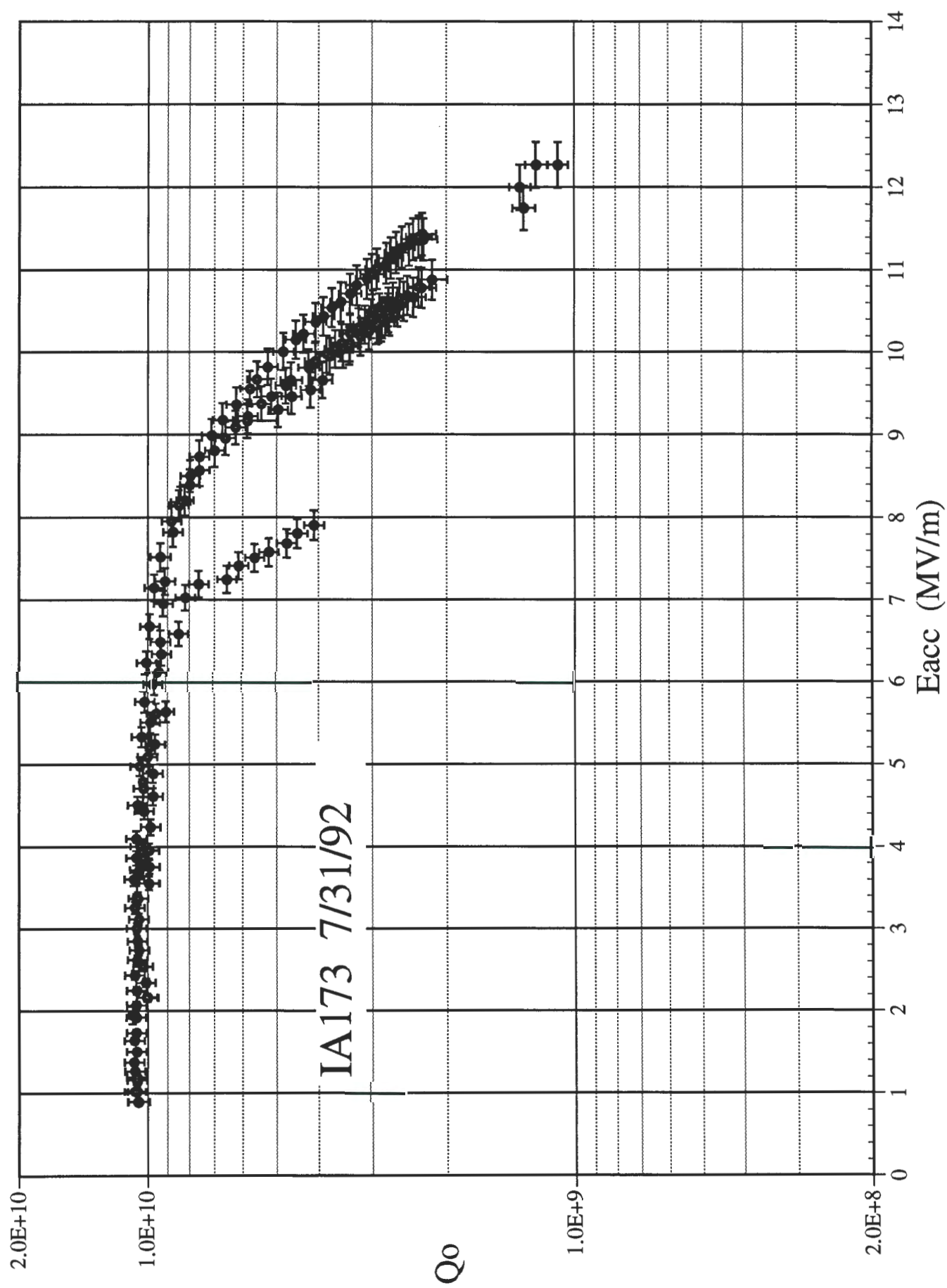


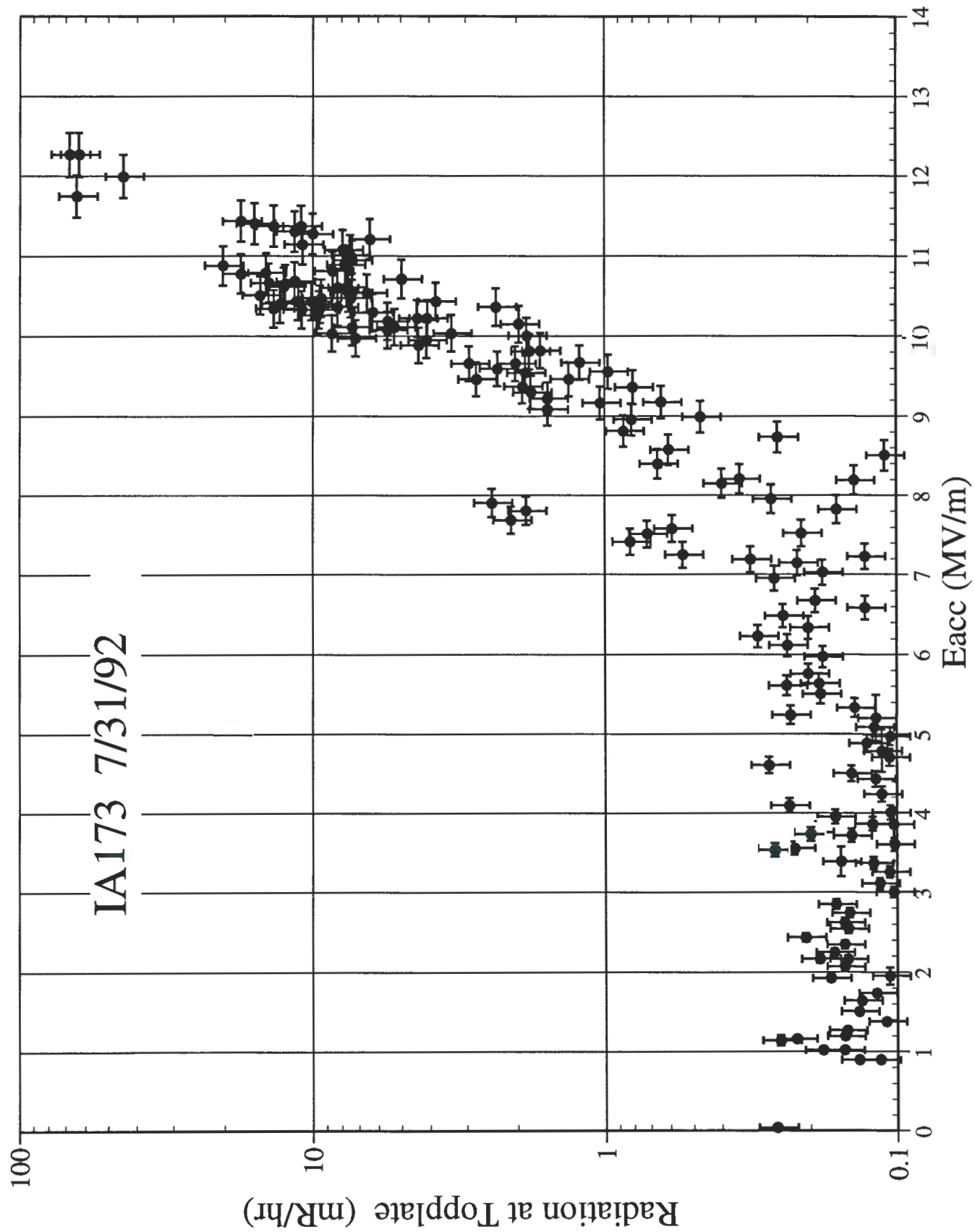
IA250a 7/30/92

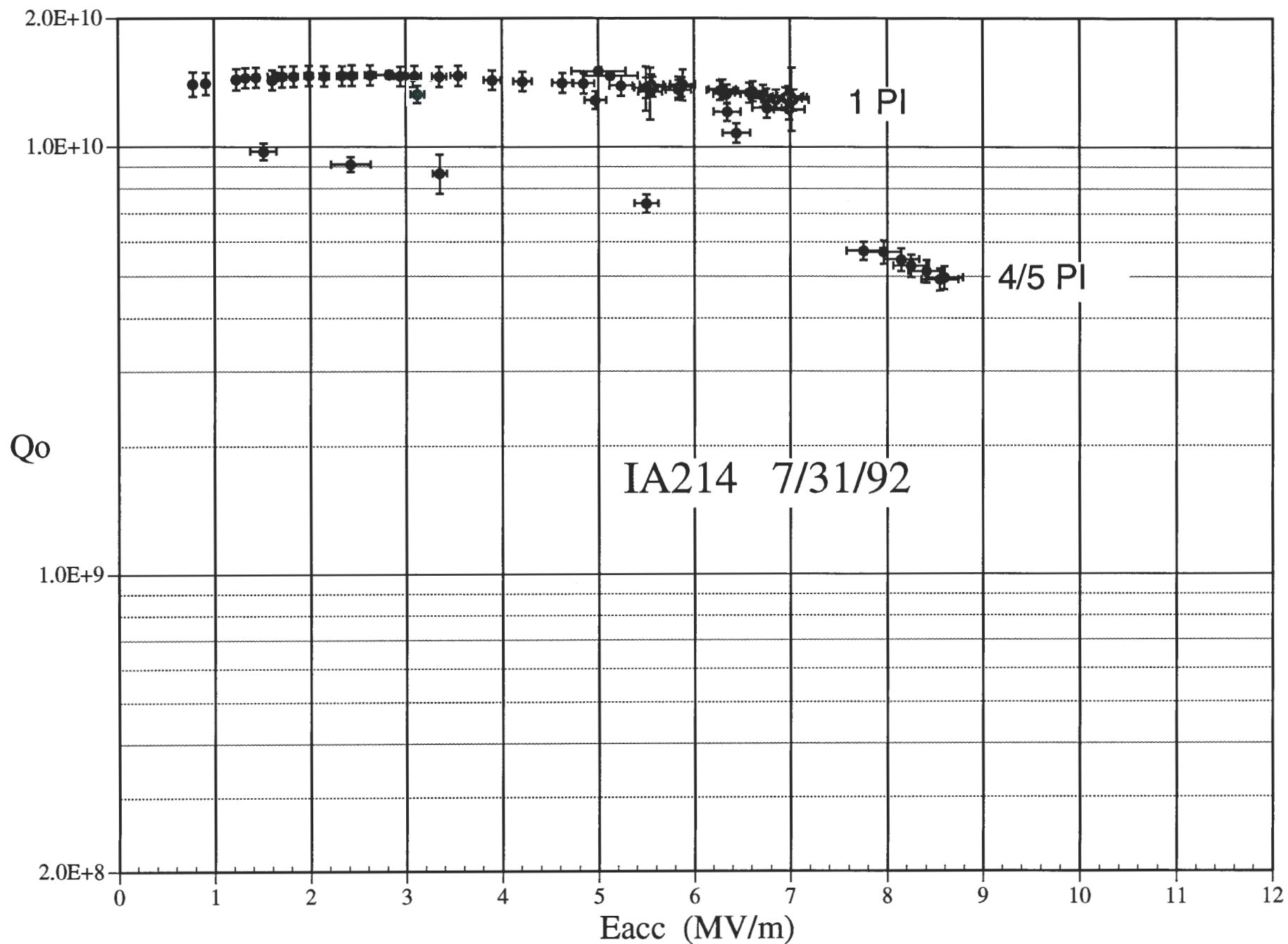


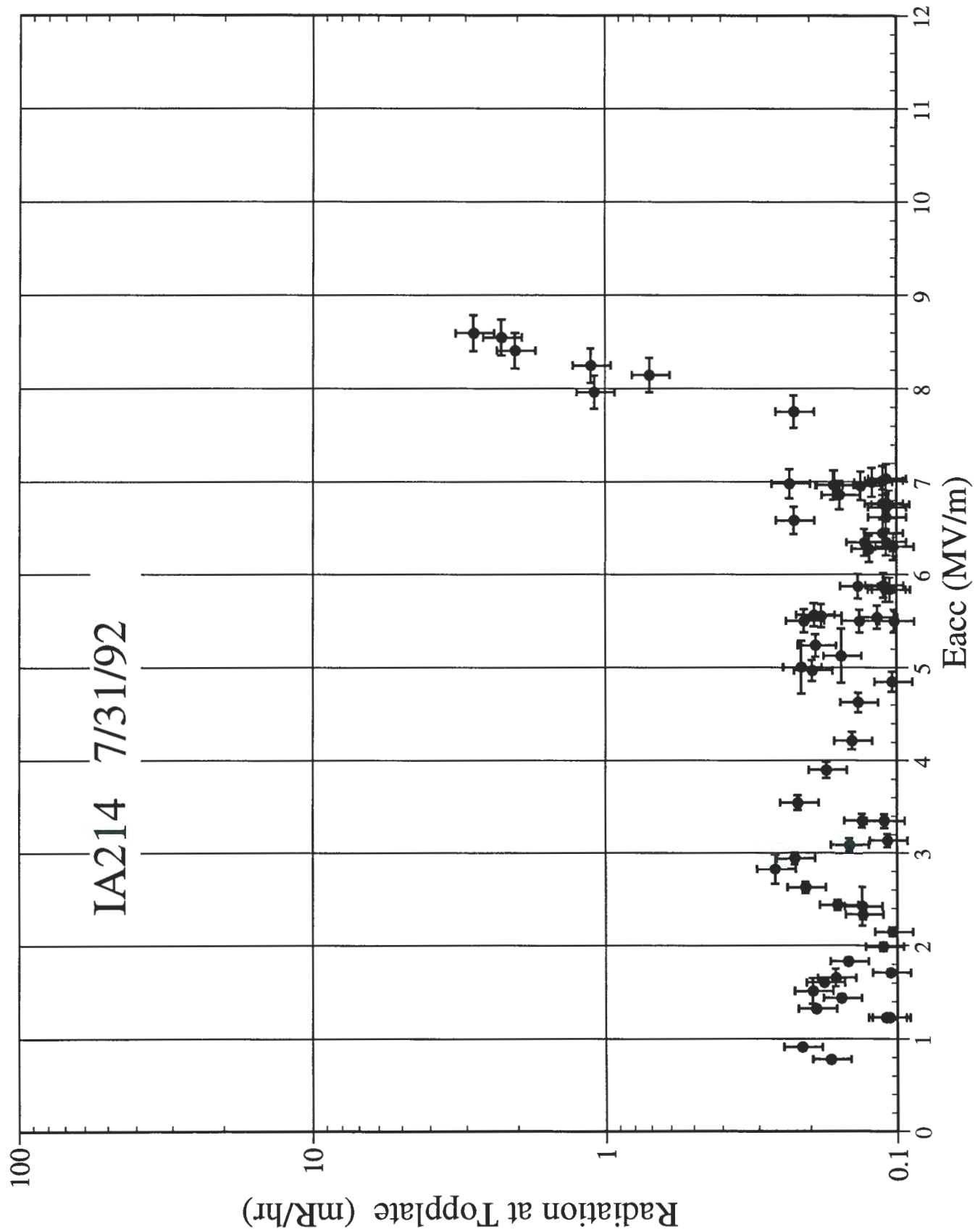


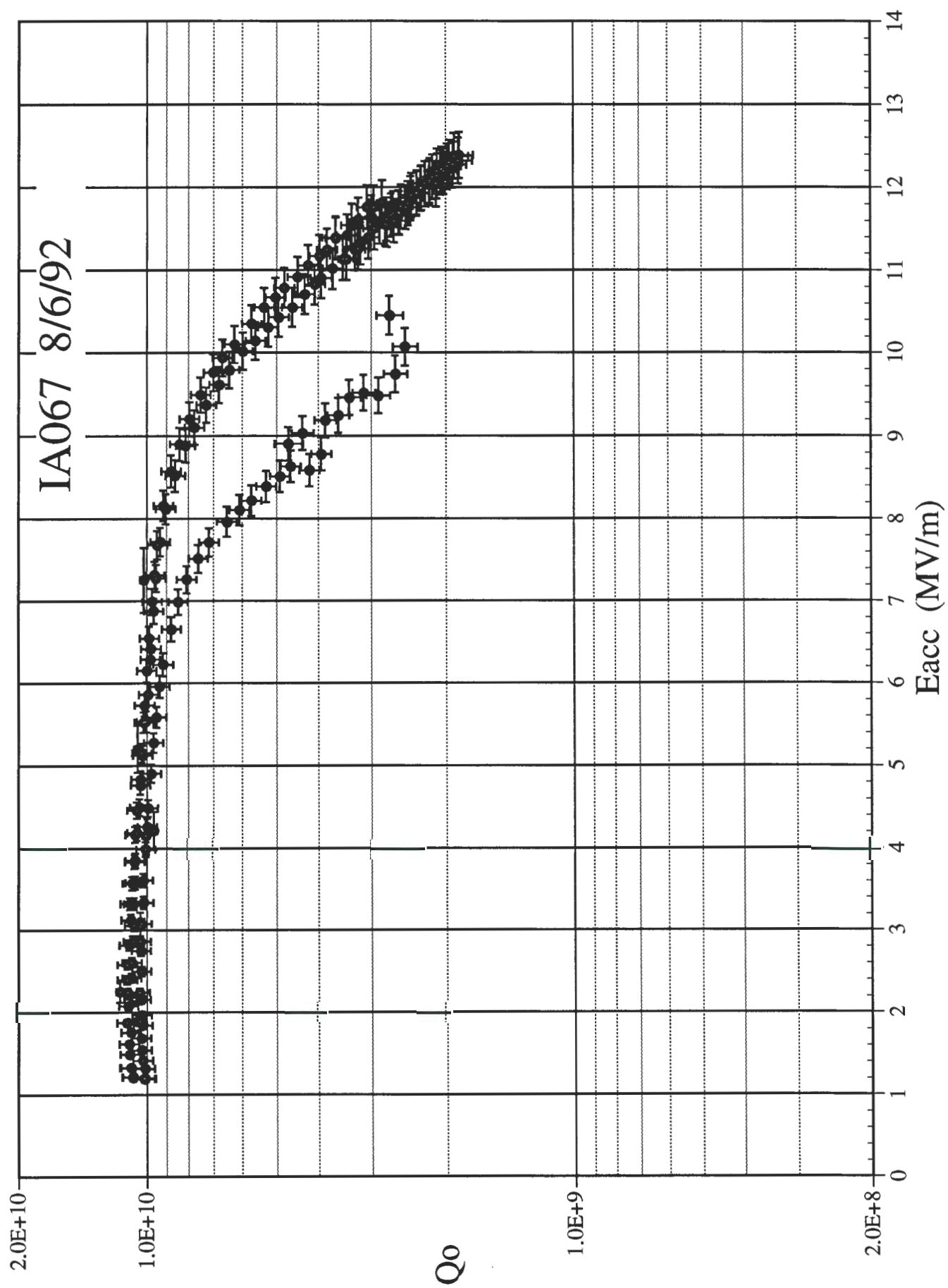


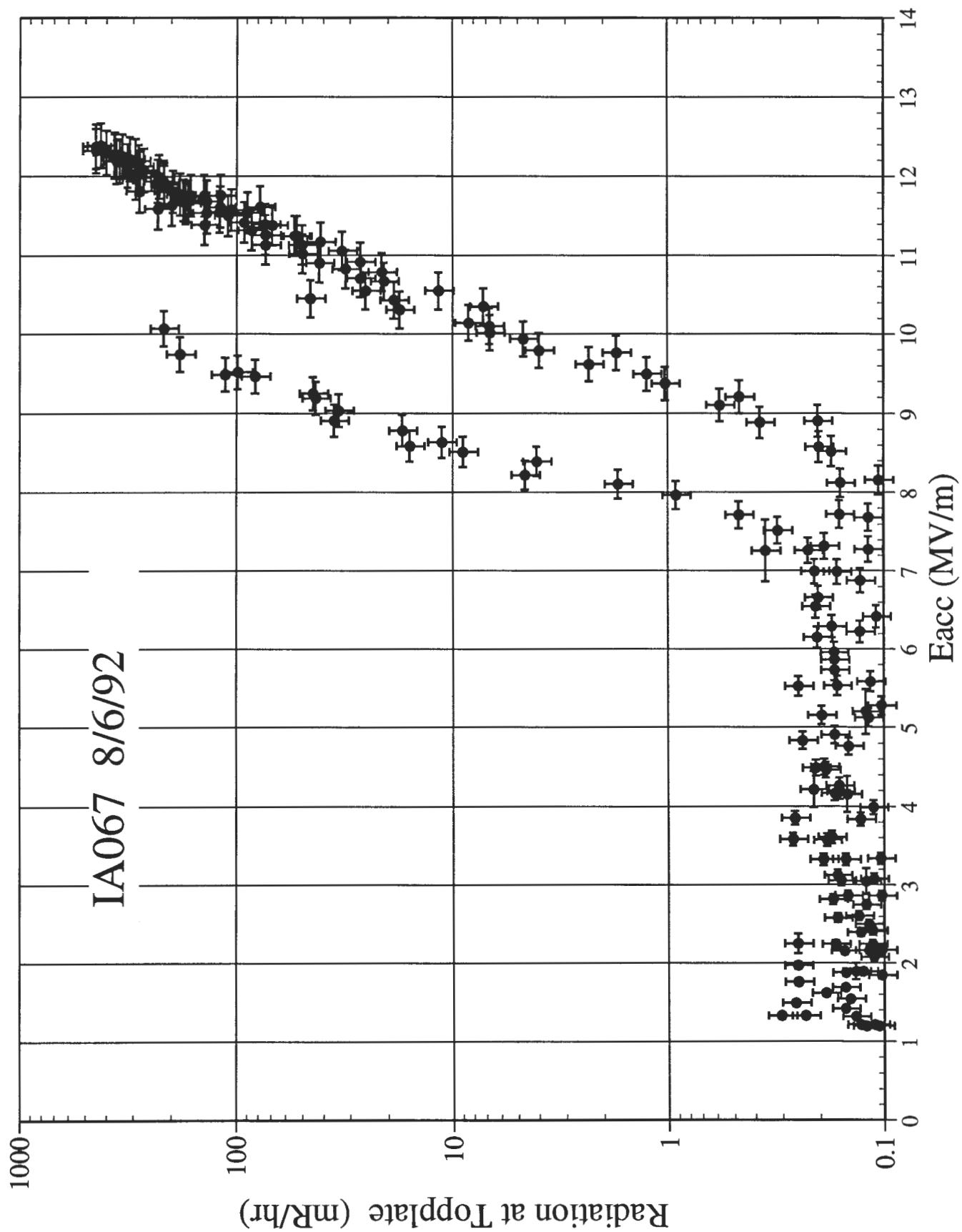


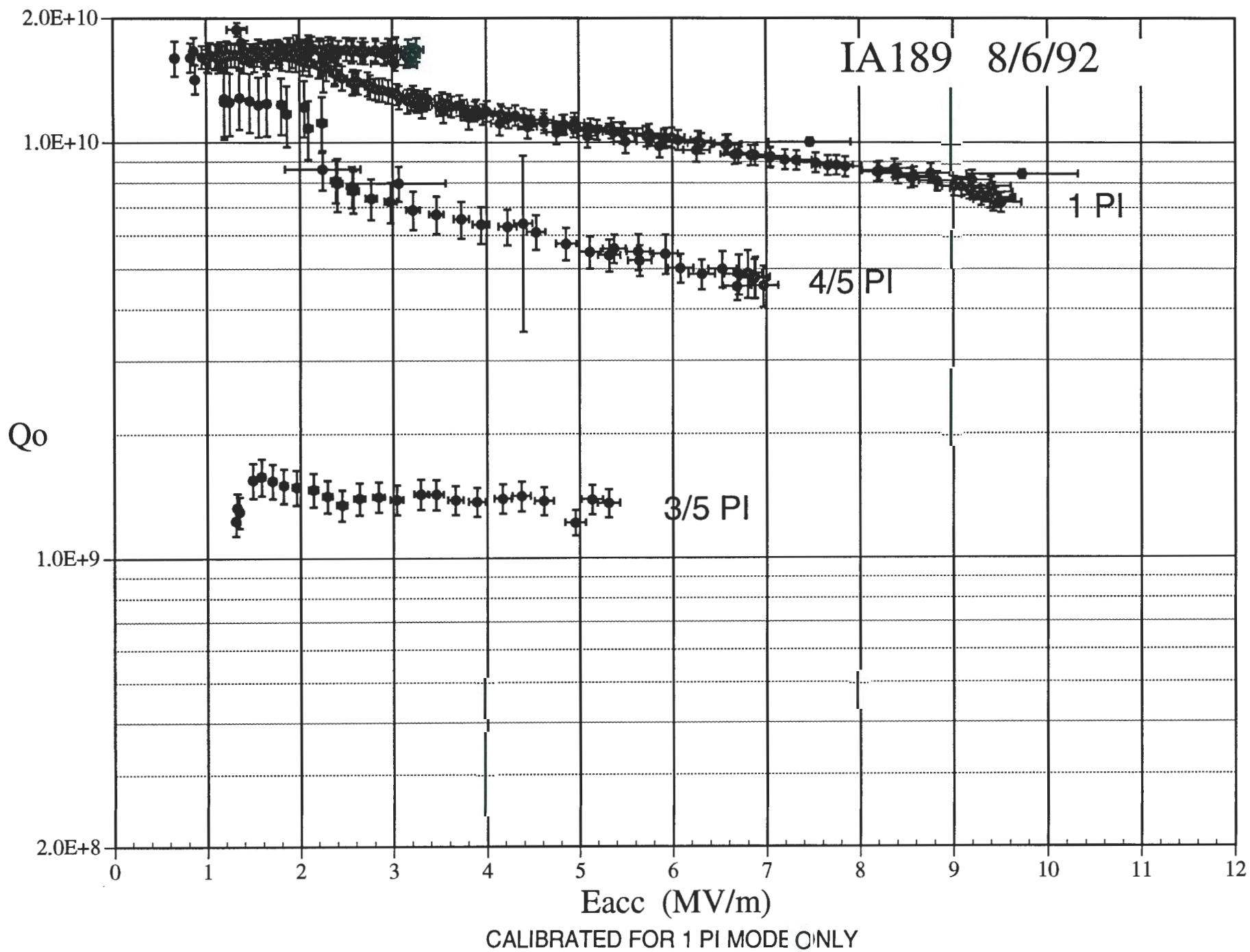


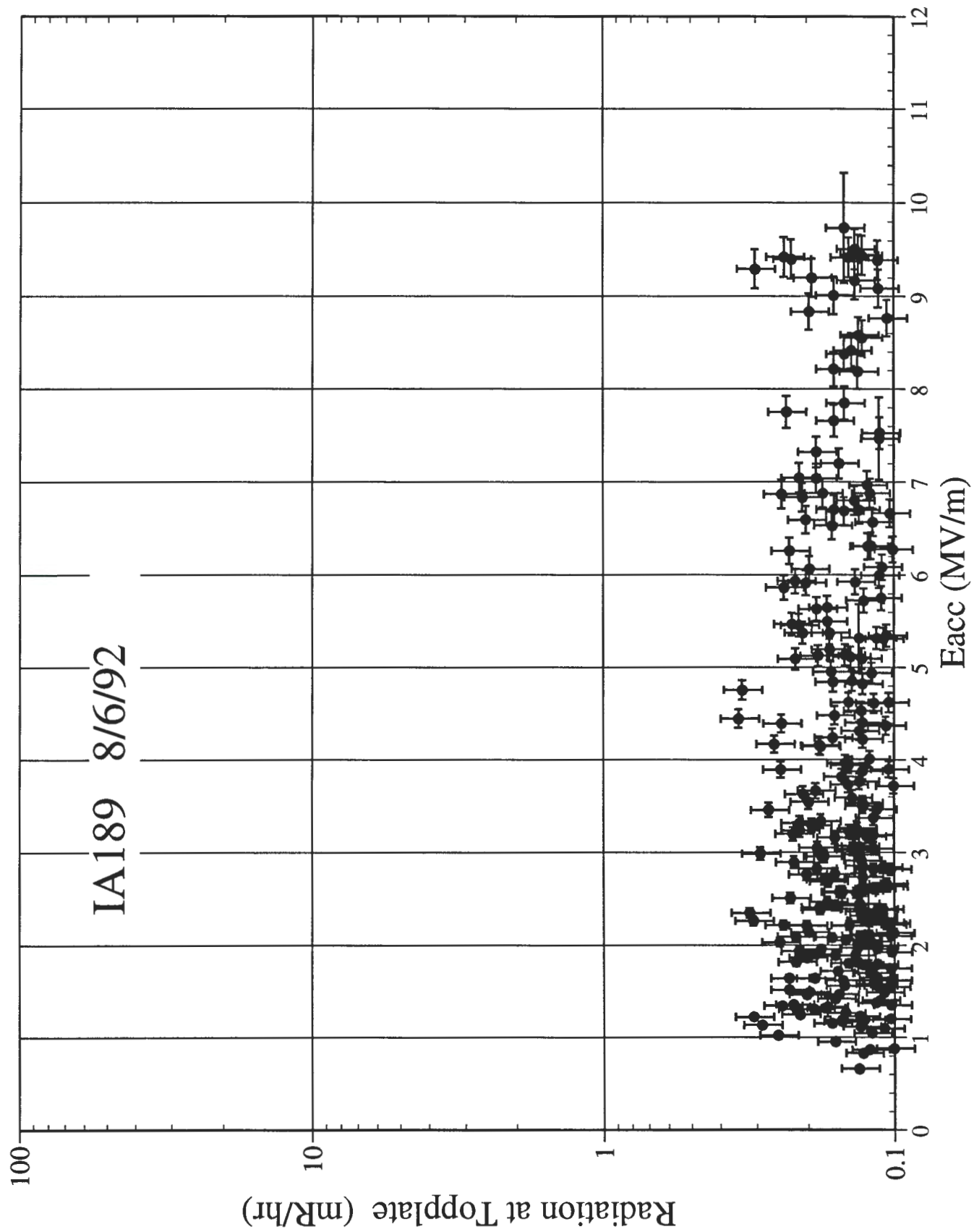


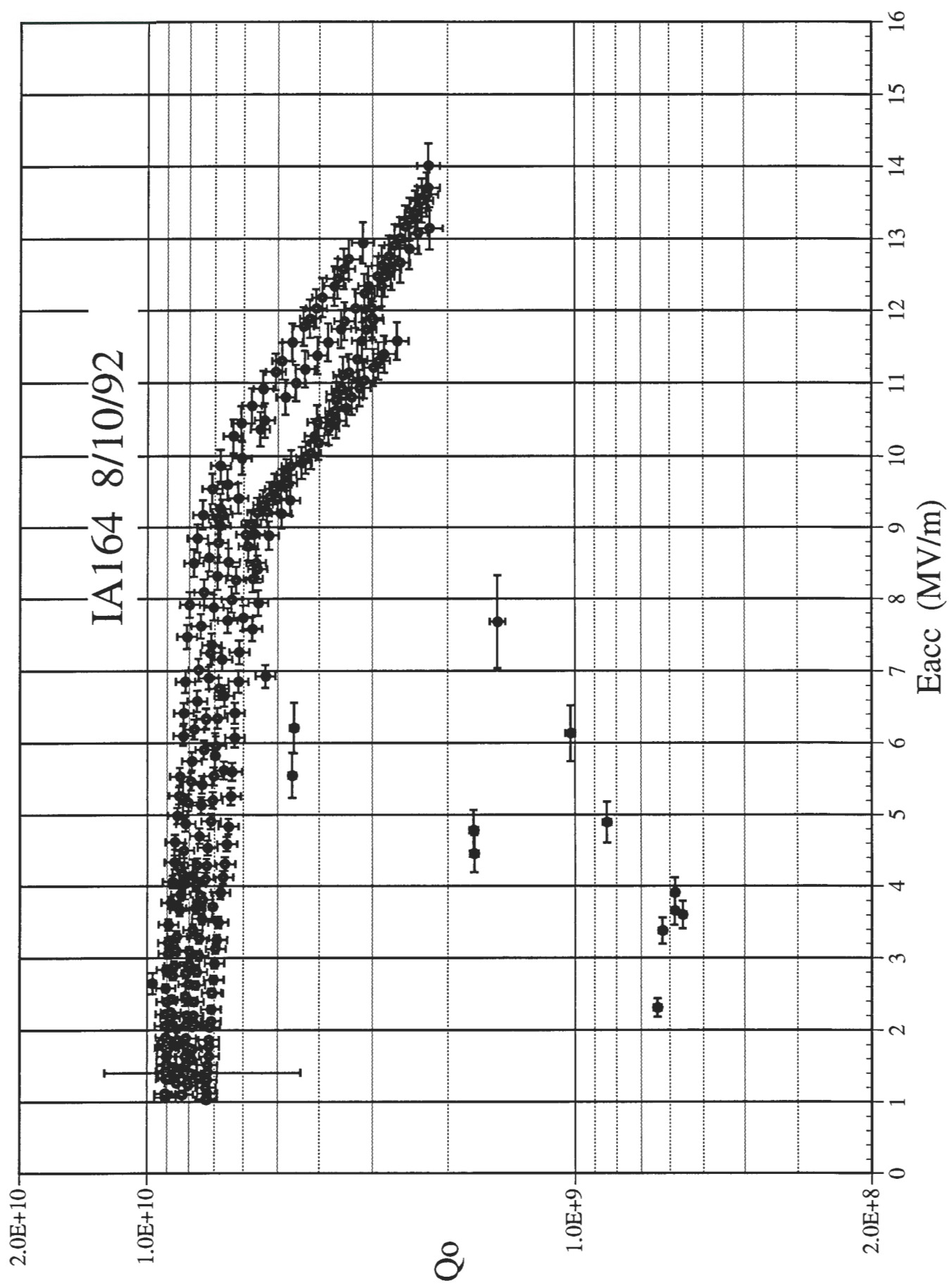


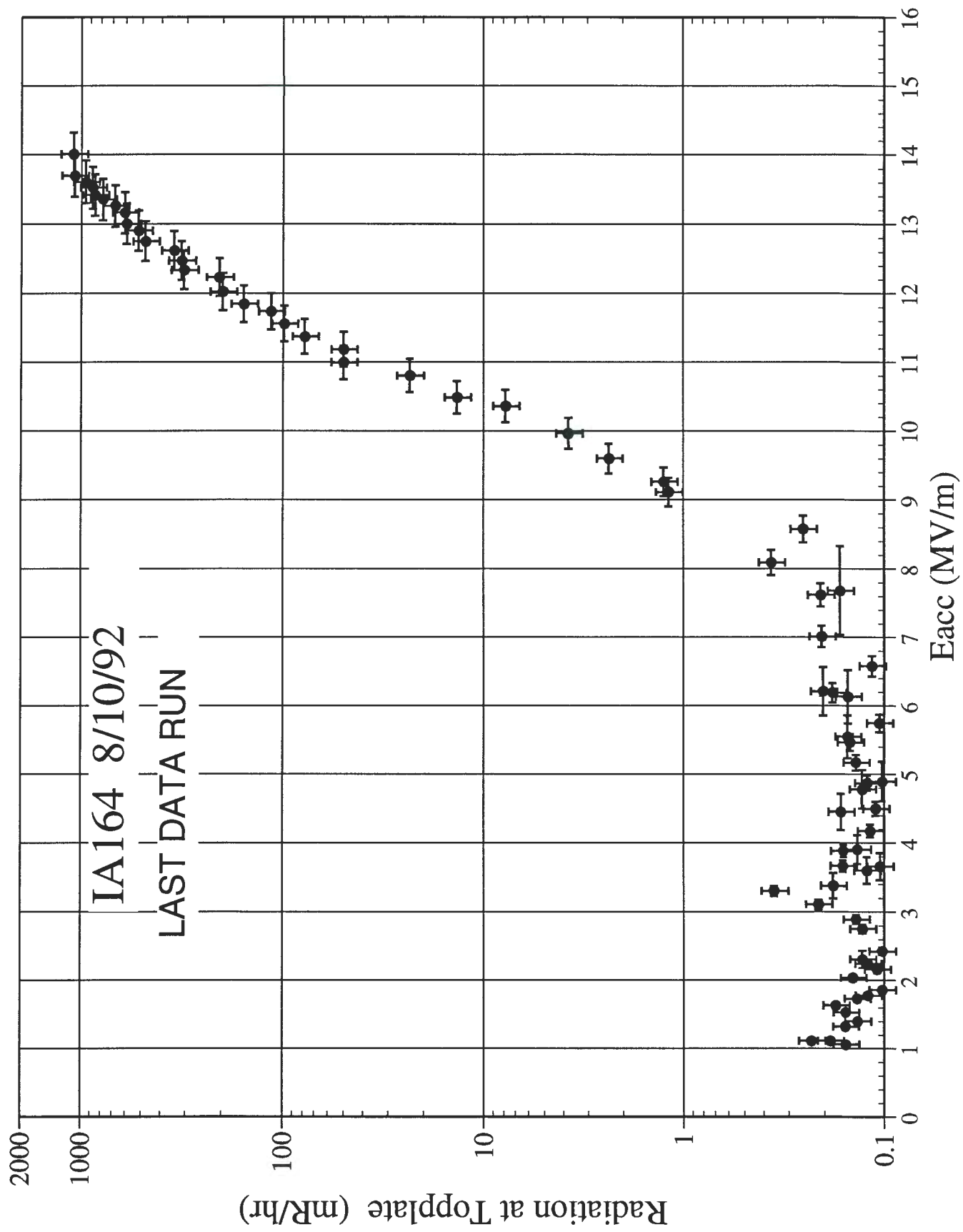


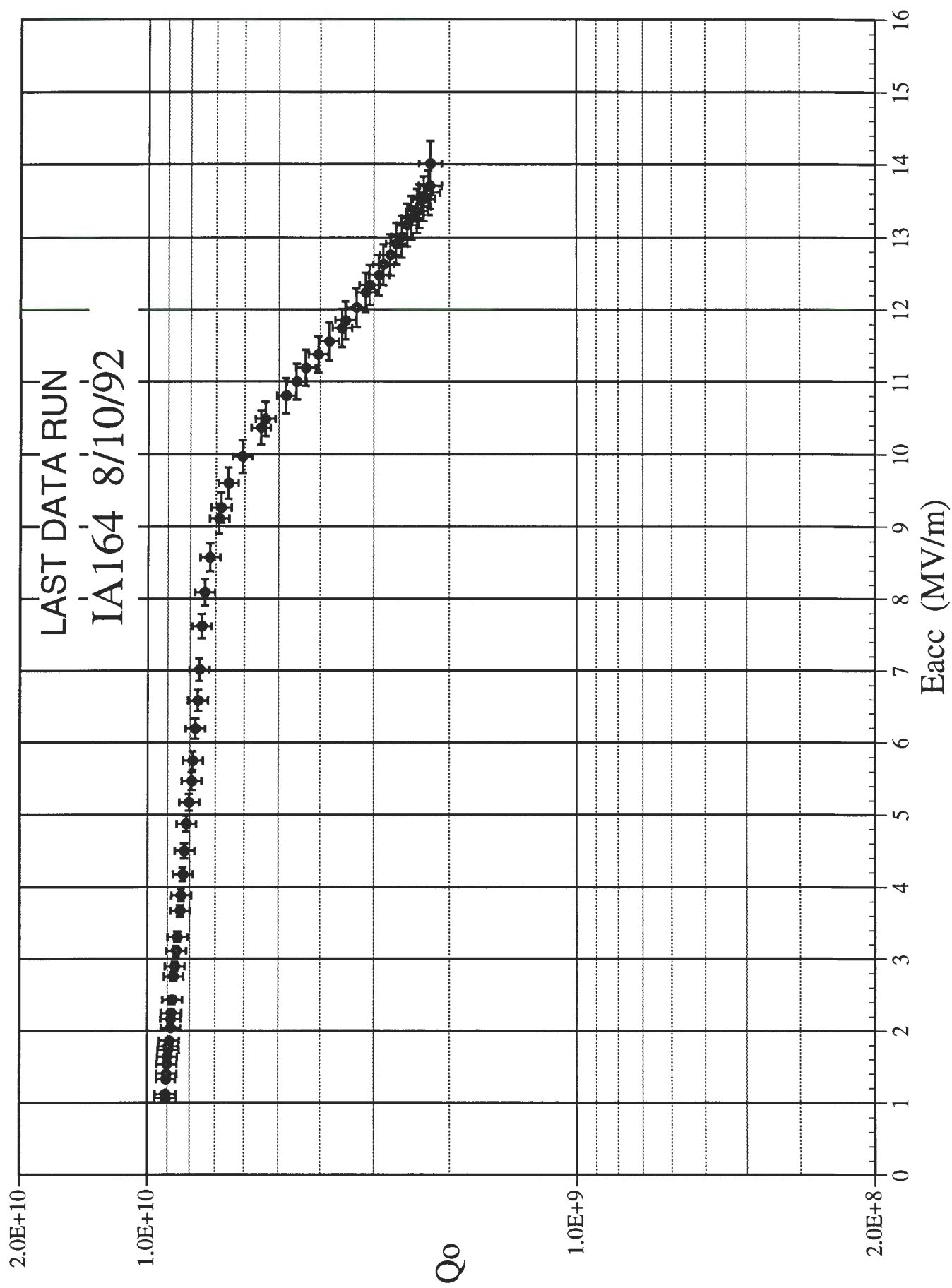


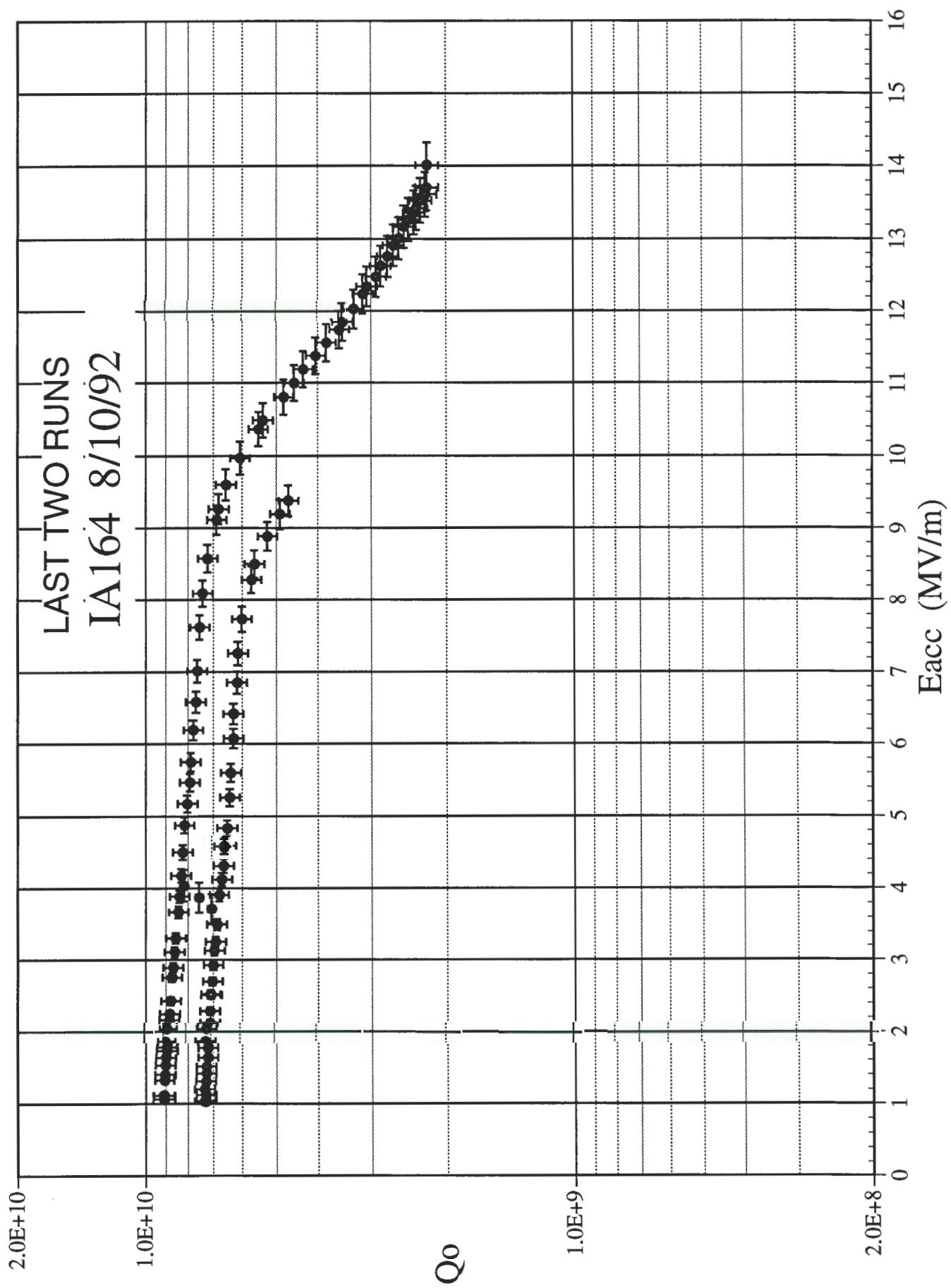


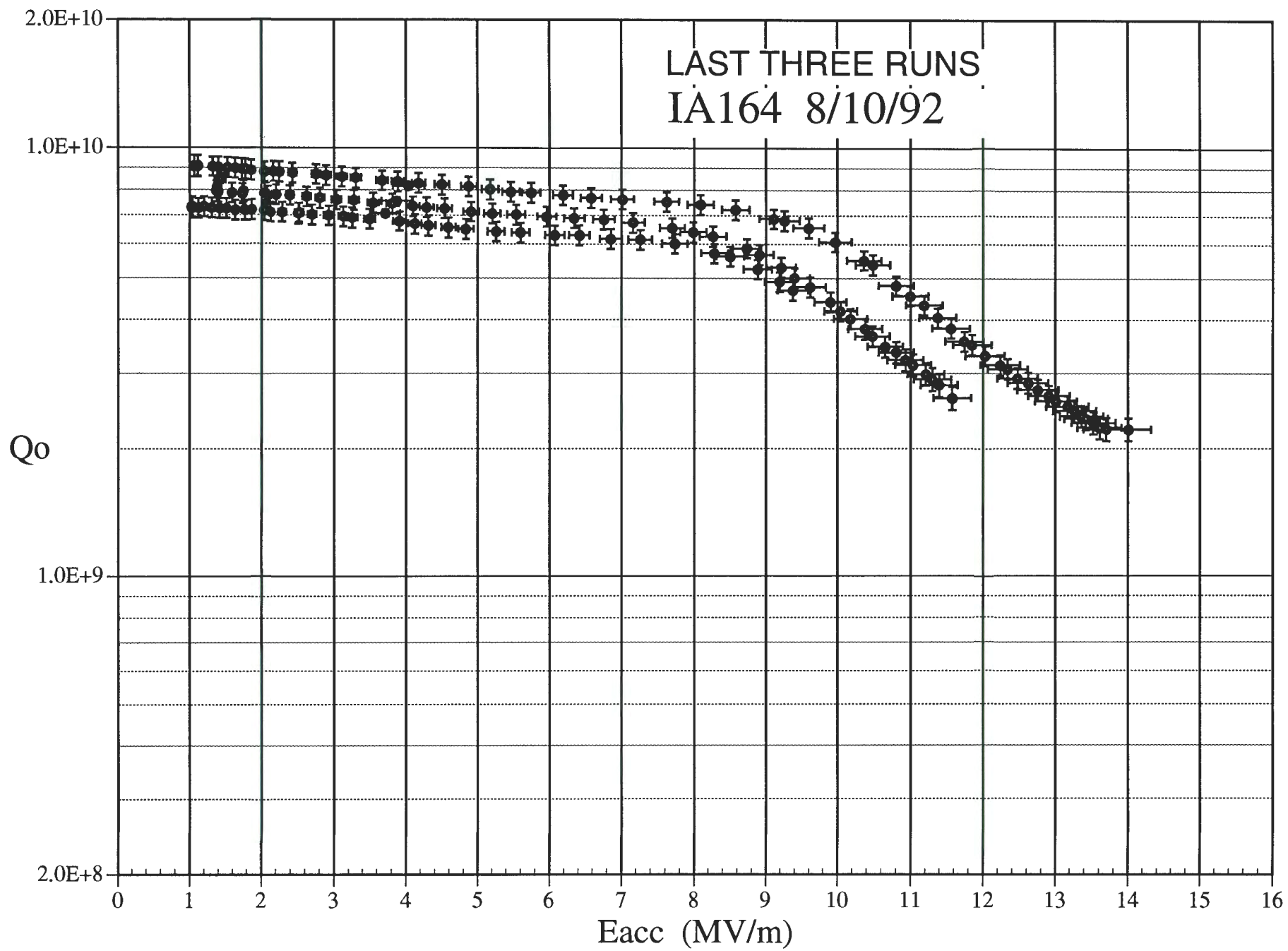


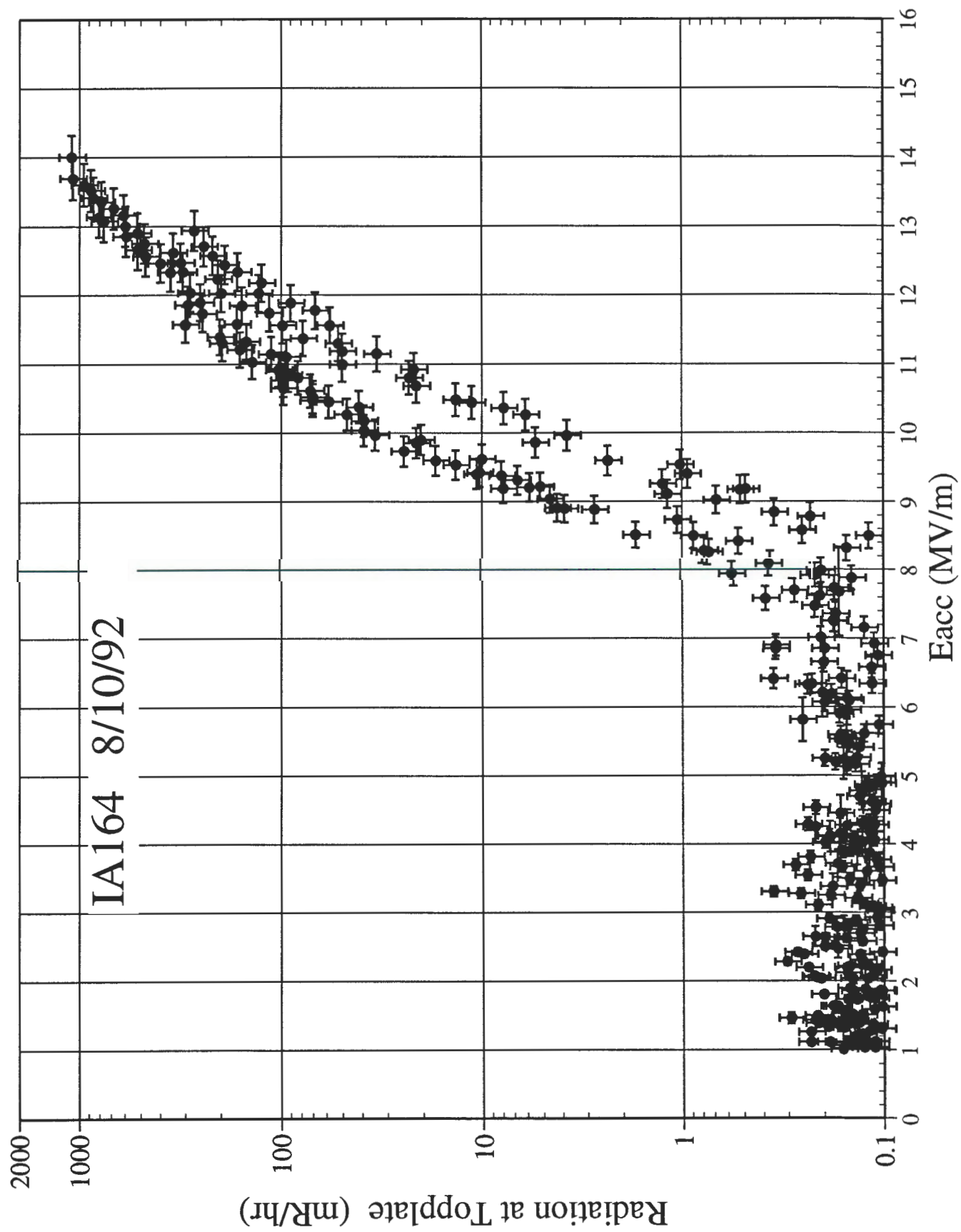


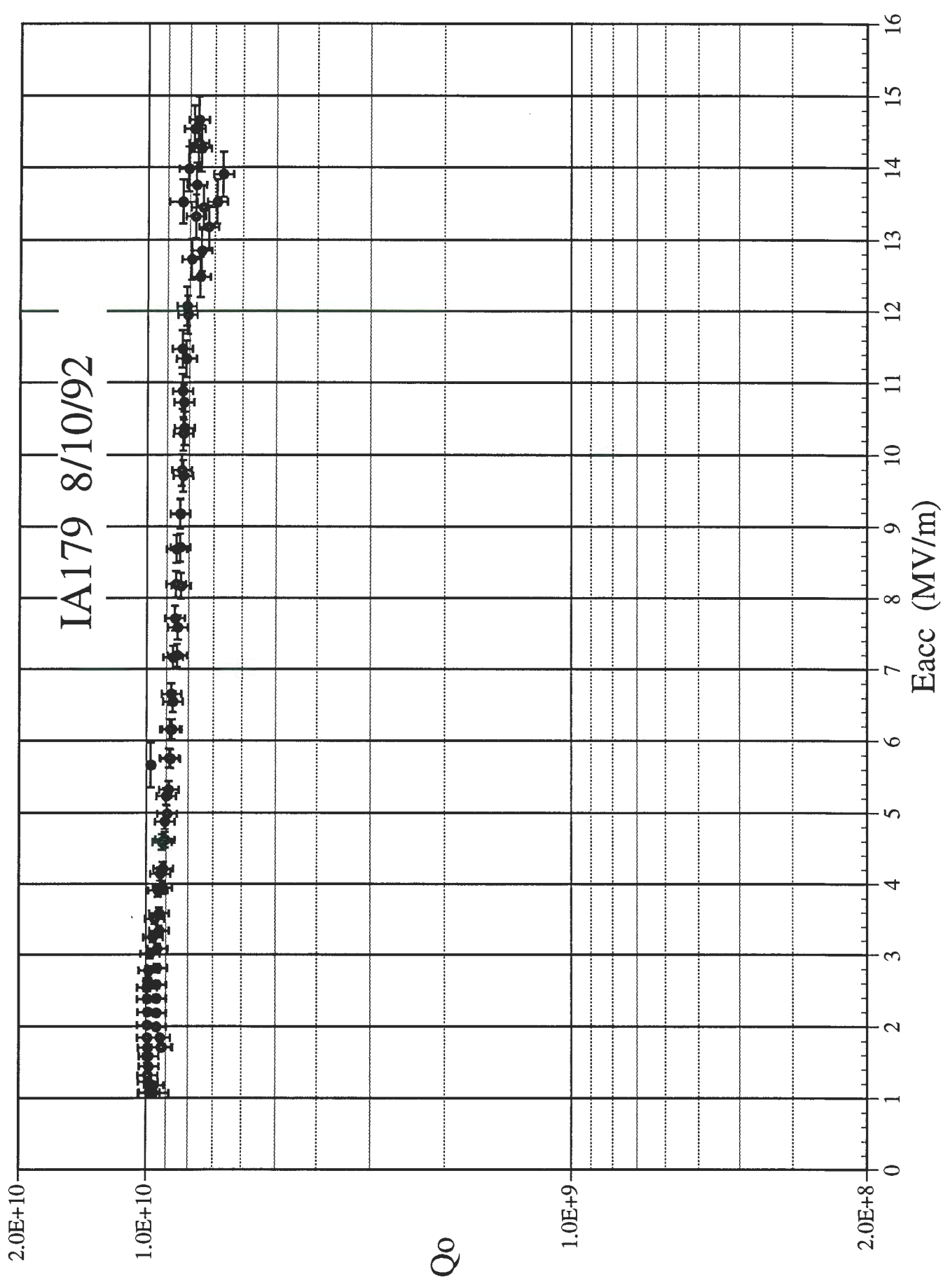


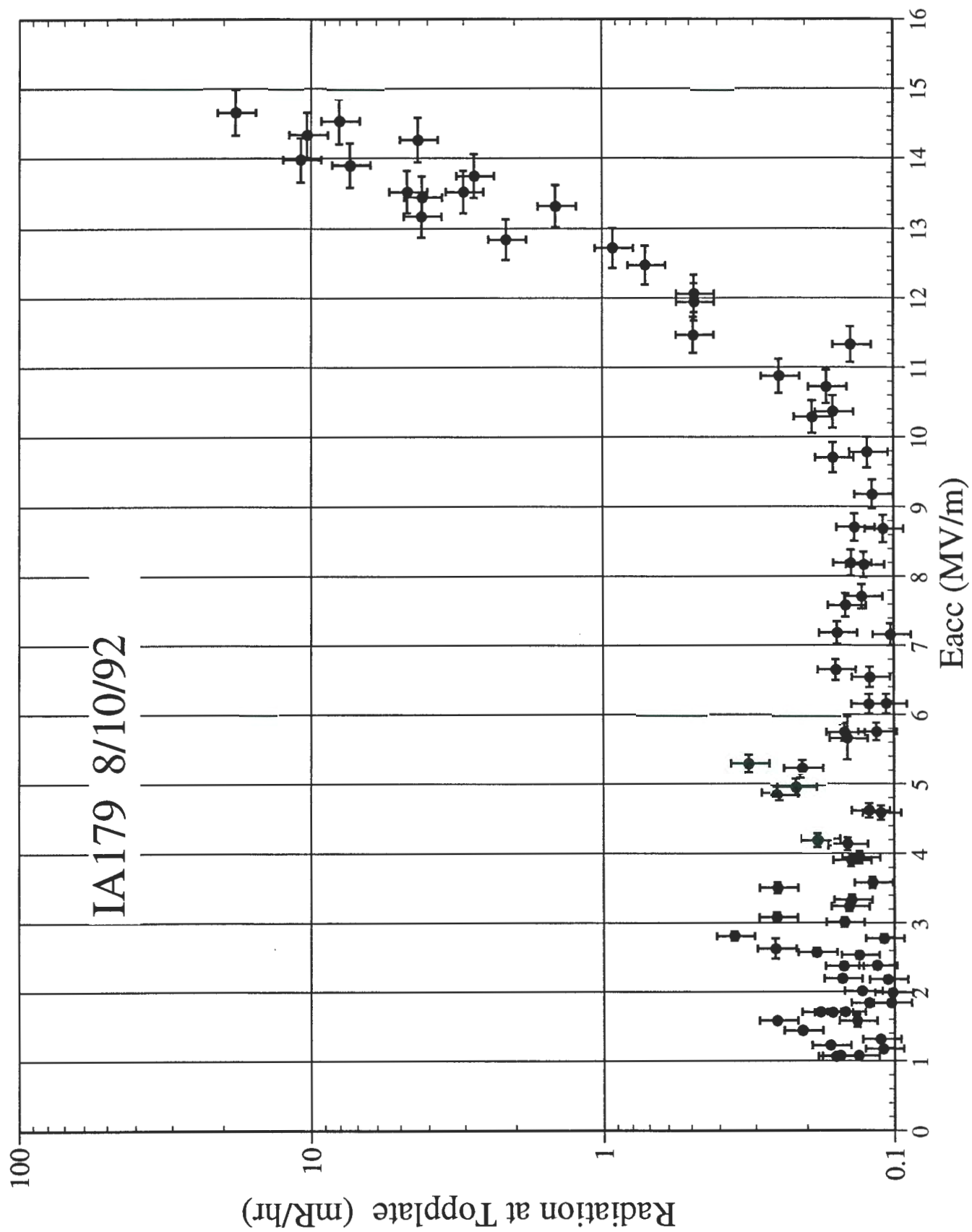


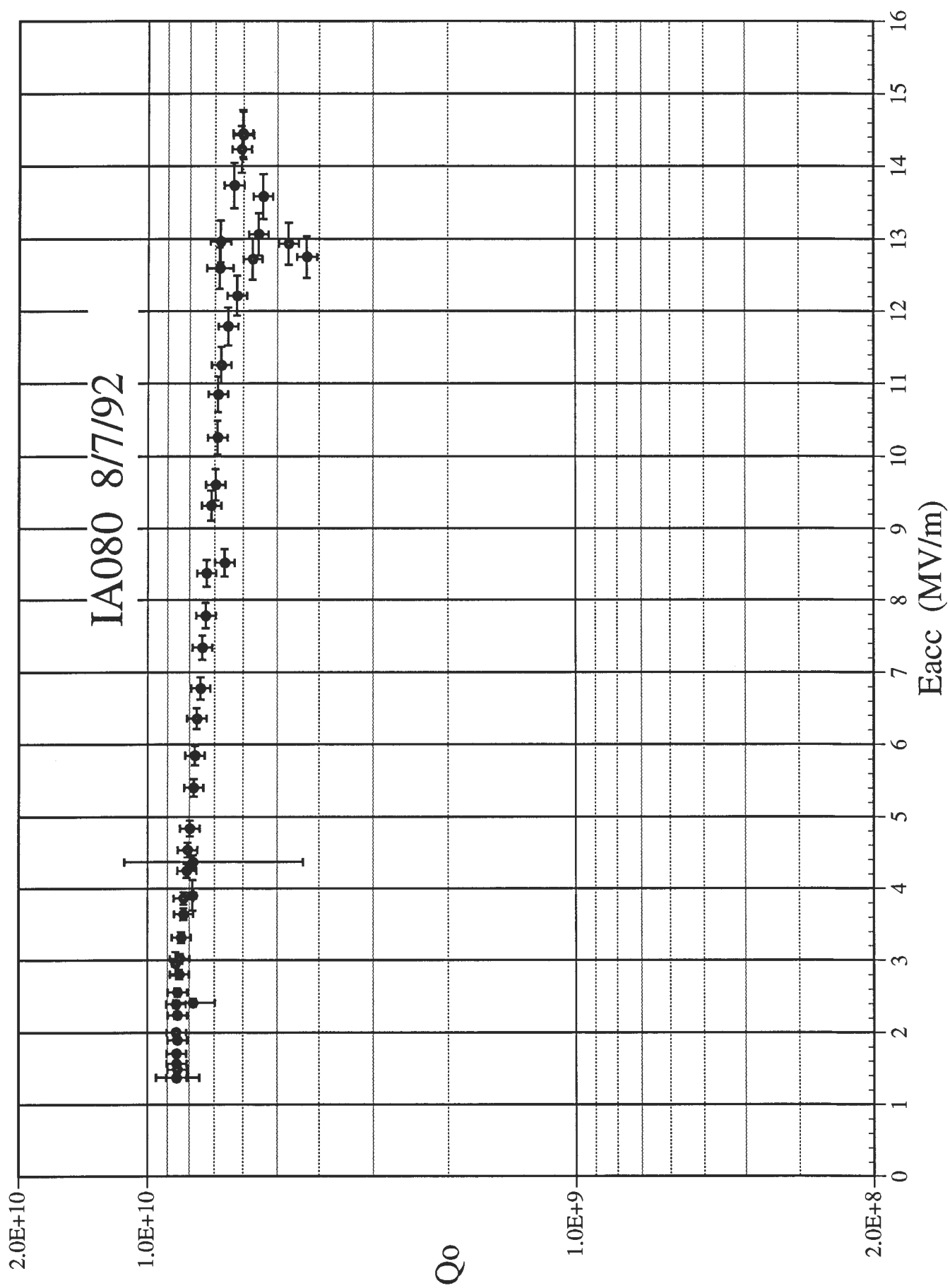




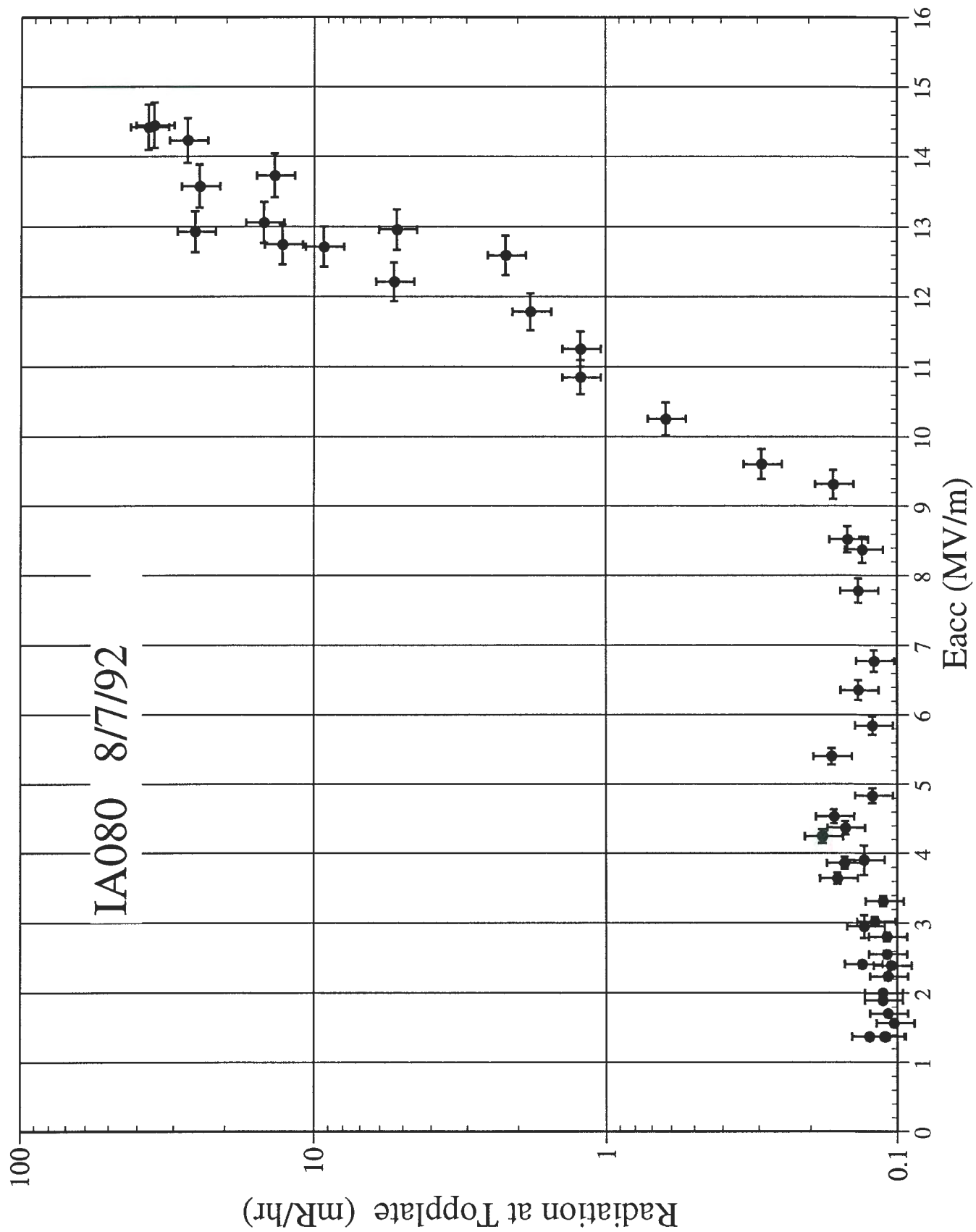


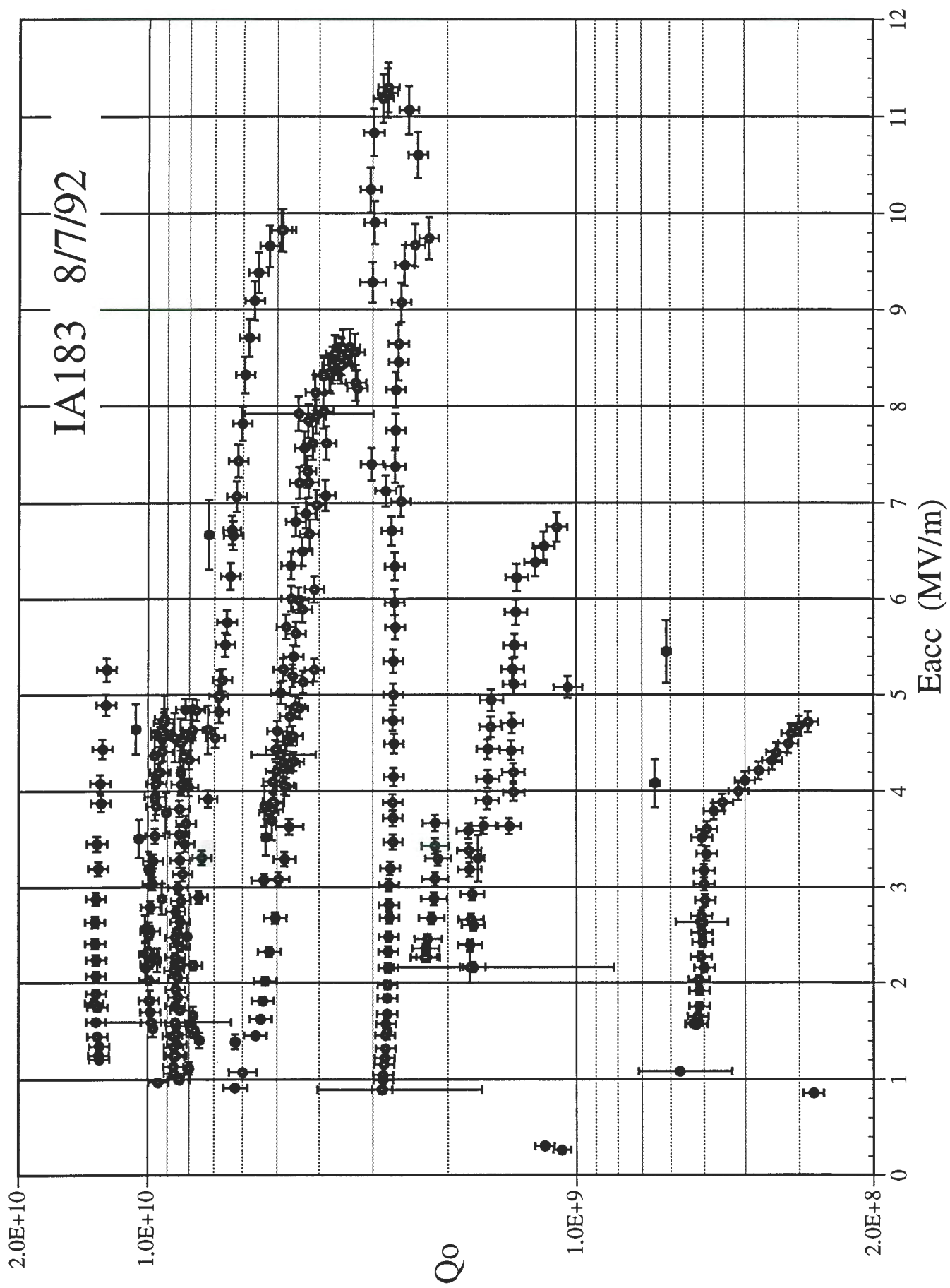






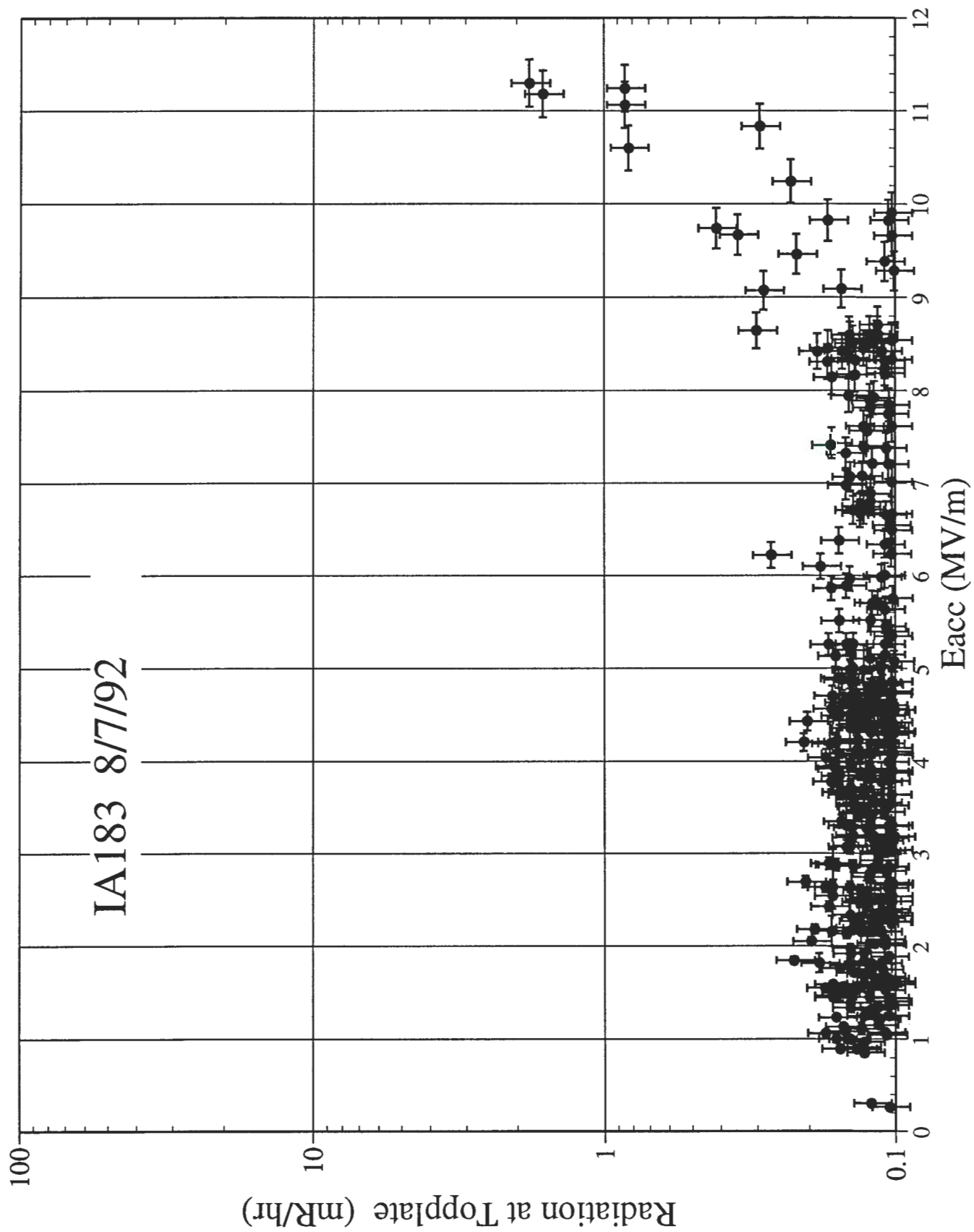
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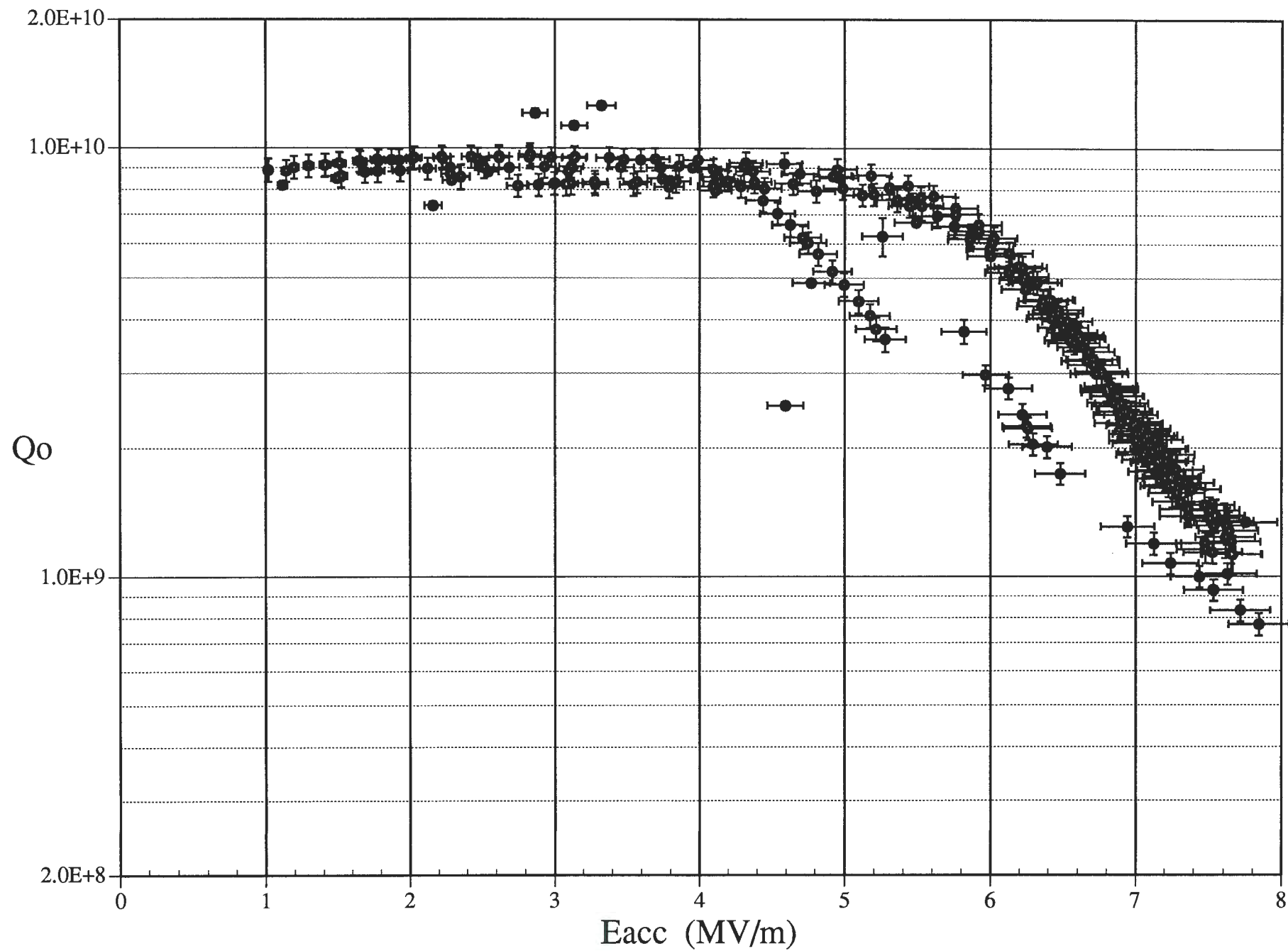




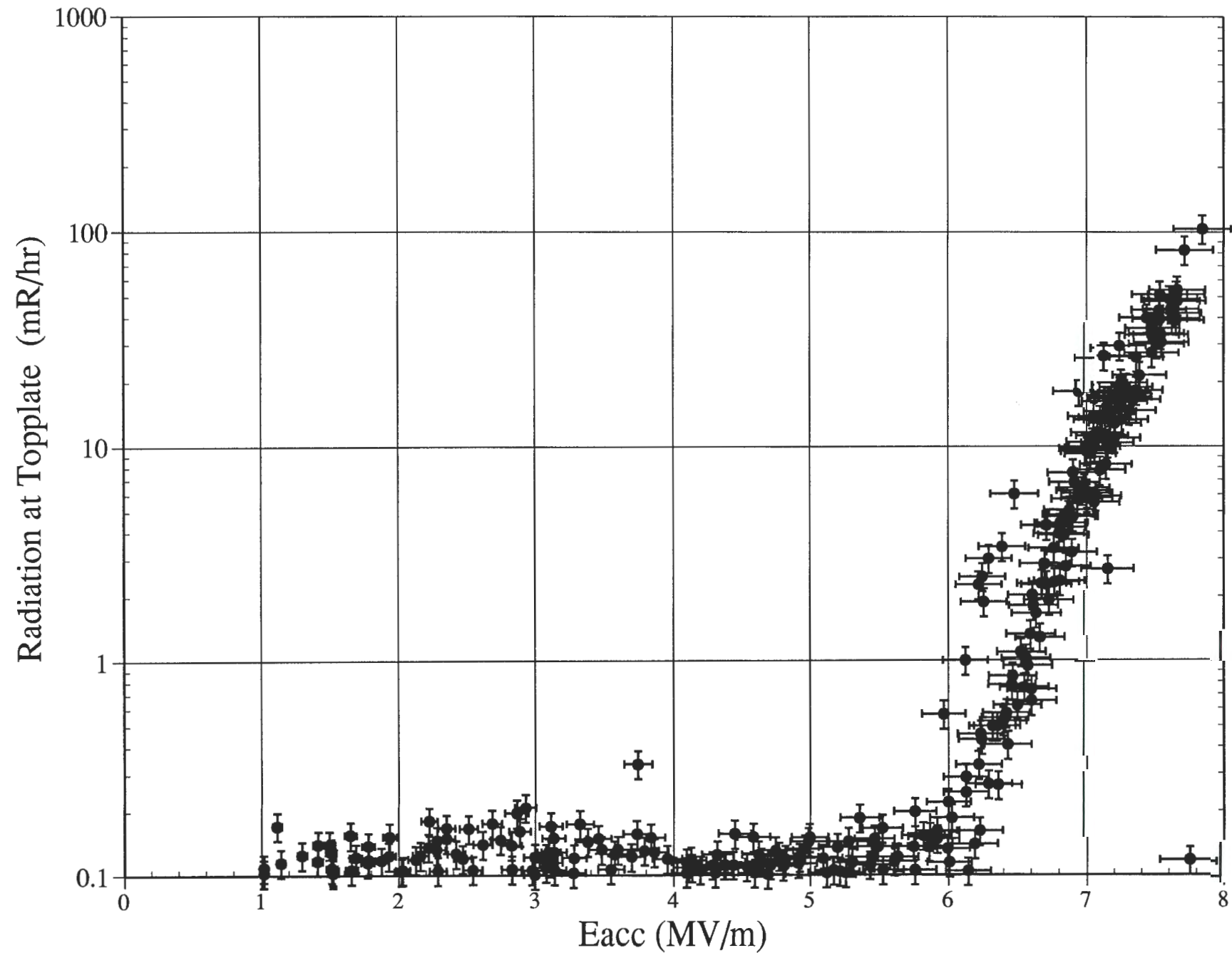
Prober

YK

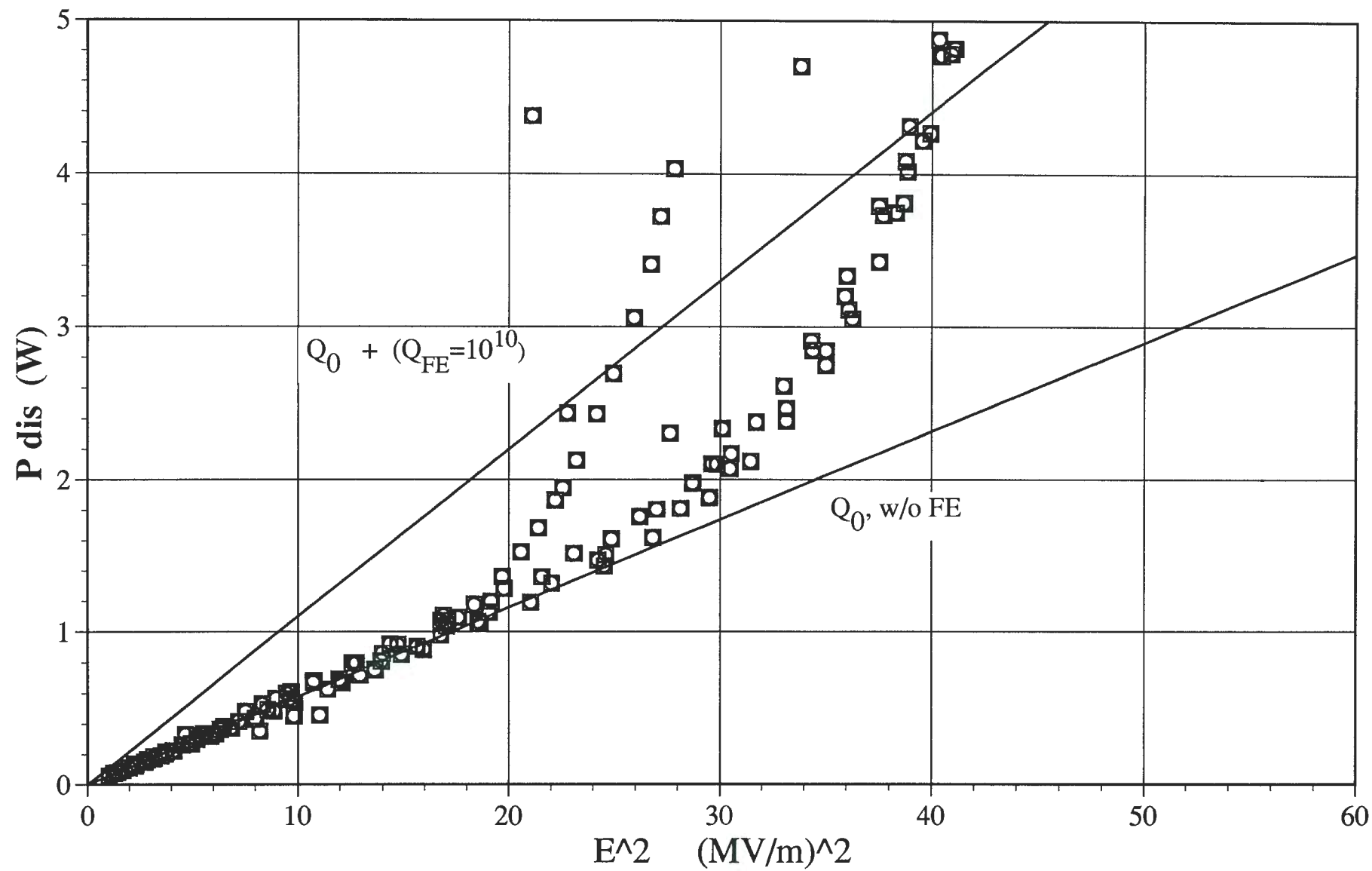


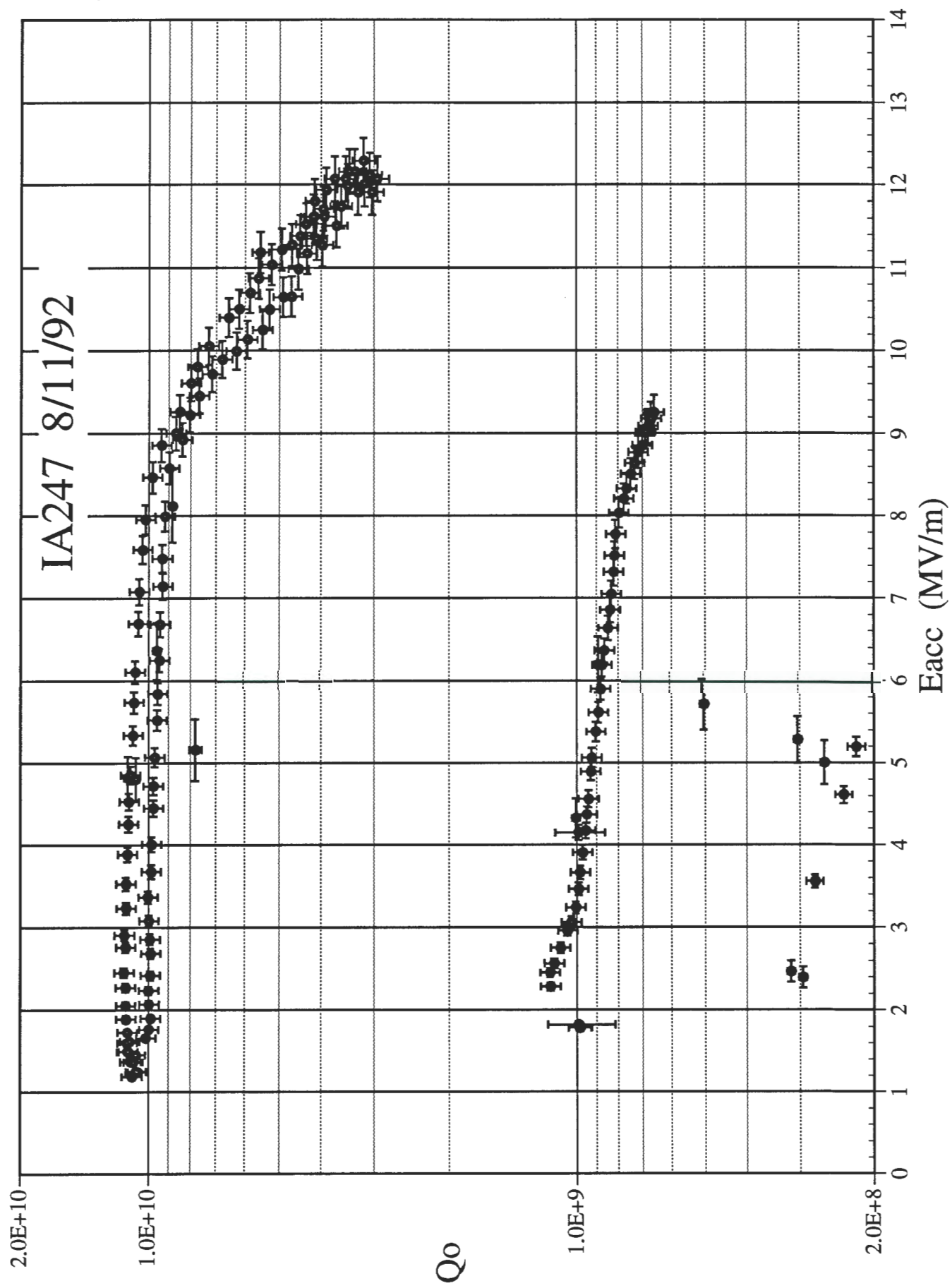


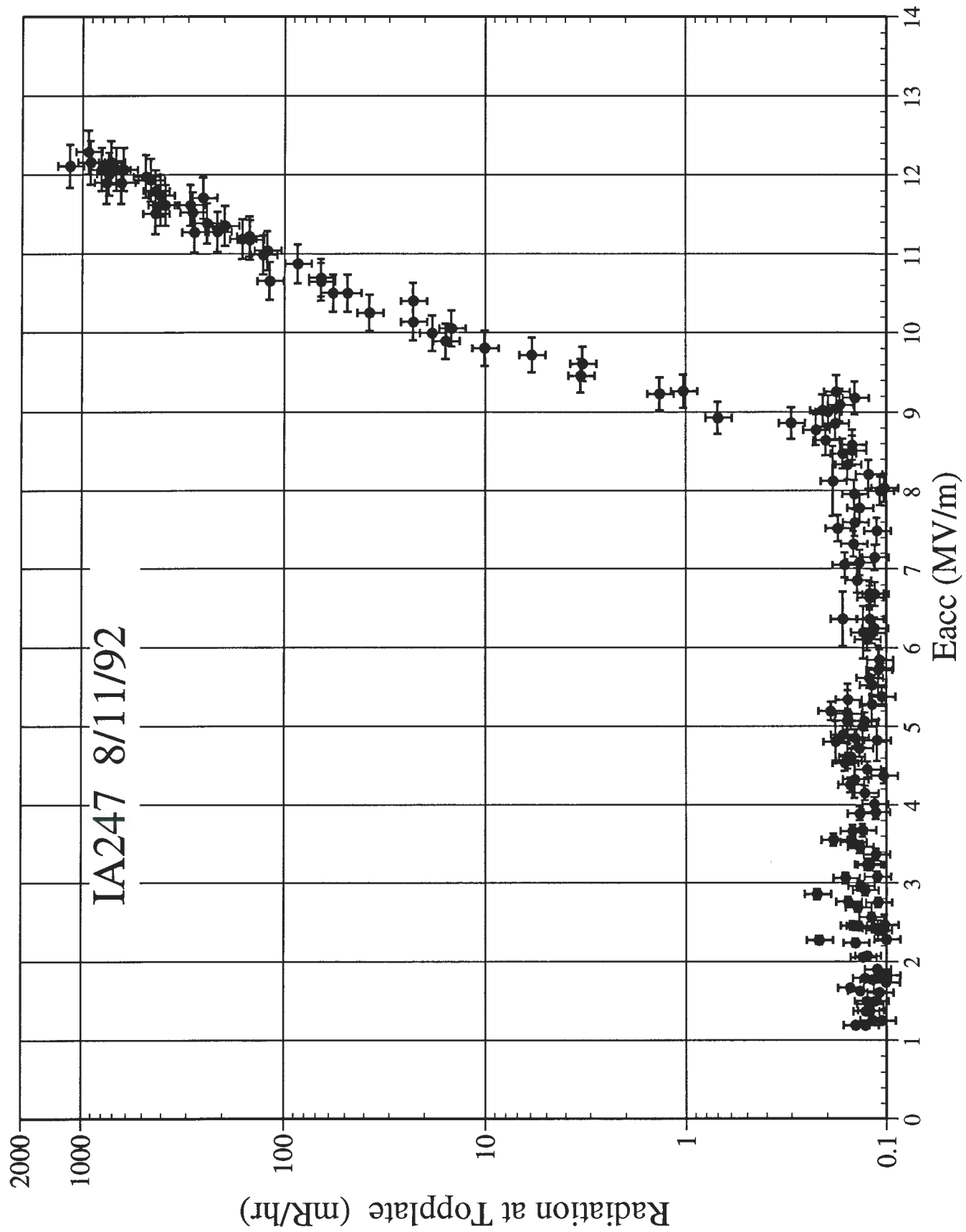
IA247a 8/11/92



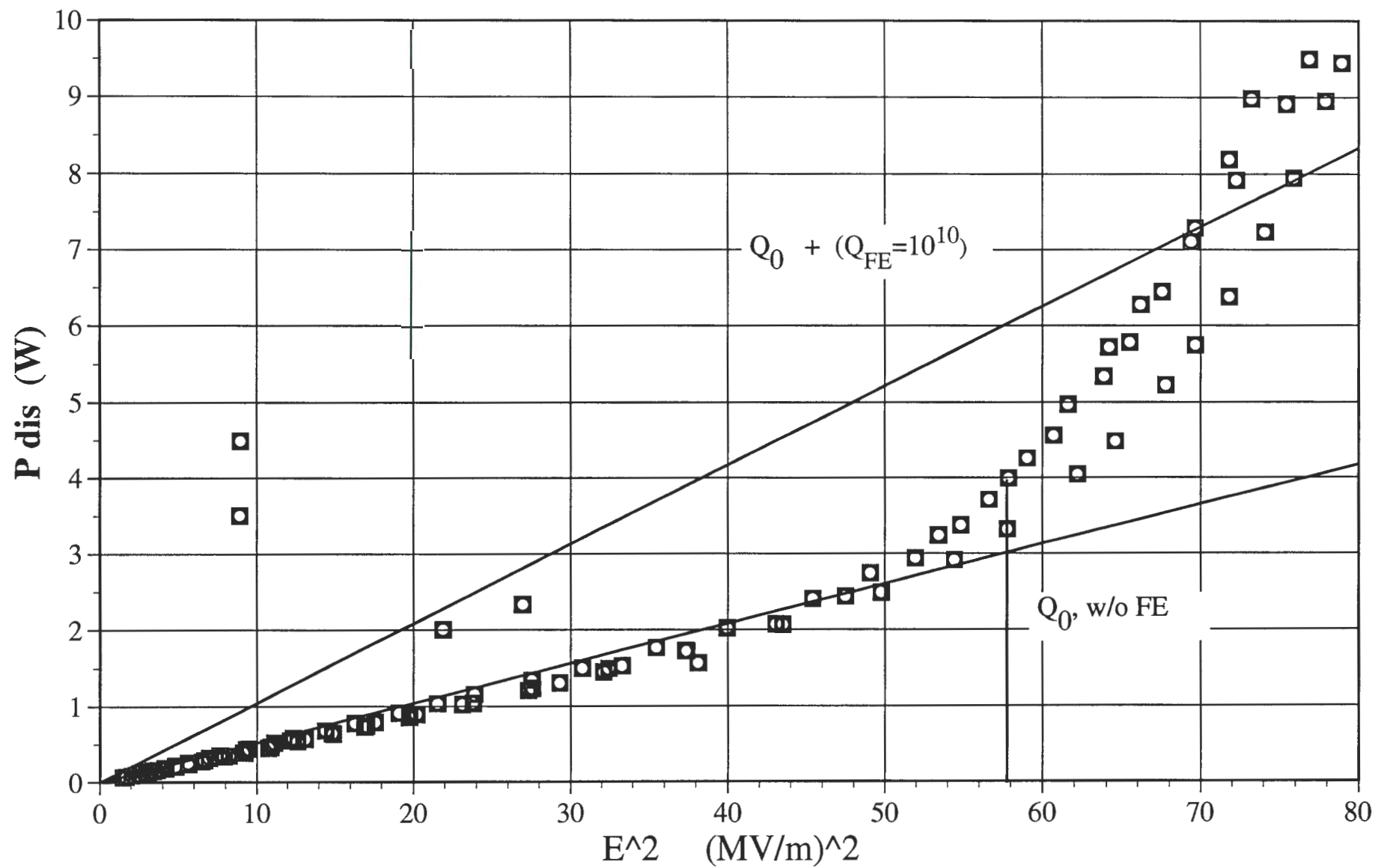
IA247a 8/11/92



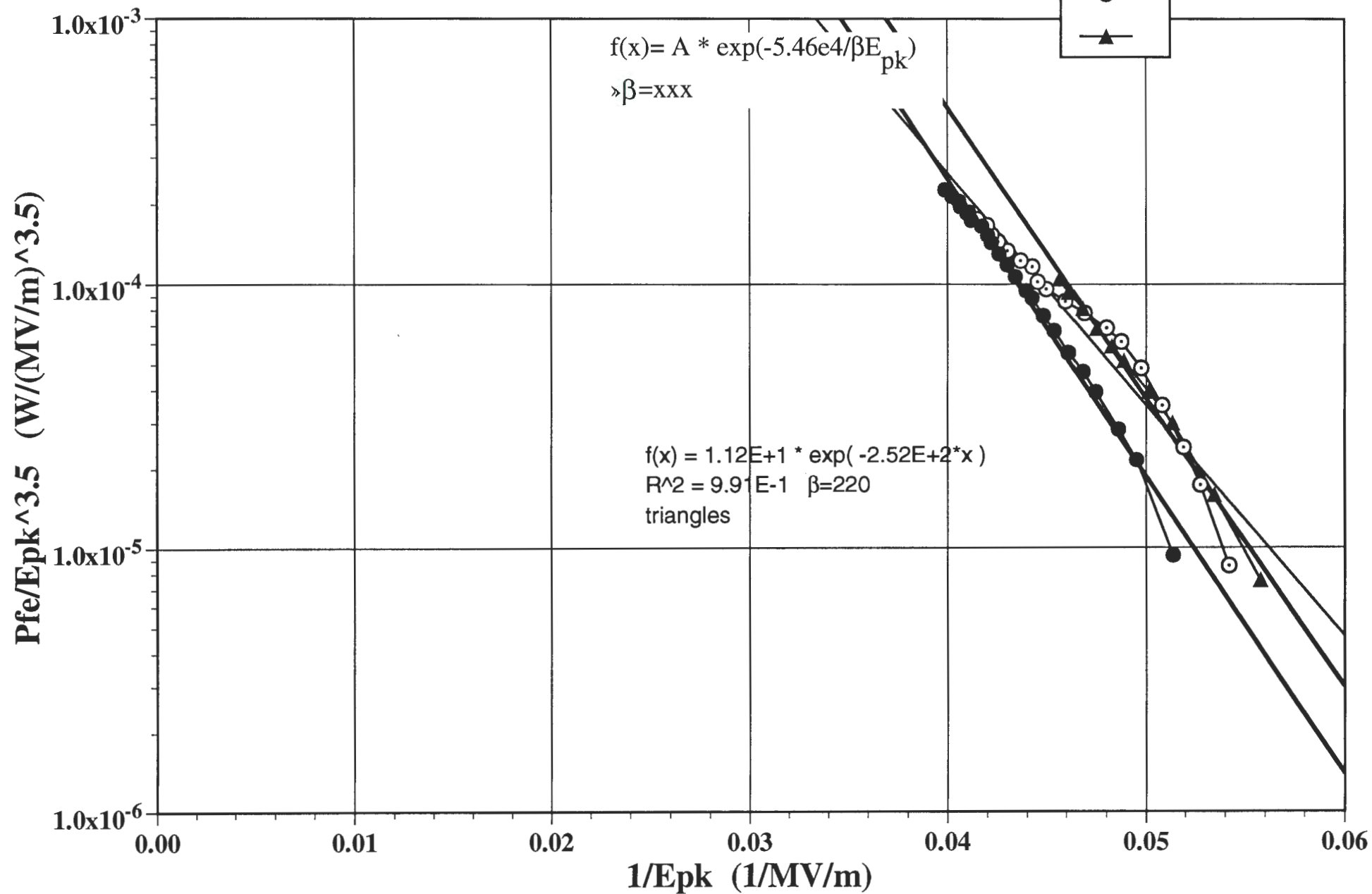


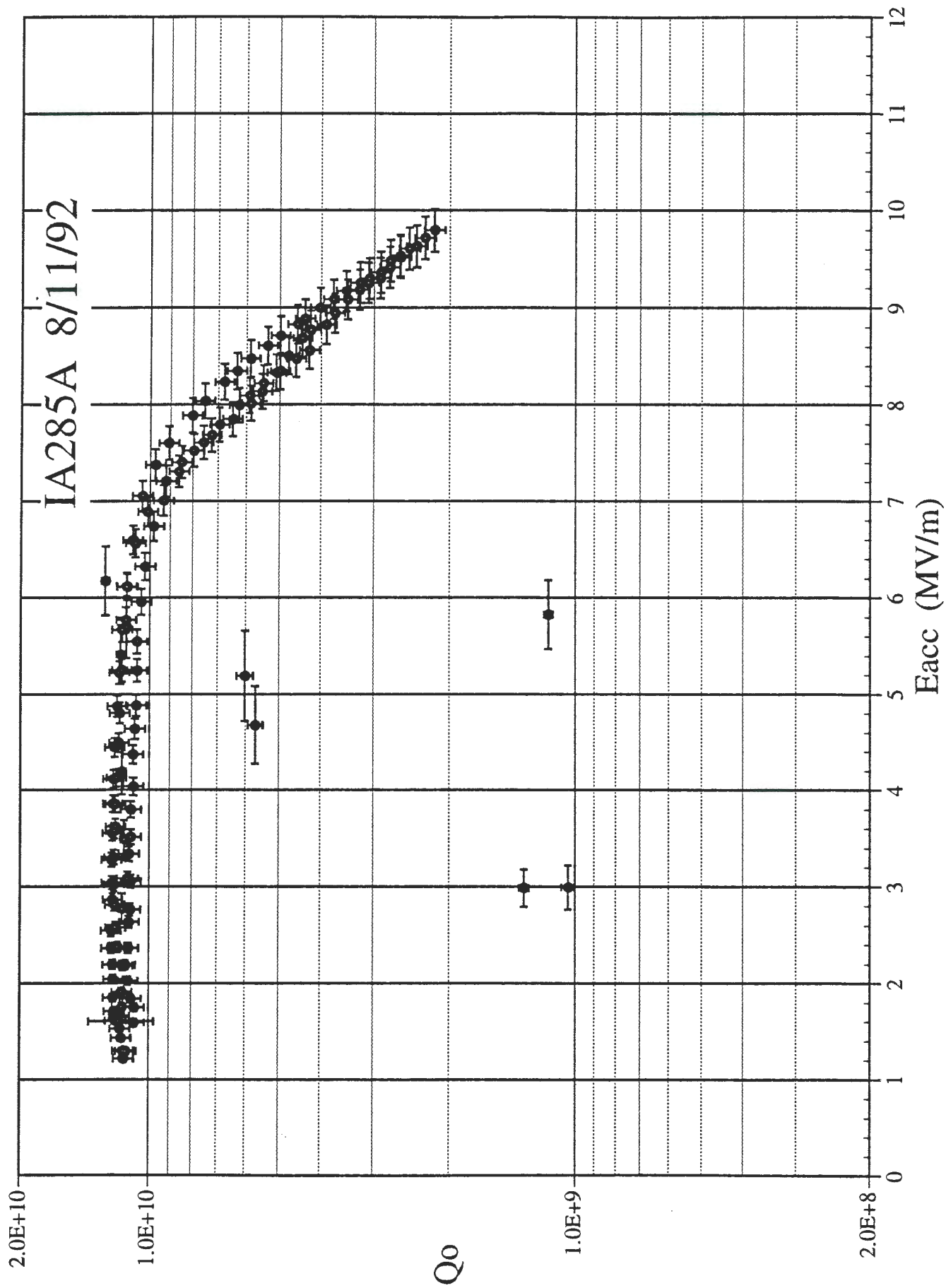


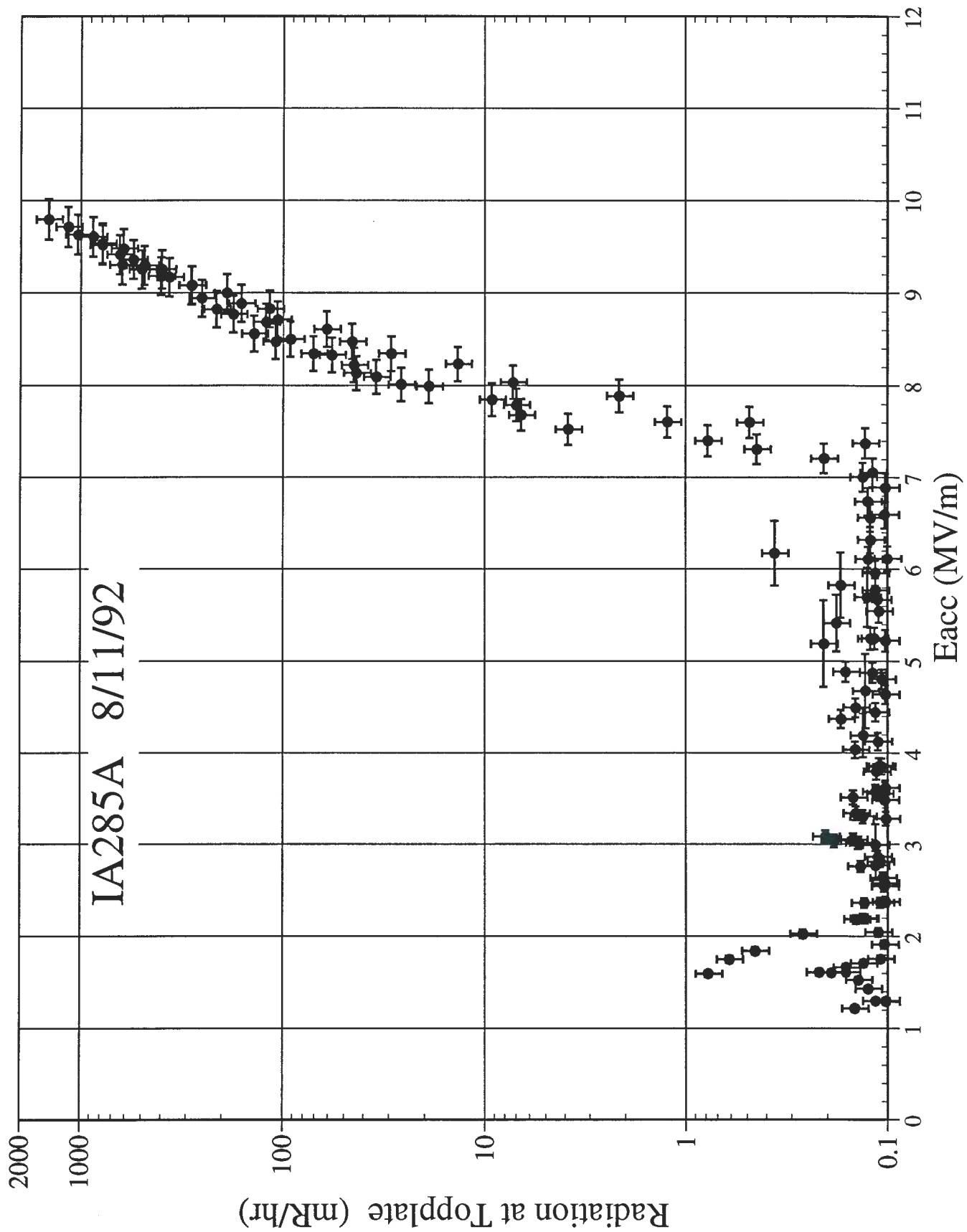
IA285a 8/11/92



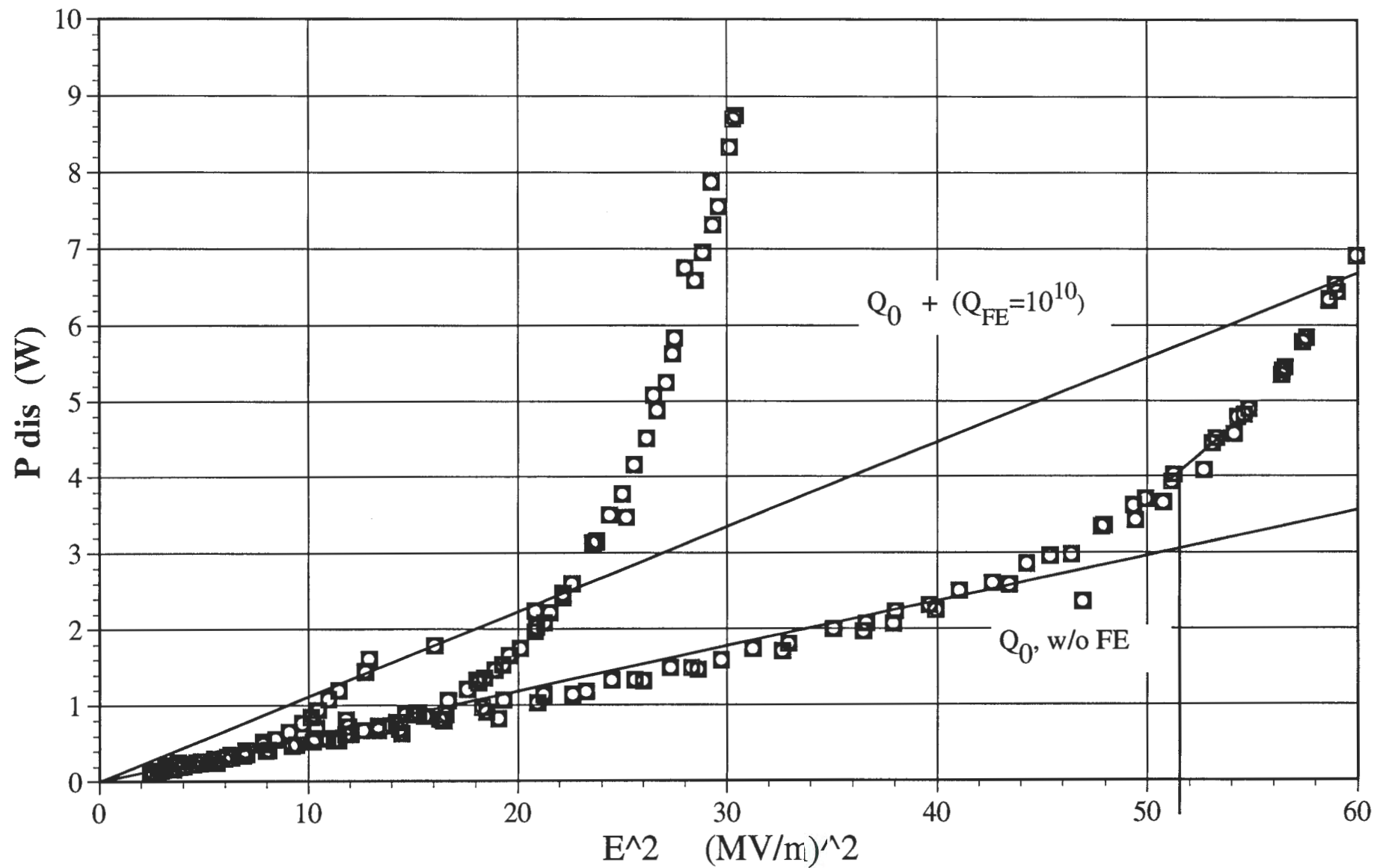
IA285a 8/11/92



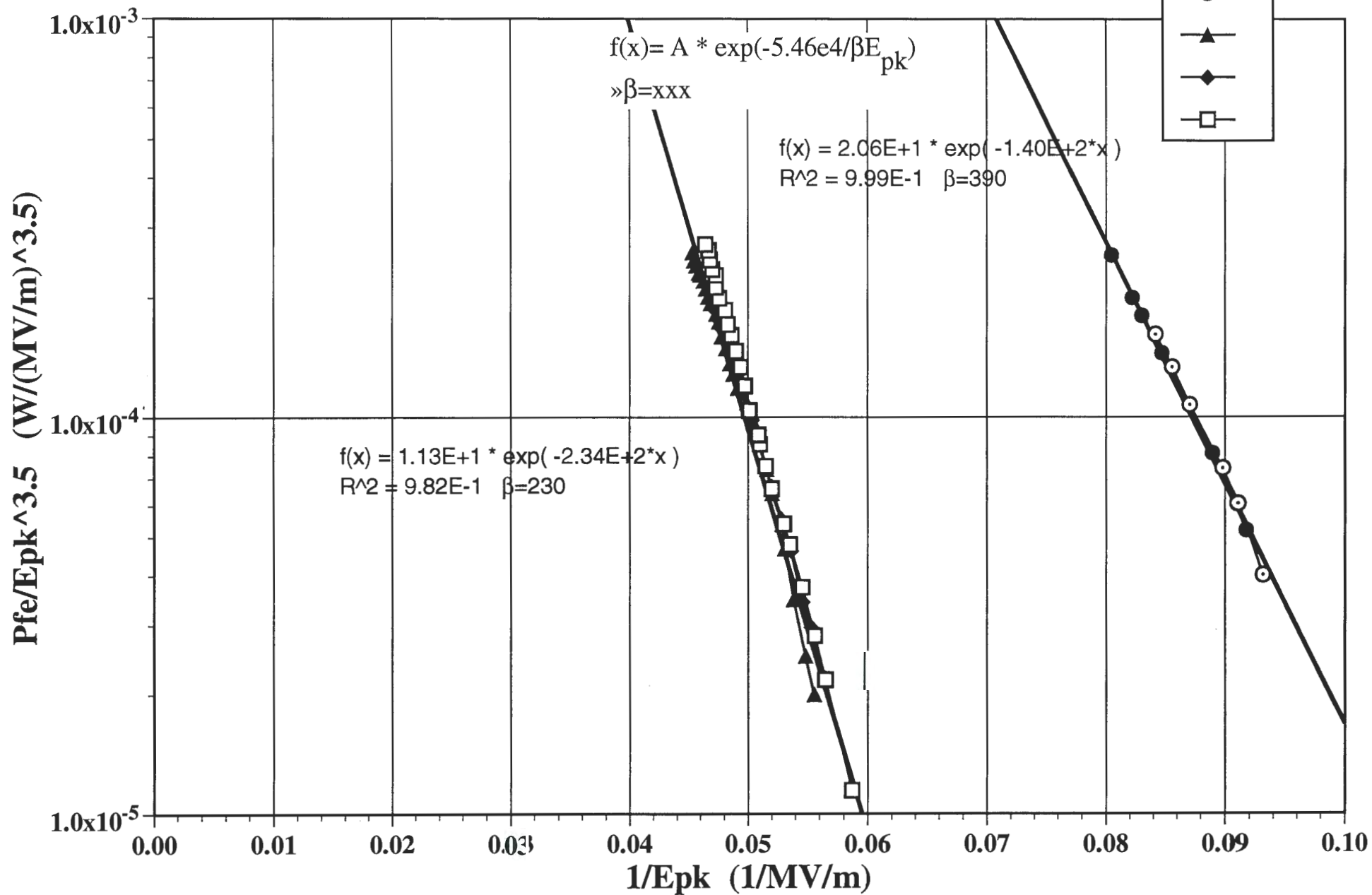


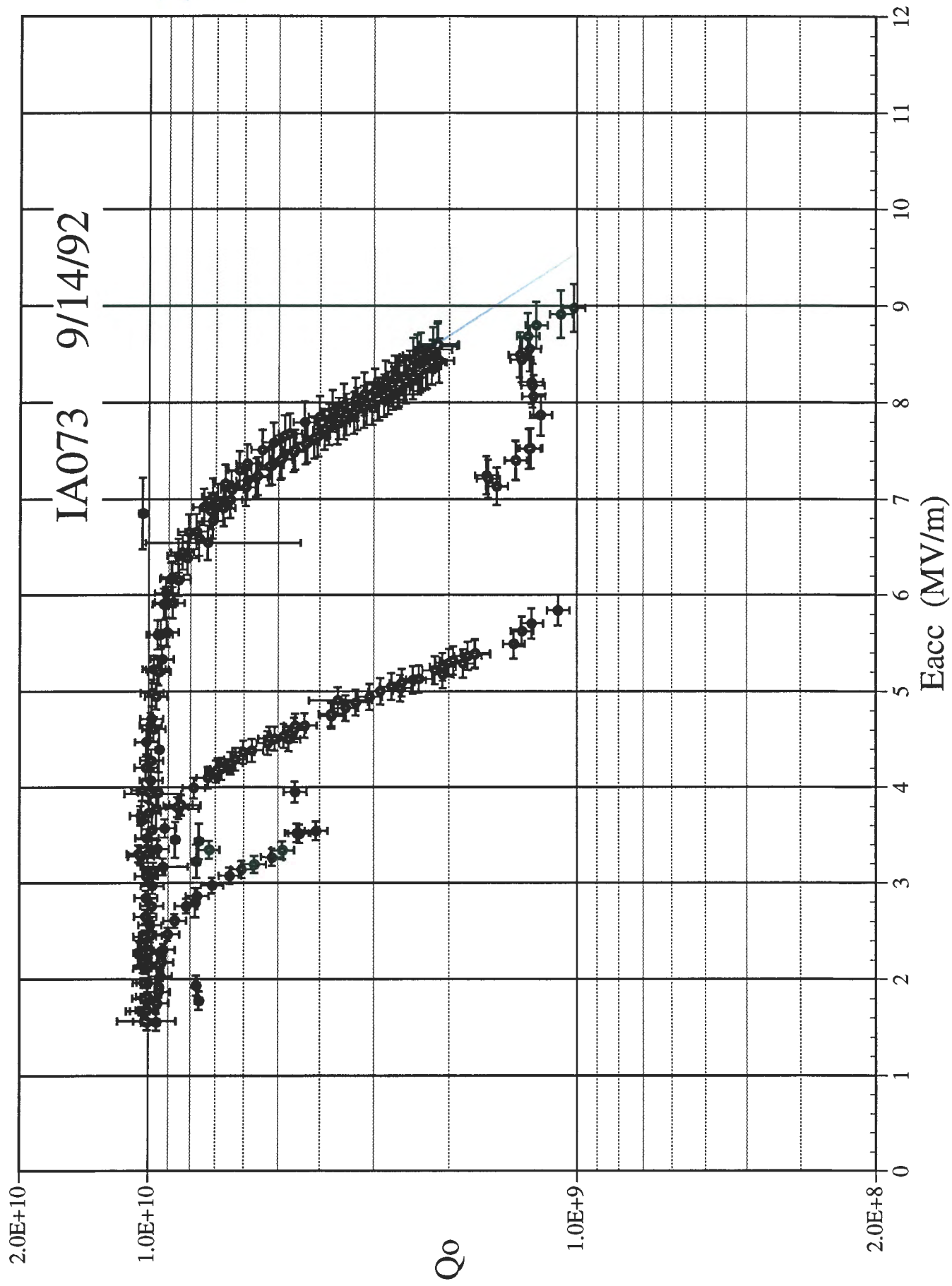


IA073a 9/14/92

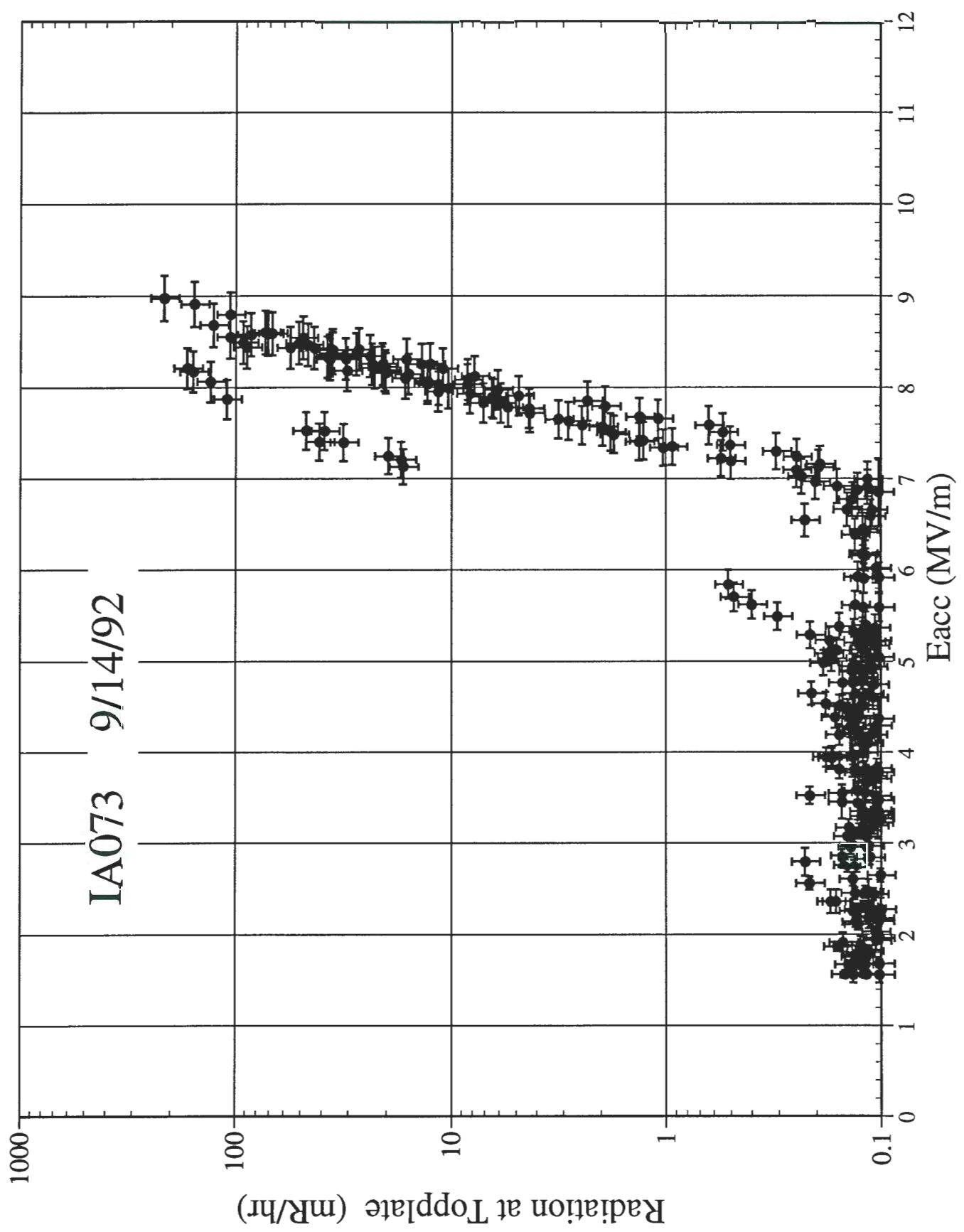


IA073a 9/14/92

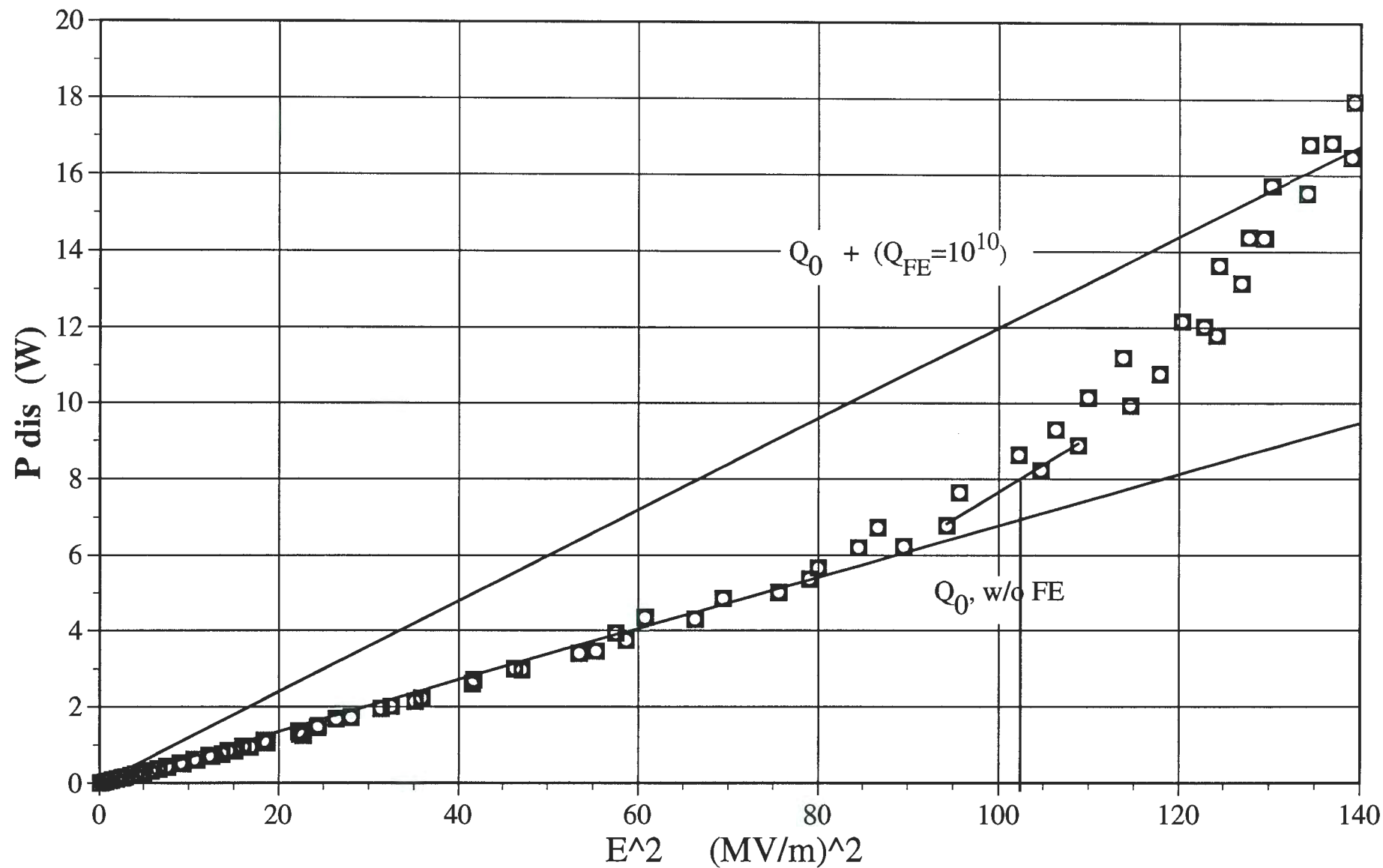




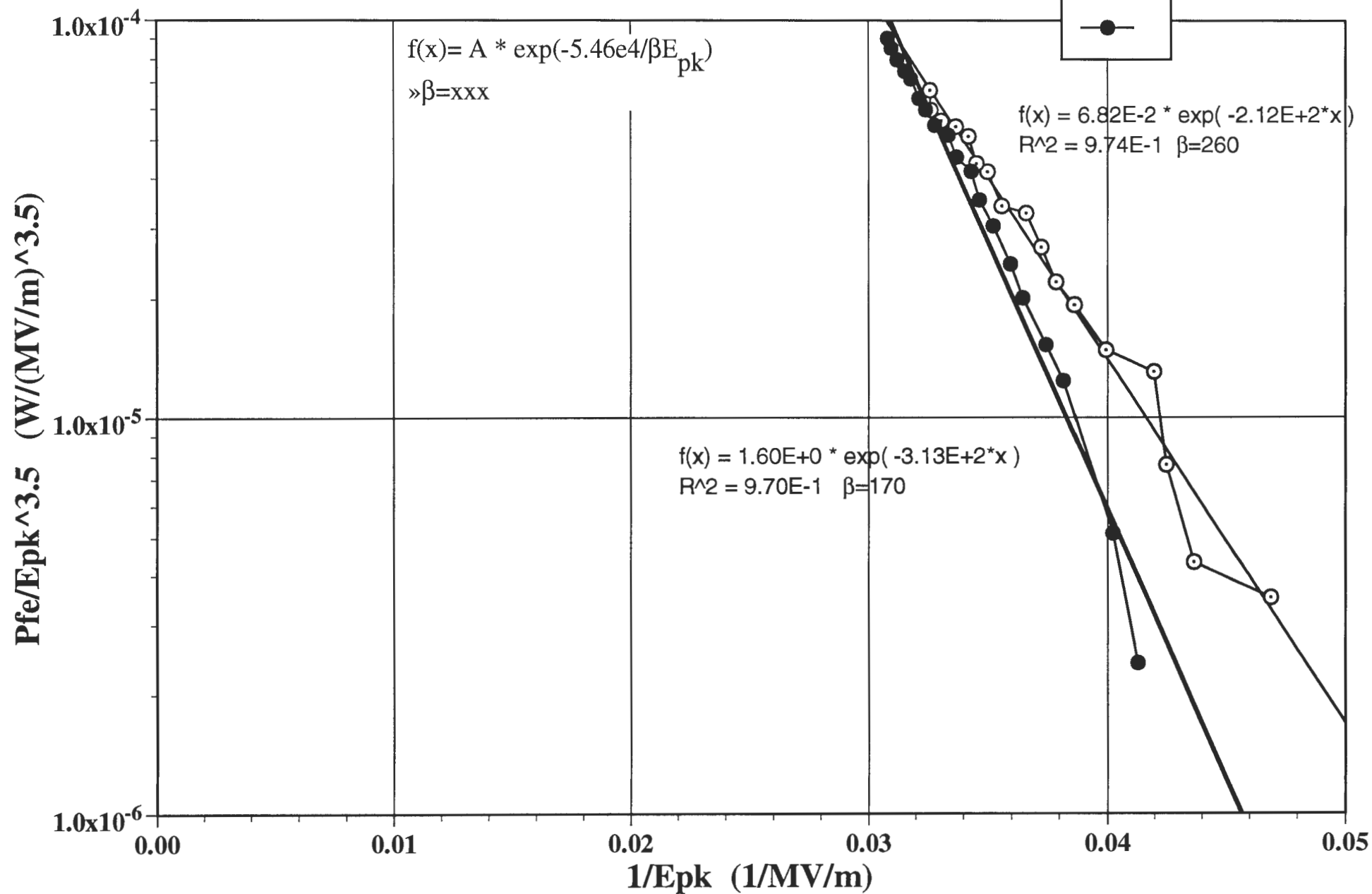
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7605
1700

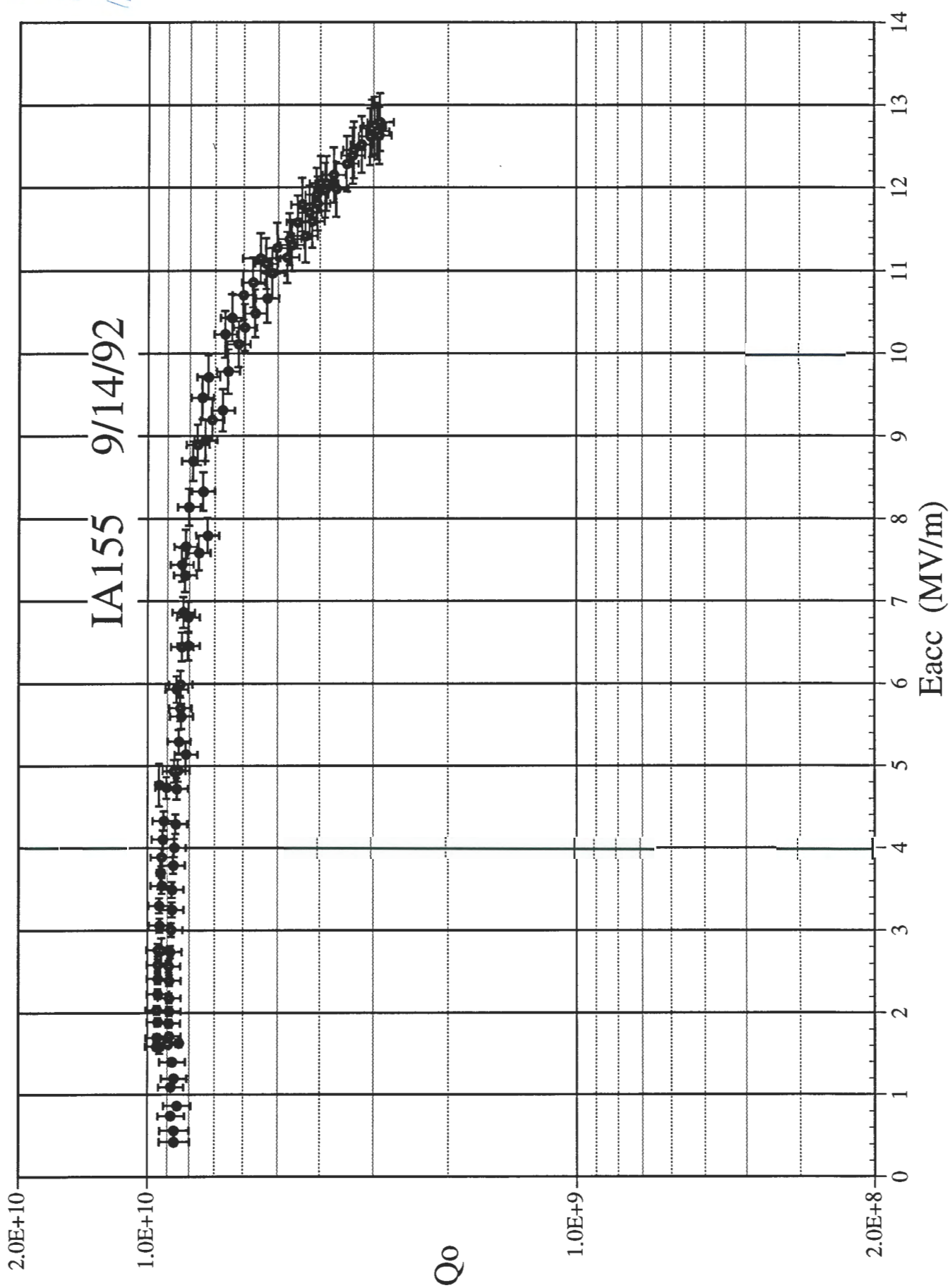


IA155a 9/14/92

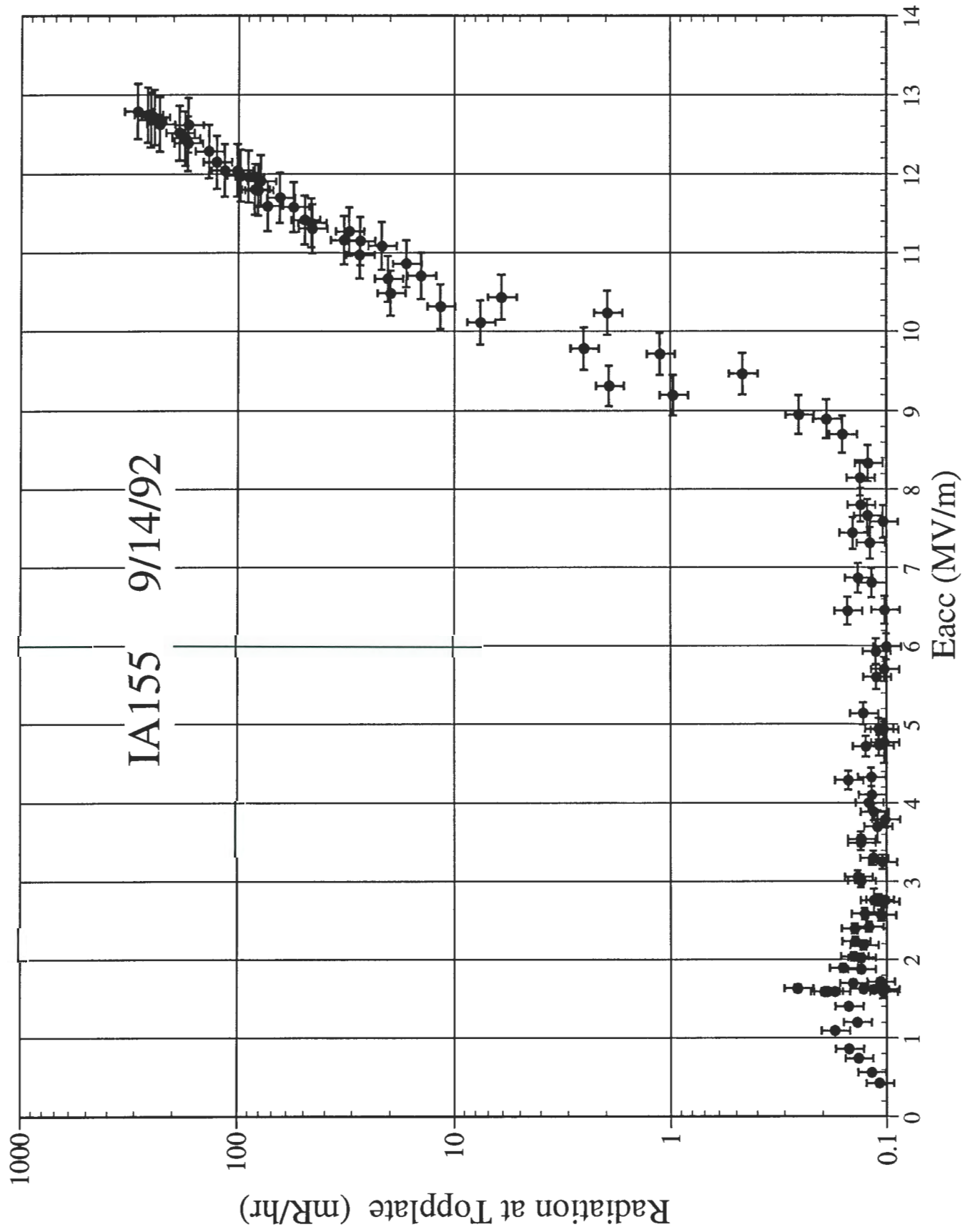


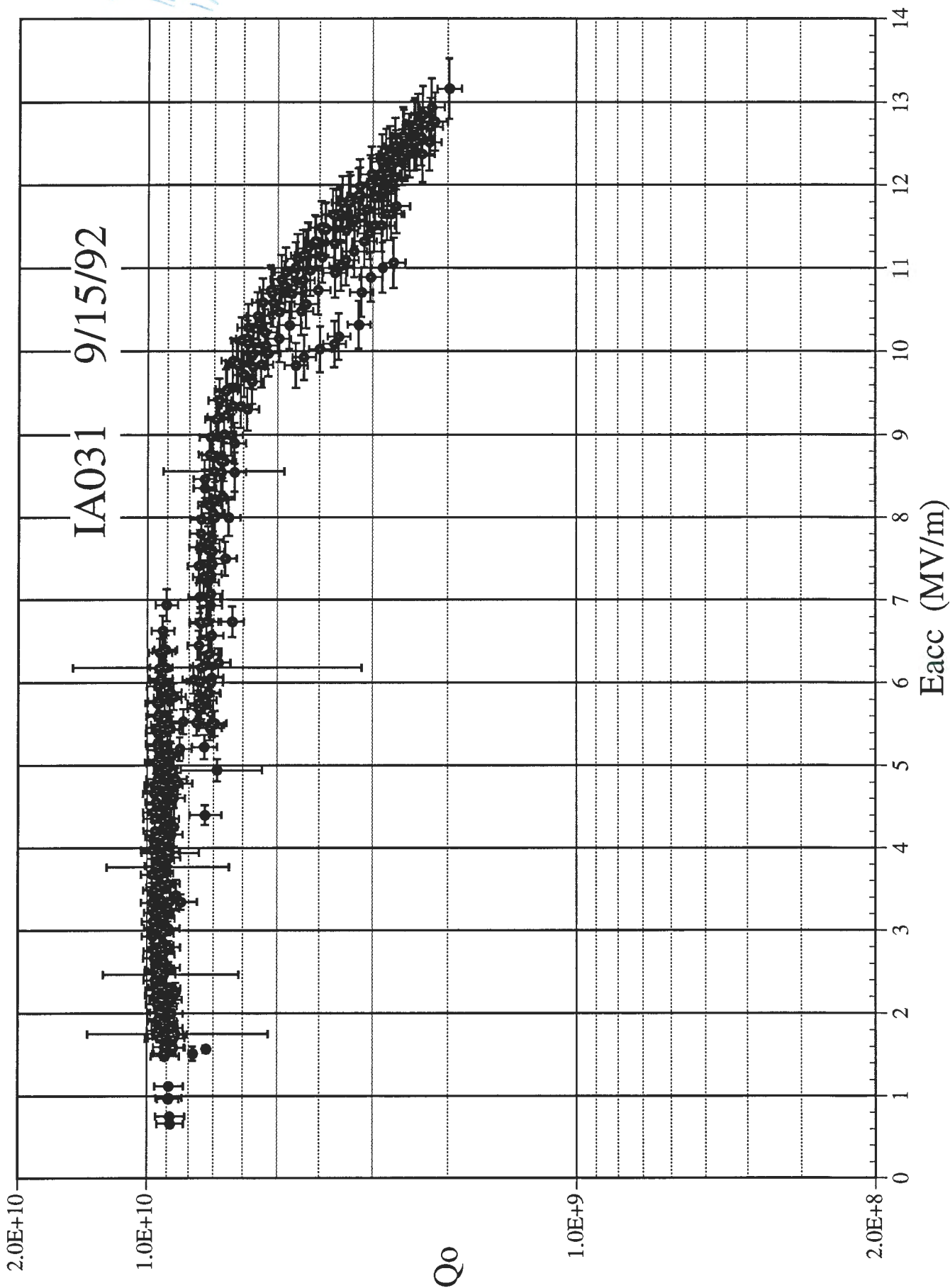
IA155a 9/14/92



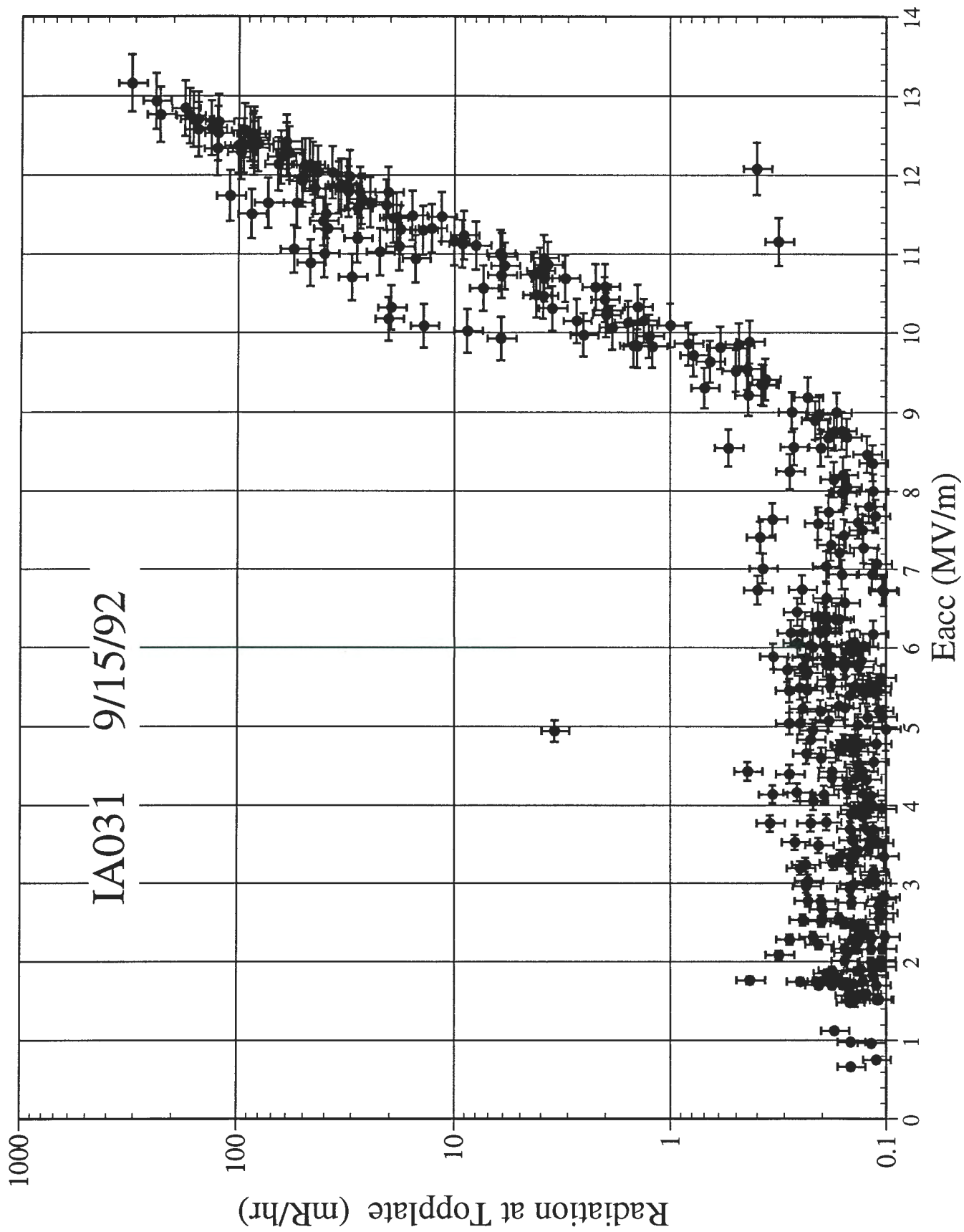


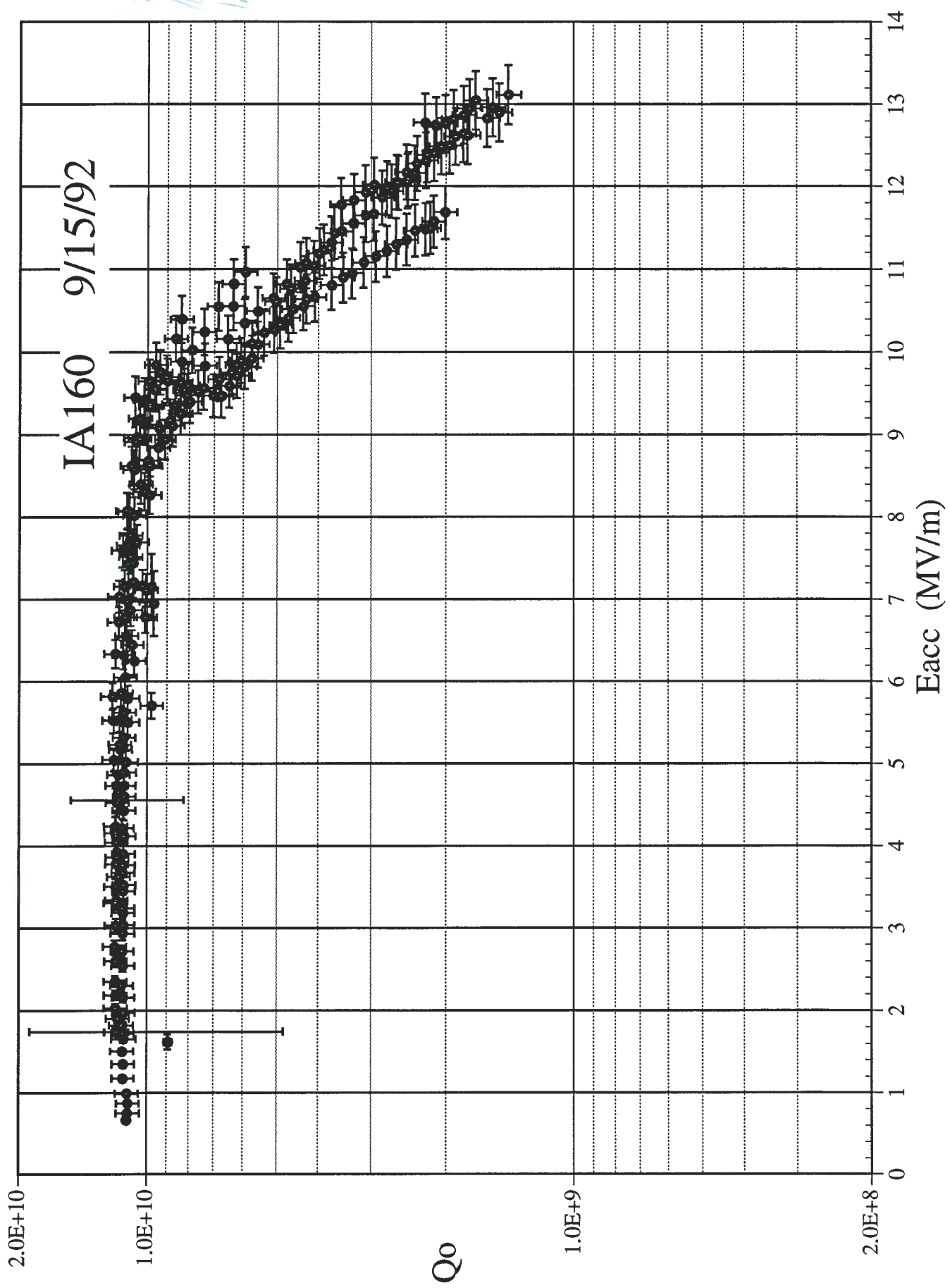
2.6, 8
11.3, 4.8
12.7, 2.6



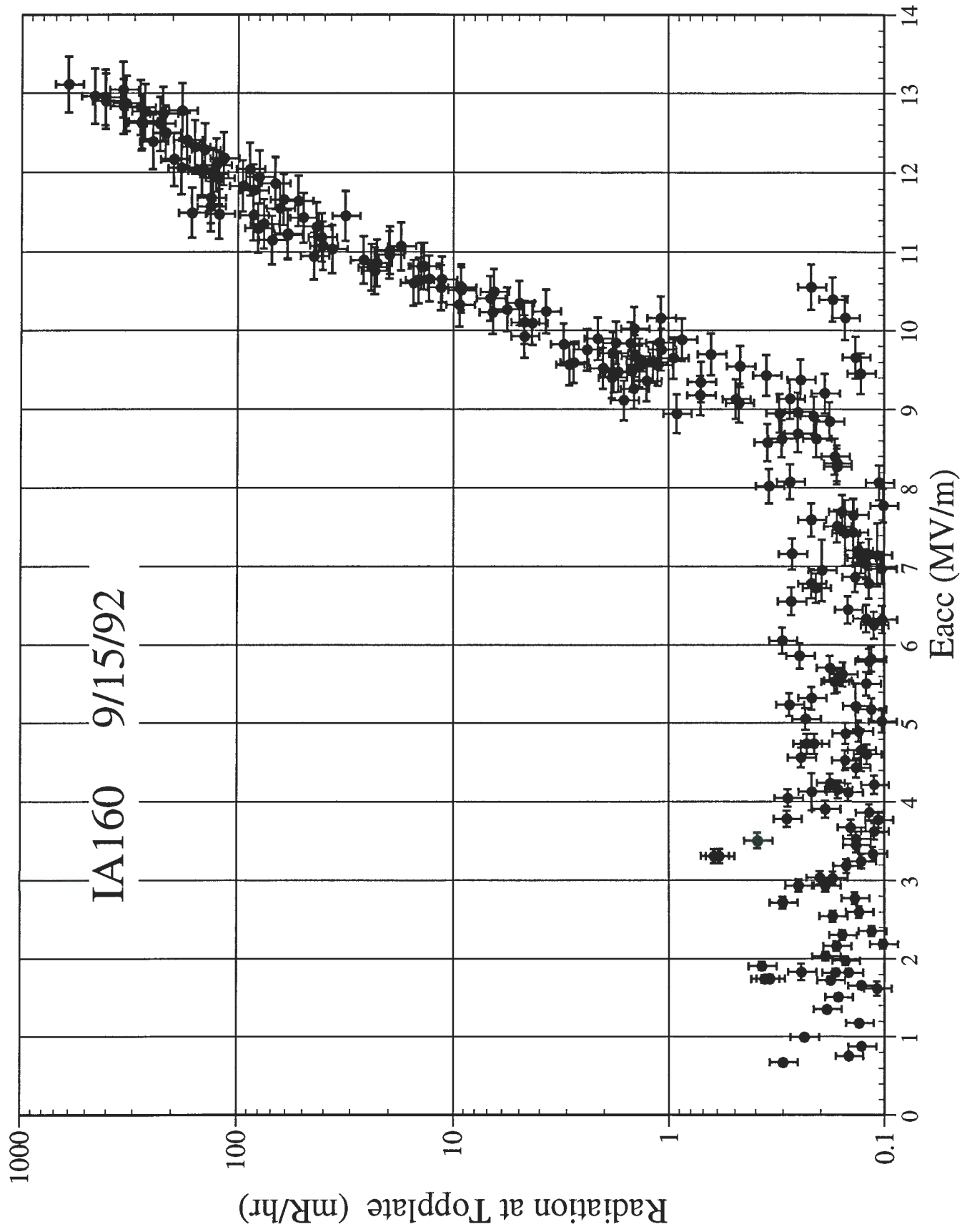


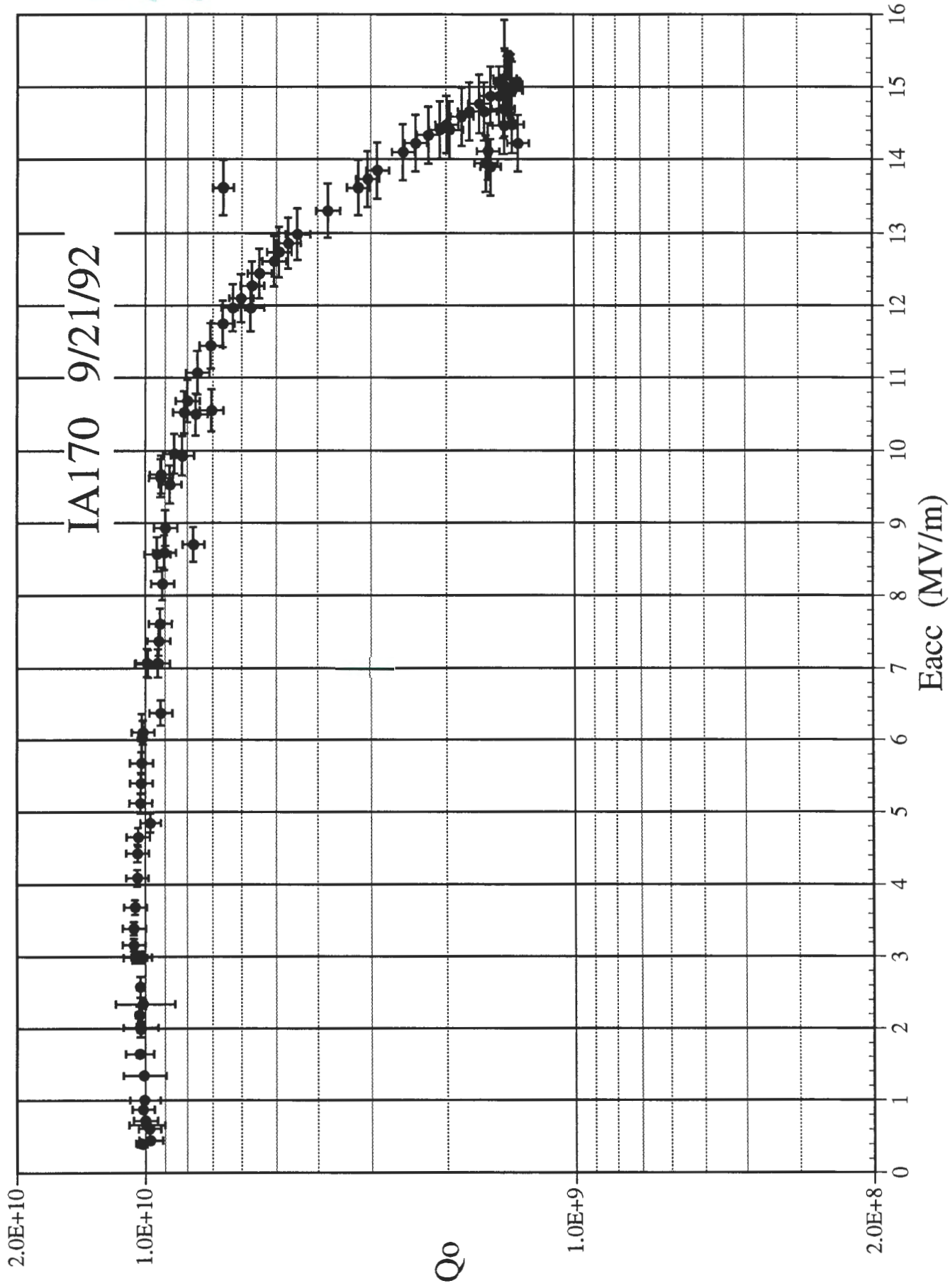
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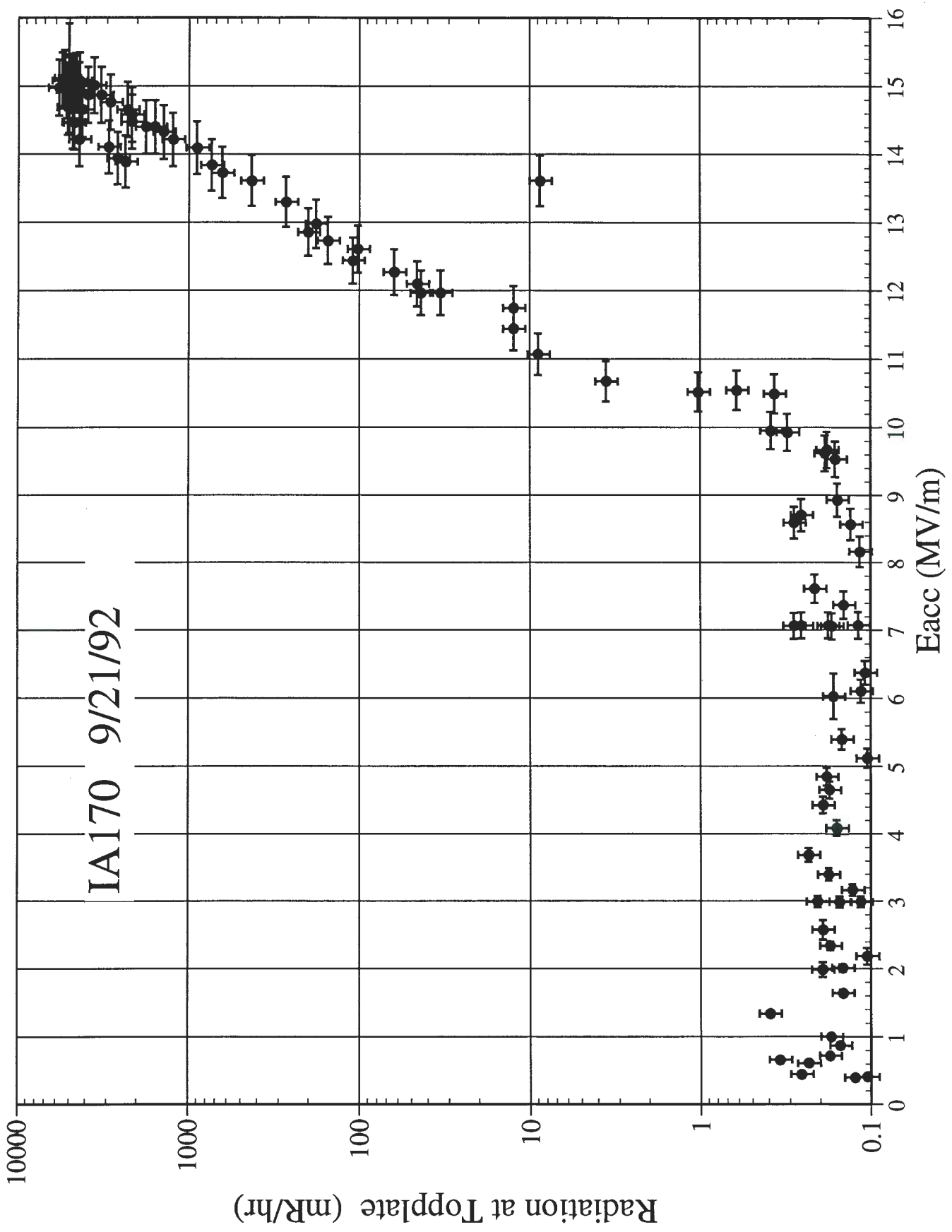
90/10
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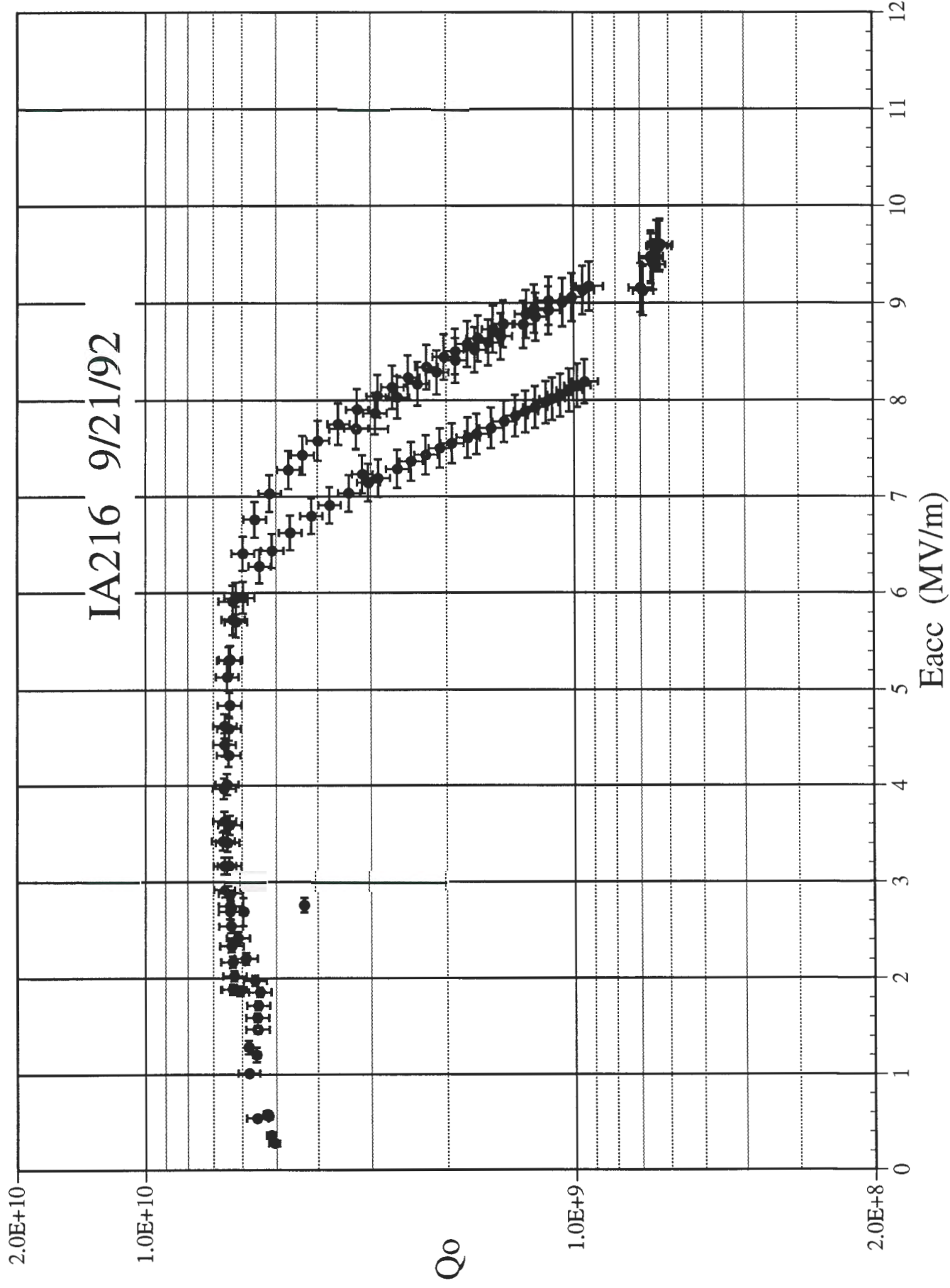




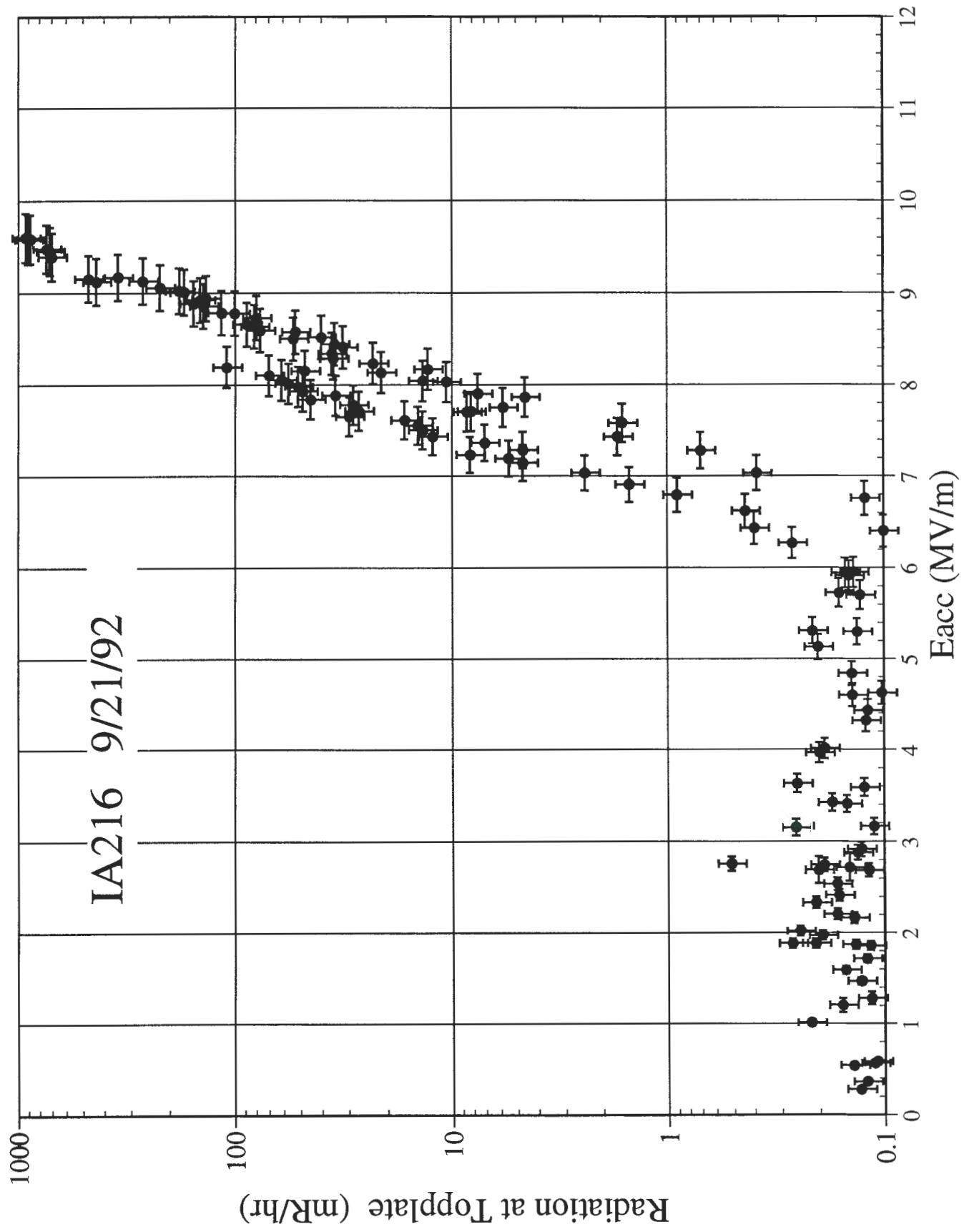
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12.
14.

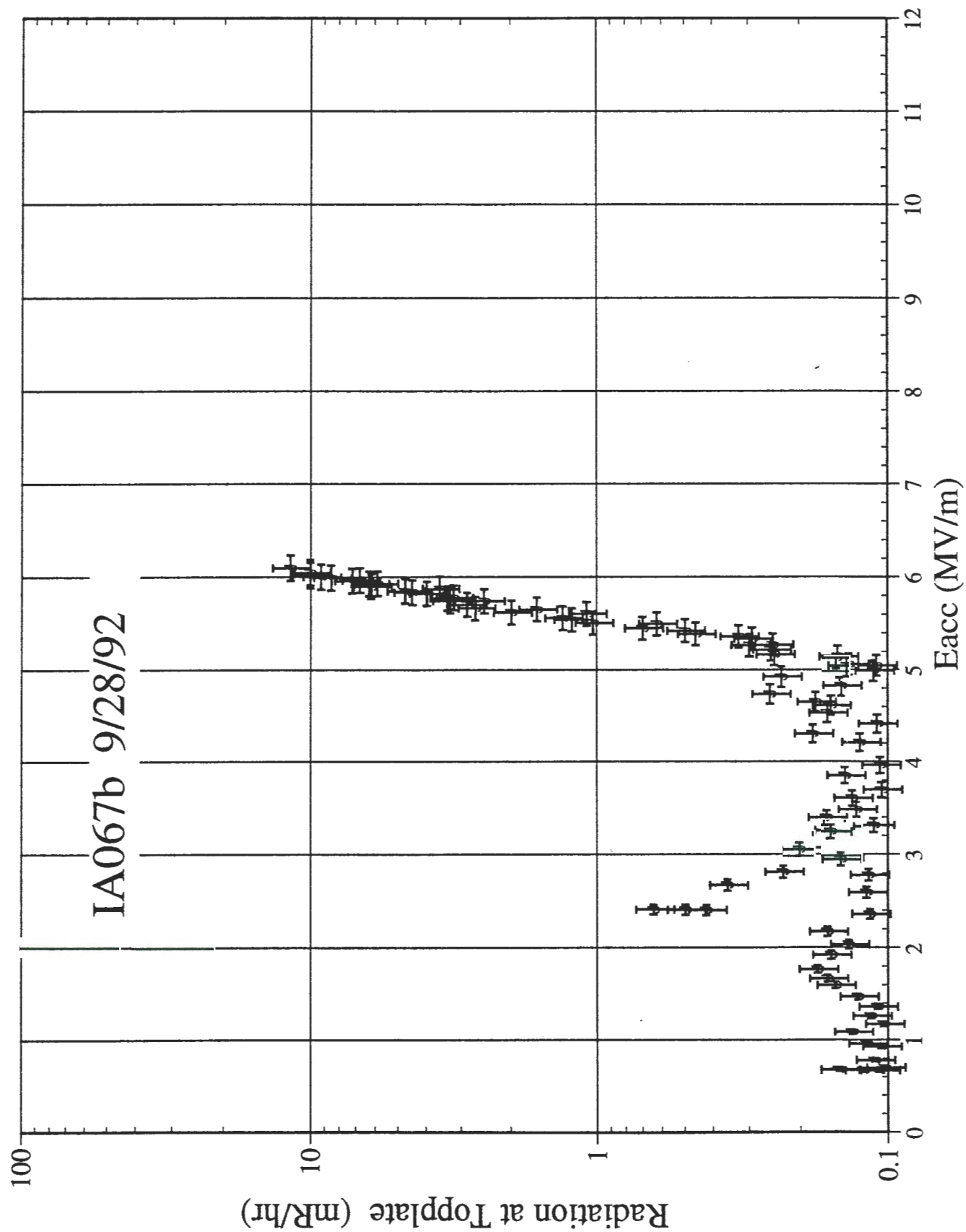
9.
5.1
2.9

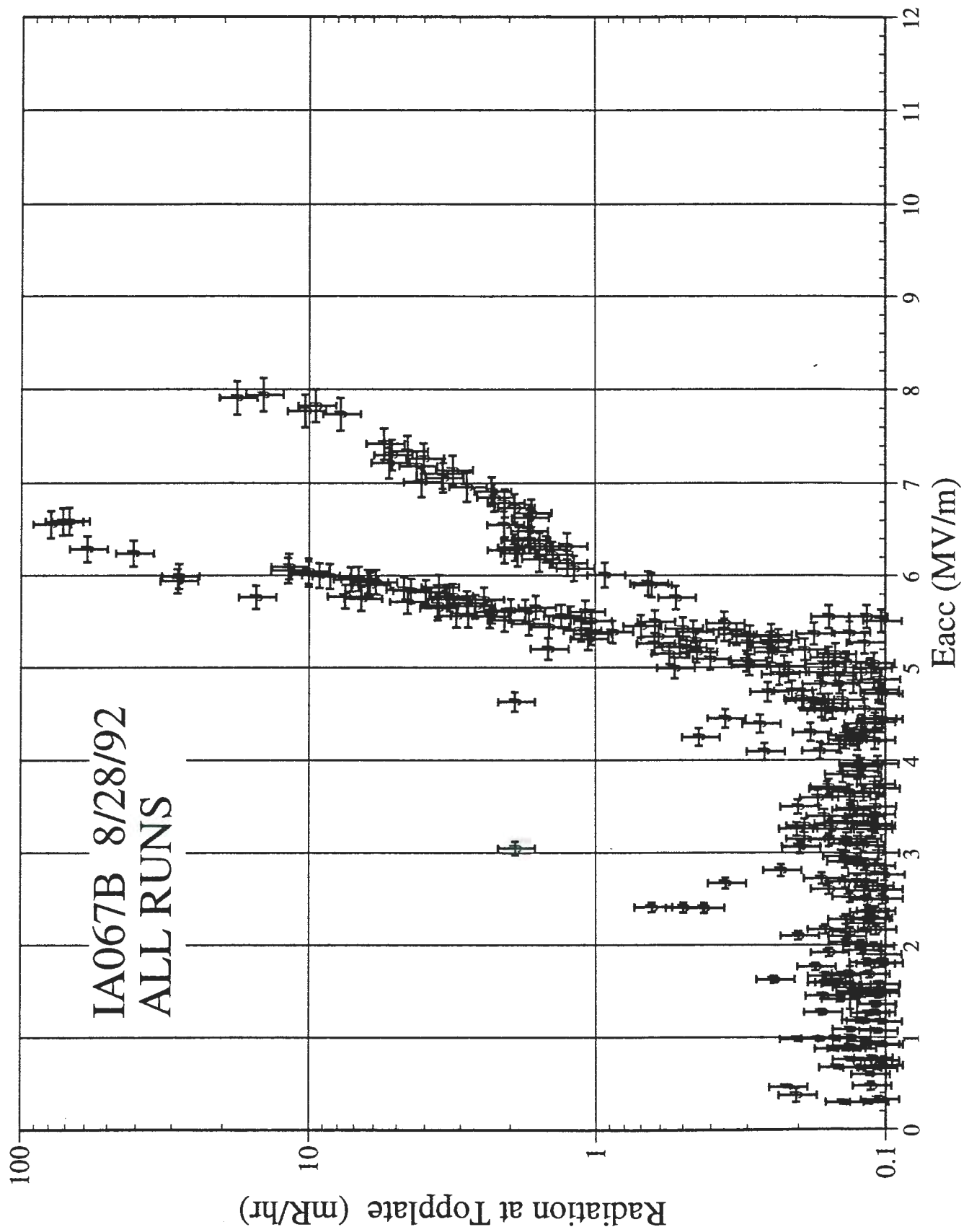


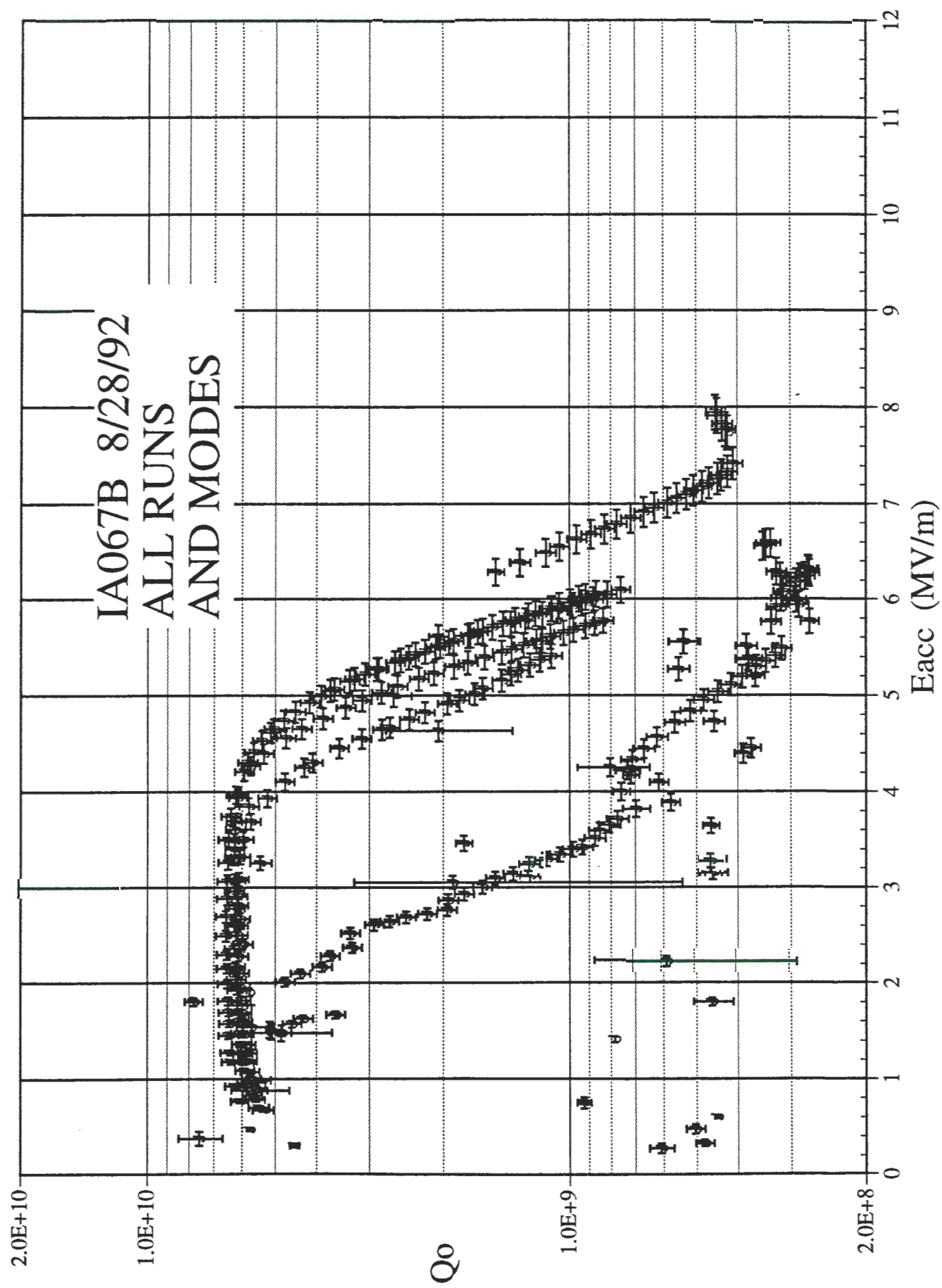


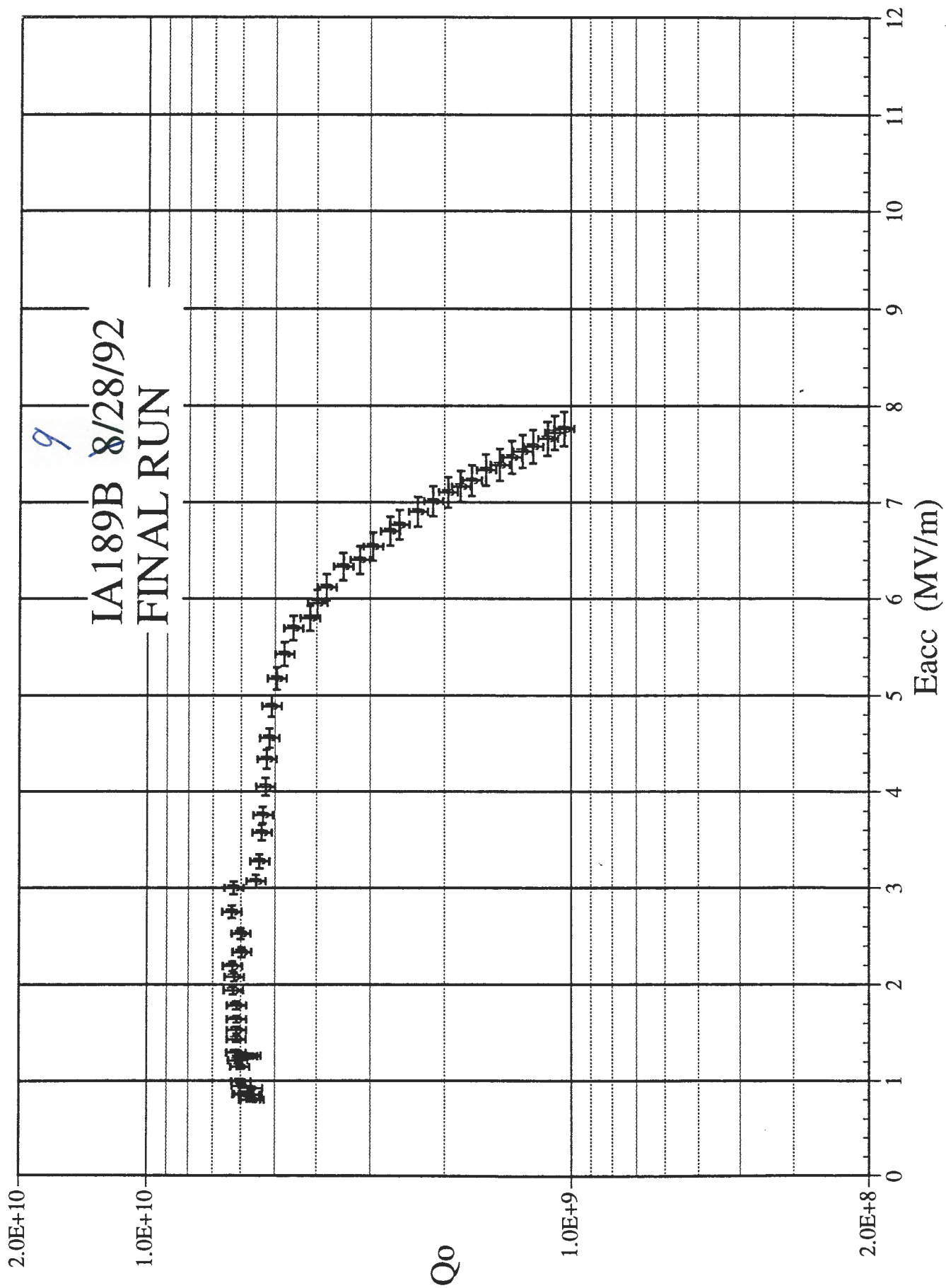
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7.6/4
9.2/8

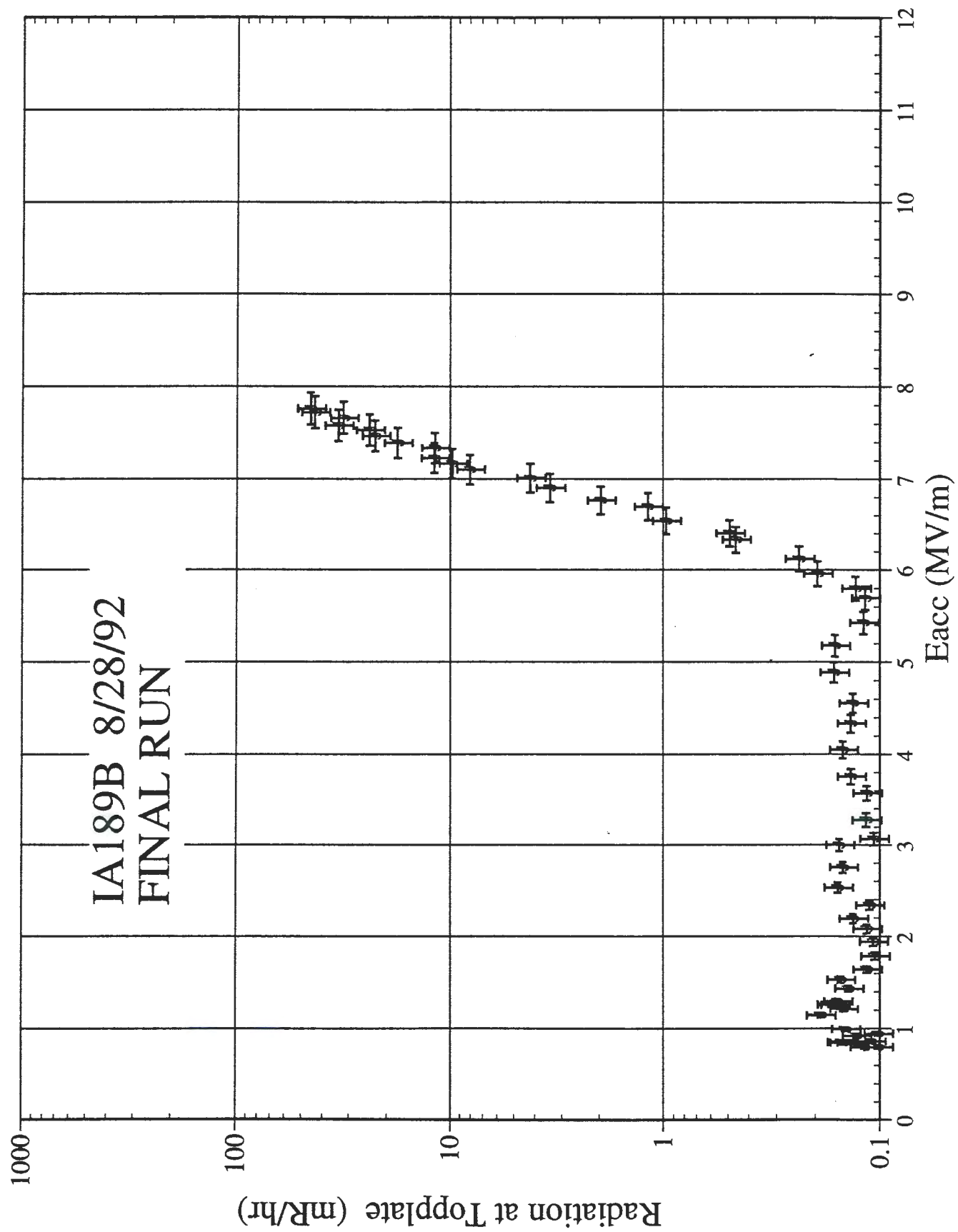


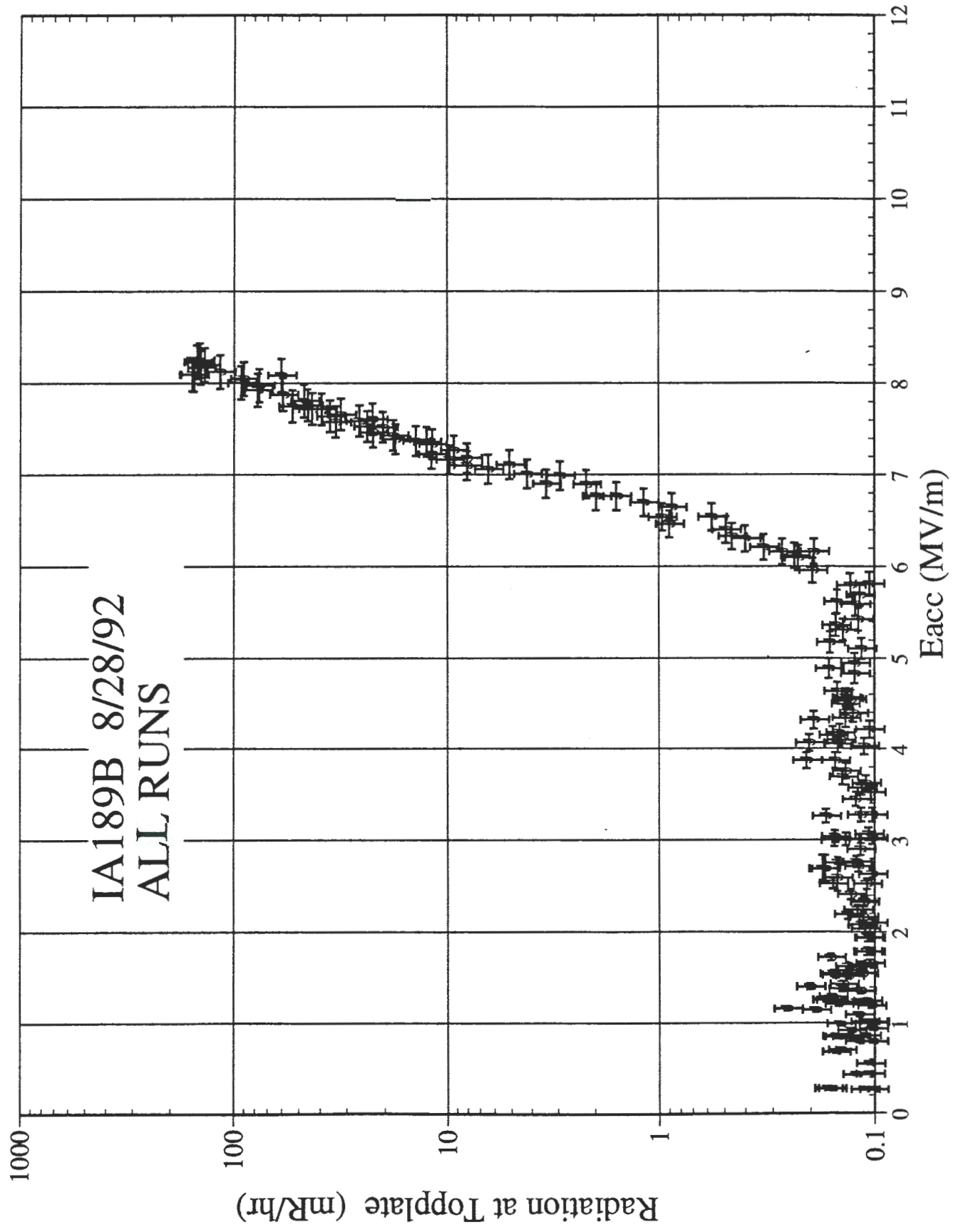


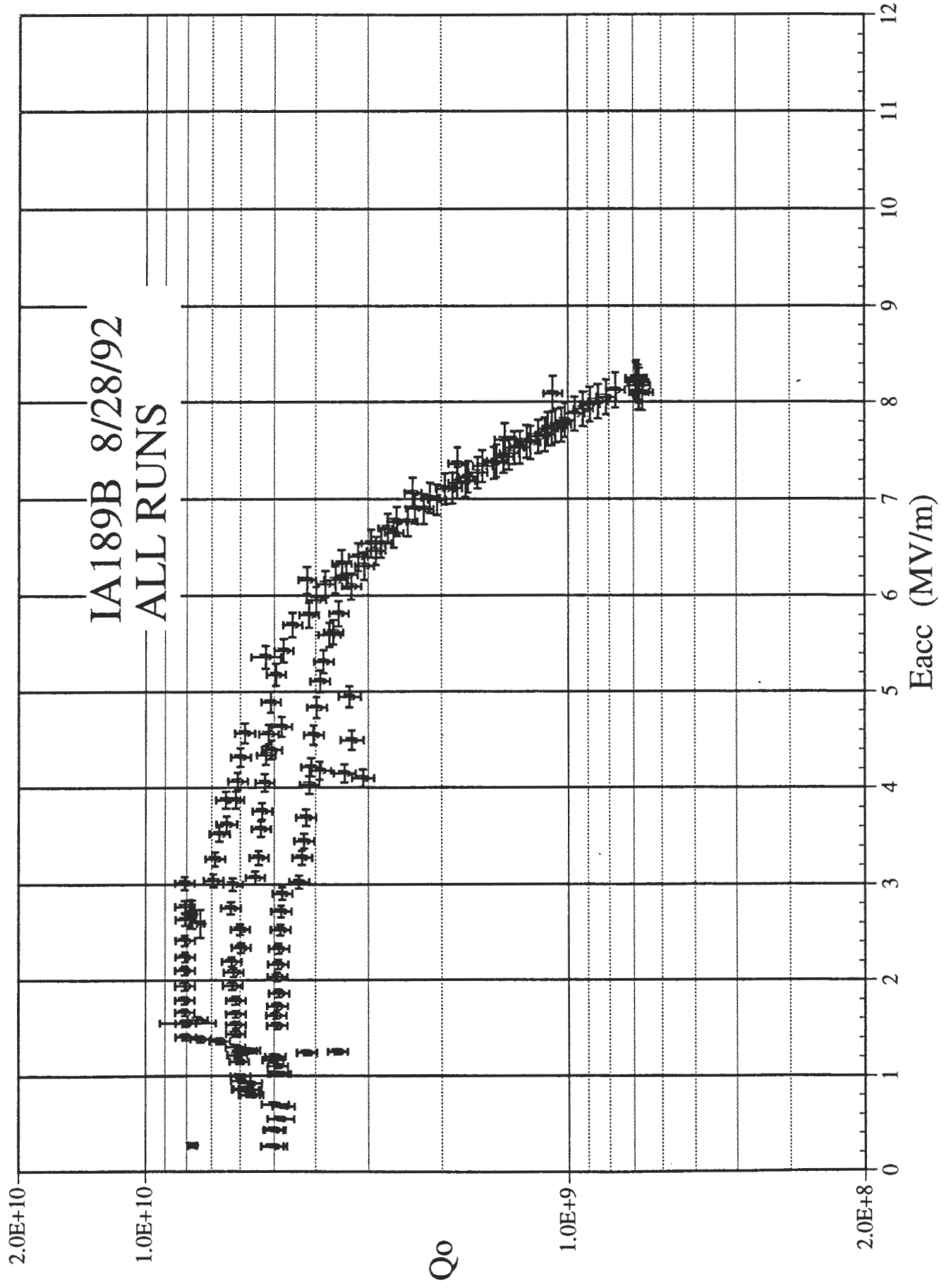


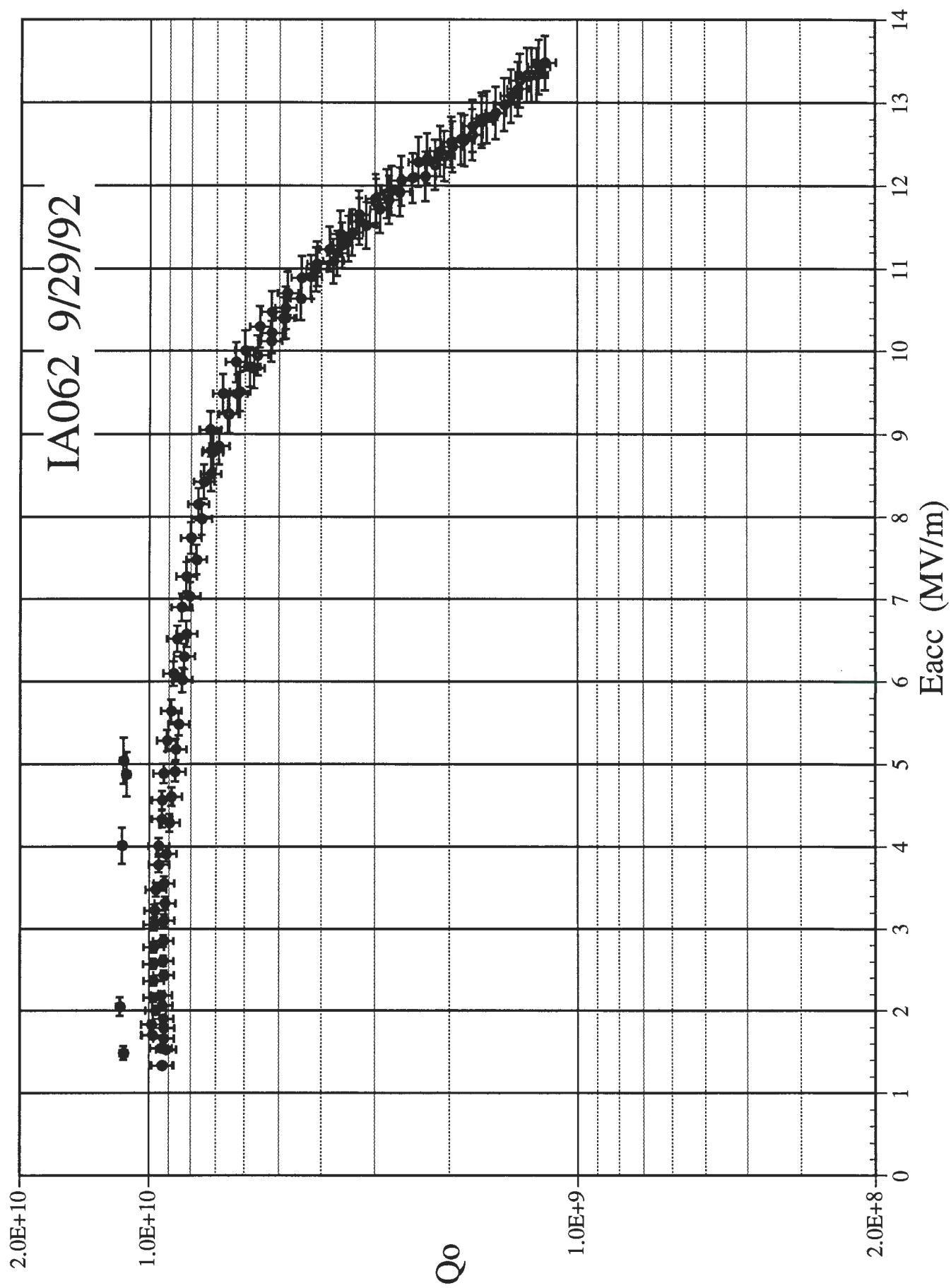


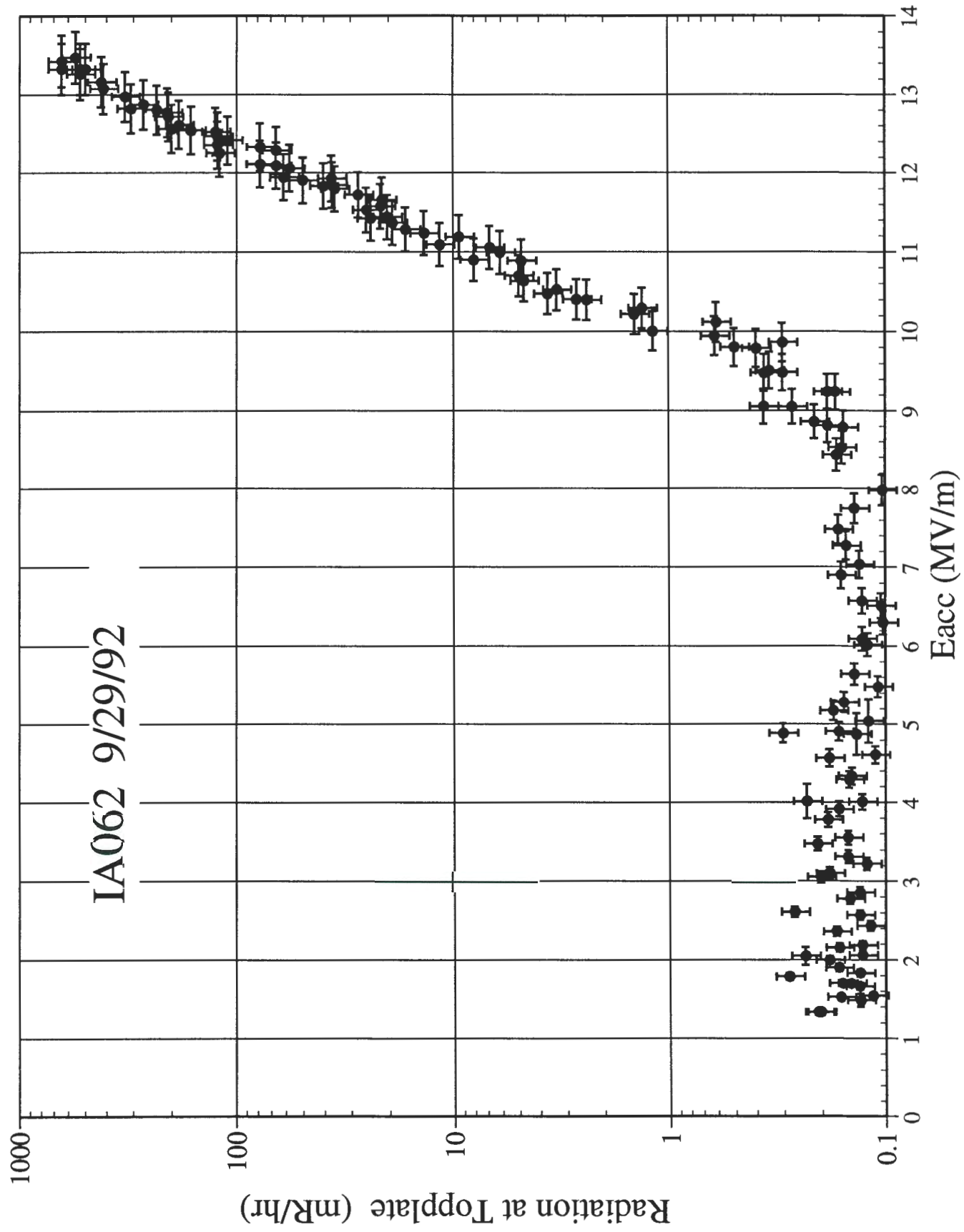




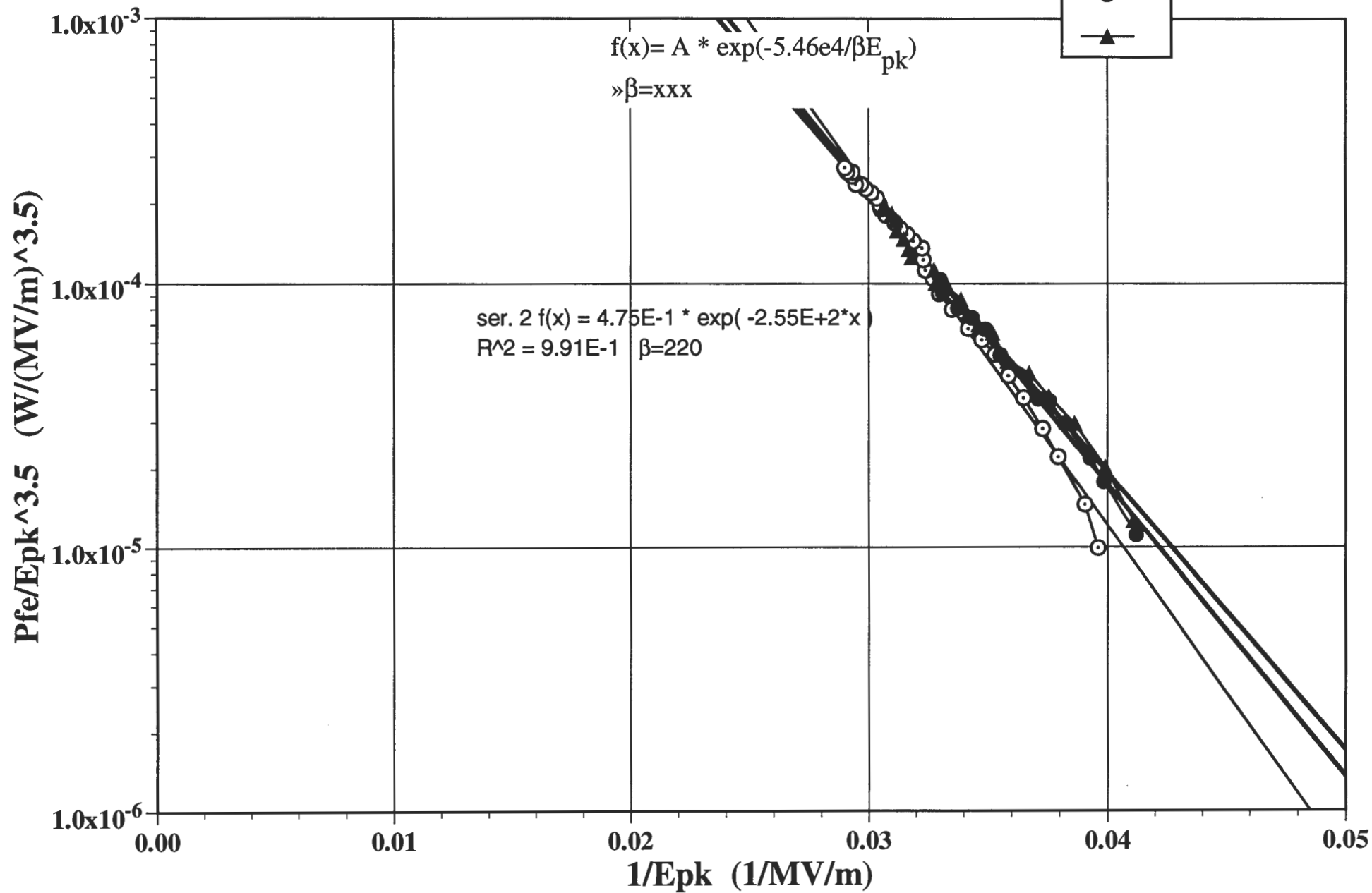




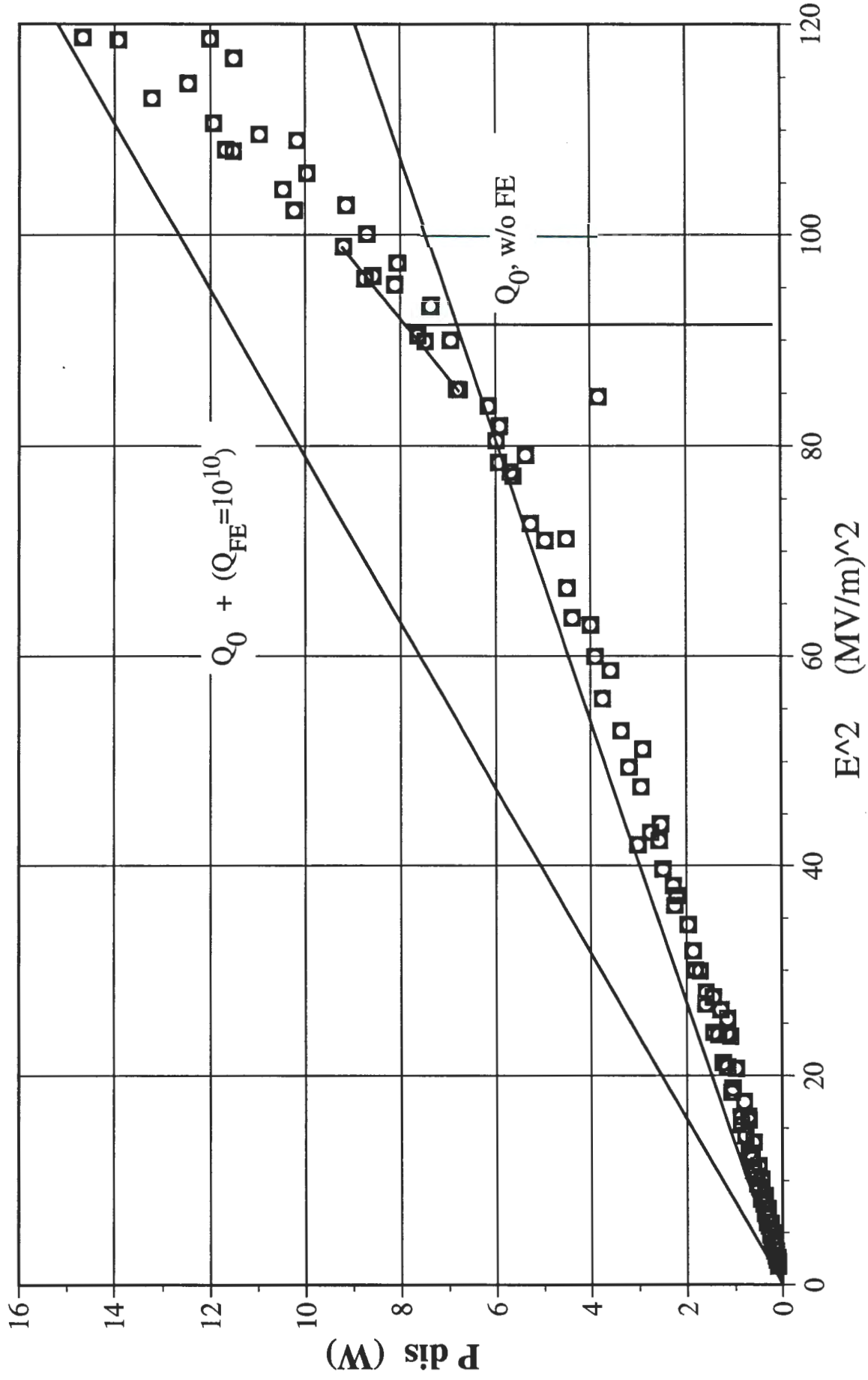


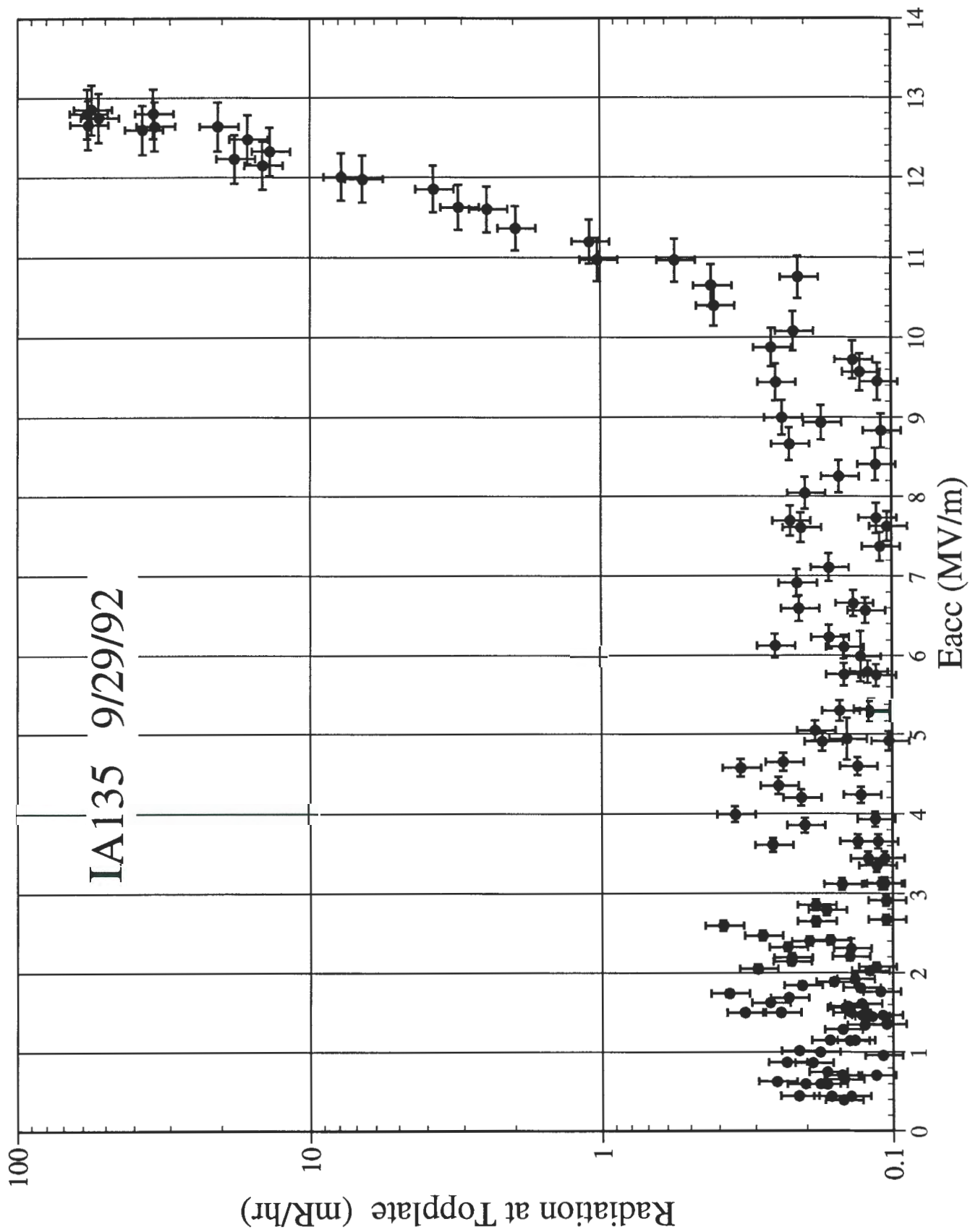


IA062c 9/29/92

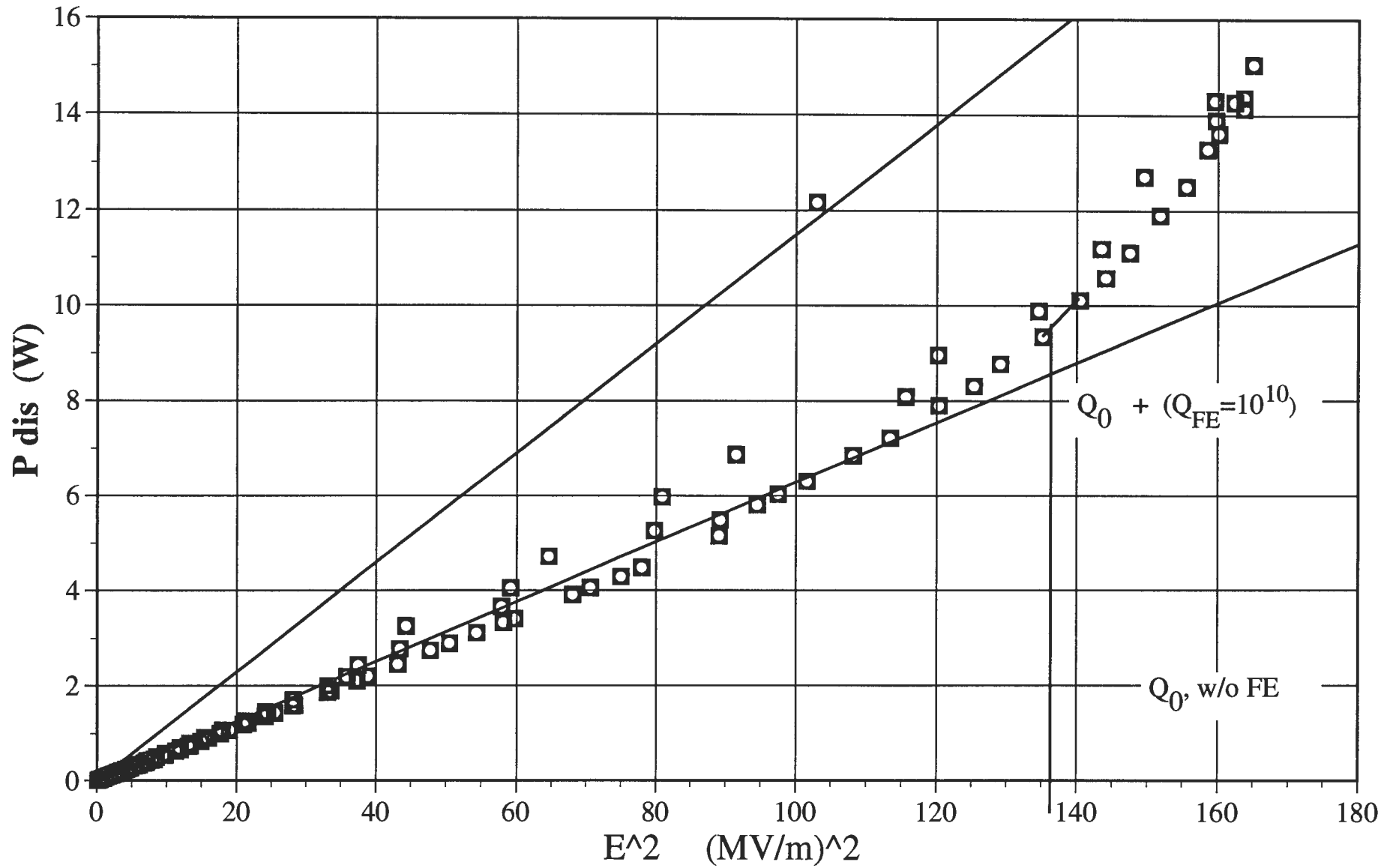


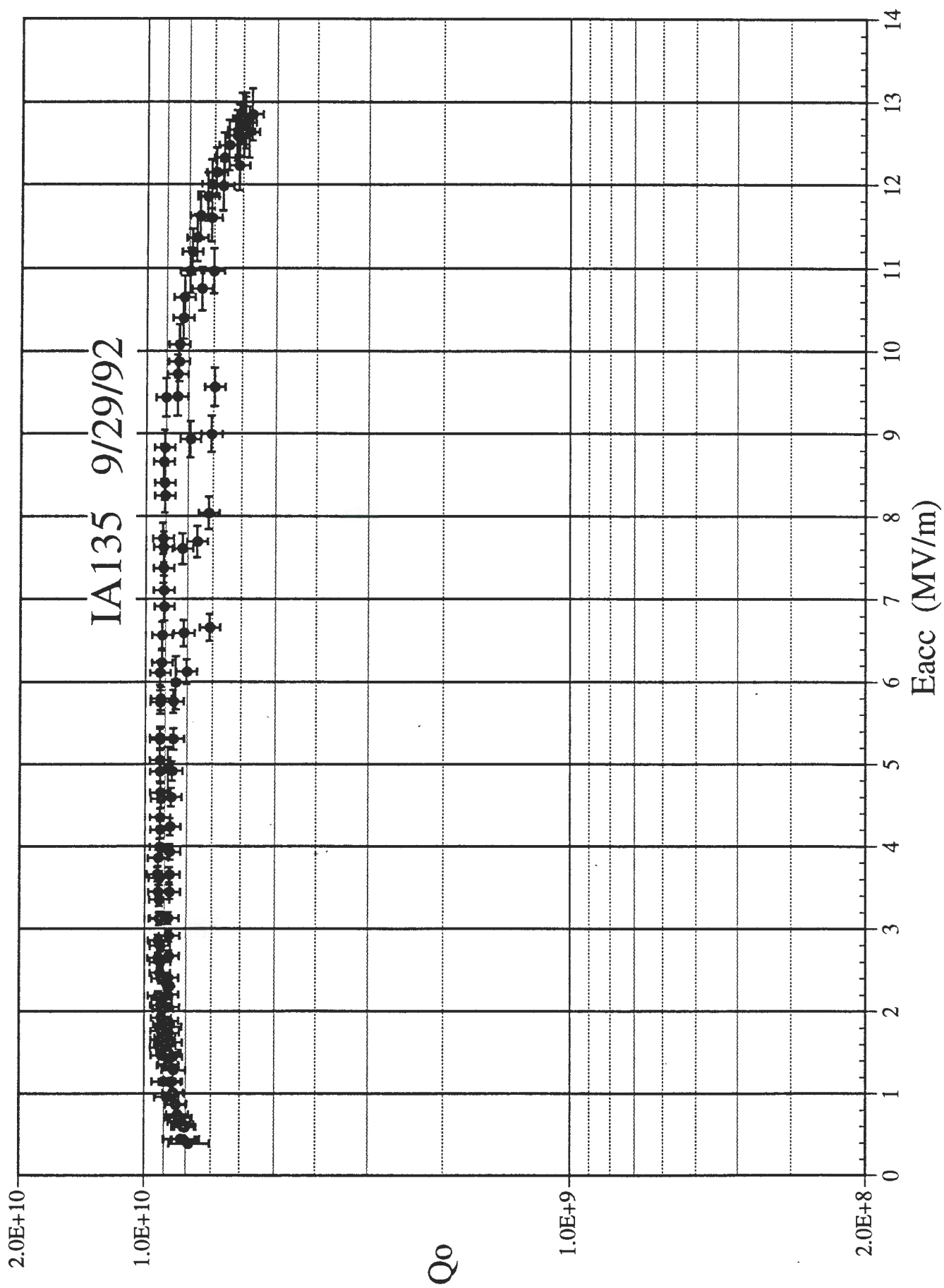
IA062c 9/29/92



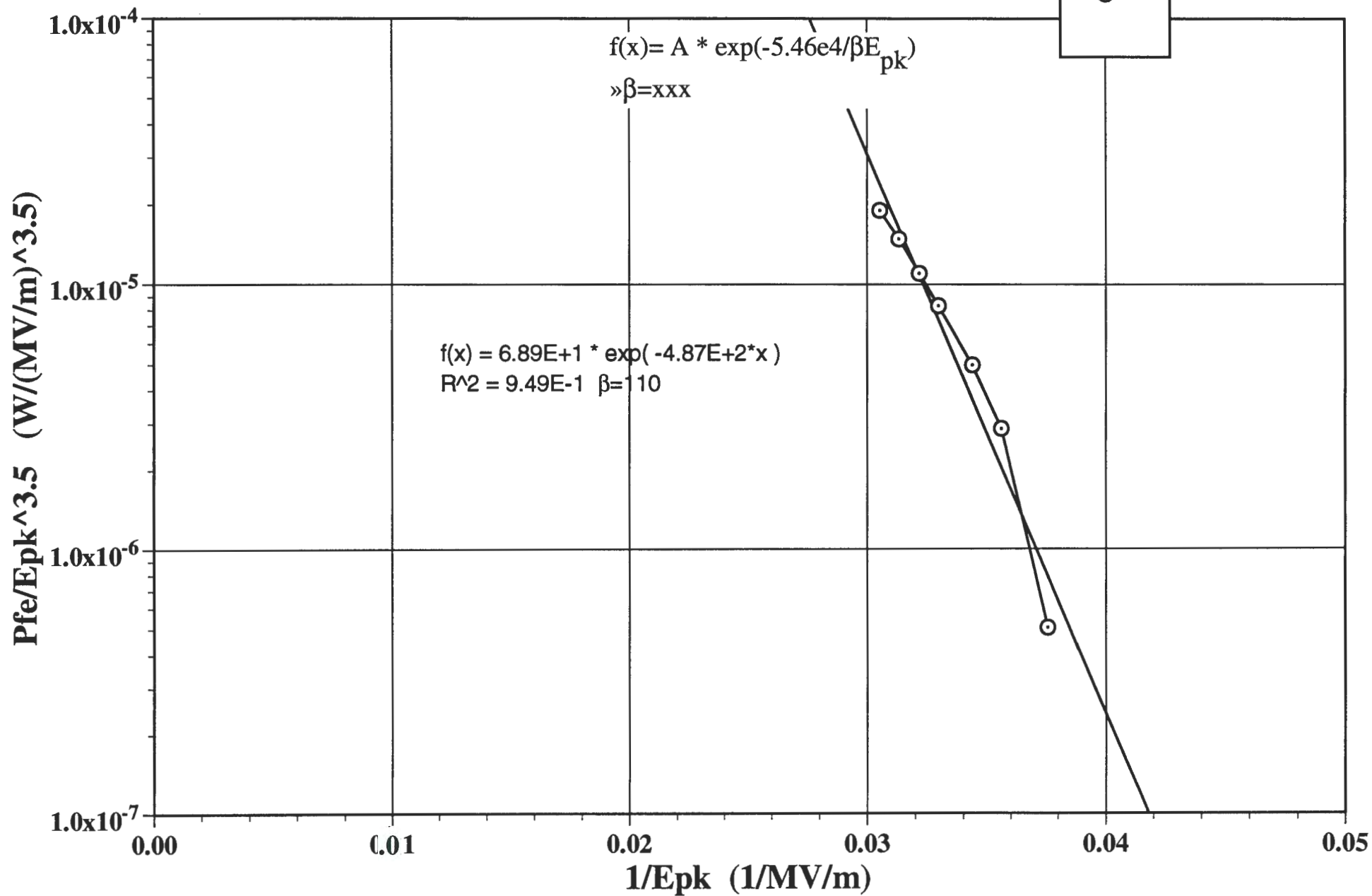
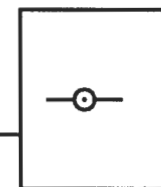


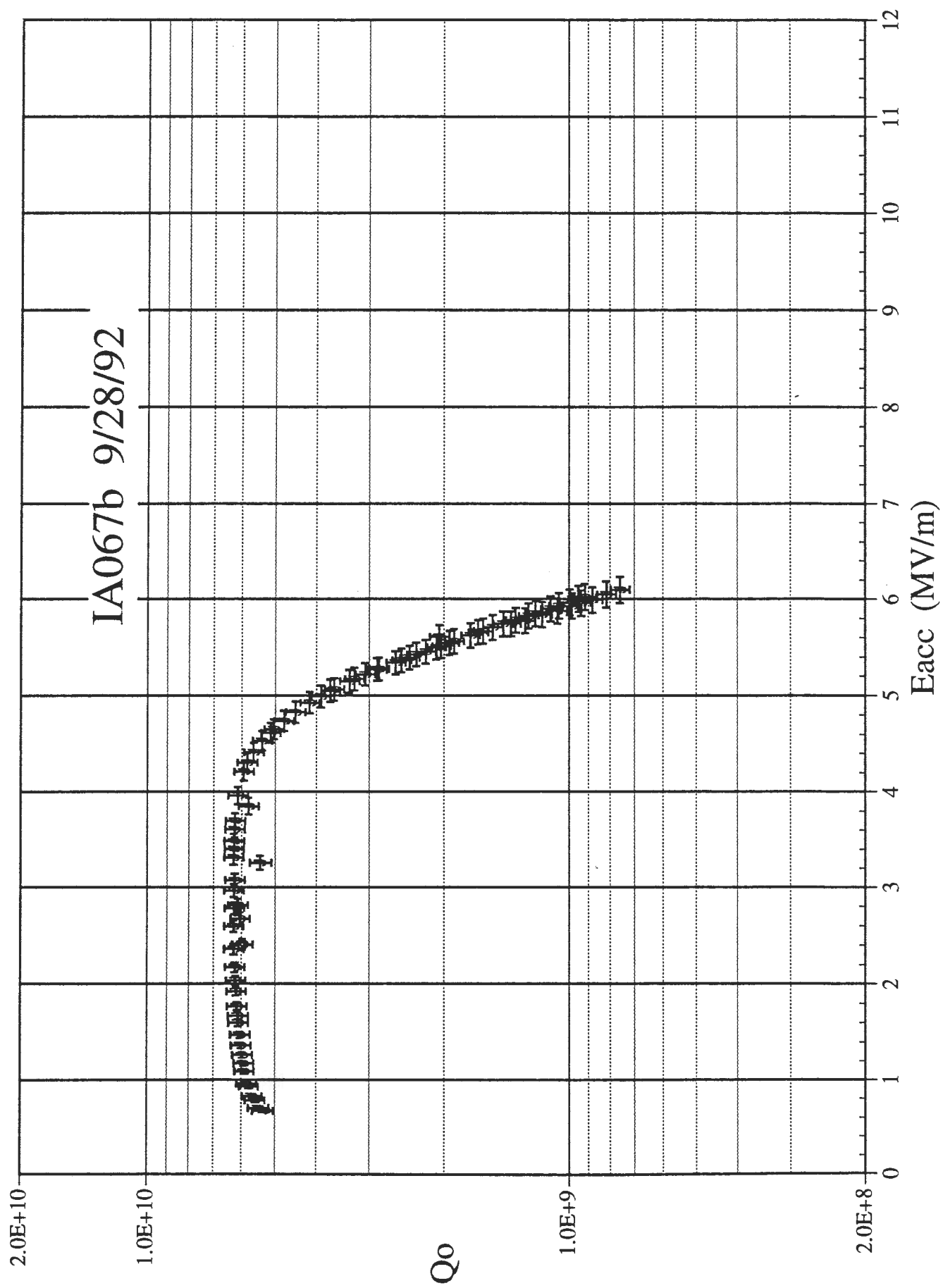
IA135 9/29/92

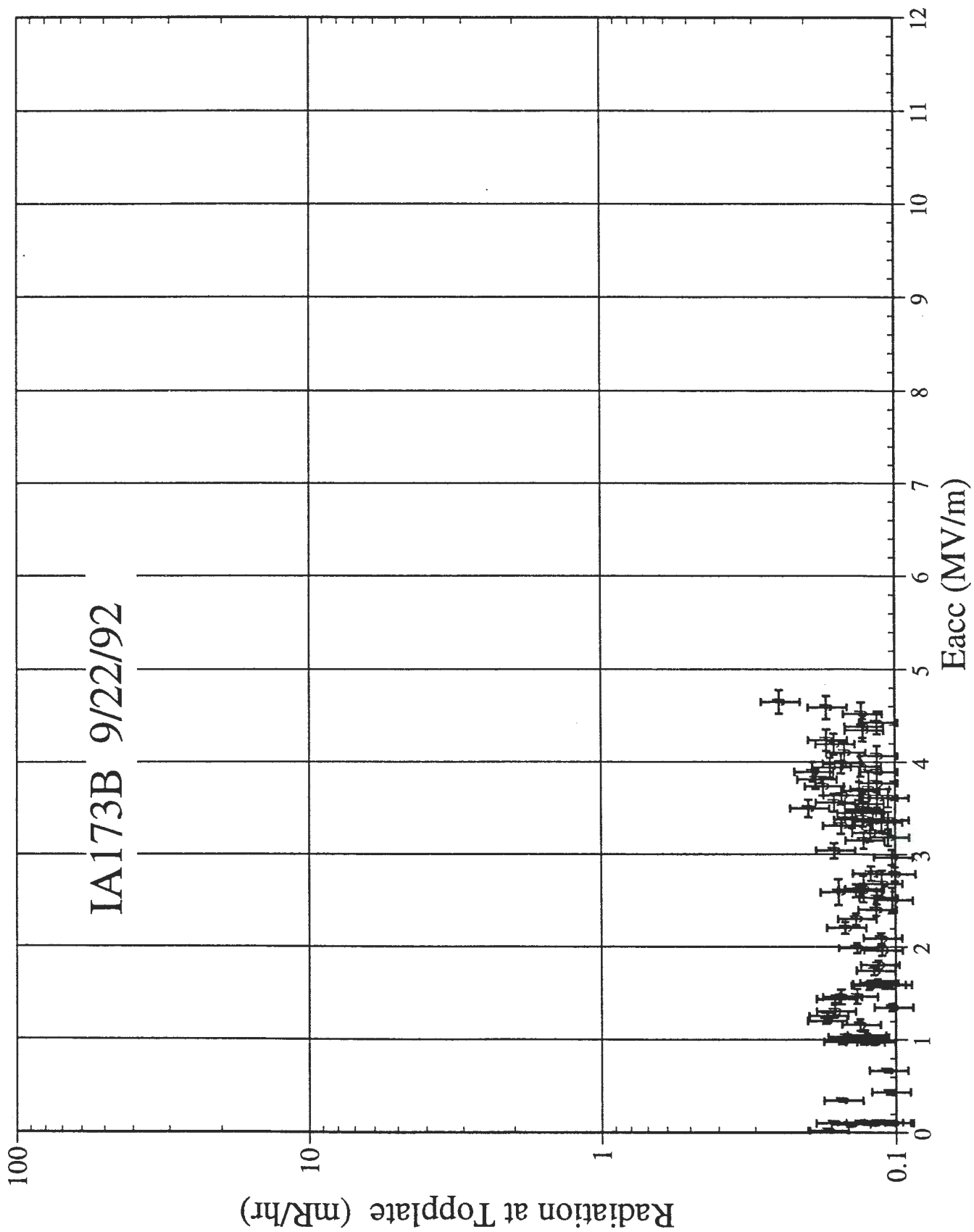




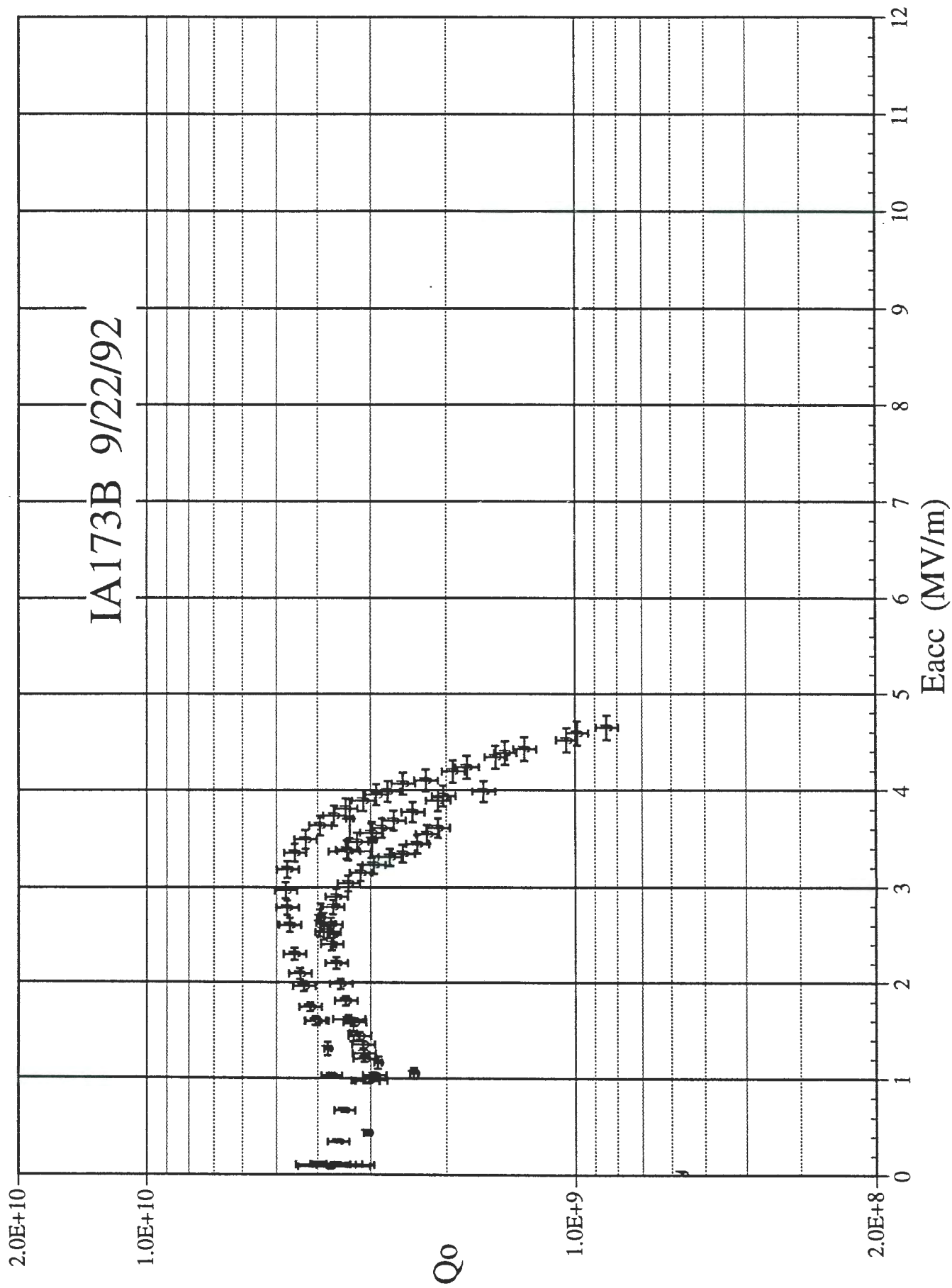
IA135c 9/29/92

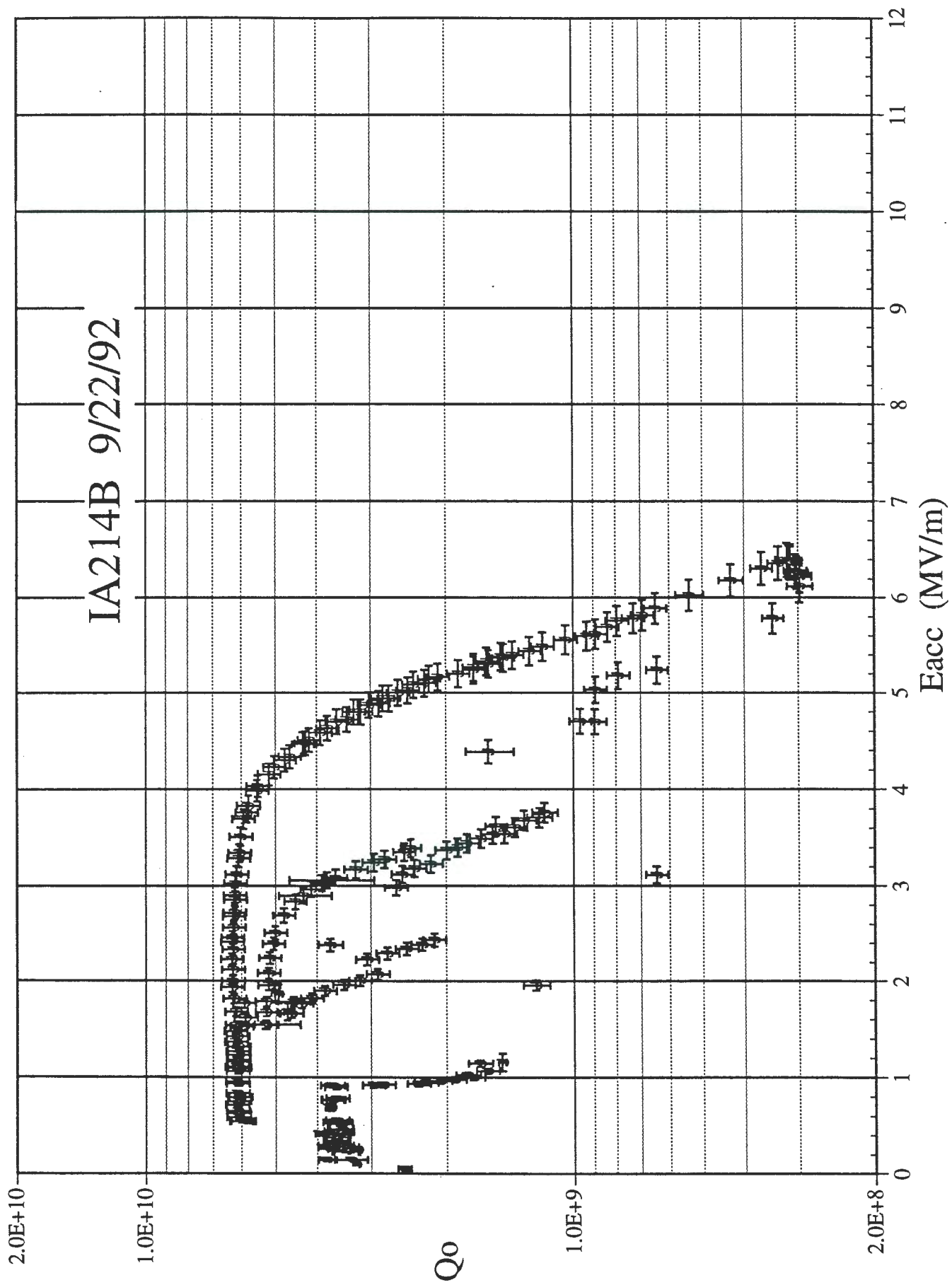


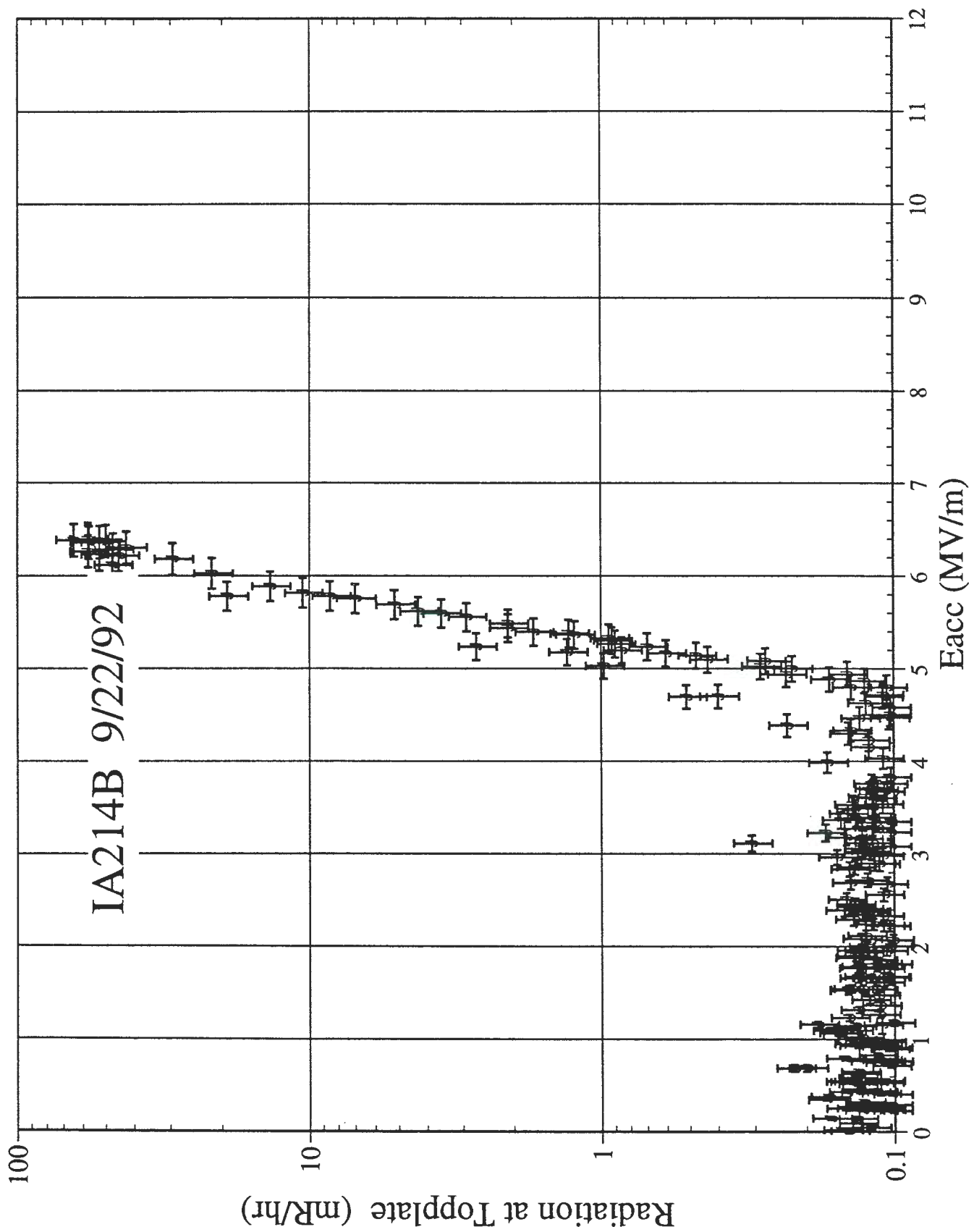




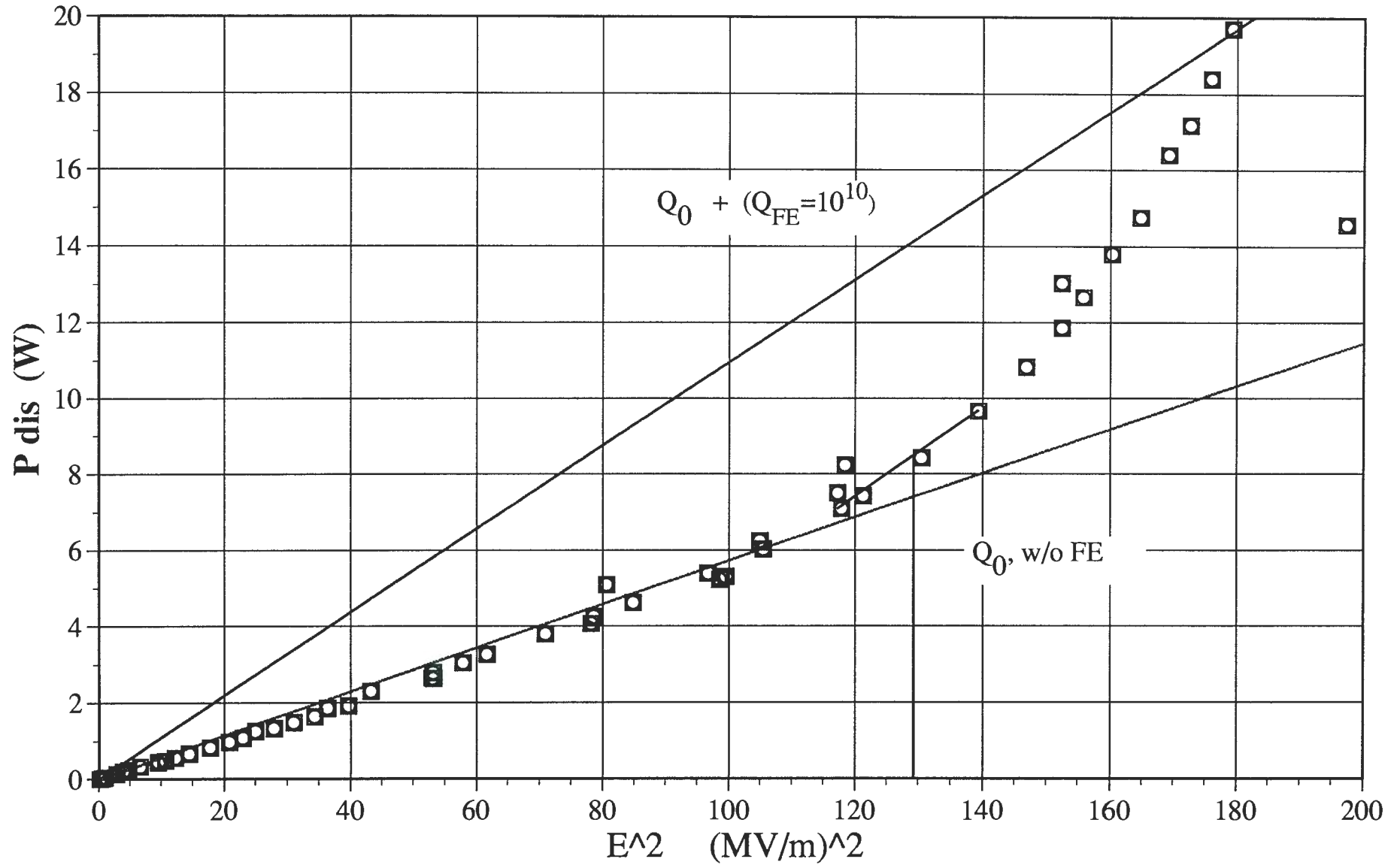
IA173B 9/22/92



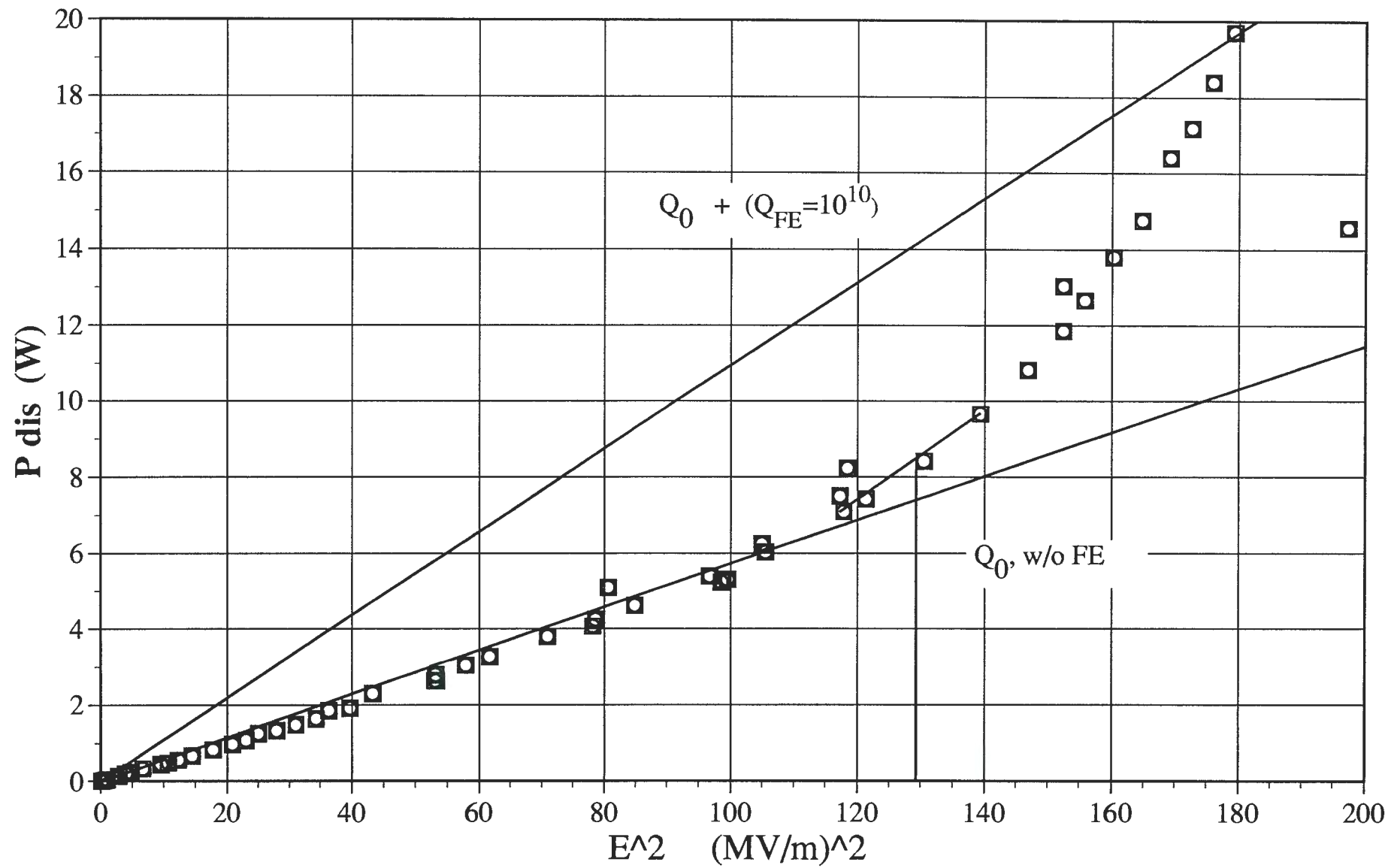




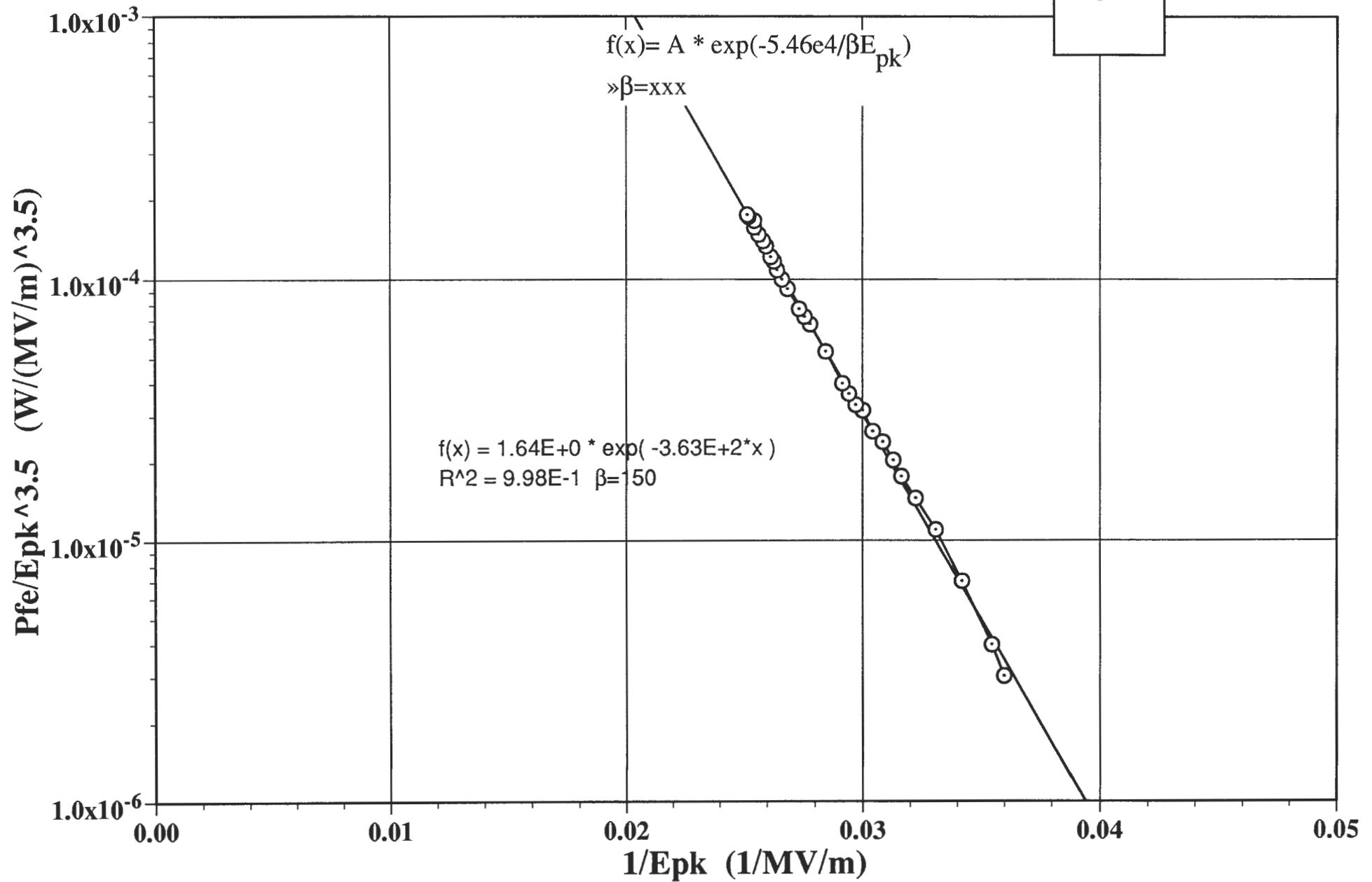
IA170 9/21/92



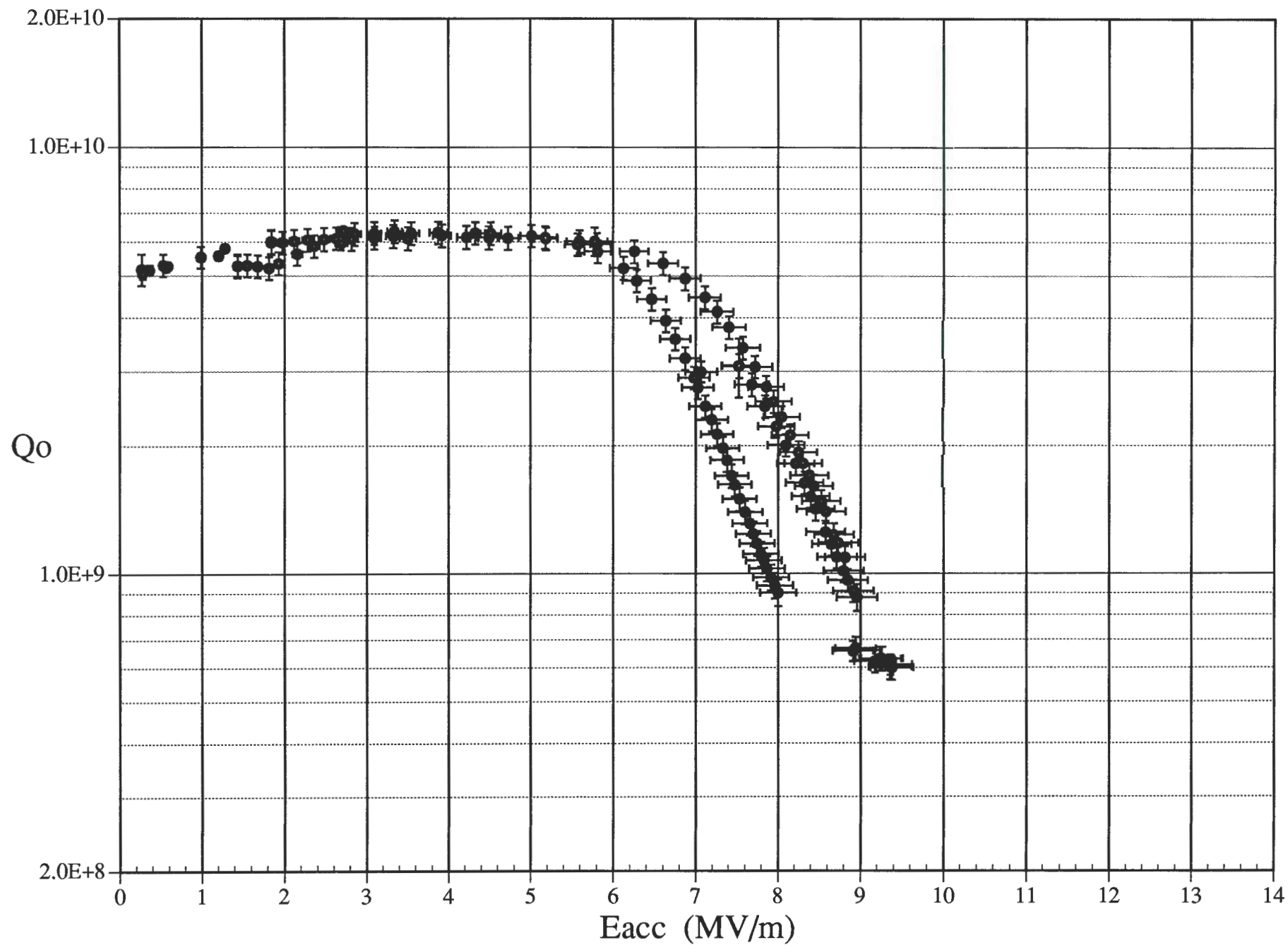
IA170 9/21/92



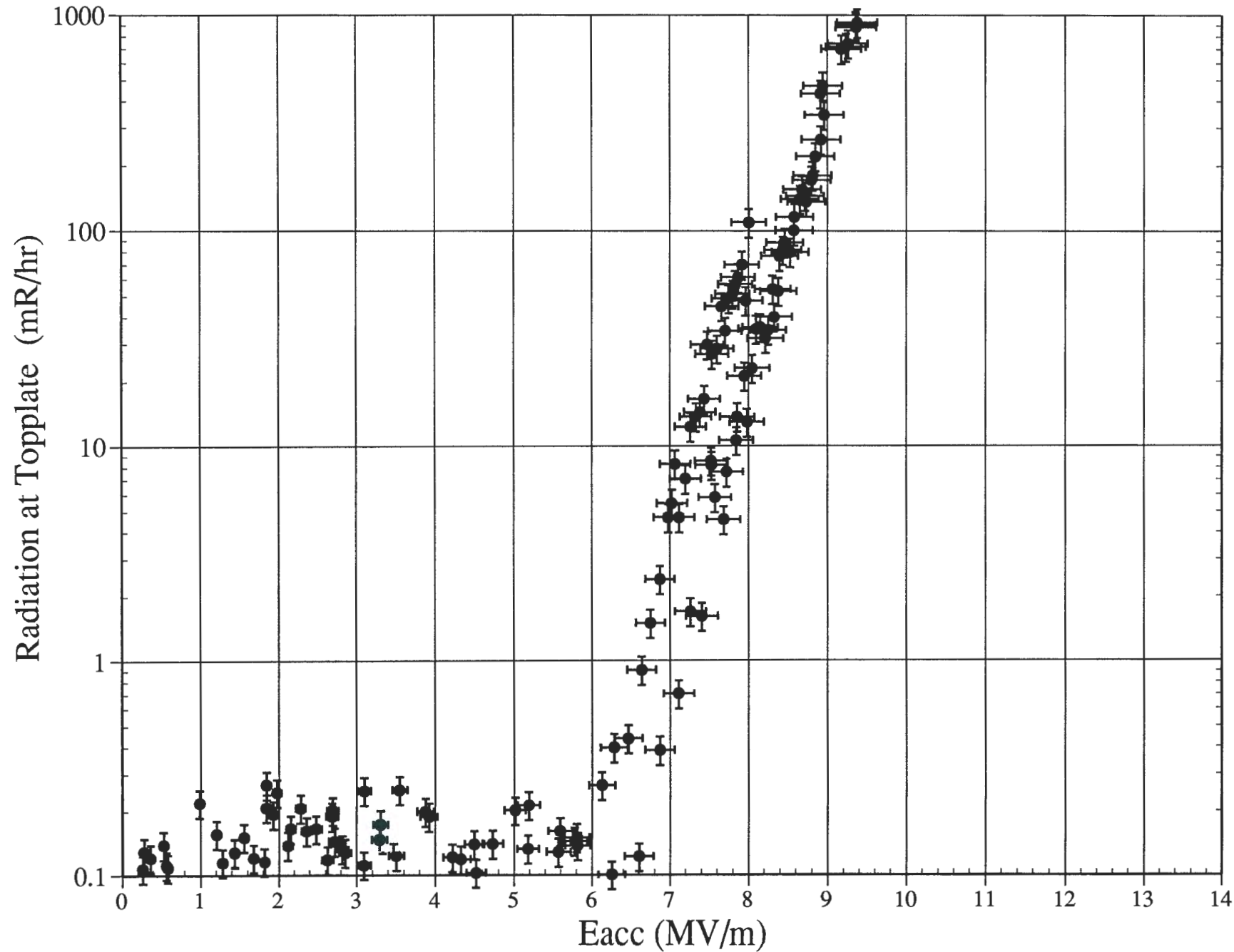
IA170 9/21/92



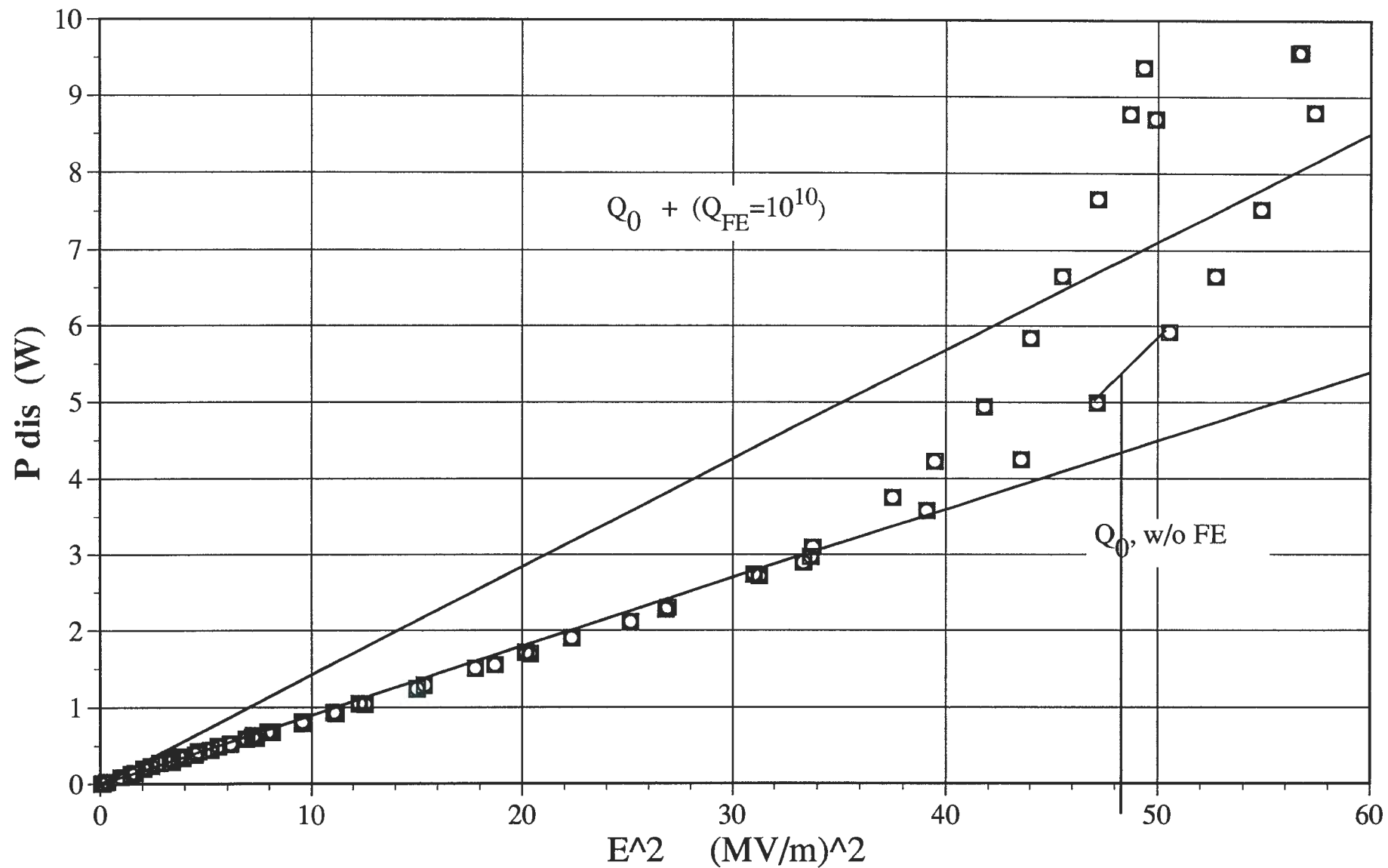
IA216 9/21/92



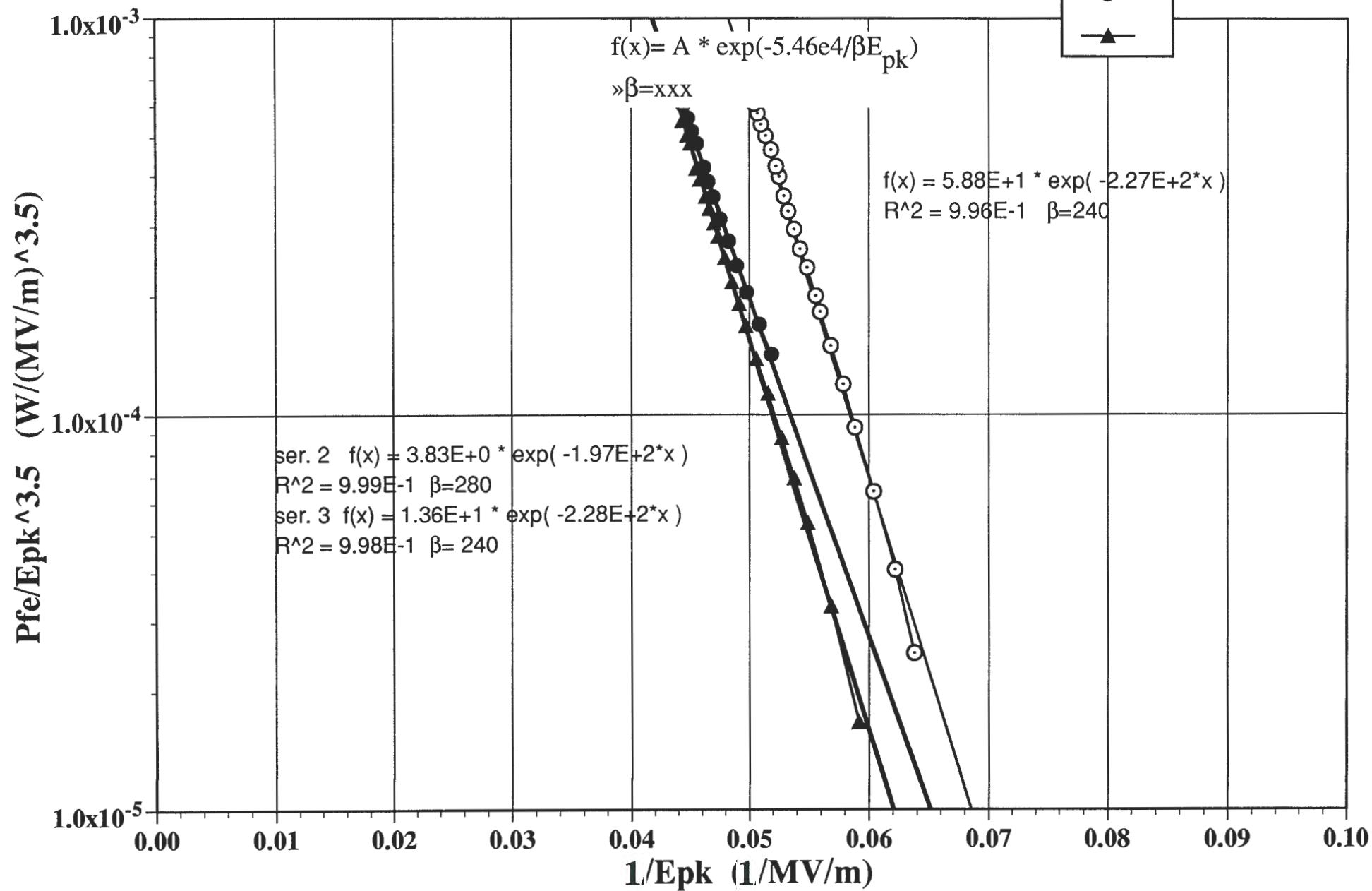
IA216 9/21/92

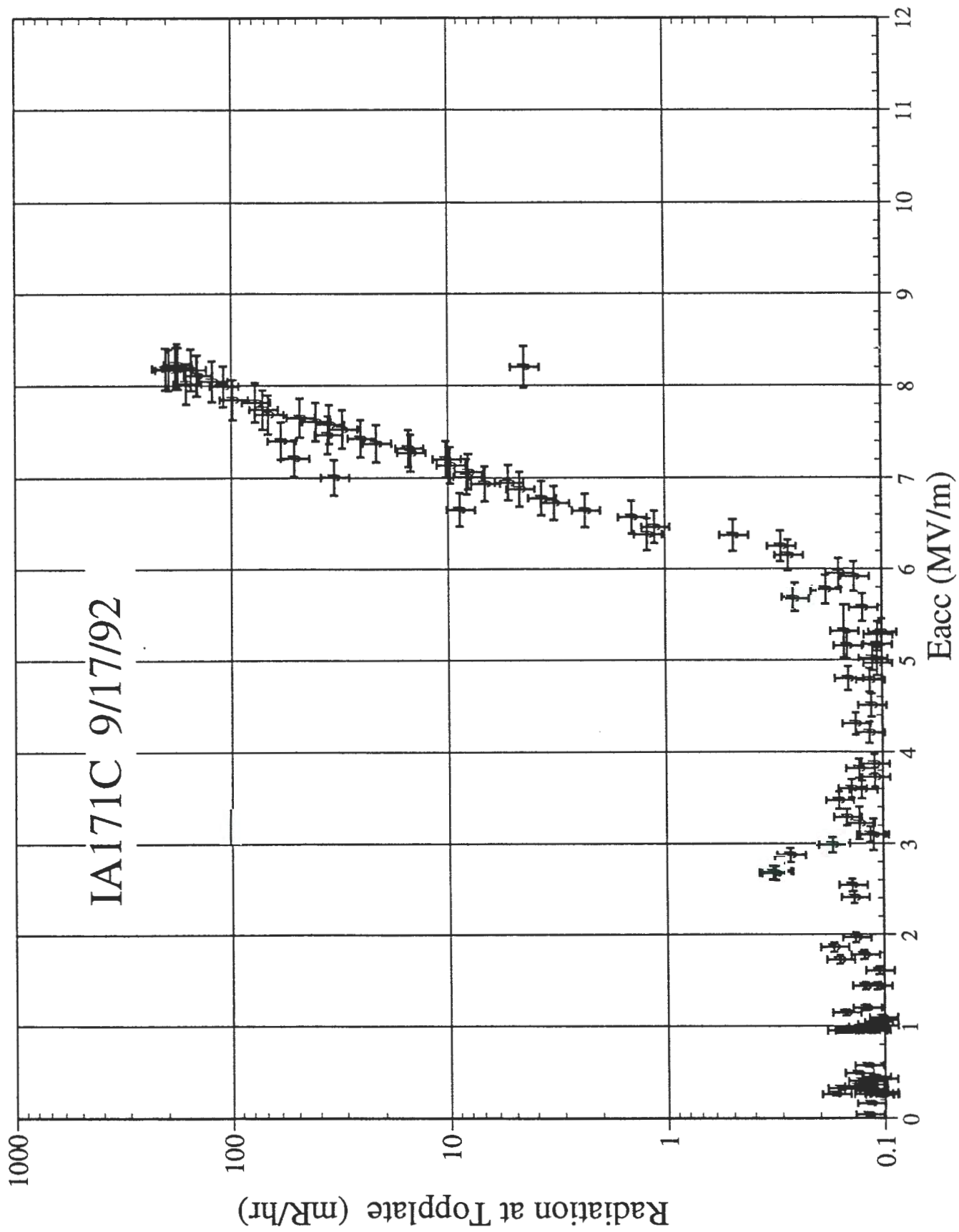


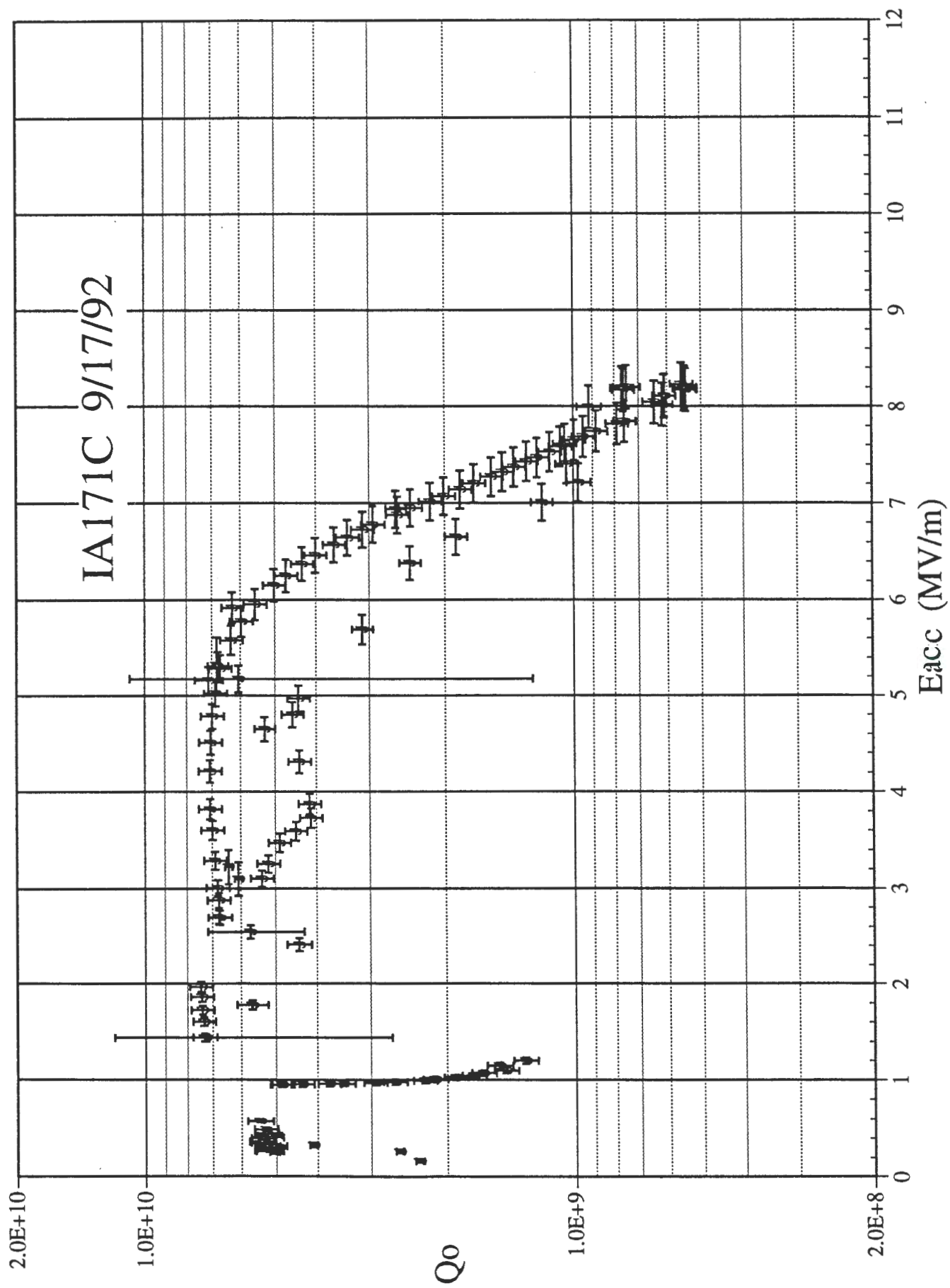
IA216 9/21/92

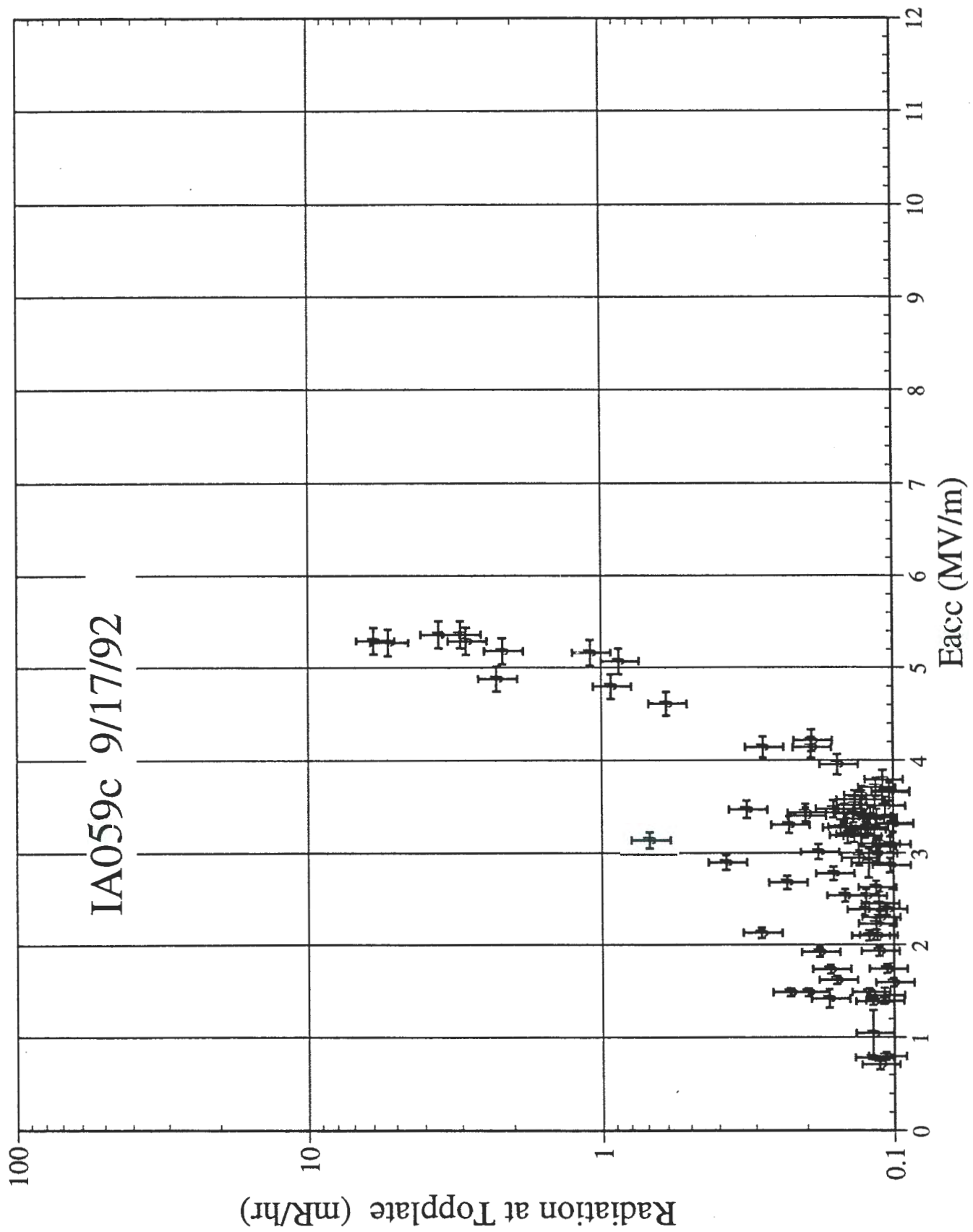


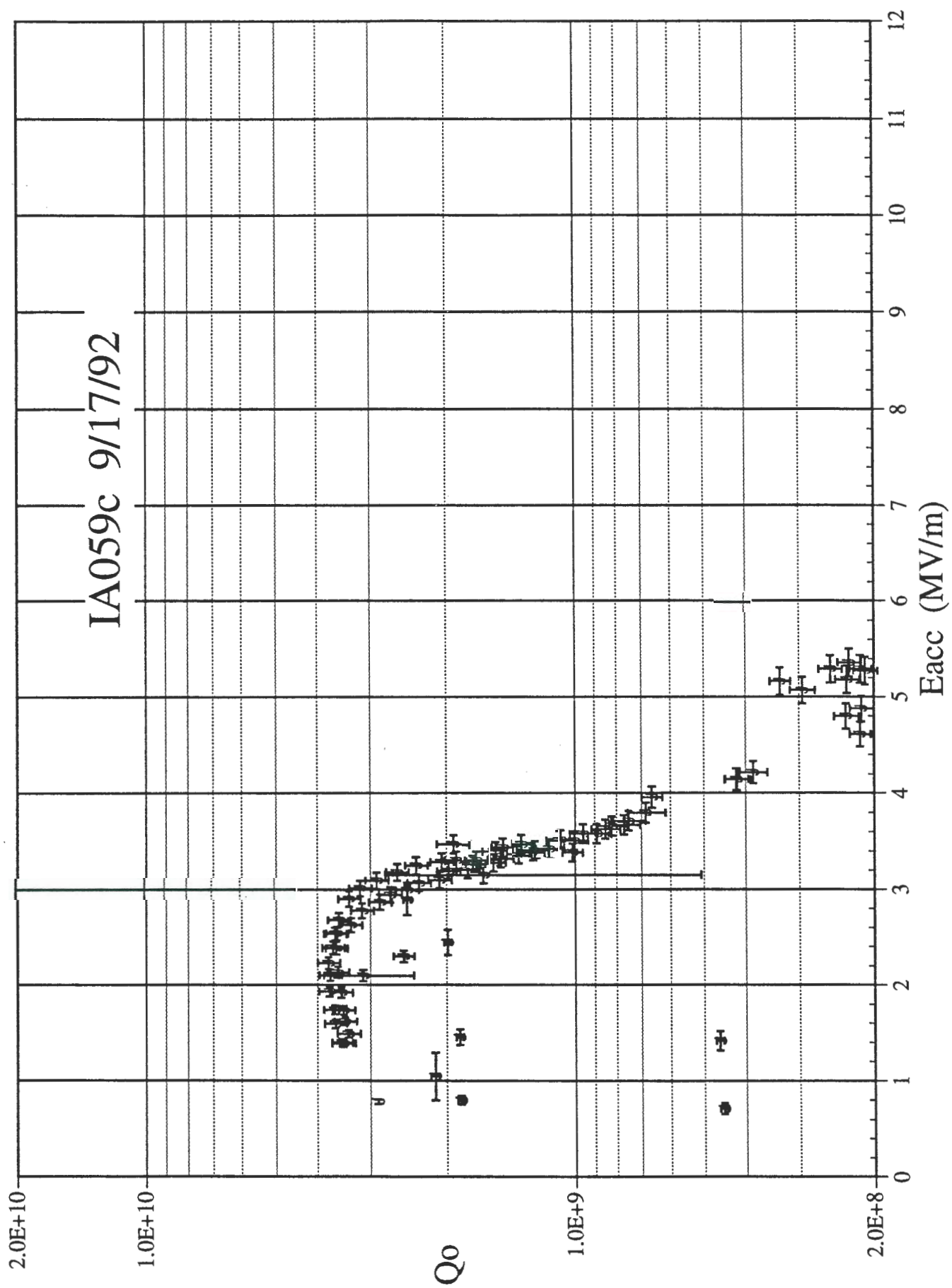
IA216 9/21/92



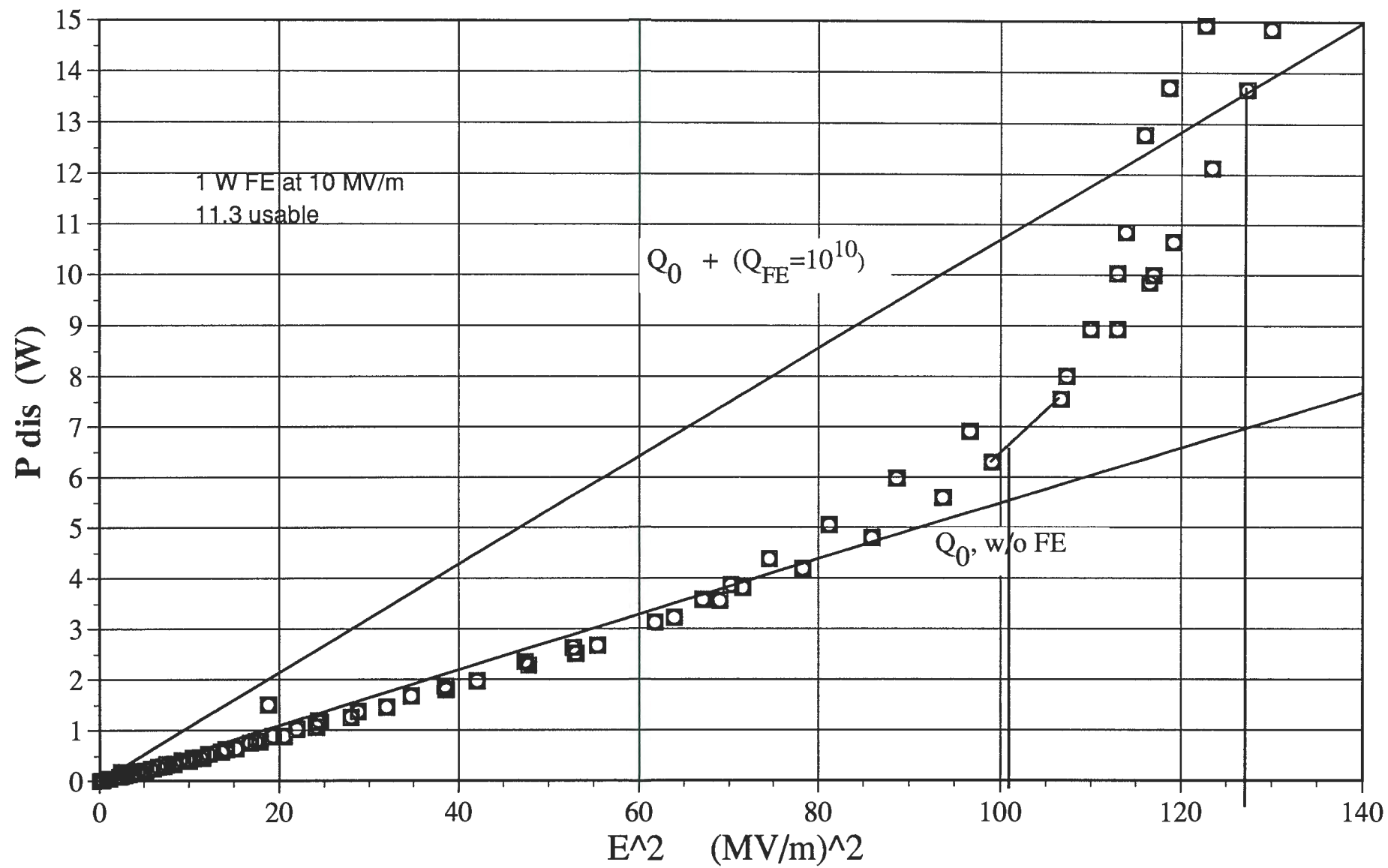




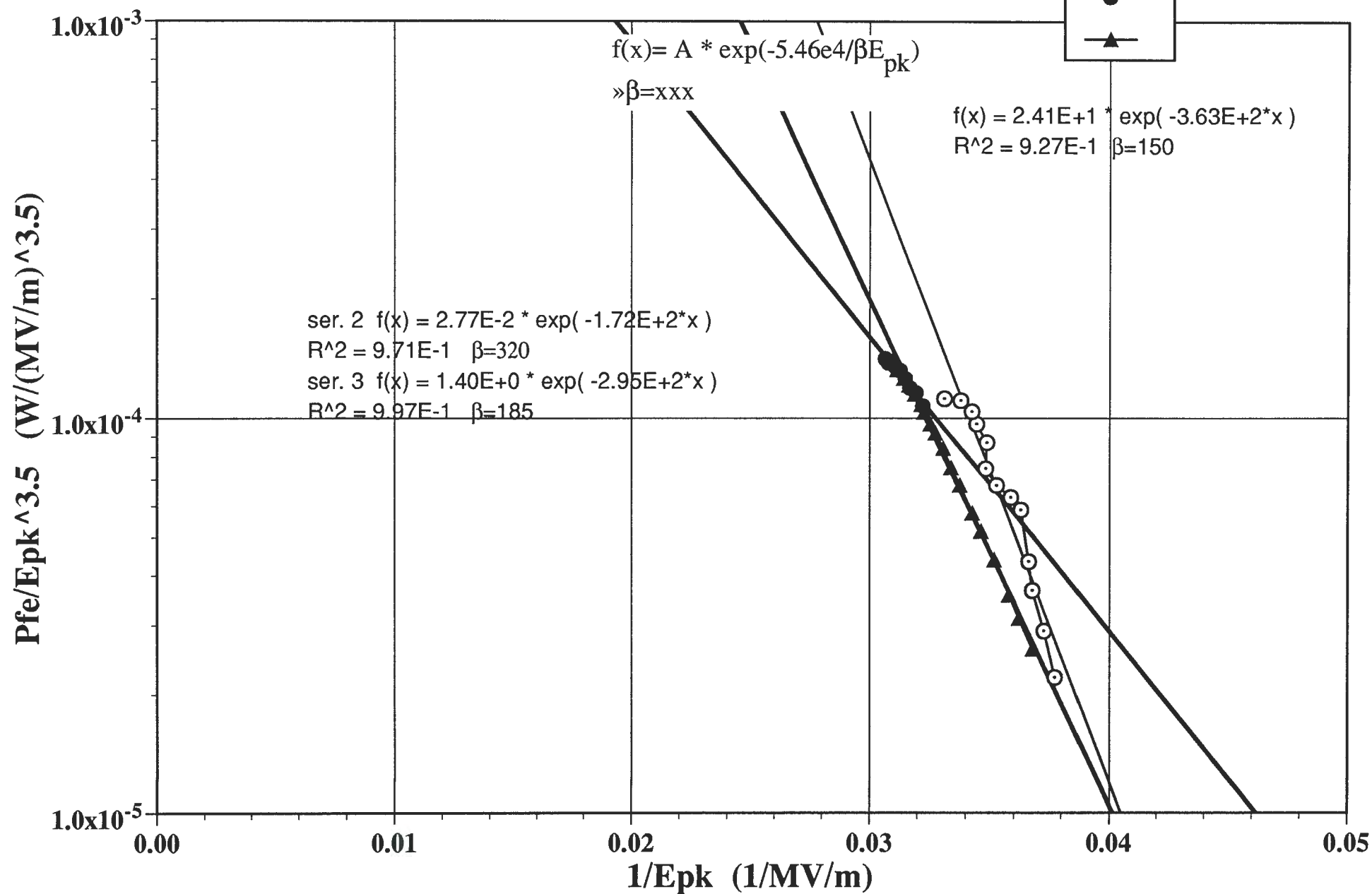


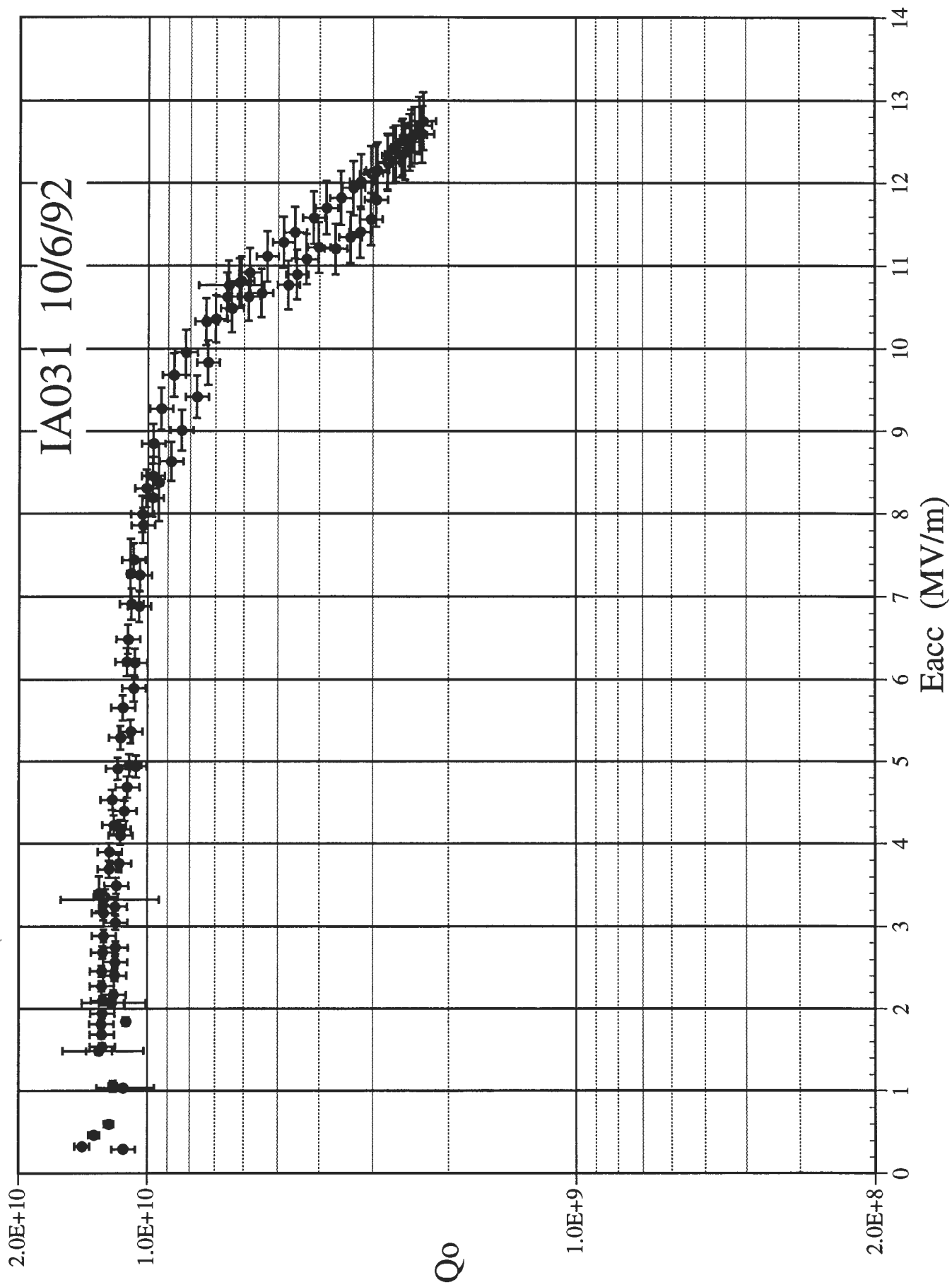


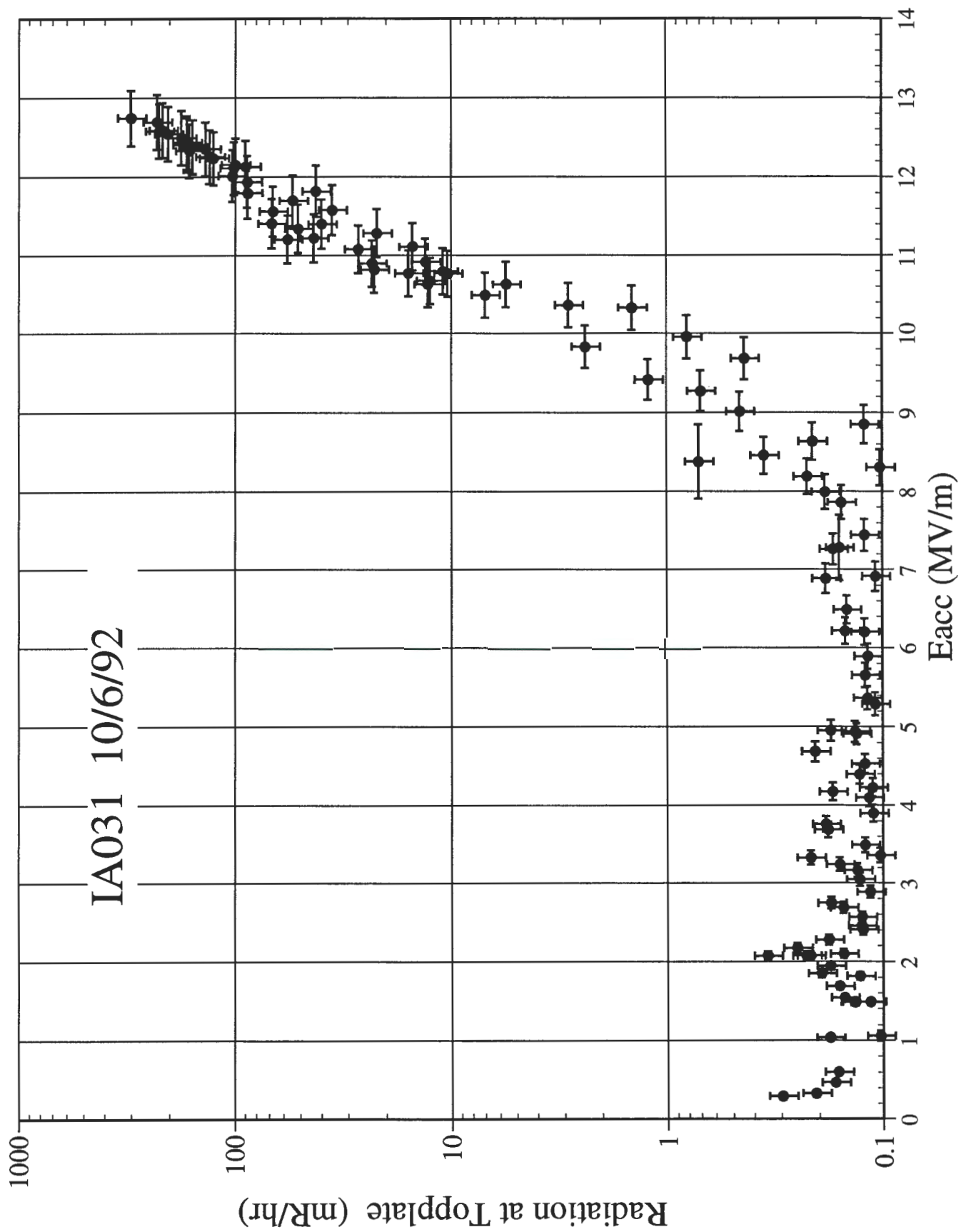
IA031b 10/5/92



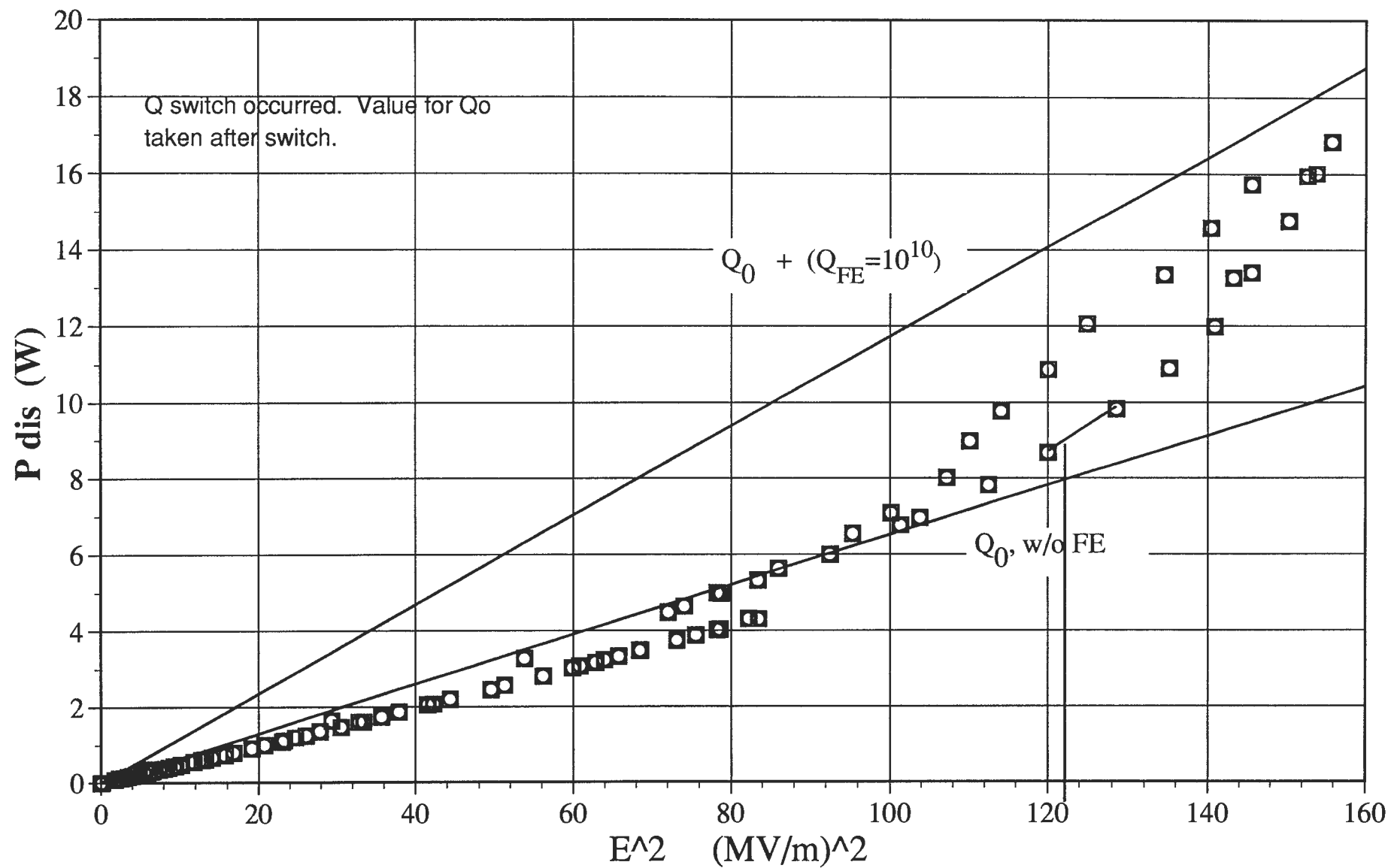
IA031b 10/6/92



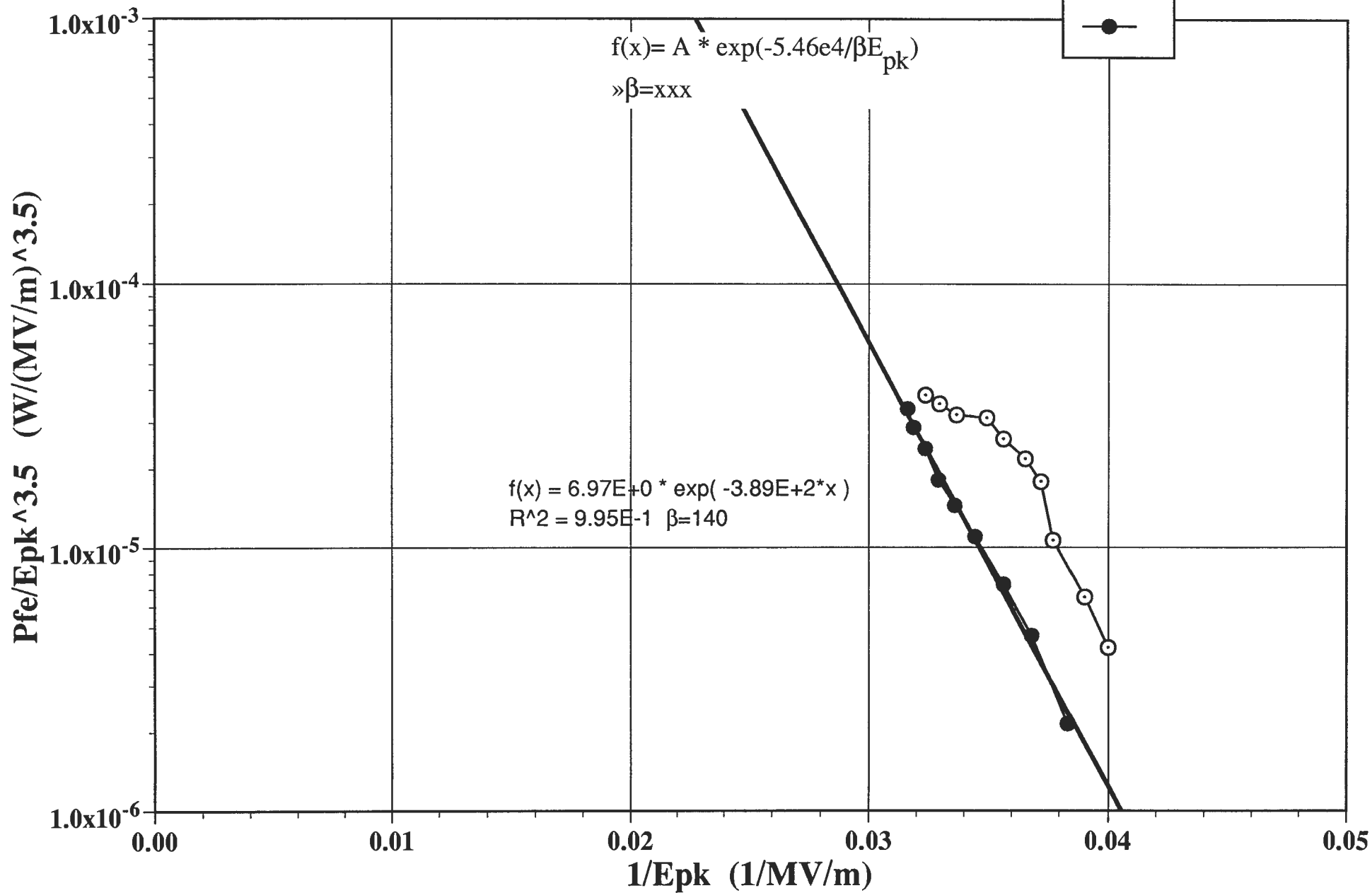


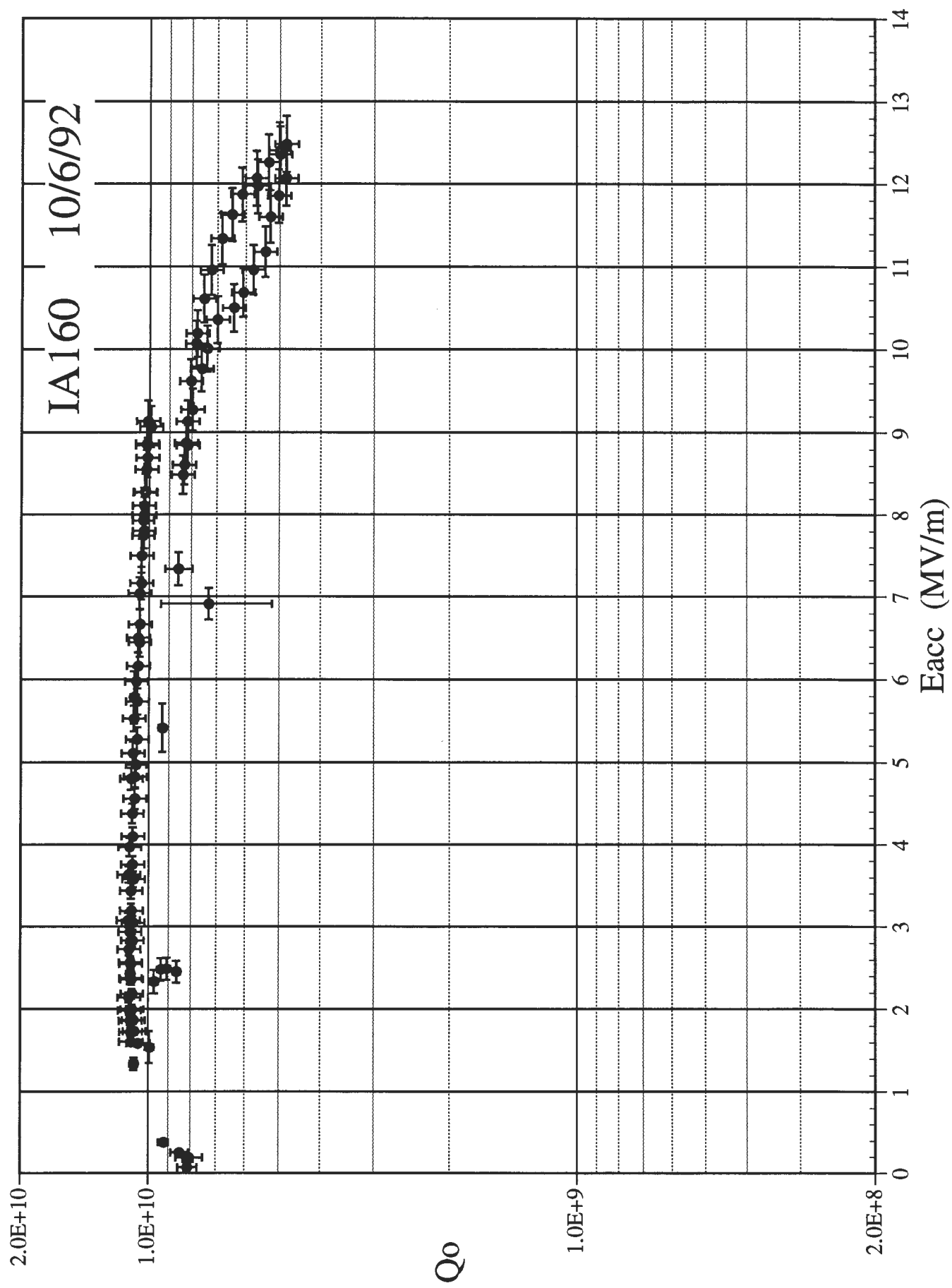


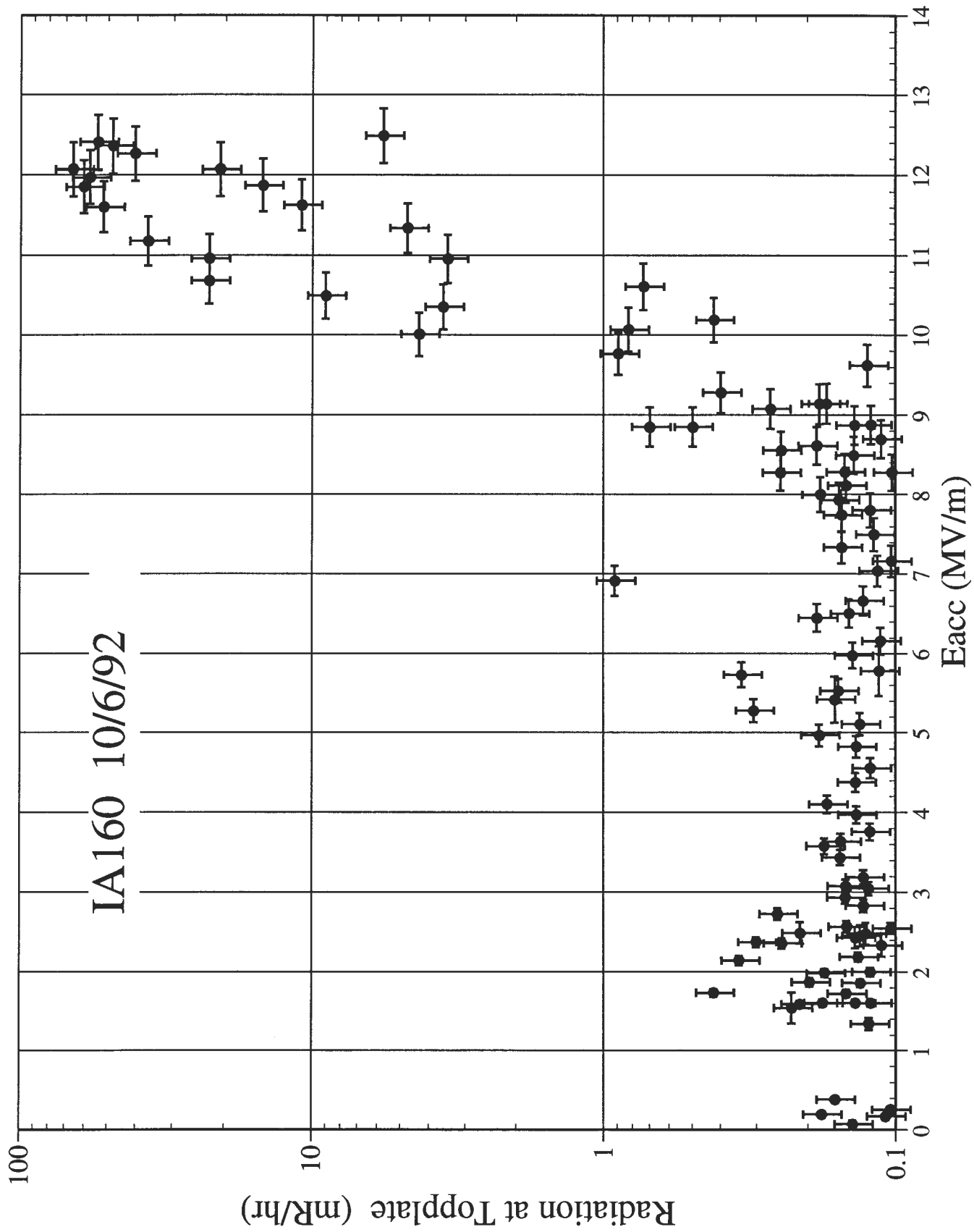
IA160b 10/6/92



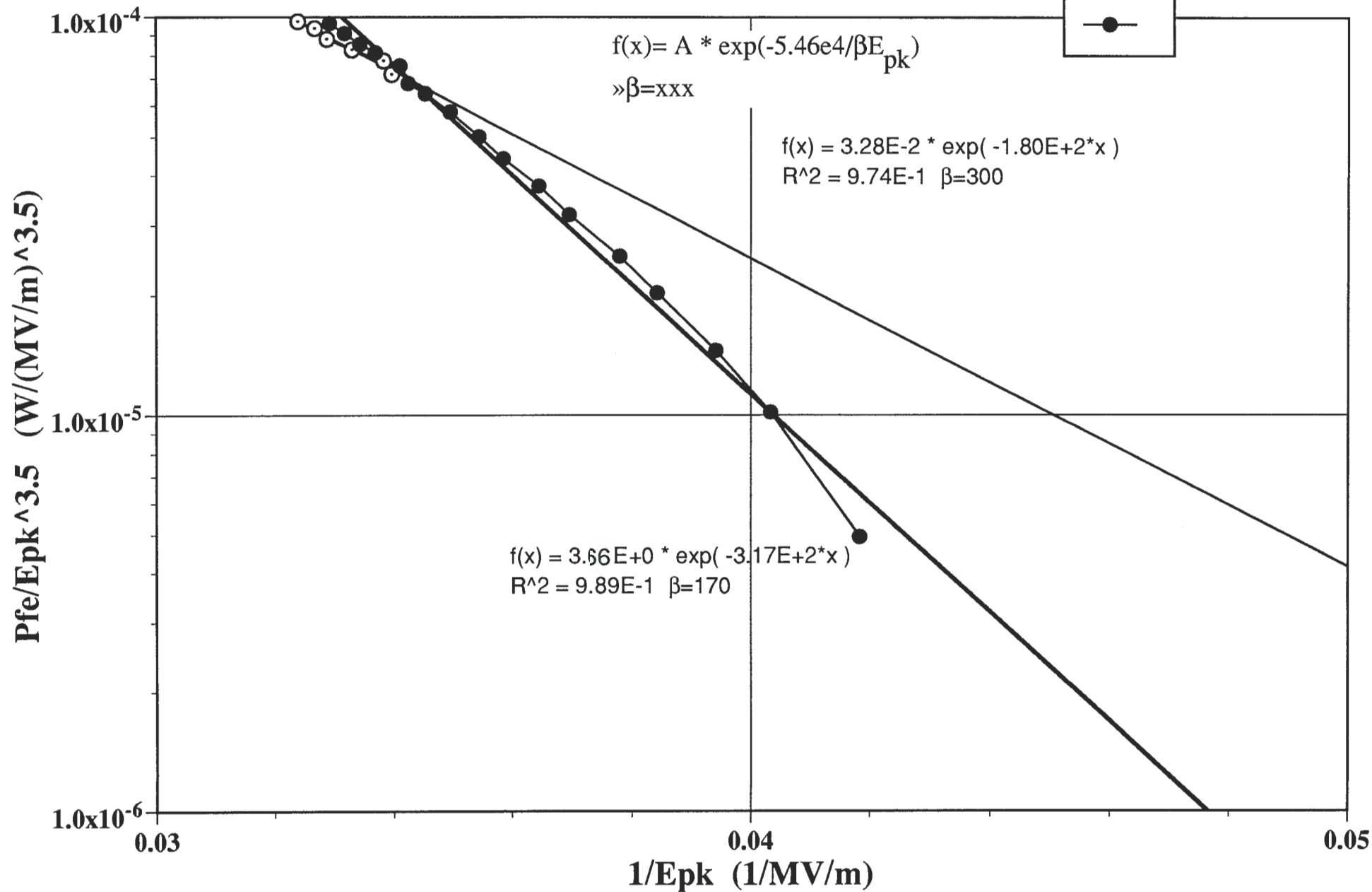
IA160b 10/6/92



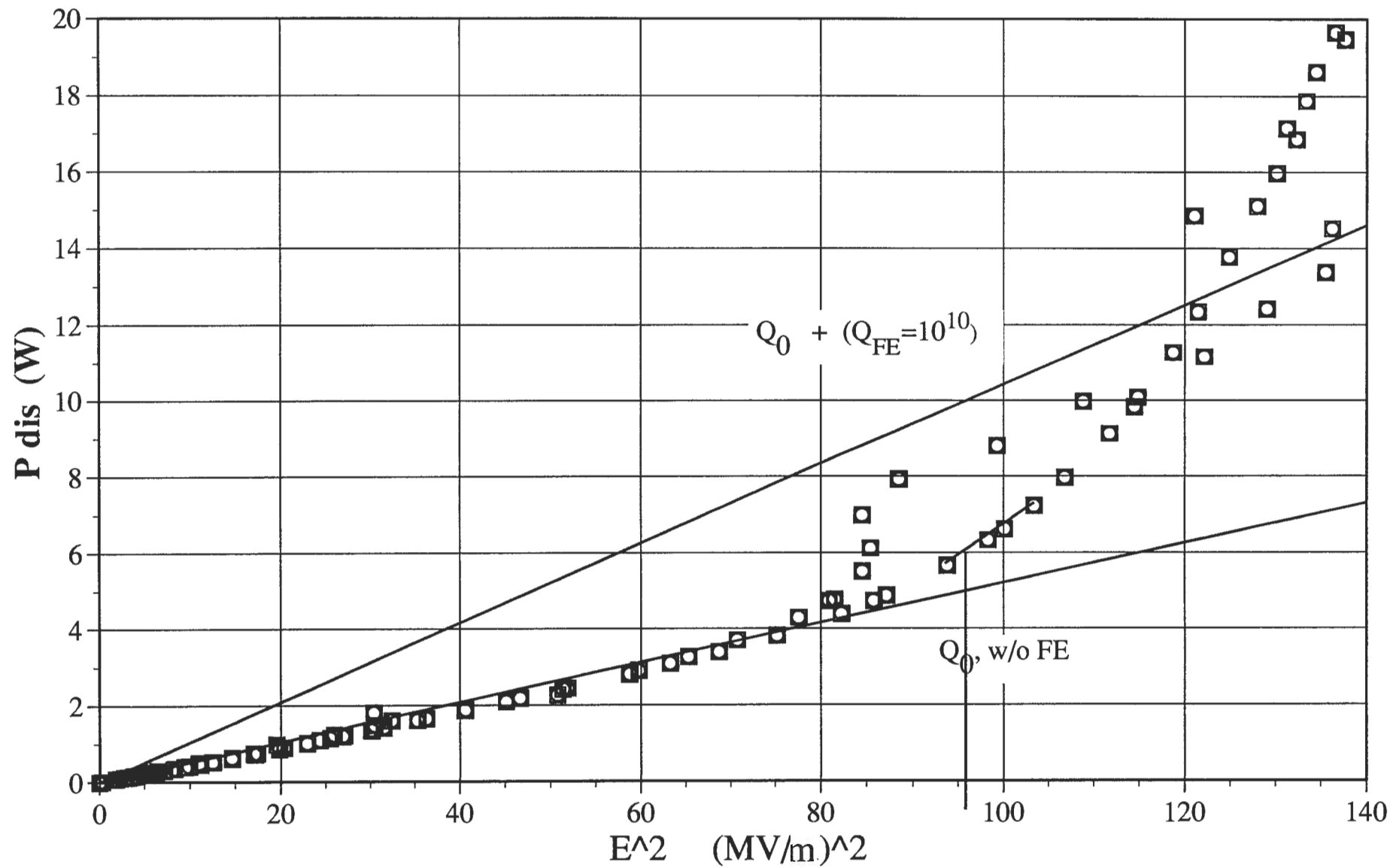


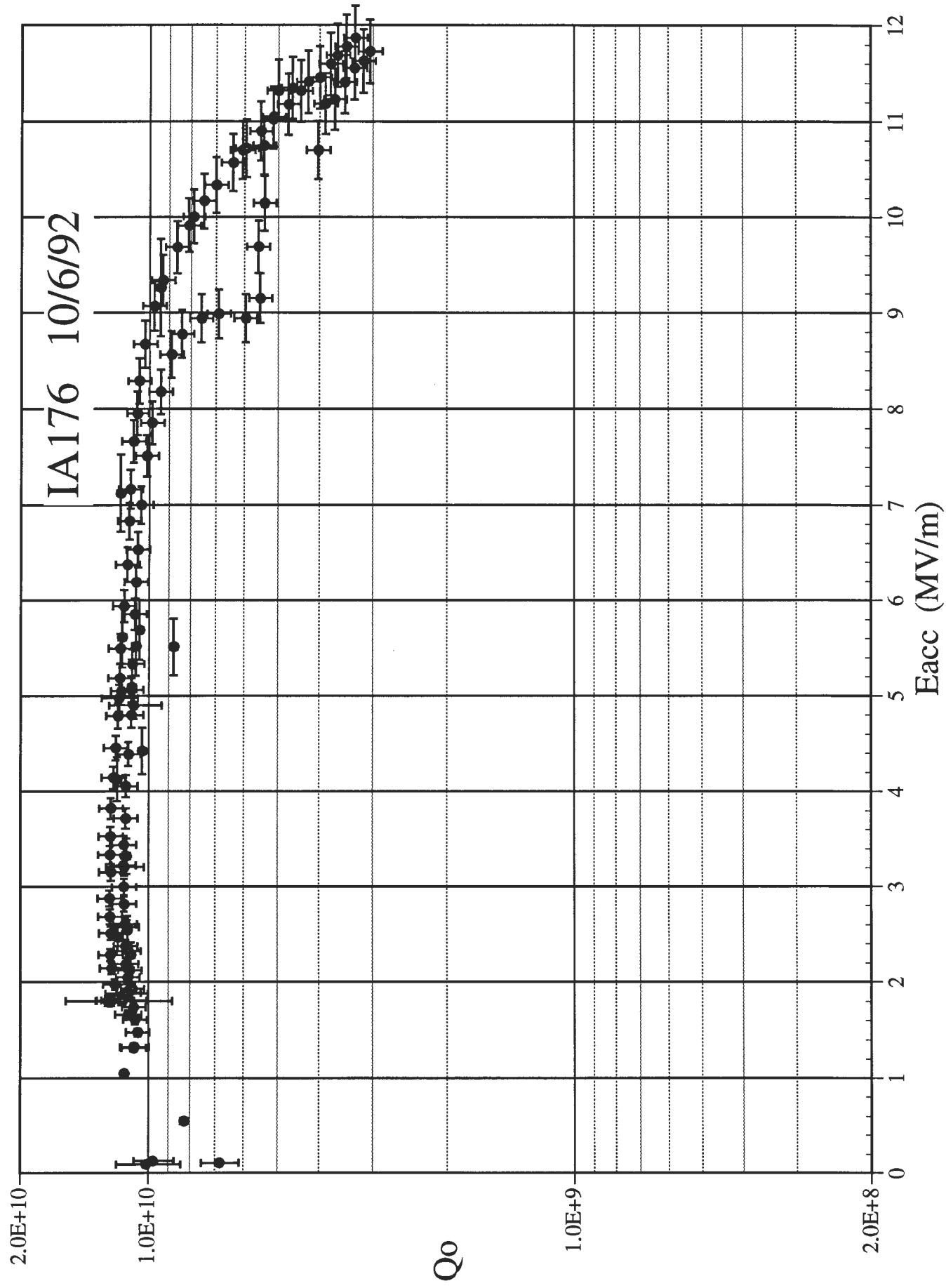


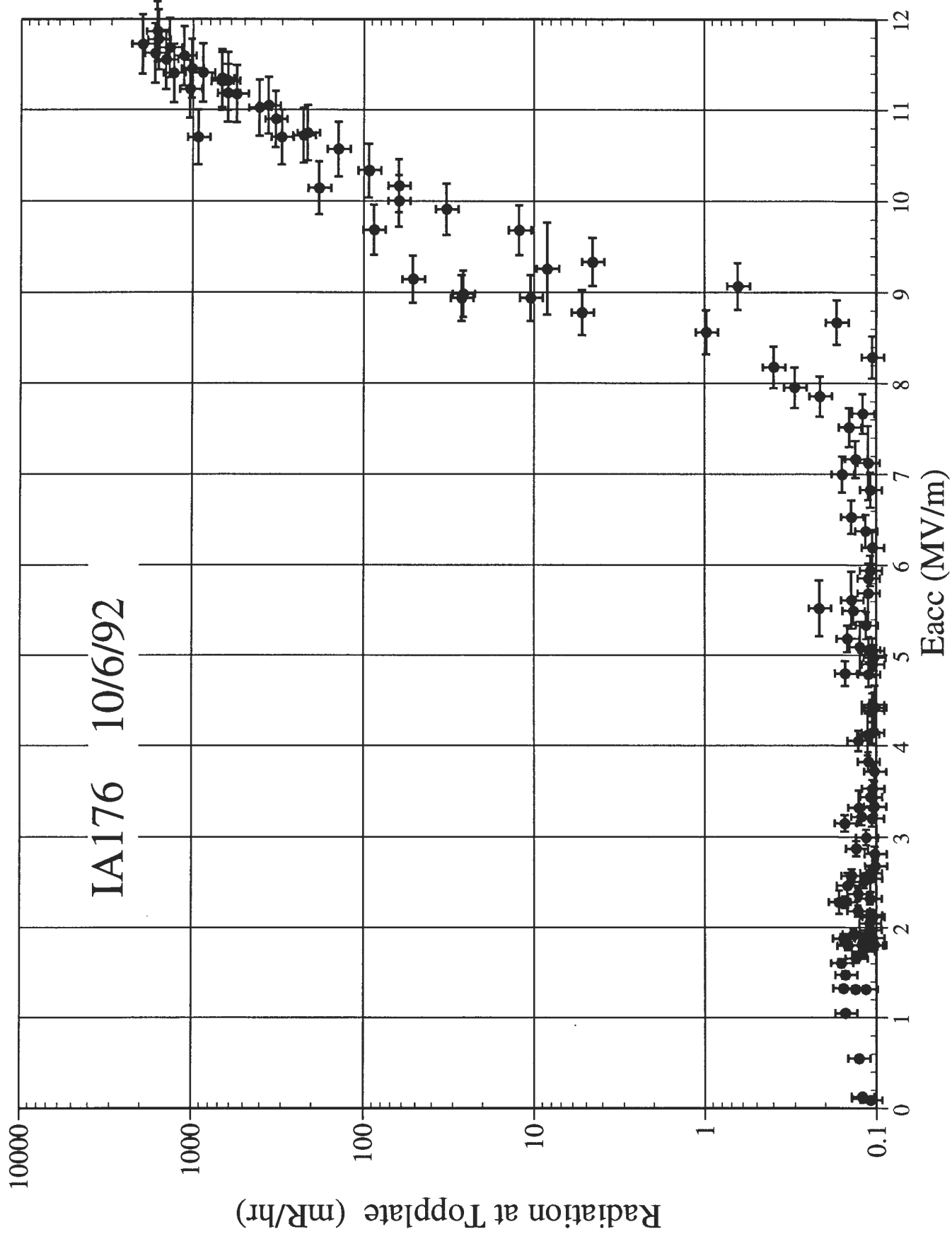
IA176 10/6/92



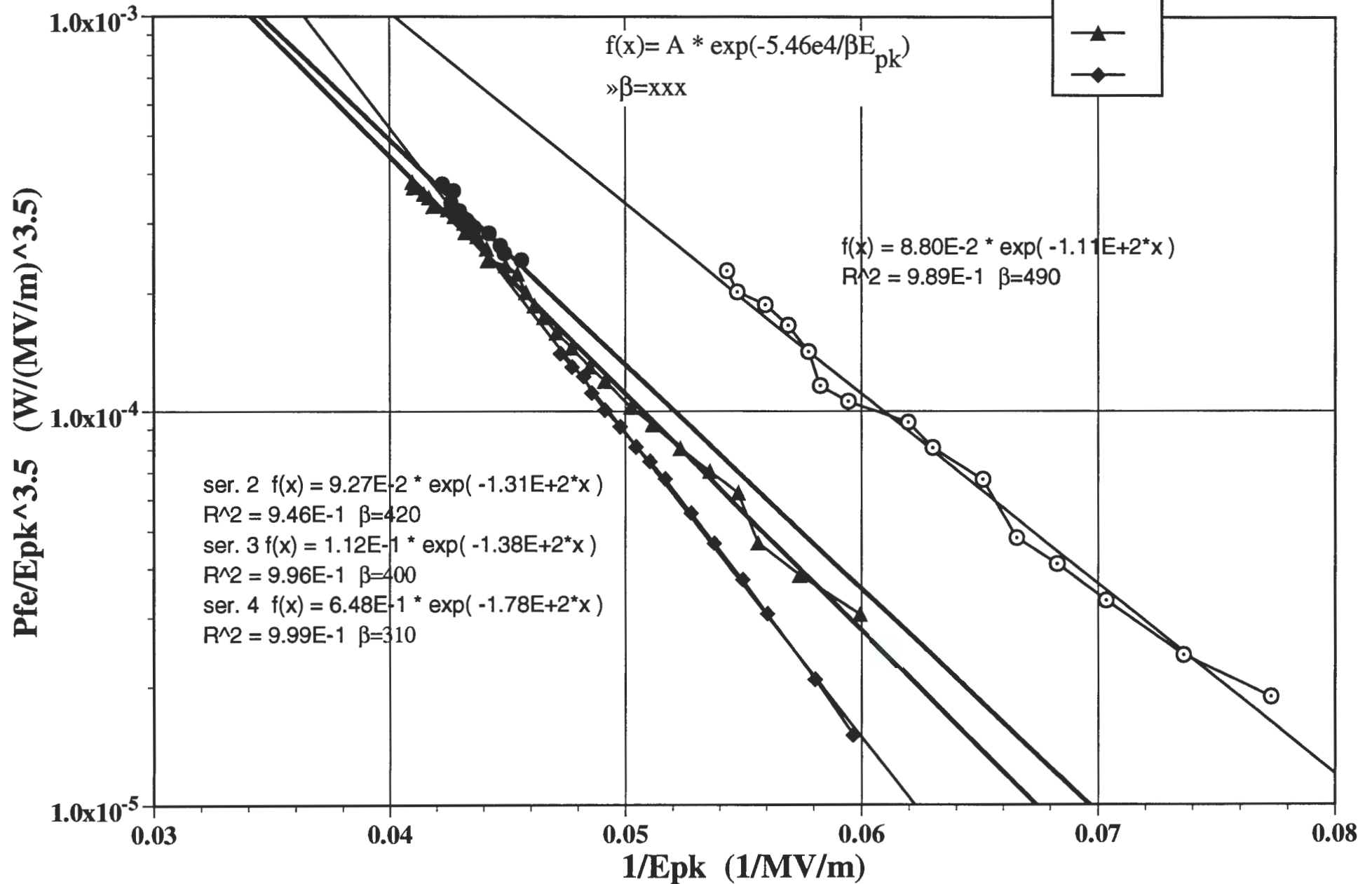
IA176 10/6/92



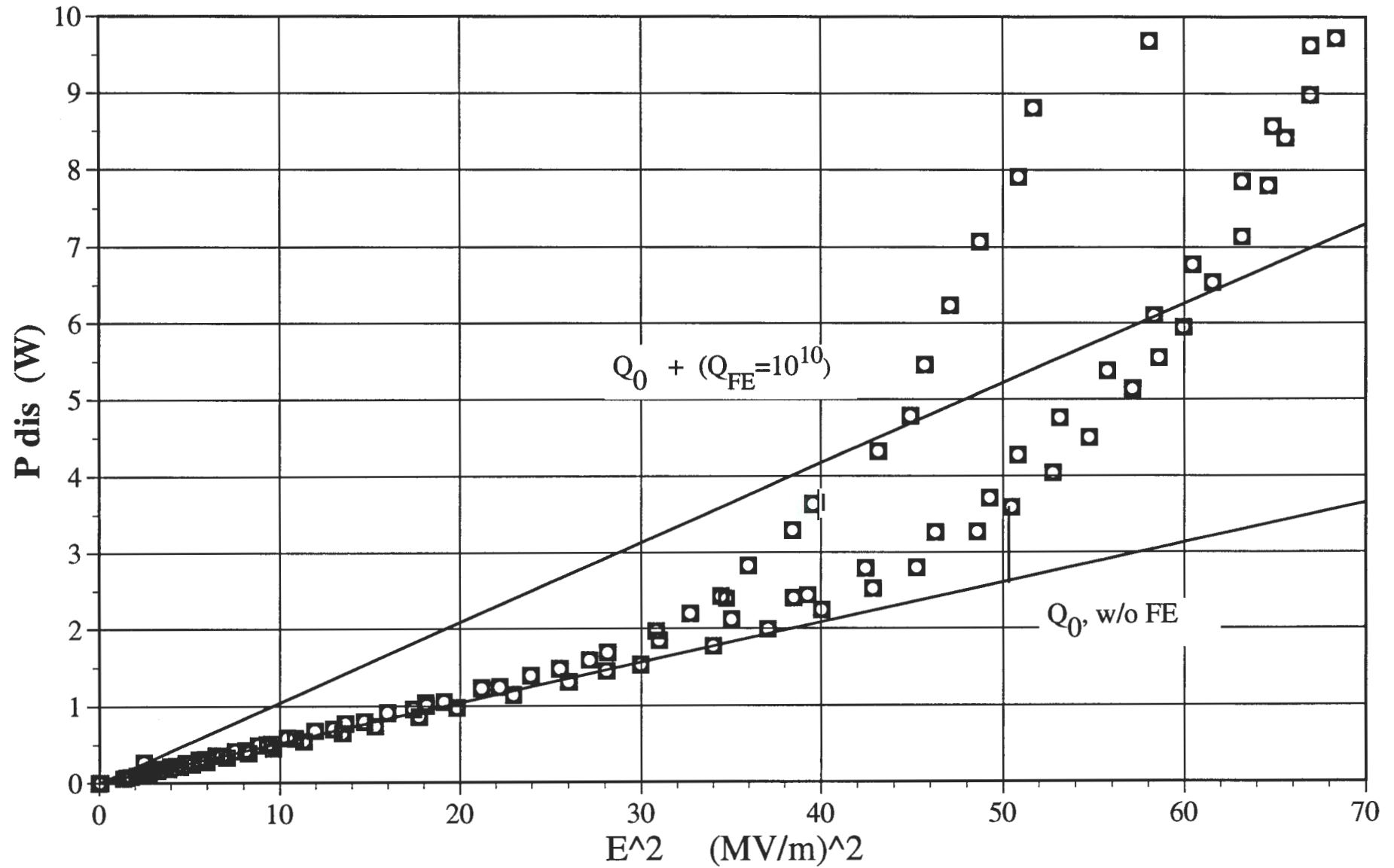


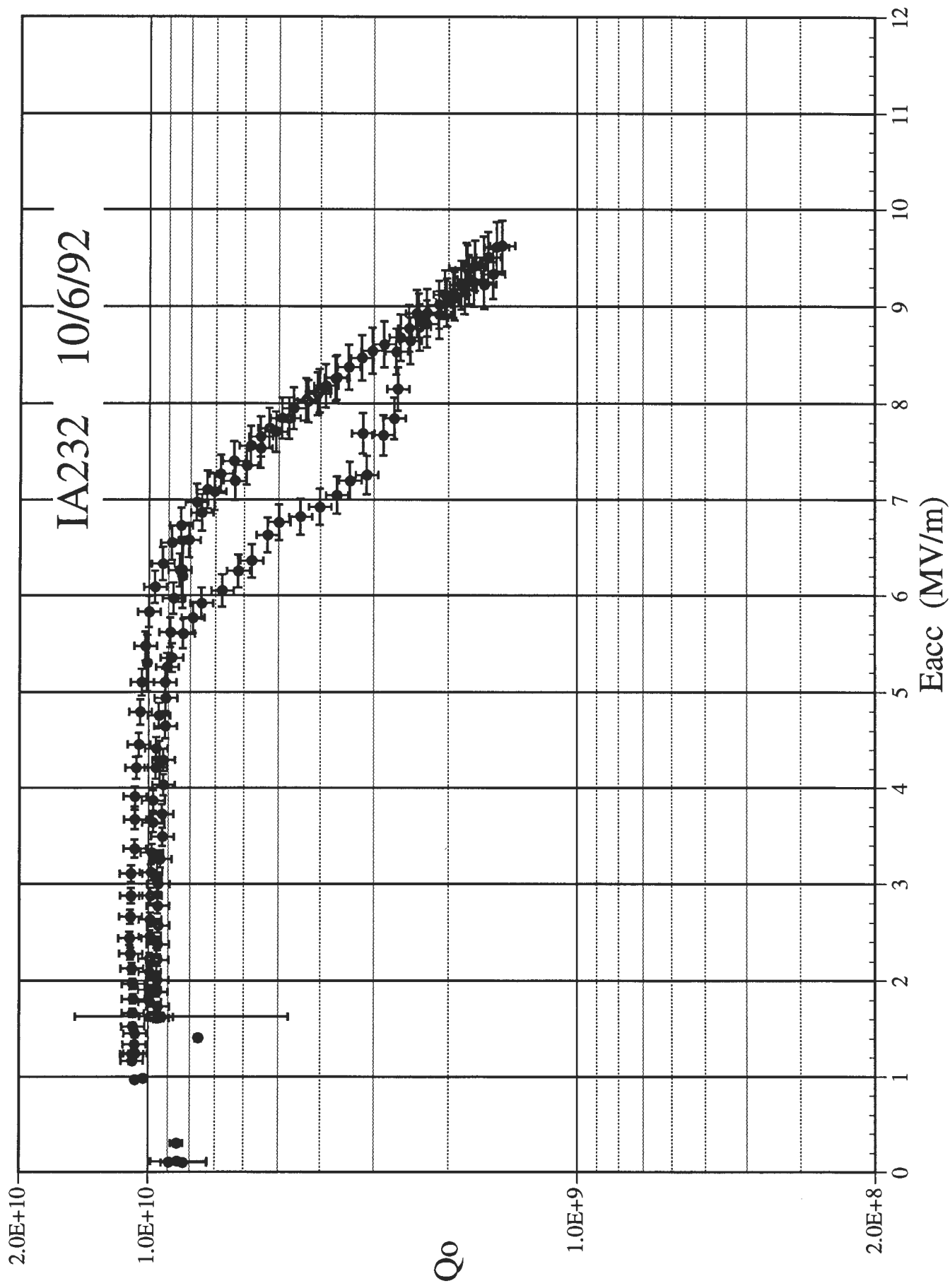


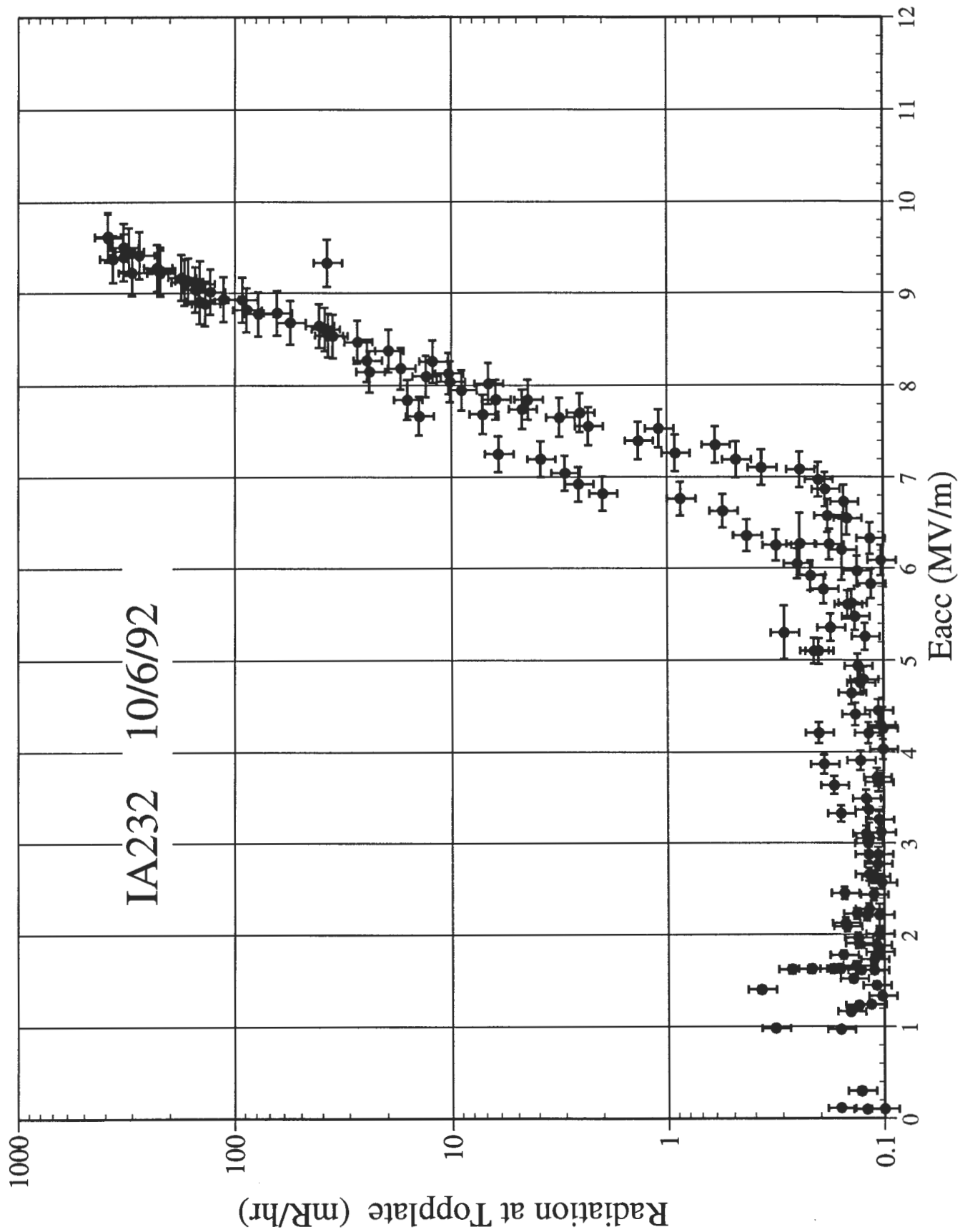
IA232 10/5/93



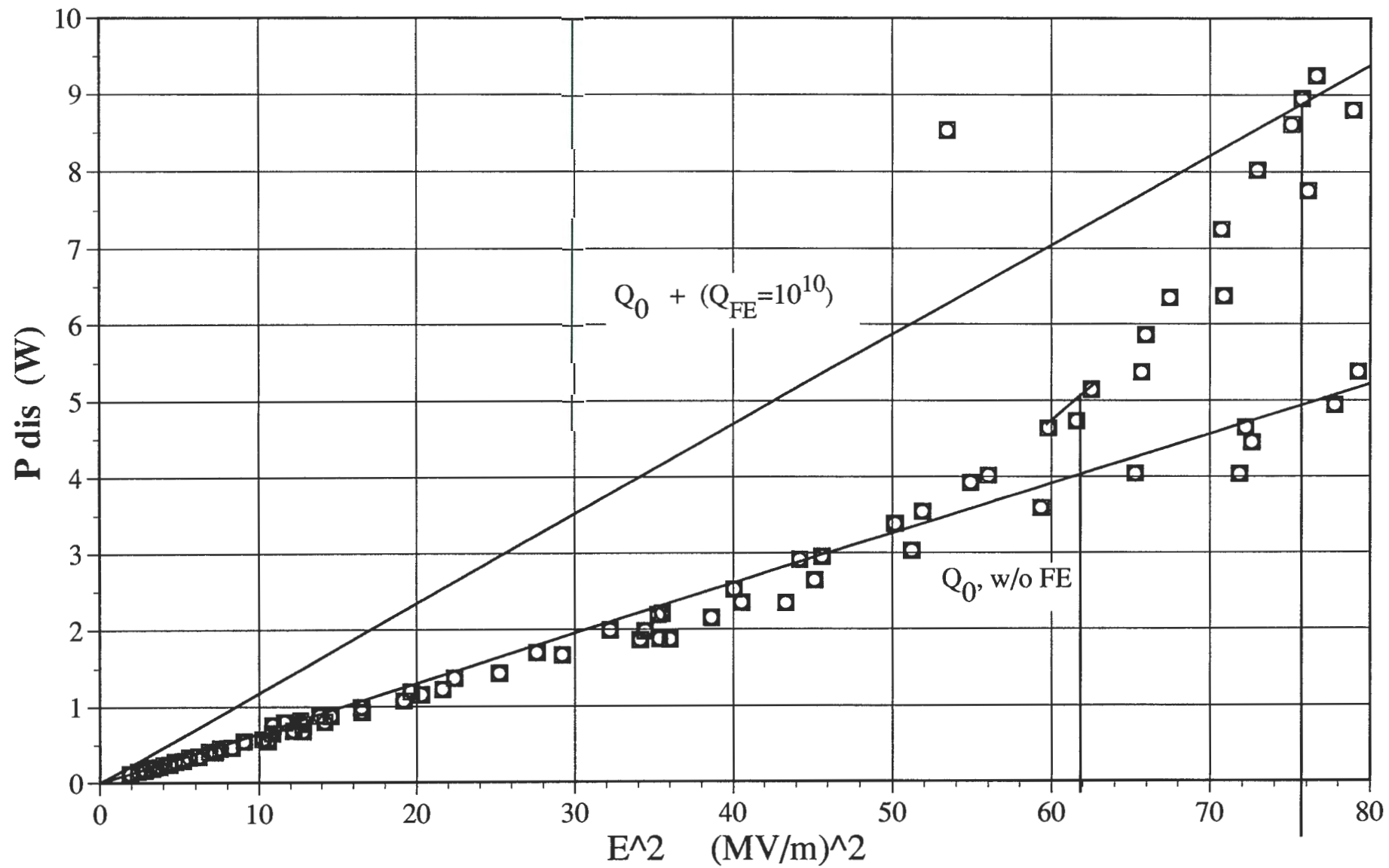
IA232 10/6/92



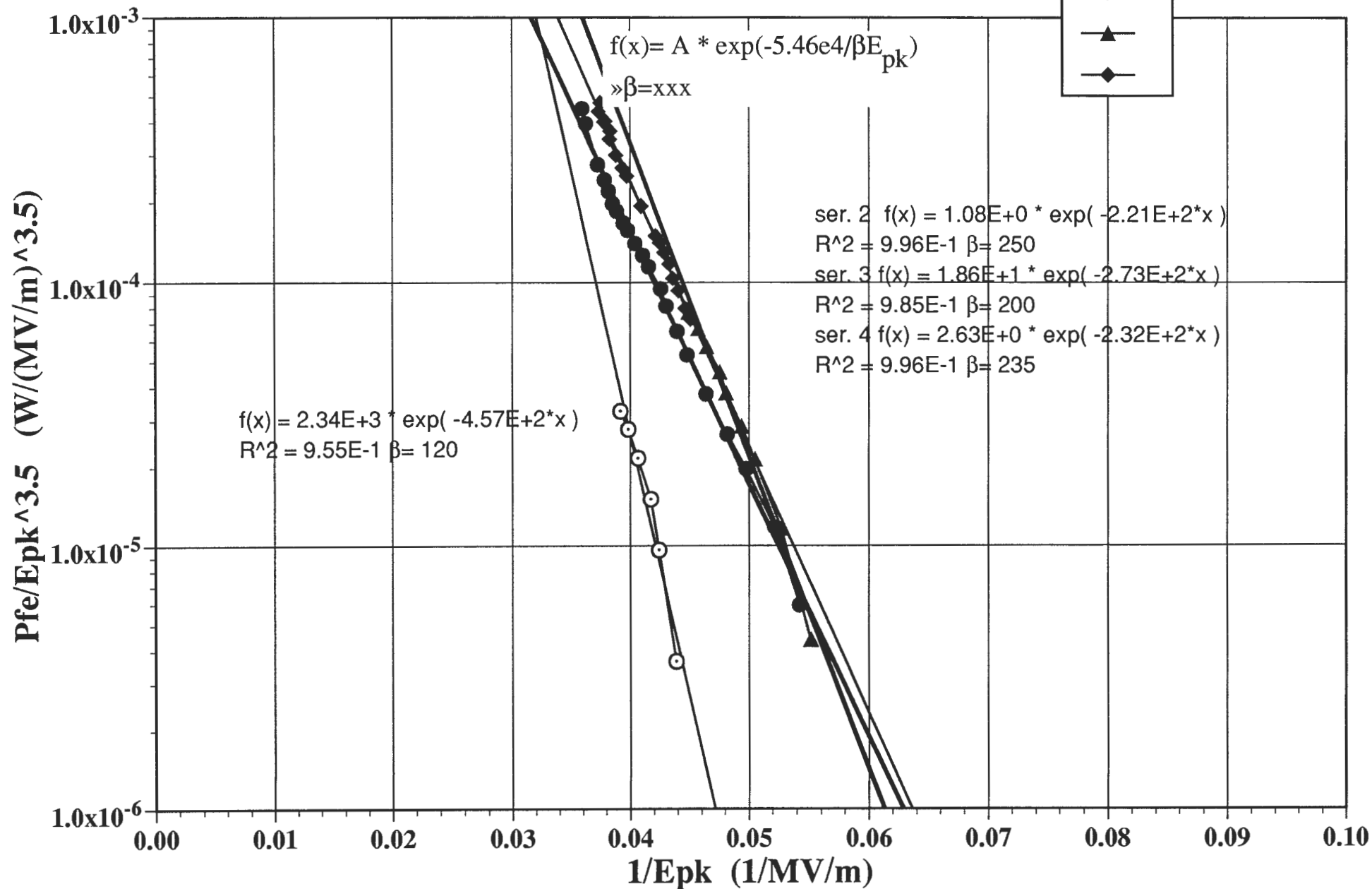


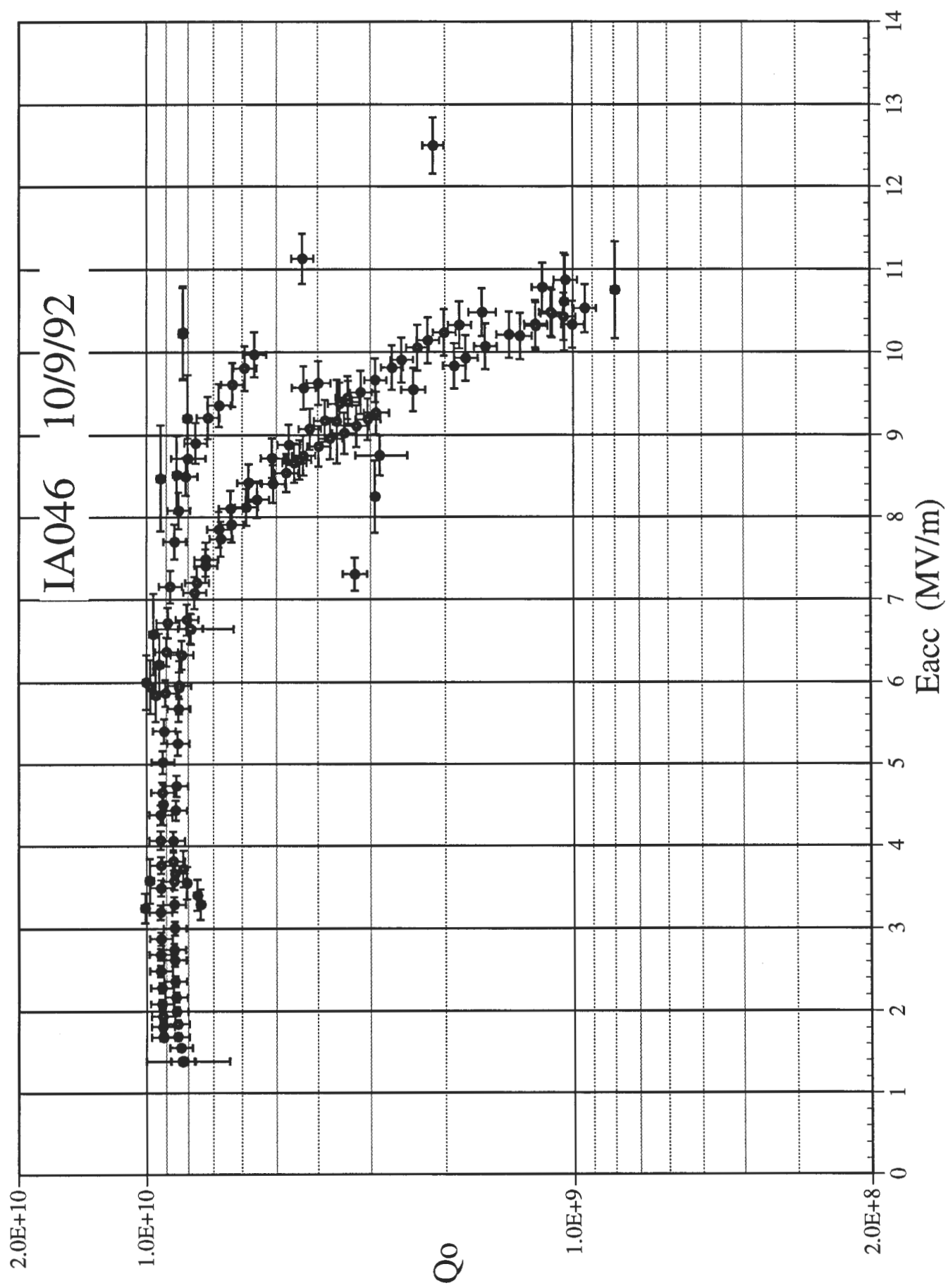


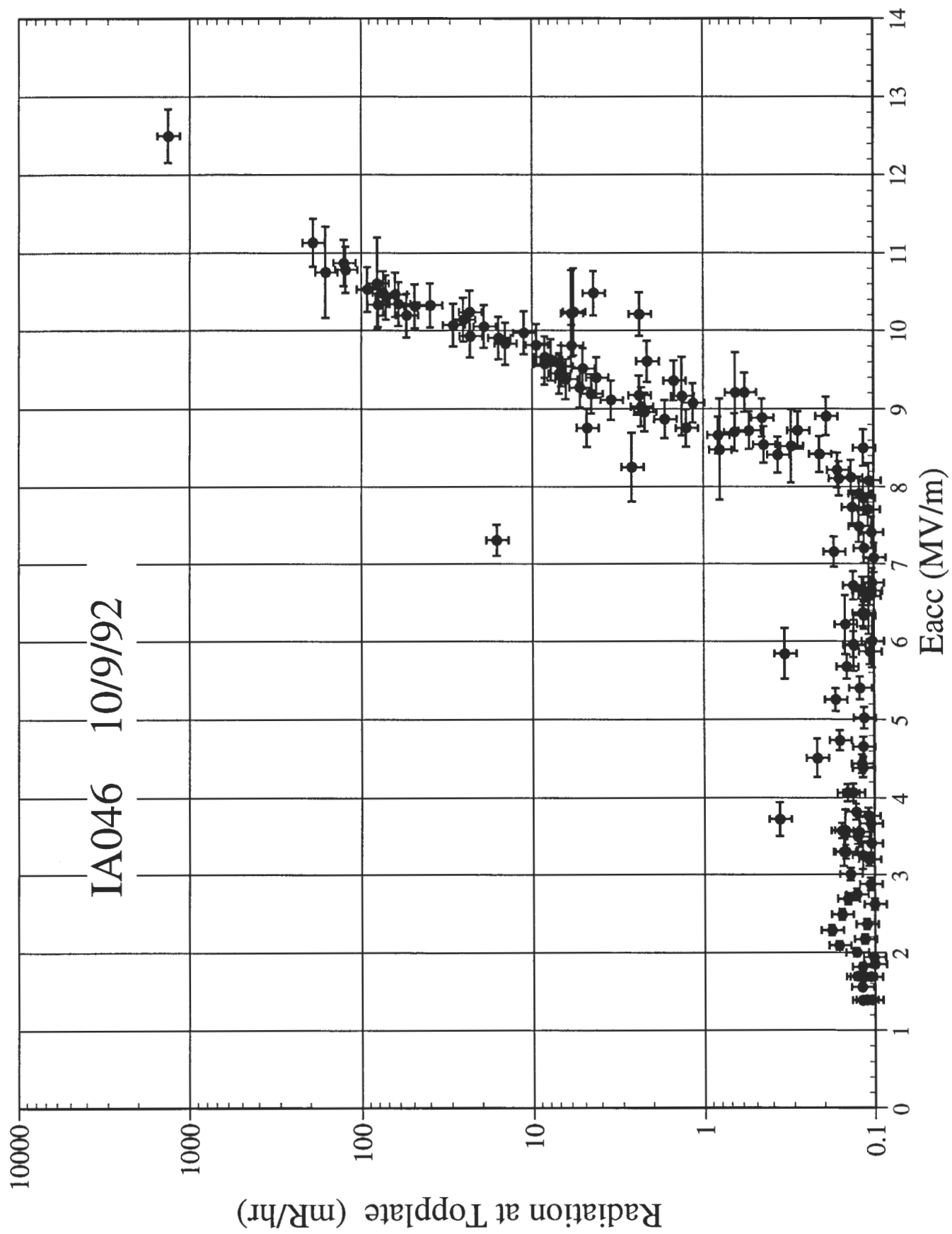
IA046 10/9/92



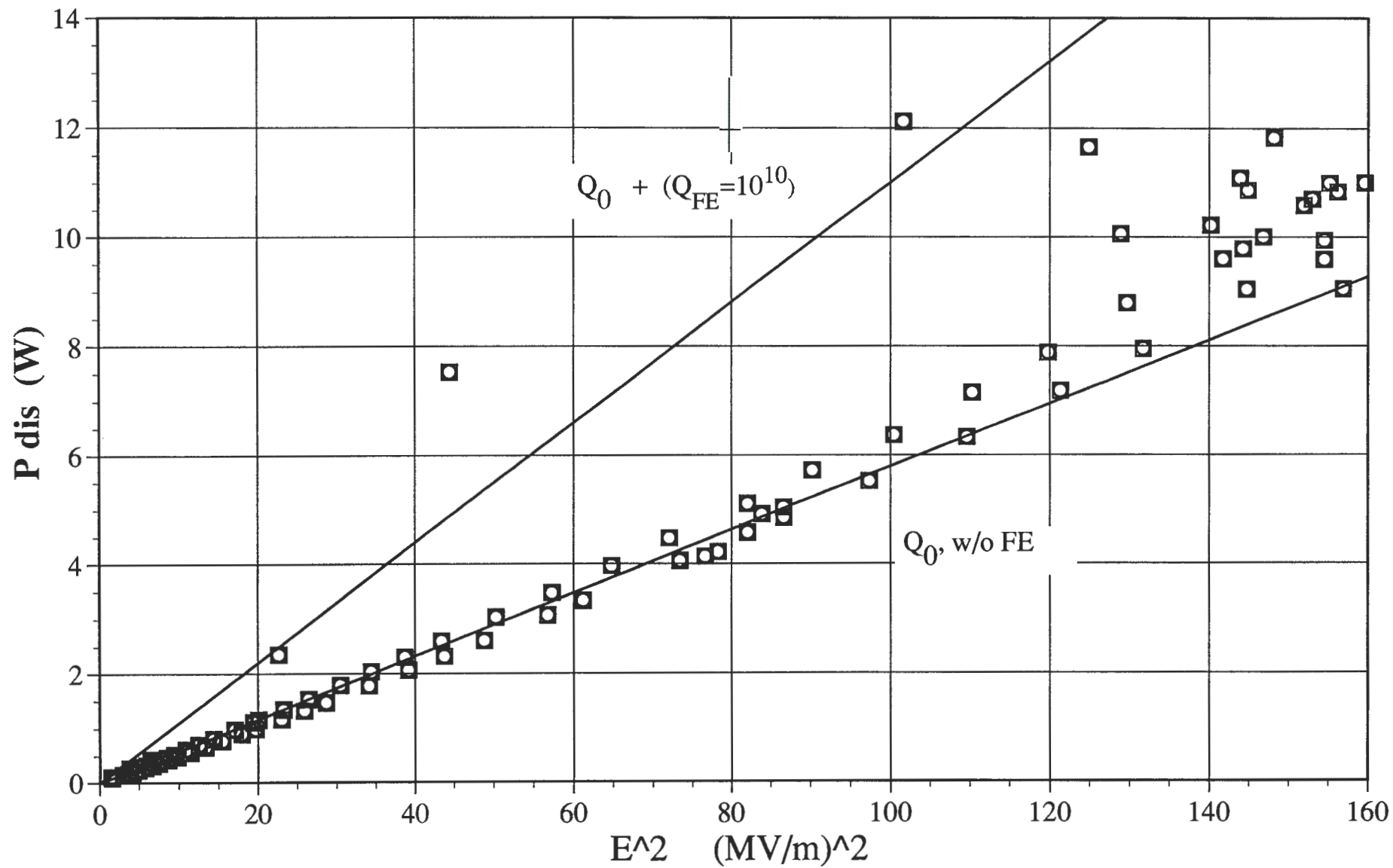
IA046 10/9/92



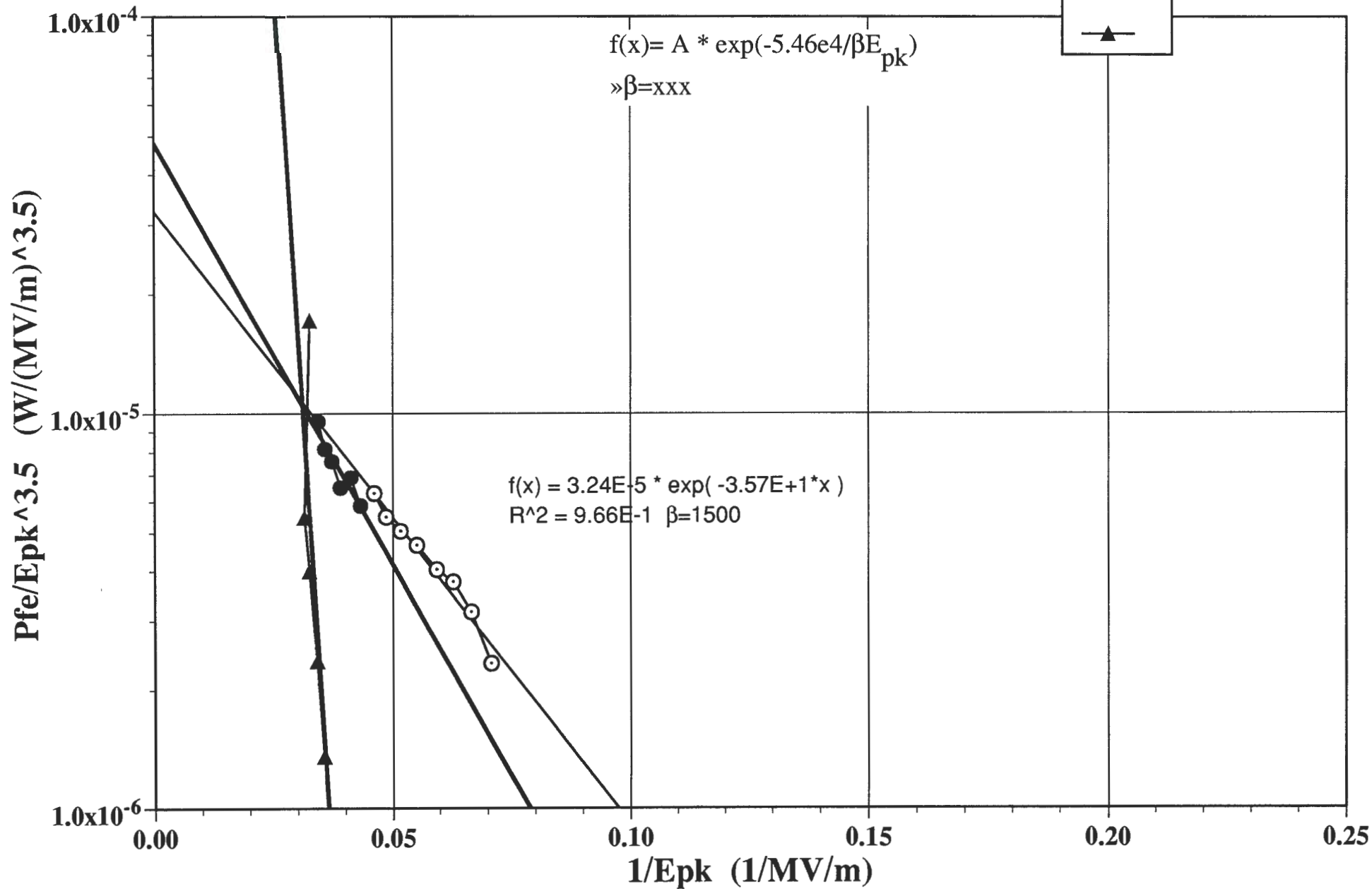


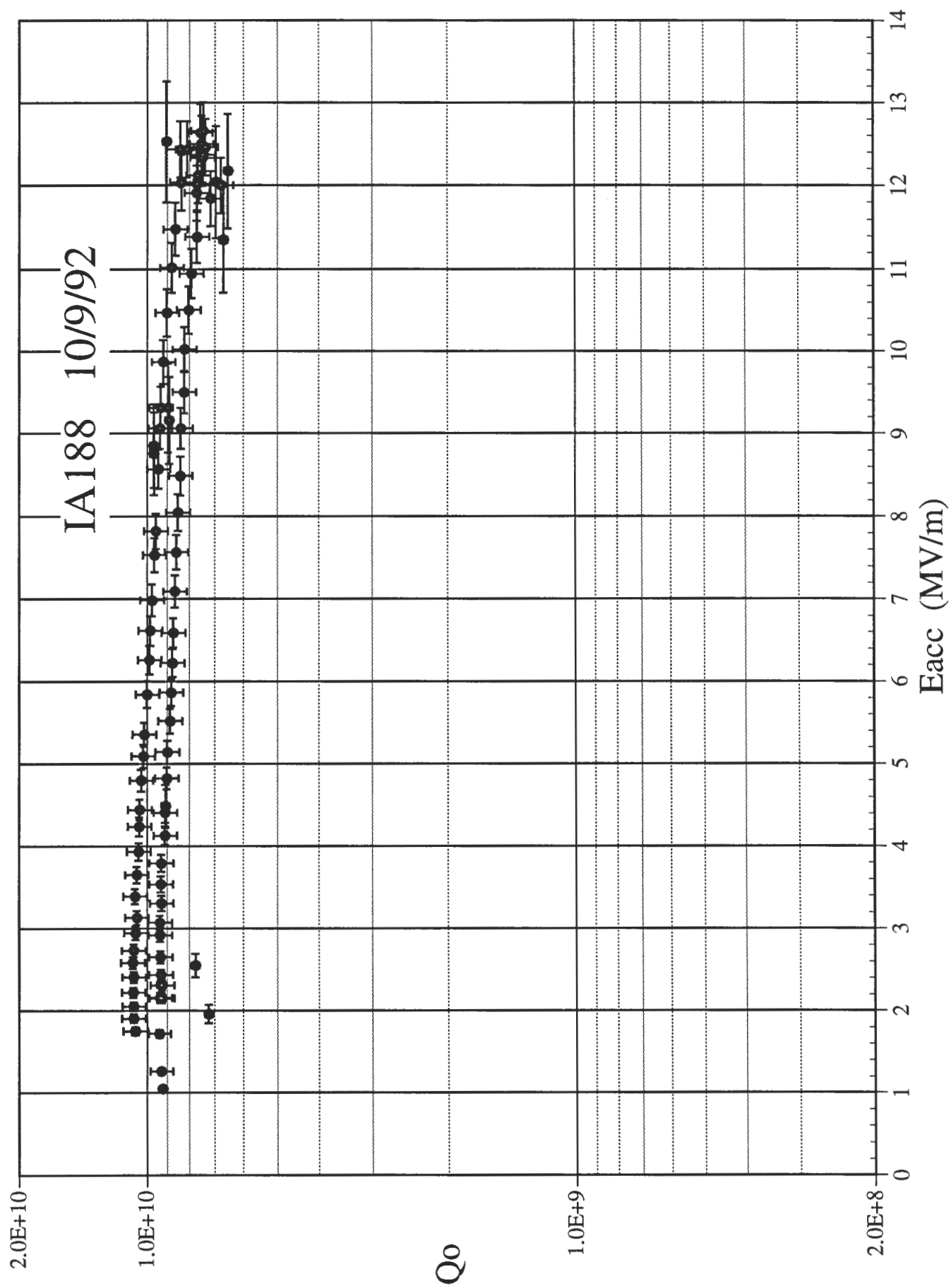


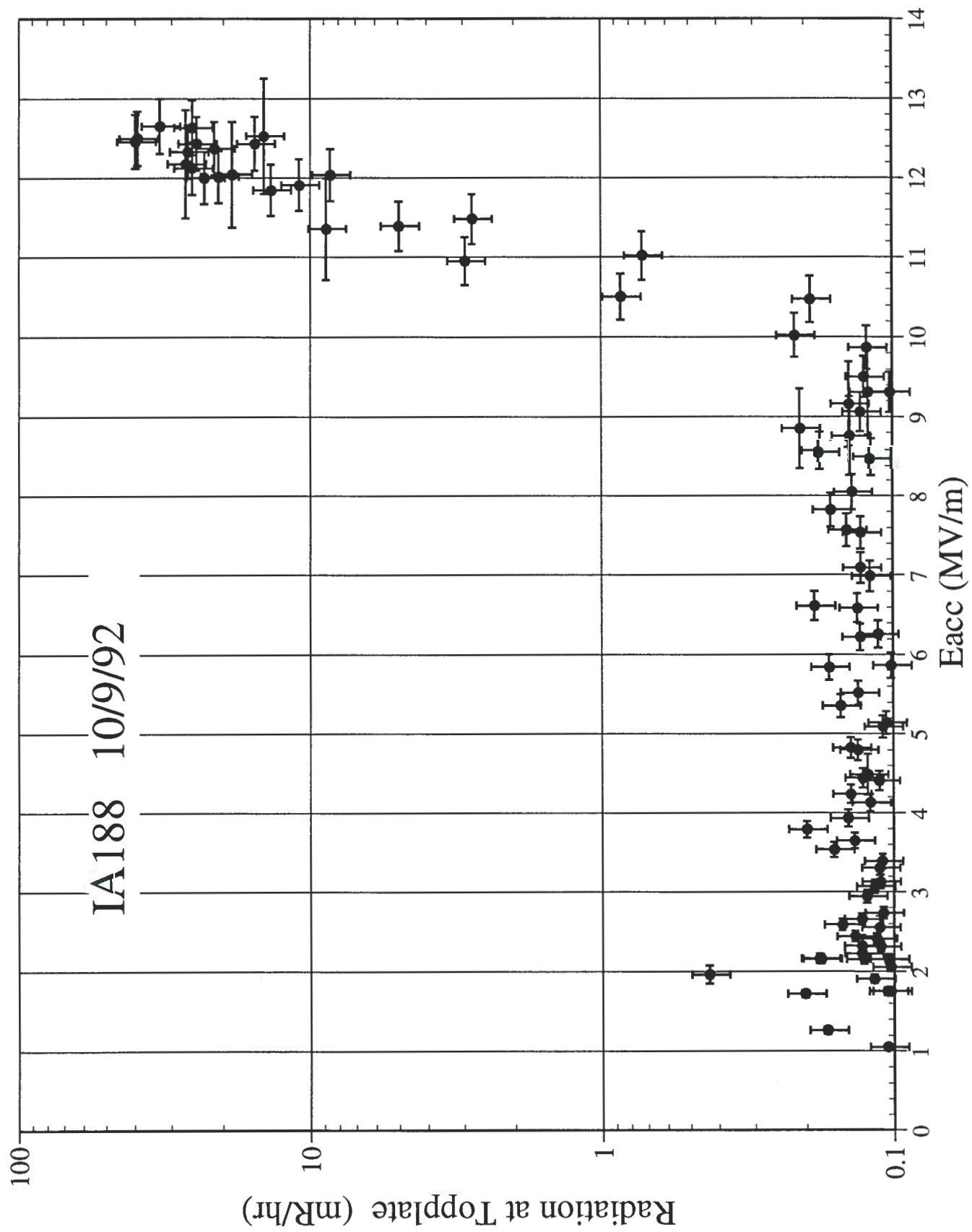
IA188 10/9/92



IA188 10/9/92







VTA RF Test Summary Sheet

5 August 1992

Cavity: ~~CE~~ IA173

Date: 10/12/92

Dewar #: 7

☐ Top
☒ Bottom

Topplate #

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	4.2				
π	2.0	1497.0569	1.56	0	1.02
$4\pi/5$	2.0	1492.5240			
$3\pi/5$	2.0	1480.8512			
$2\pi/5$	2.0	1467.2682			
$\pi/5$	2.0	1455.7695			
Hat	2.0		E5		

Gradient Limitation

Quench @ Eacc= _____

Input limitation

FE Loading @ Eacc= _____

Radiation Tolerance (@ _____ mR/hr)

Other : _____

E_{max} 17.14 1.93

E_{max} usable 14.3 6.25

Window Hat Q Data

S11[R] - 518.5

Operator

S11[D] 667

Powersfo (MHz) 1428.59bw (MHz) 0.0781

HOM Data

Freq	Ol
------	----

1975.4 4143

1979. Y 1800

Onset of measurable Radiation : 11 MV/m

Notes: Very overcomplicated with complex parts all of the way out

Notes:

Notes: _____

Notes:

Notes:

Notes:

VTA RF Test Summary Sheet

5 August 1992

Cavity: IA214C

Date: 10-12-92

Dewar #: 7

X Top
 — Bottom

Topplate # 4x

Mode	Temp	Freq	Qo	Cplr Pos	Qe2
	K	MHz	E9	%	E11
π	<u>4.2</u>	<u>1497.0114</u>	<u>10.0</u>	<u>18</u>	<u>0.935</u>
π	2.0				
4 π /5	2.0	<u>1492.2948</u>			
3 π /5	2.0	<u>1480.7251</u>			
2 π /5	2.0	<u>1467.0458</u>			
π /5	2.0	<u>1455.9054</u>			
Hat	2.0		E5		

Gradient Limitation

Quench @ Eacc= 8.75

(Input limitation) Qex

FE Loading @ Eacc= _____

Radiation Tolerance @ _____ mR/hr

Other : _____

Eacc	Qo
MV/m	E9
1.0	<u>9.75</u>
5.0	<u>9.55</u>
8.0	<u>4.7</u>
10.0	
Eacc	<u>8</u>
<u>8.75</u>	<u>4.7</u>
Eacc usable	<u>8</u>
	<u>4.7</u>

Window Hat Q Data

HOM Data

Freq	Q1
<u>1977.1</u>	<u>4000</u>
<u>1981.5</u>	<u>2500</u>

S11[R] <u>-508.3</u>	Operator
S11[D] <u>637.3</u>	<u>Powers</u>
fo (MHz) <u>1427.26</u>	
bw (MHz) <u>0.0875</u>	

Onset of measurable Radiation : 7 MV/m

Notes: The coupler ~~cannot~~ Reflected and ~~IRX~~ Inc. power fluctuations noted (Shooting?) when coupler

Notes: is at a position > 30% all power settings!

Notes: _____

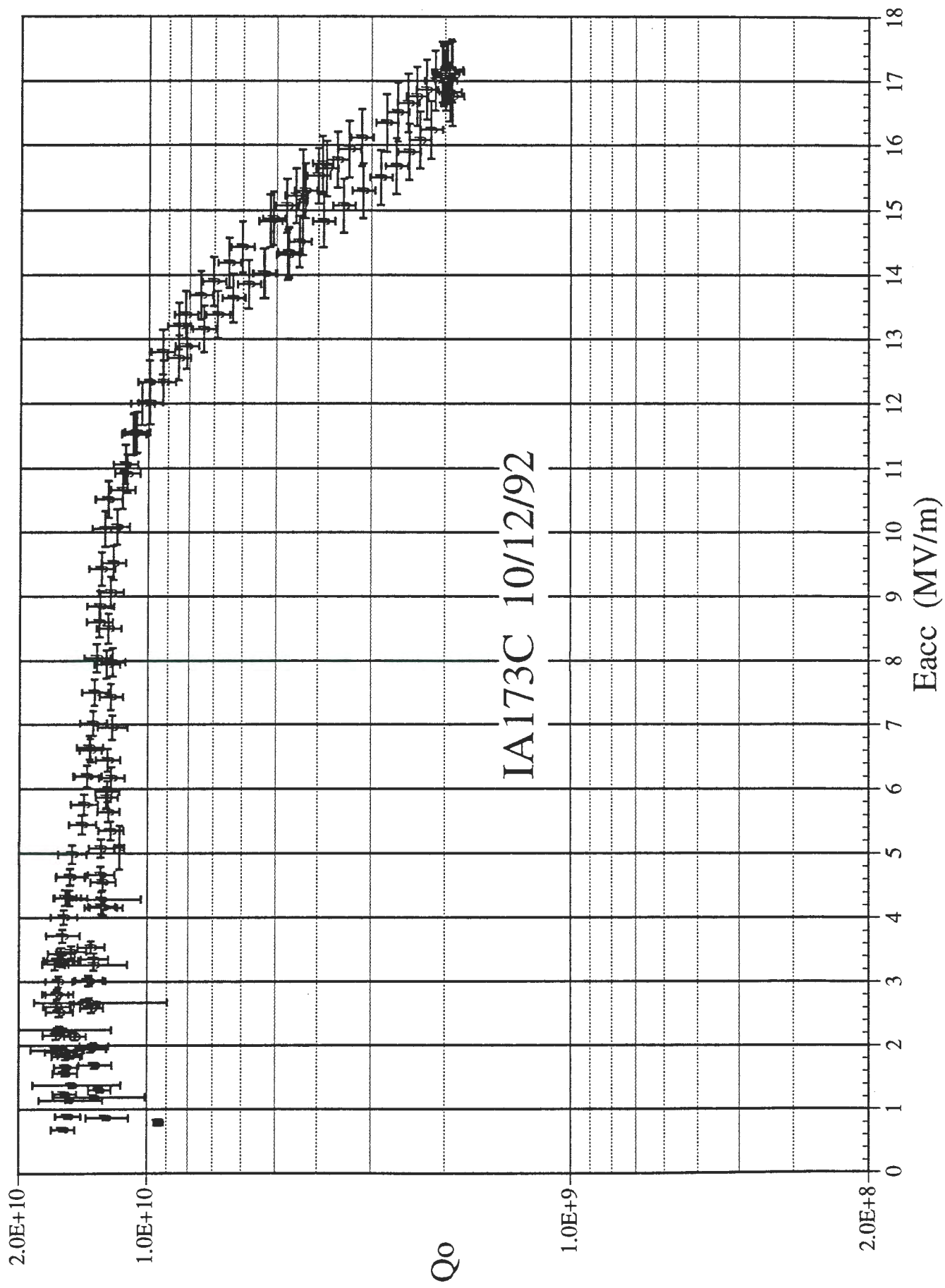
Notes: _____

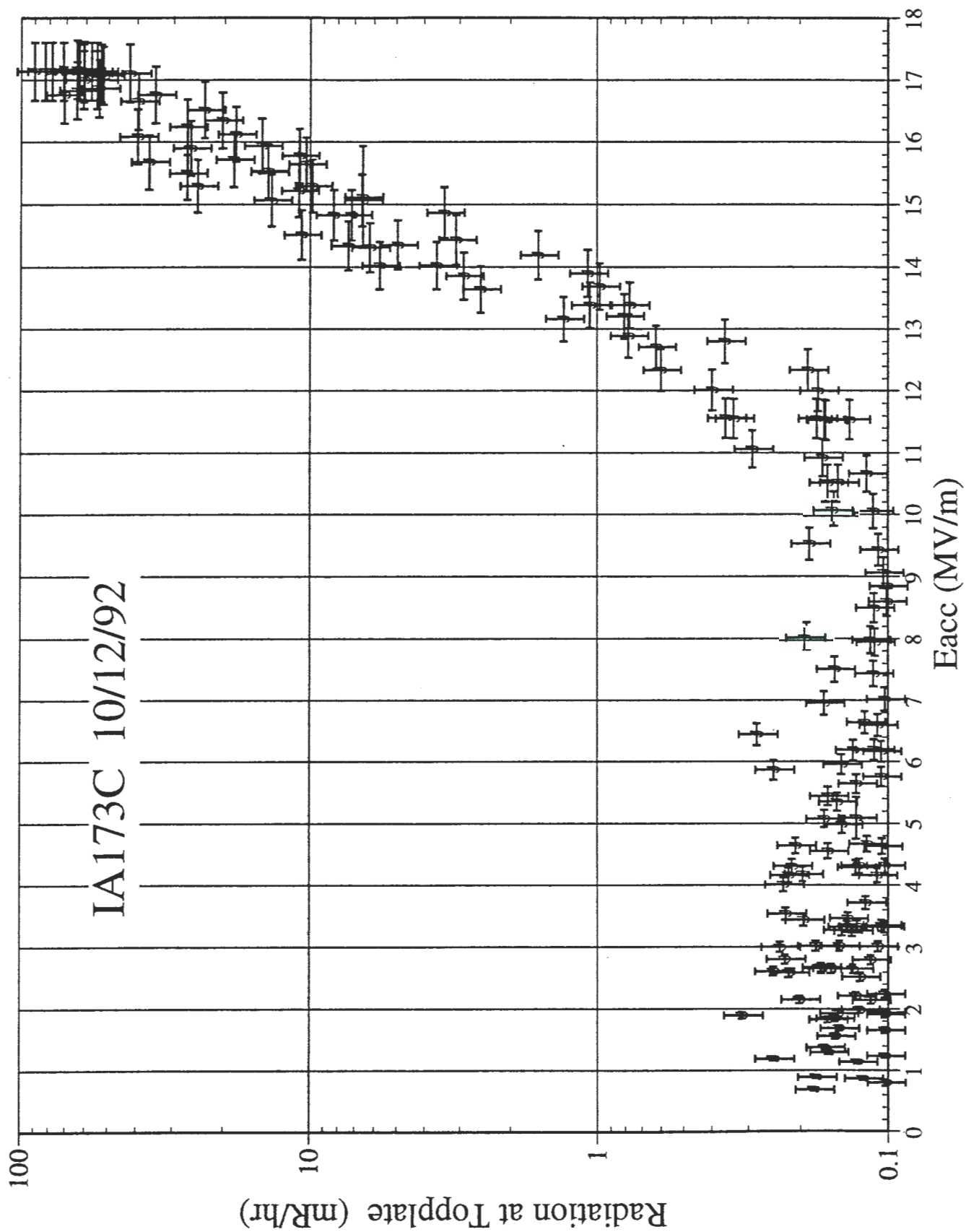
Notes: _____

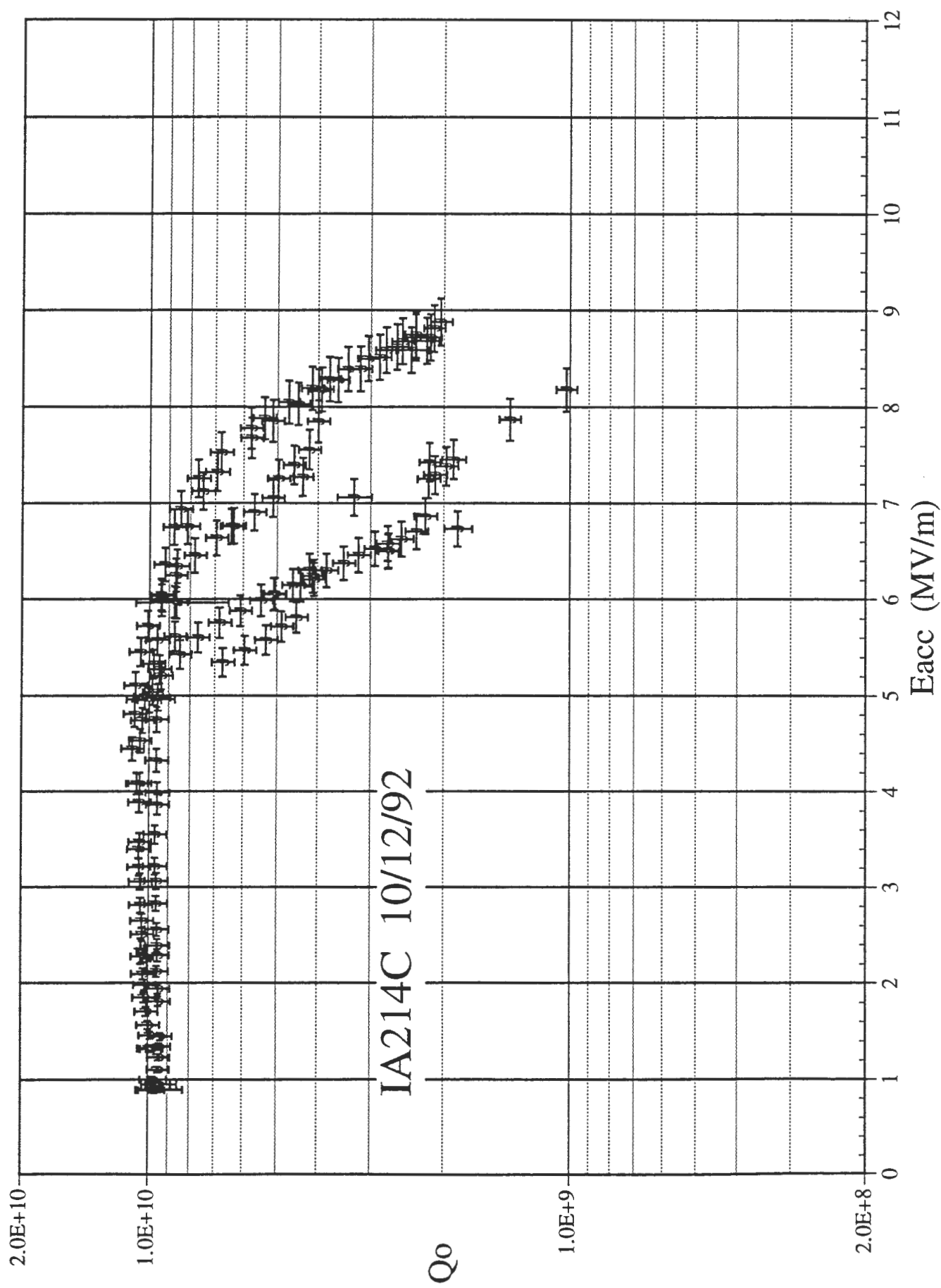
Notes: _____

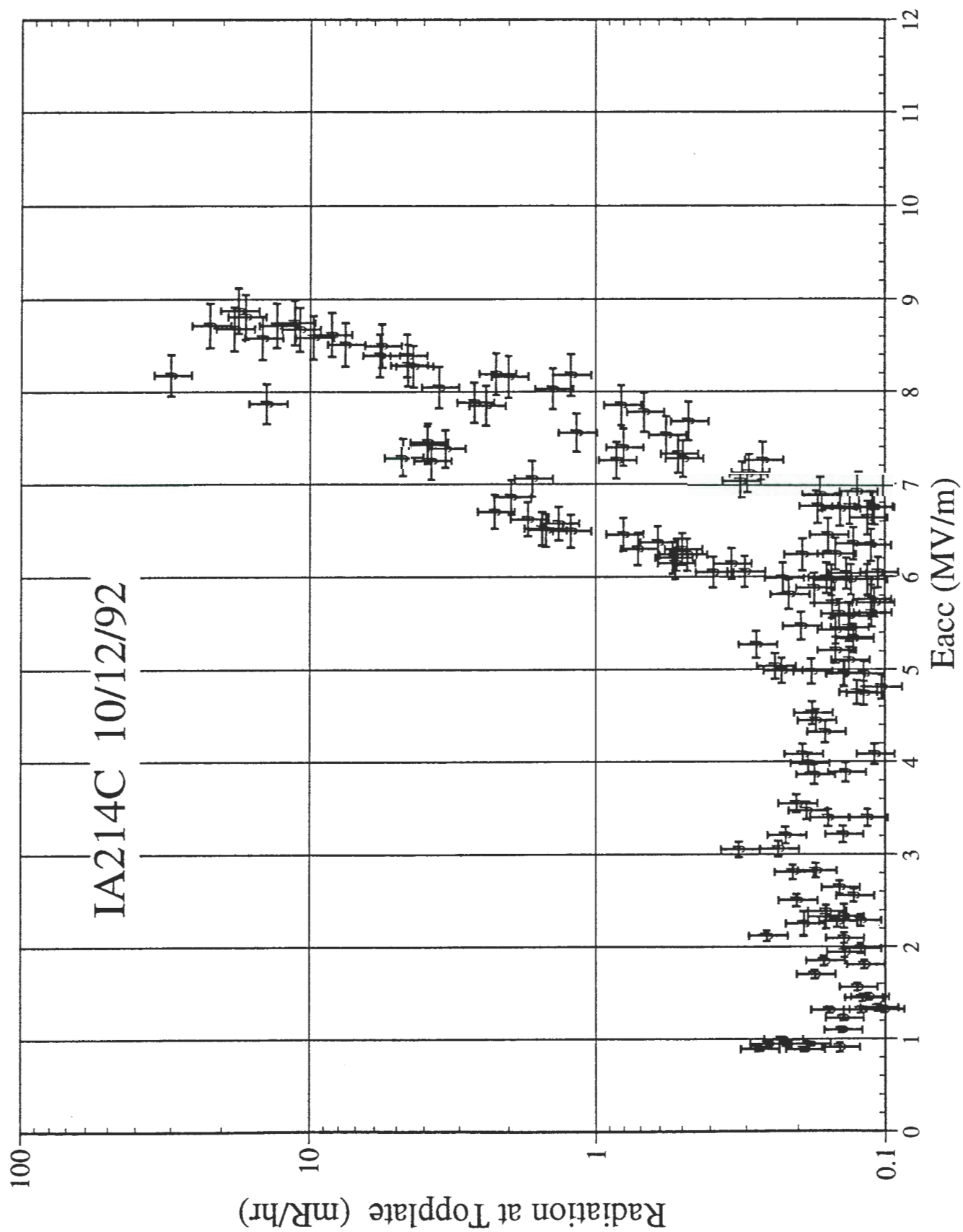
Notes: _____

Notes: _____

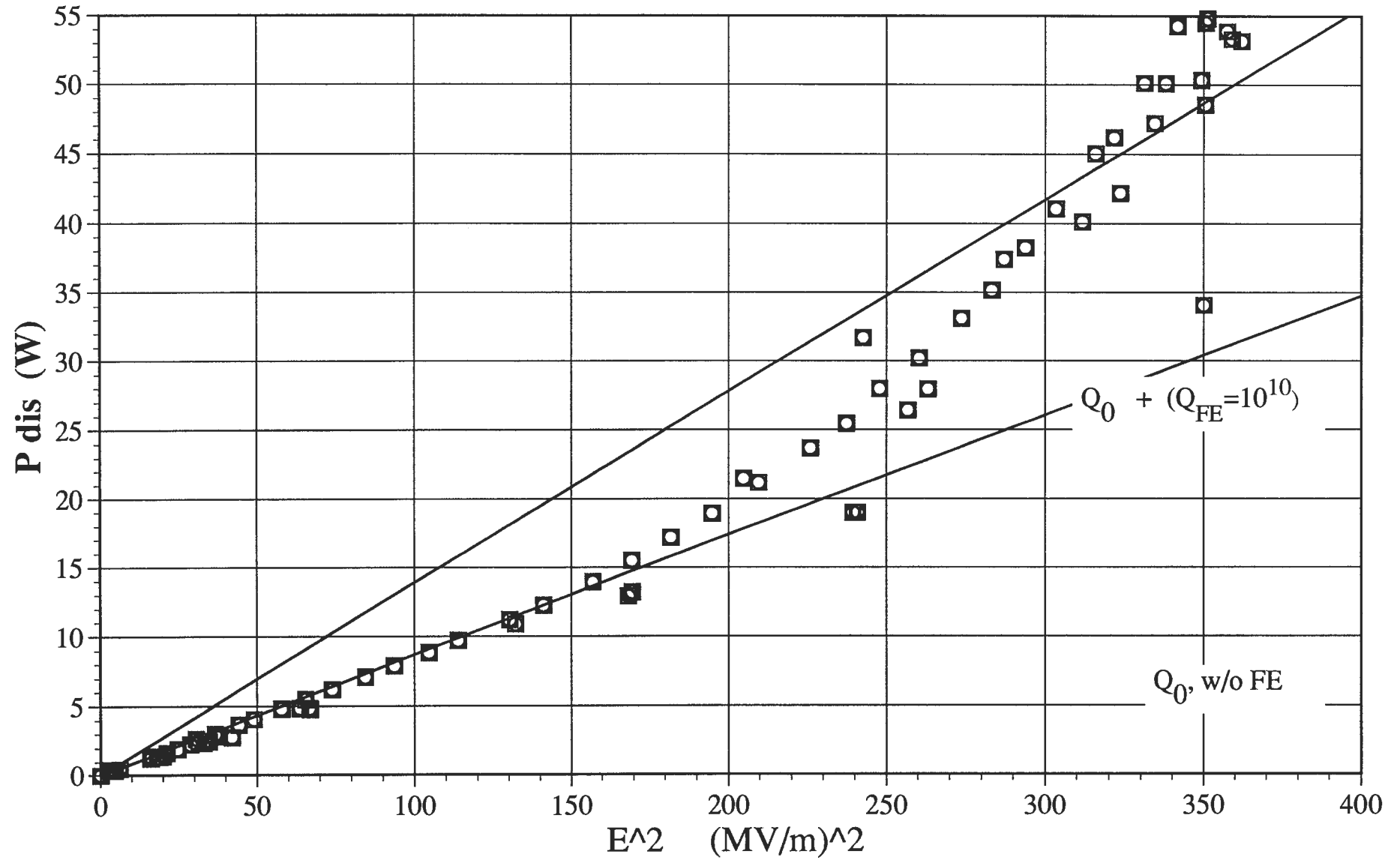




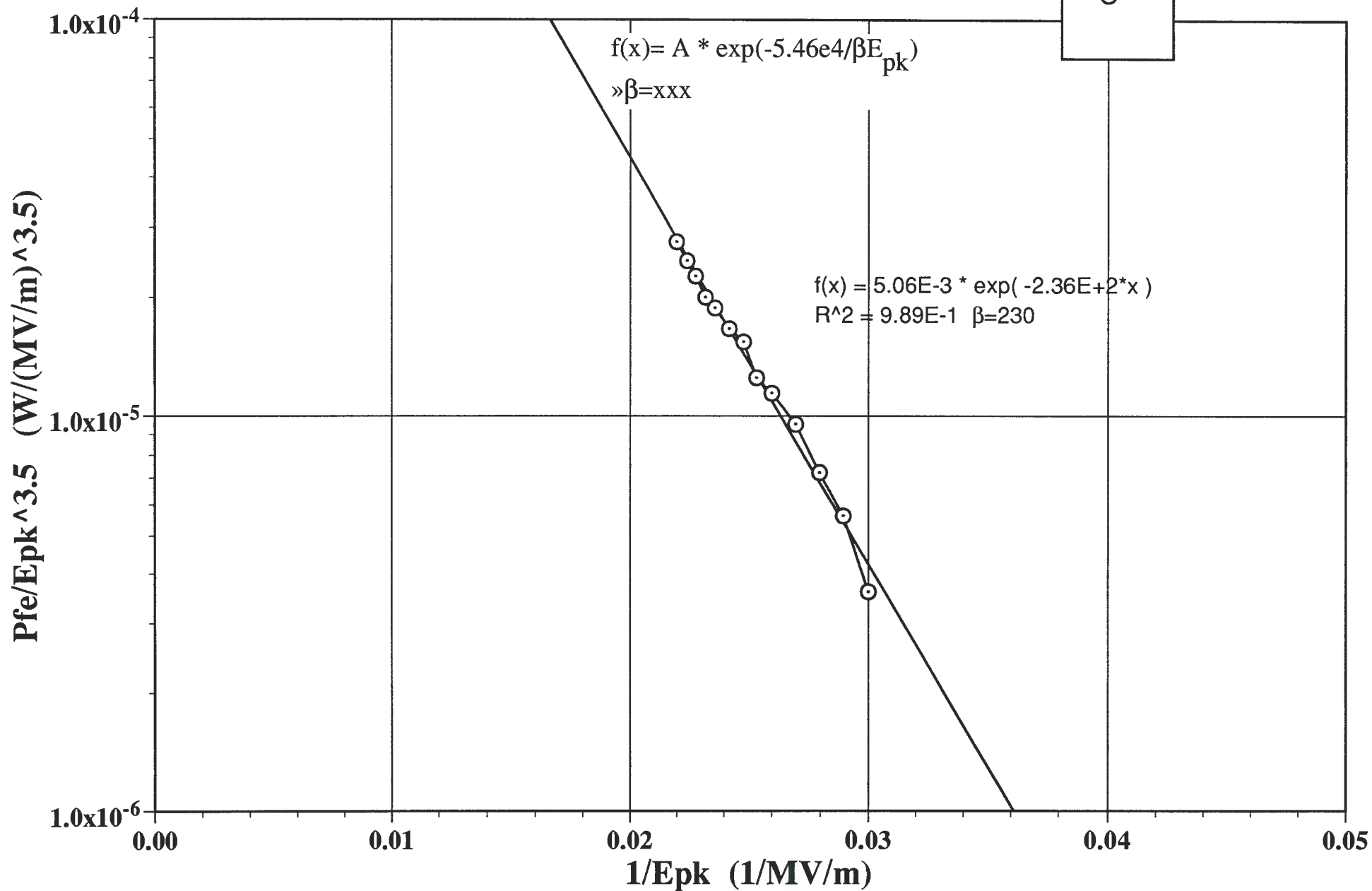


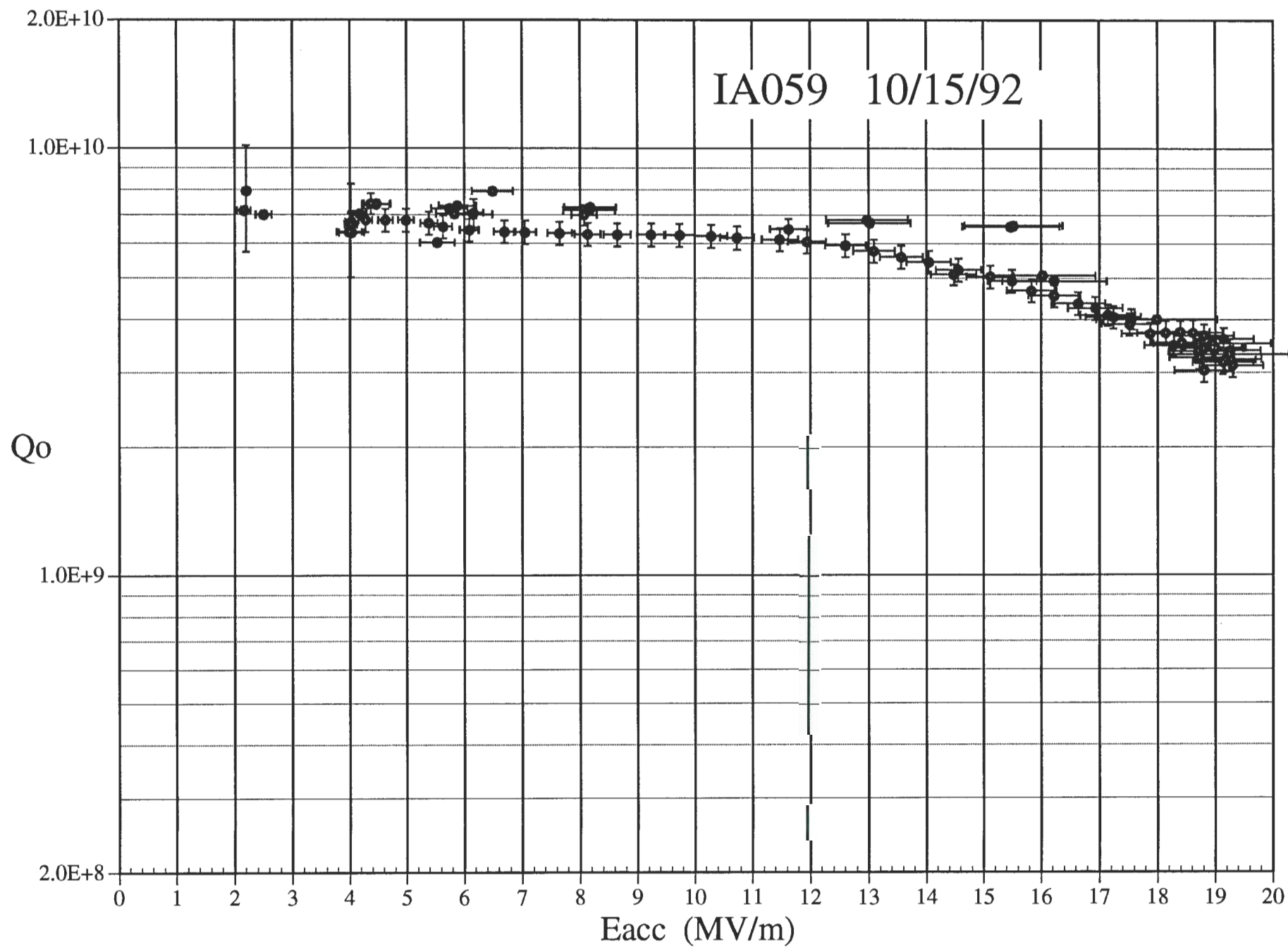


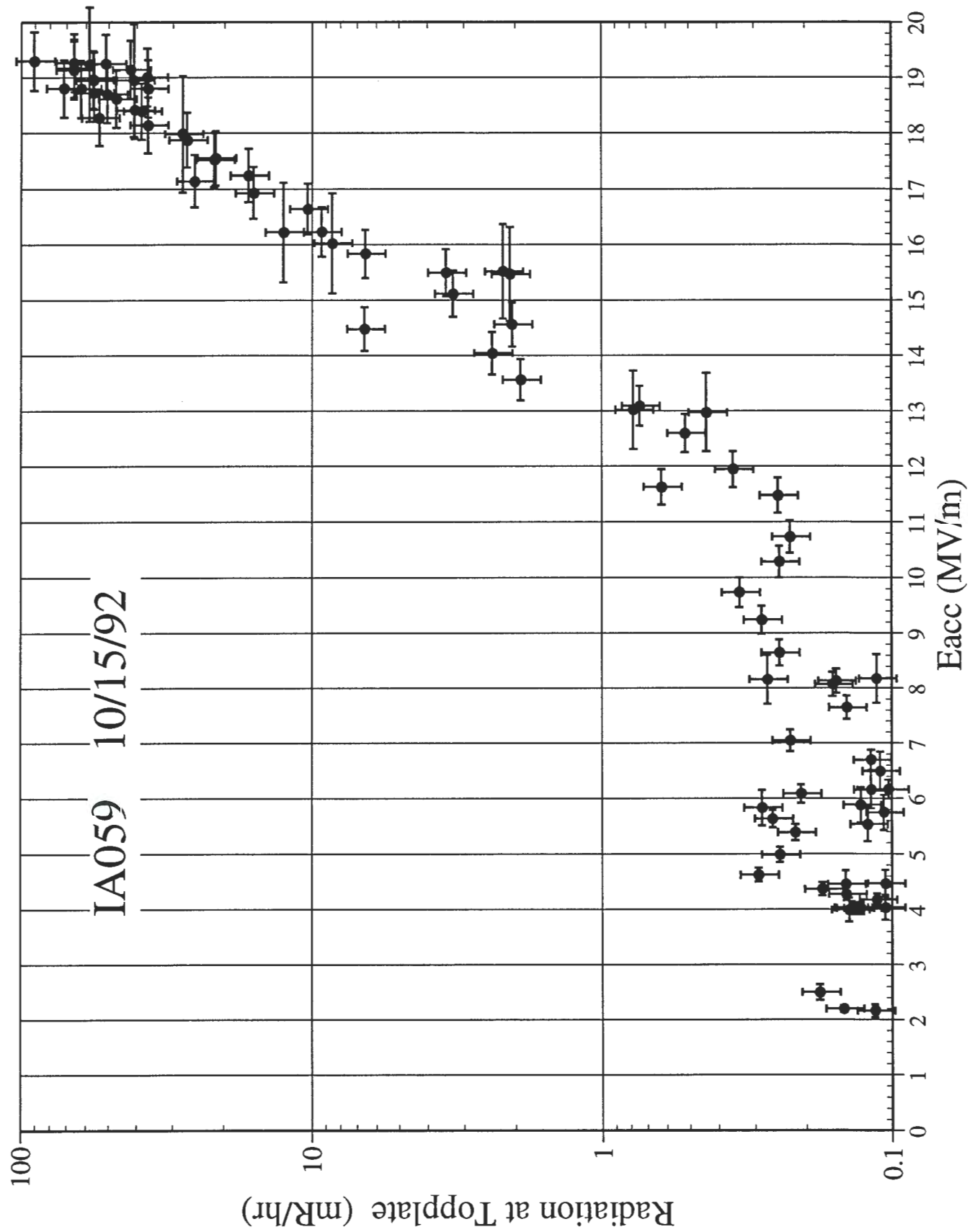
IA059d 10/15/92

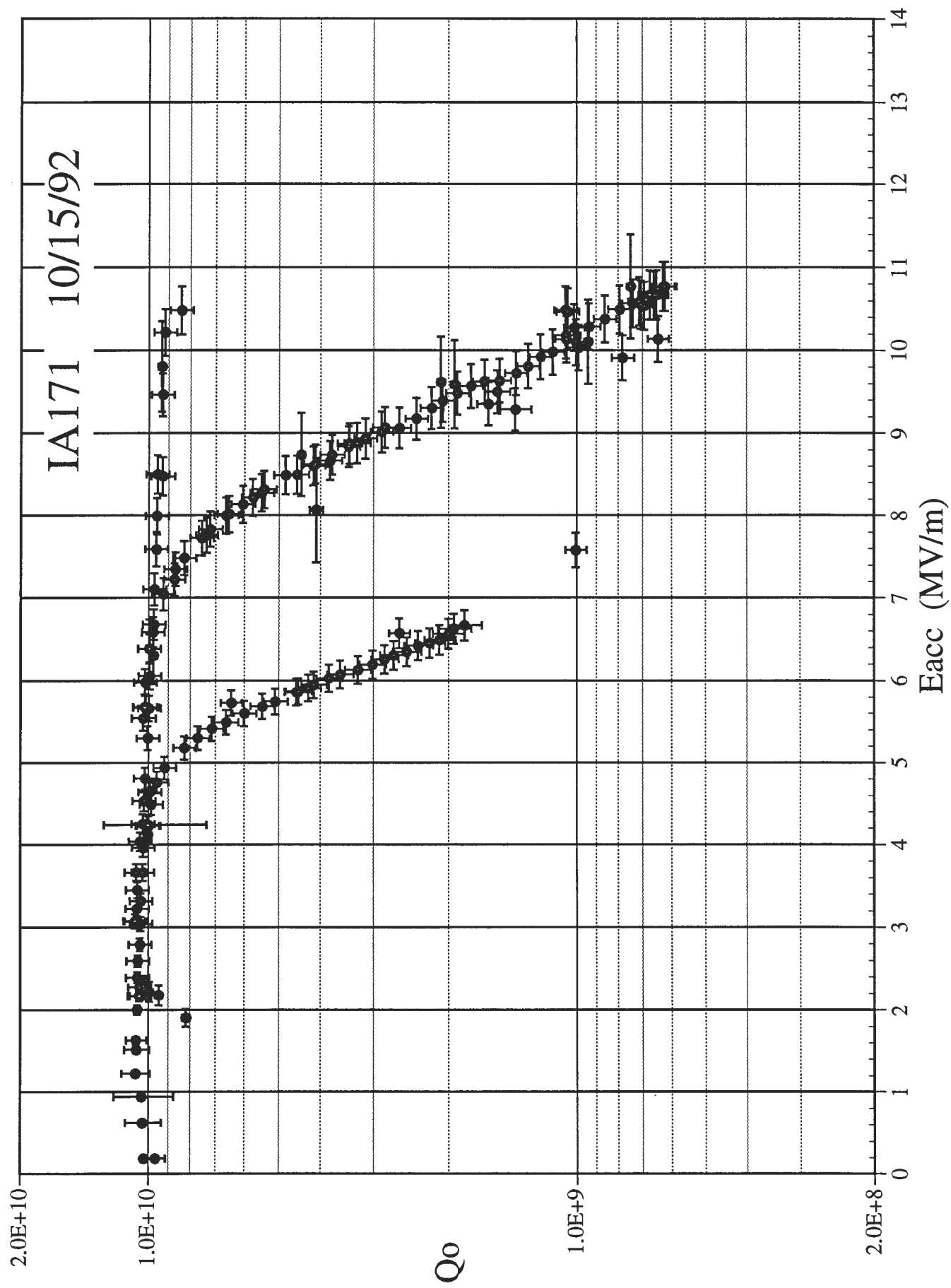


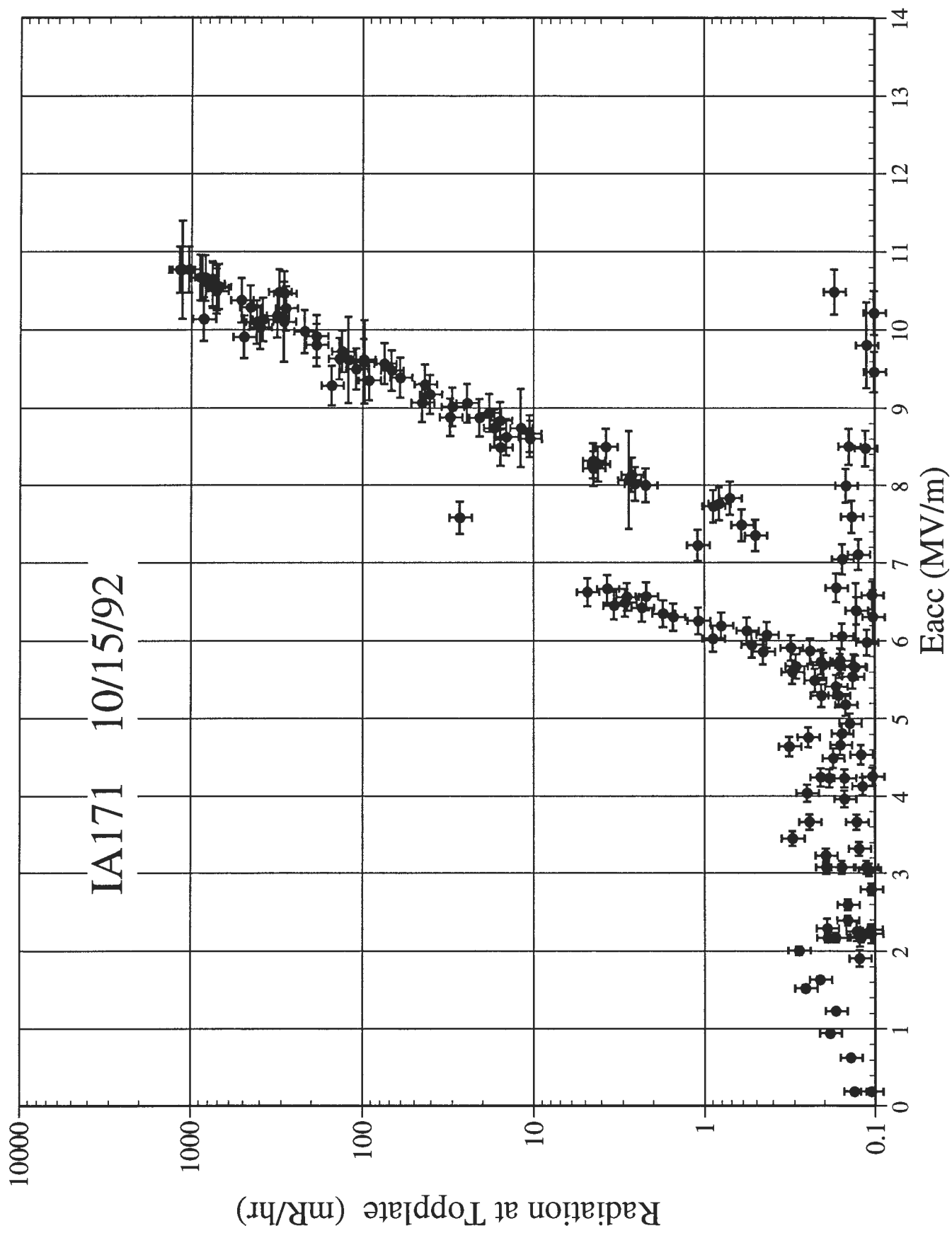
IA059d 10/15/92

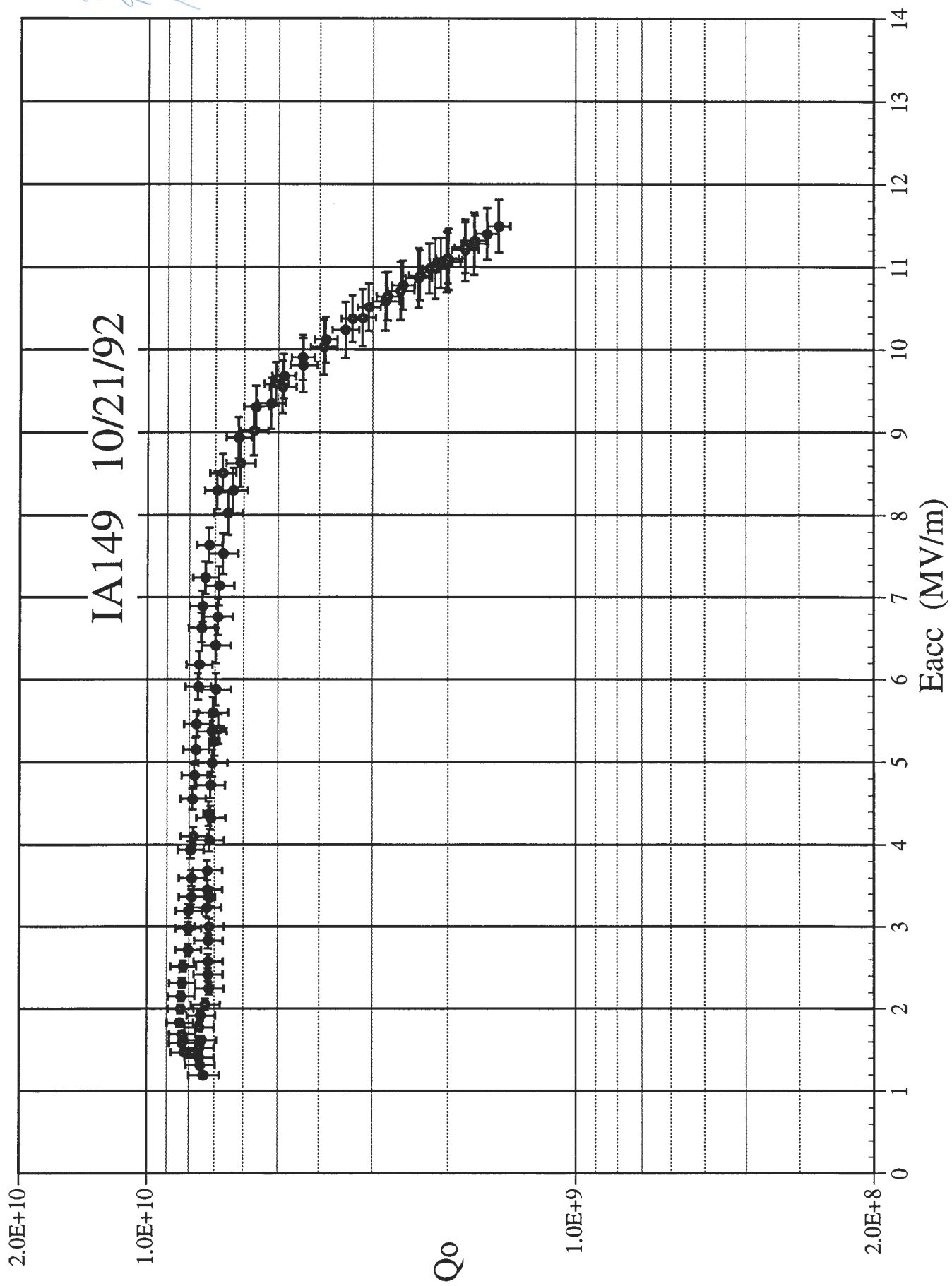




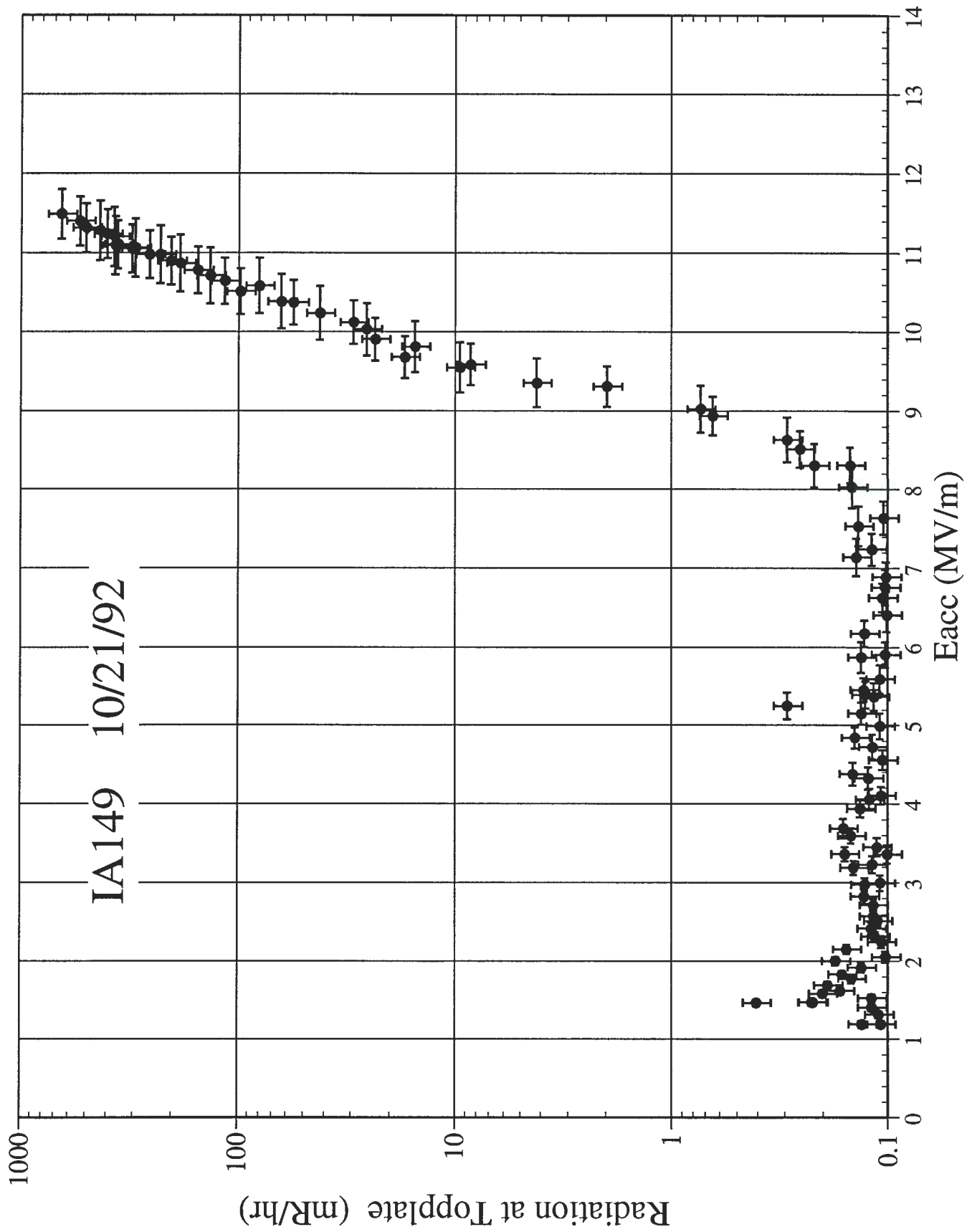




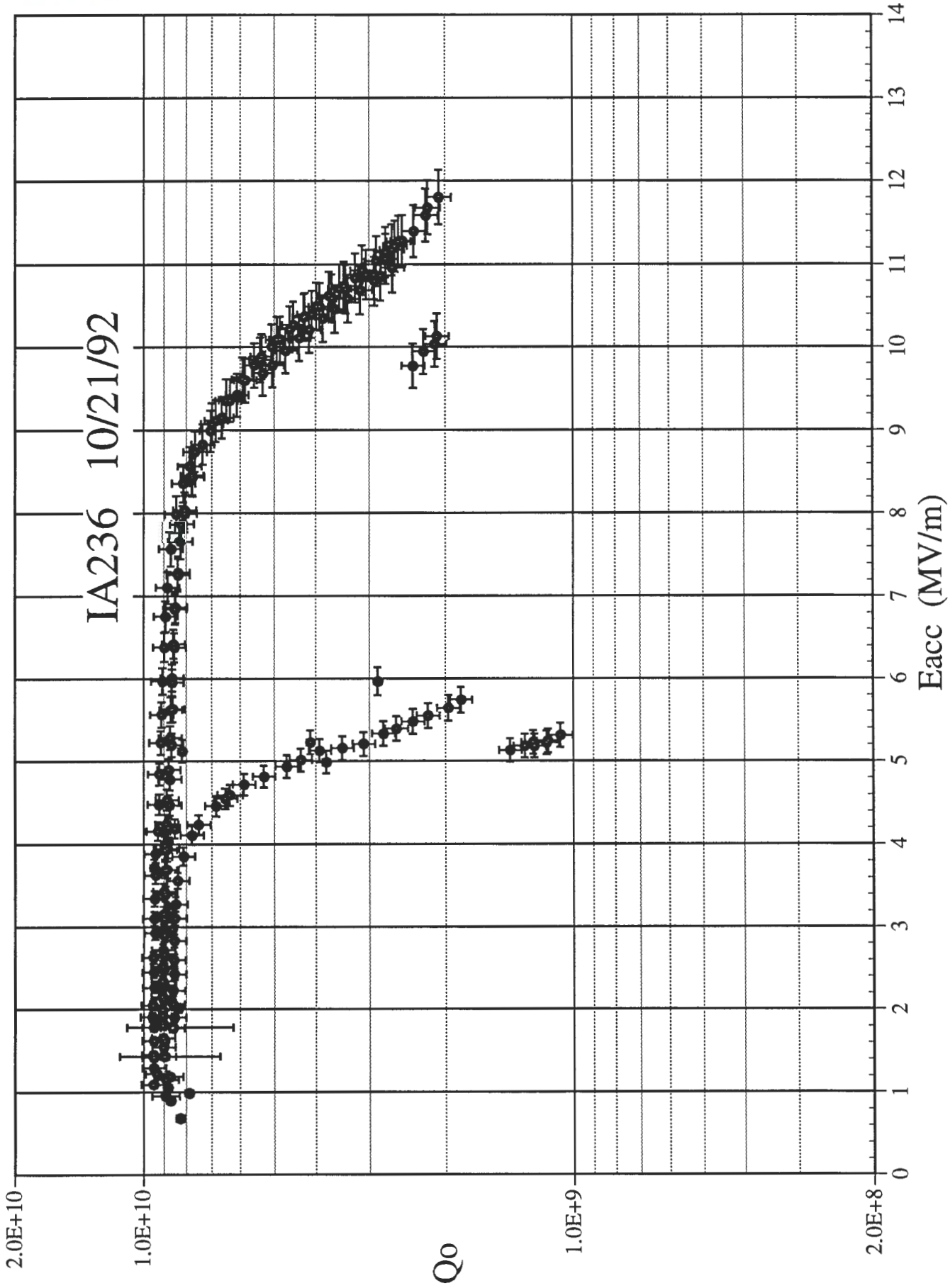


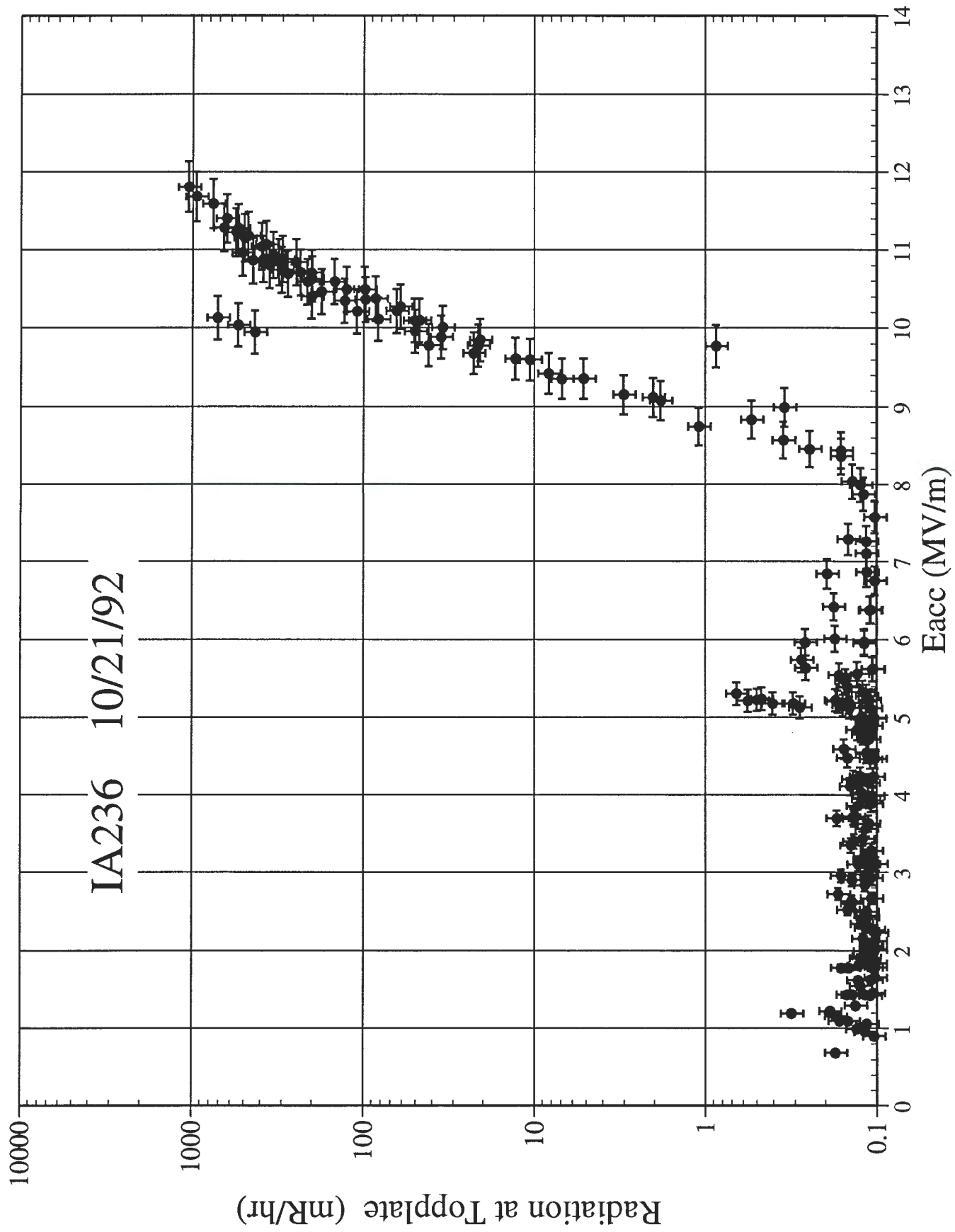


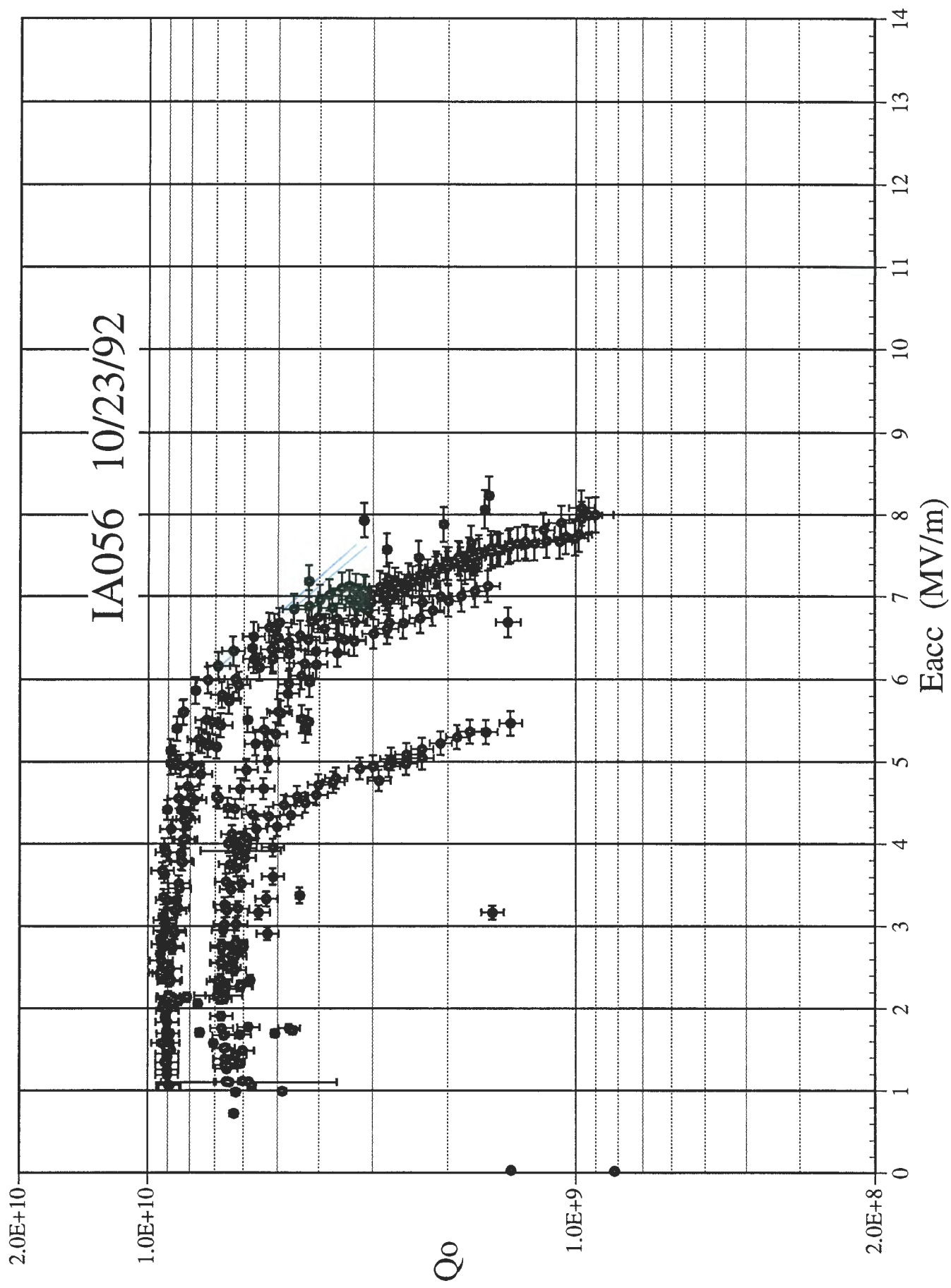
907
94045
107024

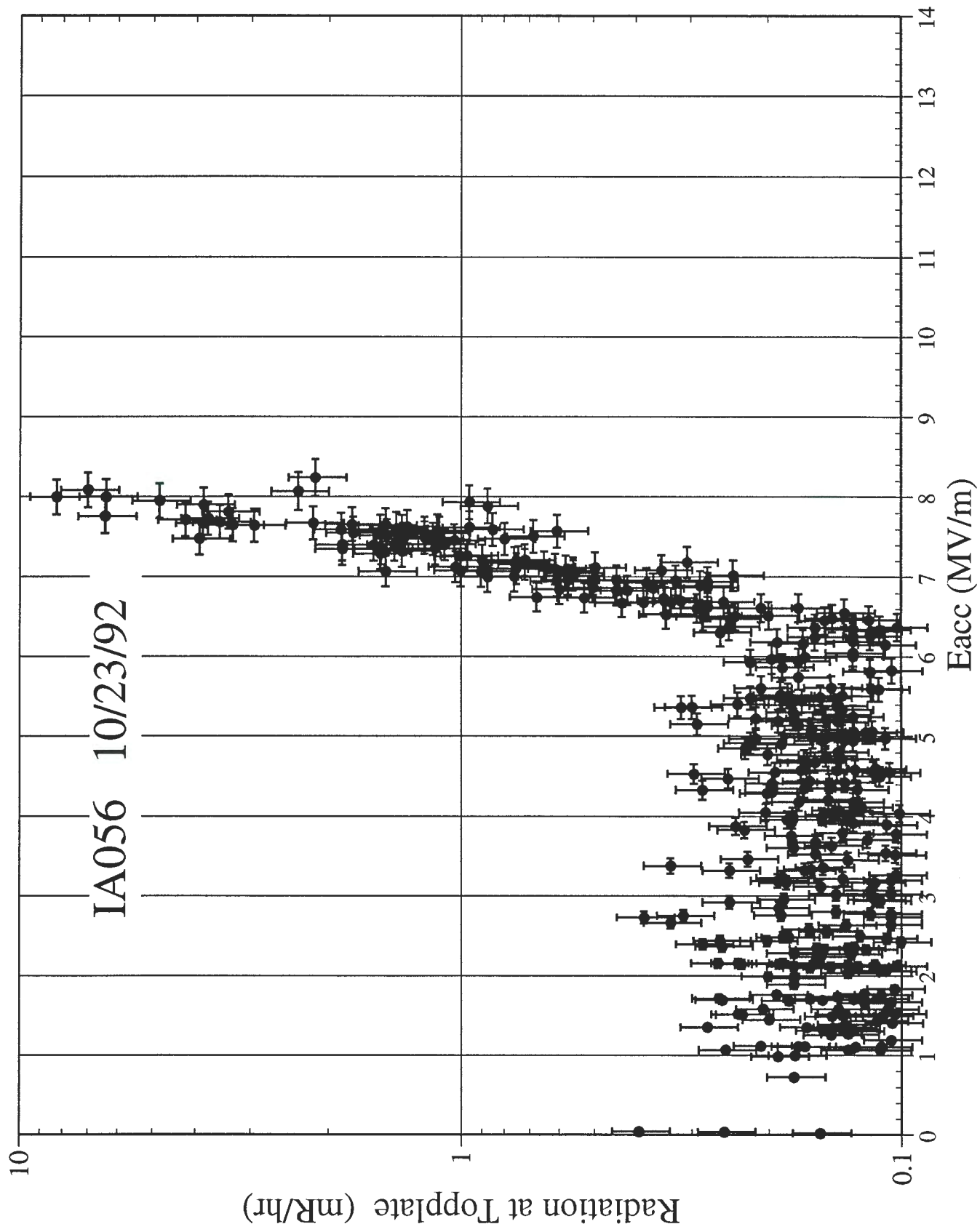


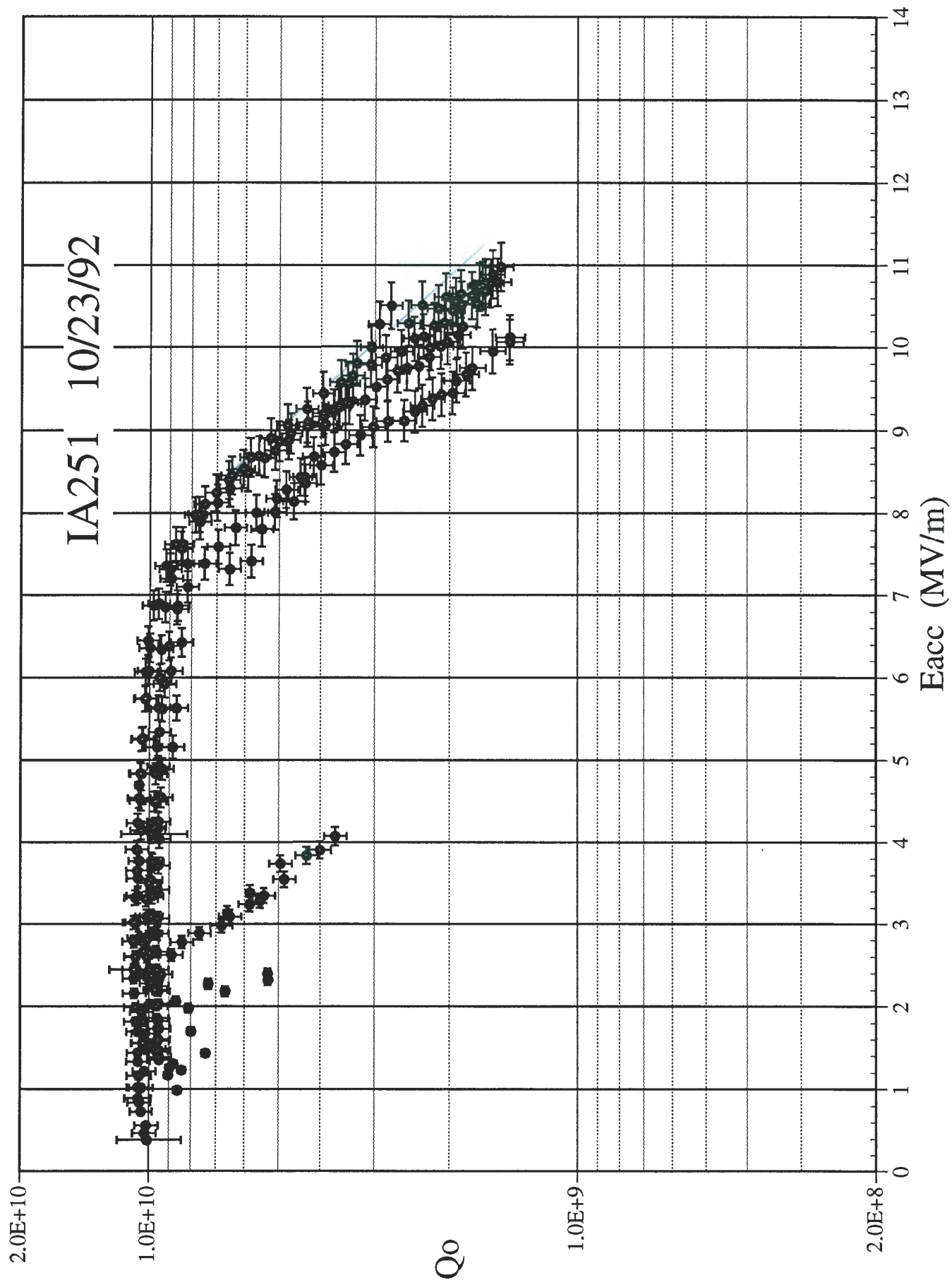
20 5.7
10.10 4.9
11.20 2.4

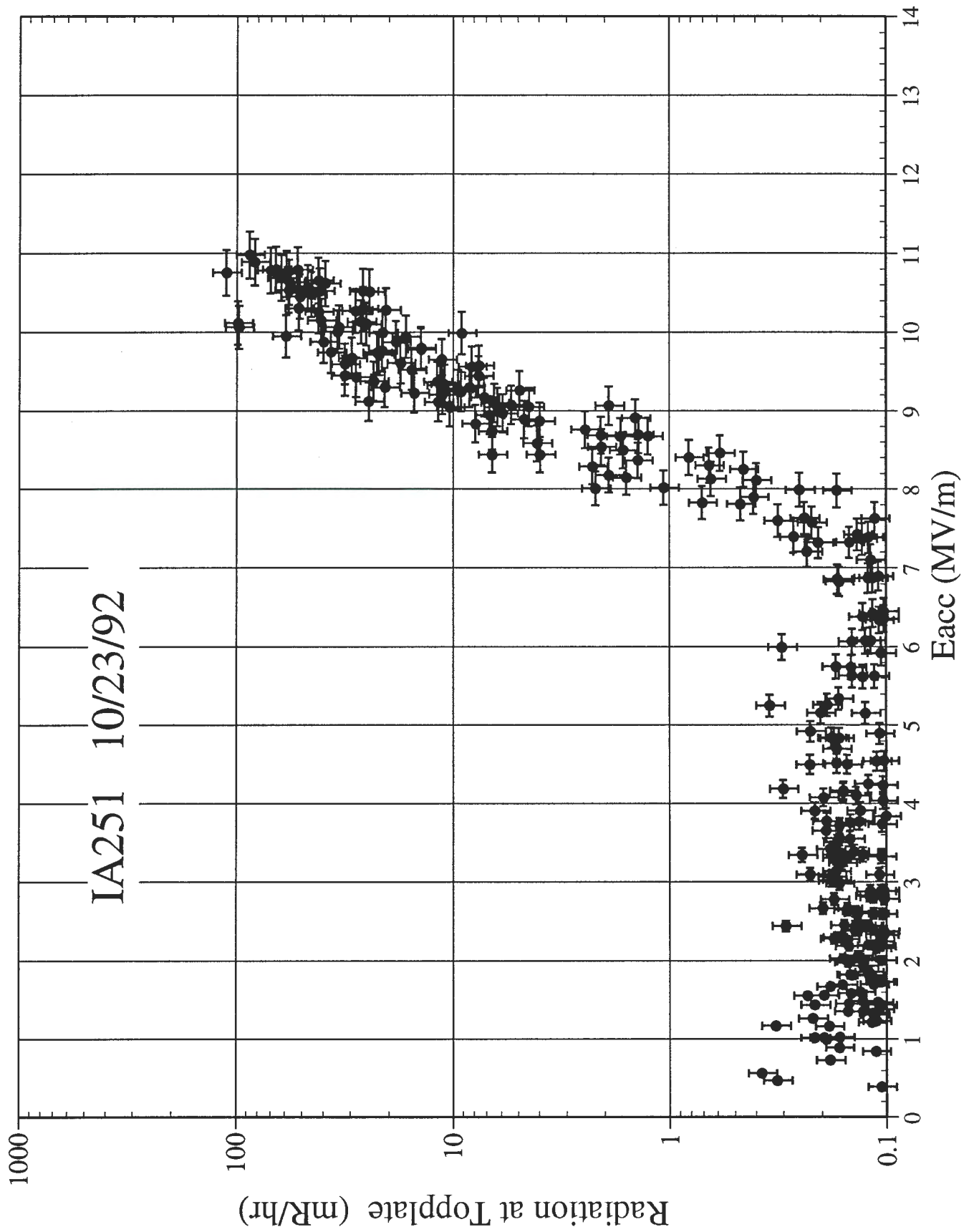


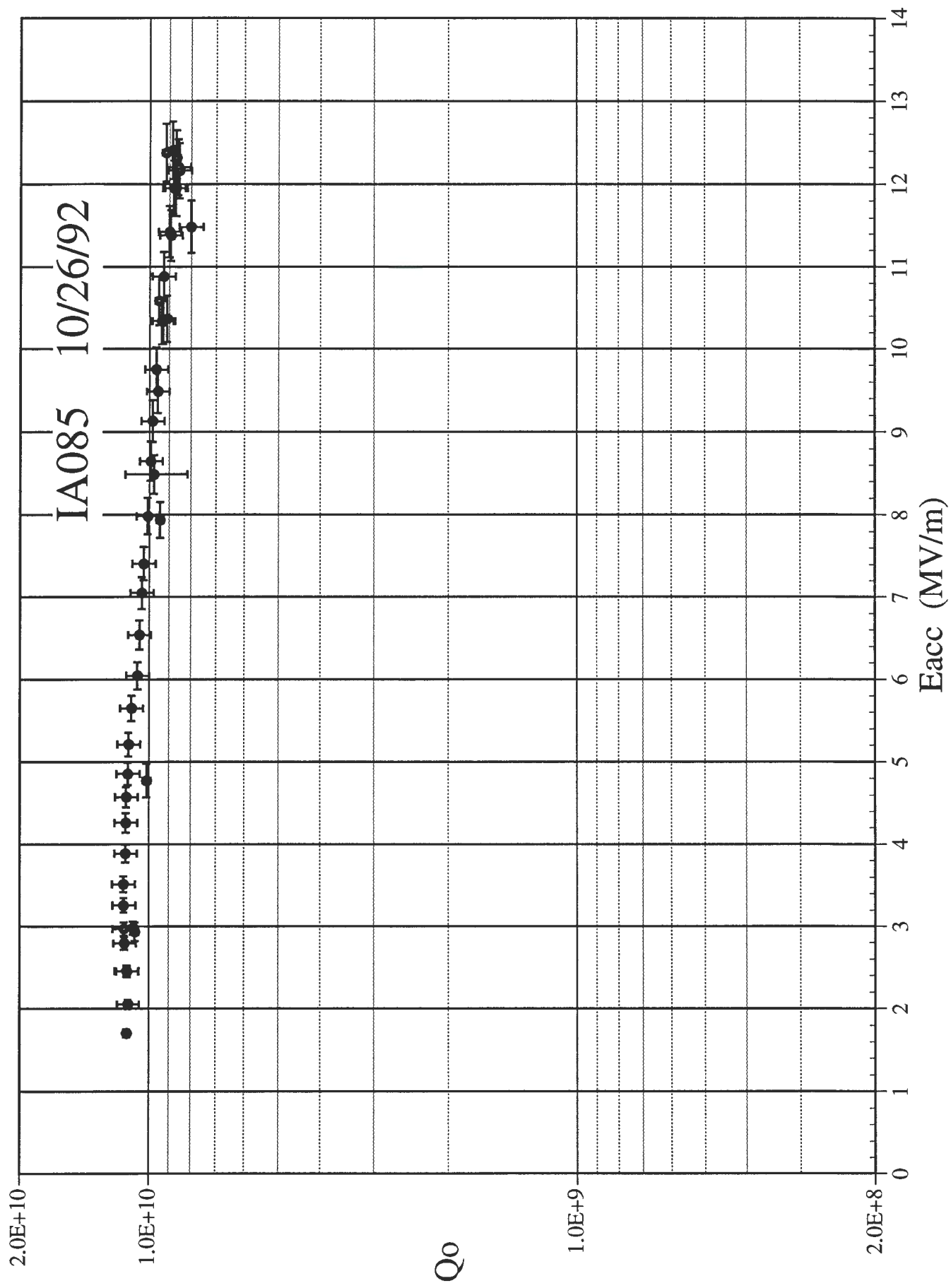


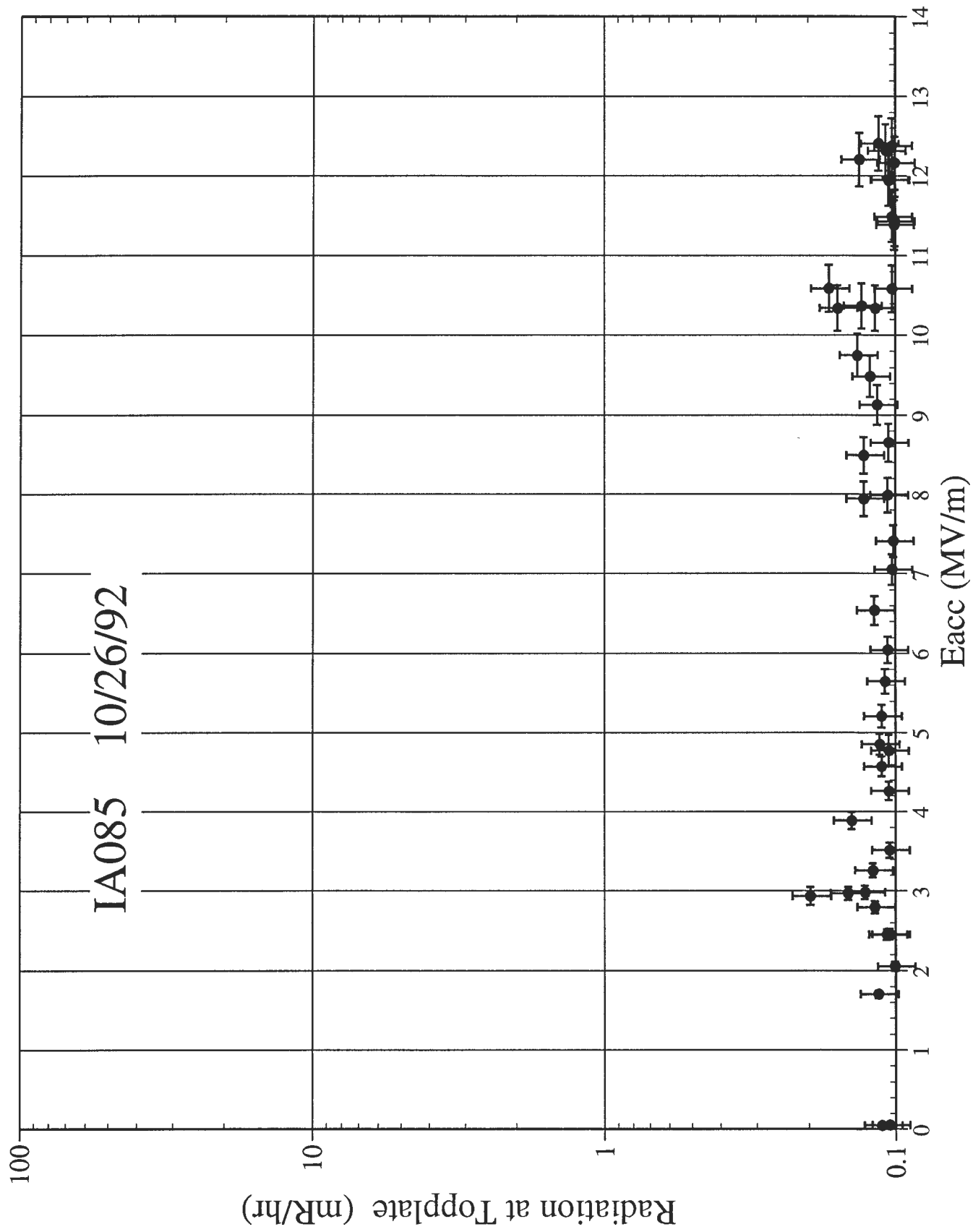


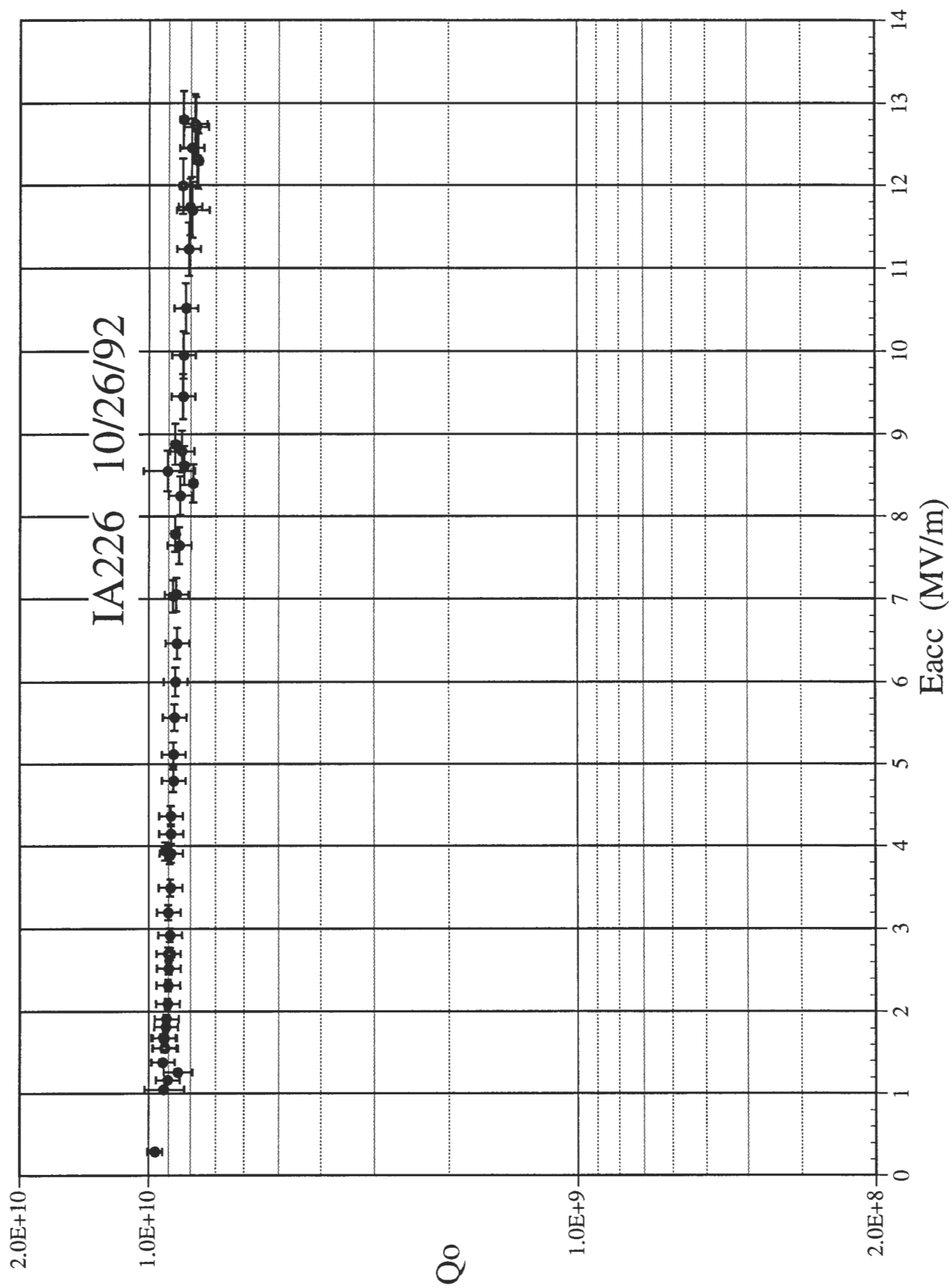


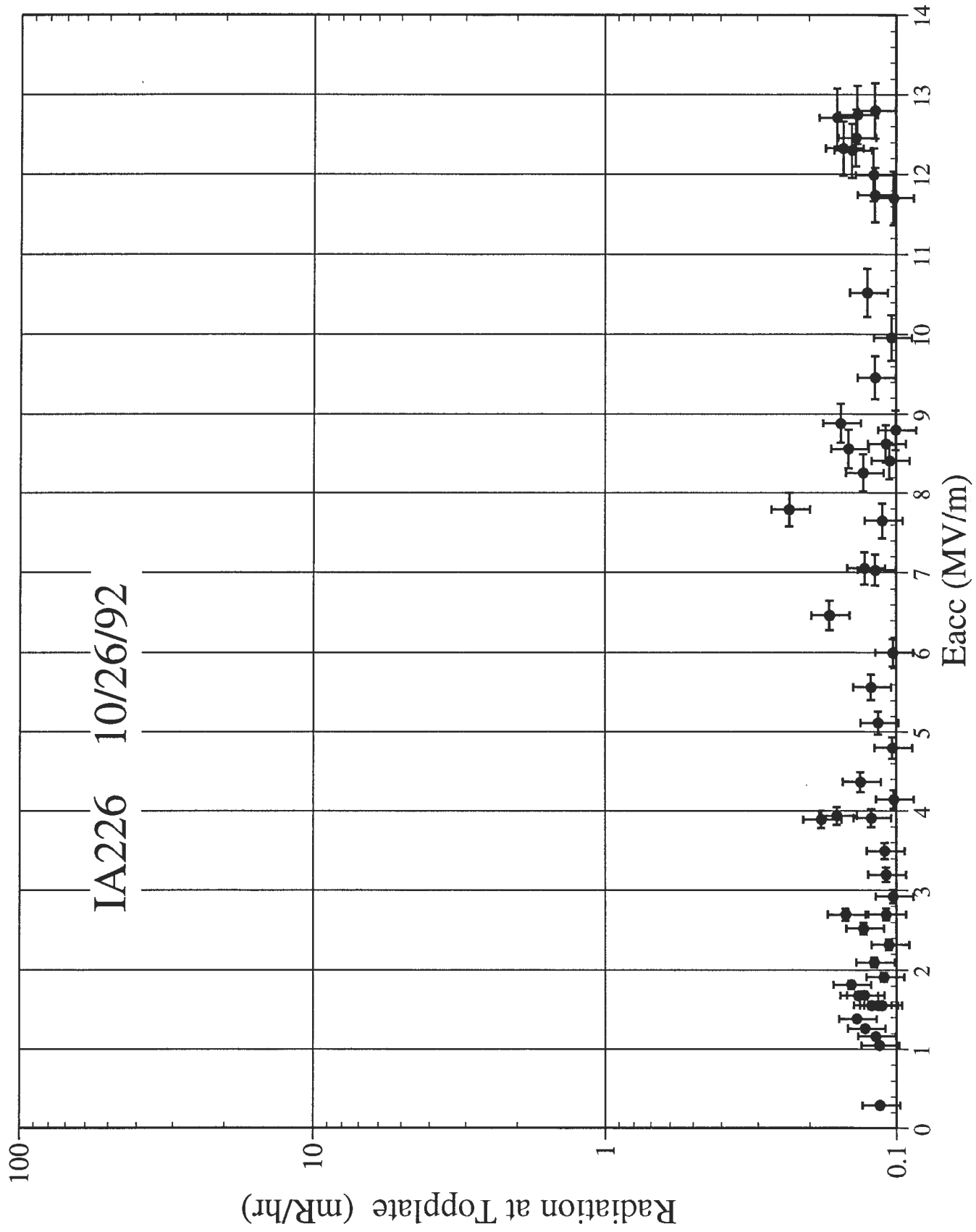




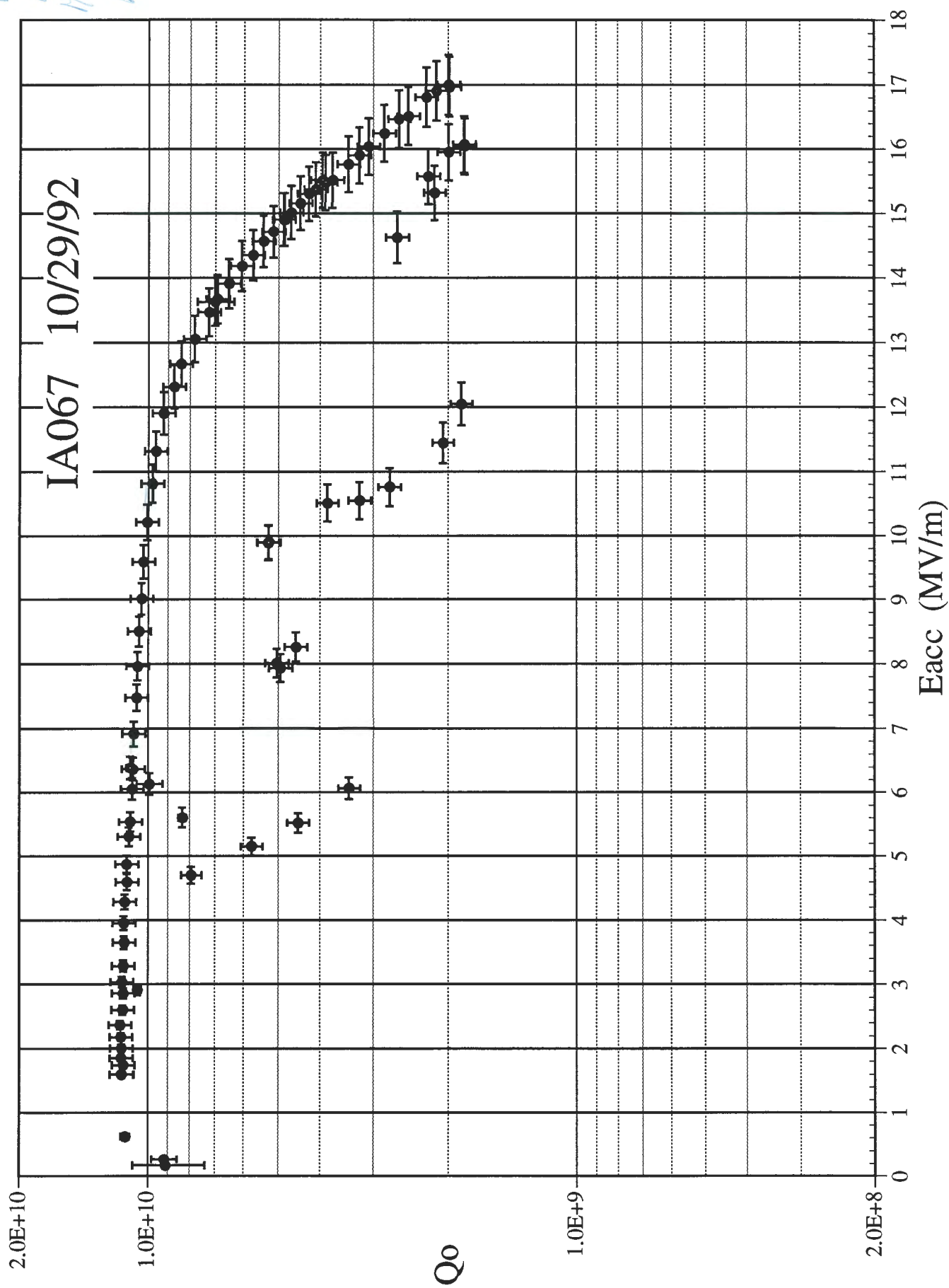


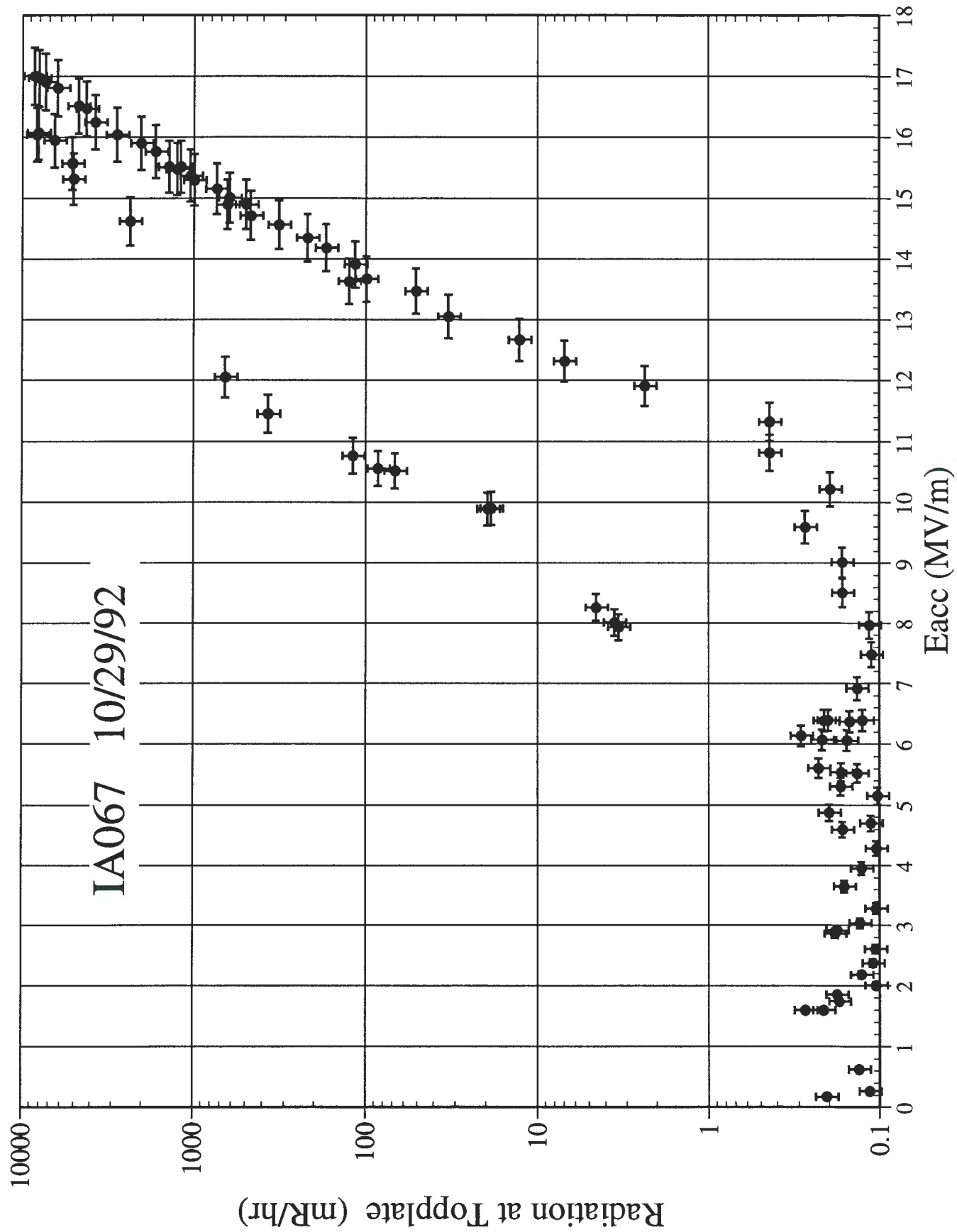




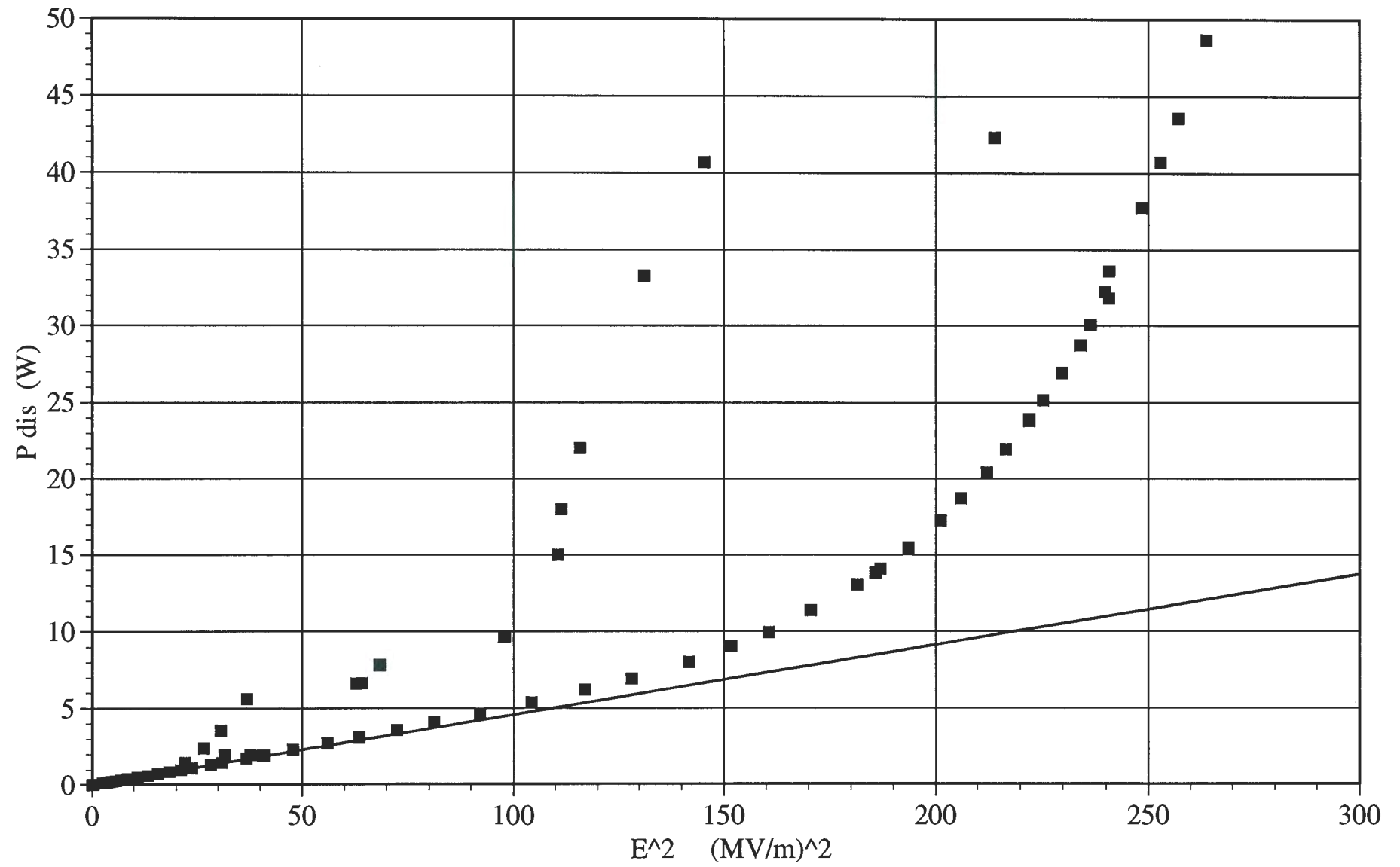


FE 10.6, 10
US 14.5, 5.5
Nov 16.4, 2.4
V₂ 11.3, 9.5

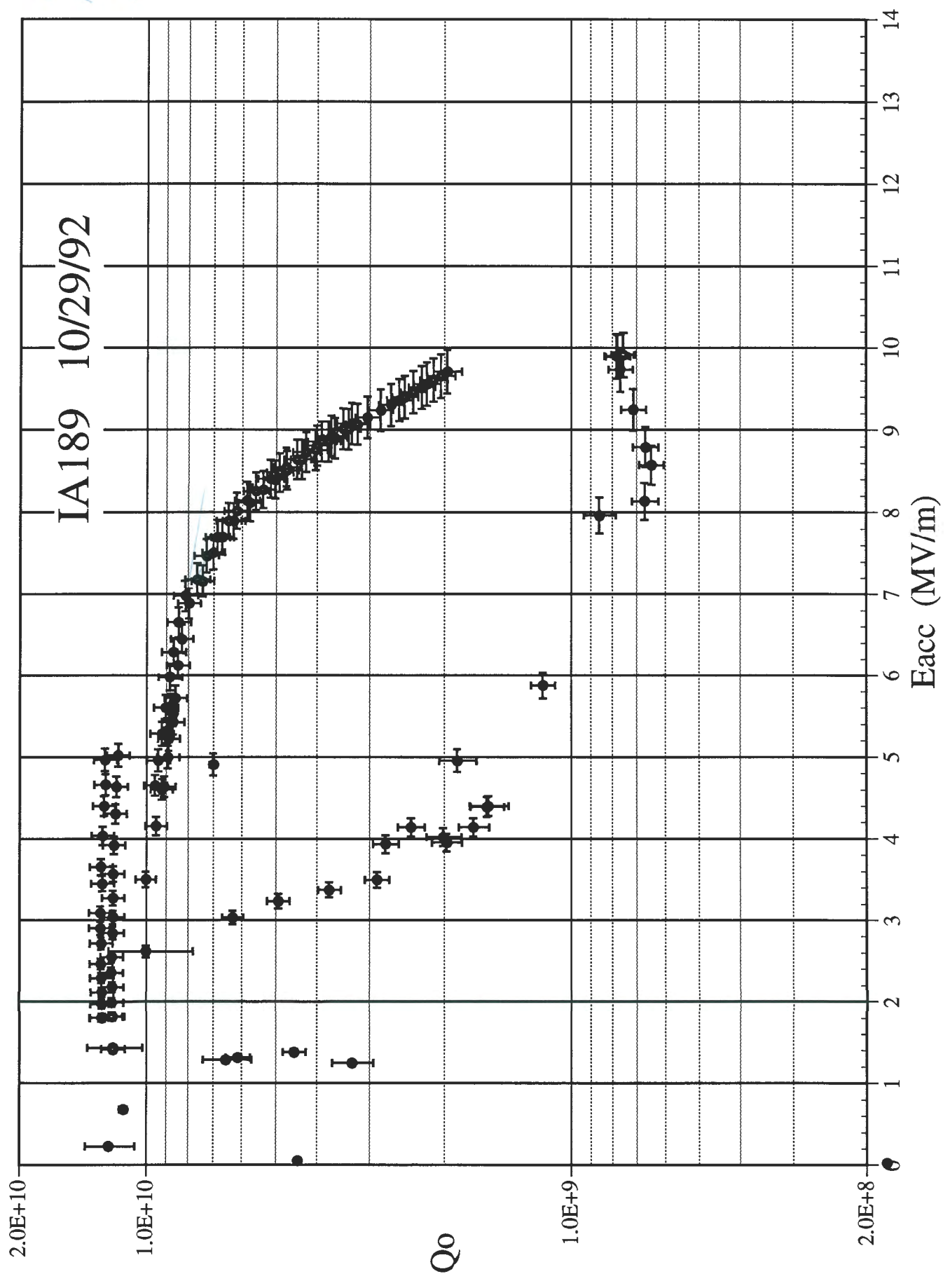


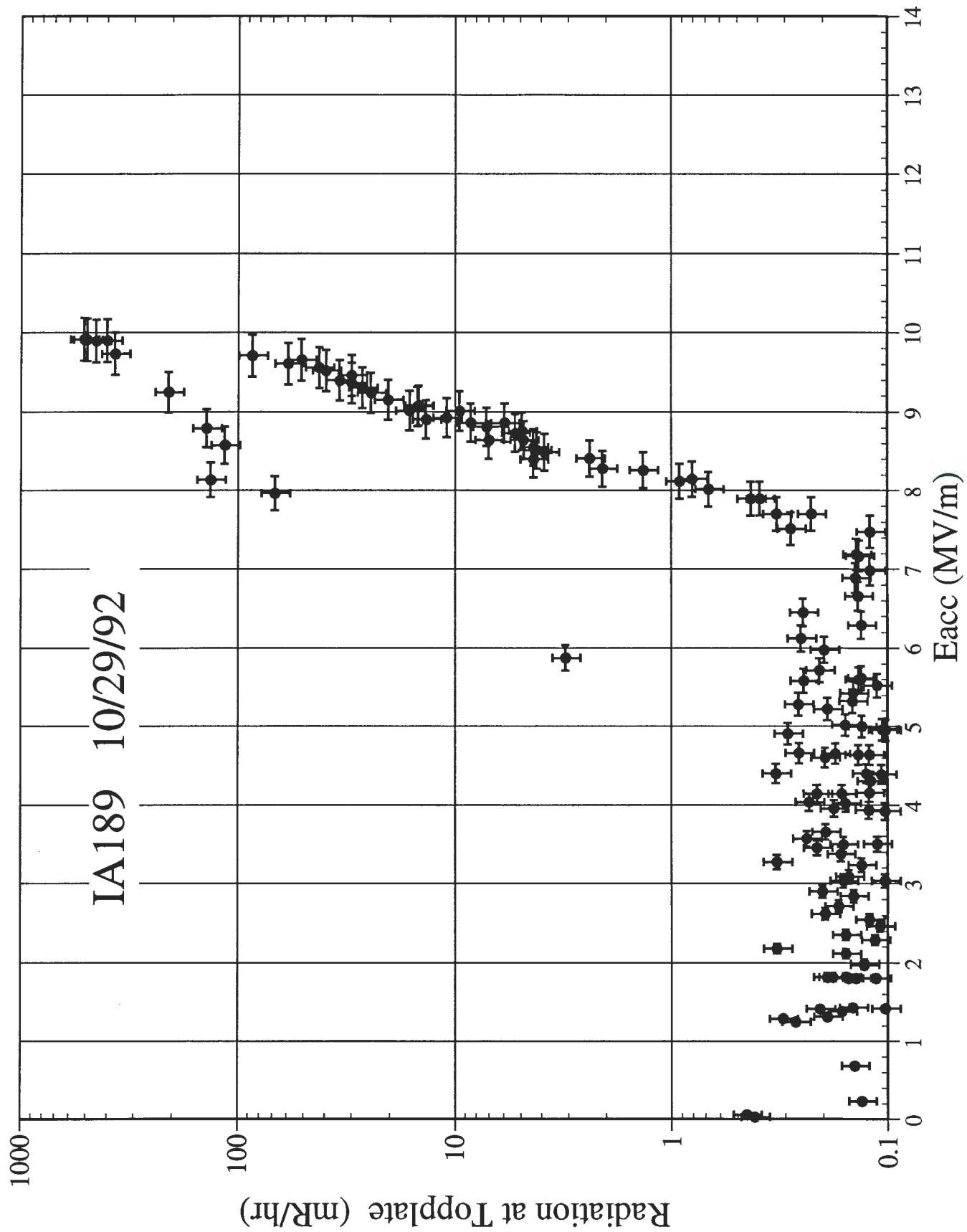


IA067 10/29/92

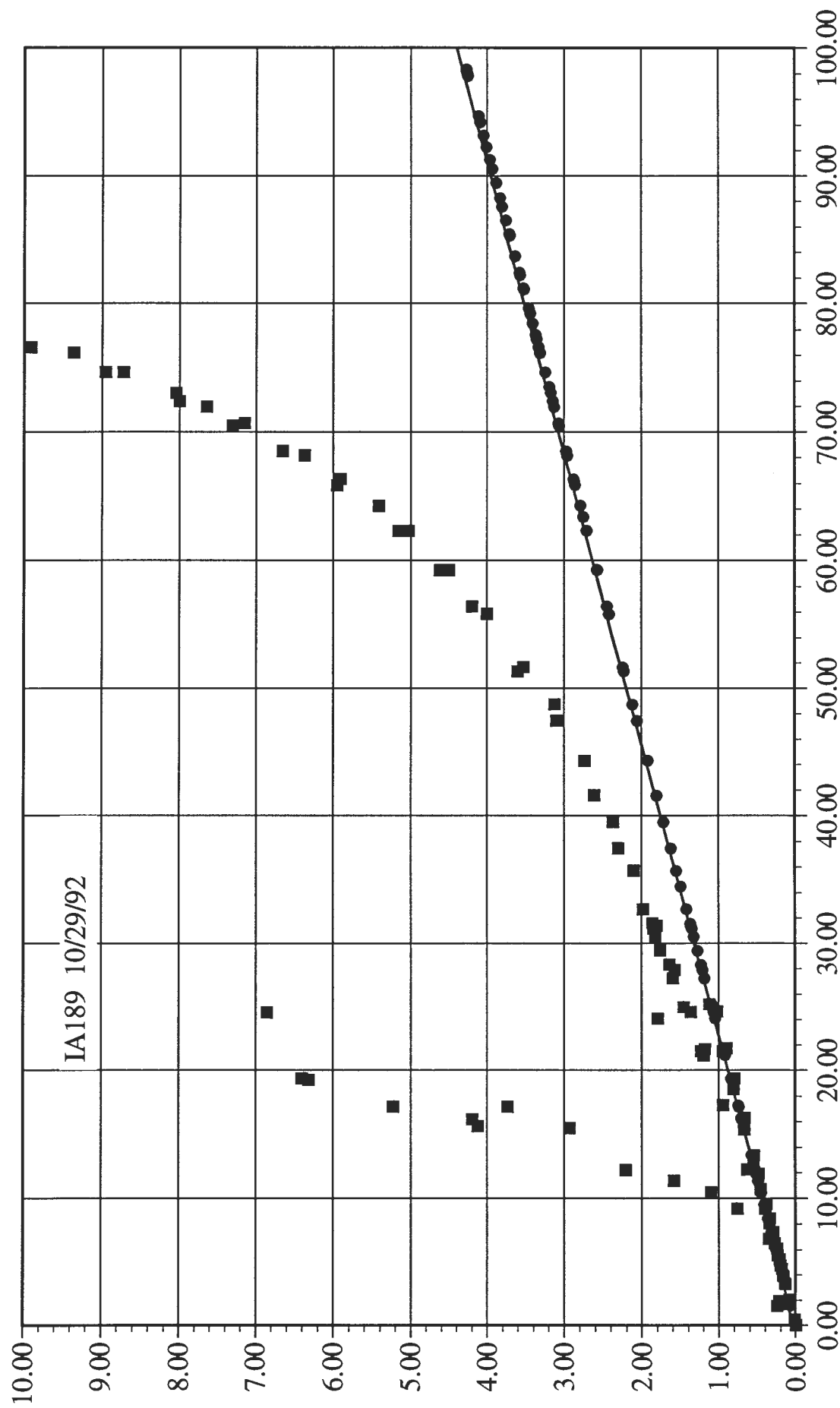
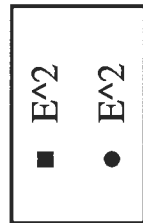


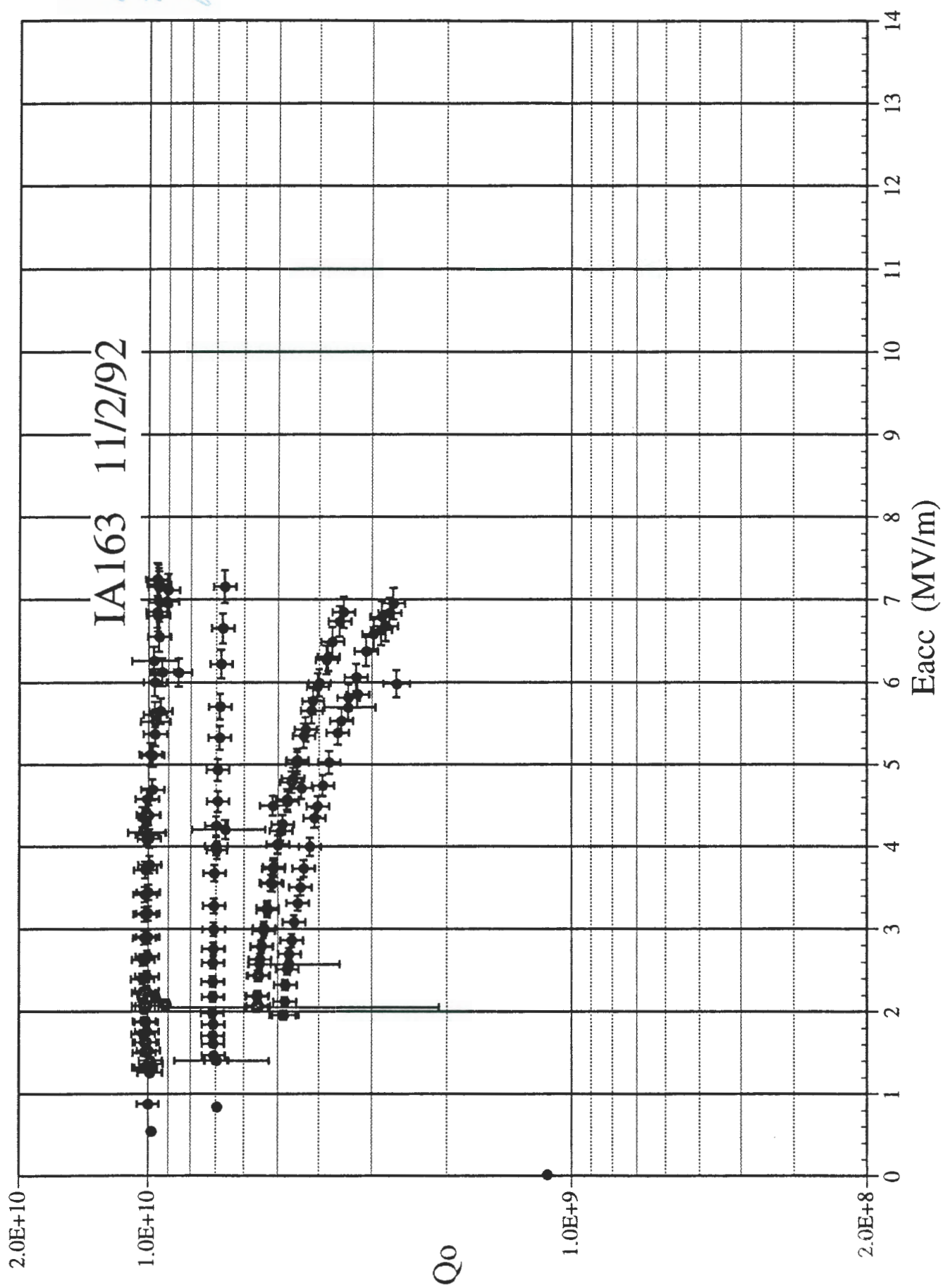
FE 6.7 J.
U_W, 8.2 J.A
H 9.4 J.1
U_S, 7.0 J





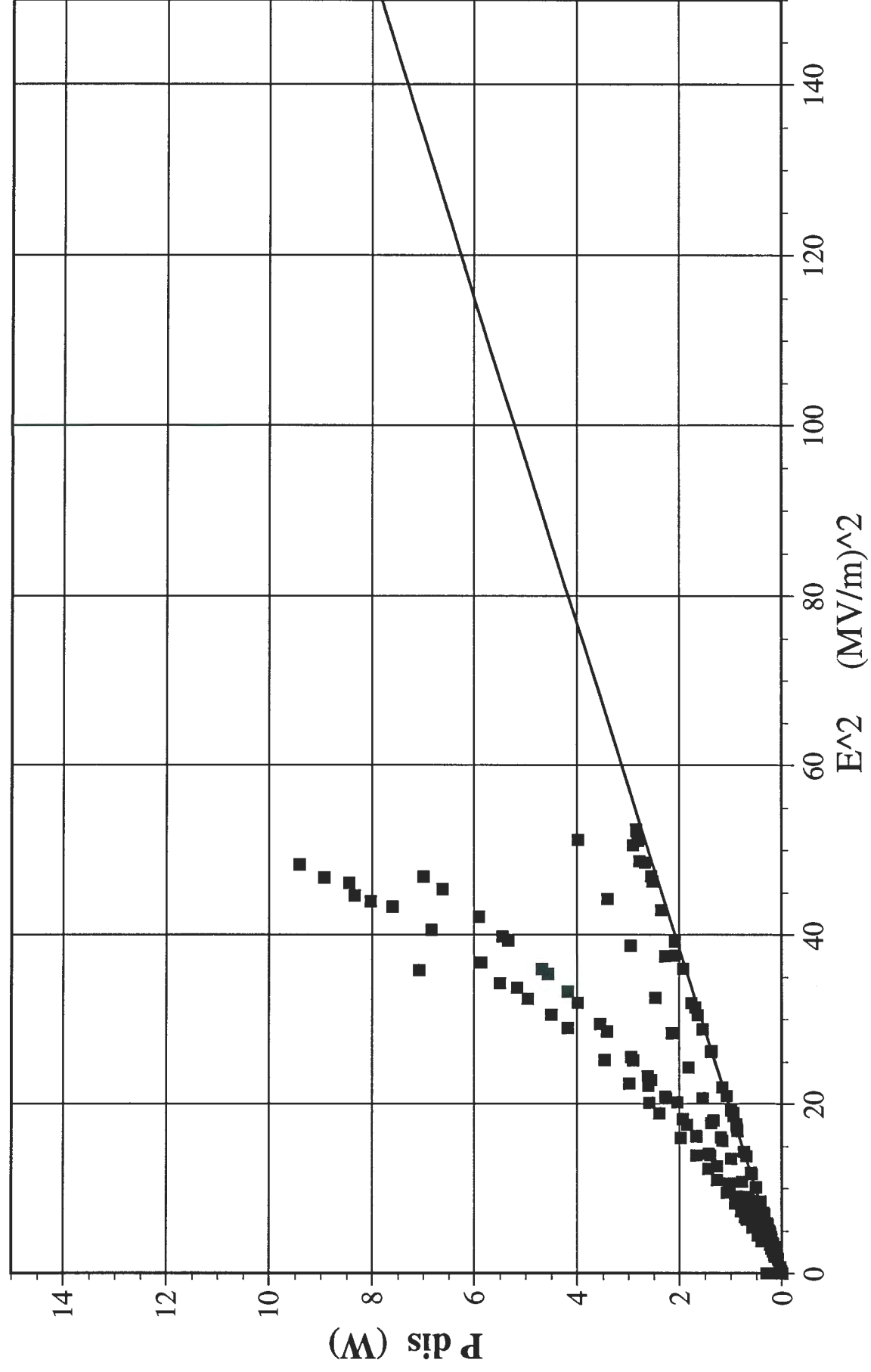
M

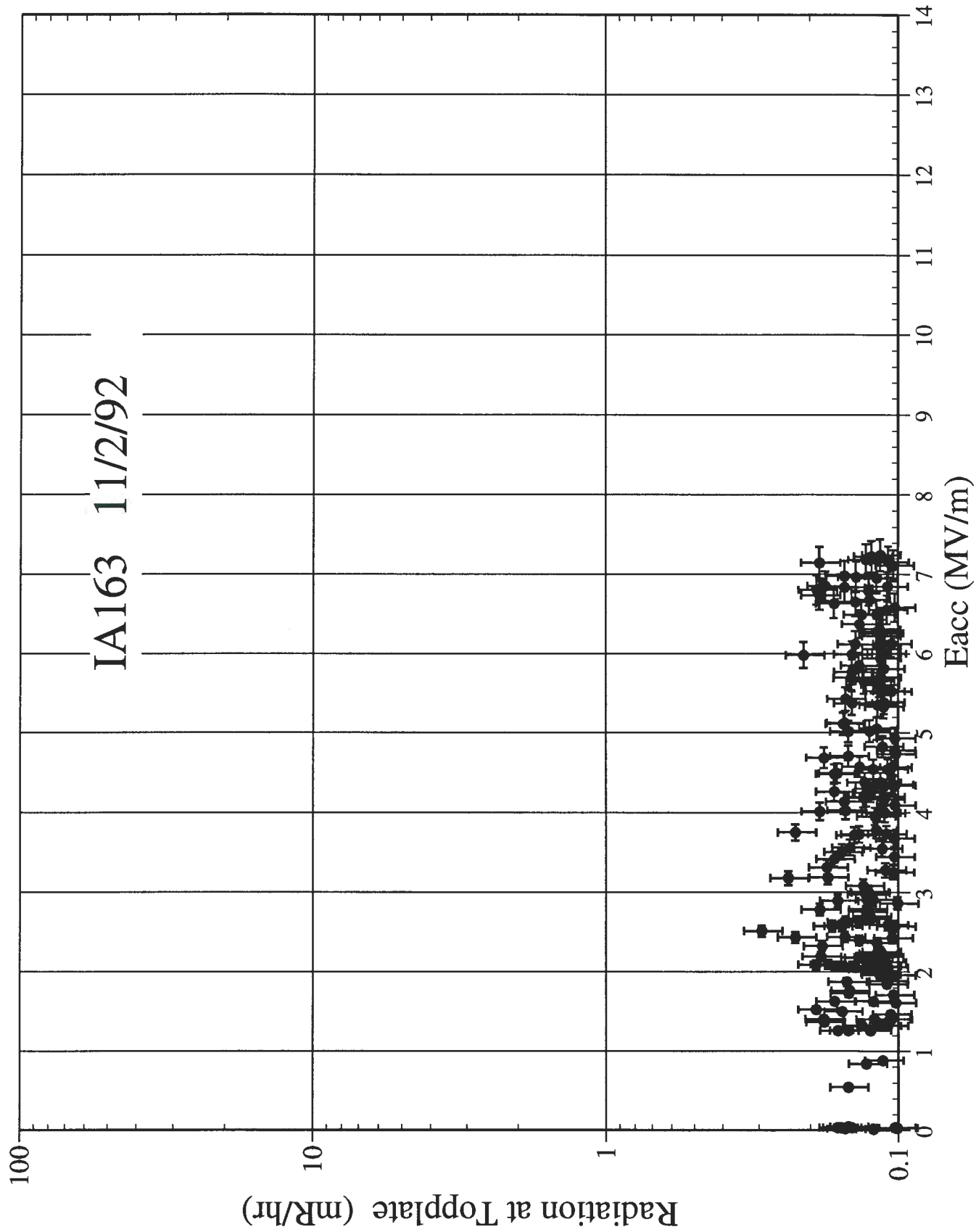


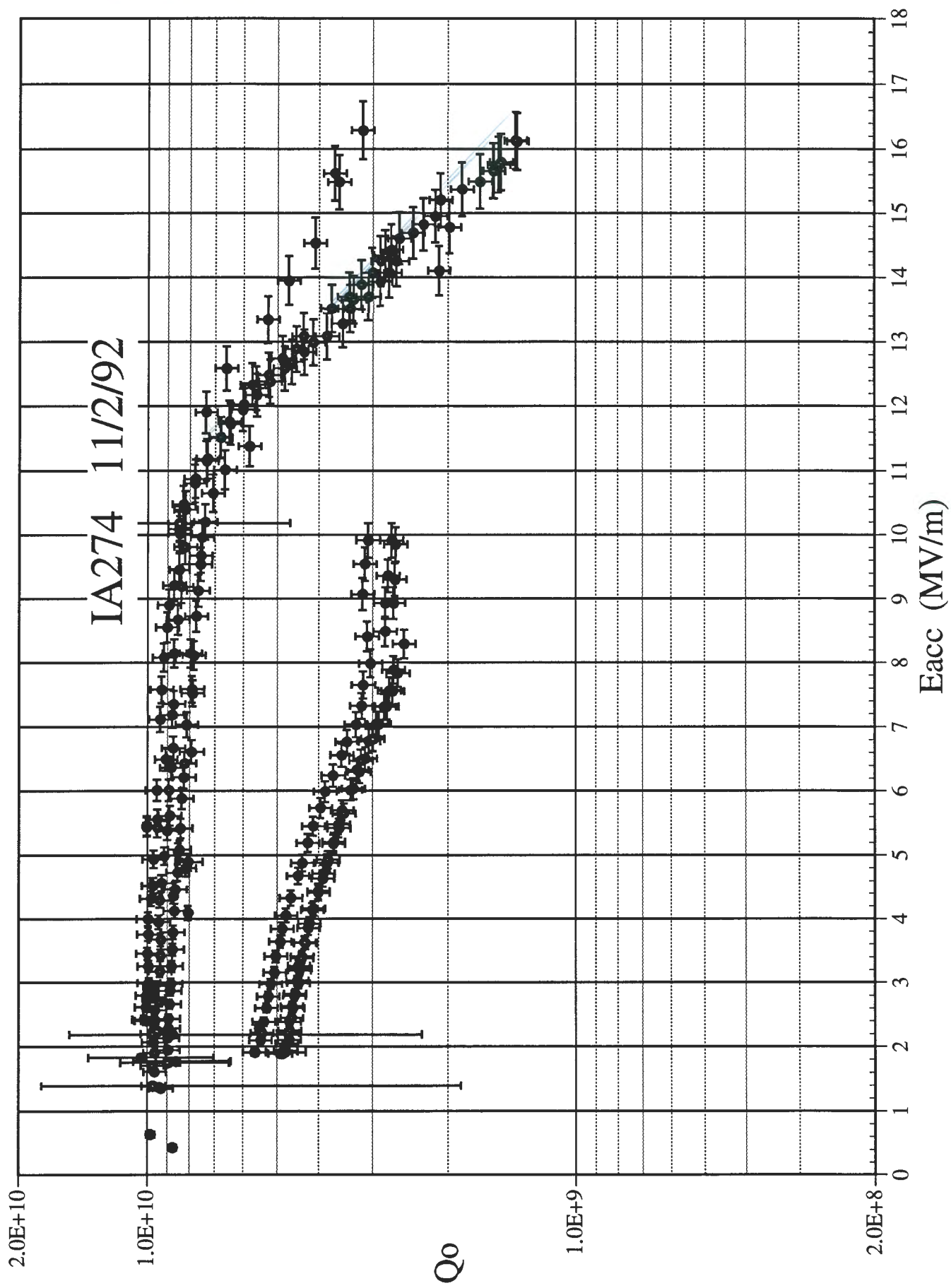


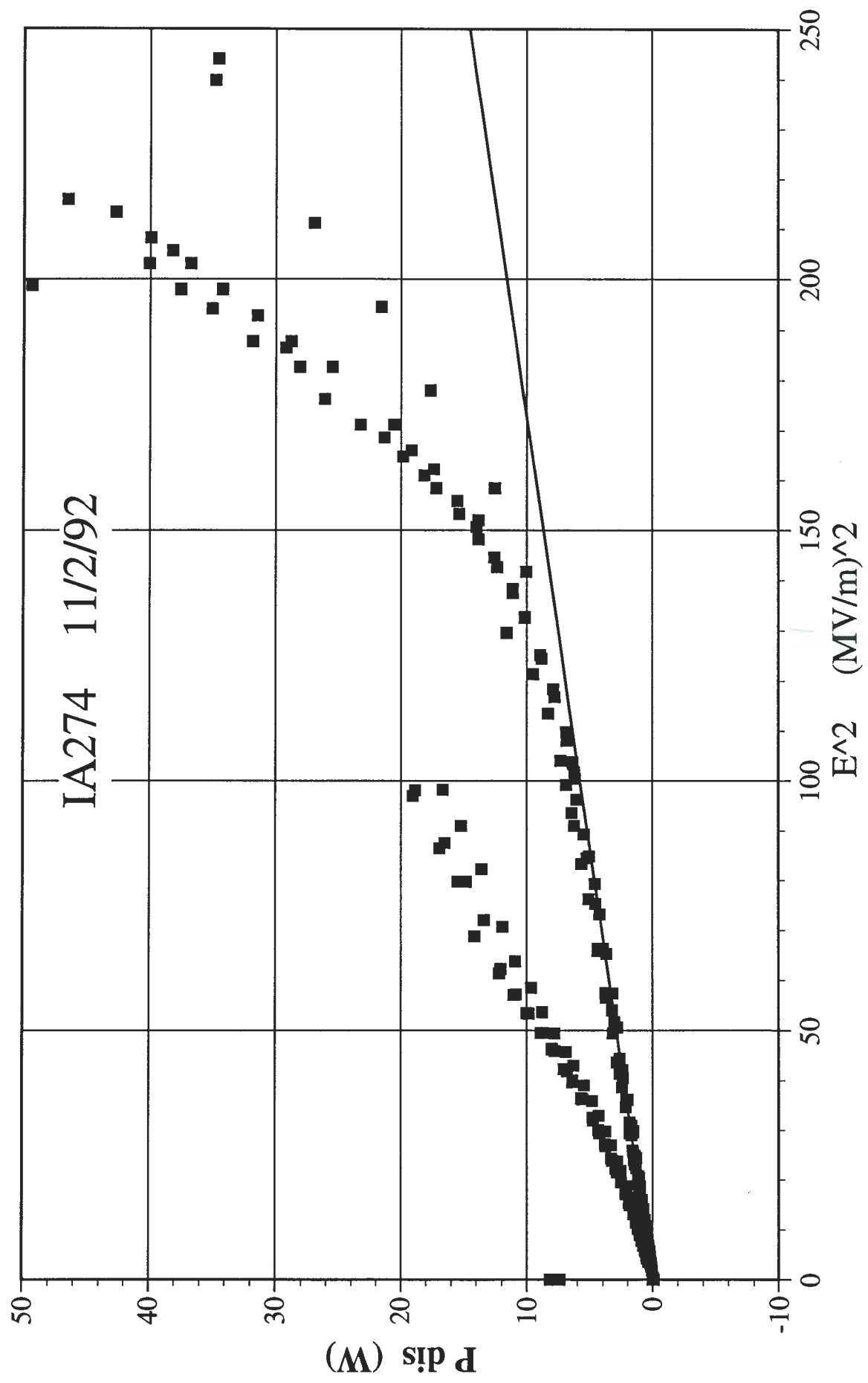
7.3, 9.5
6.3, 9.5
7.3, 9.5
6.3, 9.5

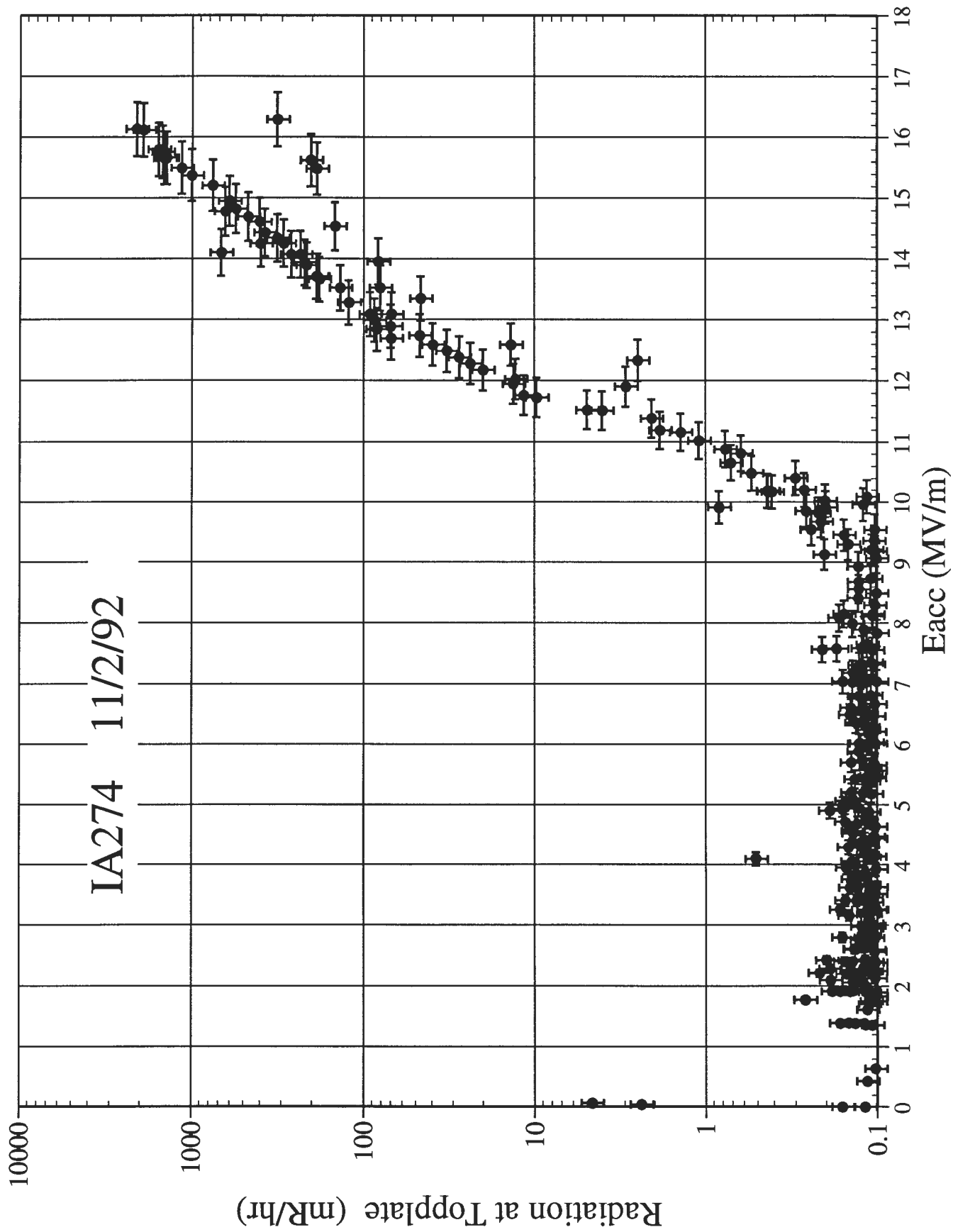
IA163 11/2/92

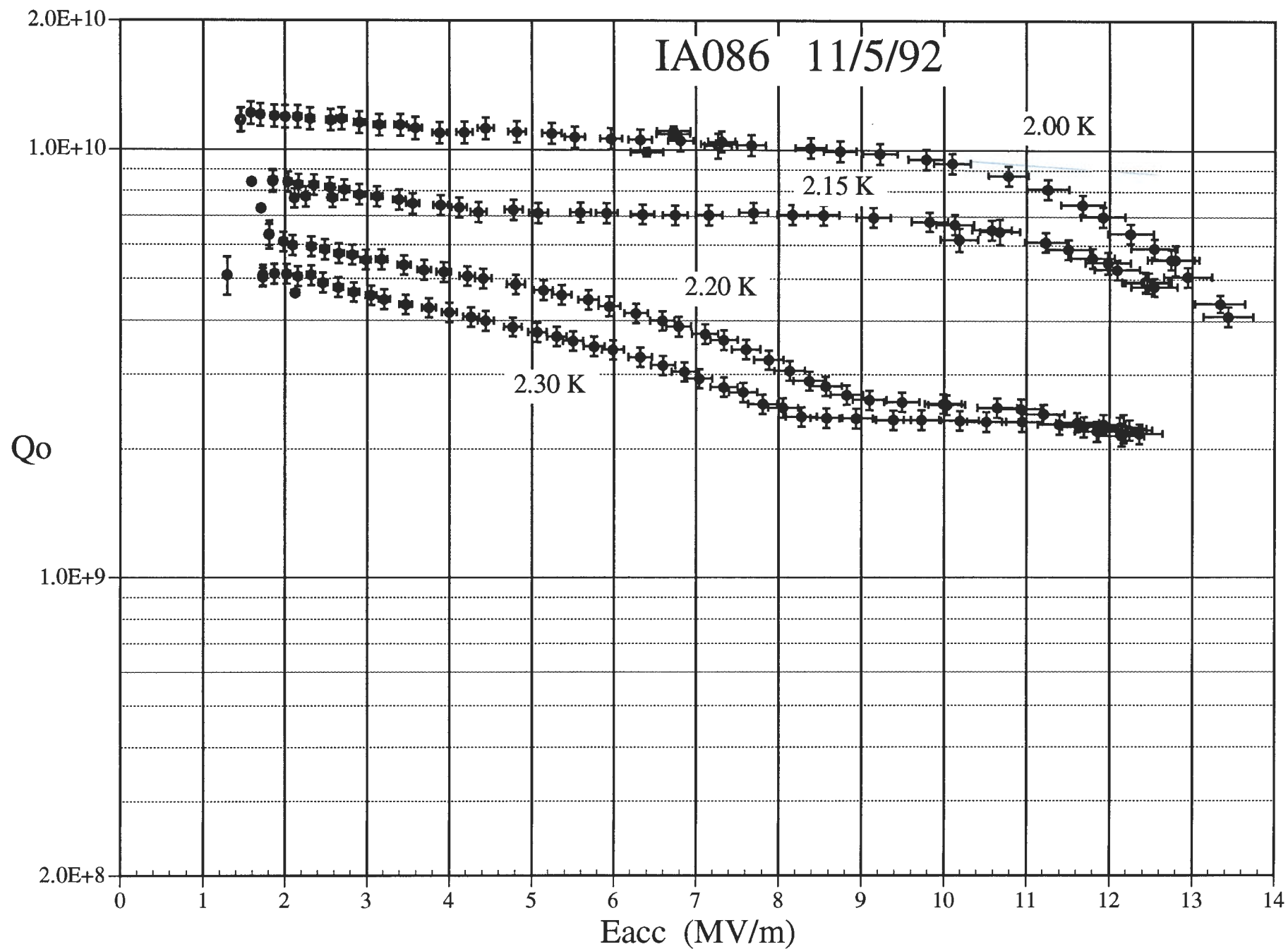


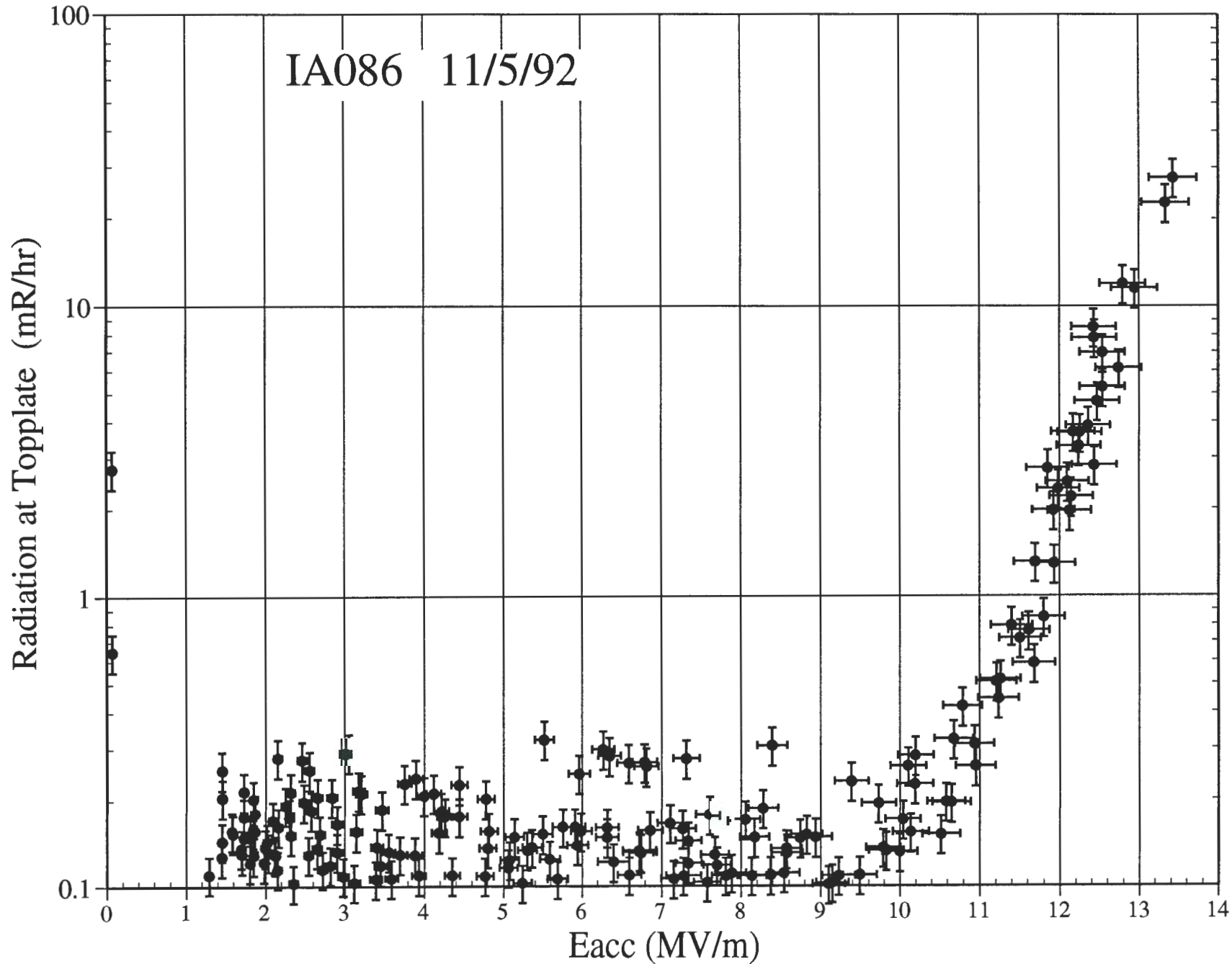




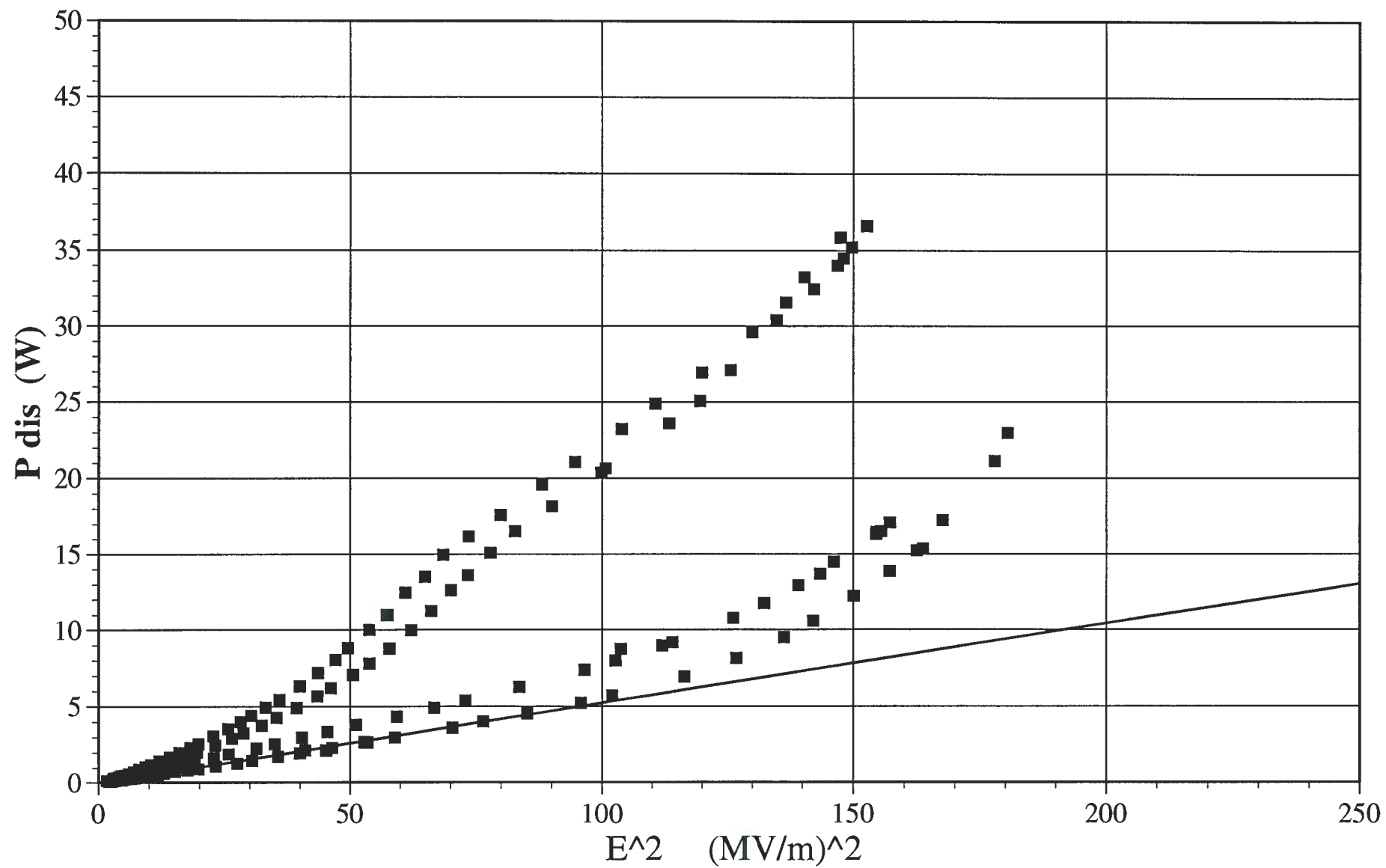




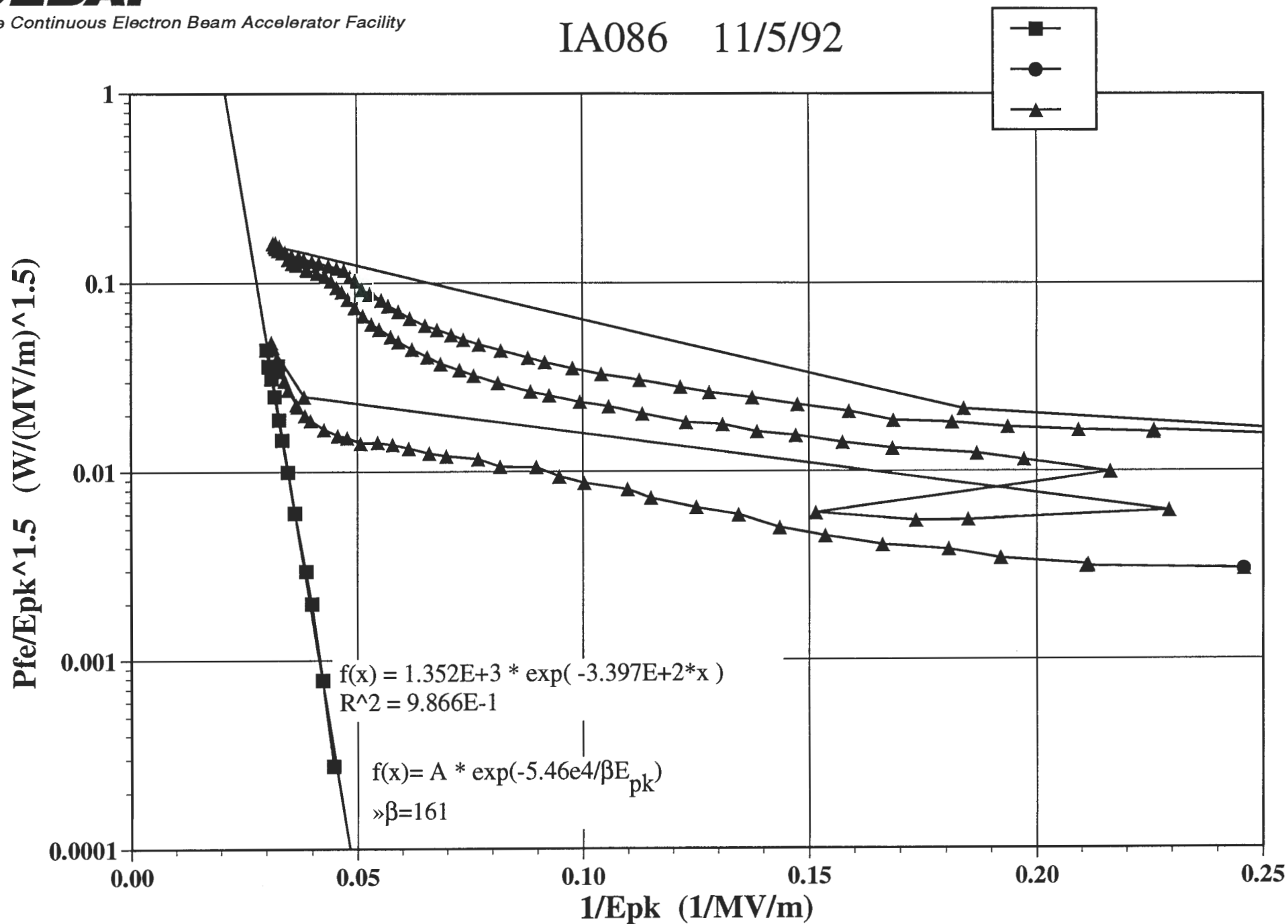


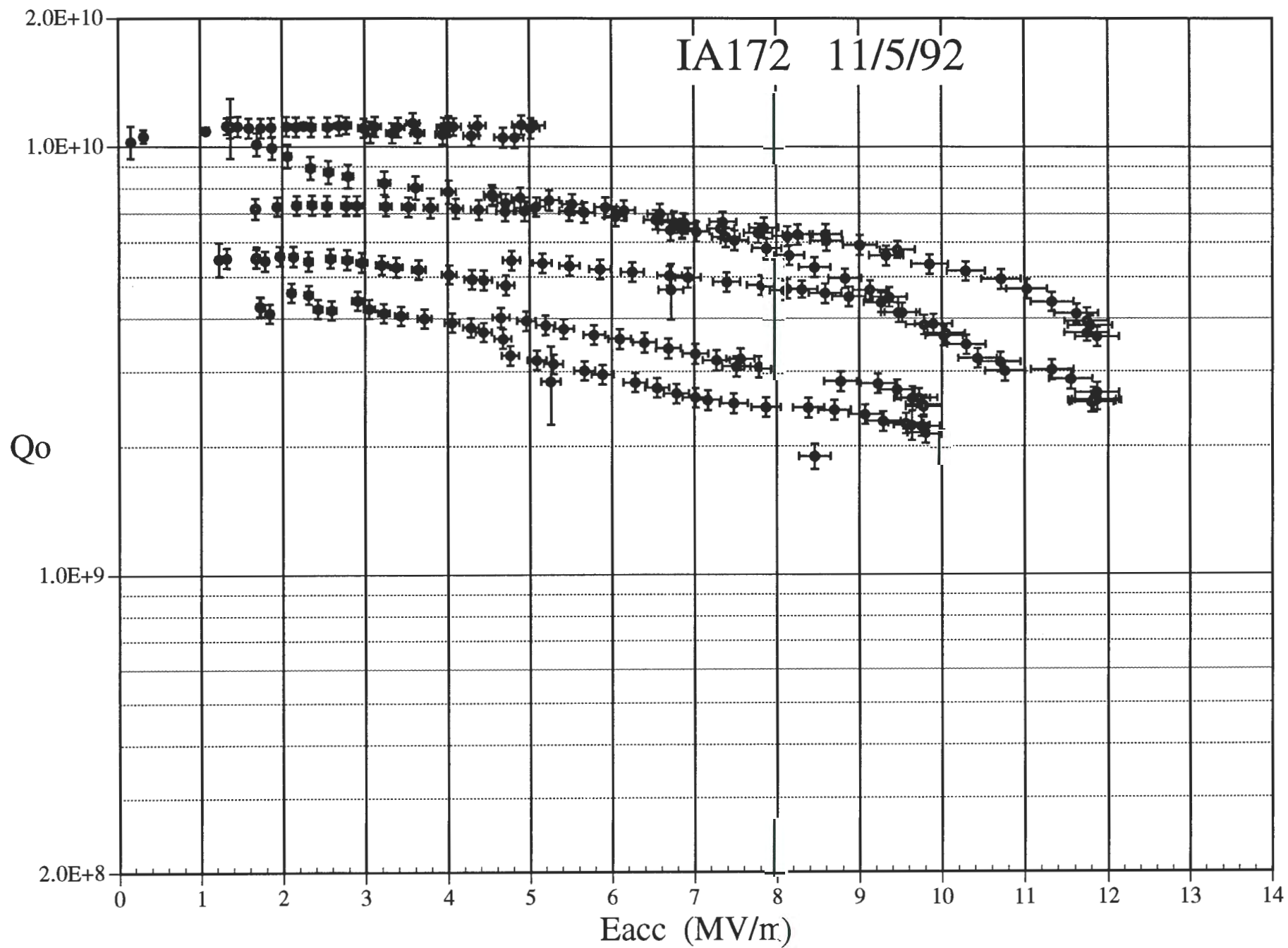


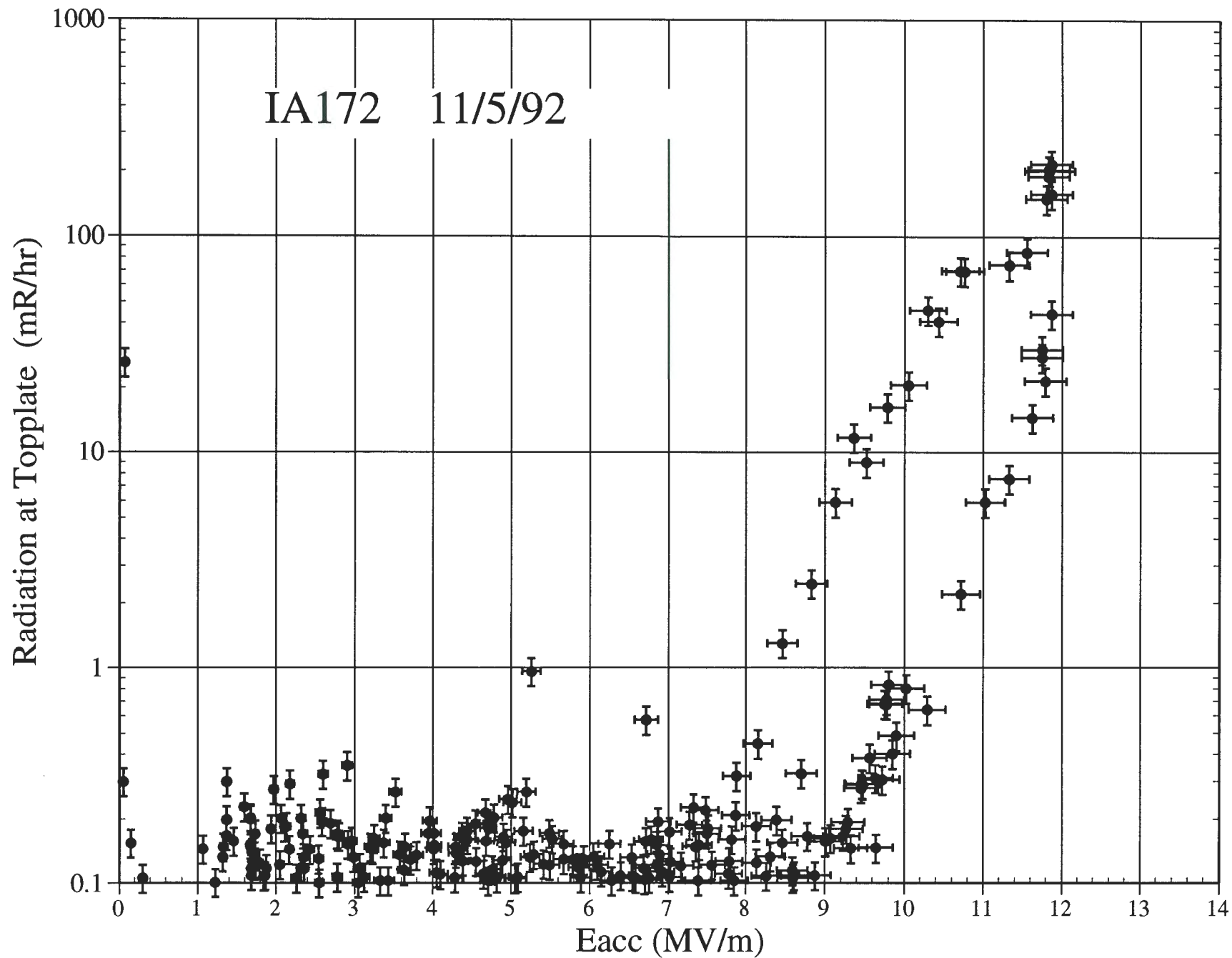
IA086 11/5/92



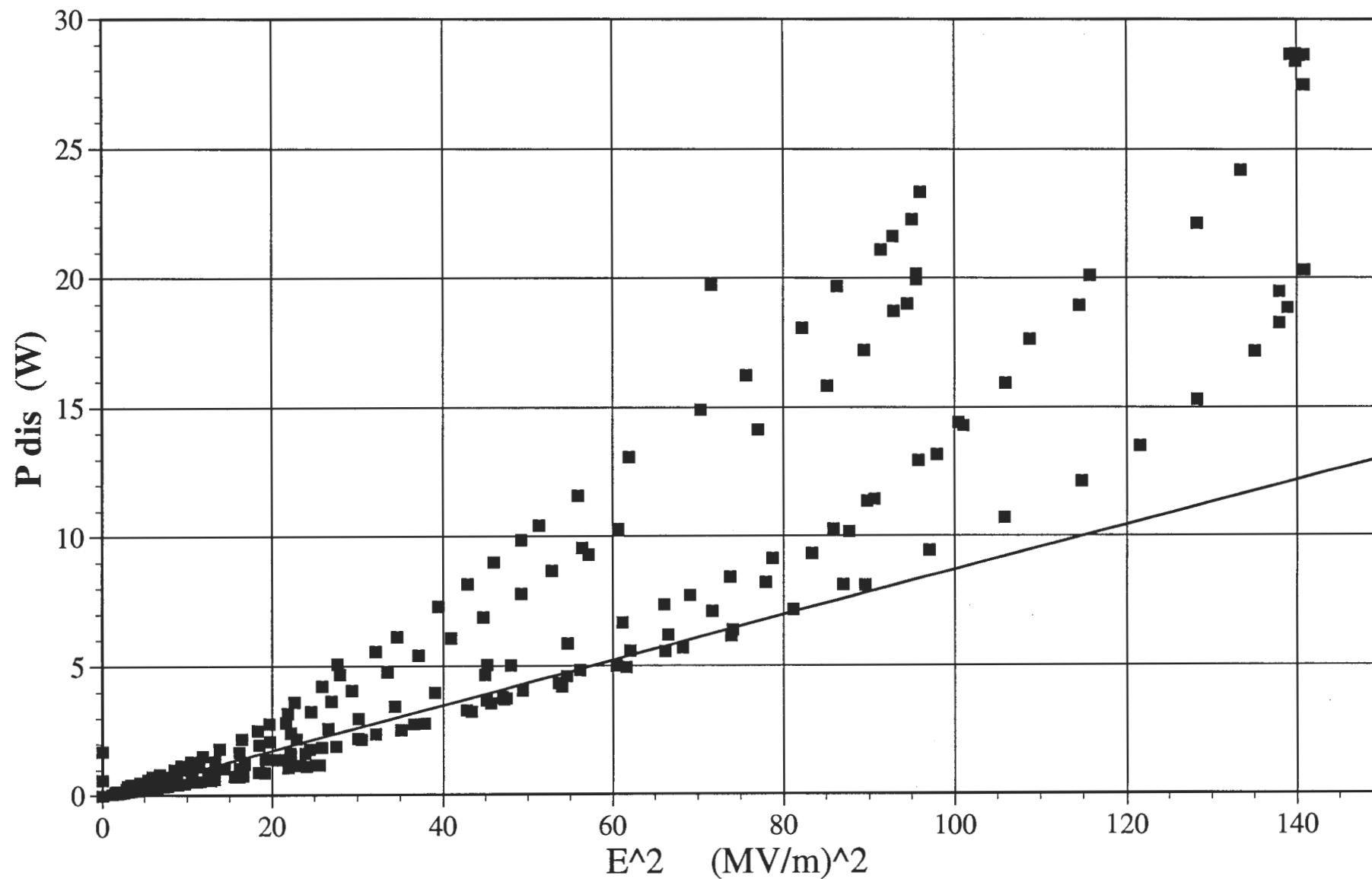
IA086 11/5/92



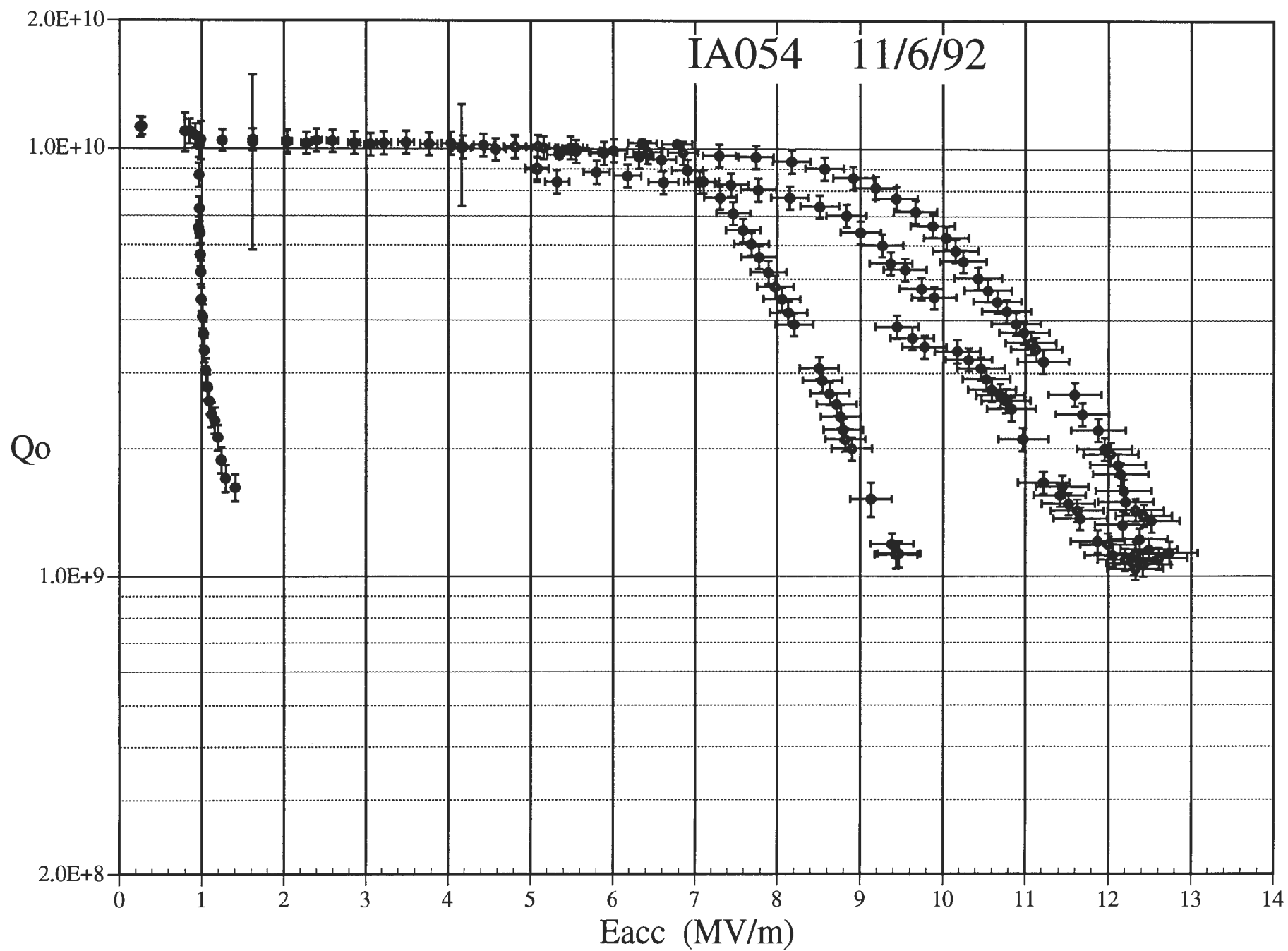


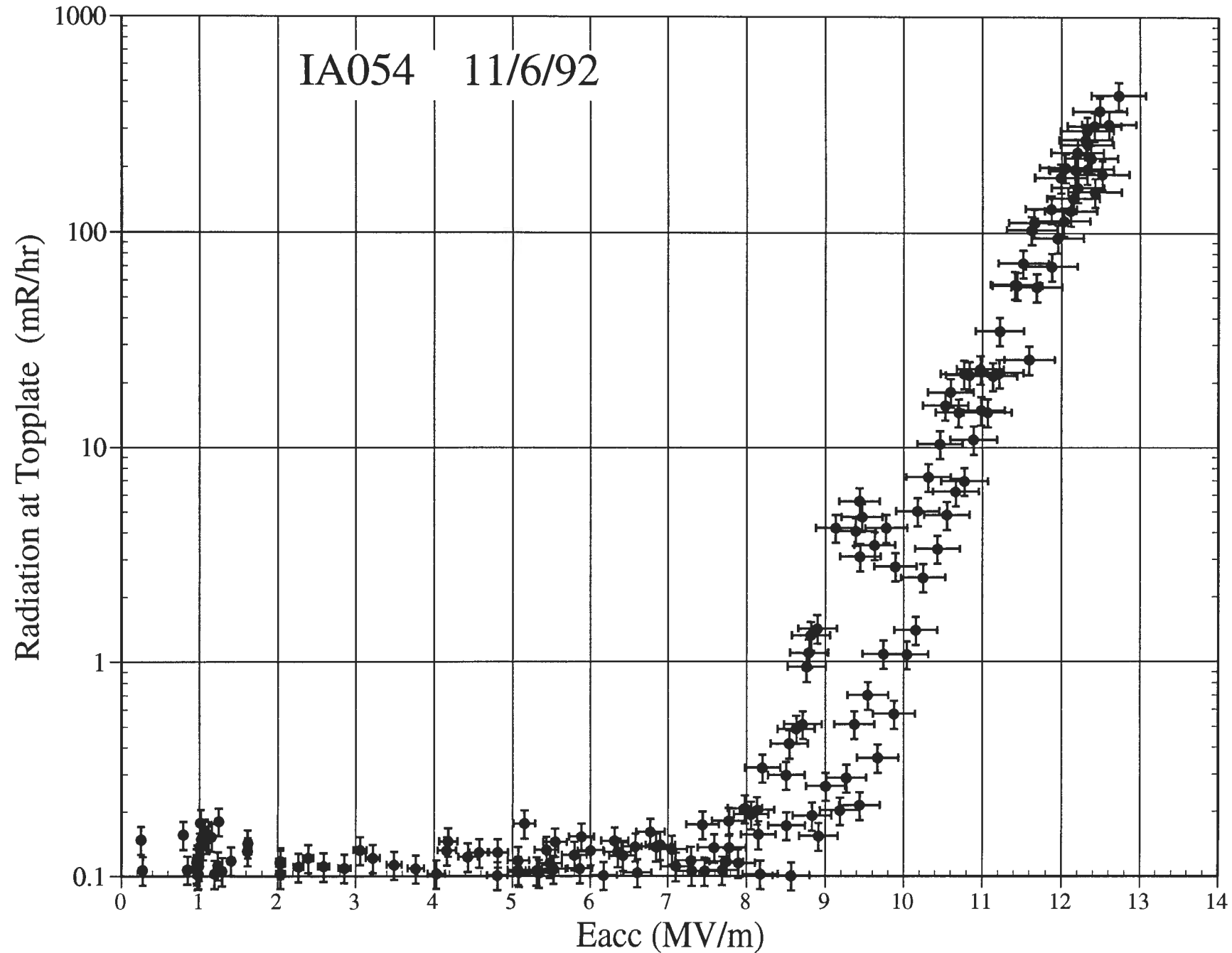


IA172 11/5/92

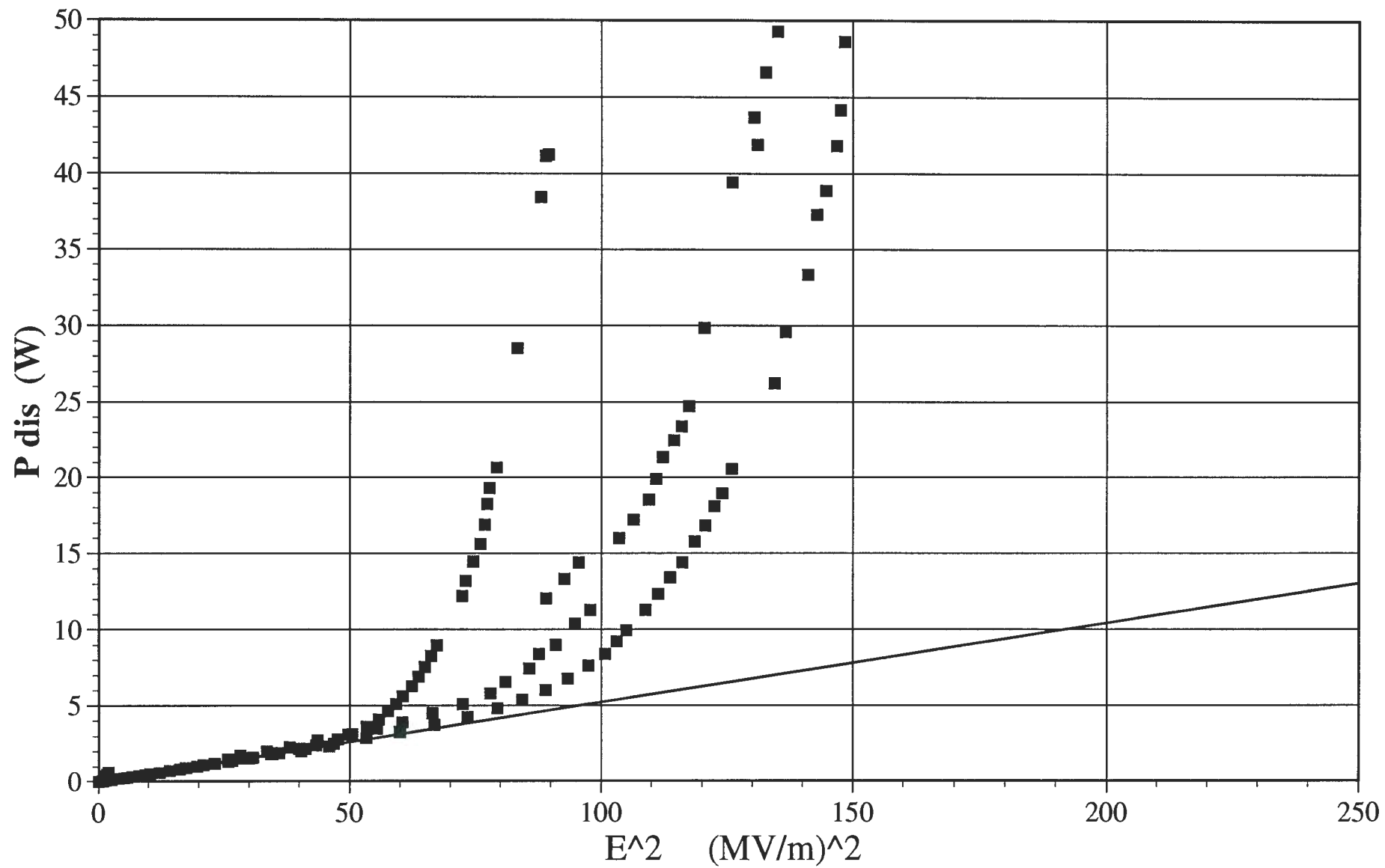


IA054 11/6/92

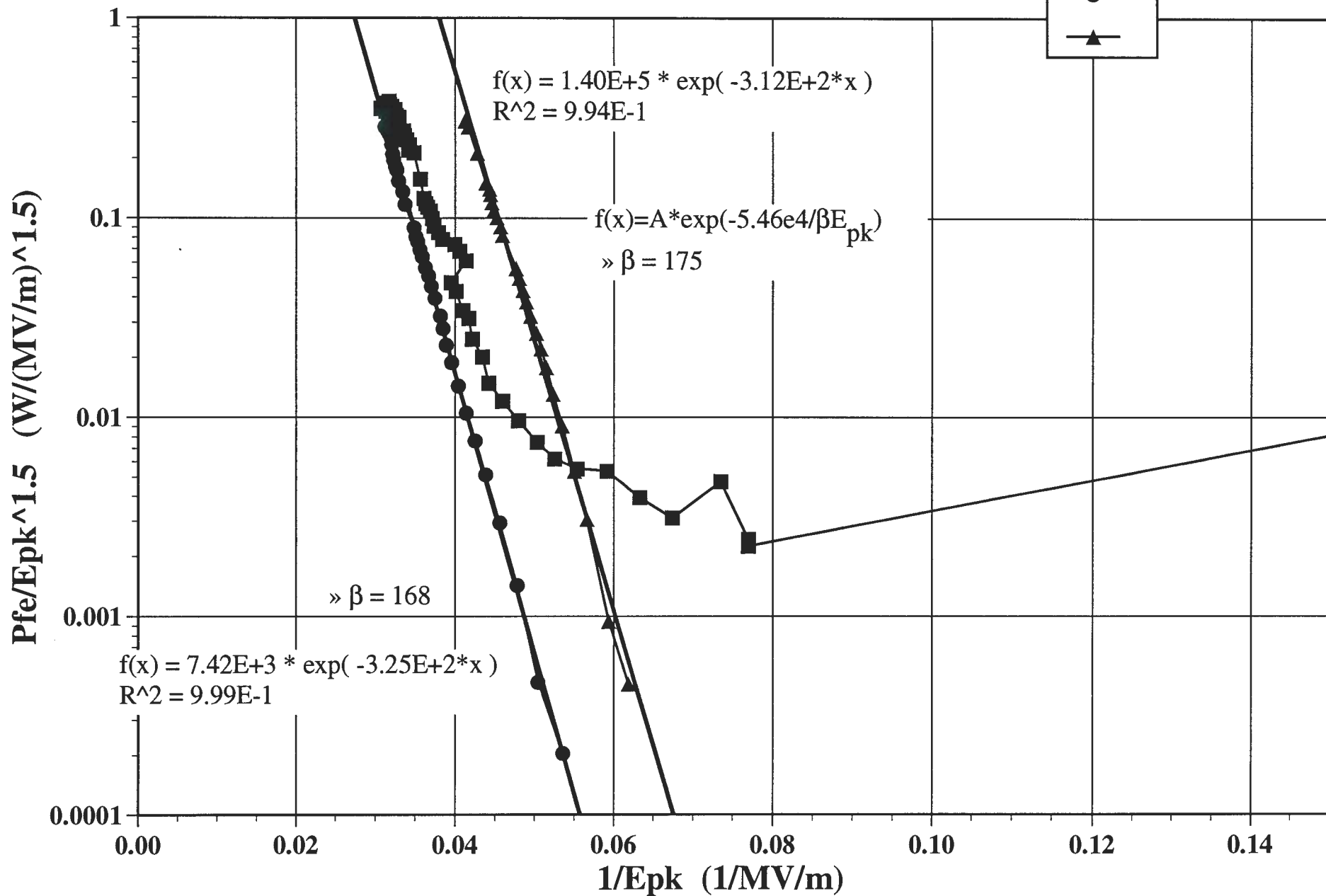


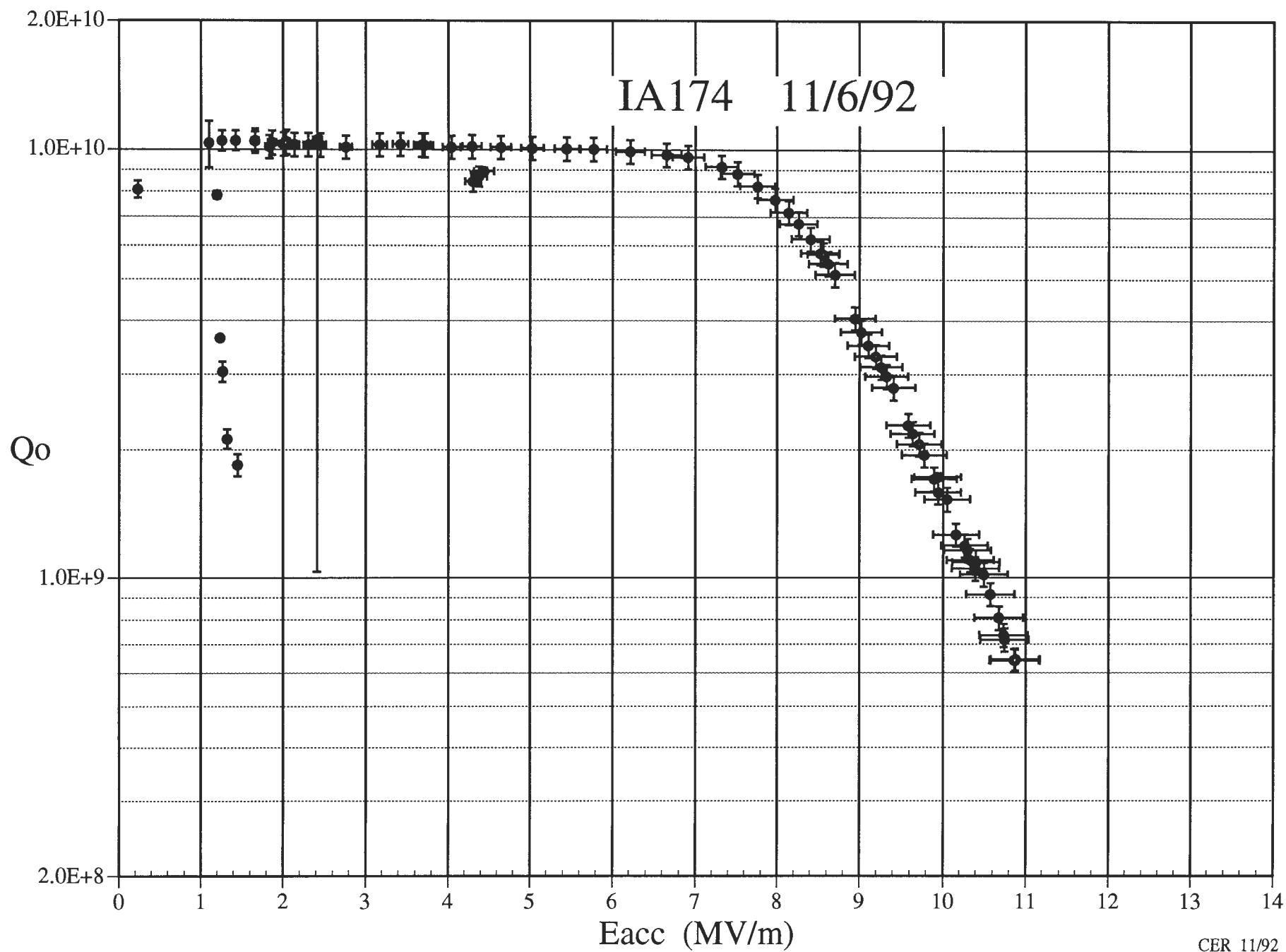


IA054 11/6/92

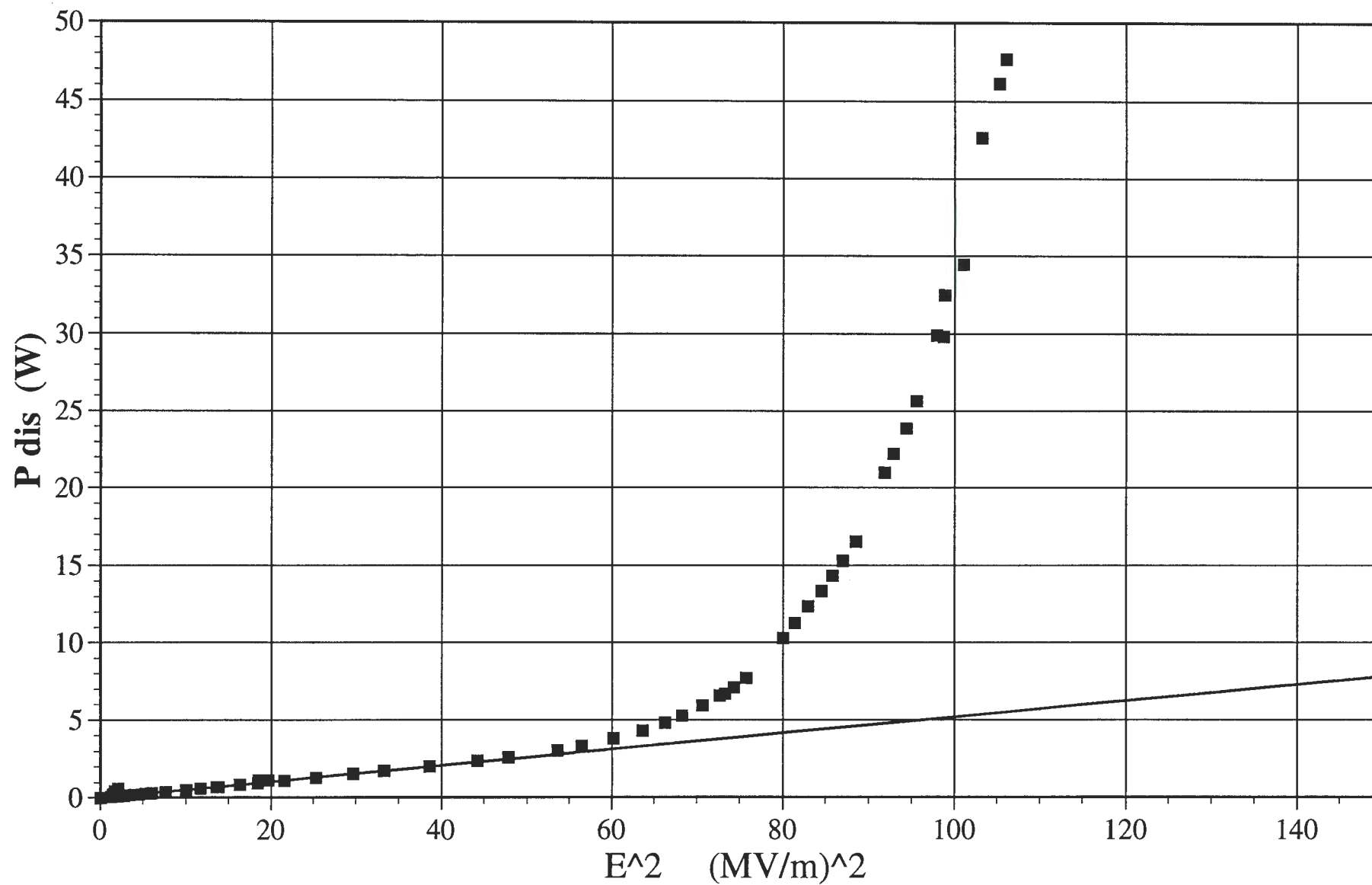


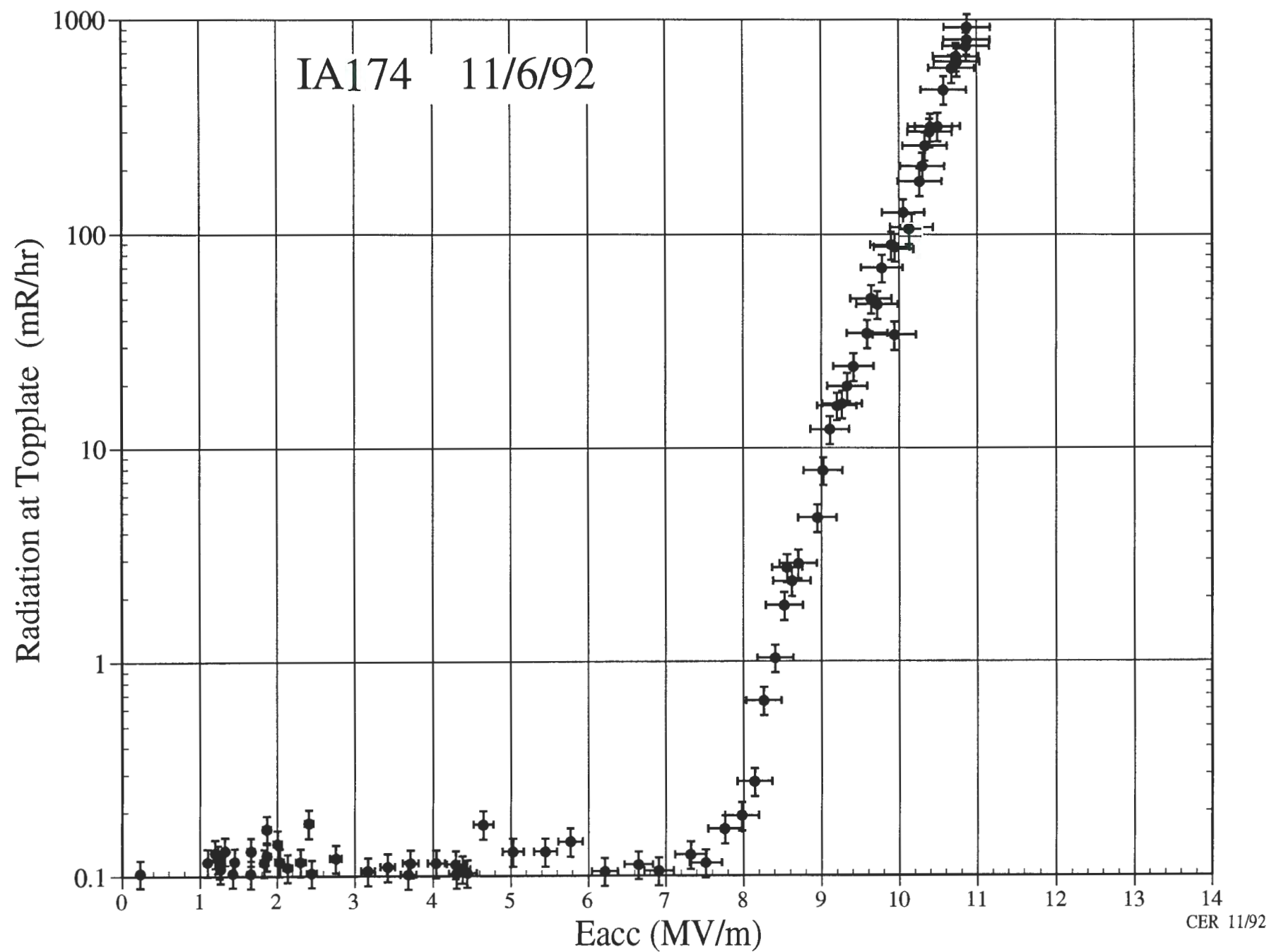
IA054 11/6/92



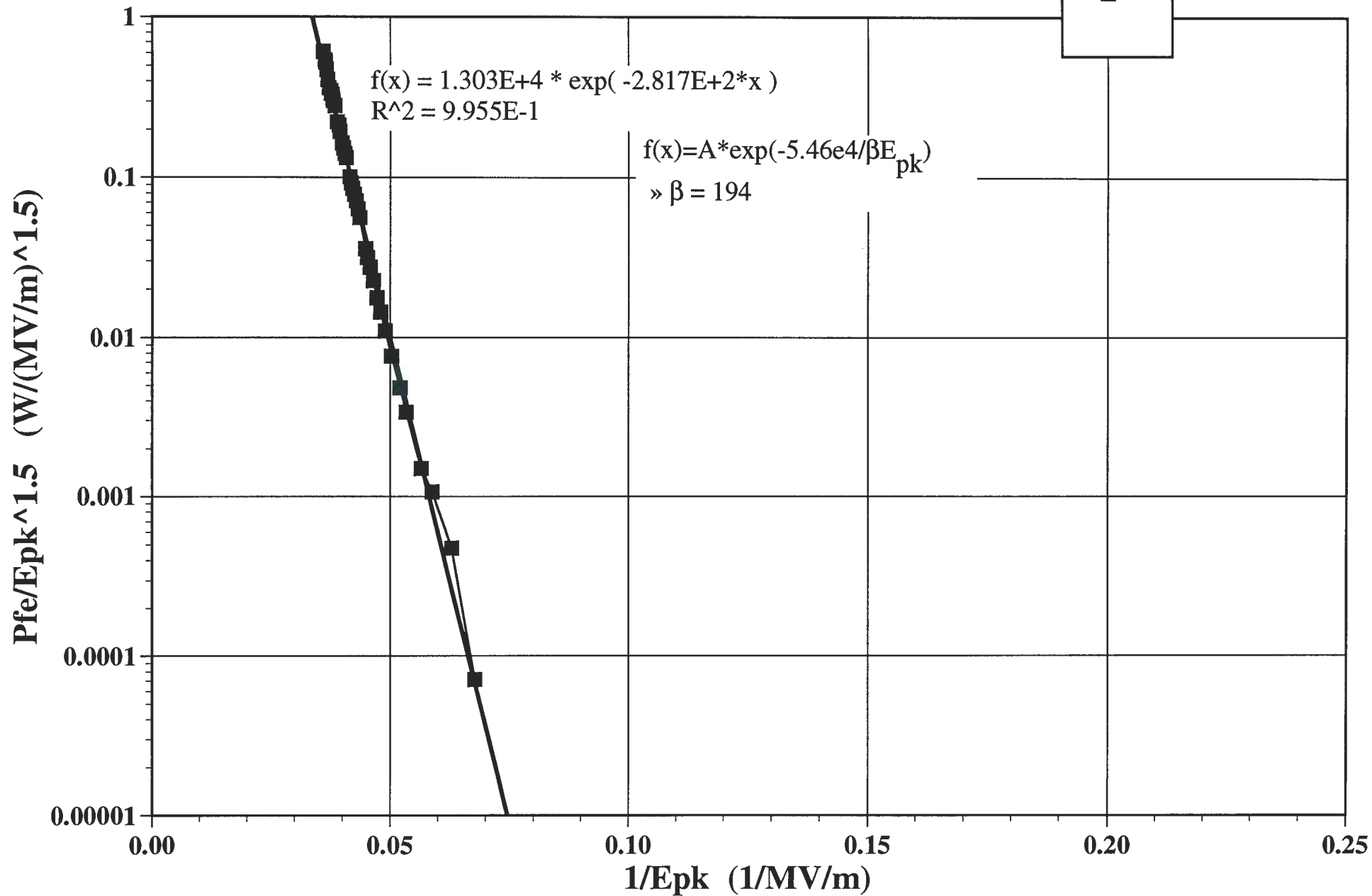


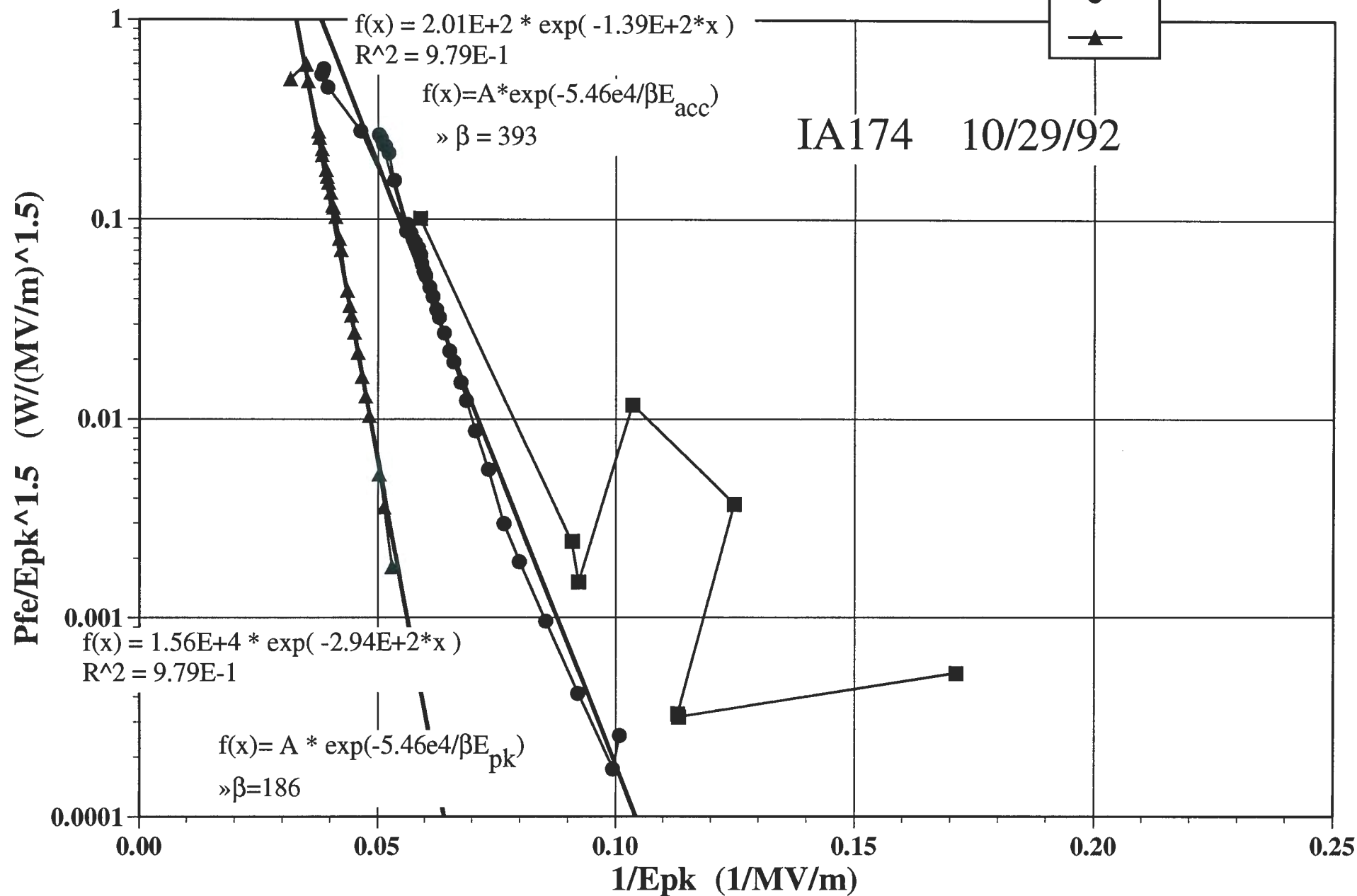
IA174 11/6/92

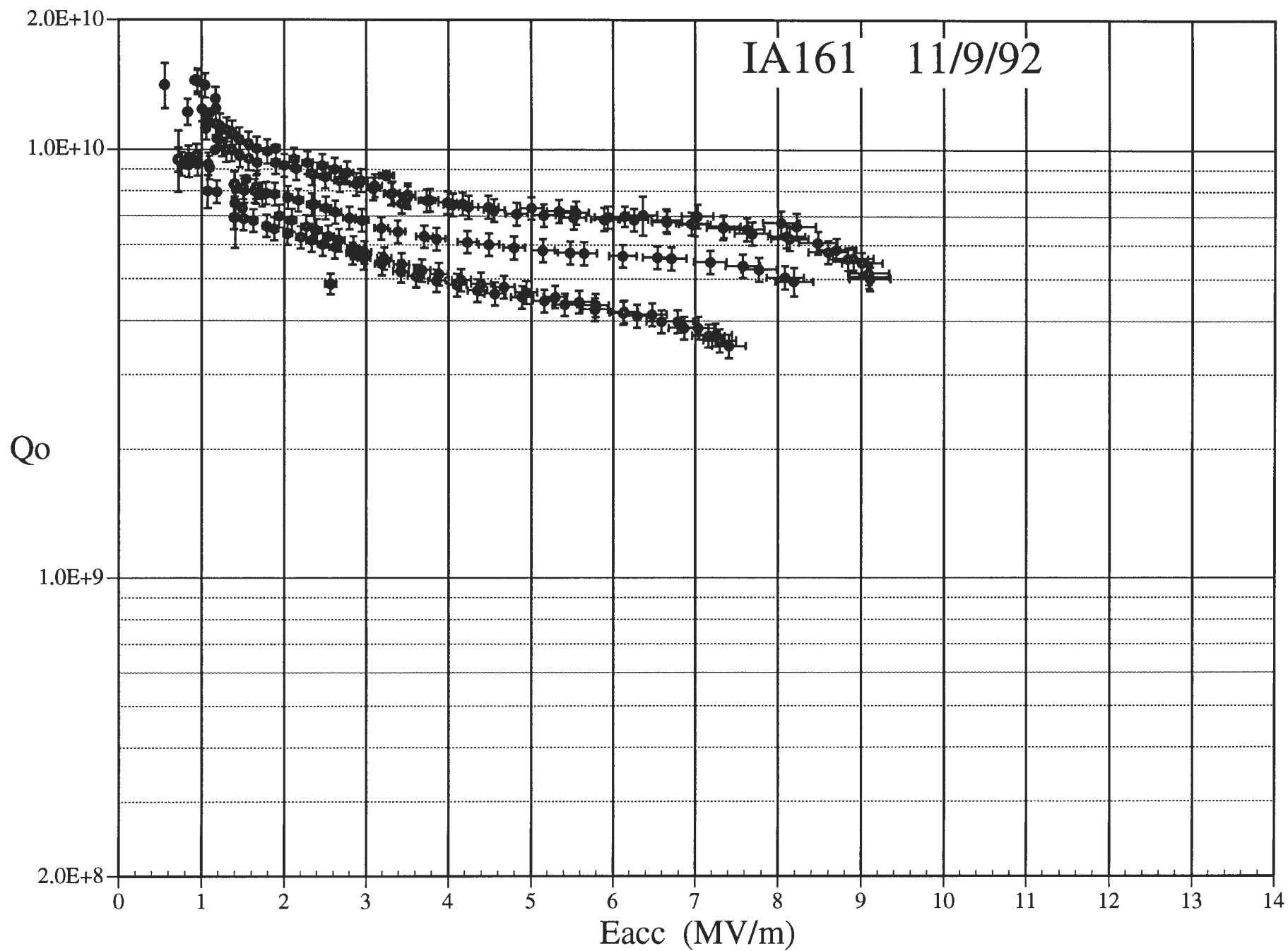


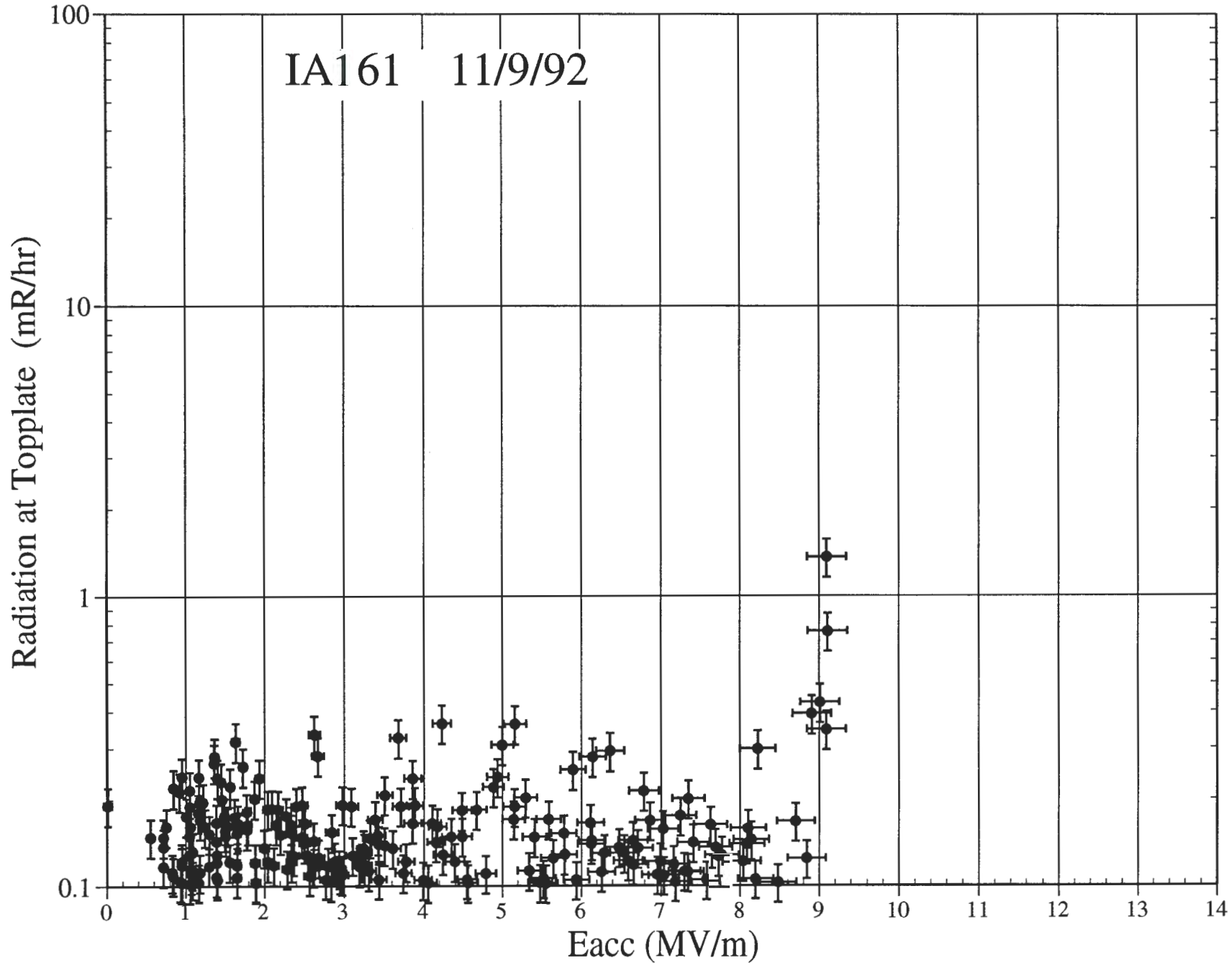


IA174 11/6/92

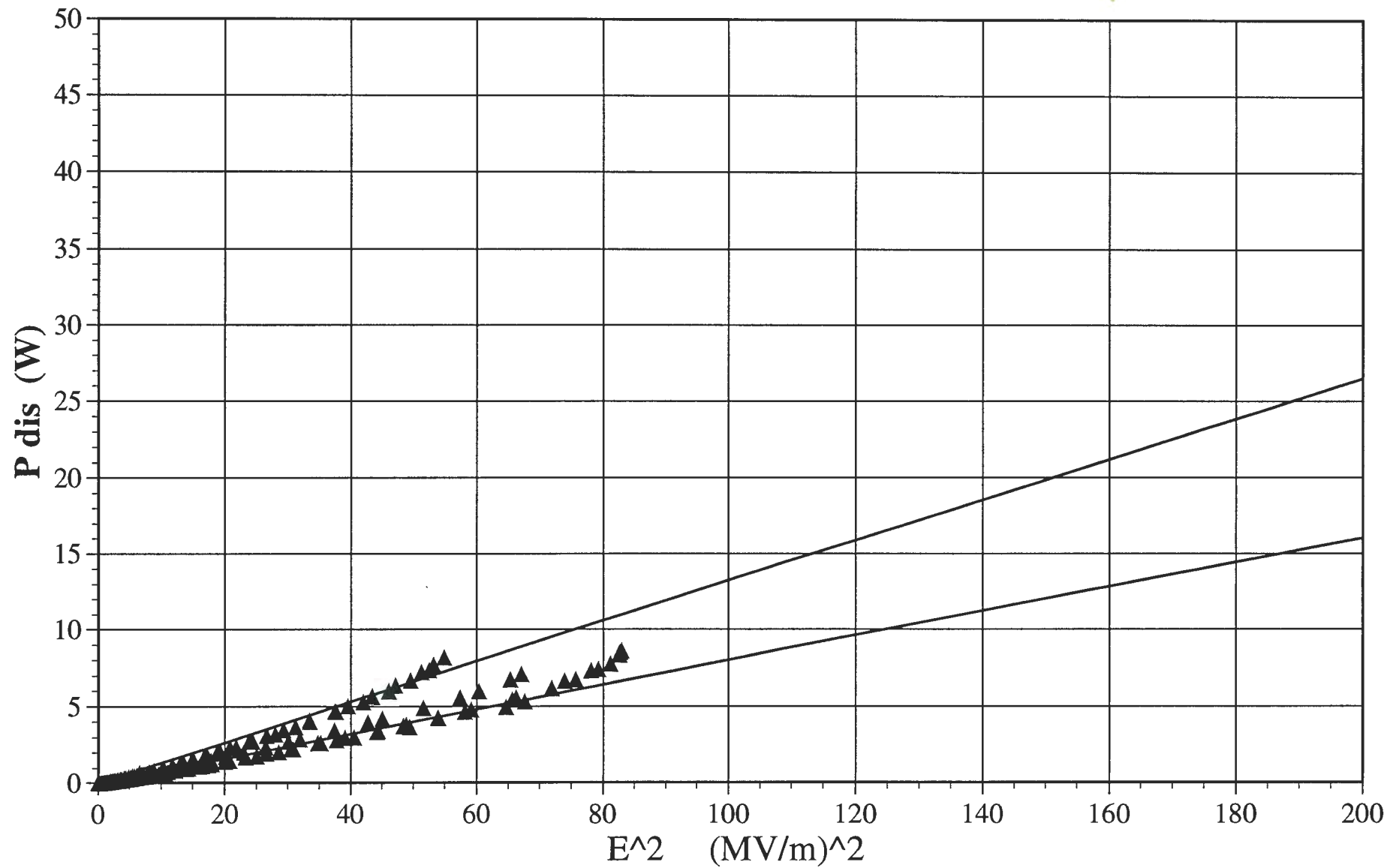


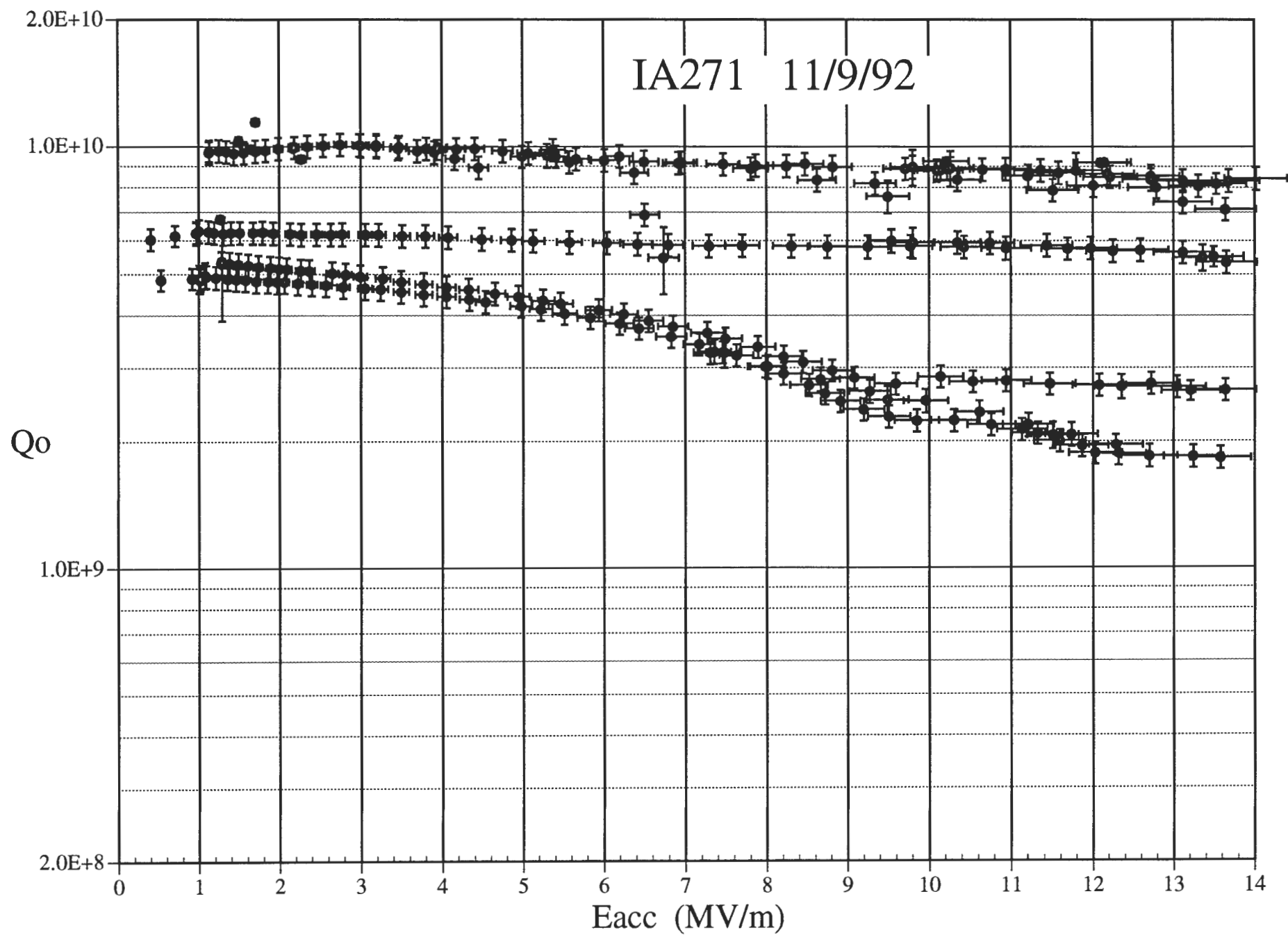


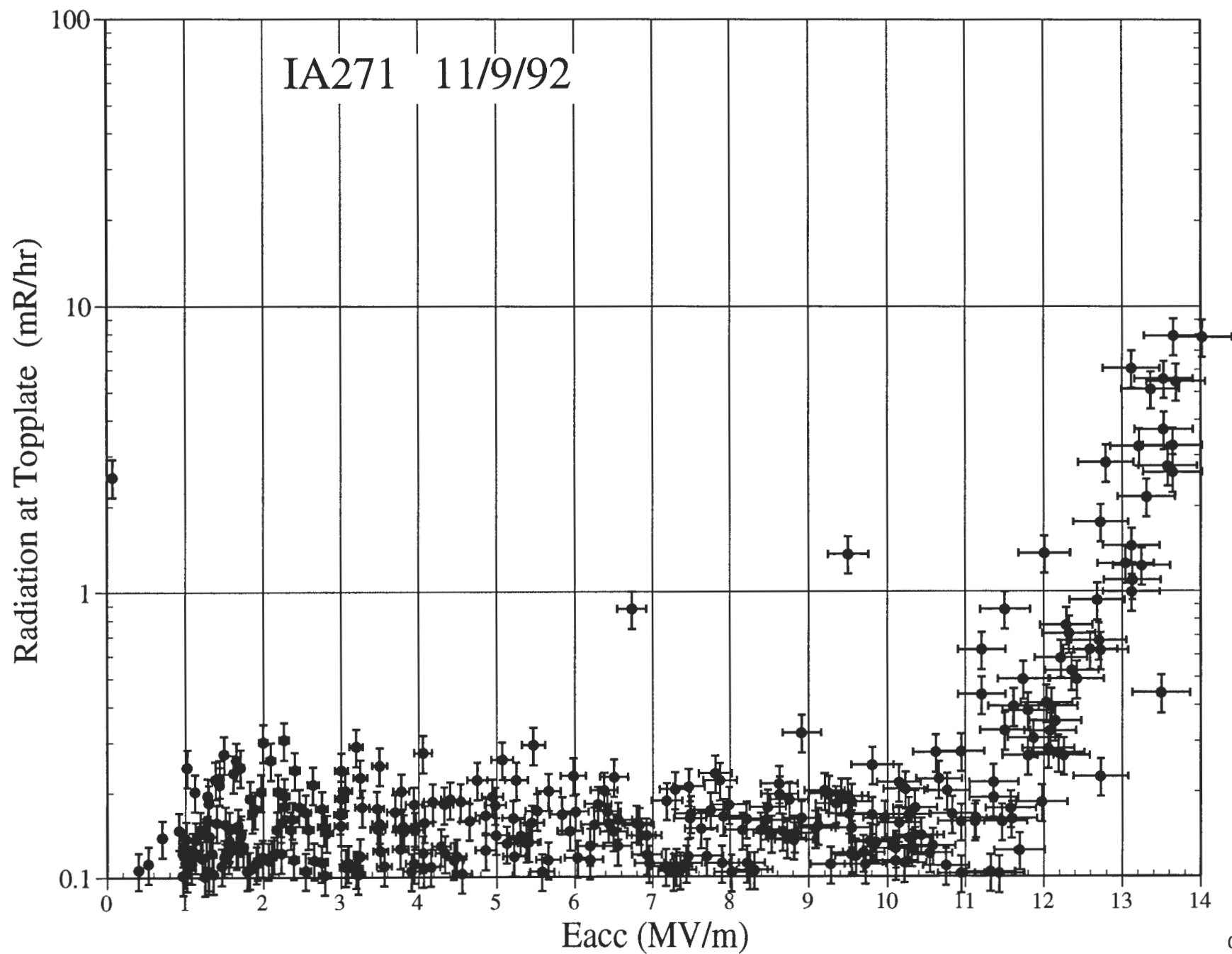




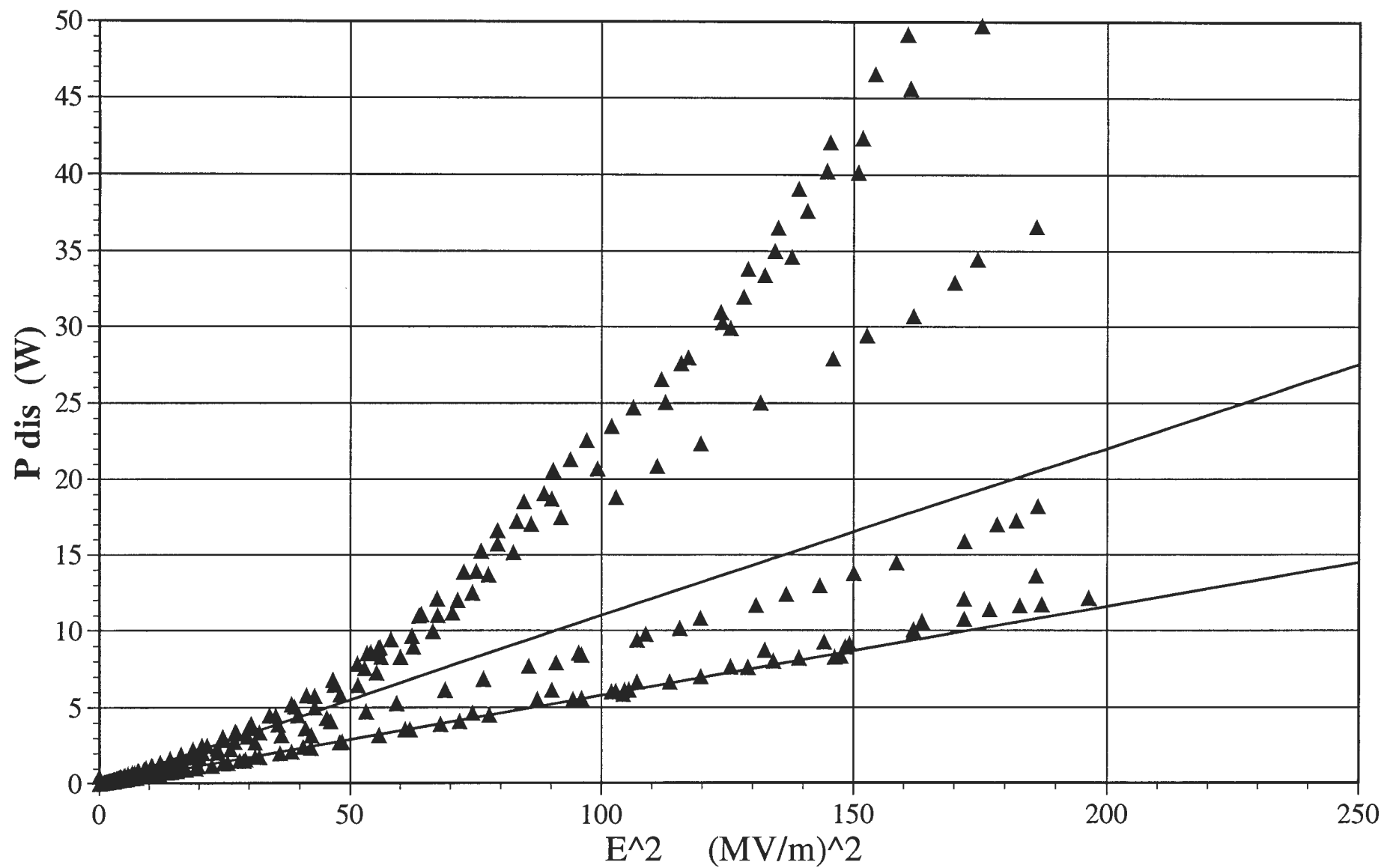
IA161 11/9/92



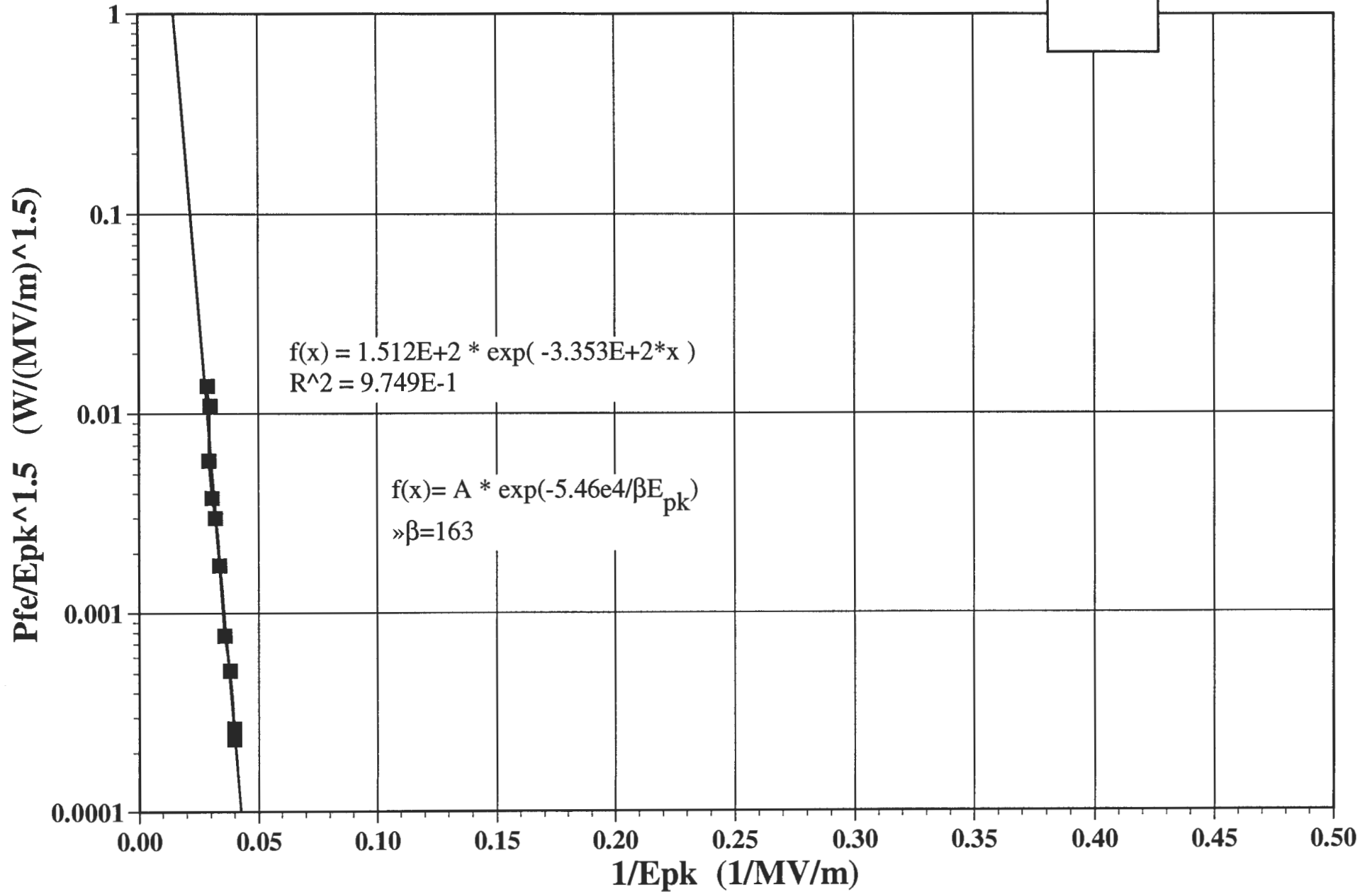


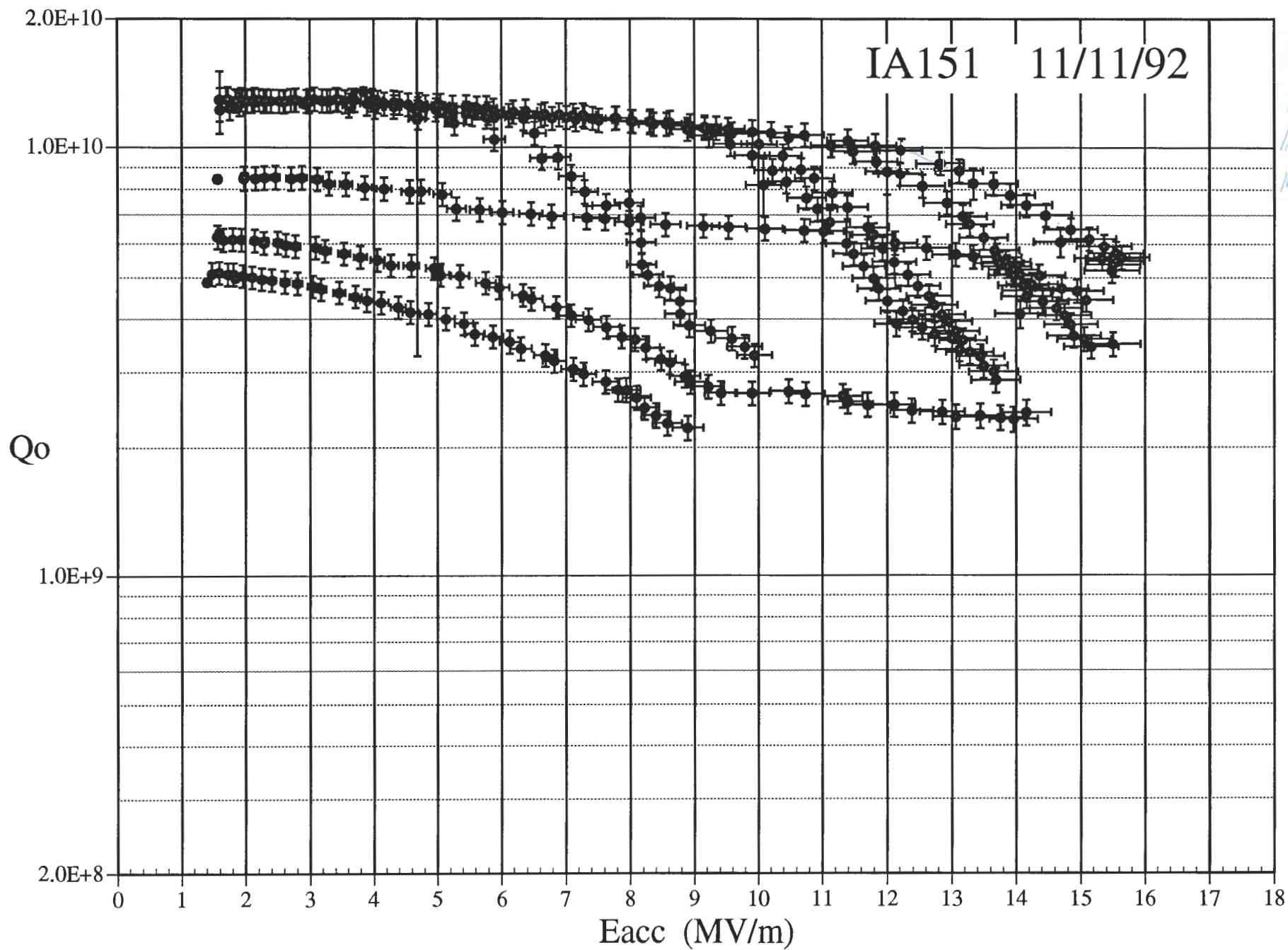


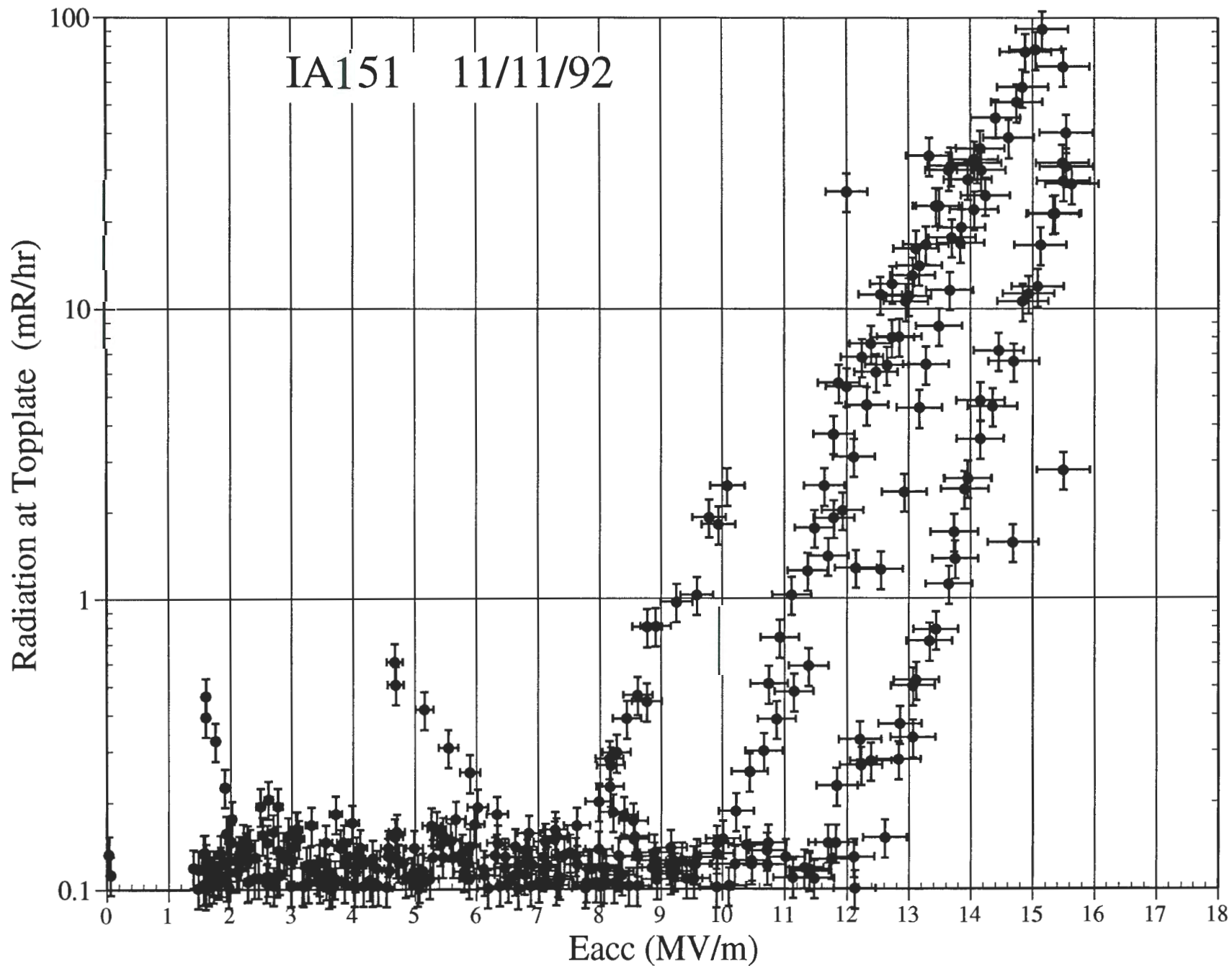
IA271 11/9/92



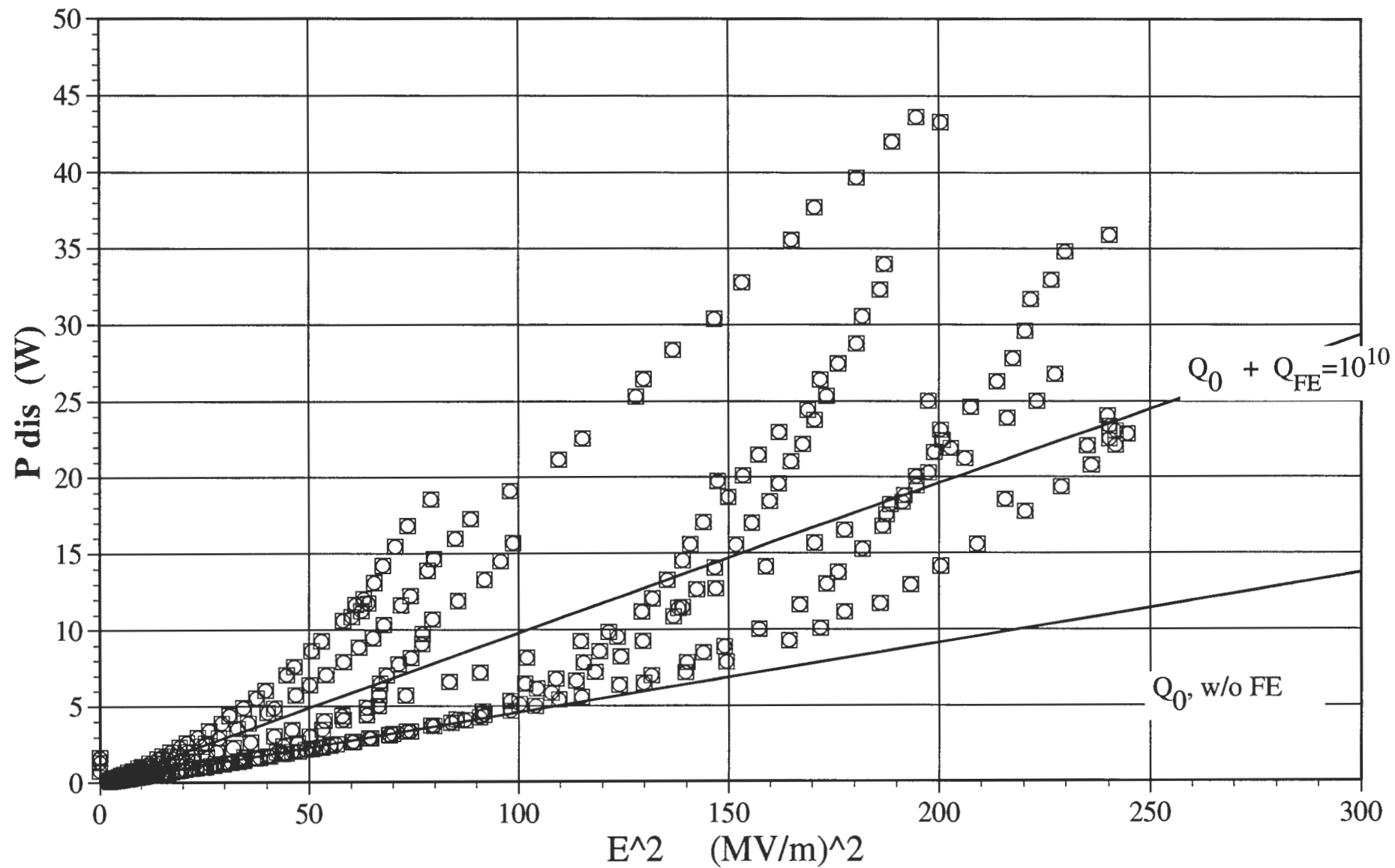
IA271 11/9/92



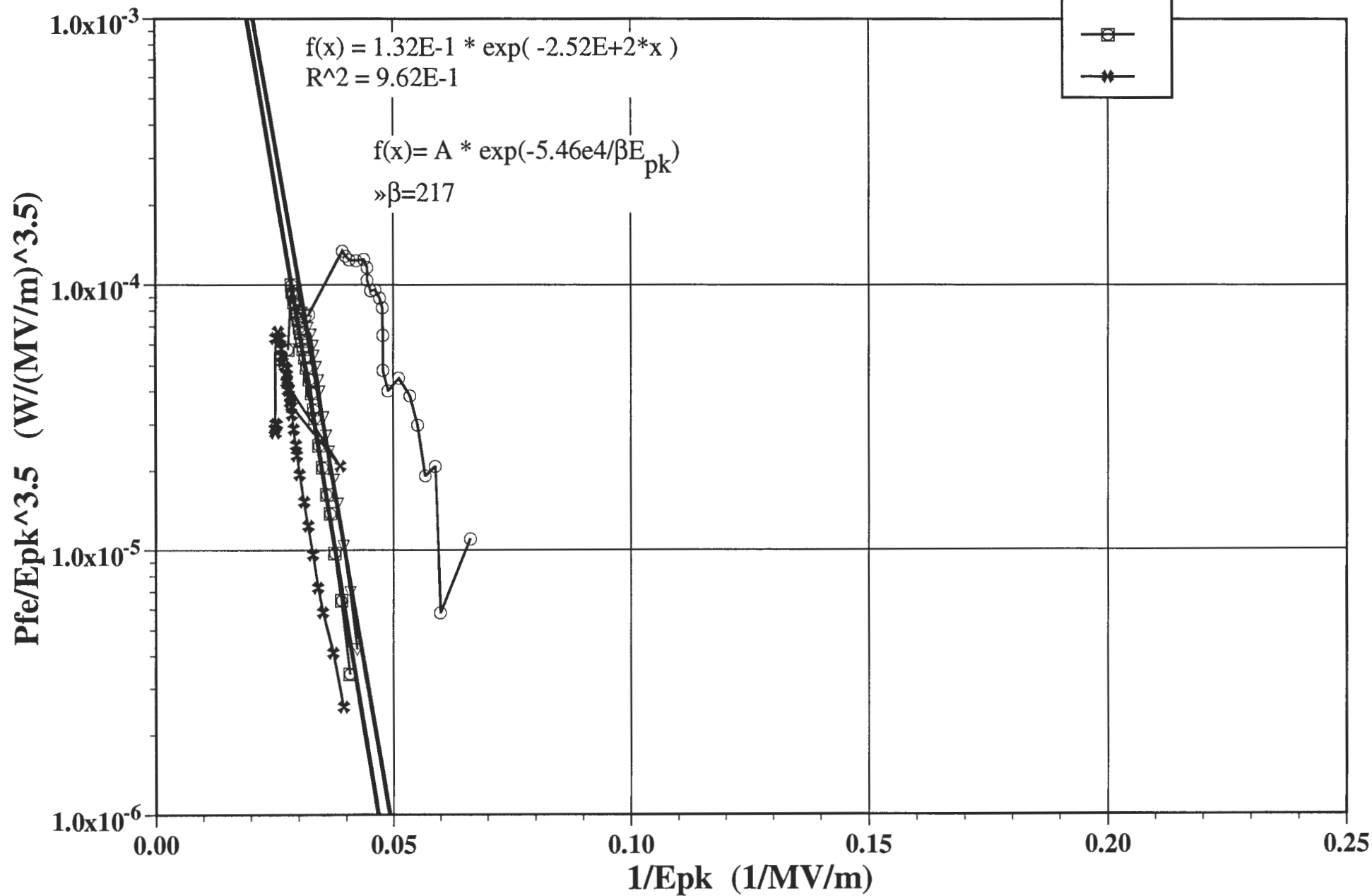


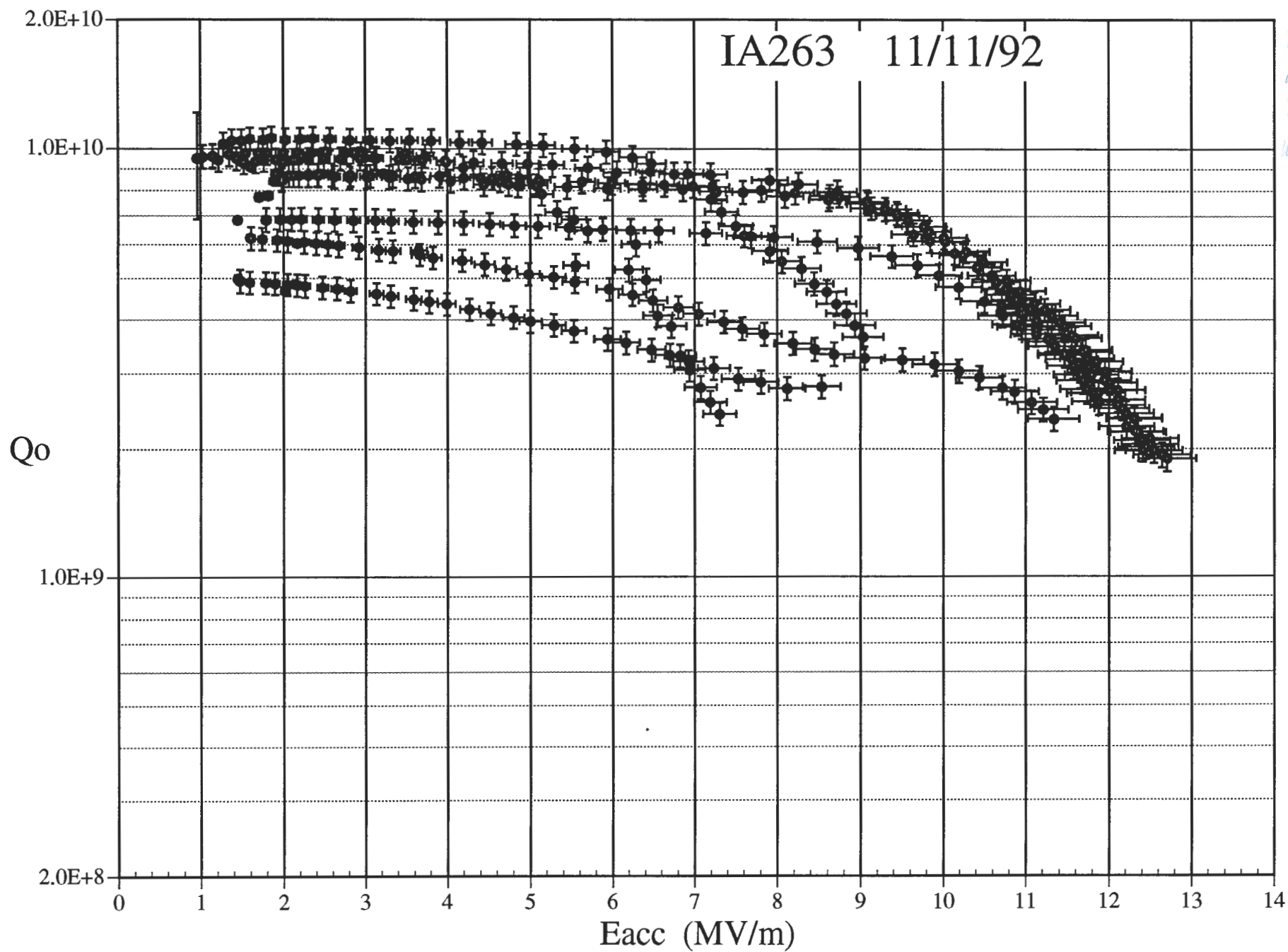


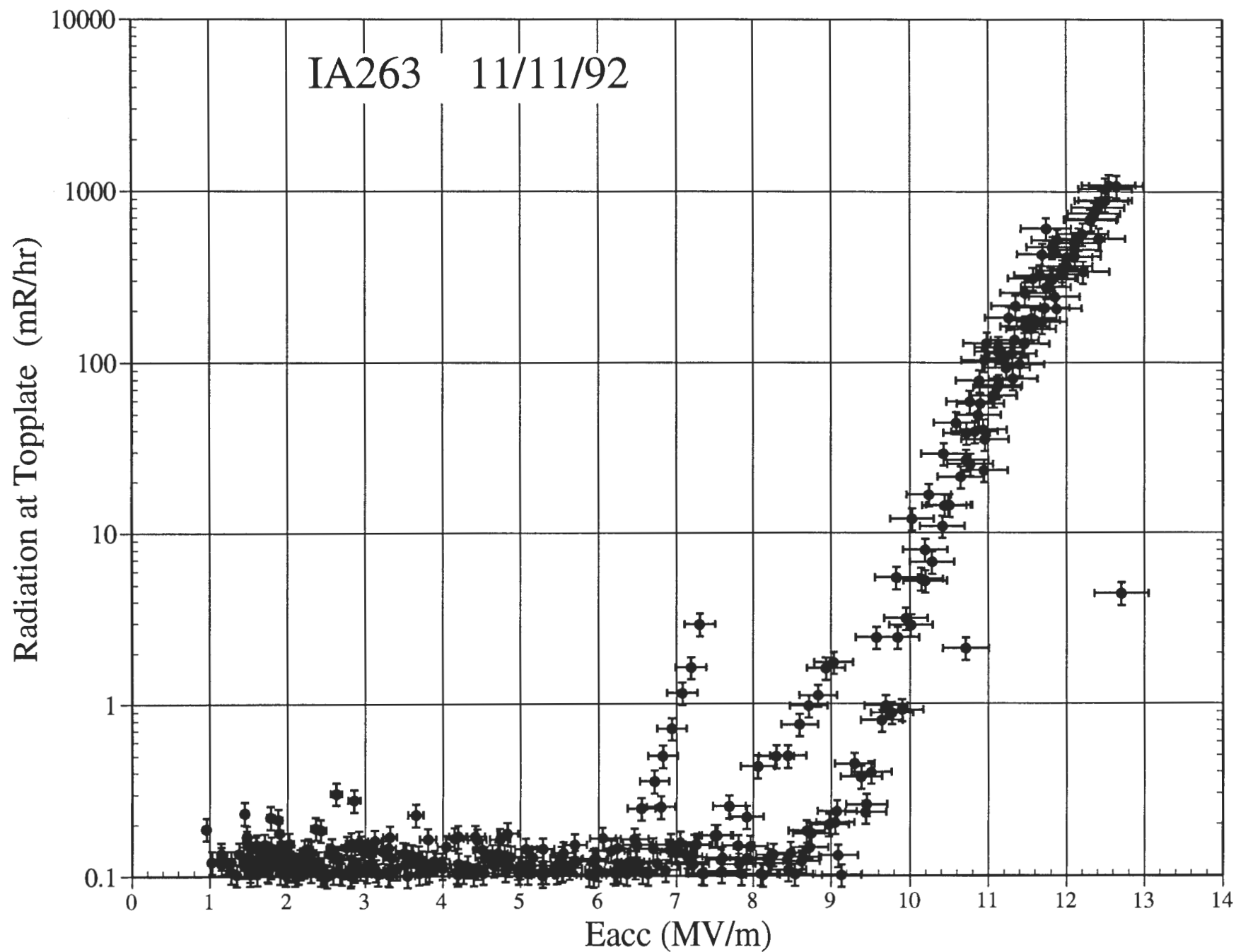
IA151 11/11/92



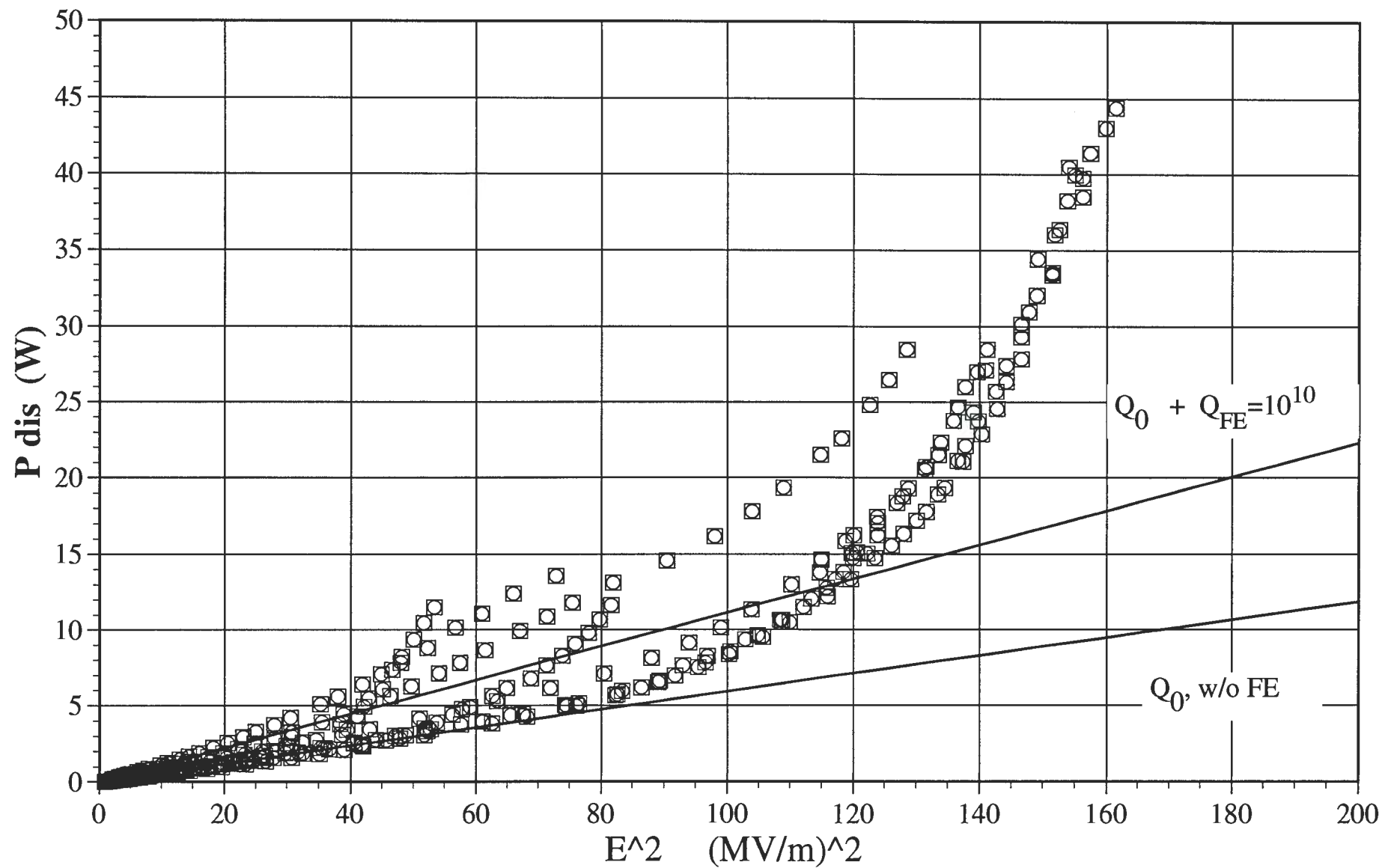
IA151 11/11/92



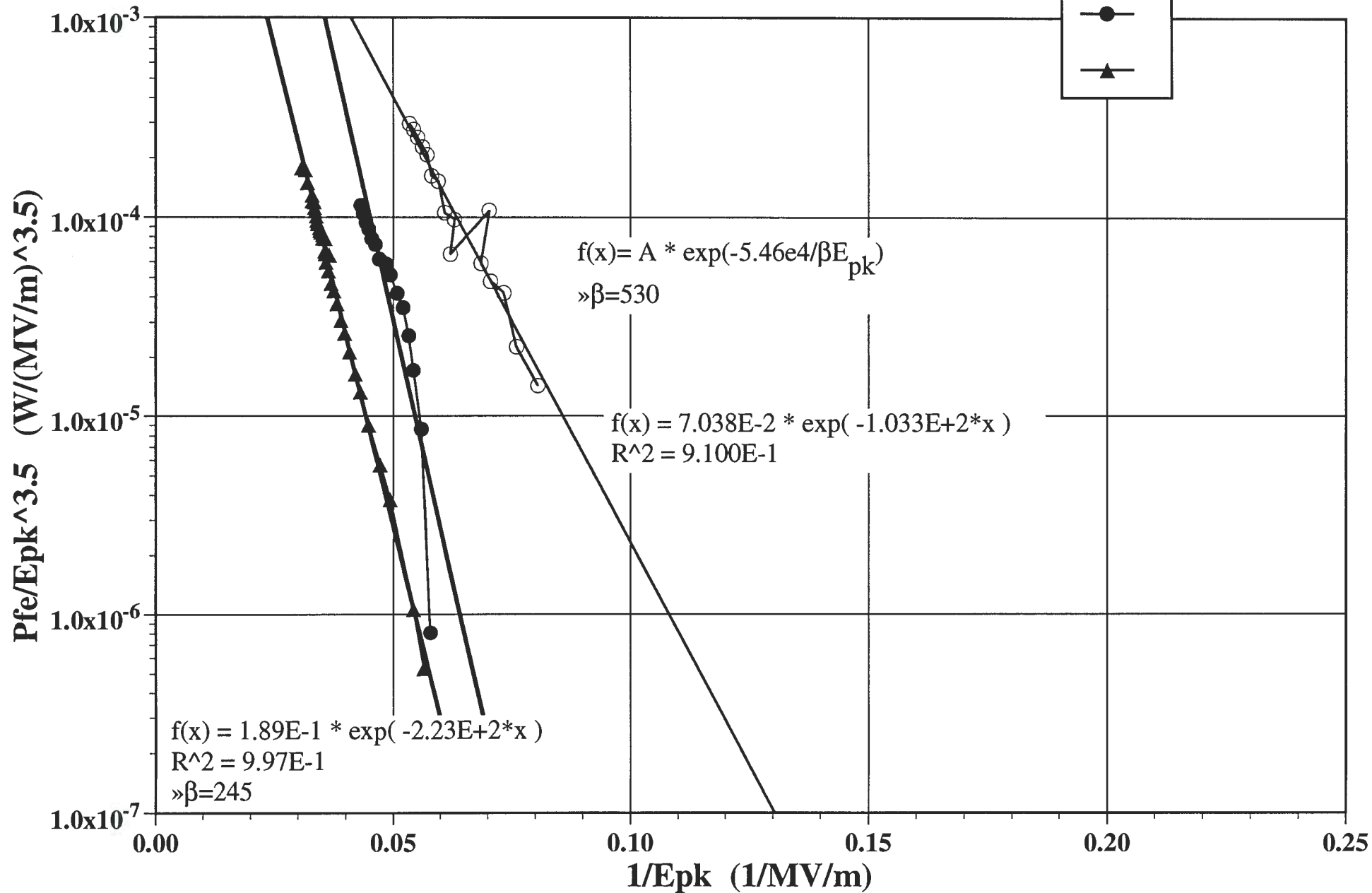


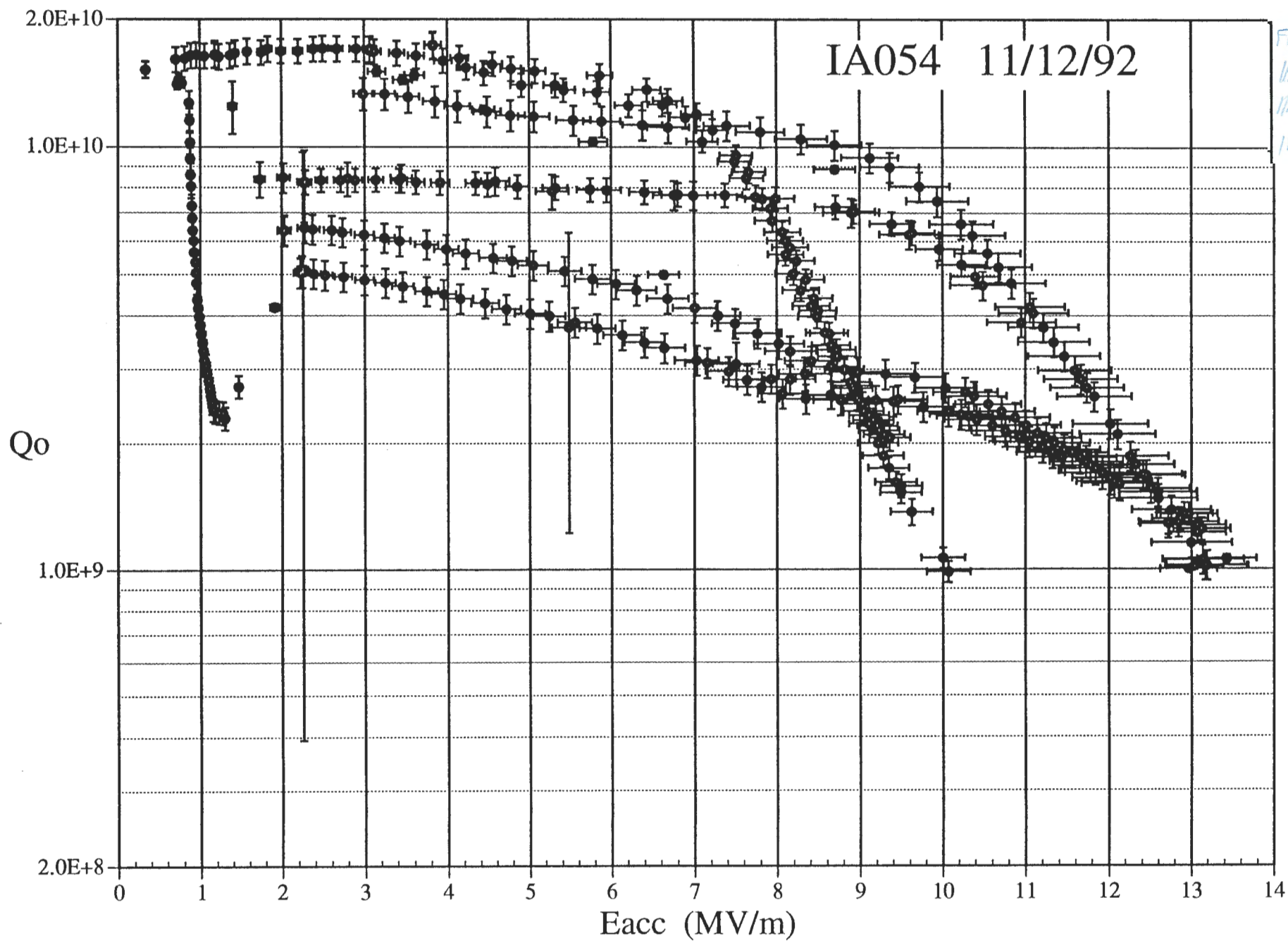


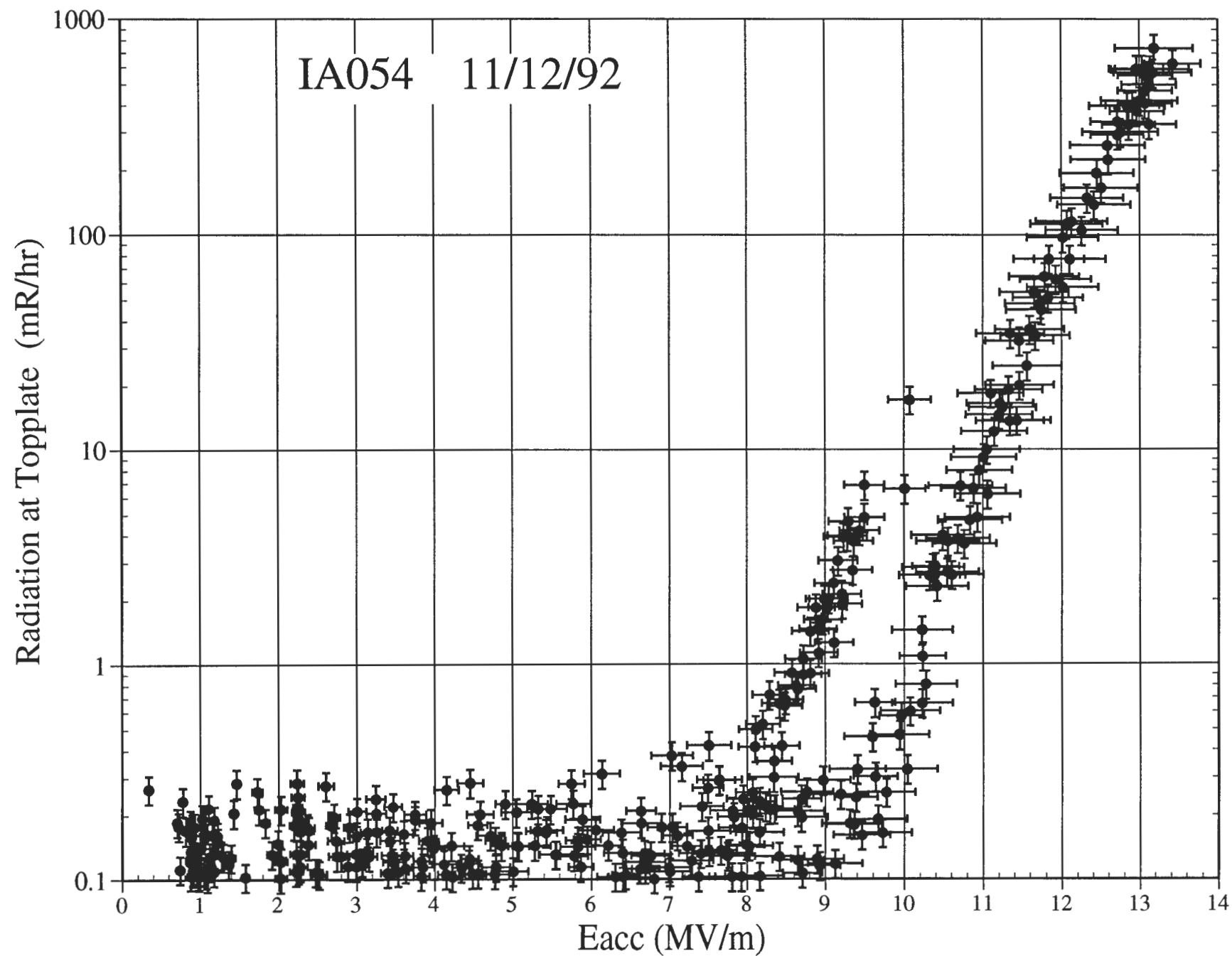
IA263 11/11/92



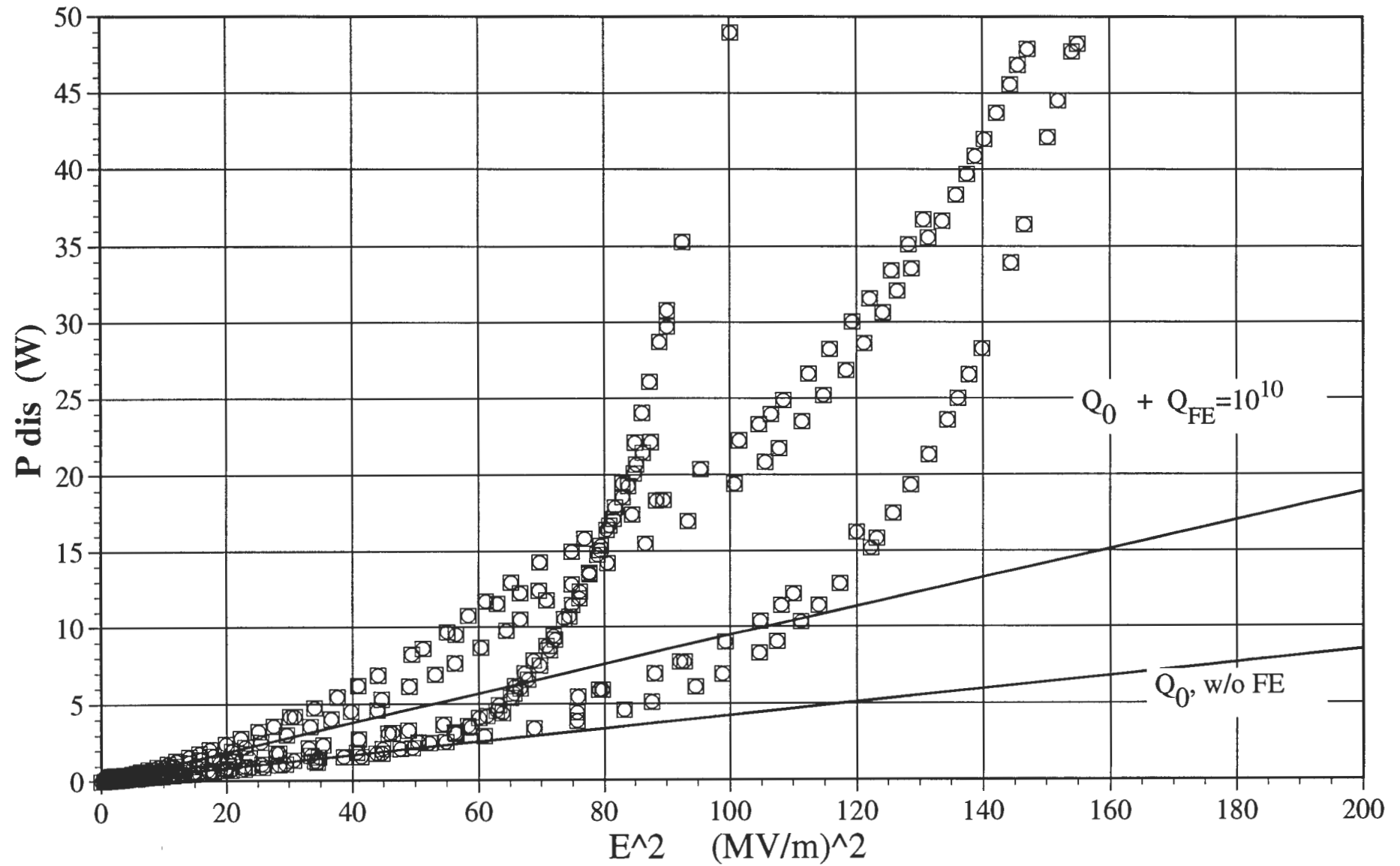
IA263 11/11/92



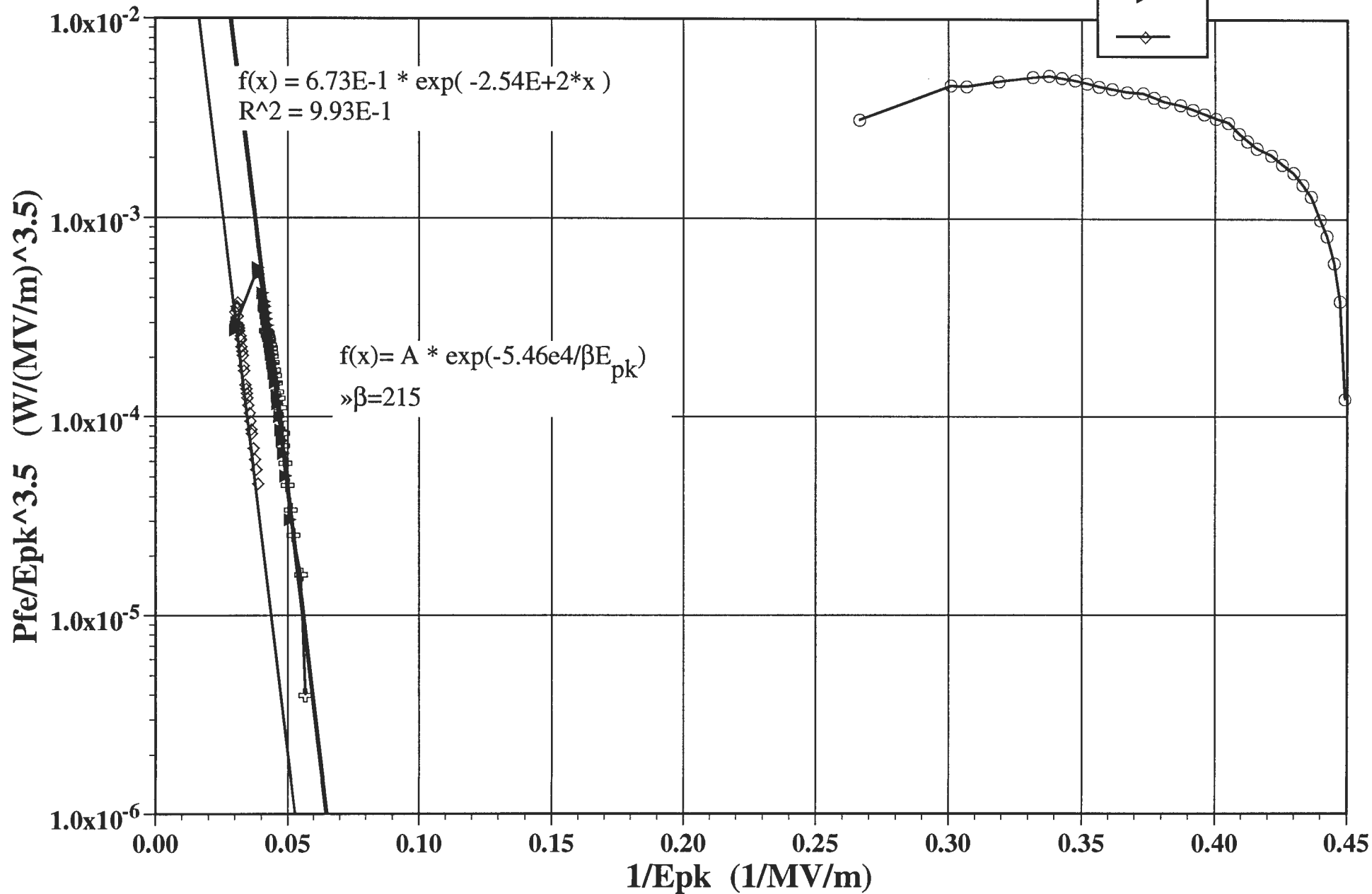


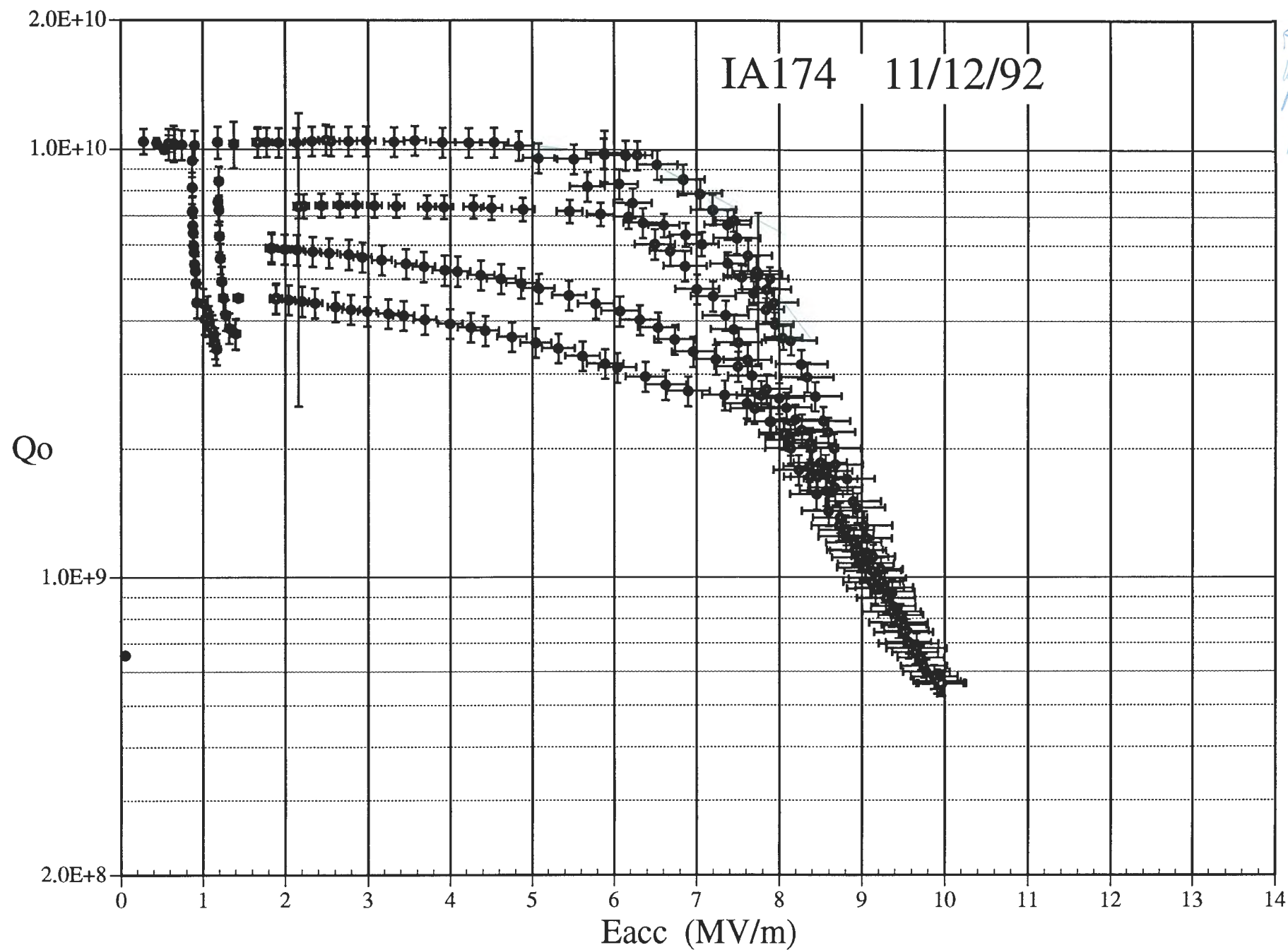


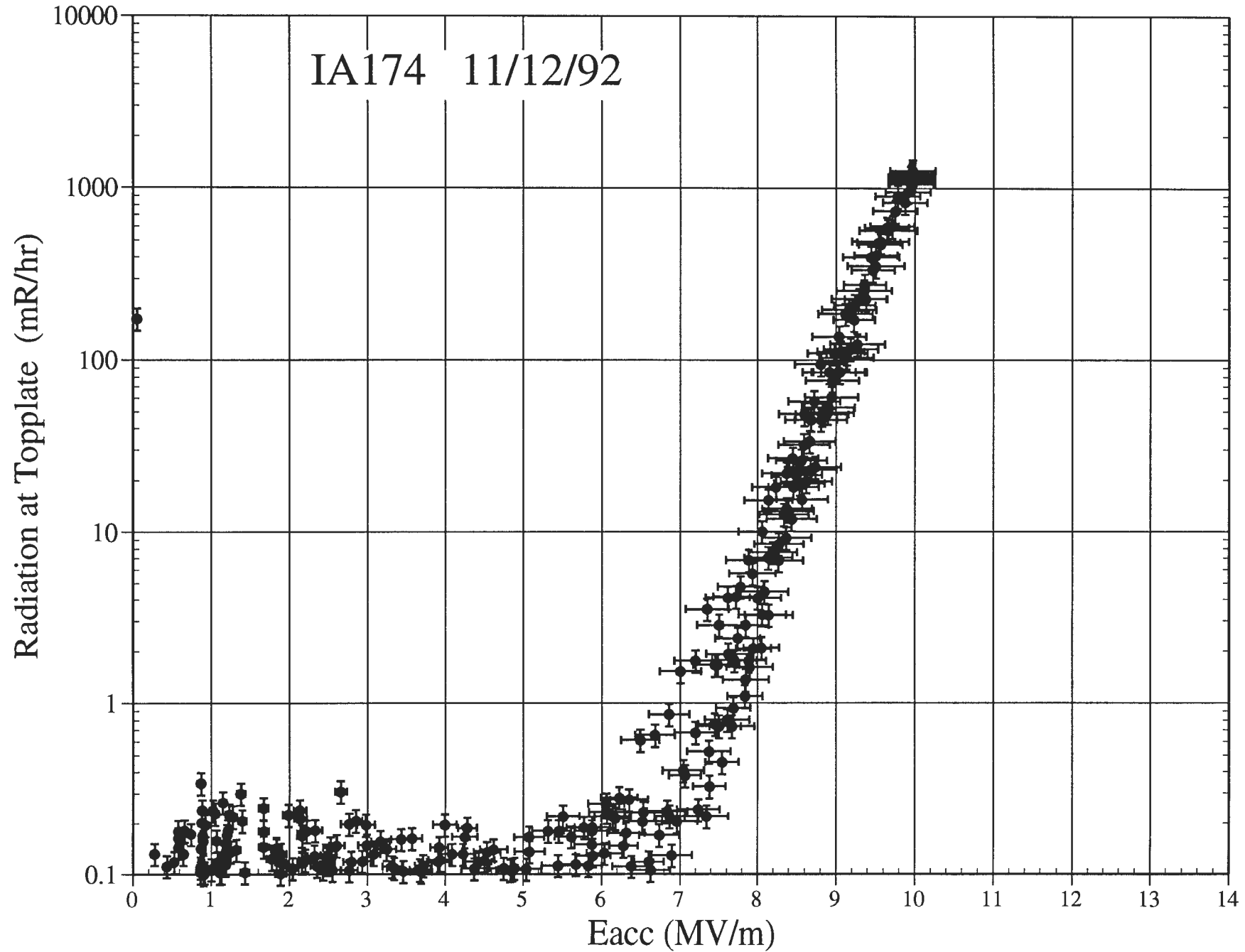
IA054 11/12/92



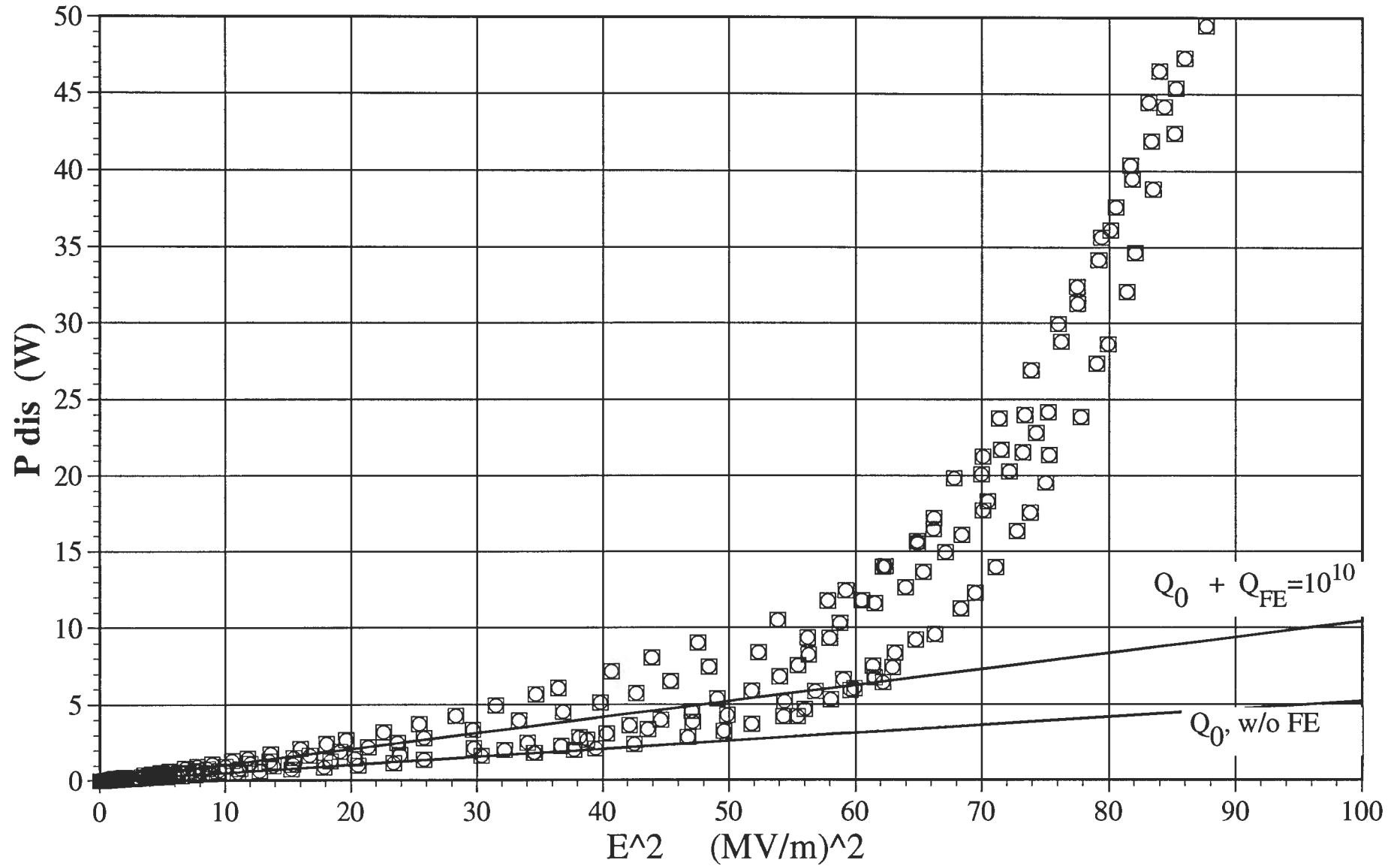
IA054 11/12/92



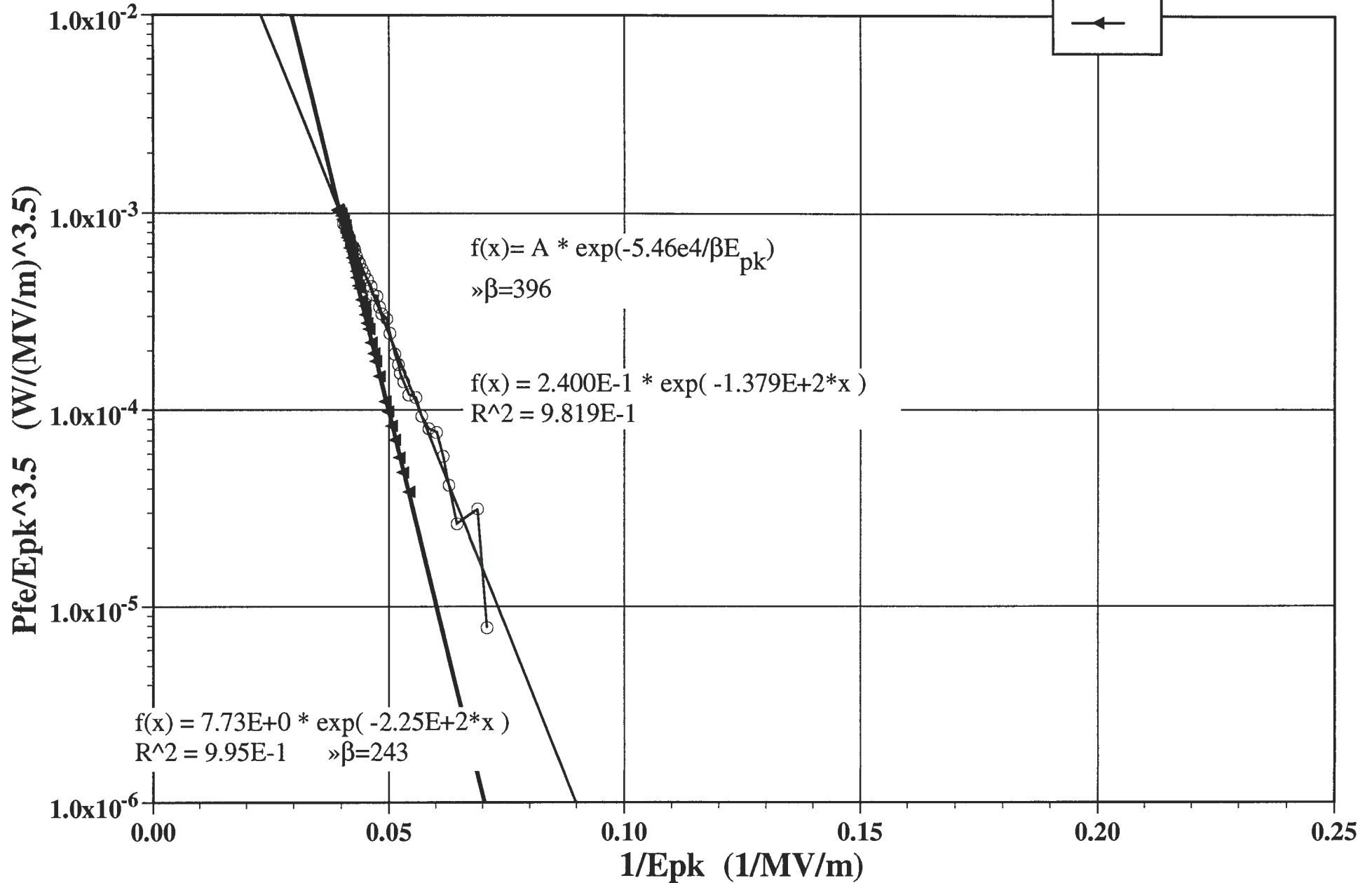


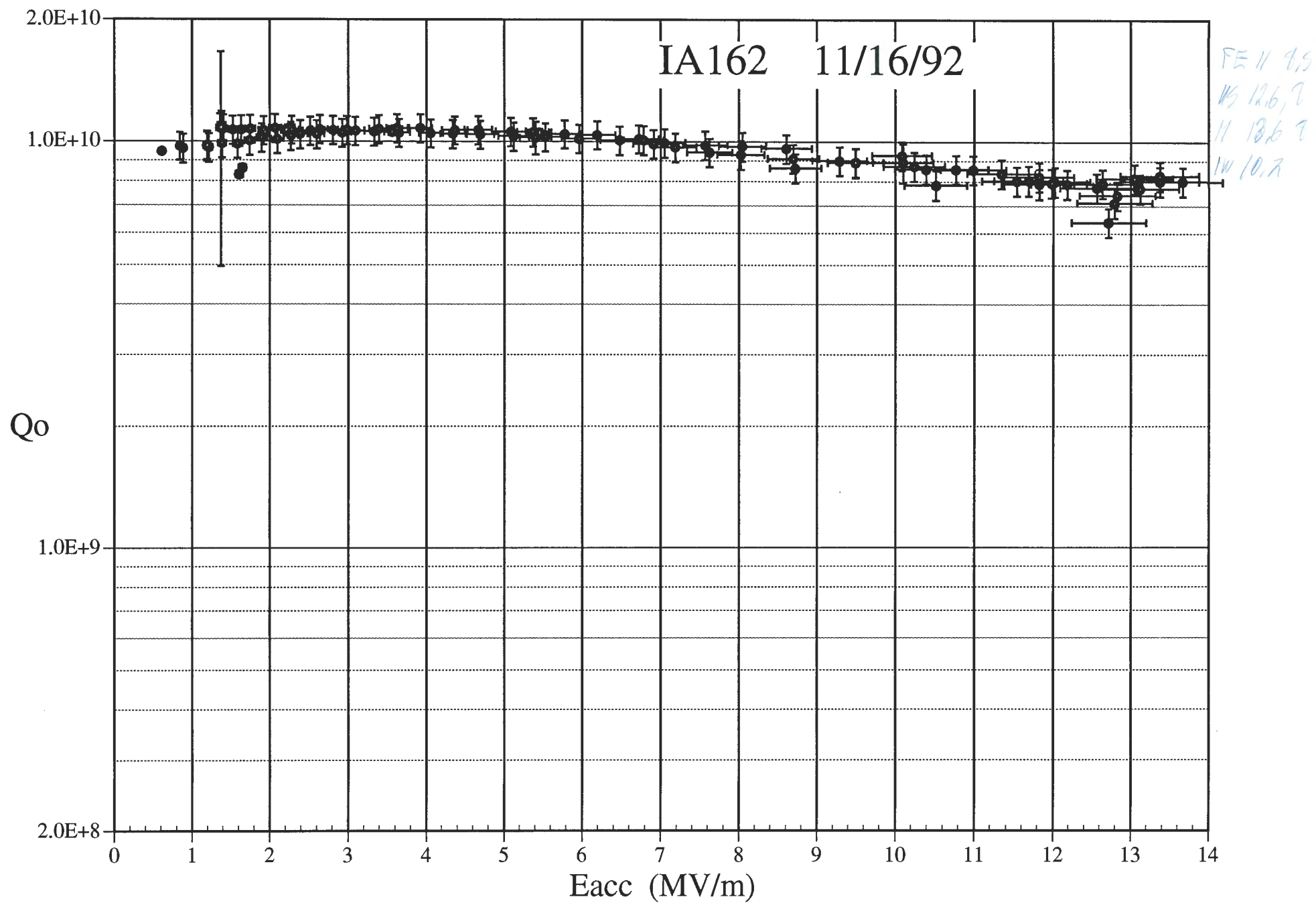


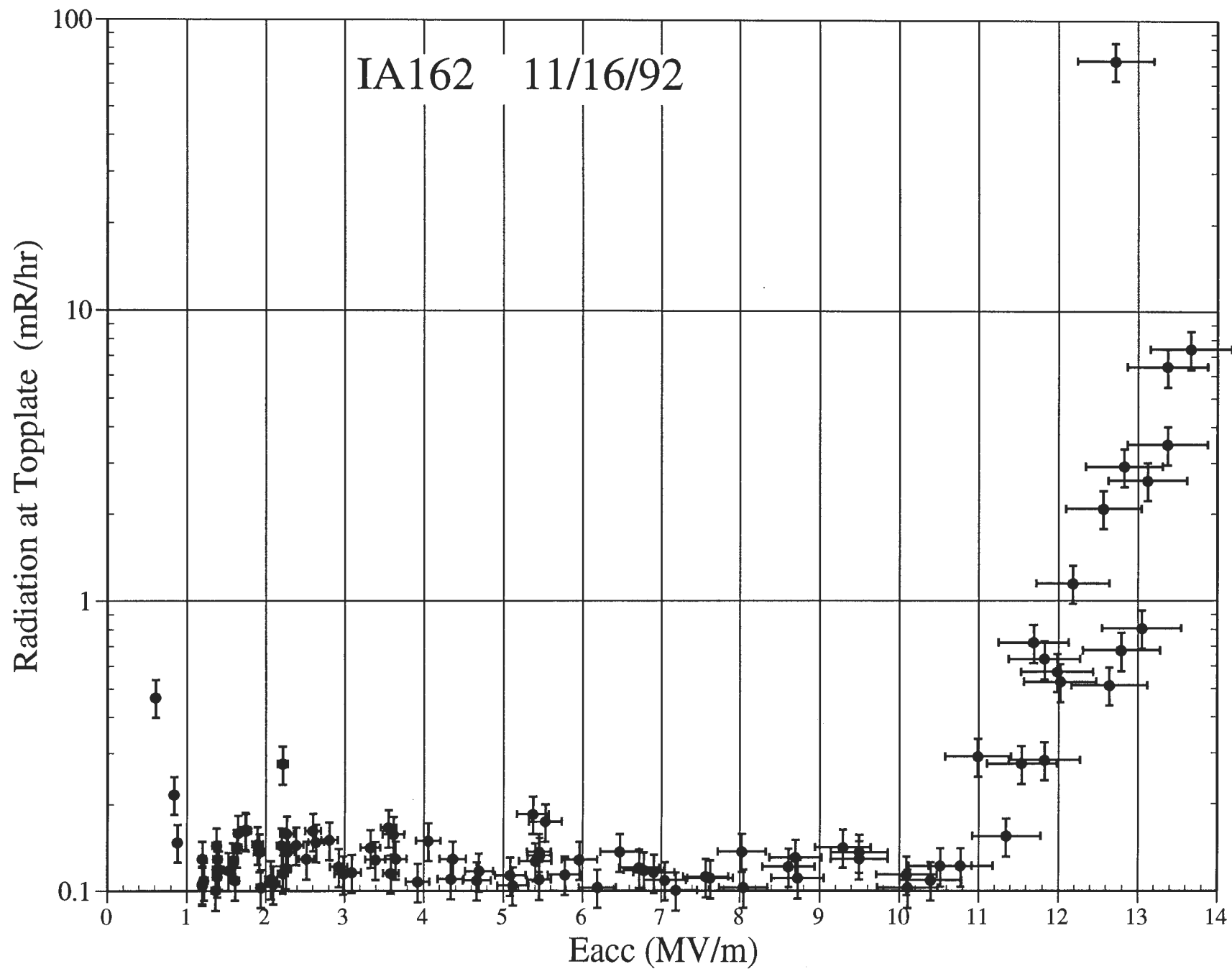
IA174 11/12/92



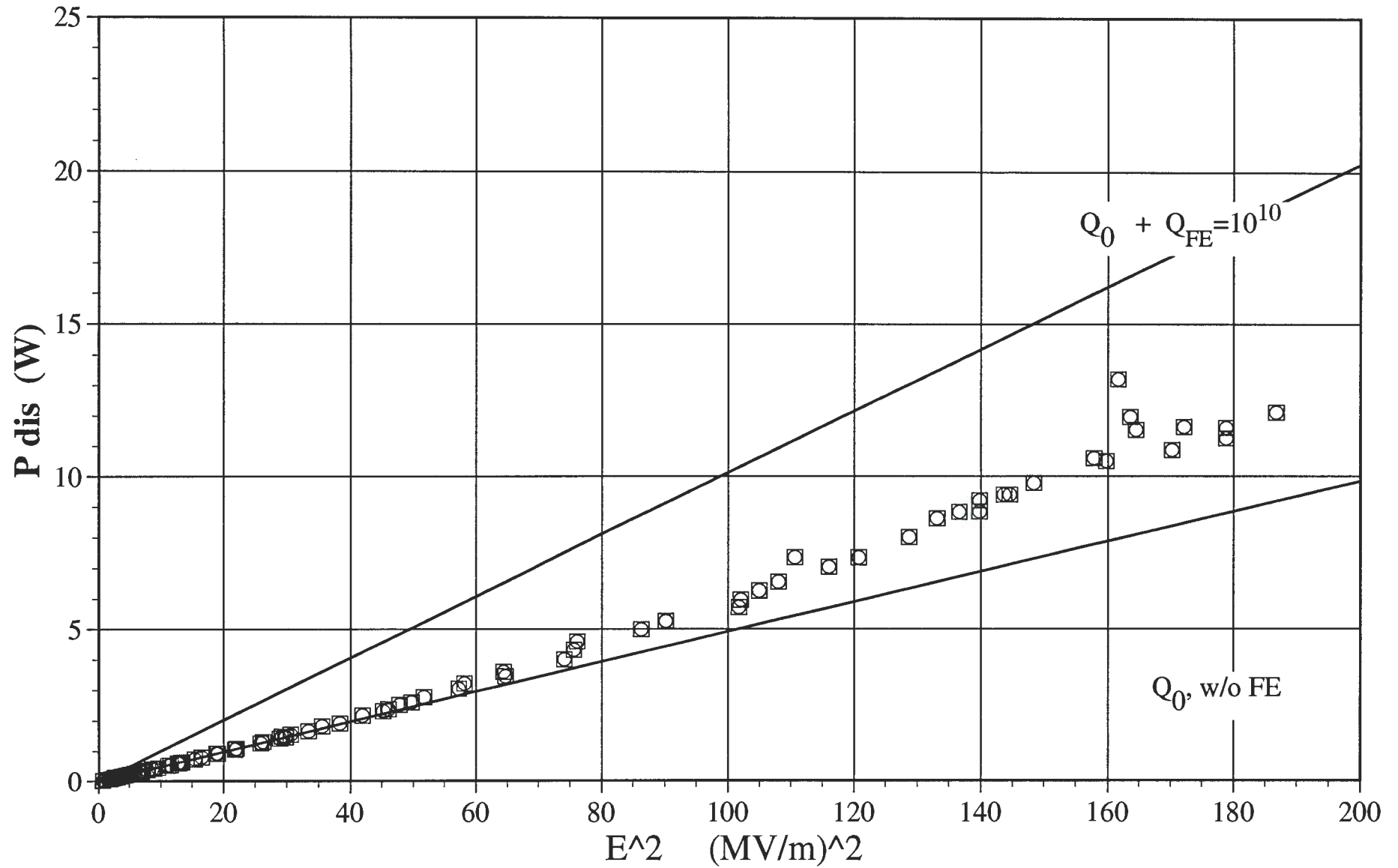
IA174 11/12/92

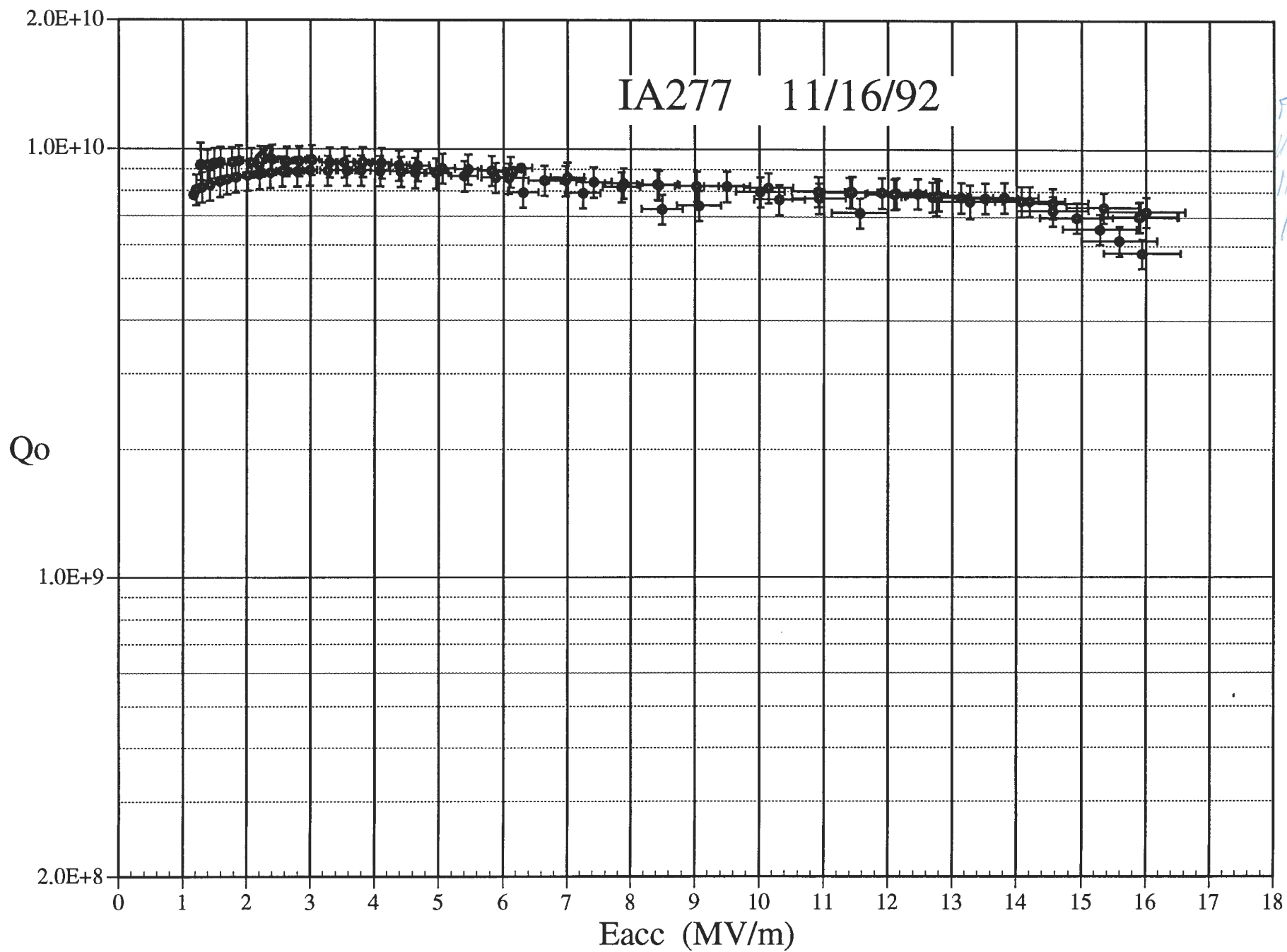




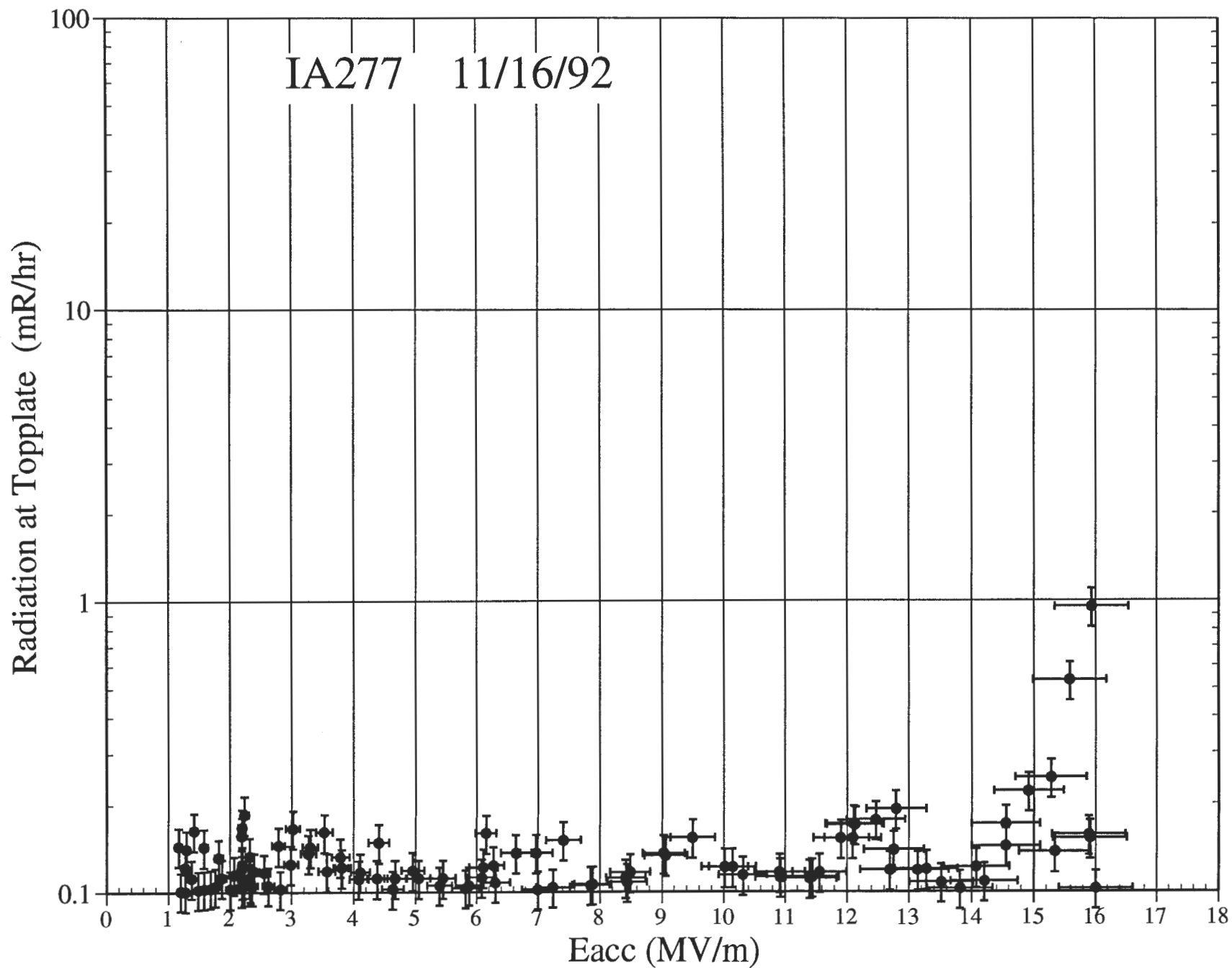


IA162 11/16/92

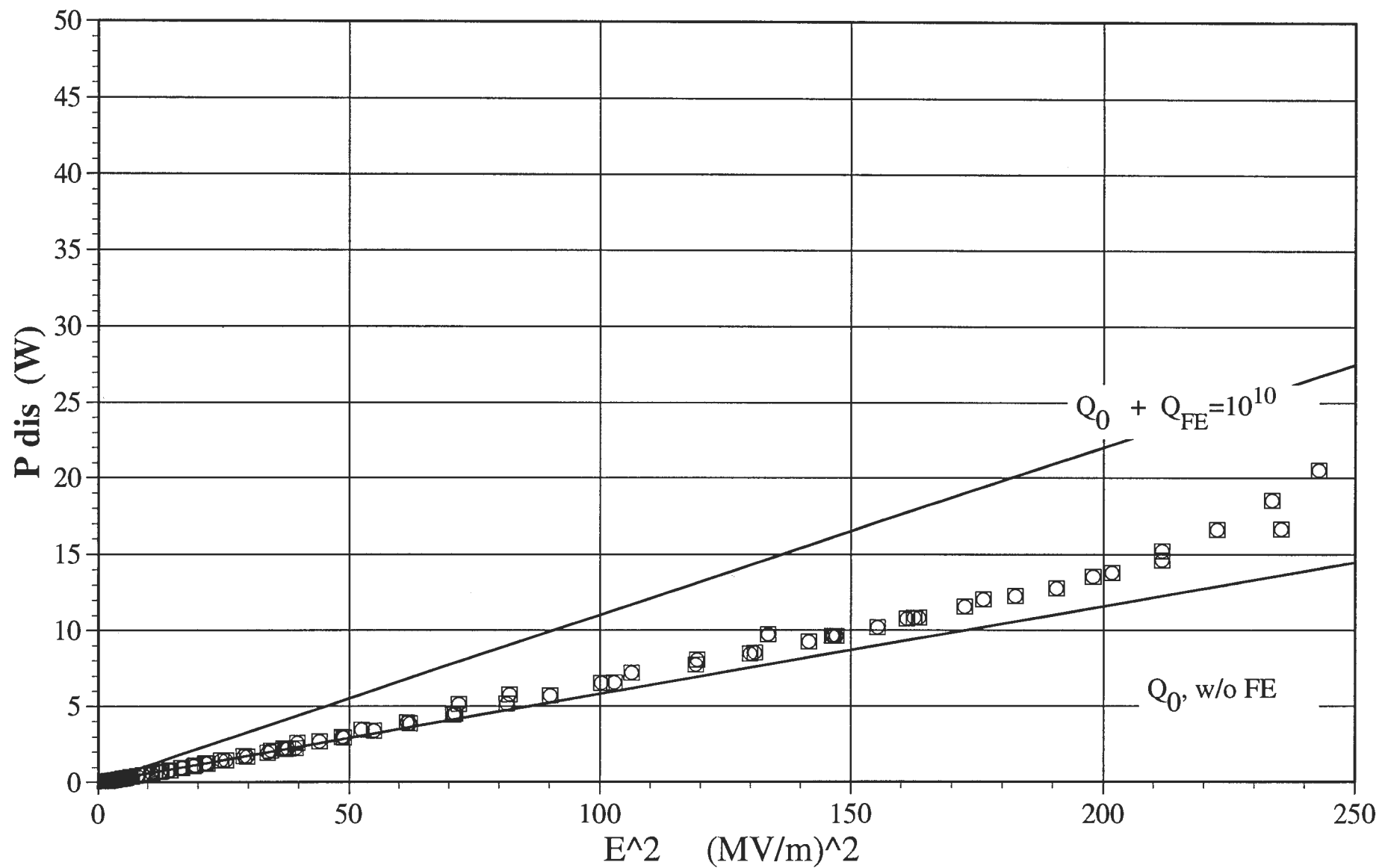


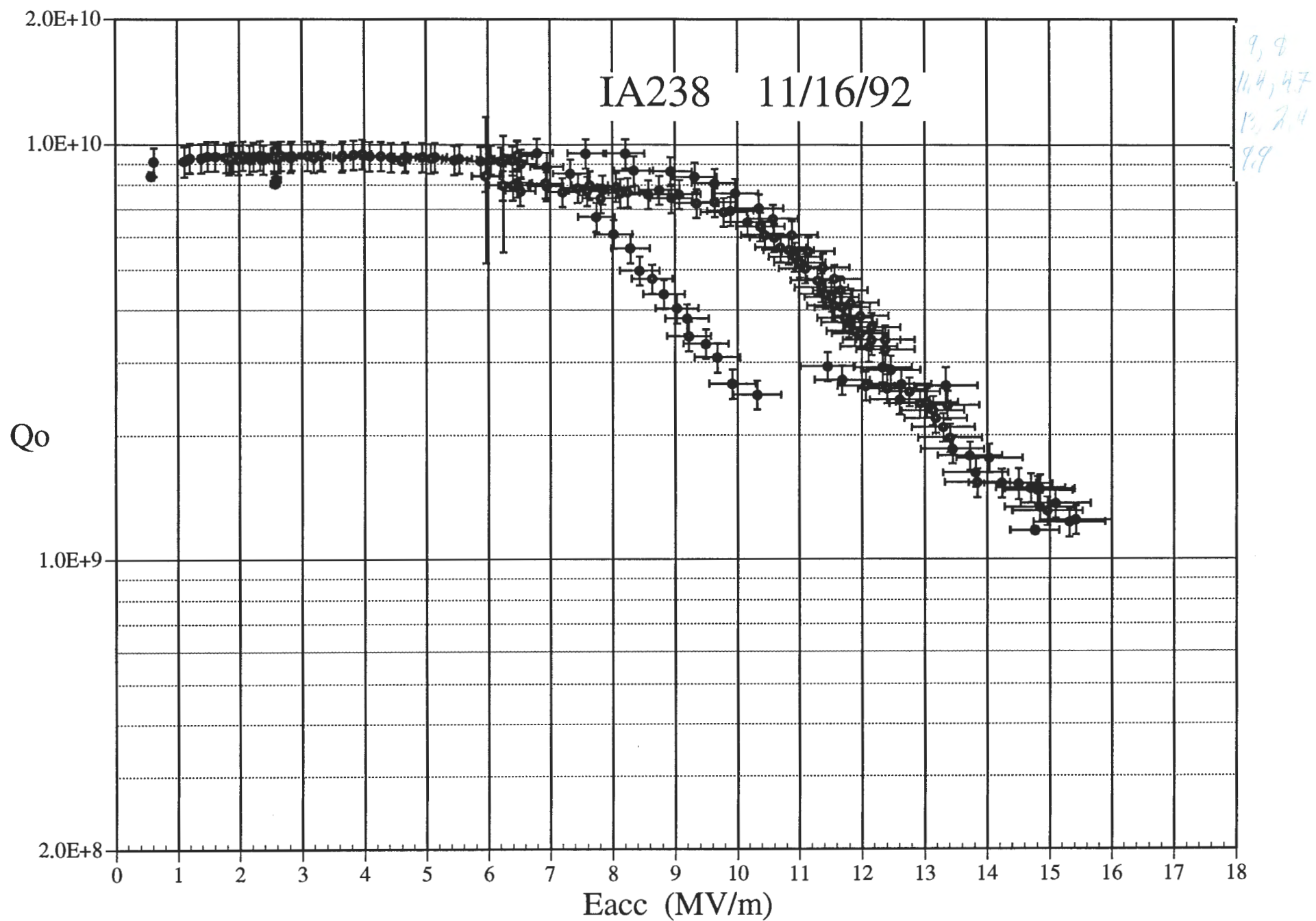


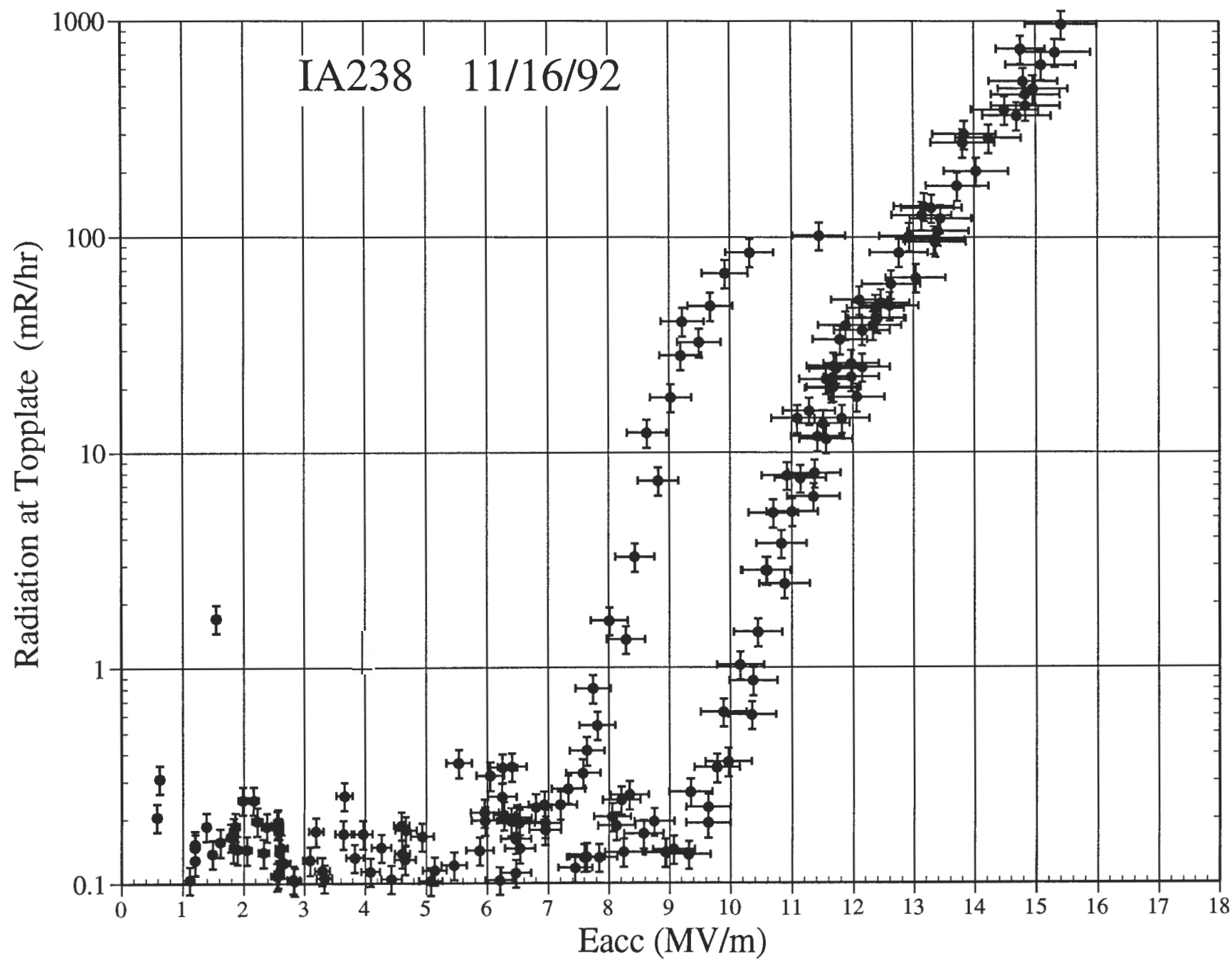
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 1/5 15,7
 11ap 16,7
 1W 17.45



IA277 11/16/92

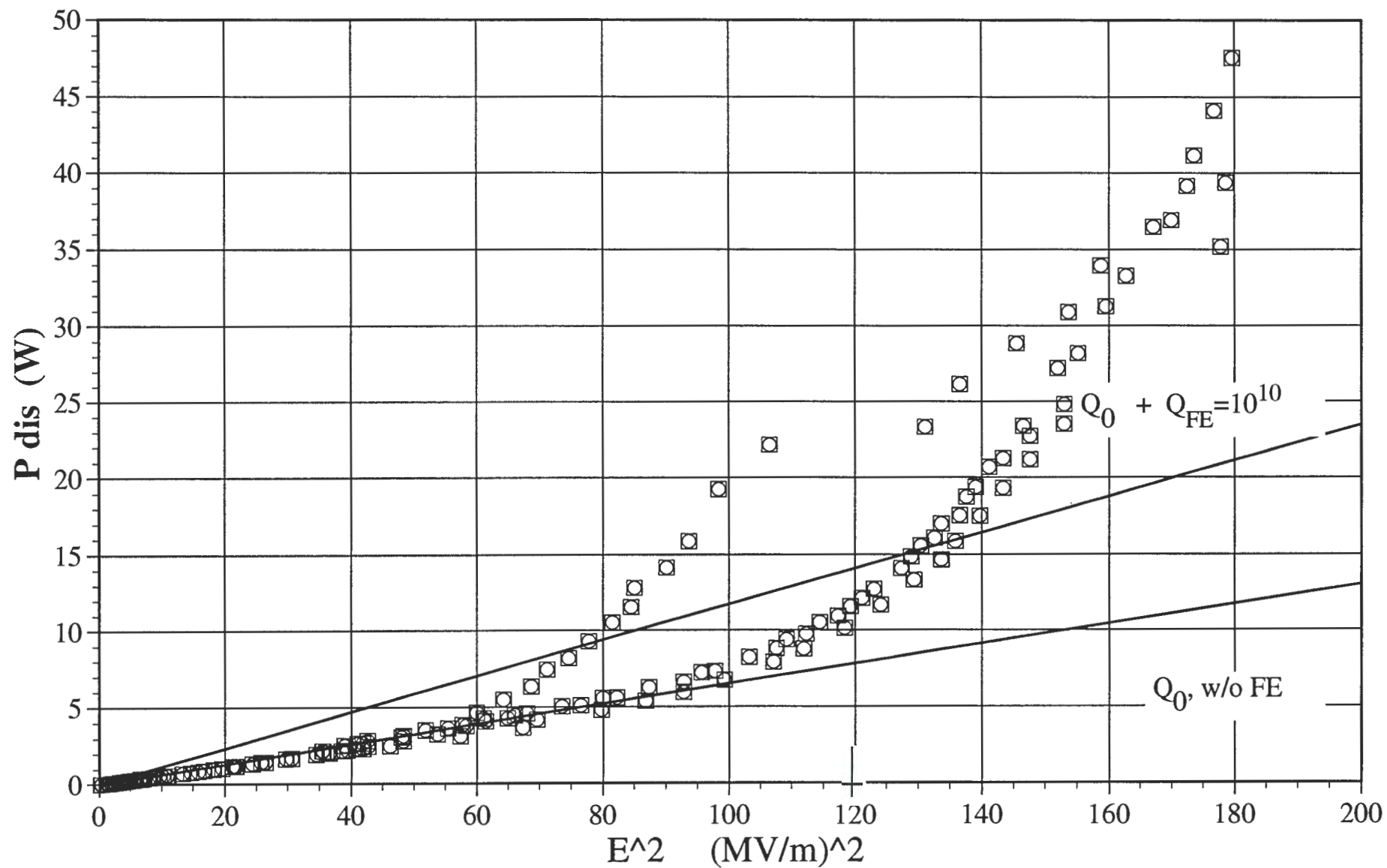




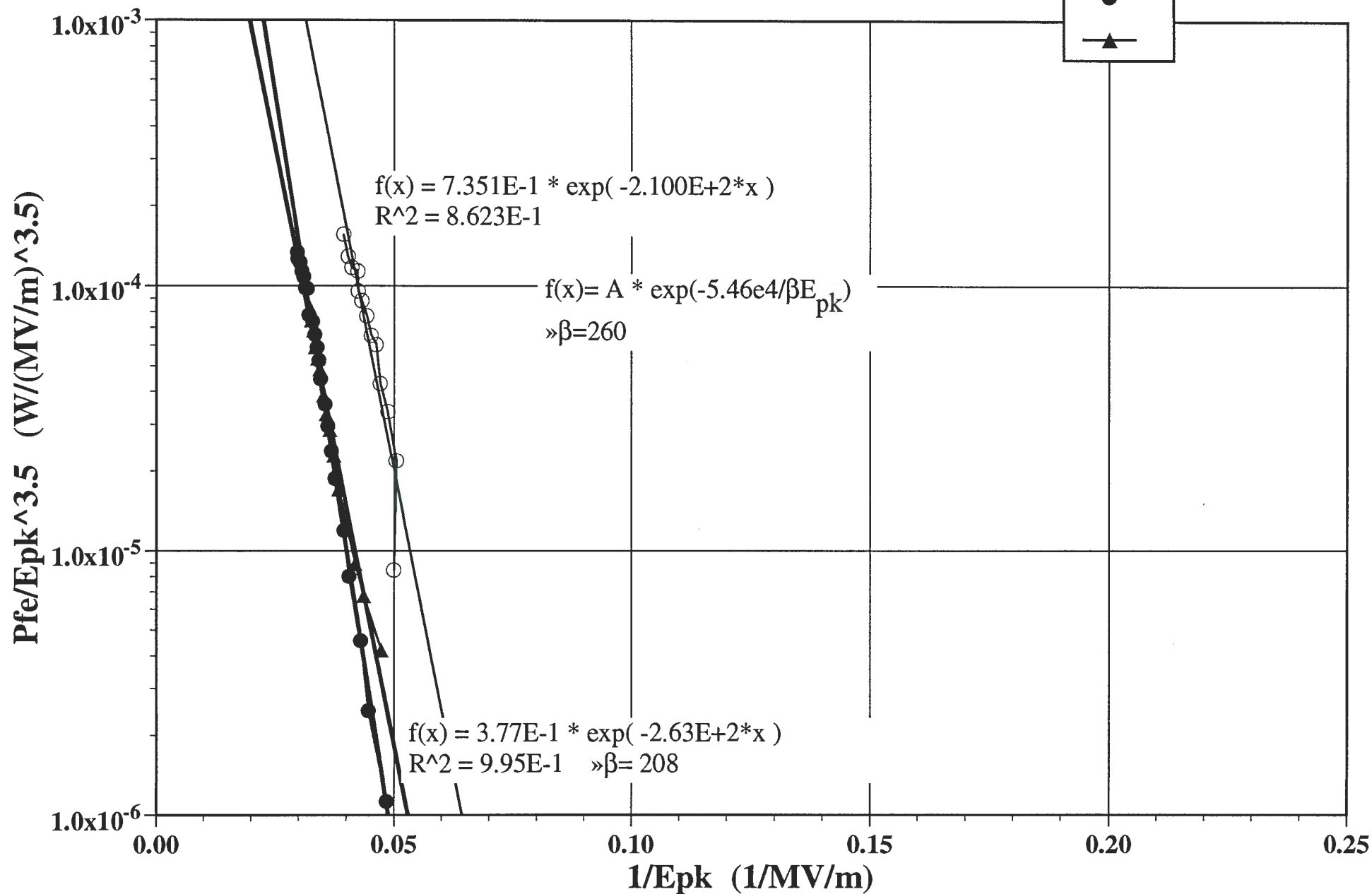


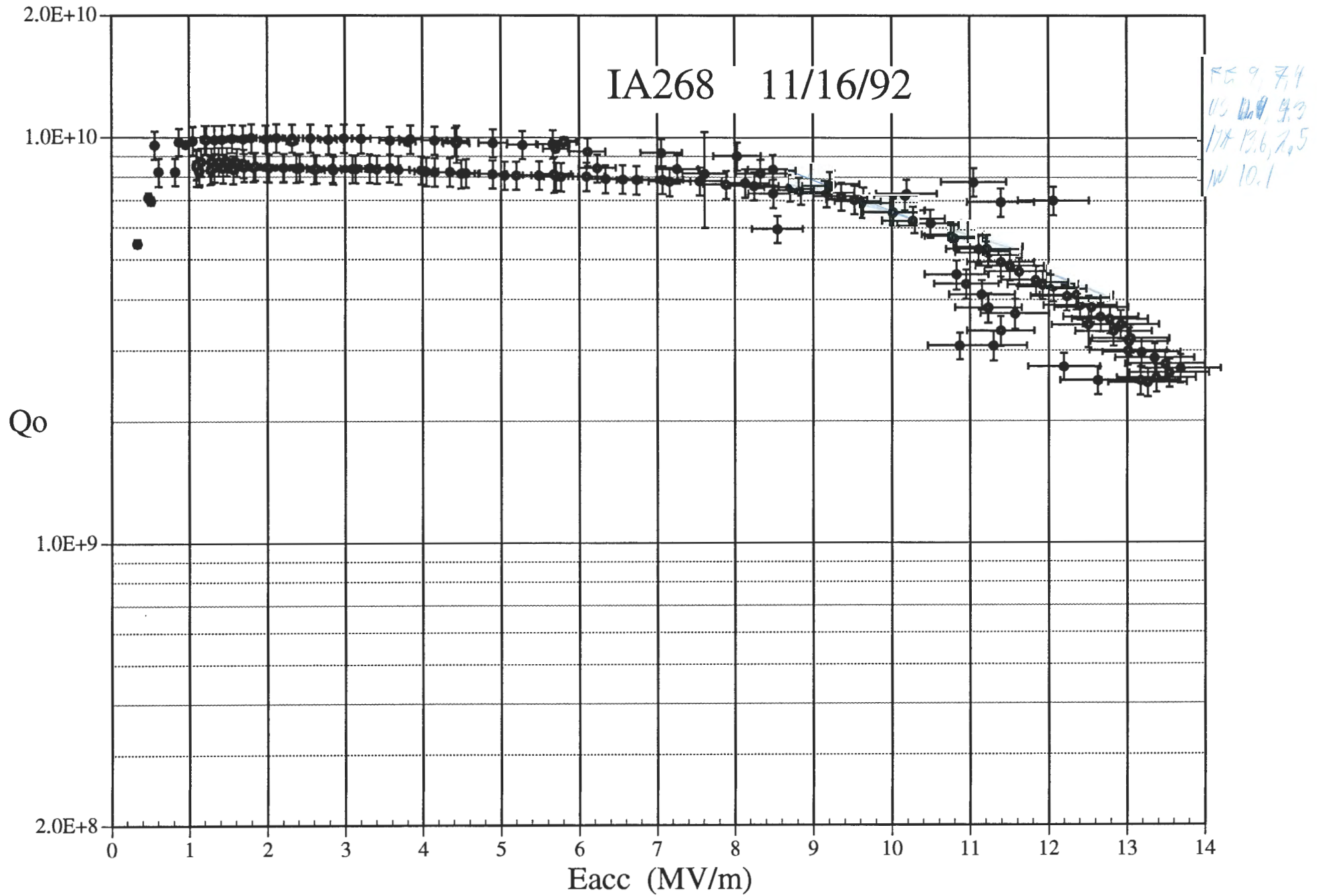
9, 8

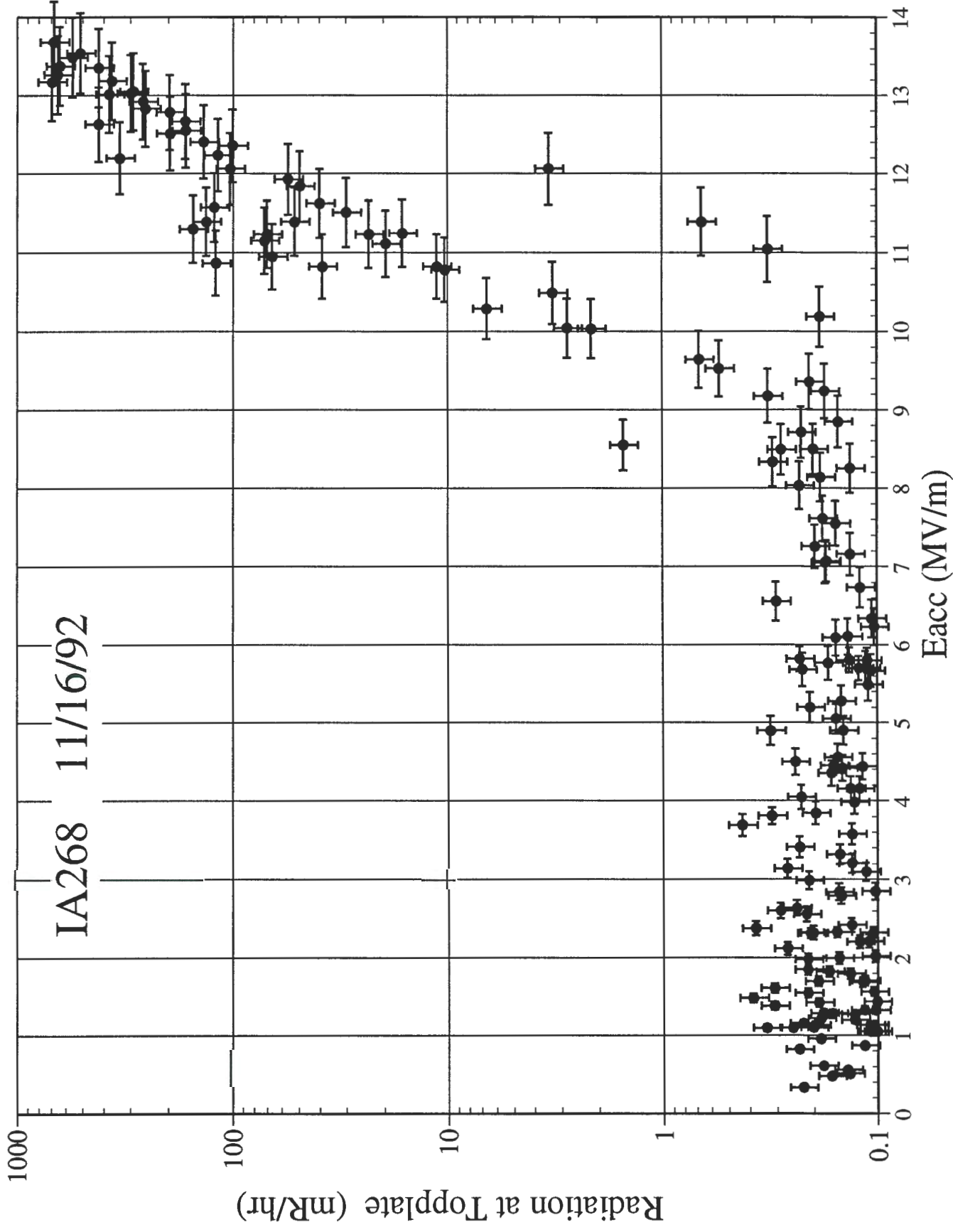
IA238 11/16/92



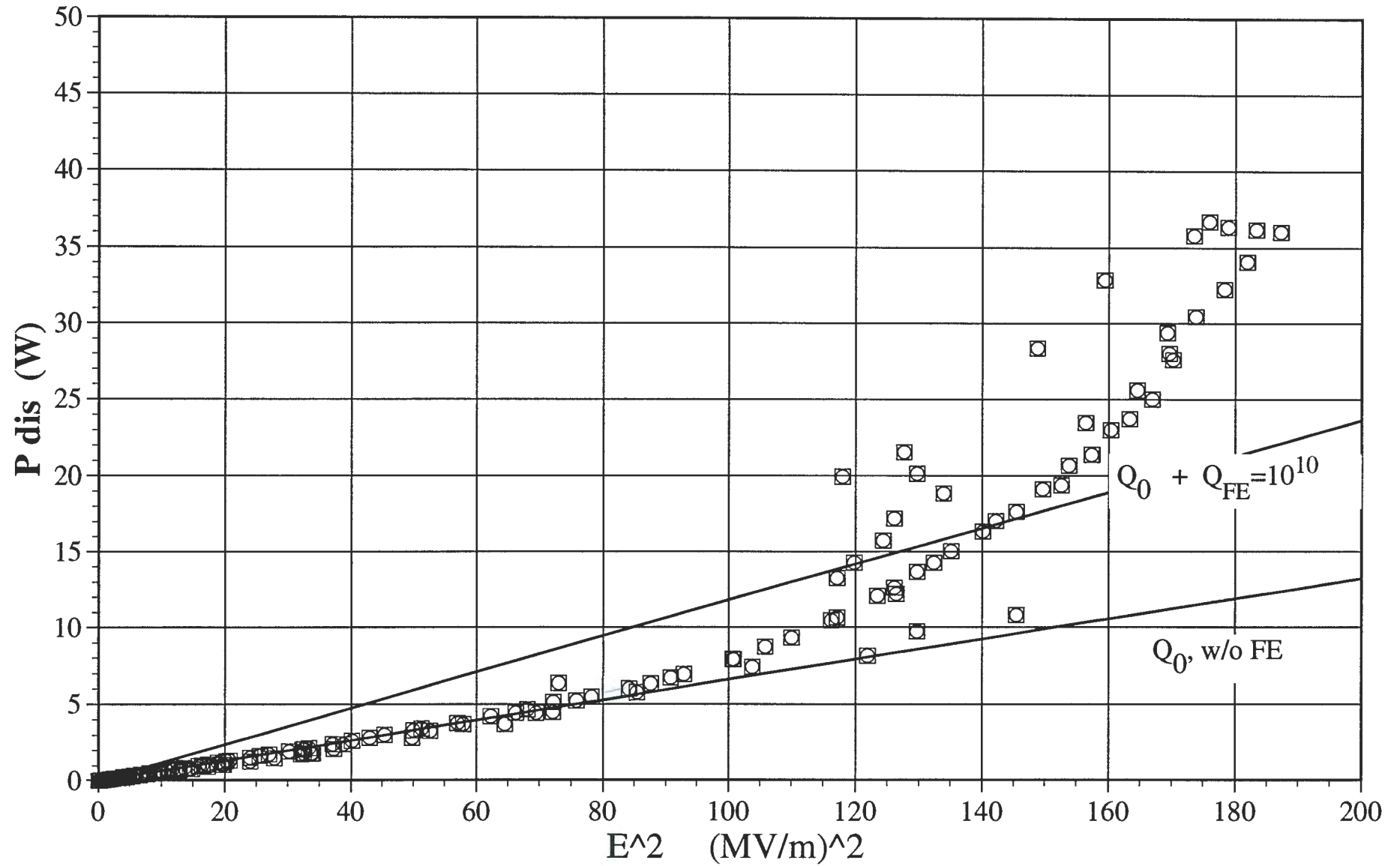
IA238 11/16/92



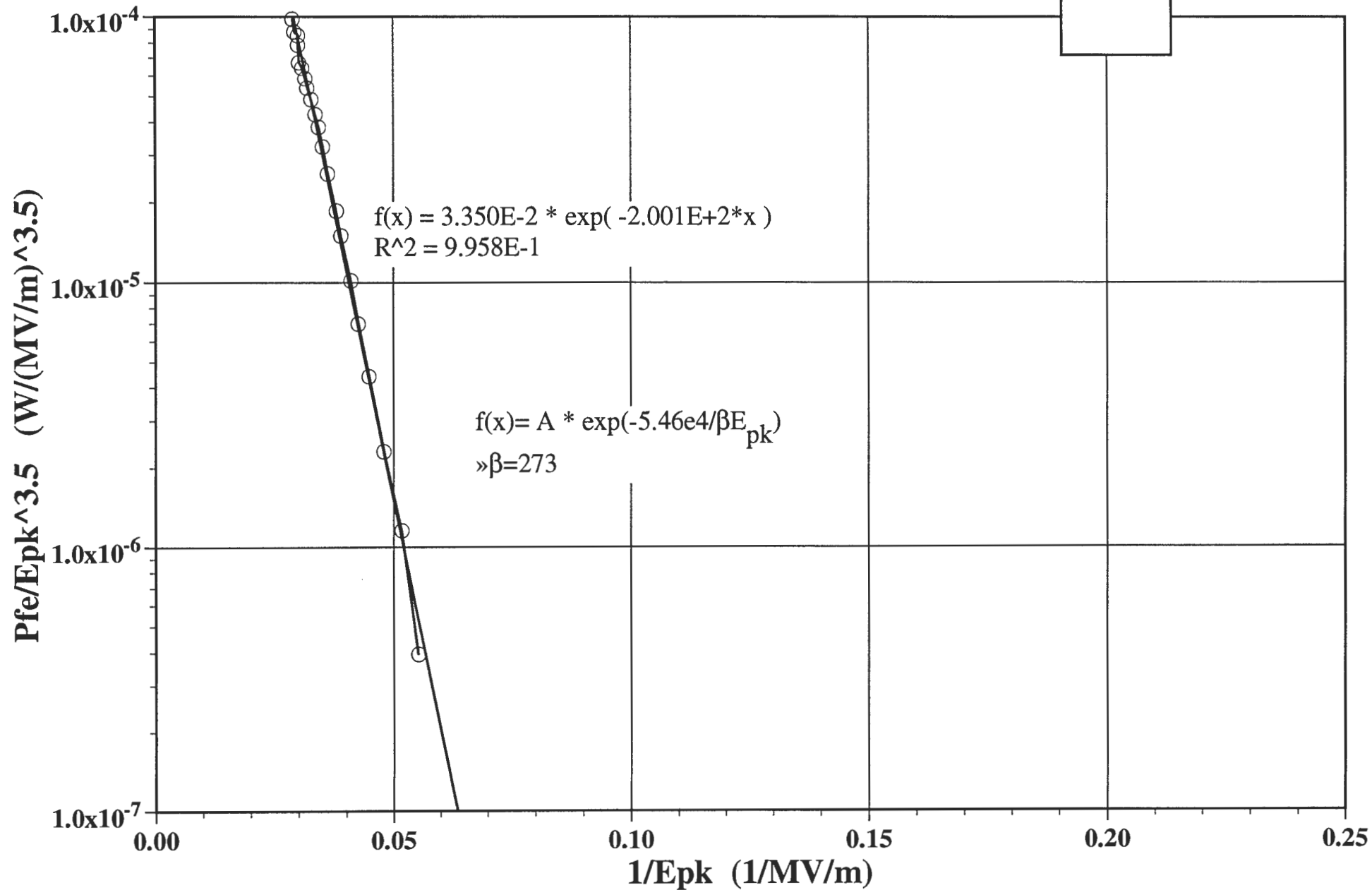




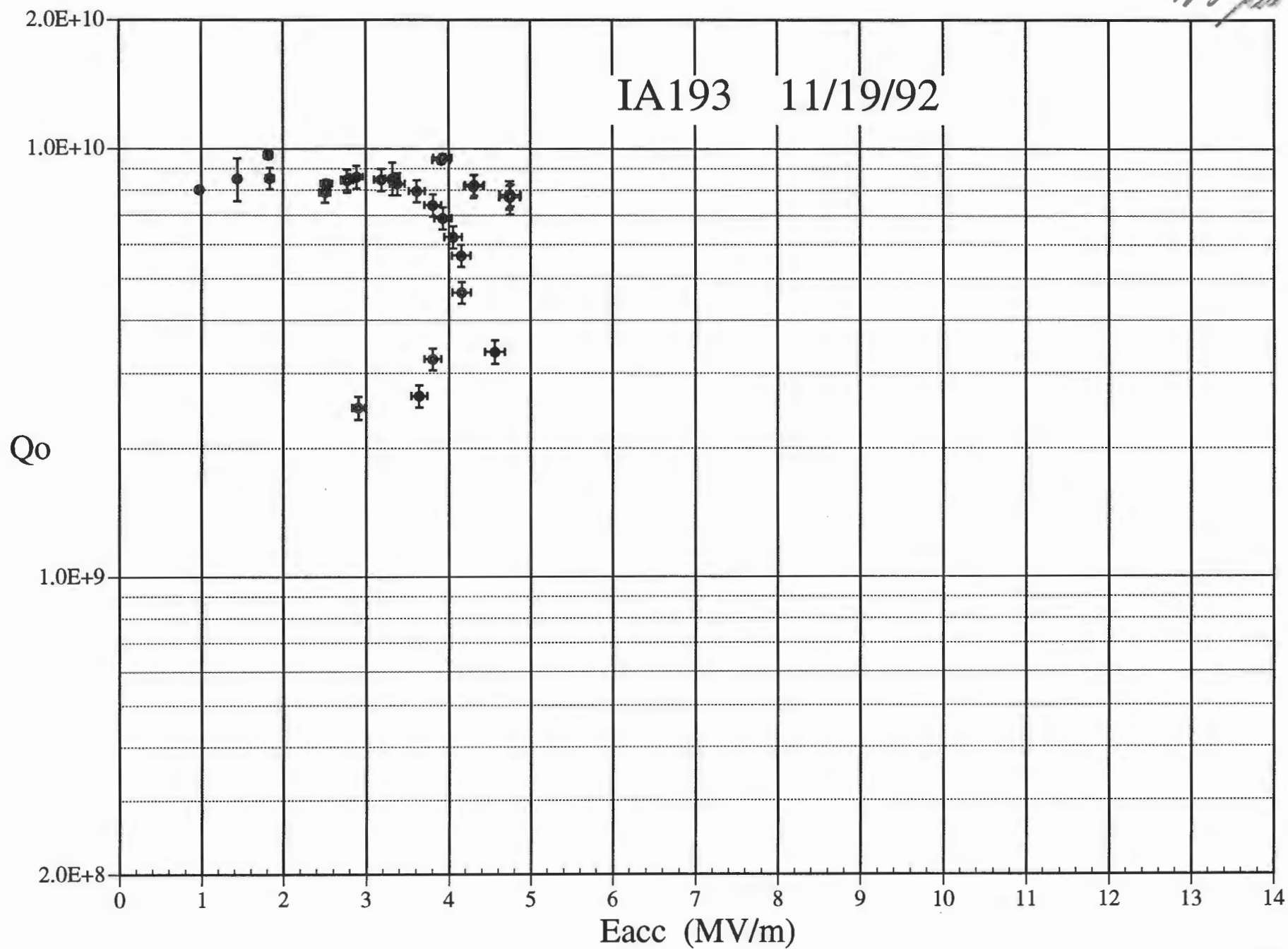
IA268 11/16/92

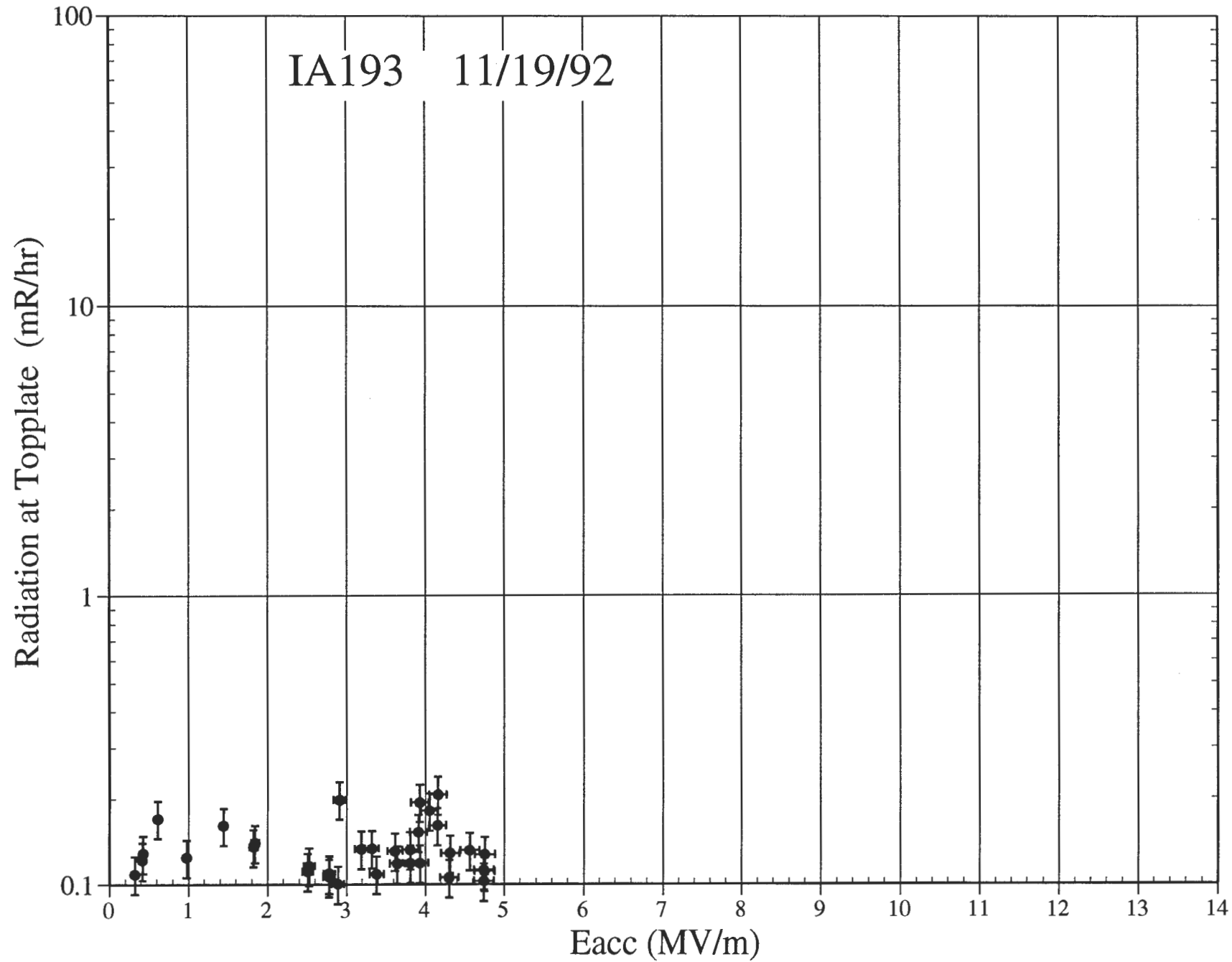


IA268 11/16/92

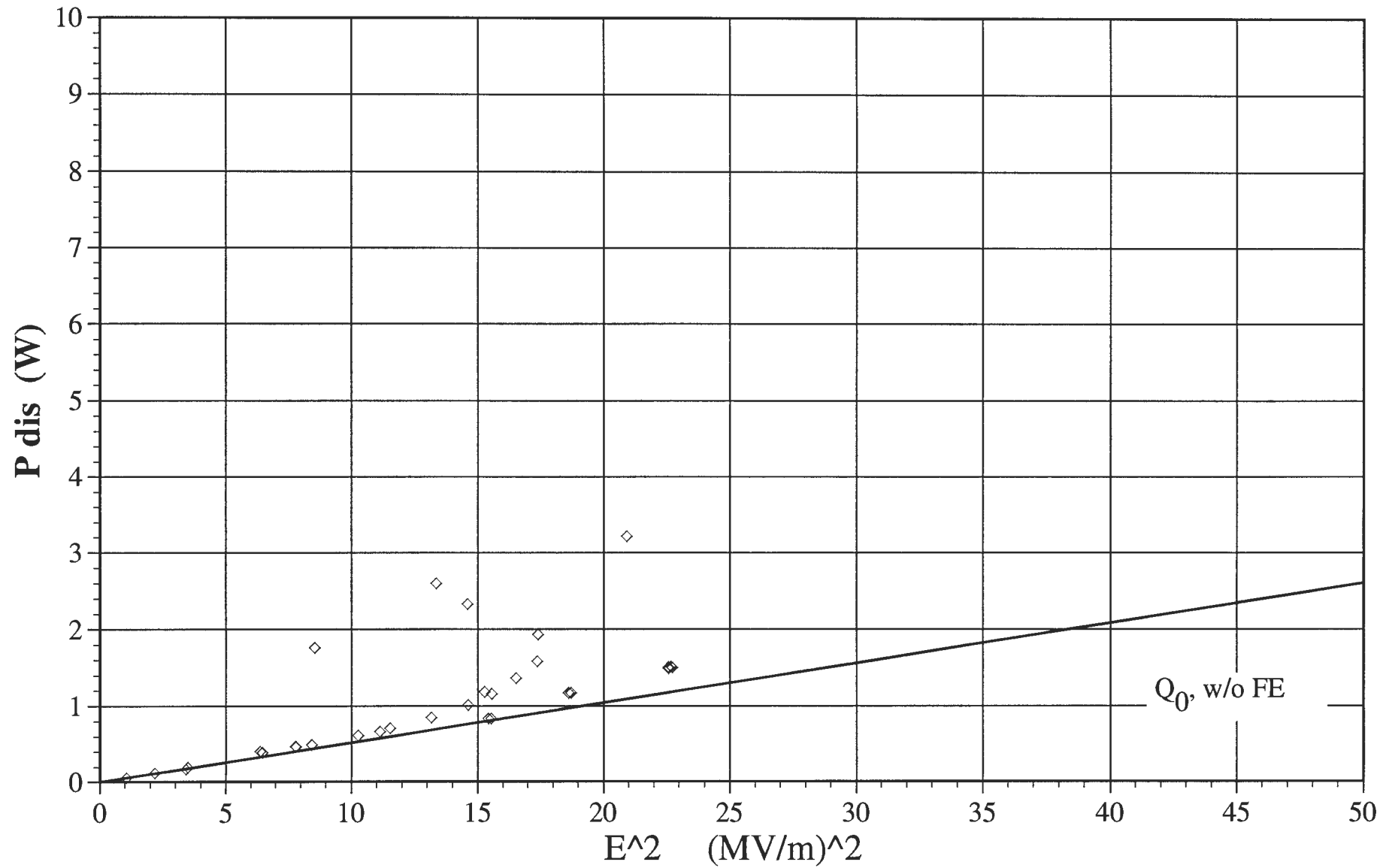


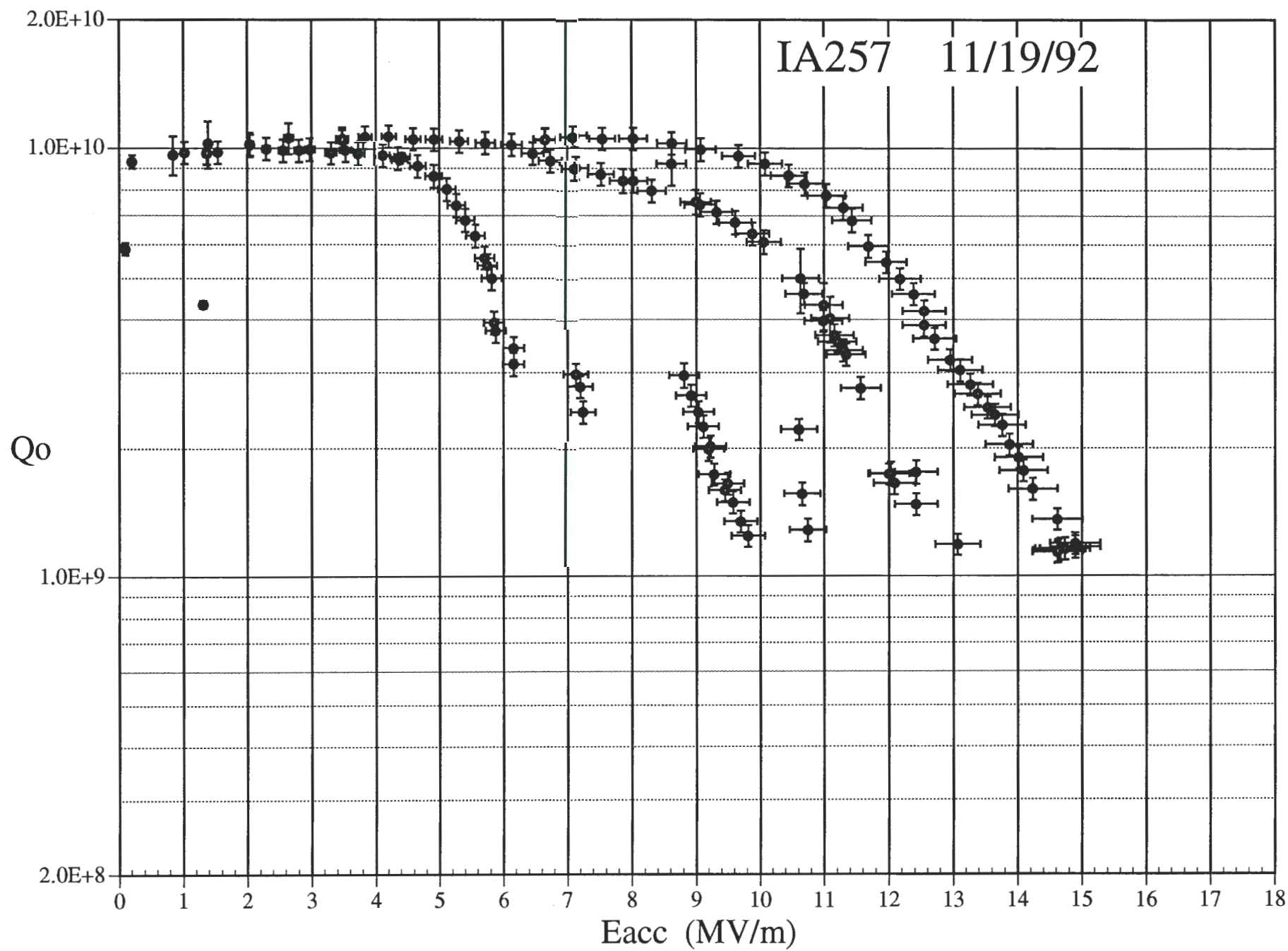
19/257 broken #4 193 put aside

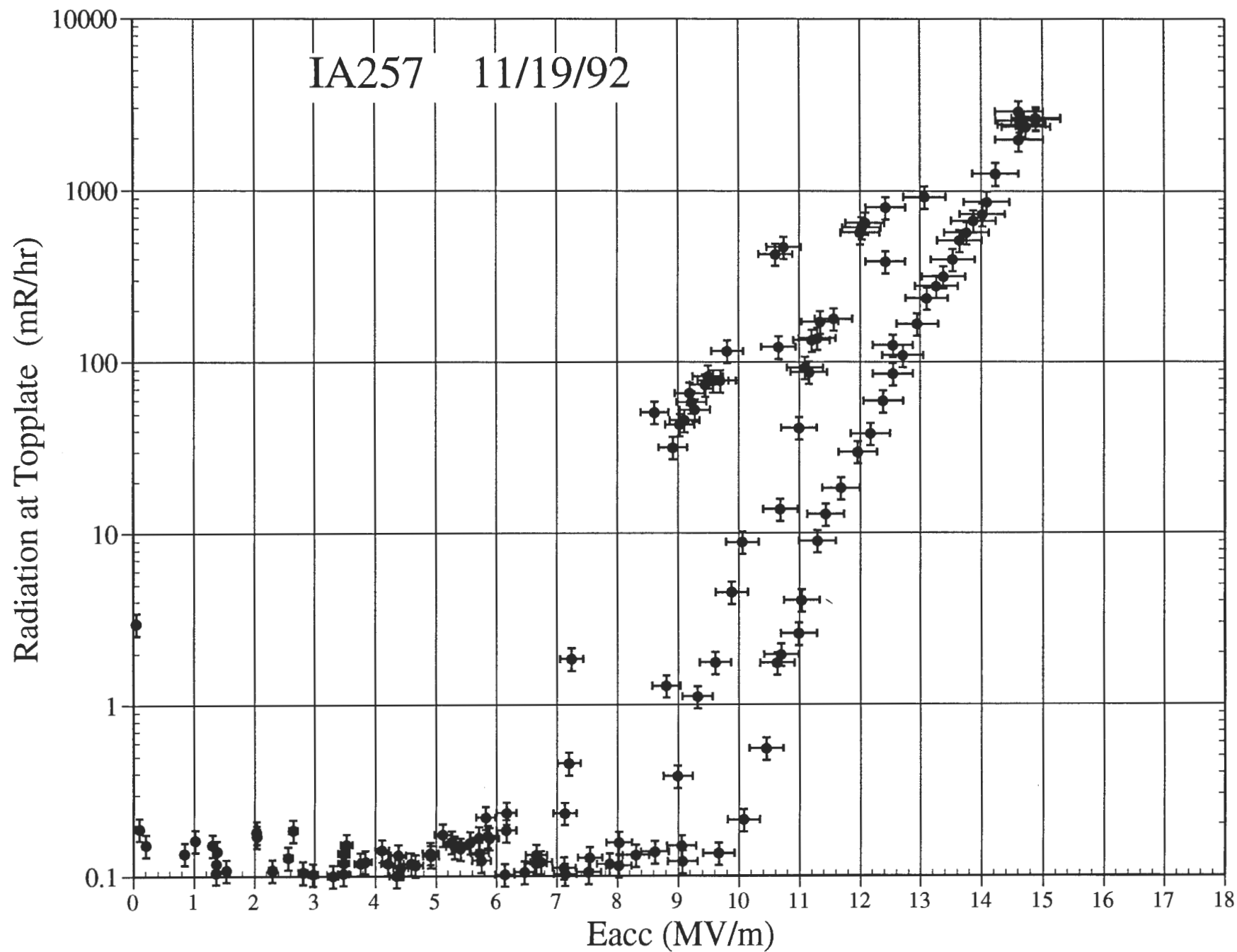




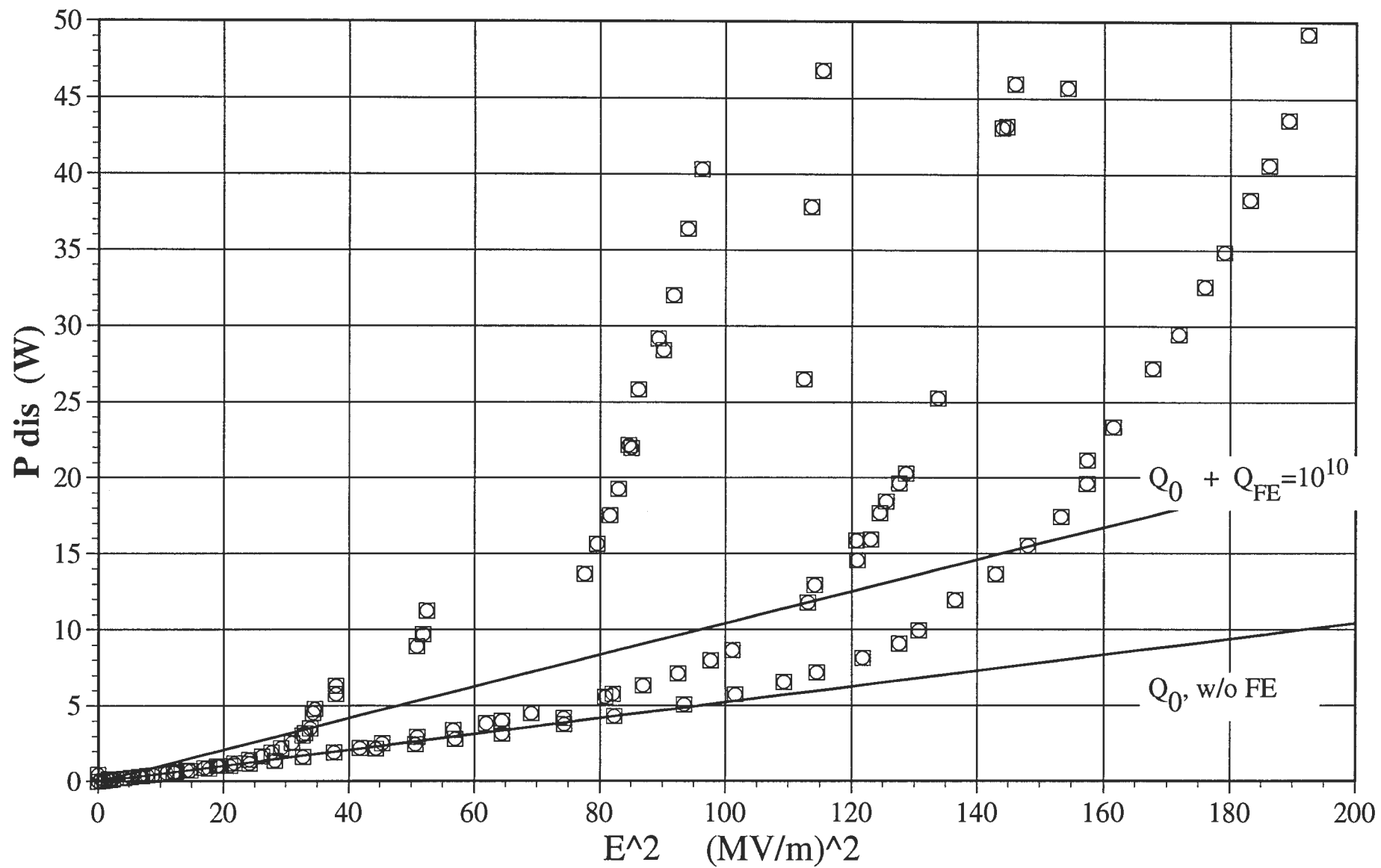
IA193 11/19/92



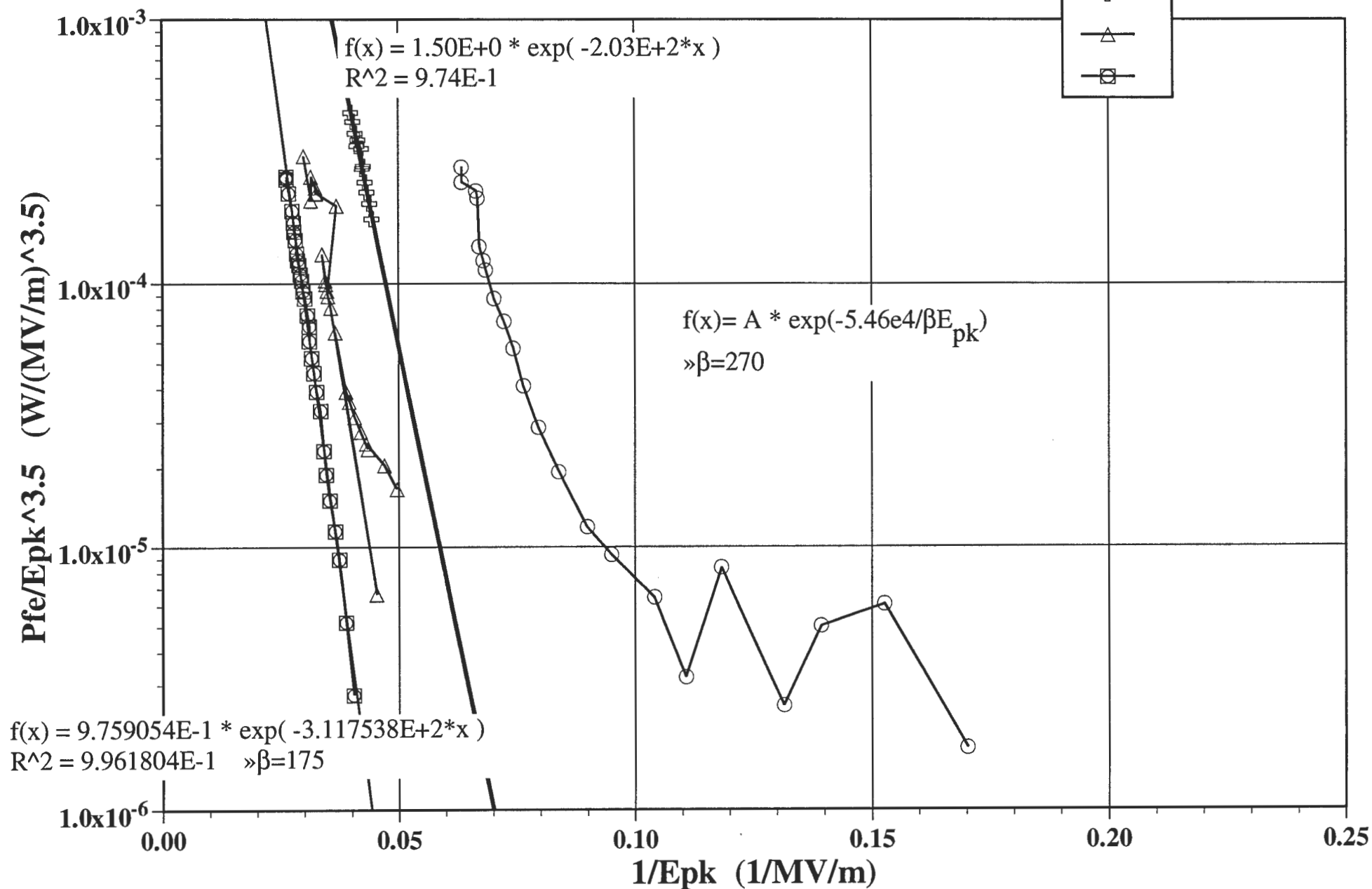


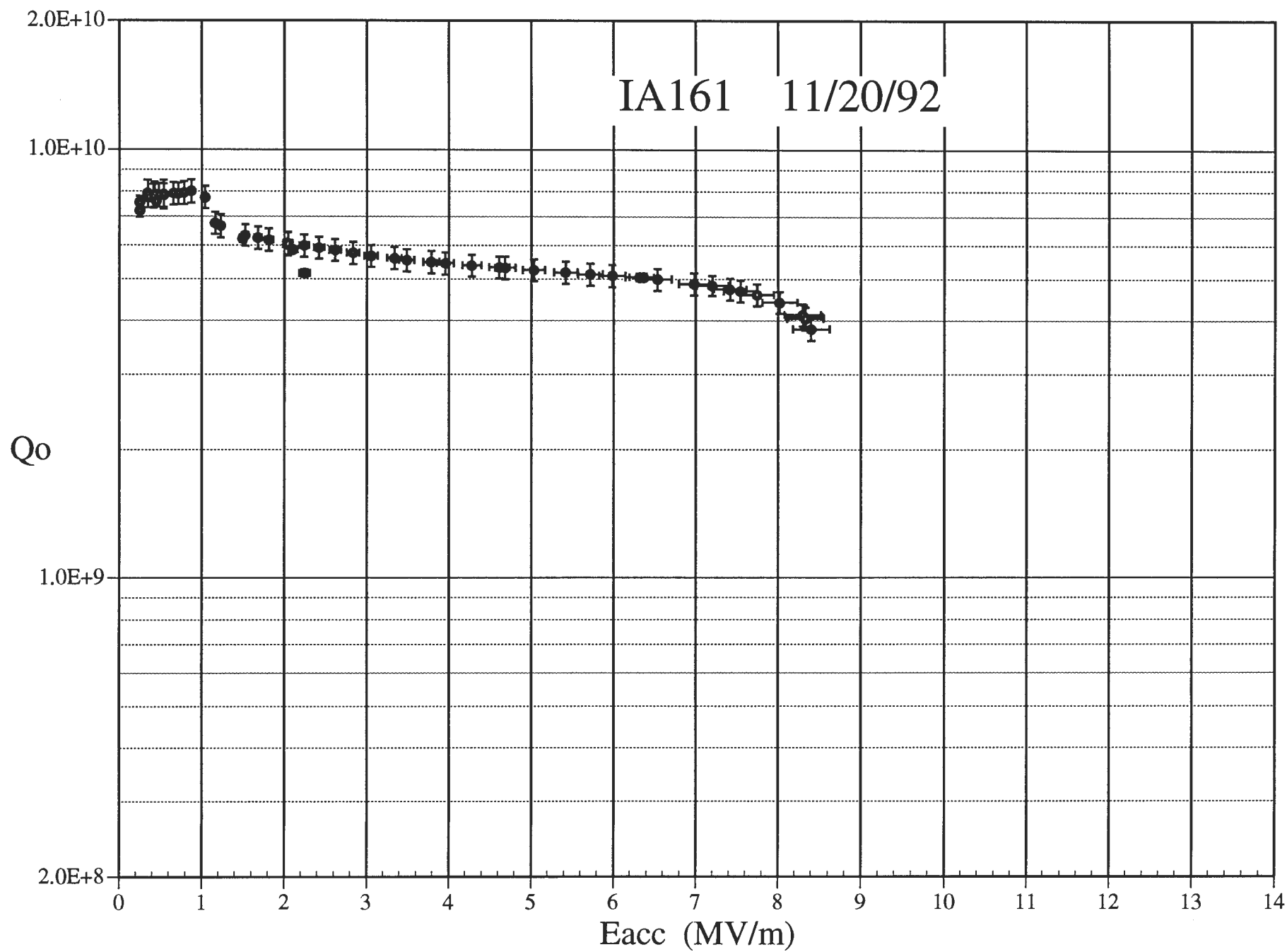


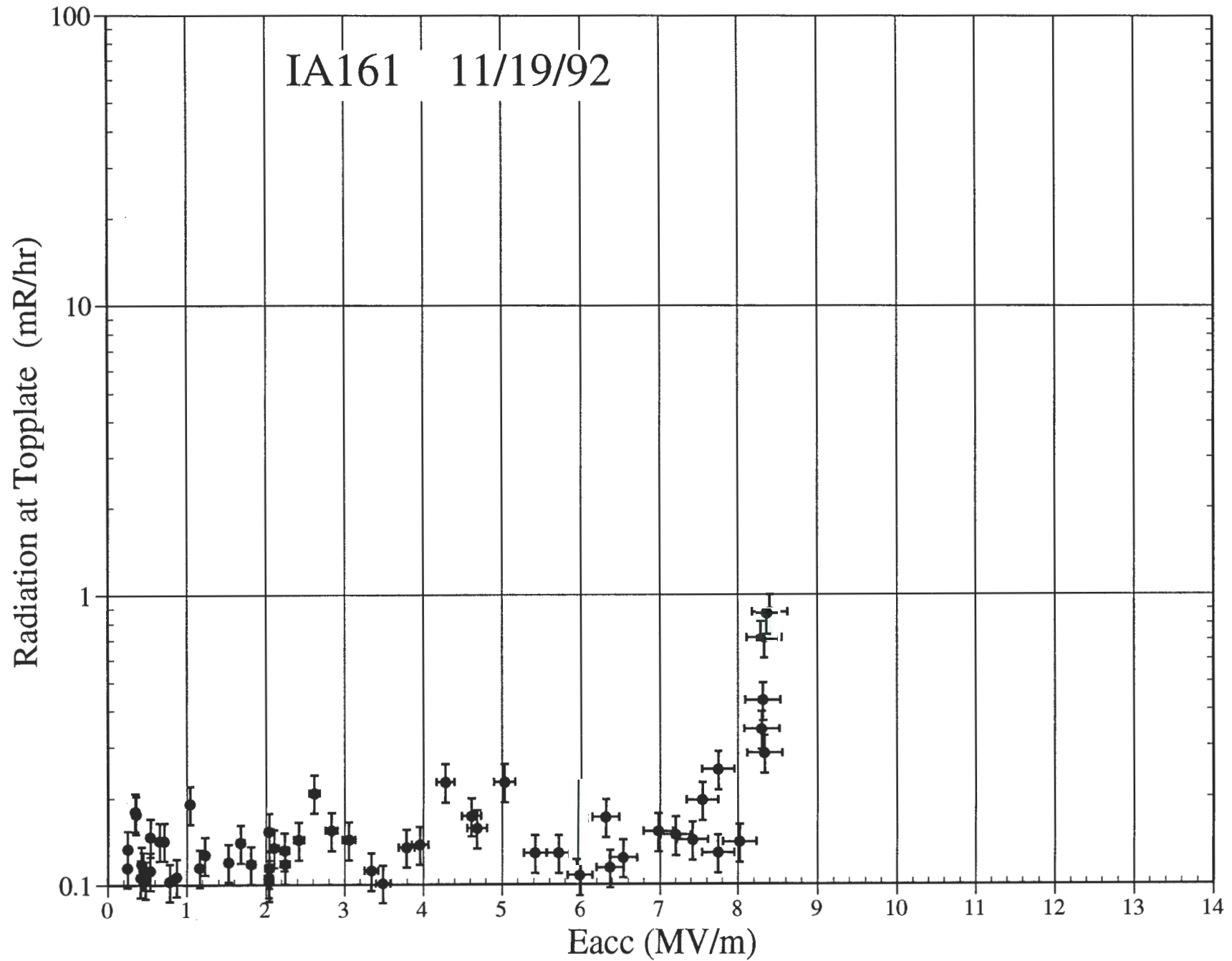
IA257 11/19/92



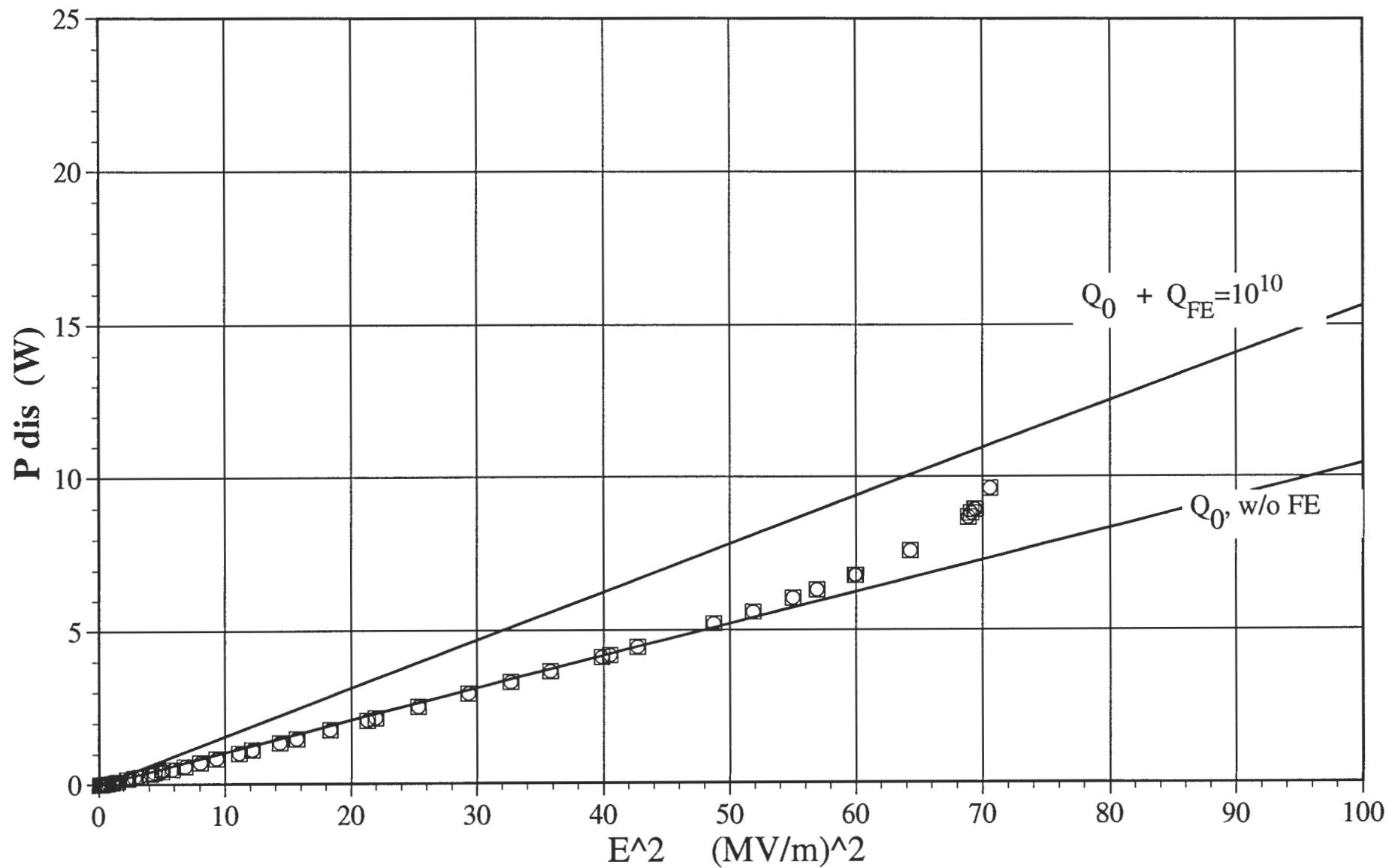
IA257 11/19/92

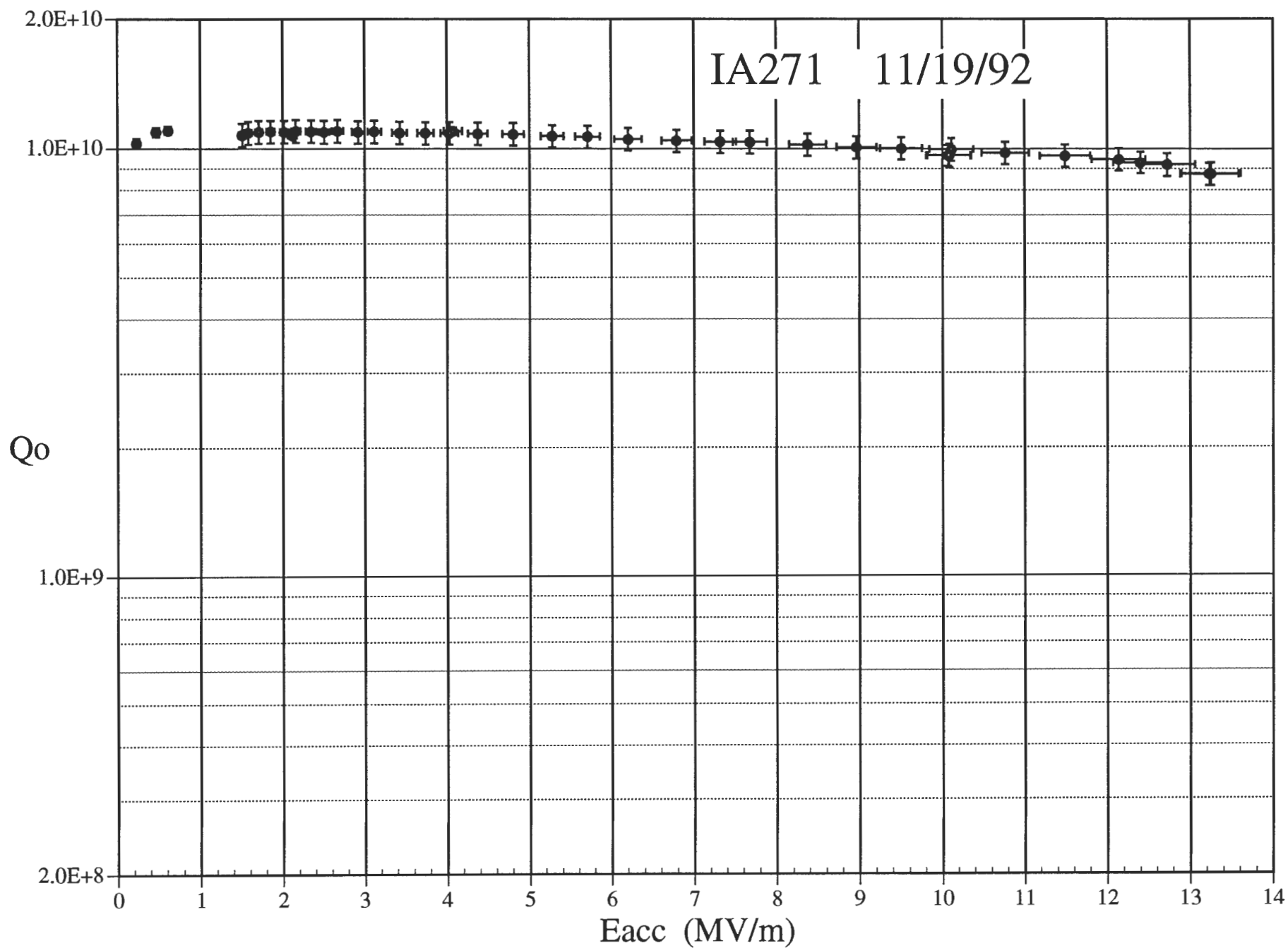


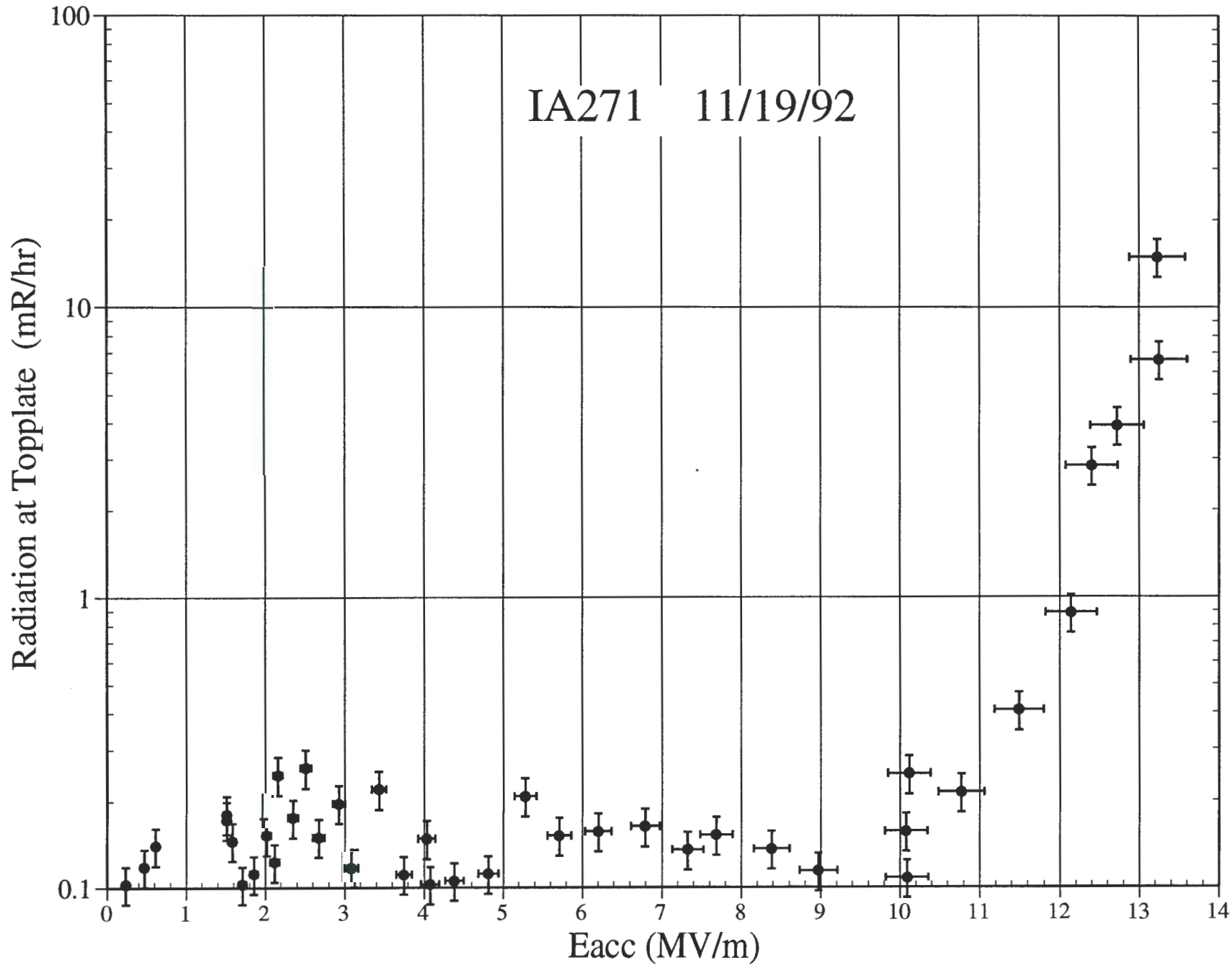




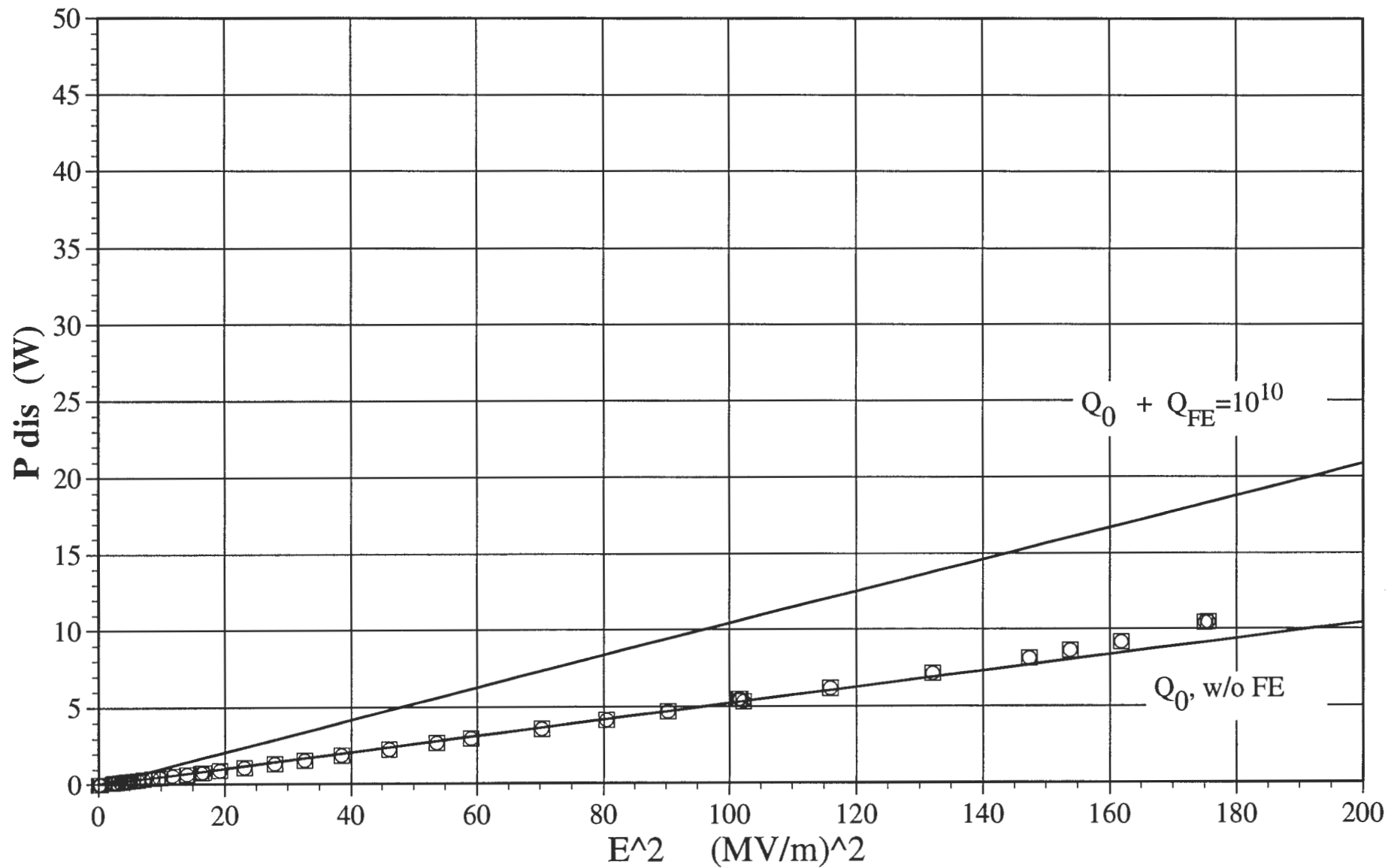
IA161 11/19/92



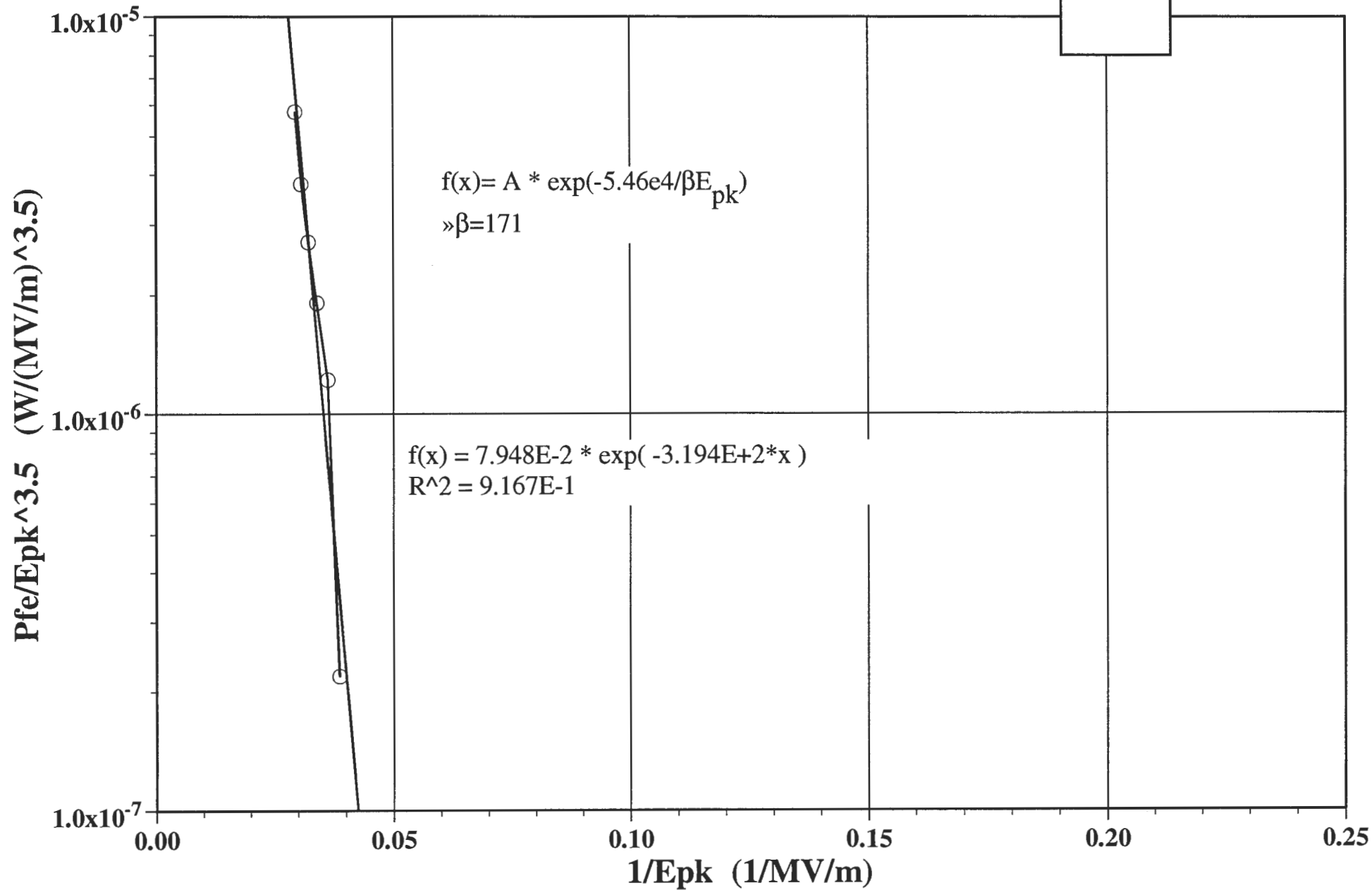




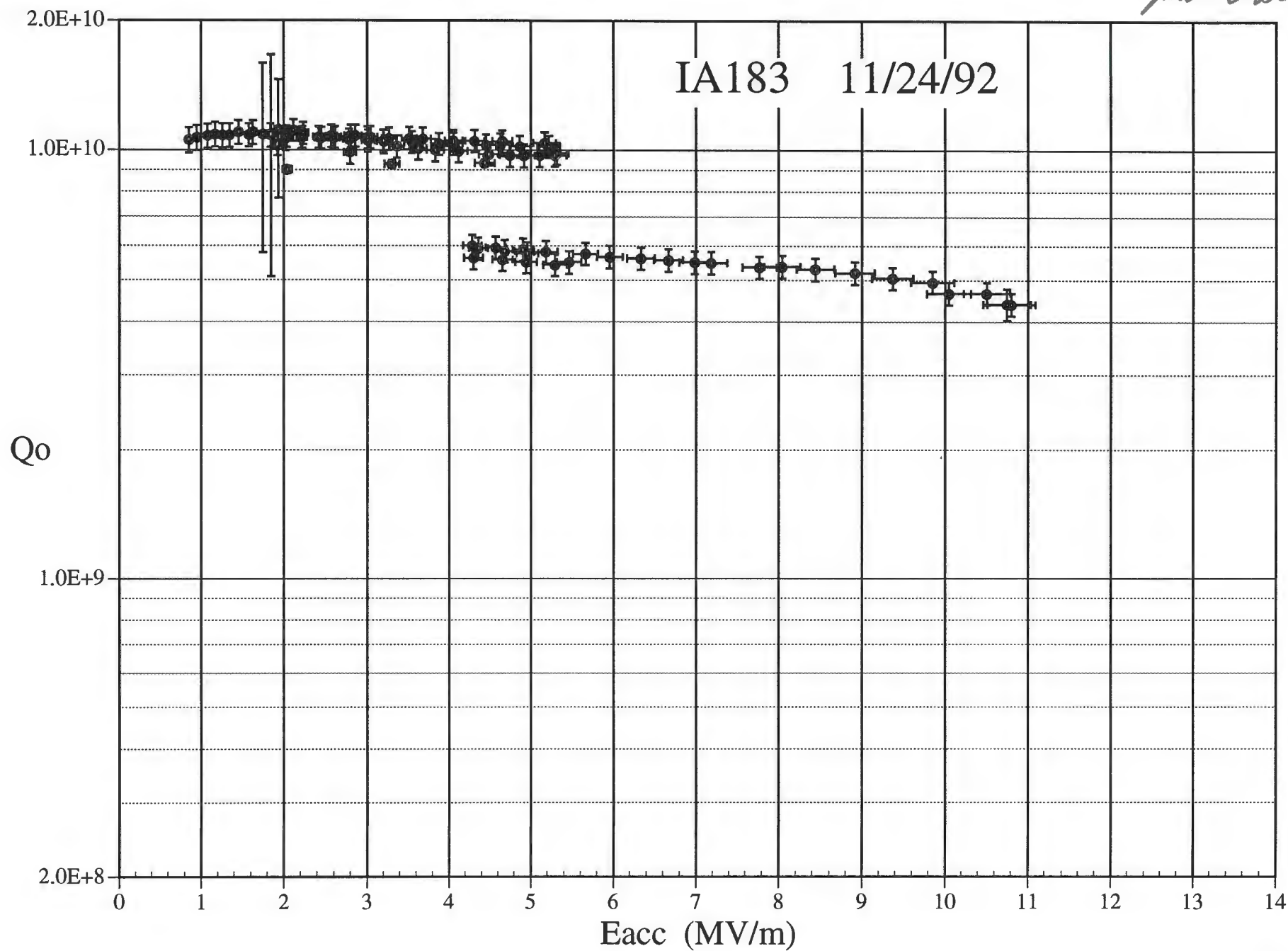
IA271 11/19/92



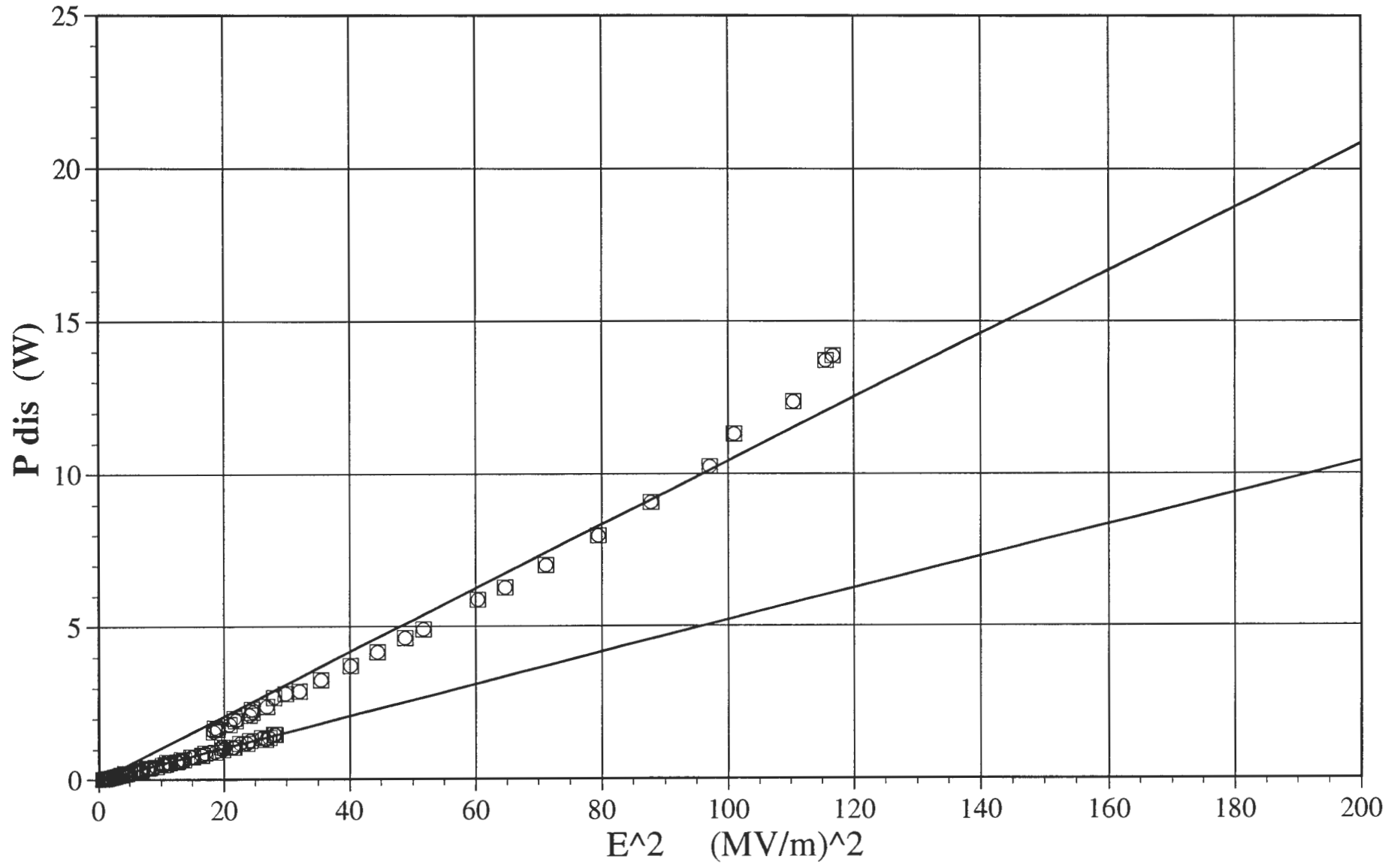
IA271 11/19/92

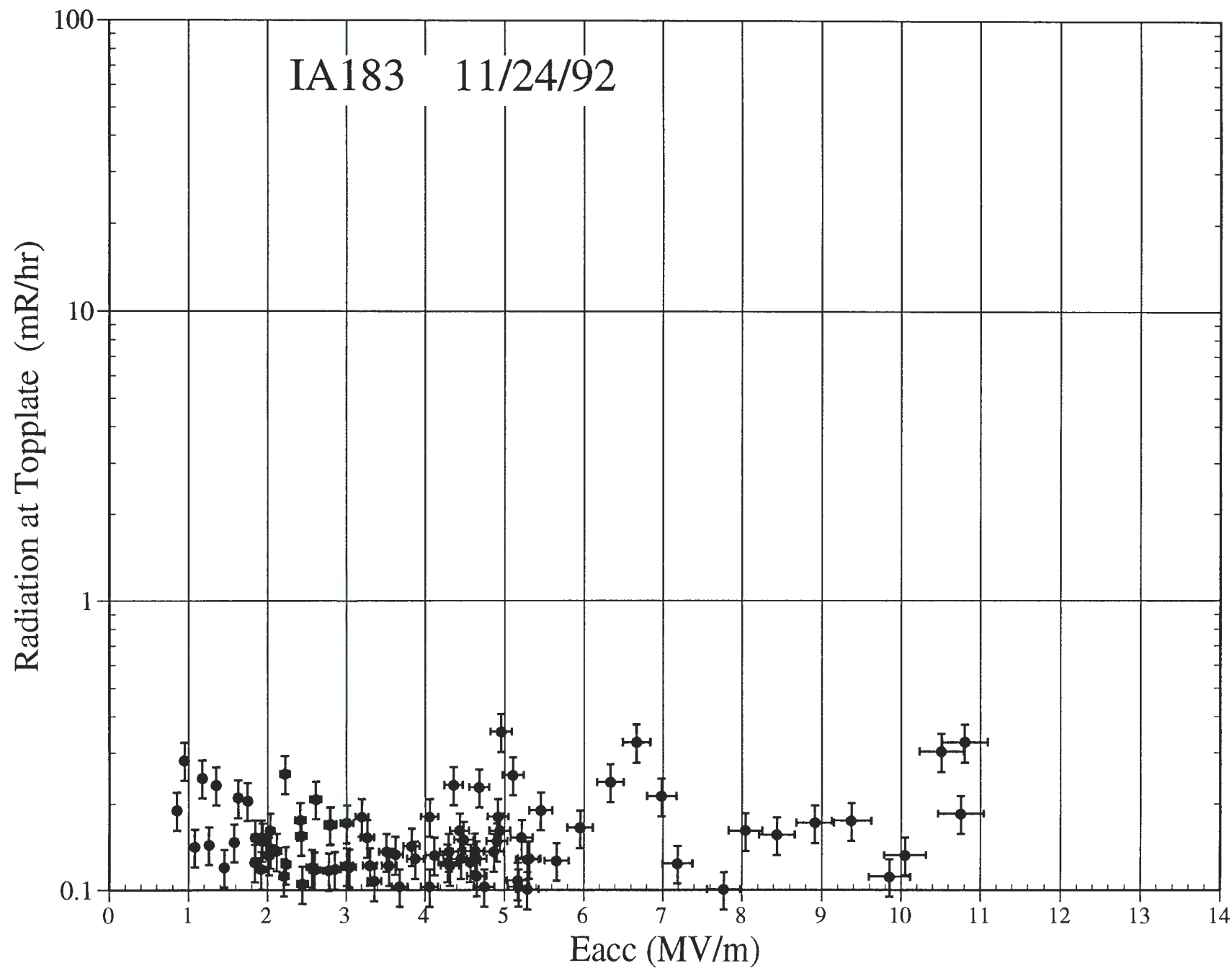


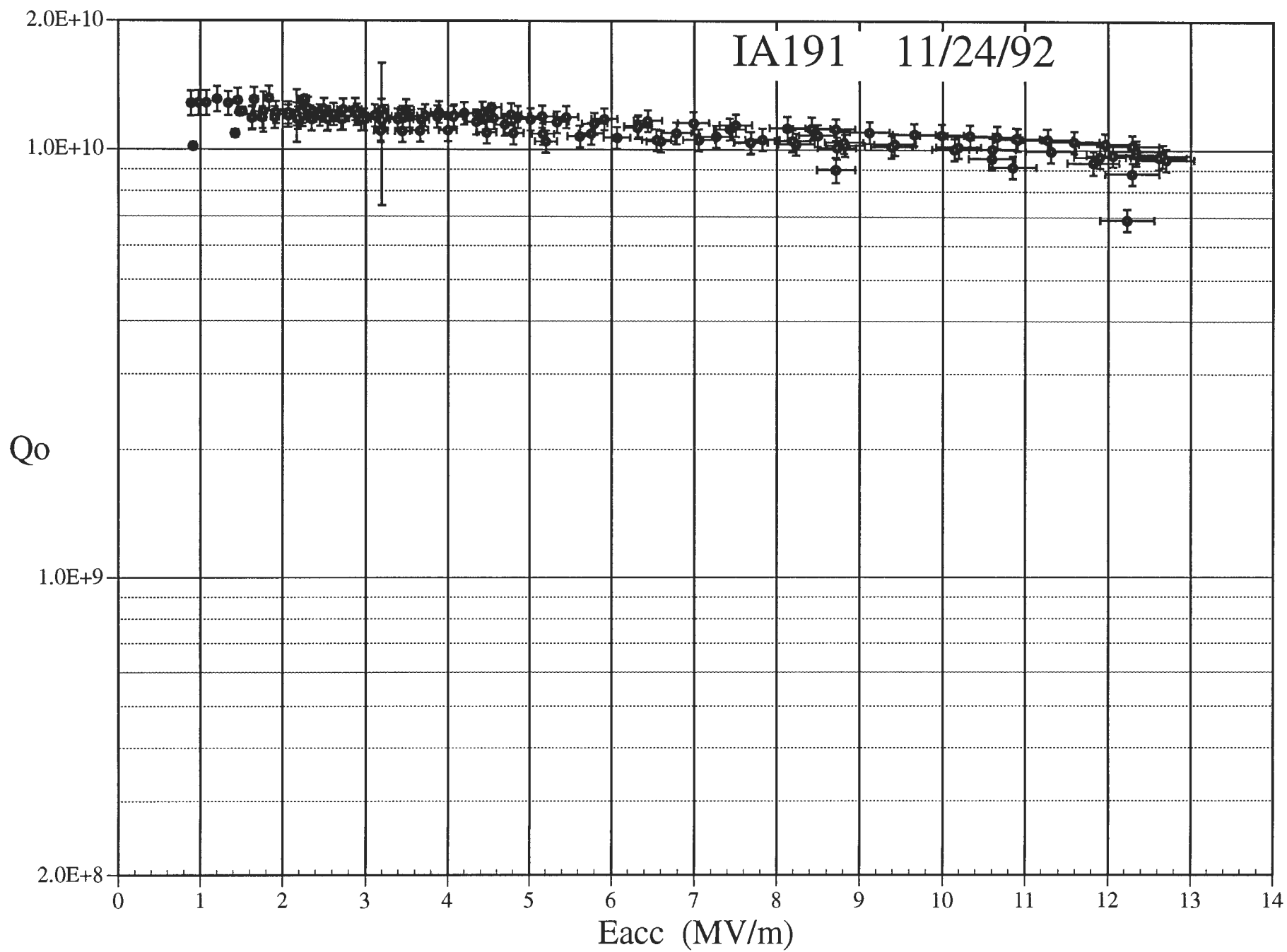
183/191 *surden up* 183
put oxide

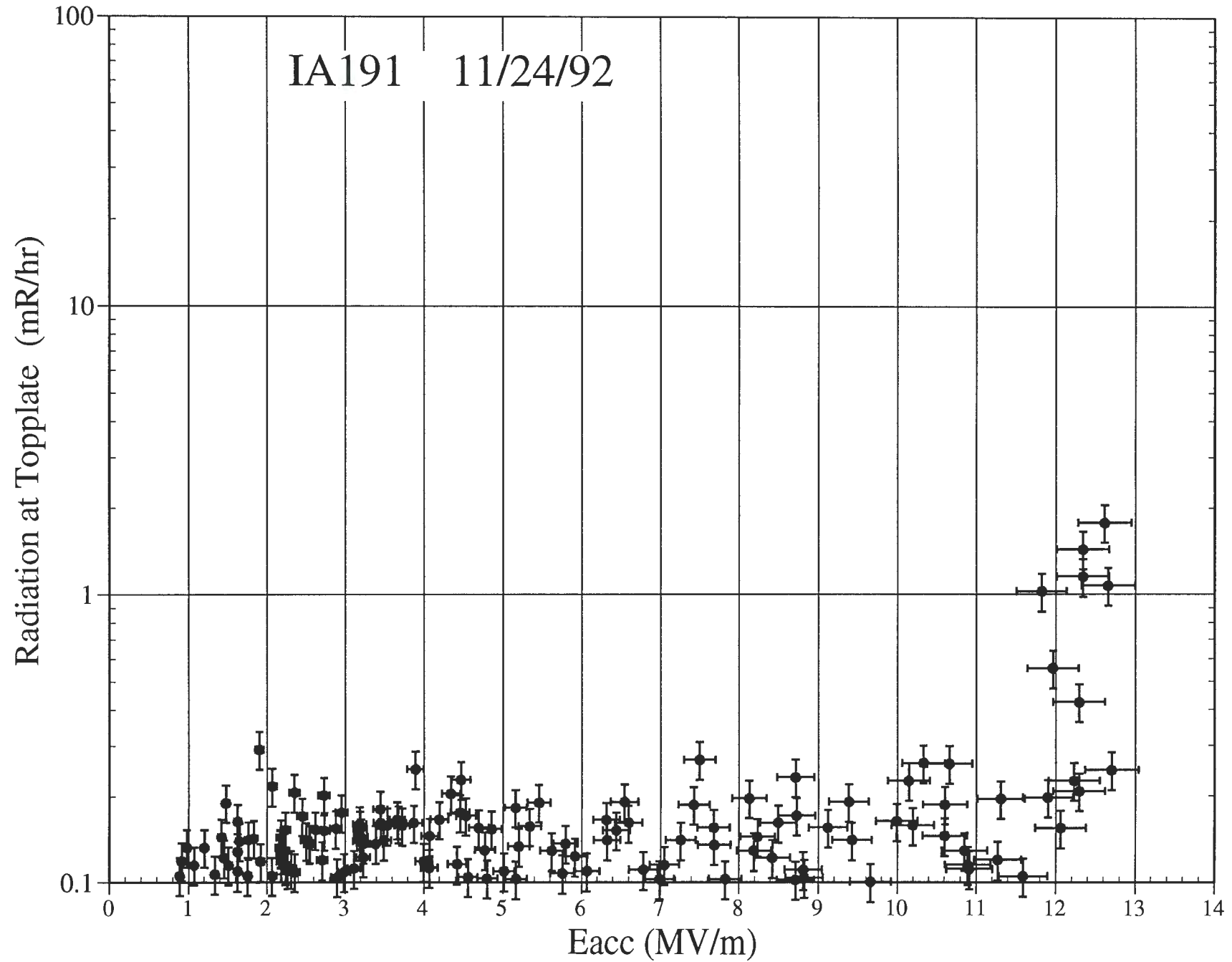


IA183 11/24/92

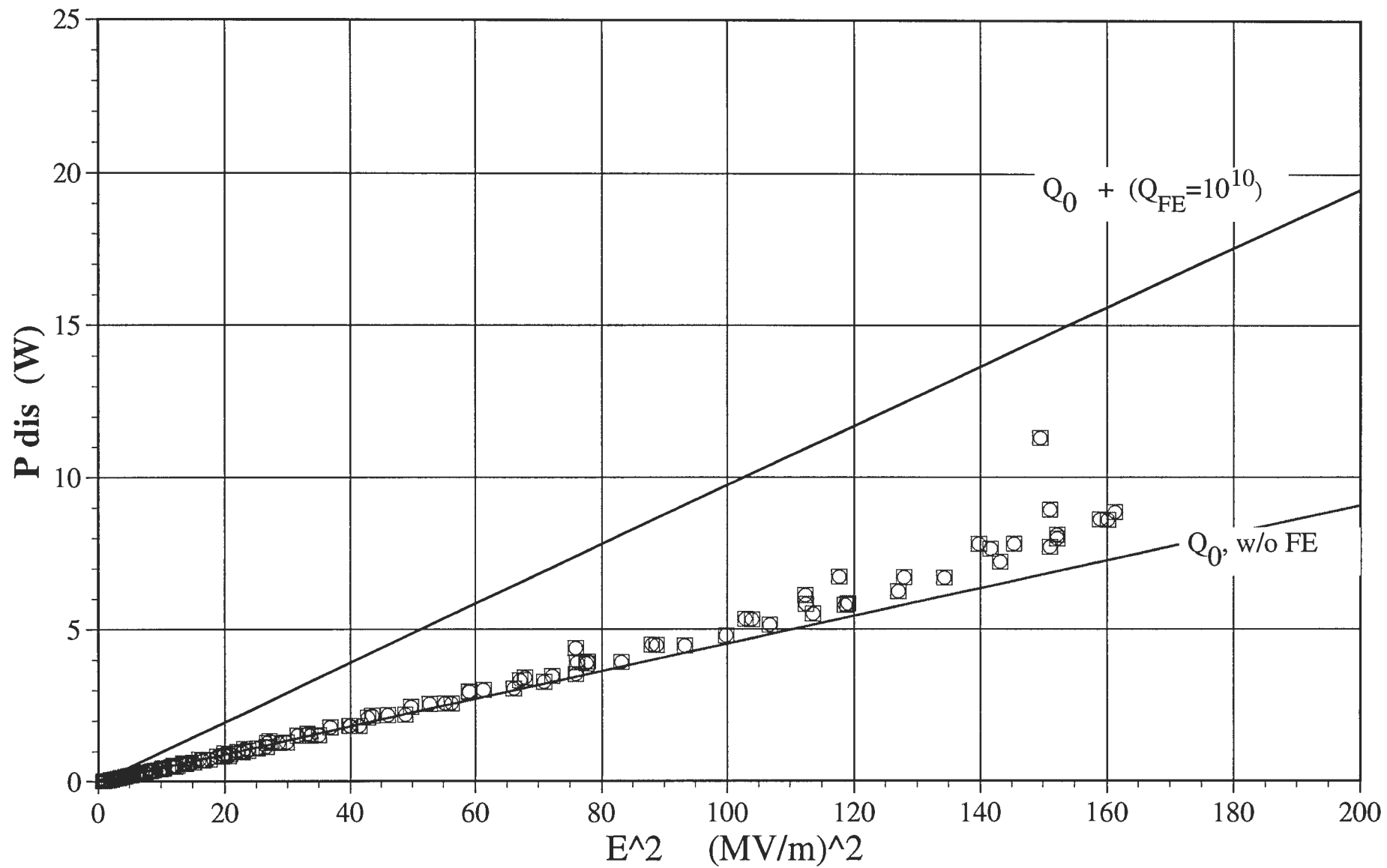


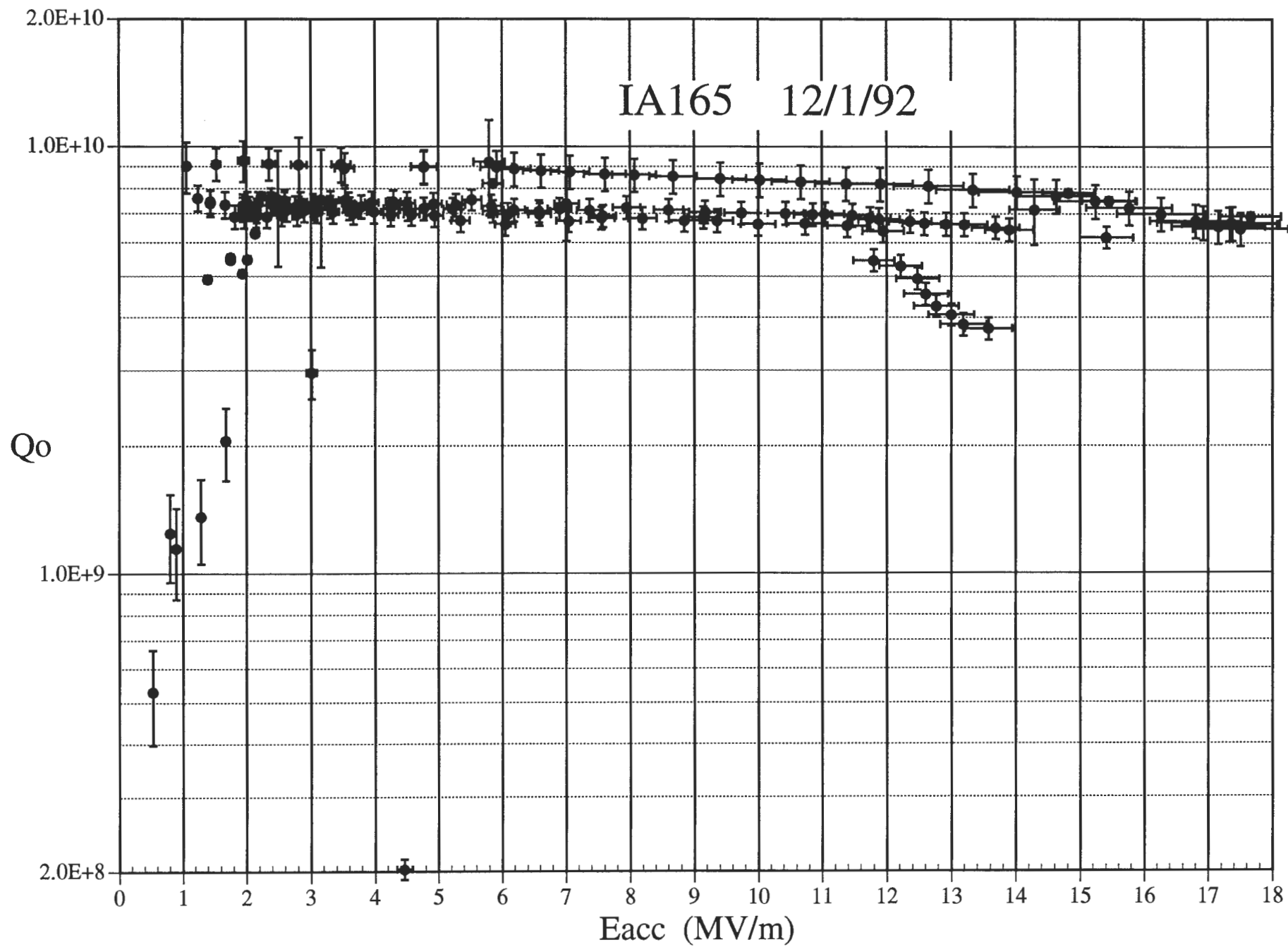


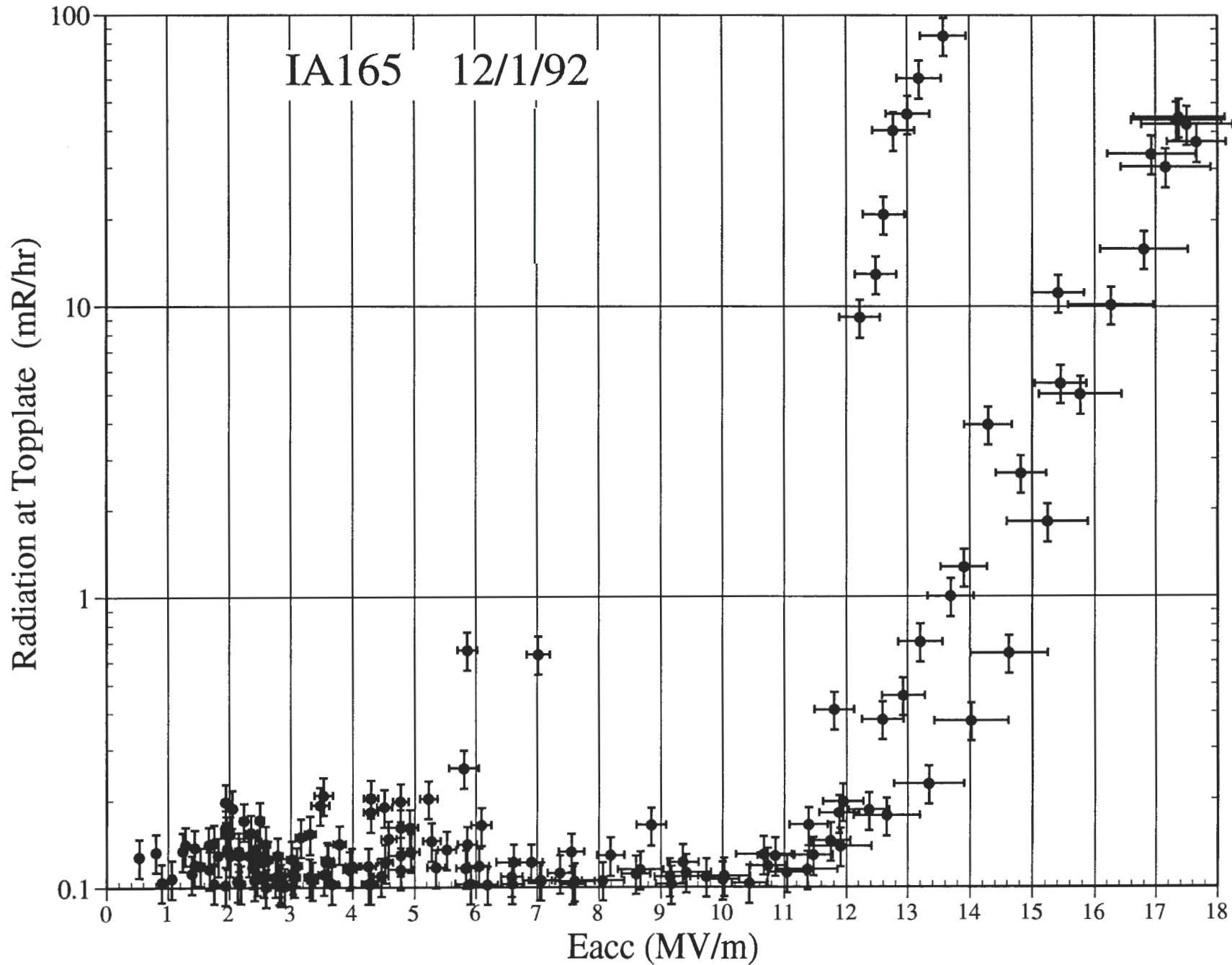




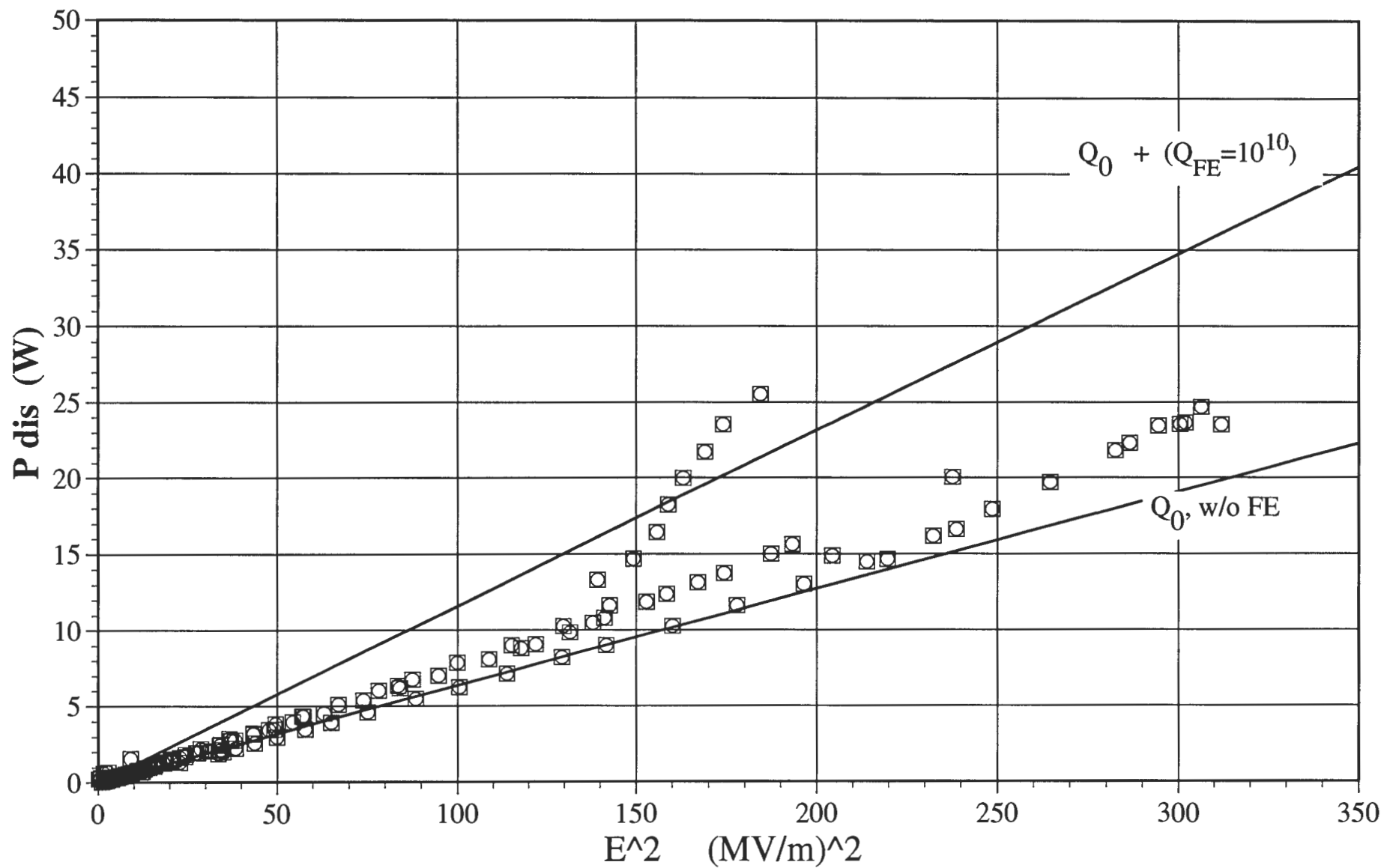
IA191 11/24/92



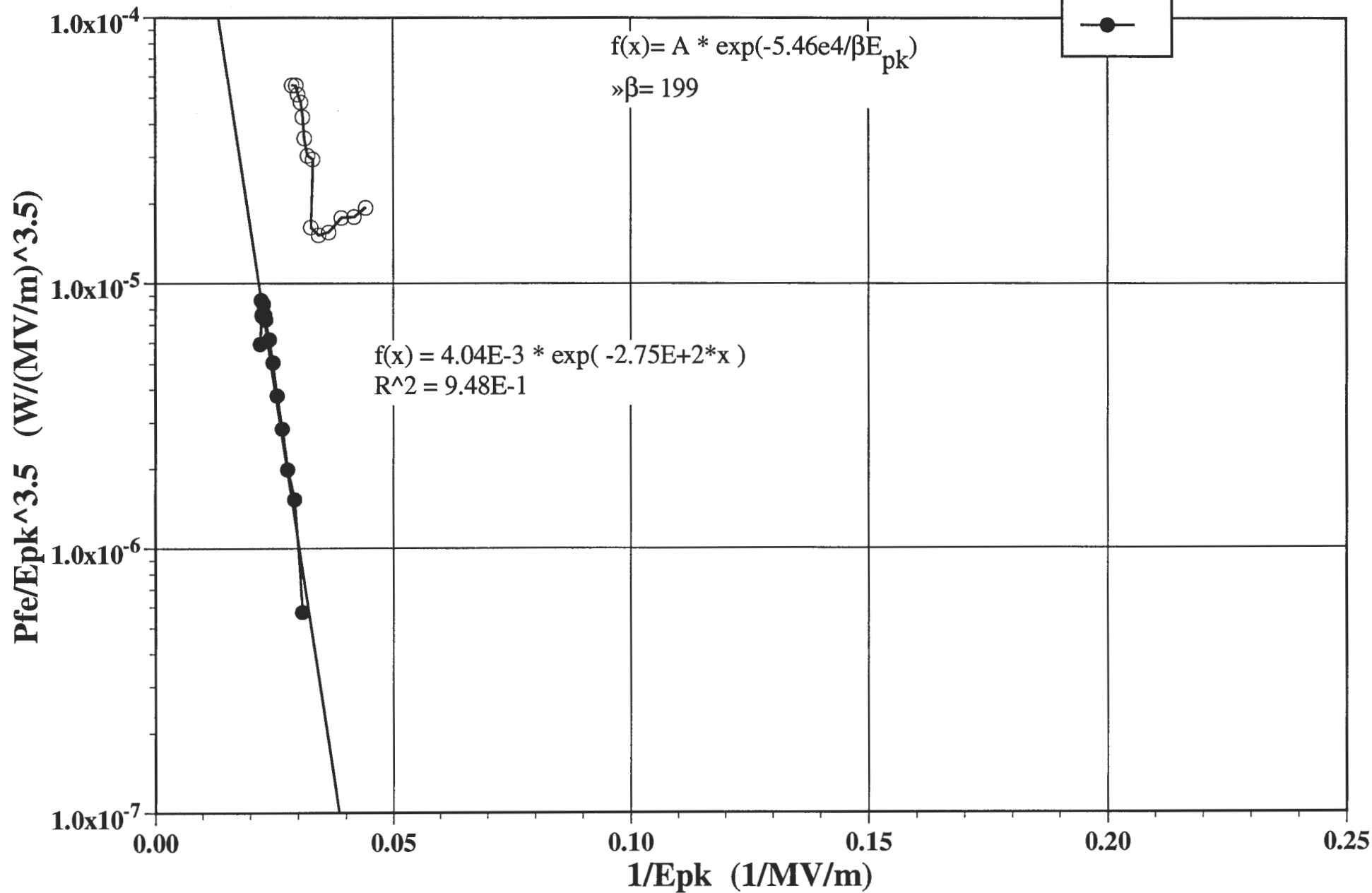


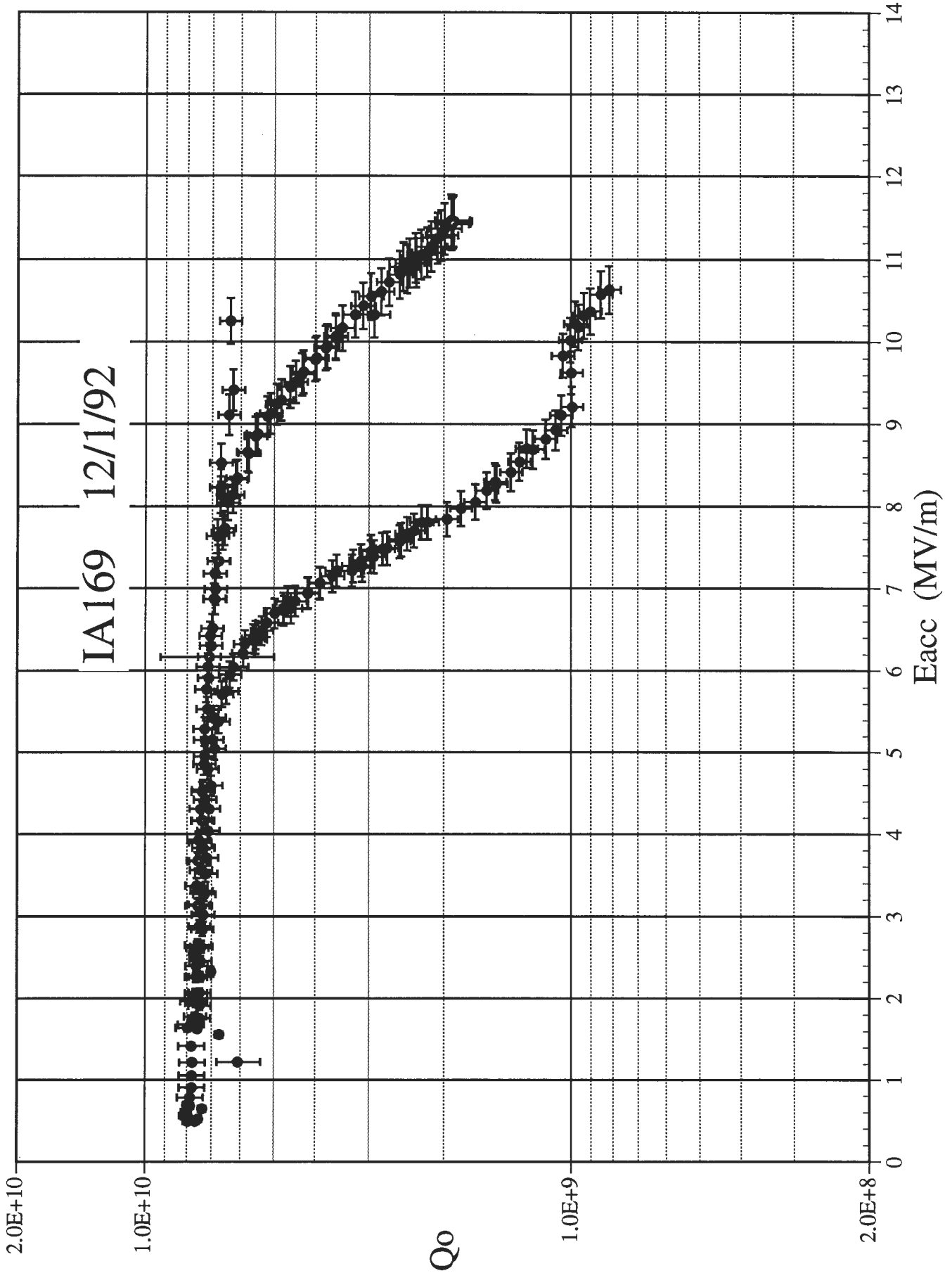


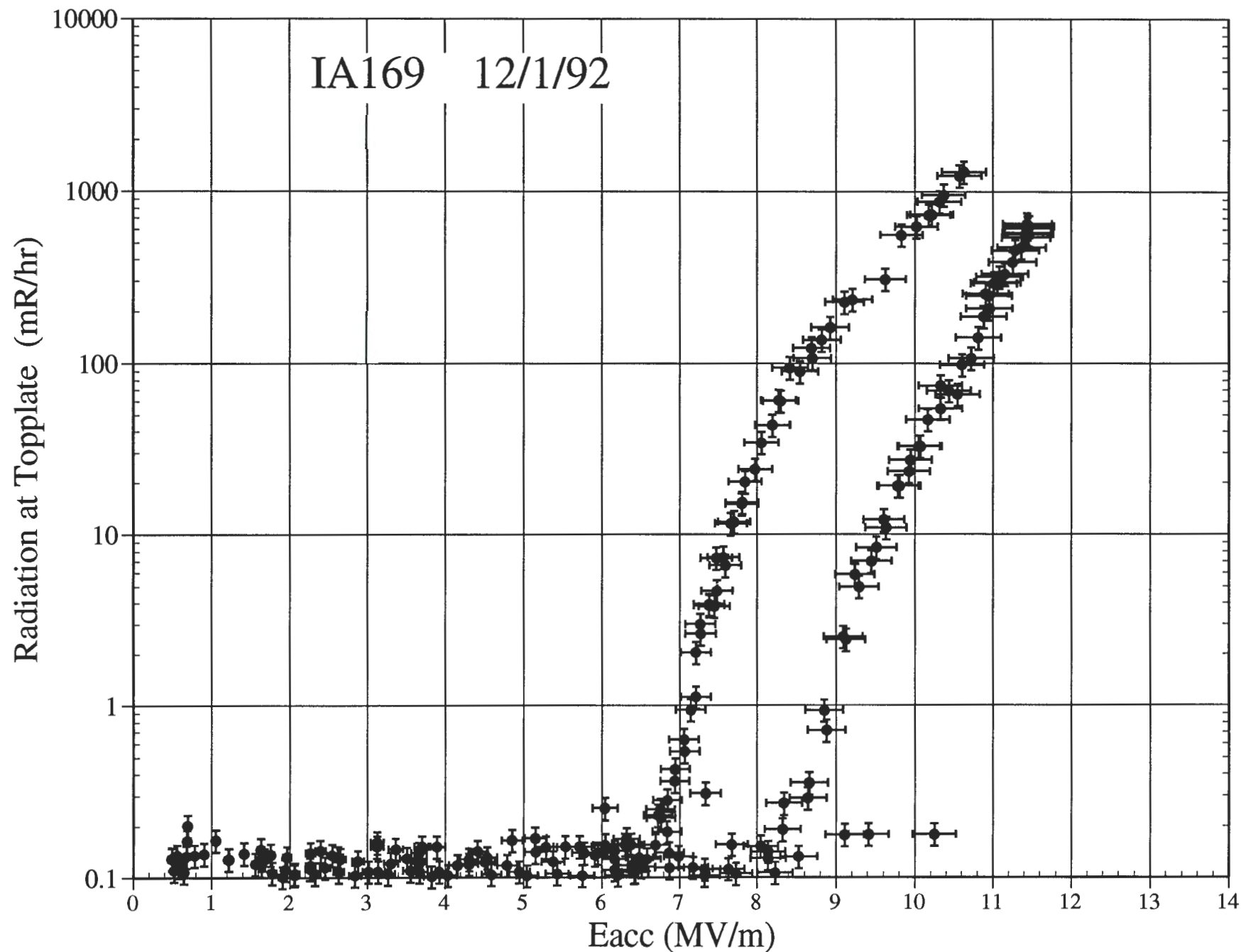
IA165 12/1/92



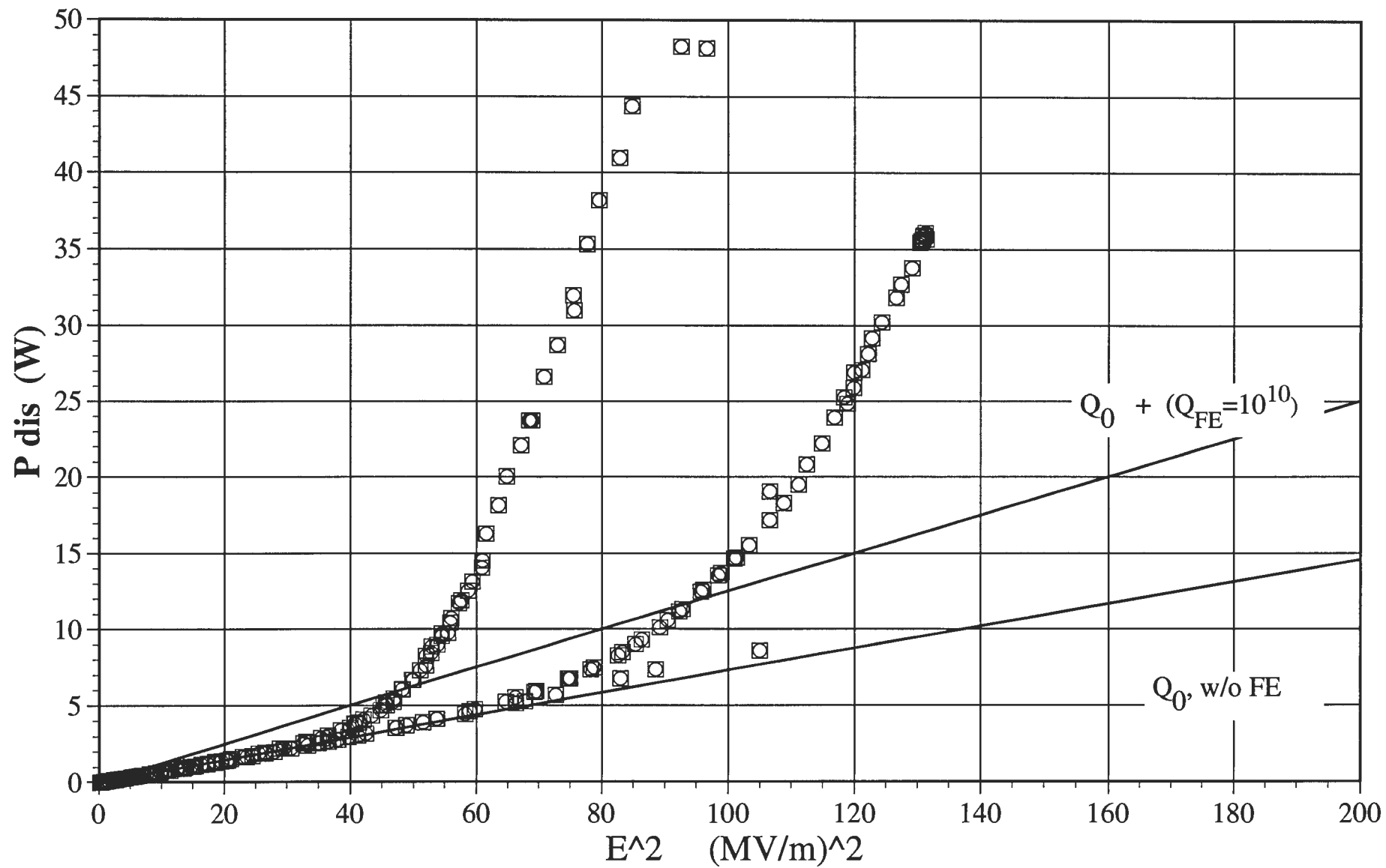
IA165 12/1/92



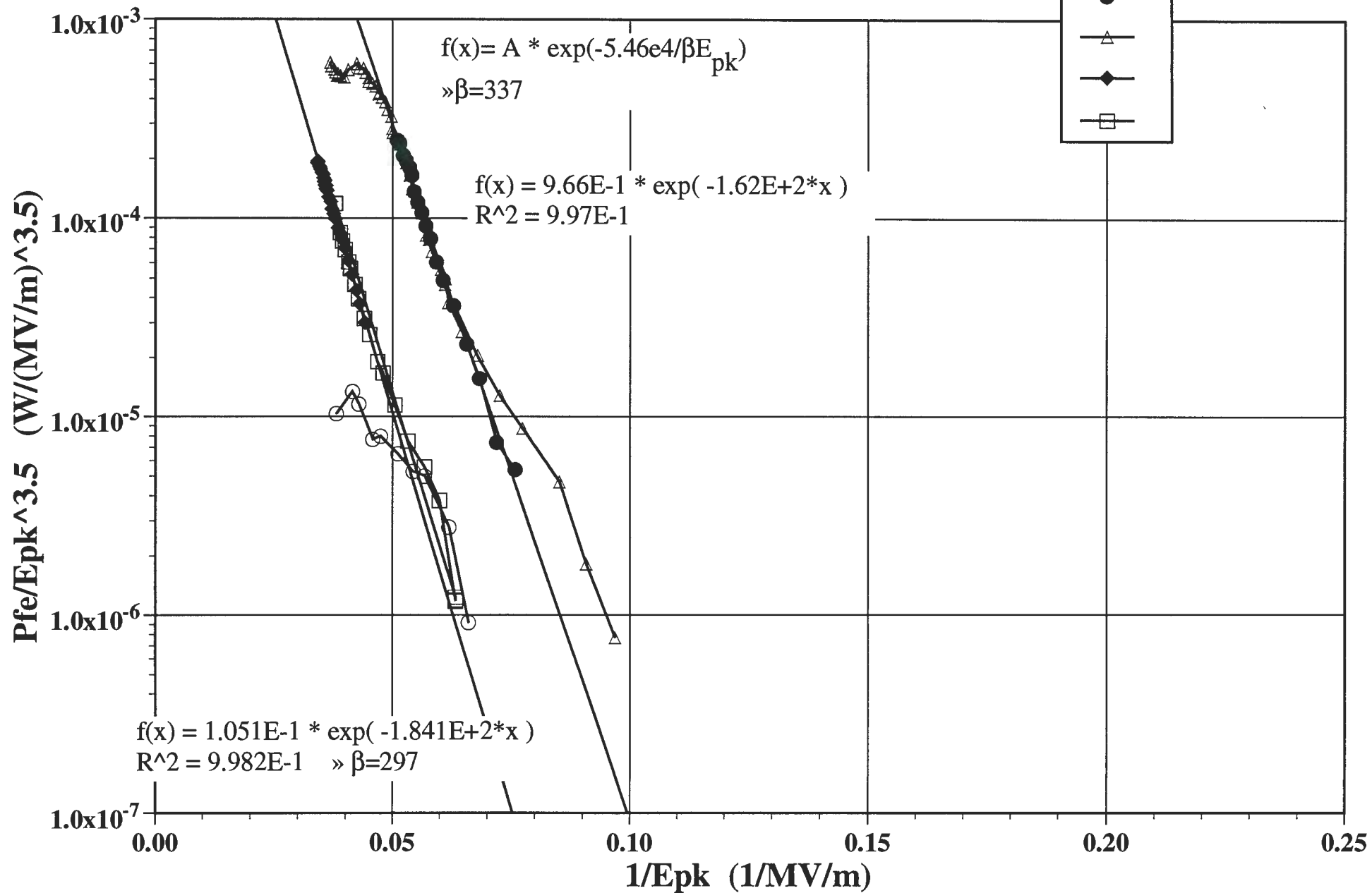


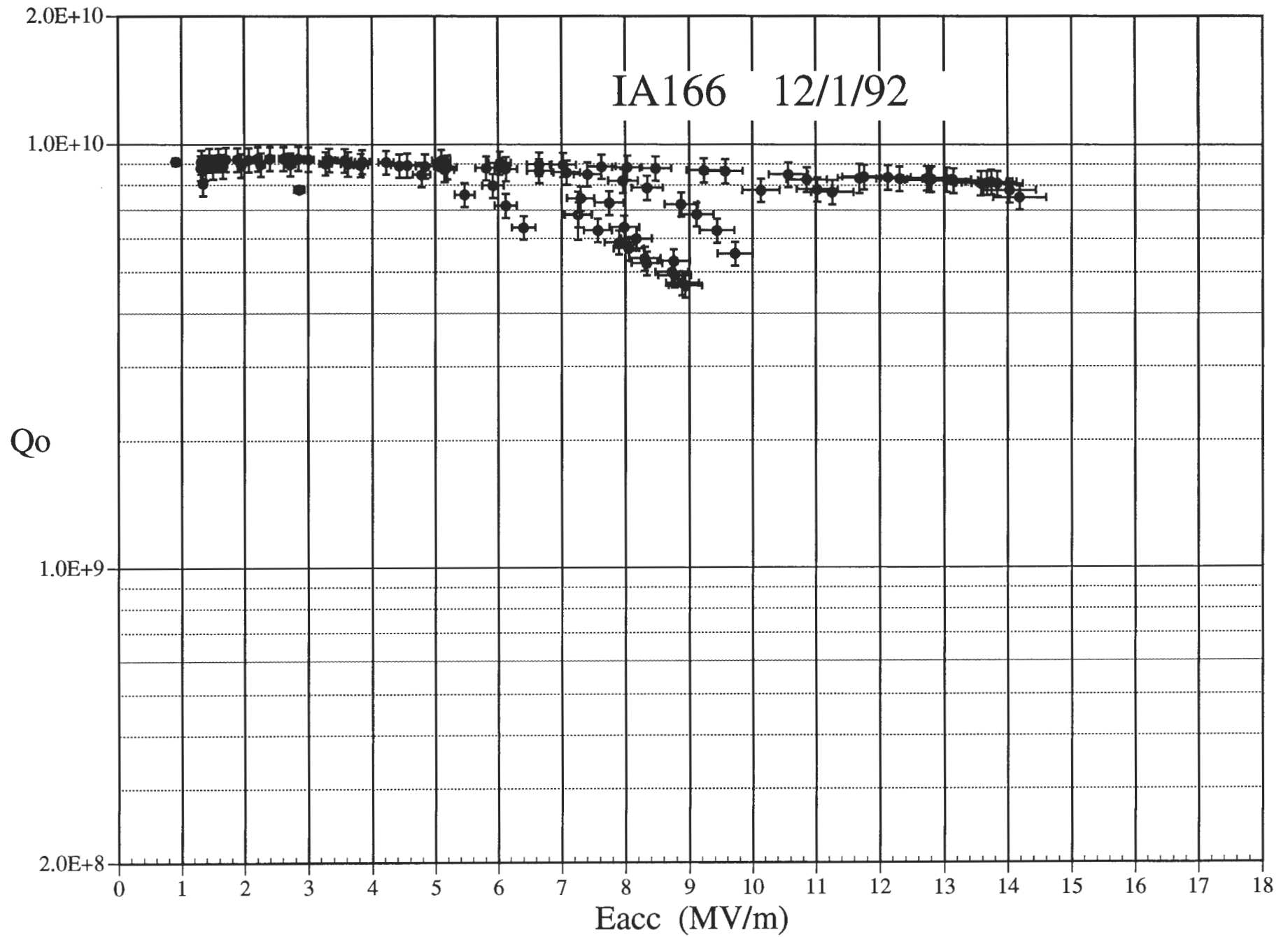


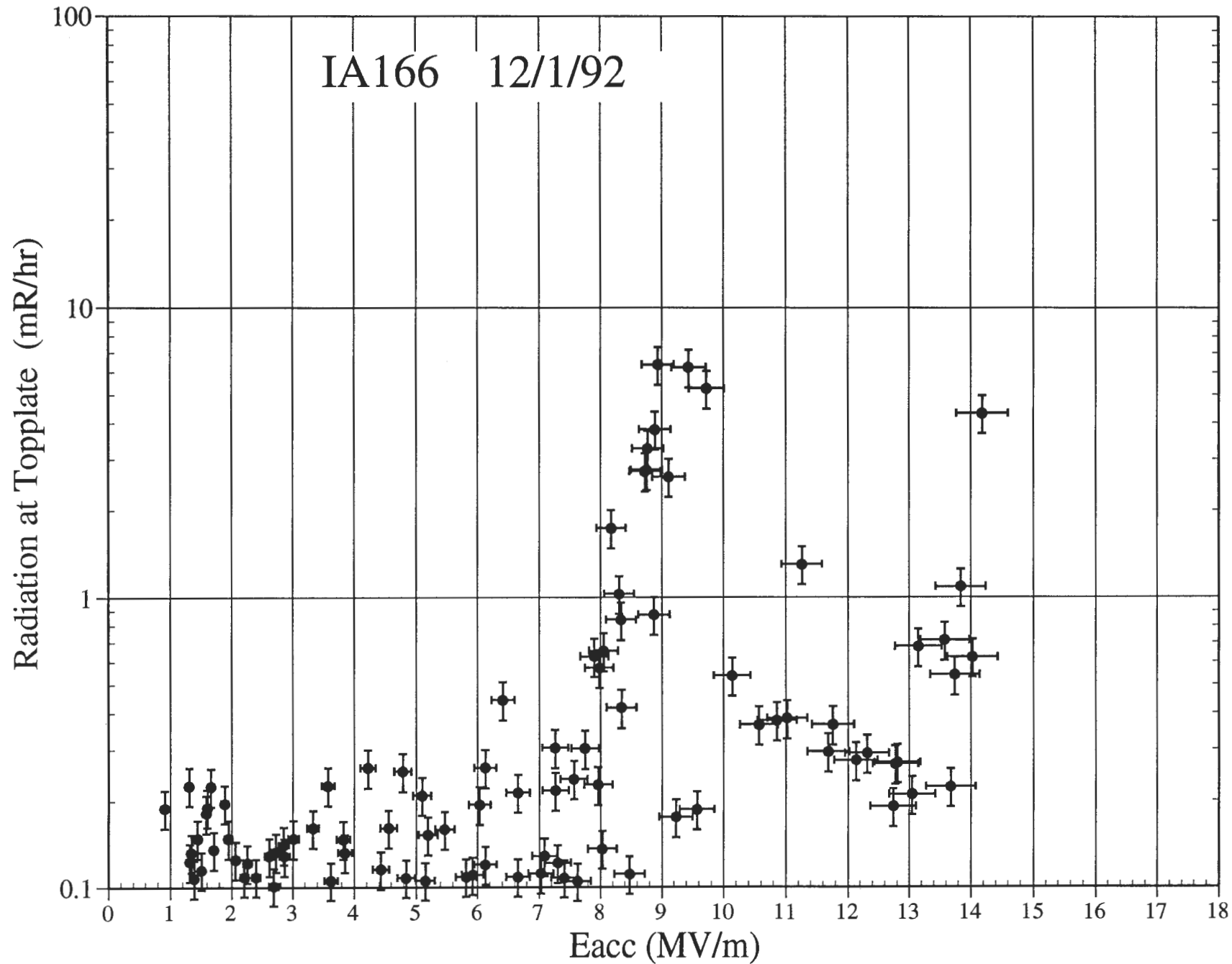
IA169 12/1/92



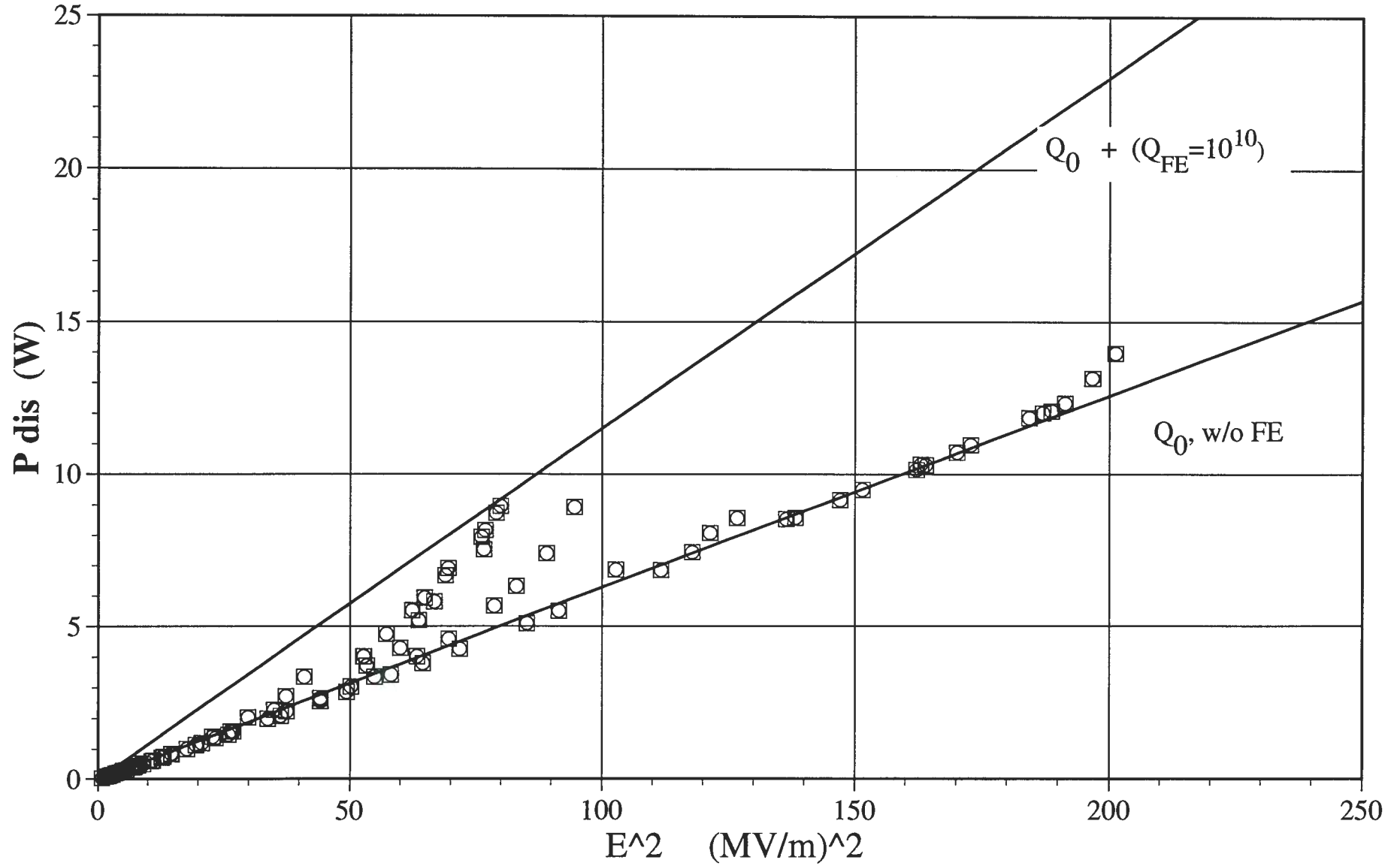
IA169 12/1/92



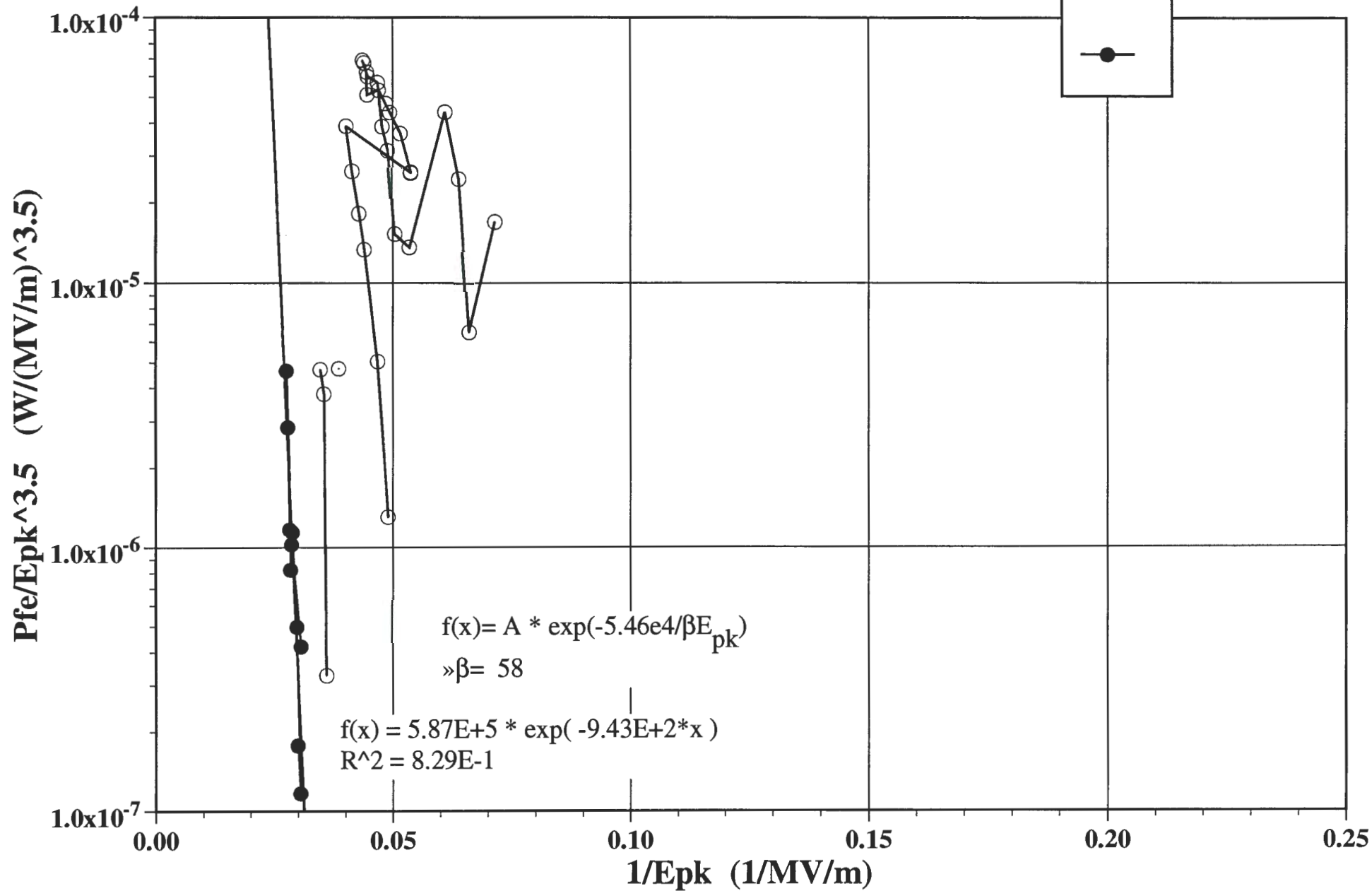


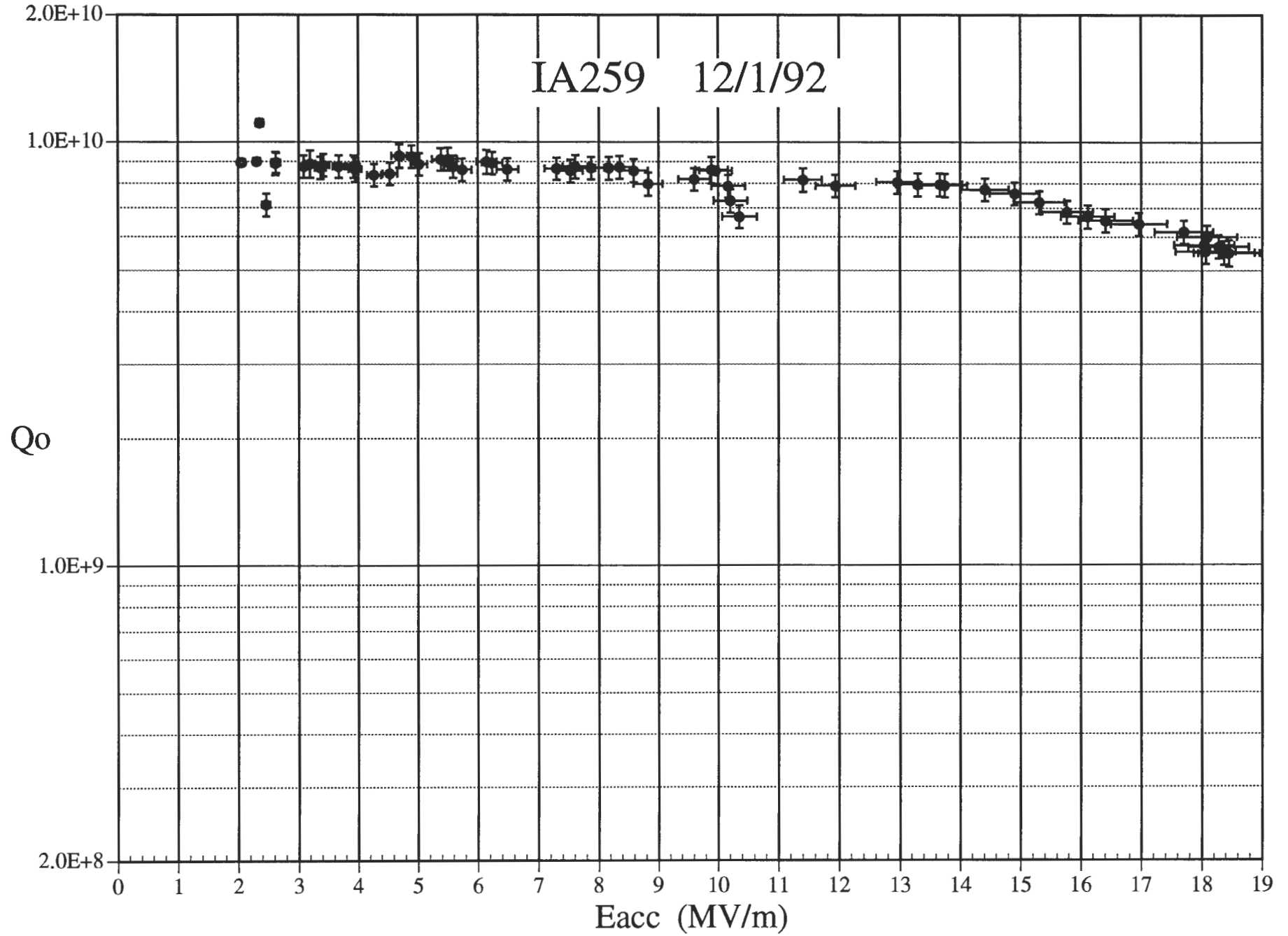


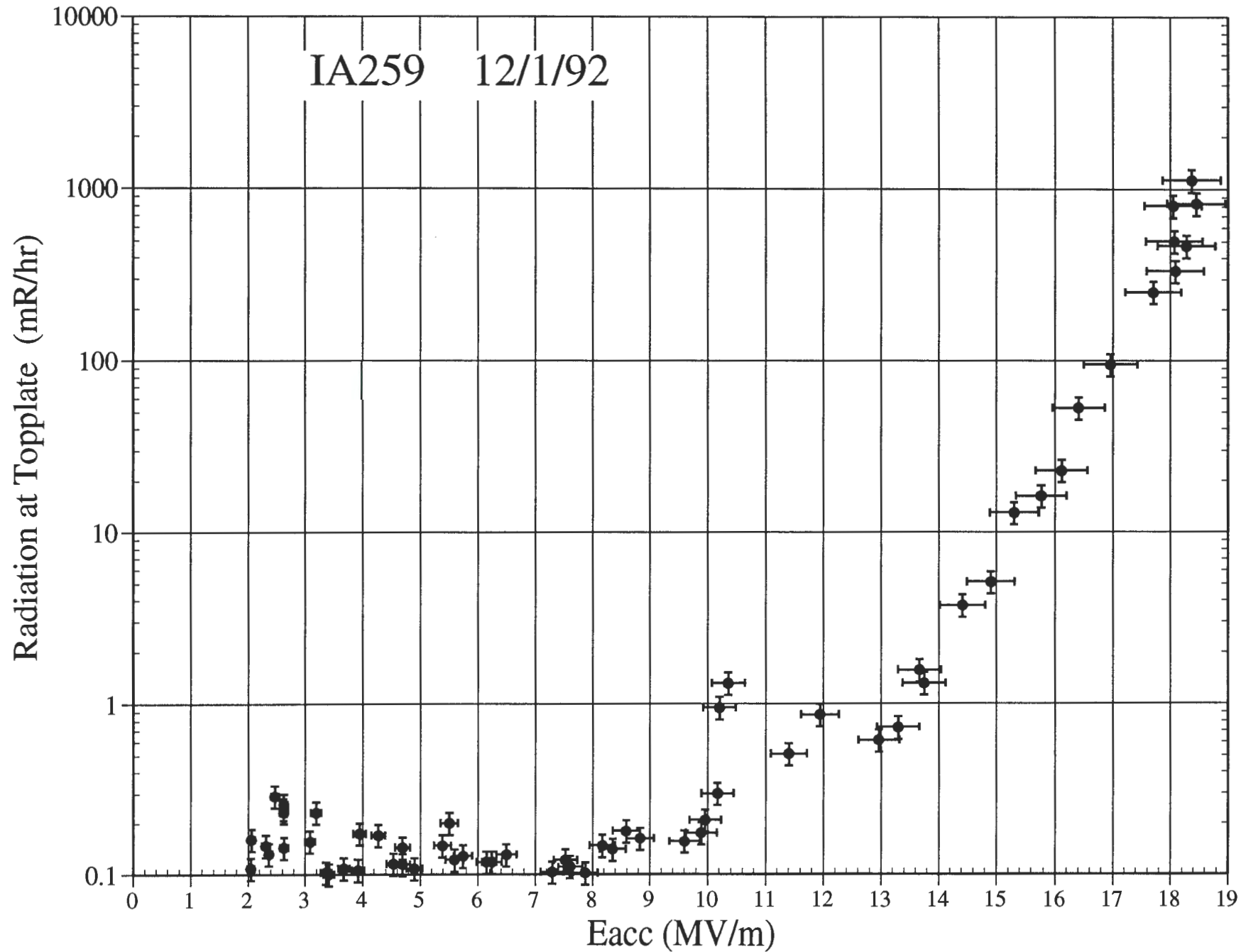
IA166 12/1/92



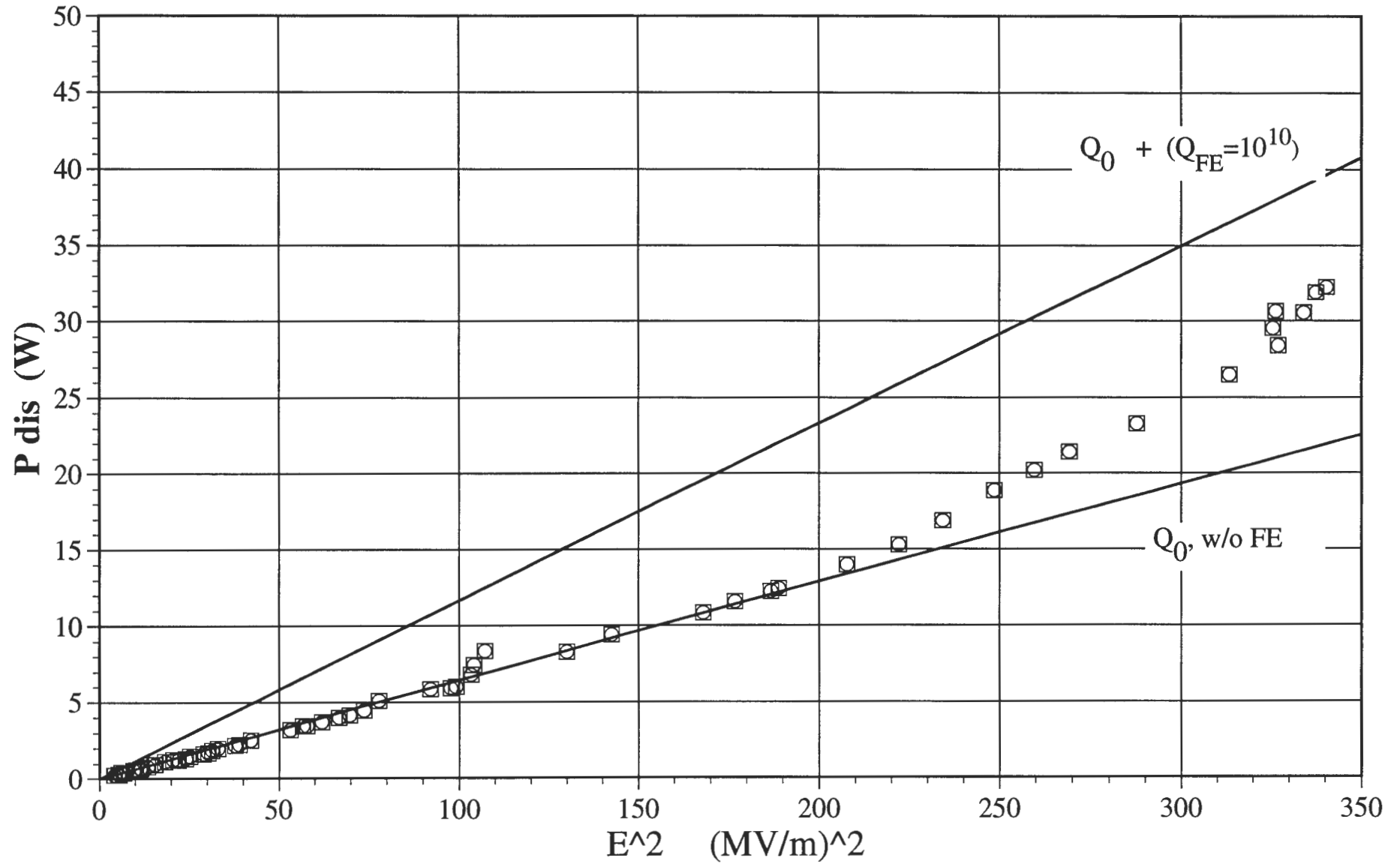
IA166 12/1/92



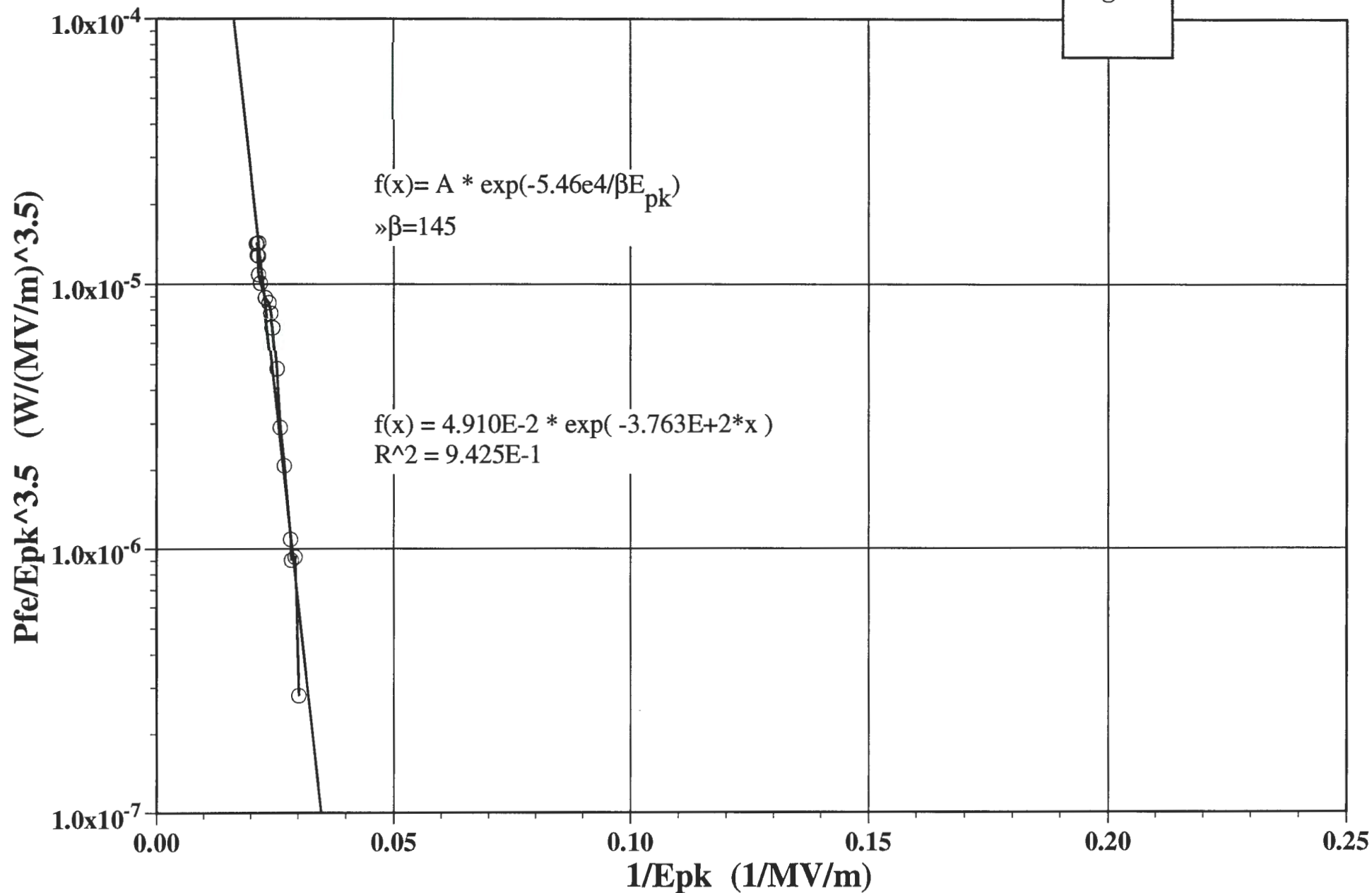


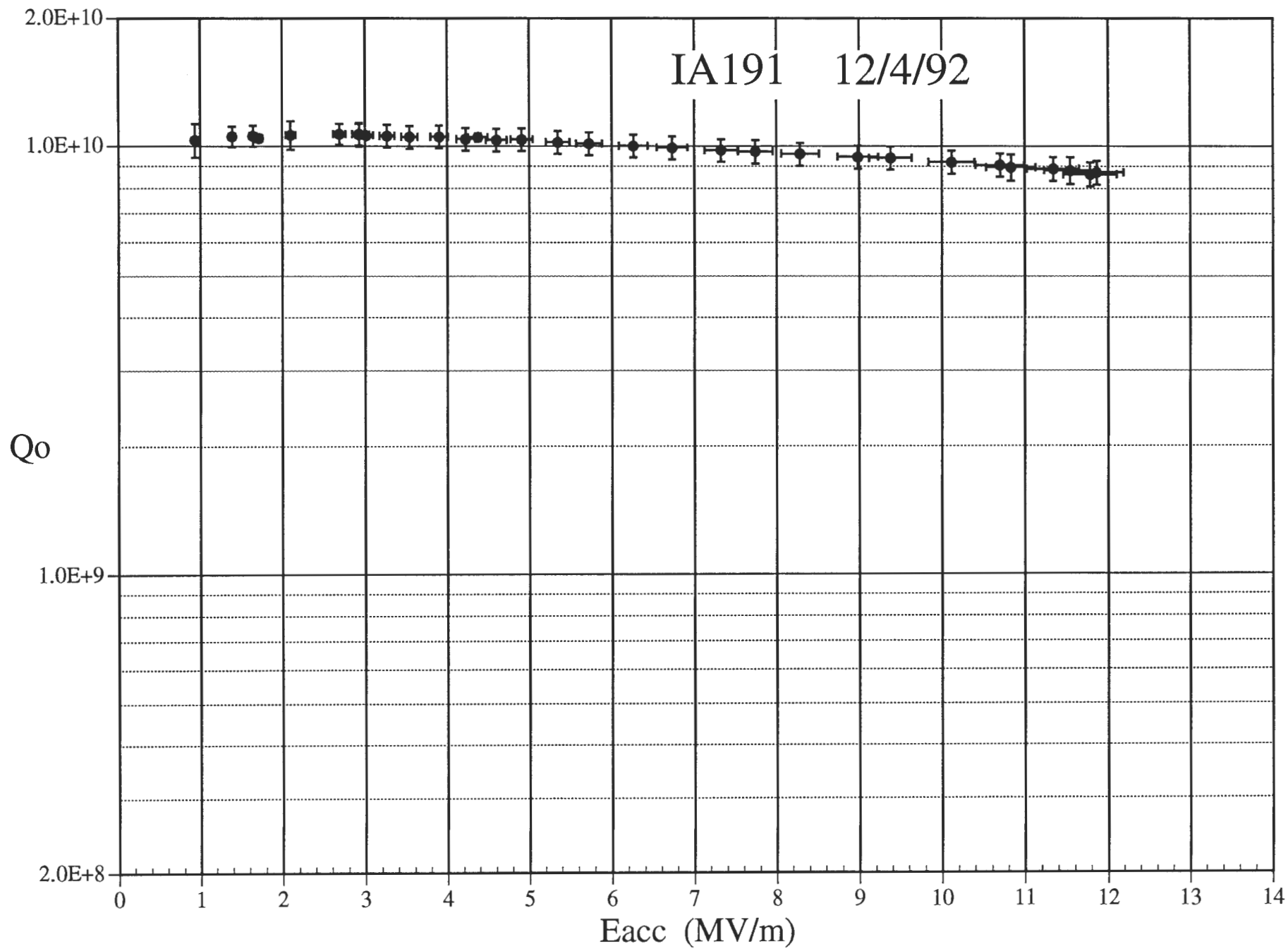


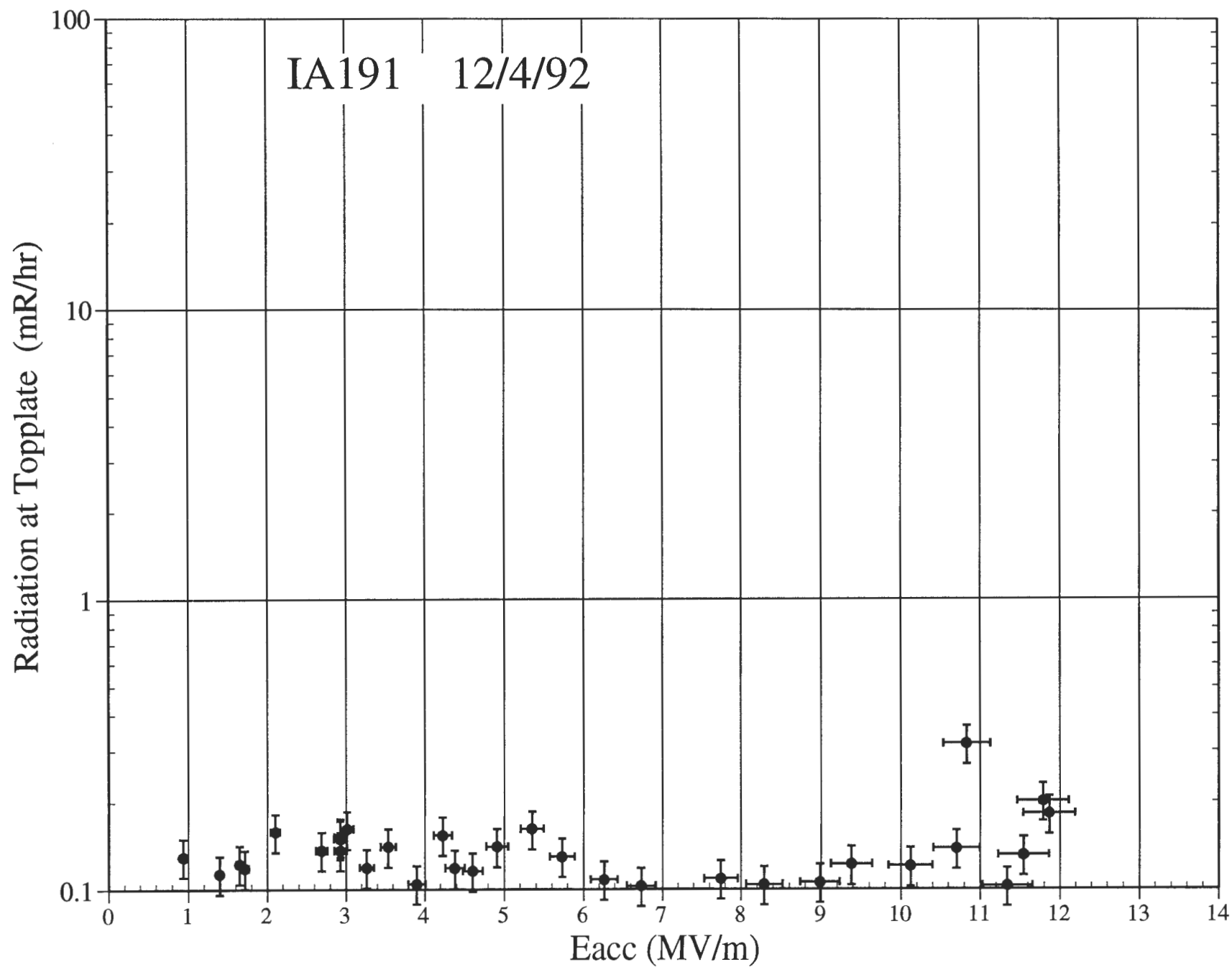
IA259 12/1/92



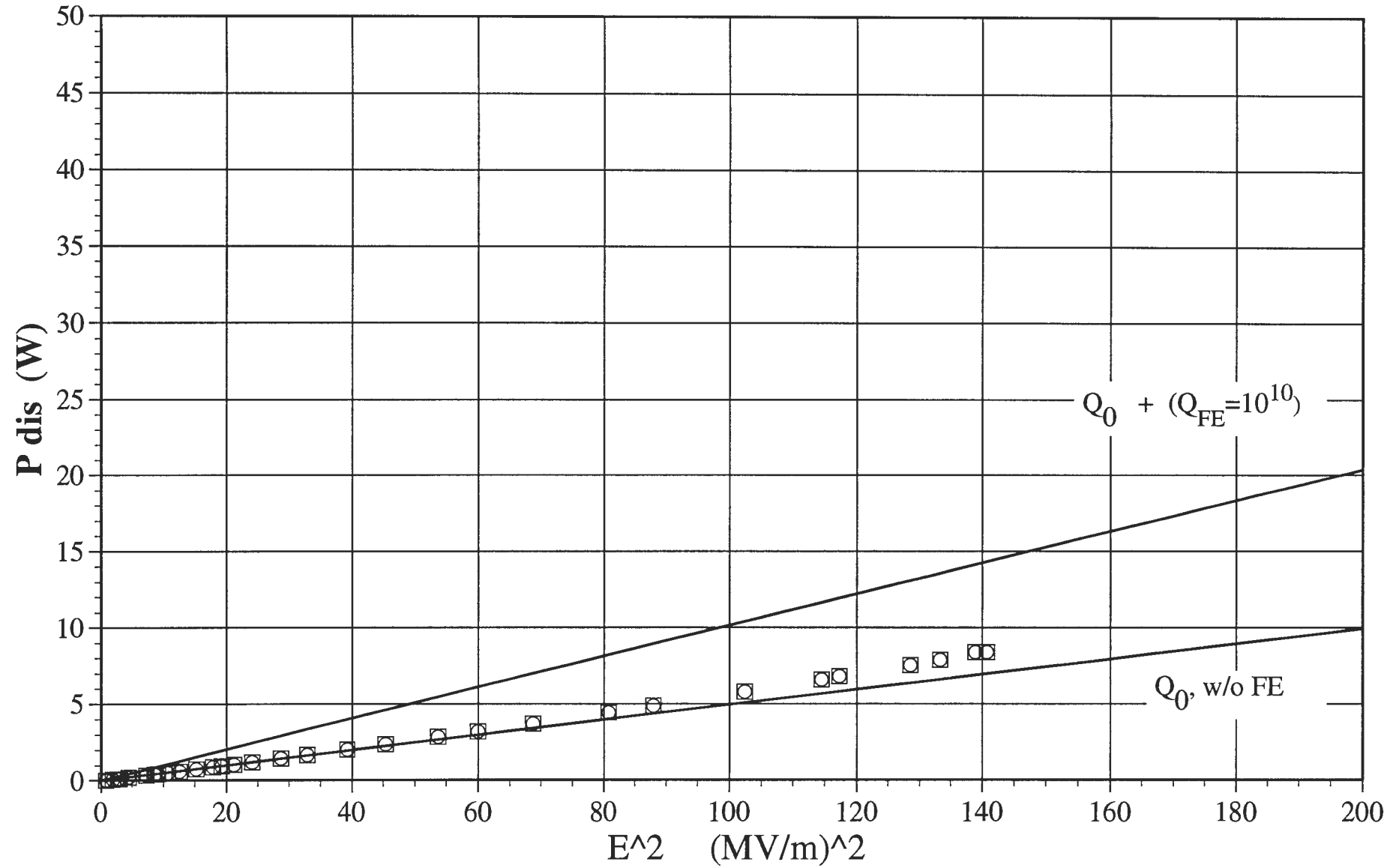
IA259 12/1/92

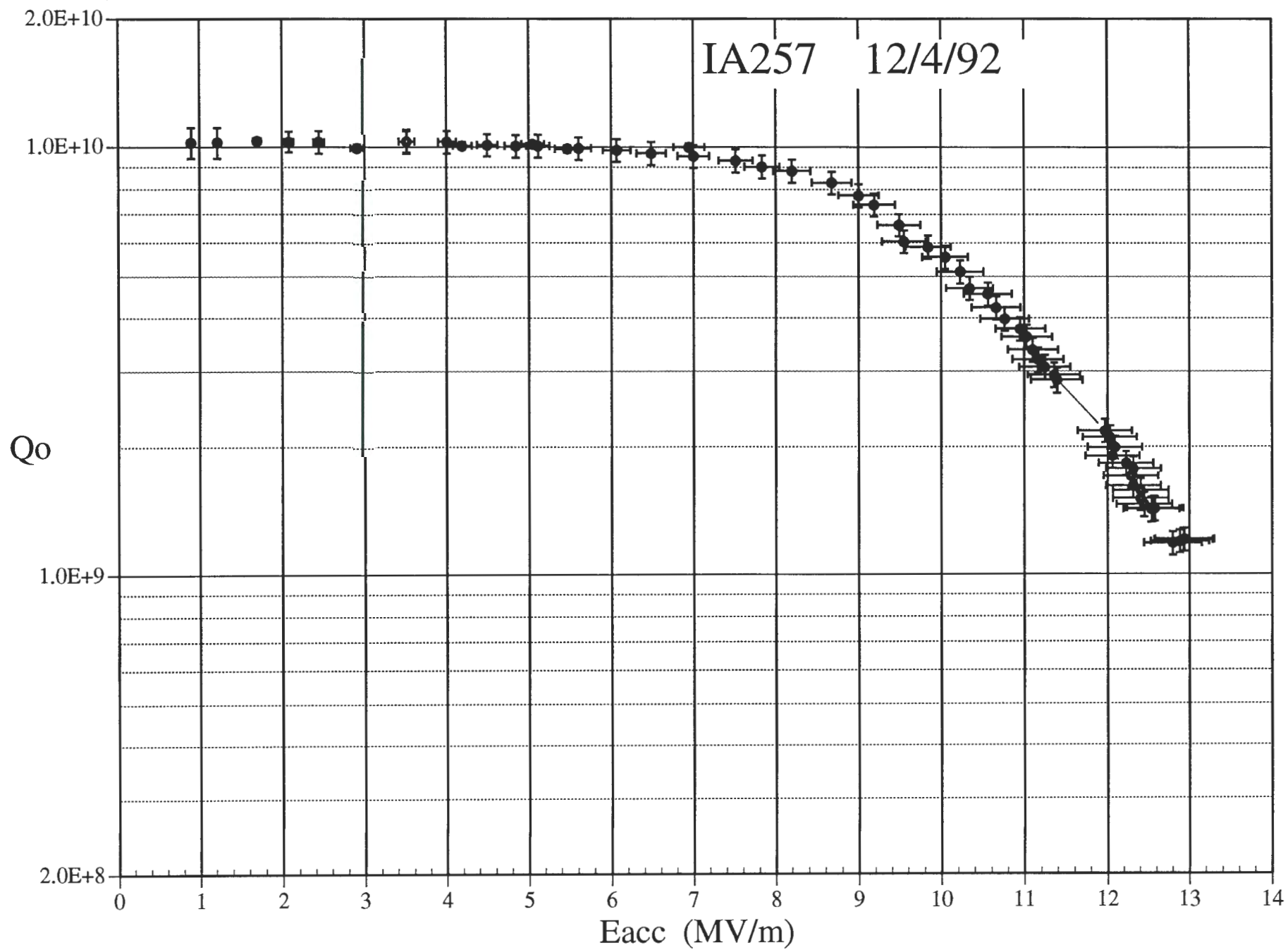


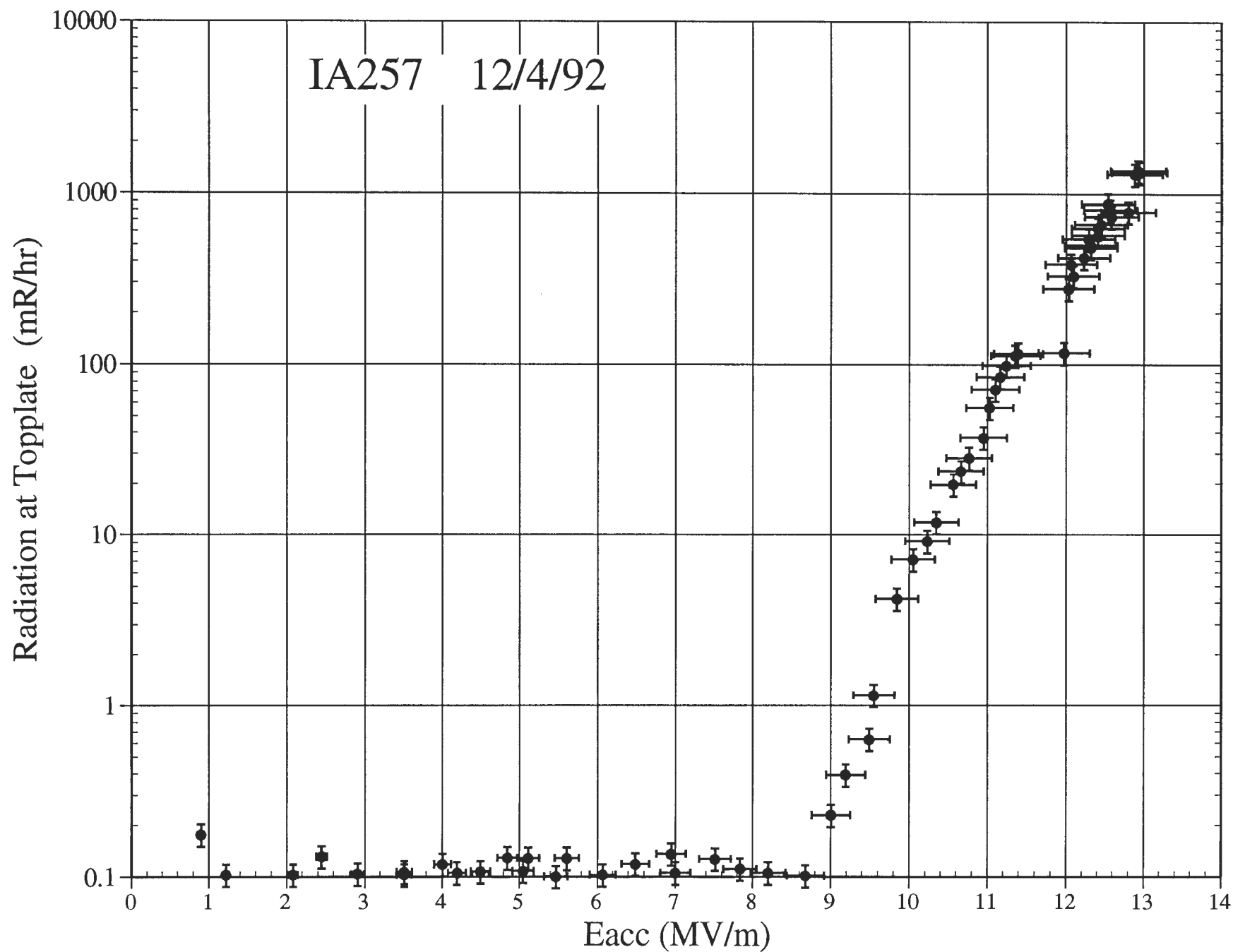




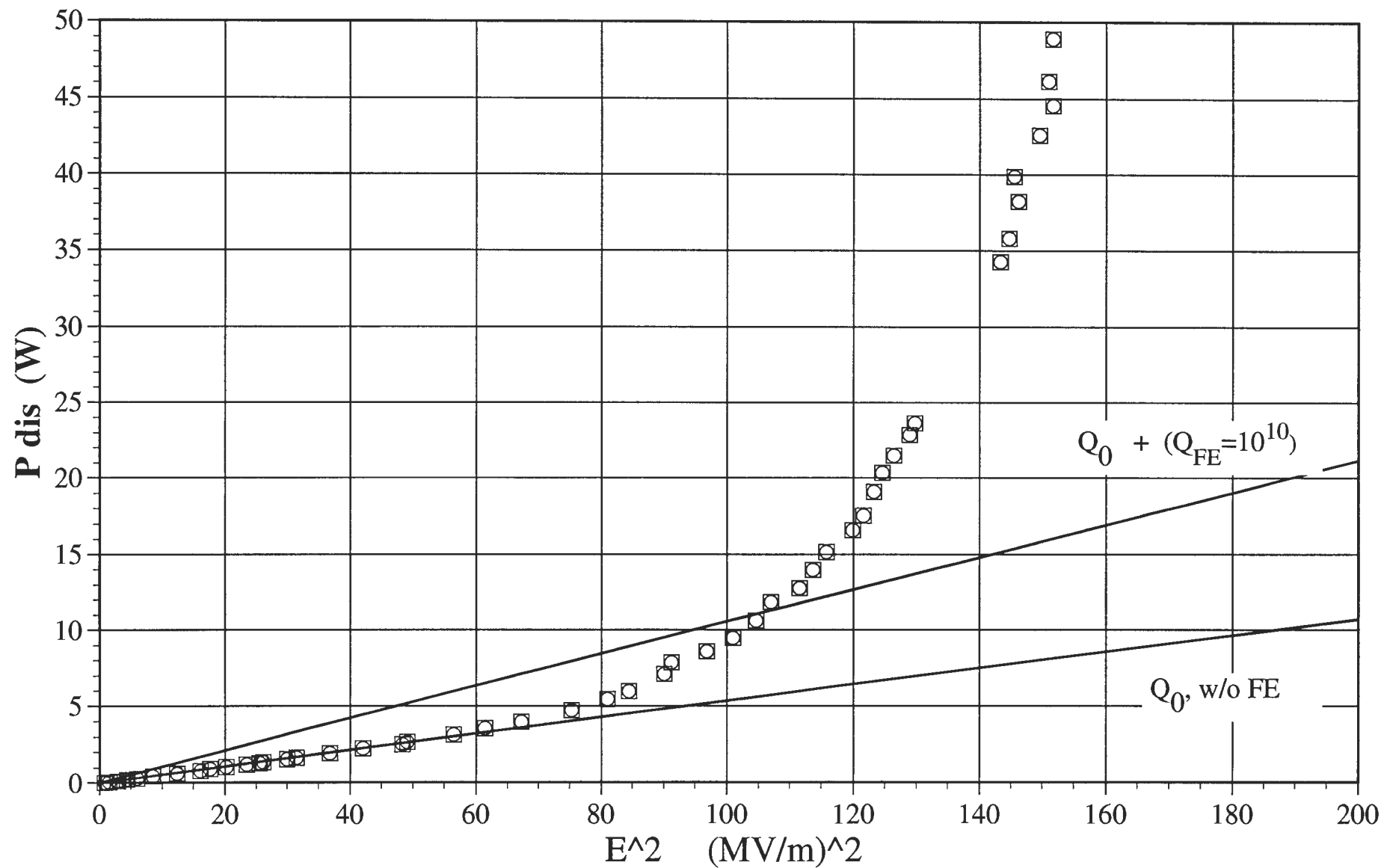
IA191 12/4/92



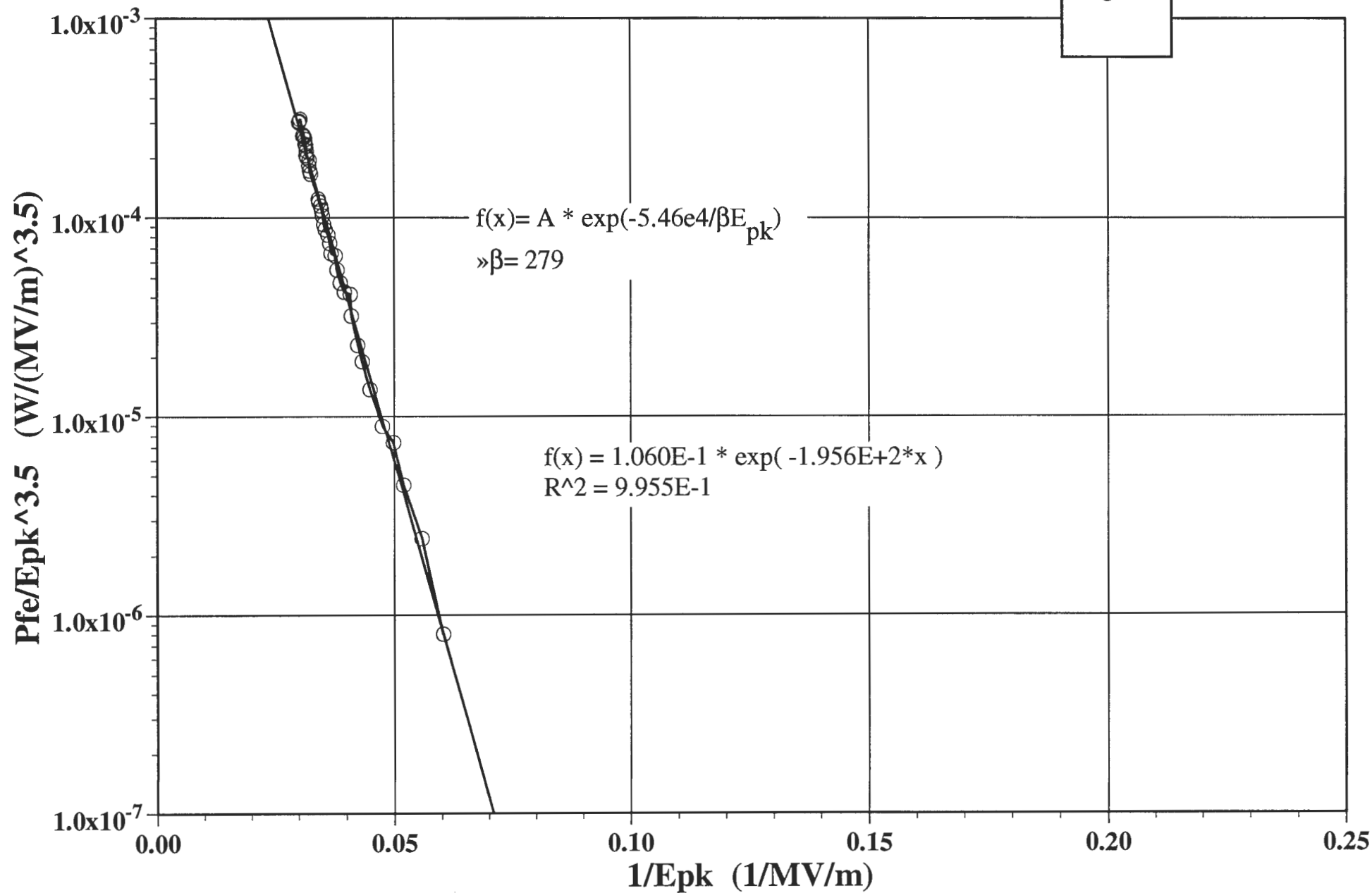


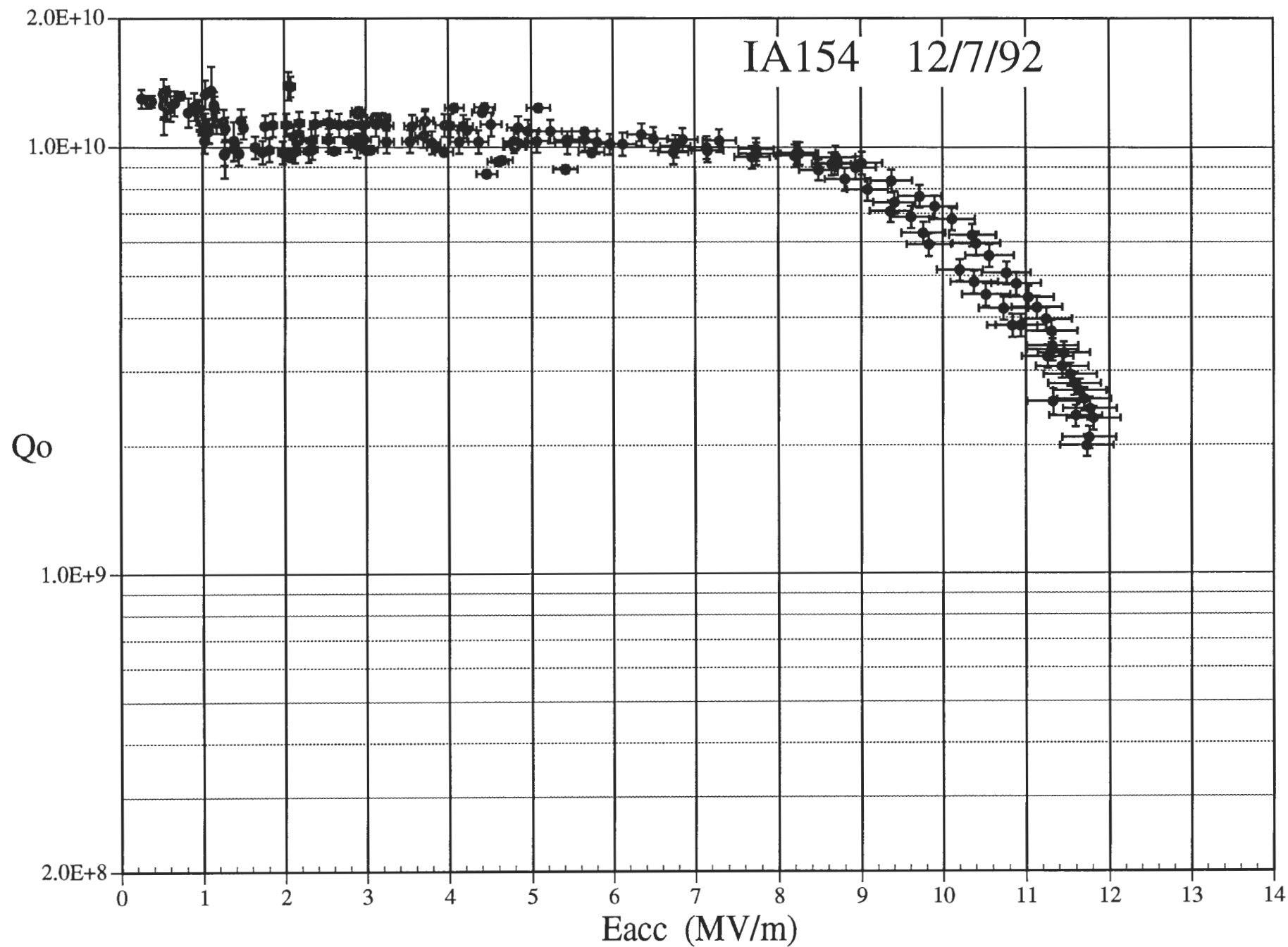


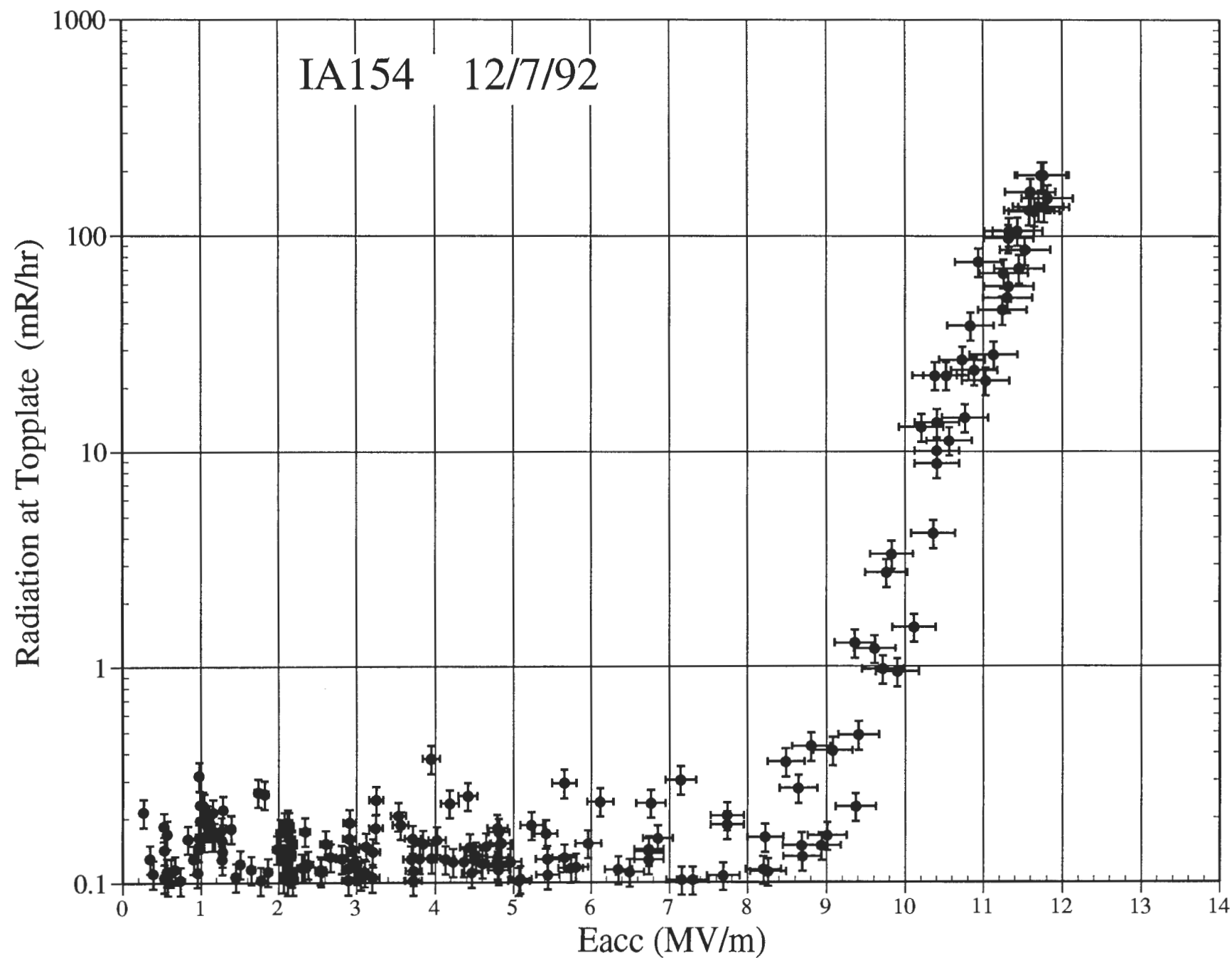
IA257 12/4/92



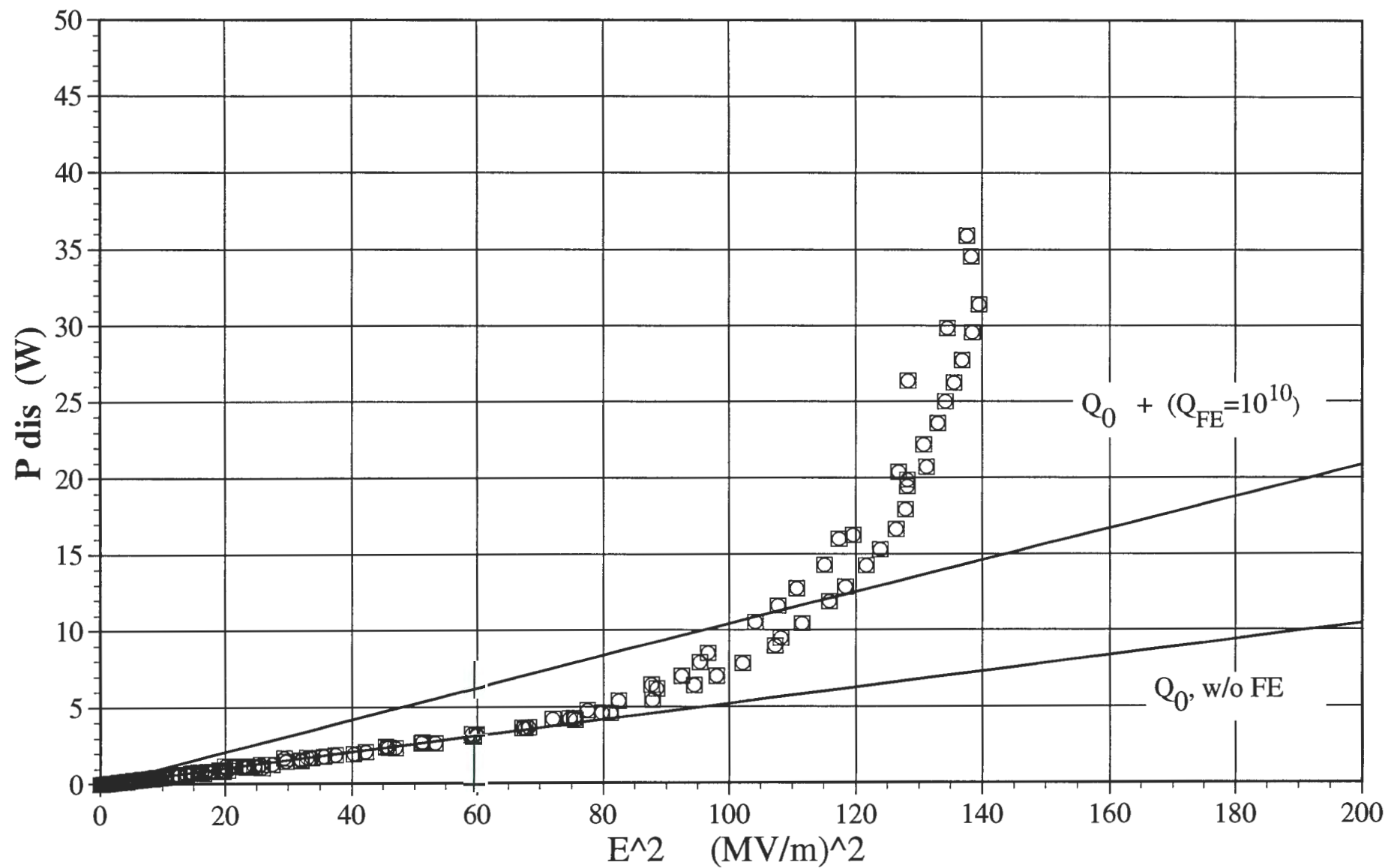
IA257 12/4/92



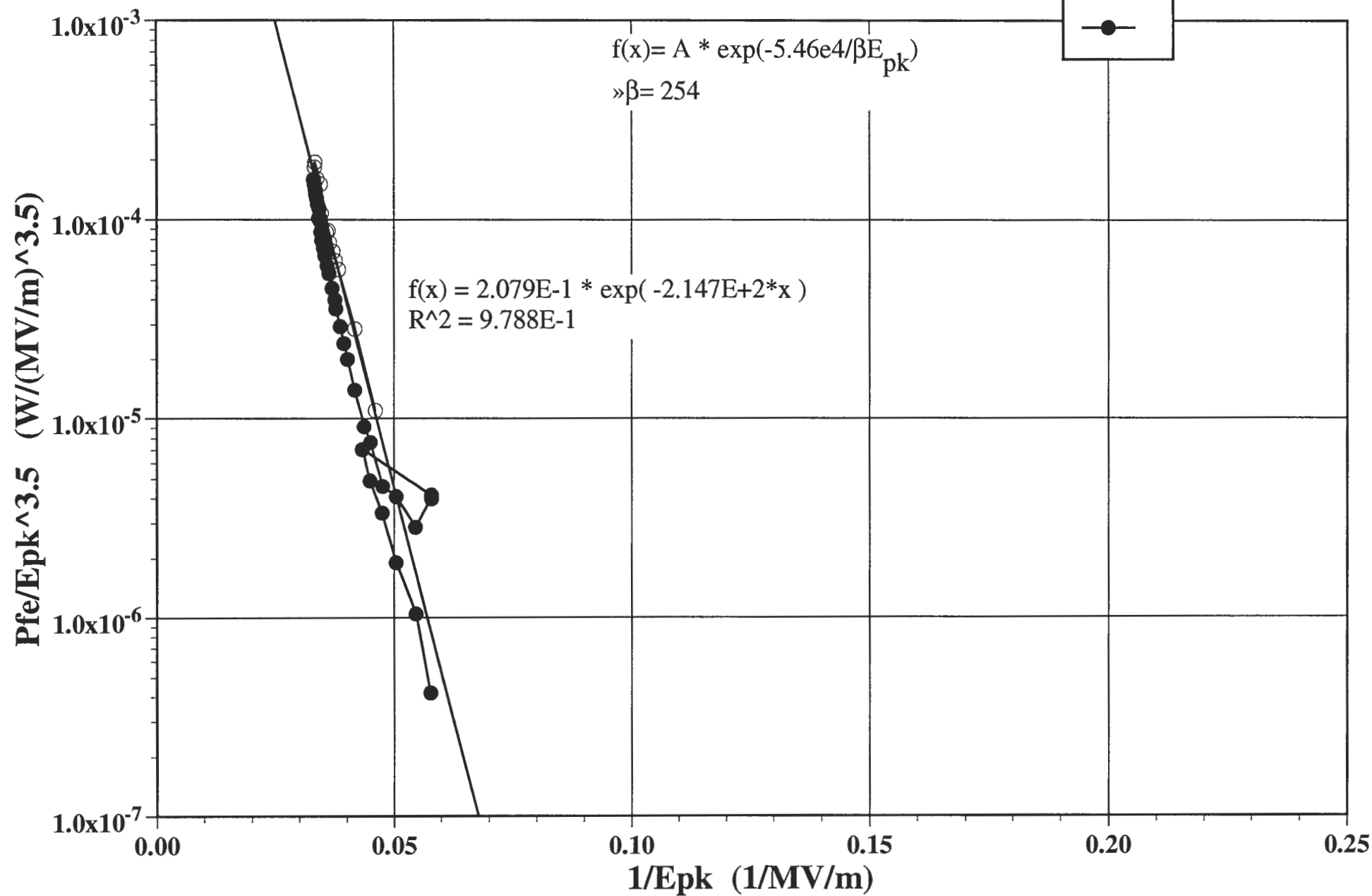


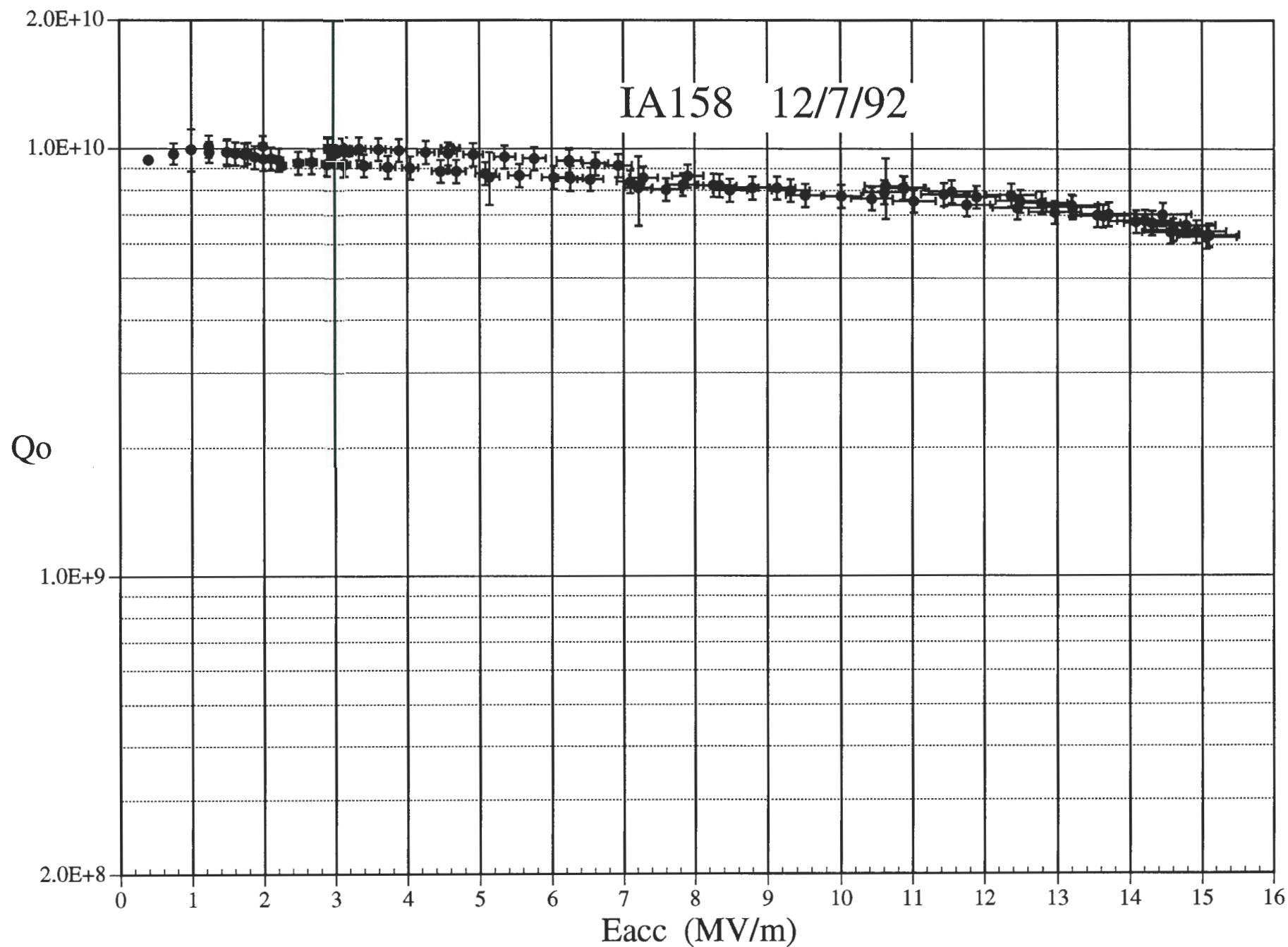


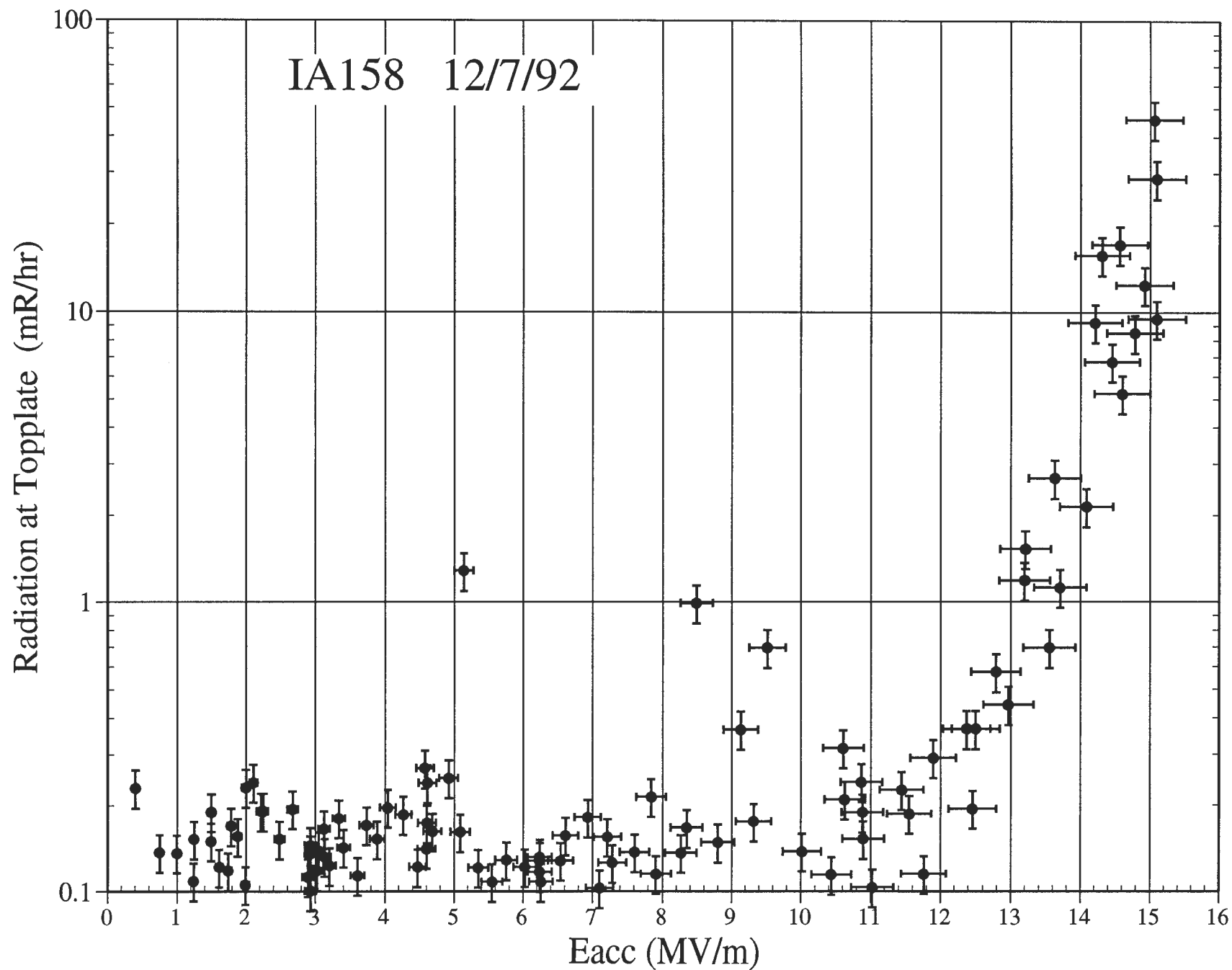
IA154 12/7/92



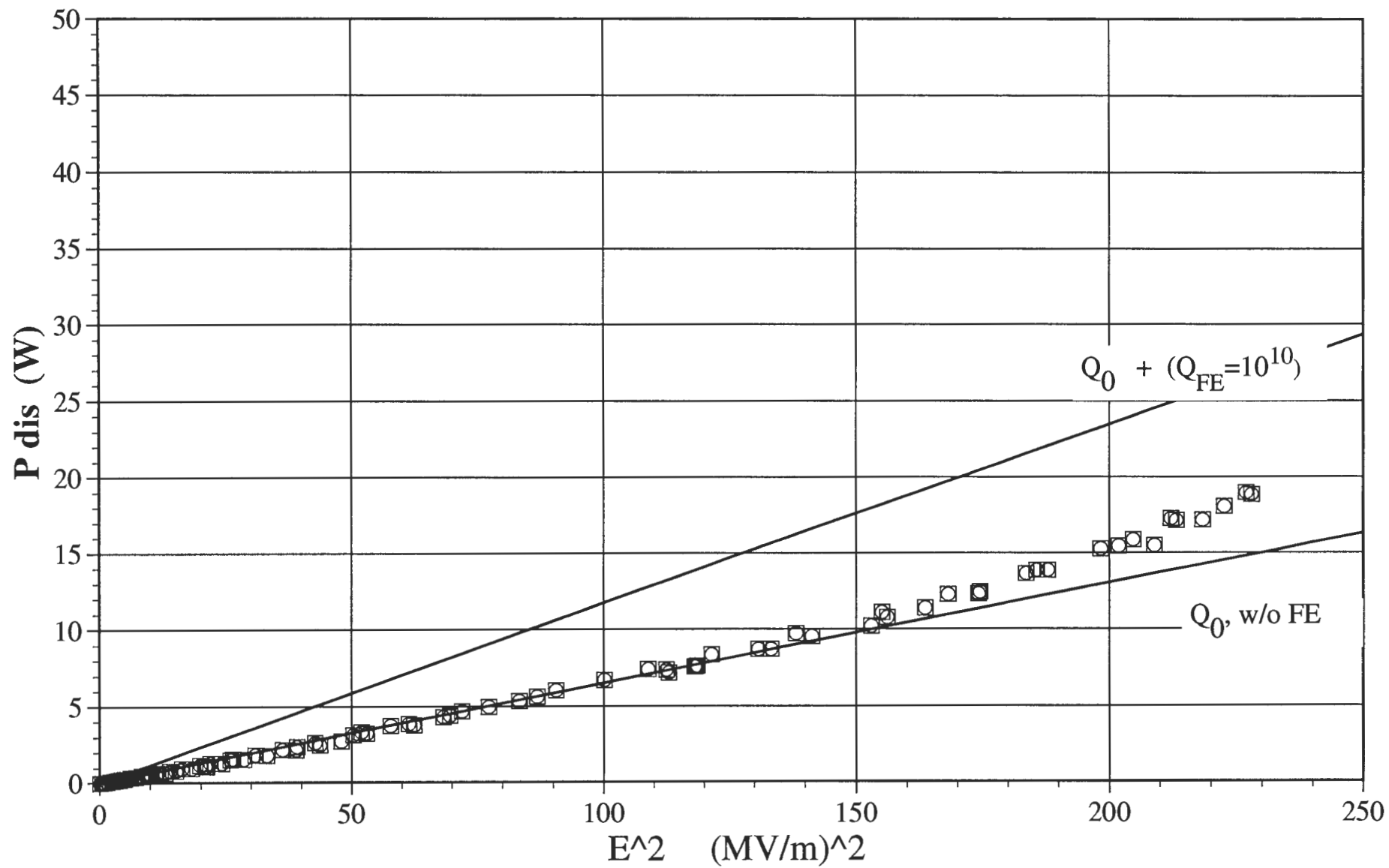
IA154 12/7/92



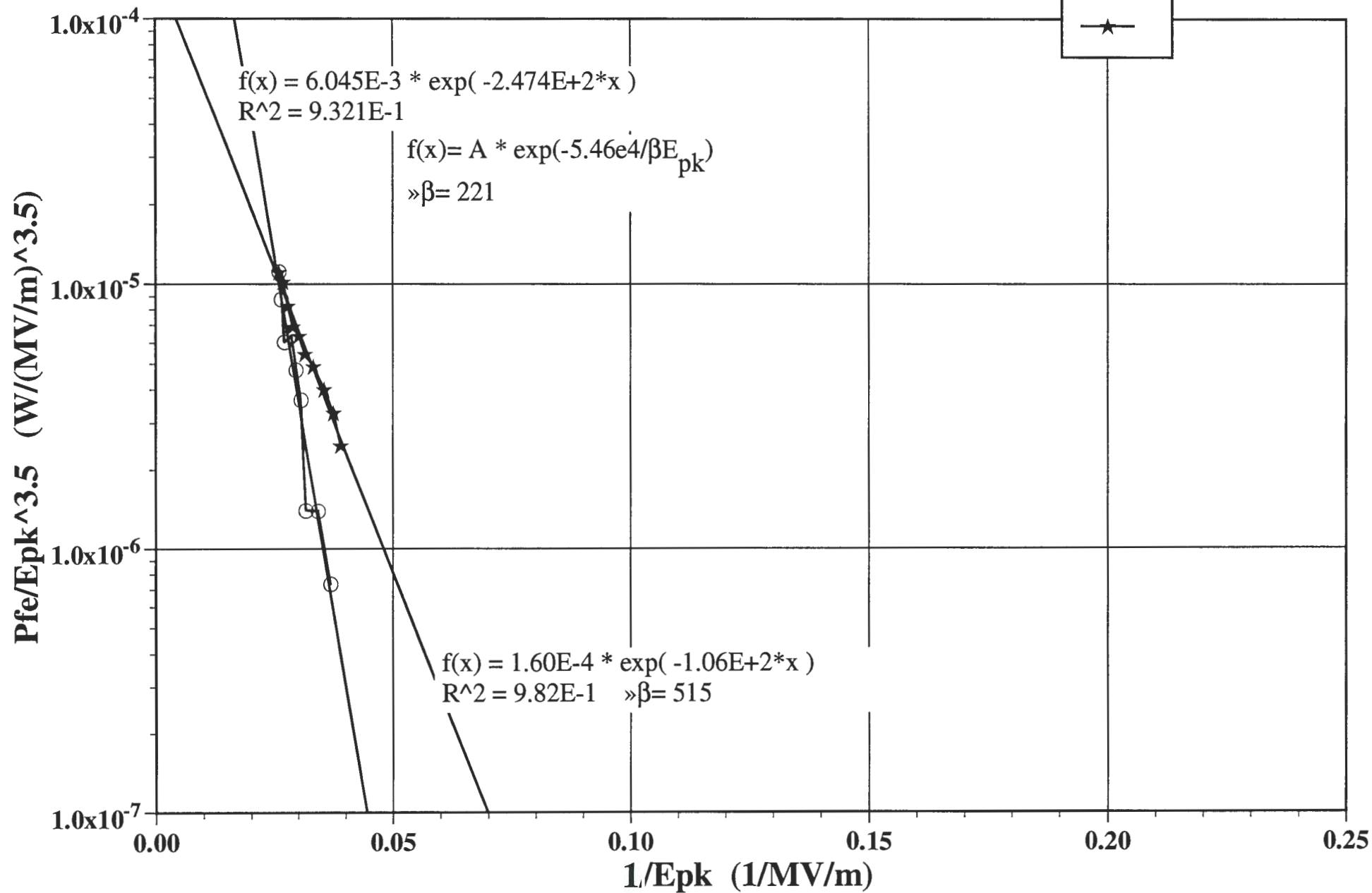


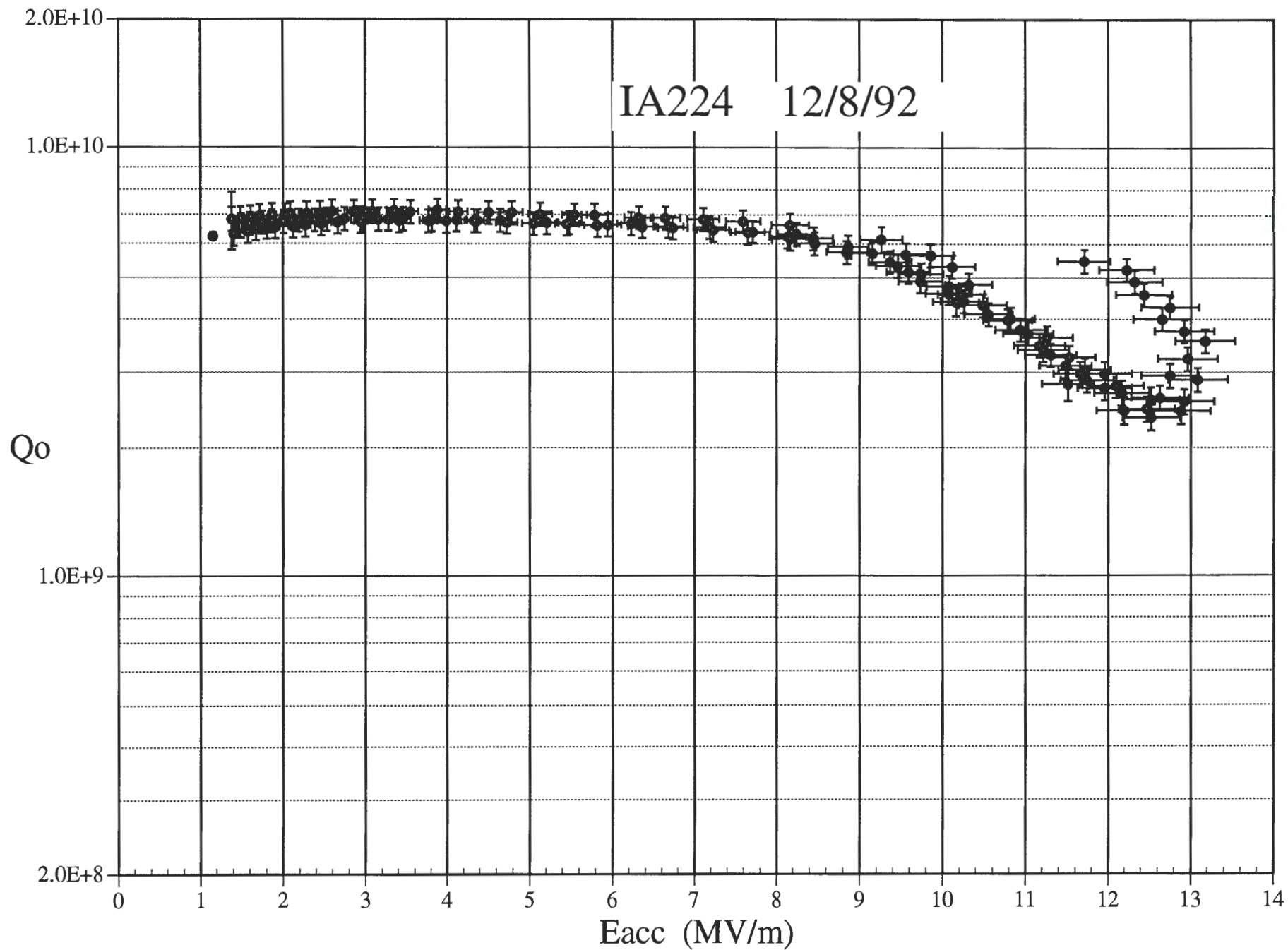


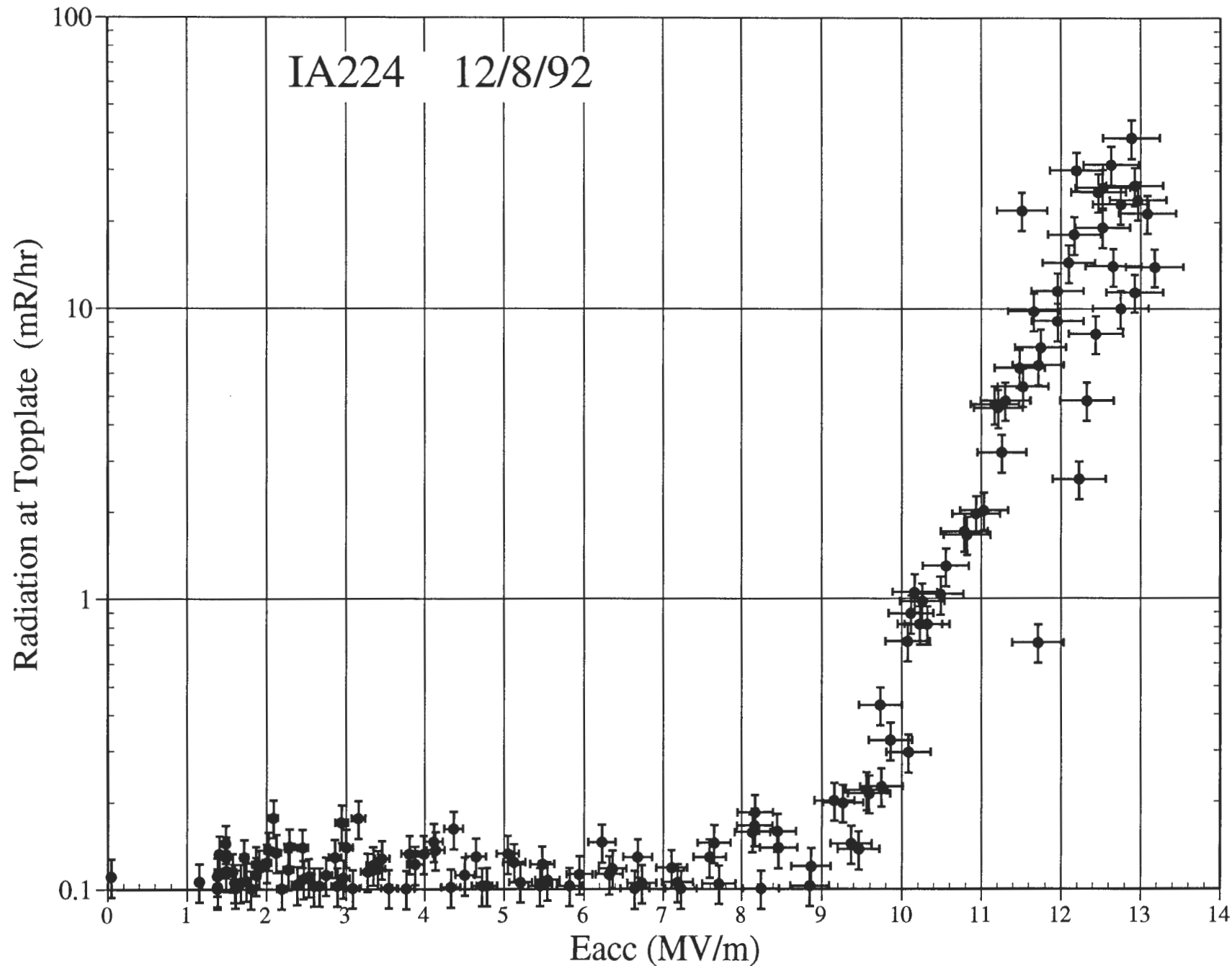
IA158 12/7/92



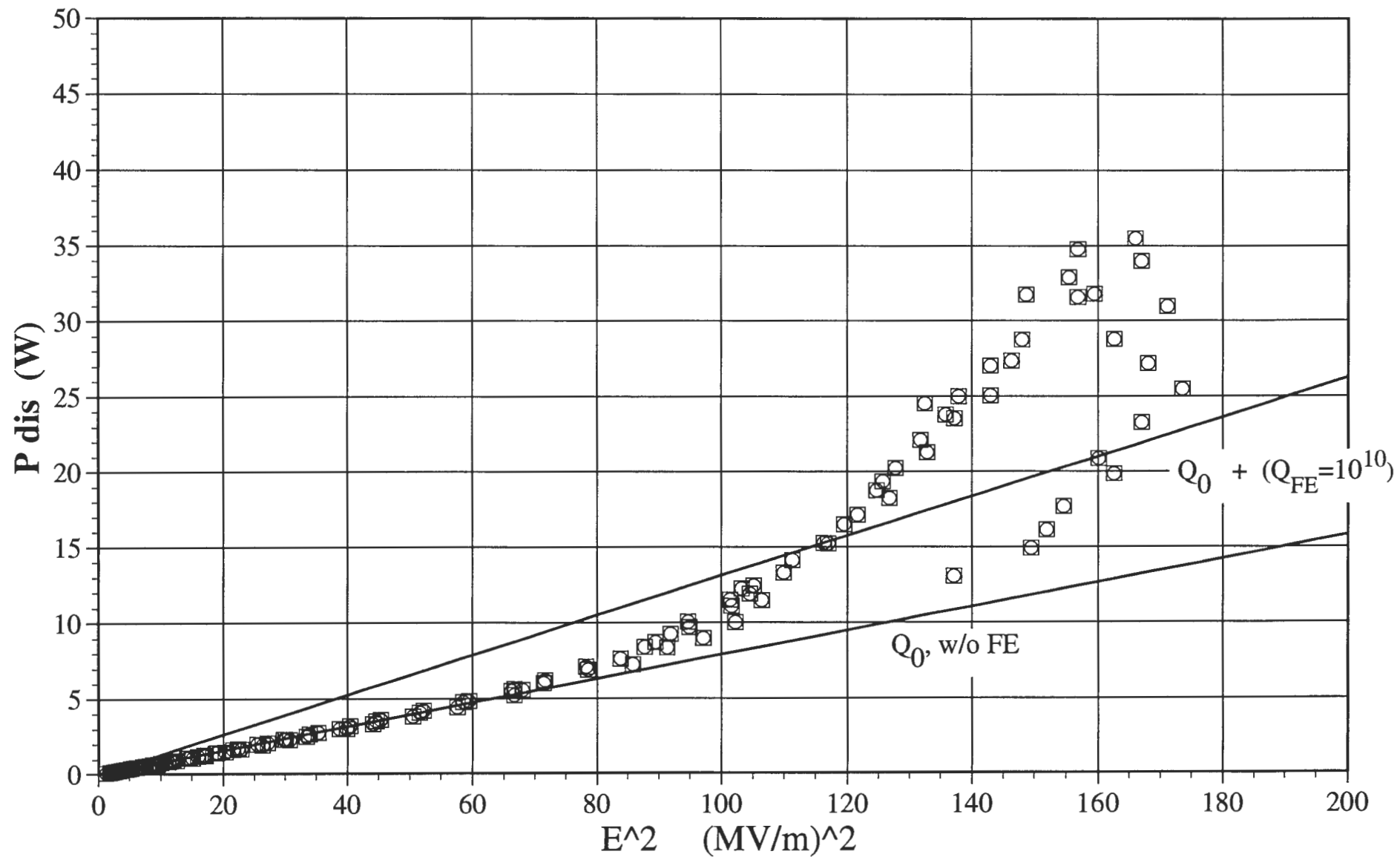
IA158 12/7/92



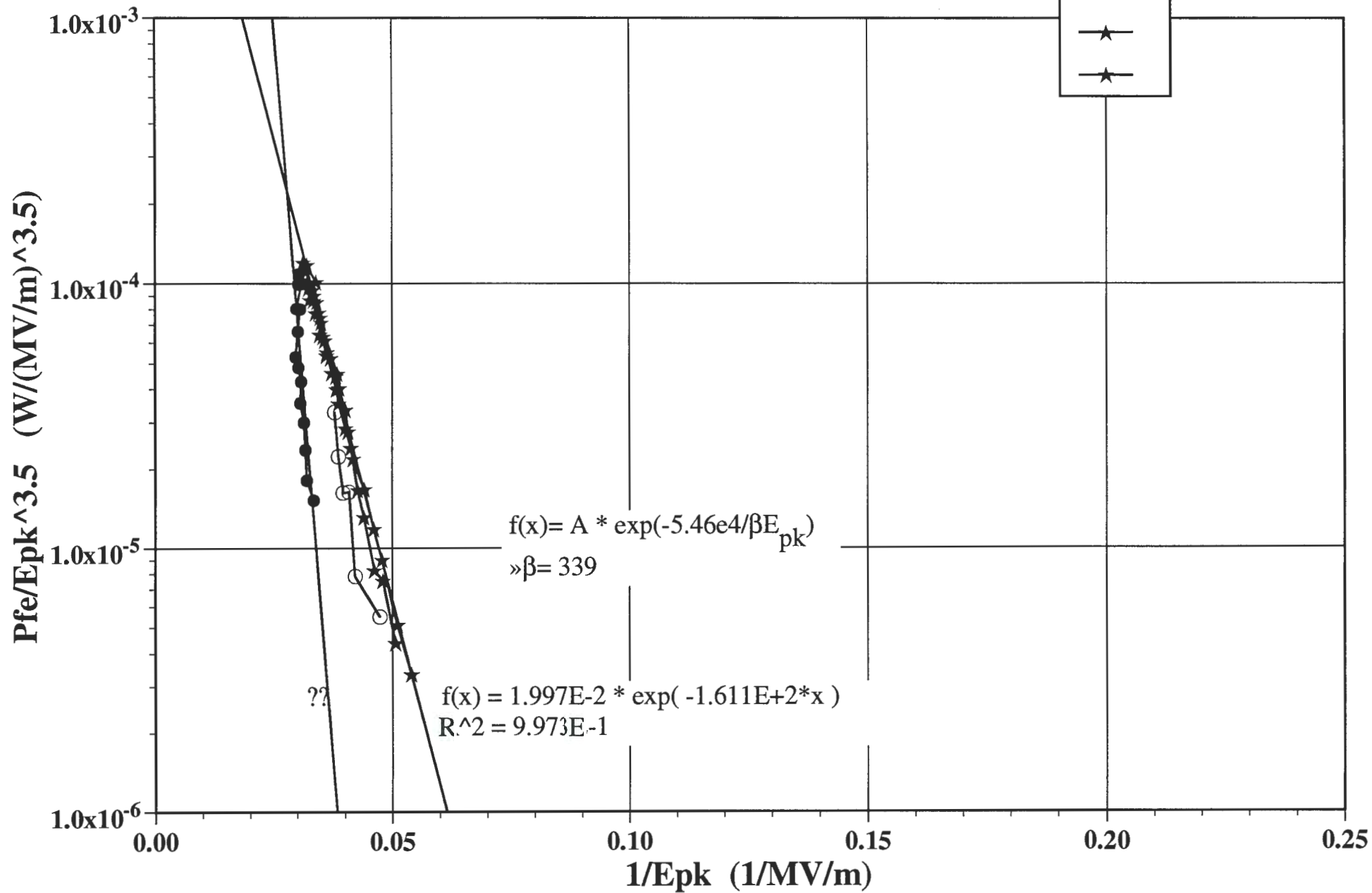


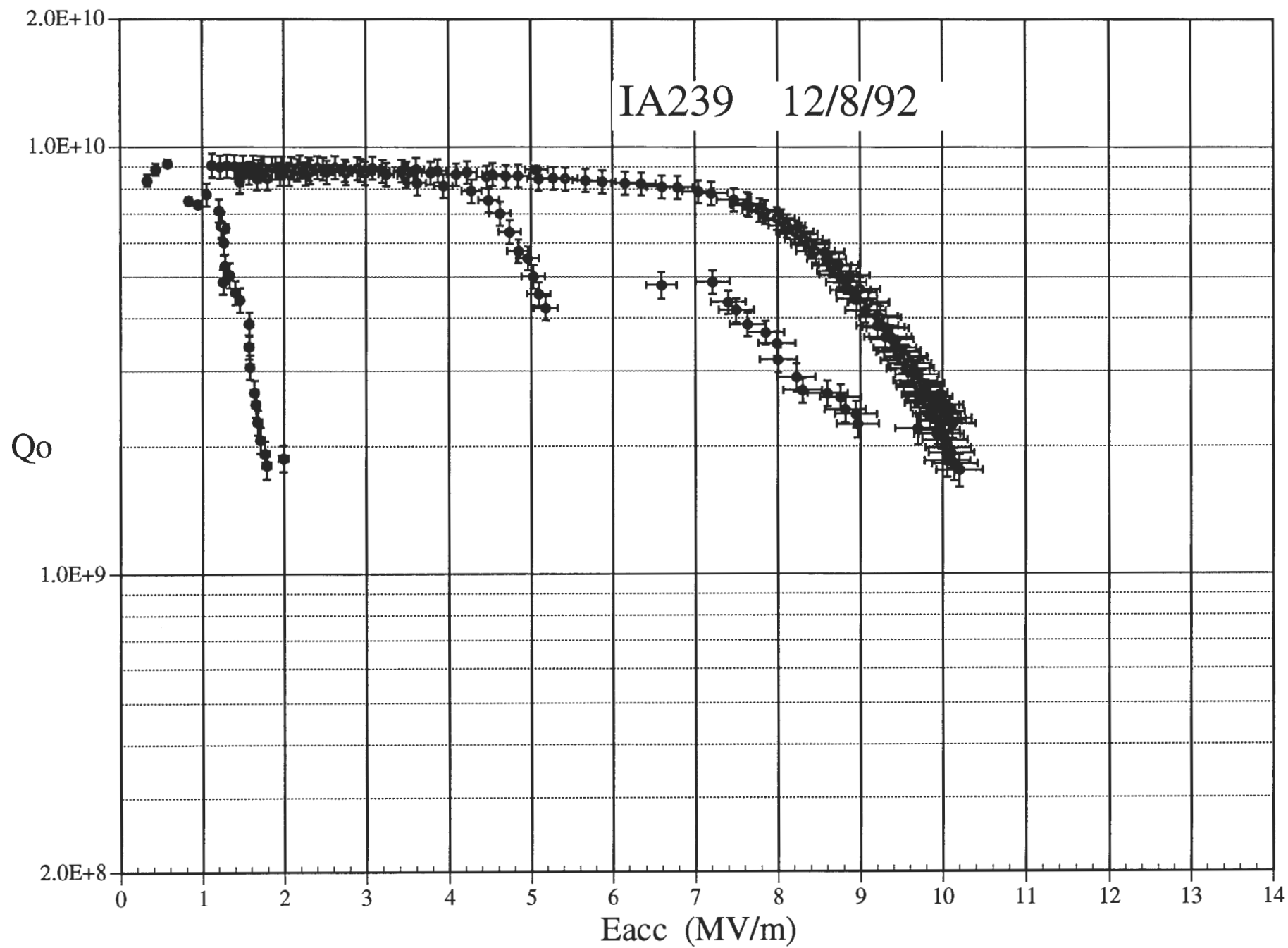


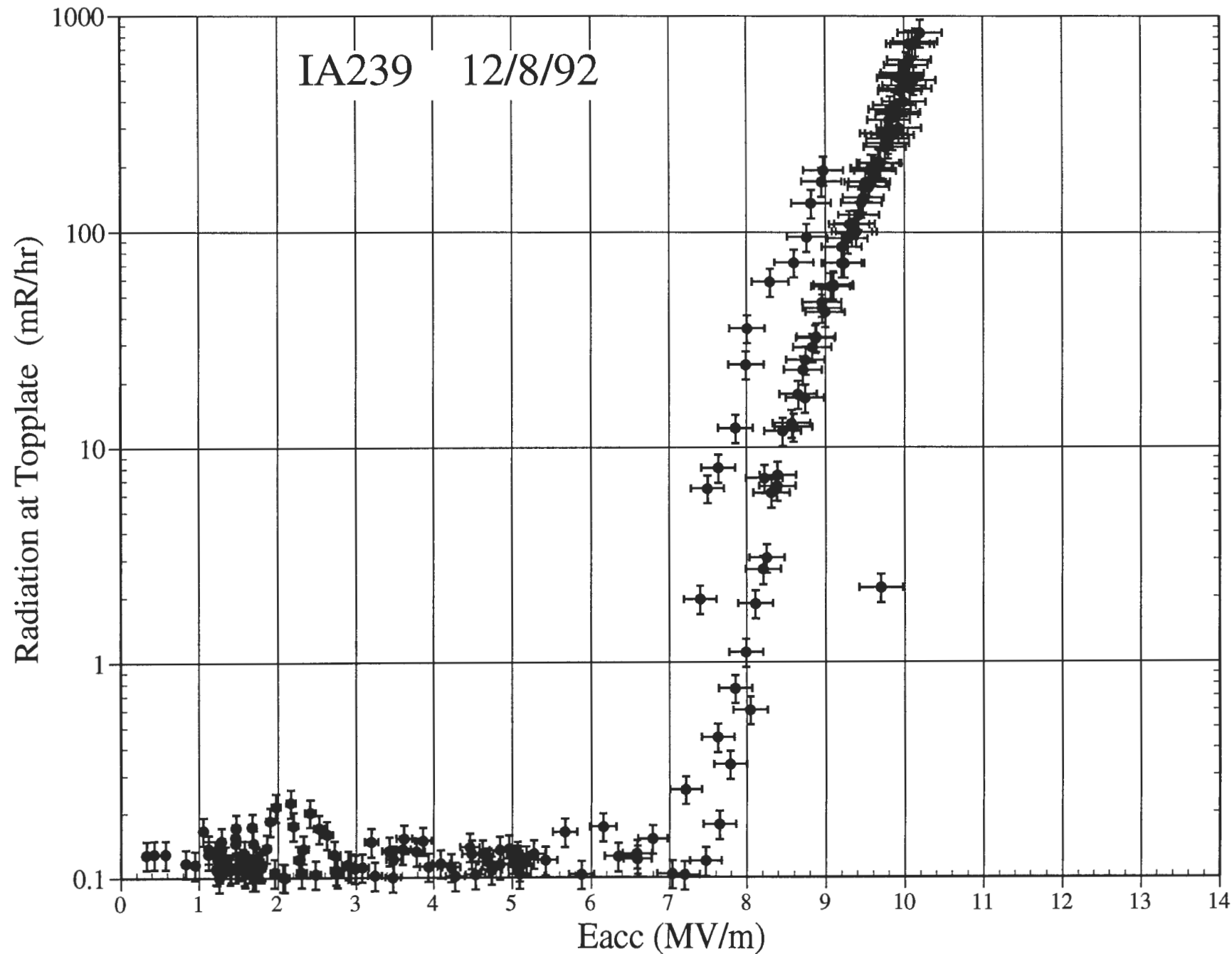
IA224 12/8/92



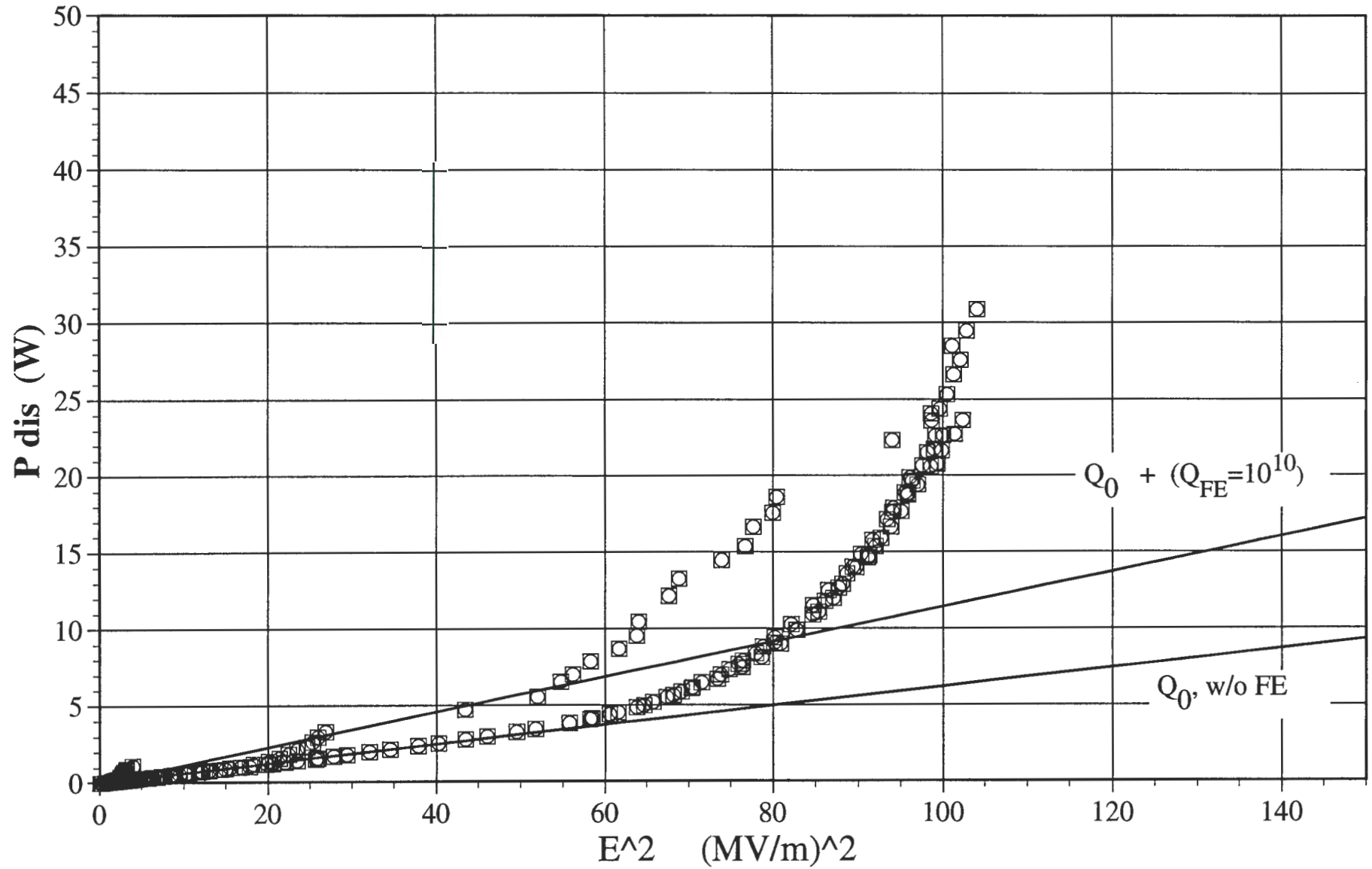
IA224 12/8/92



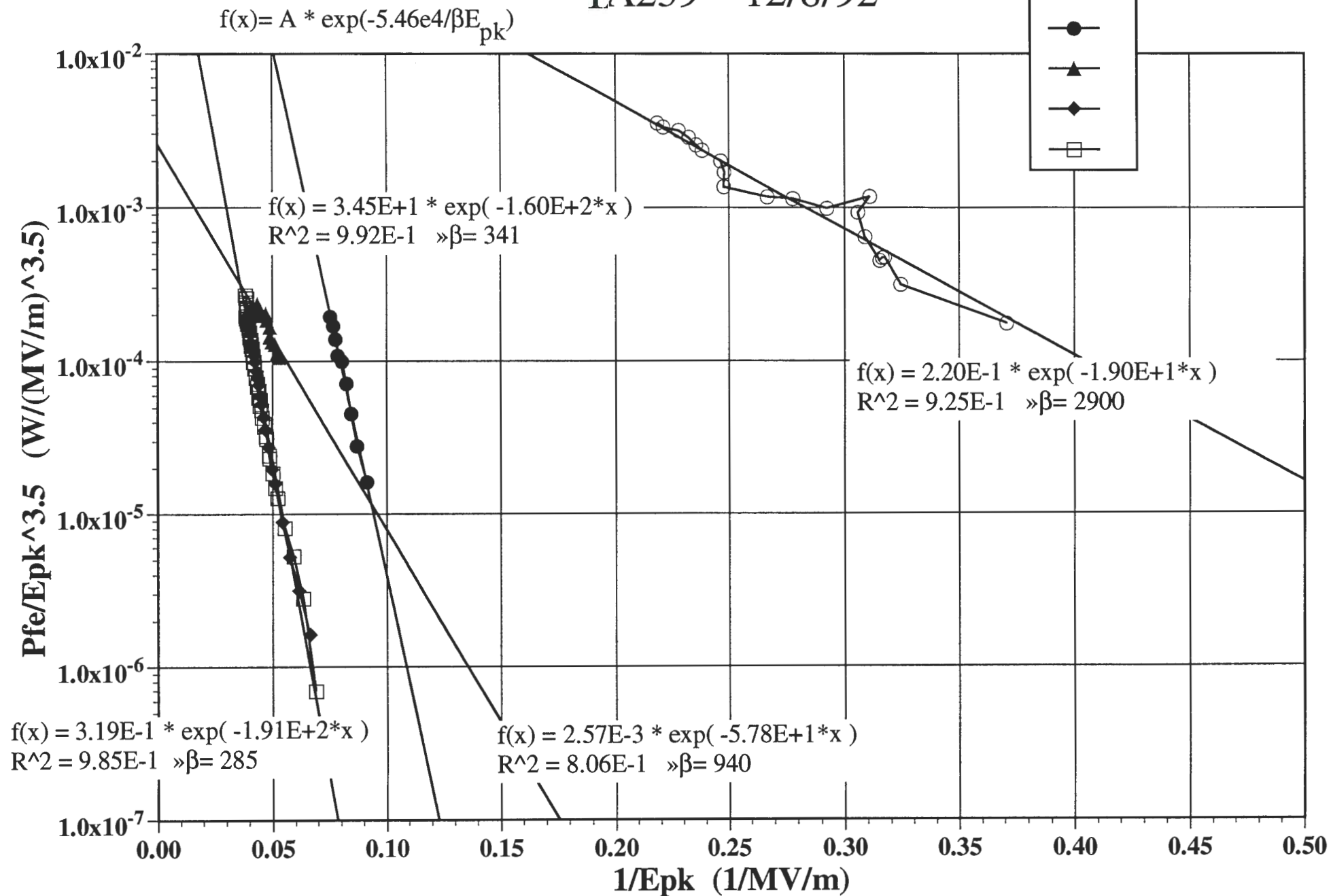


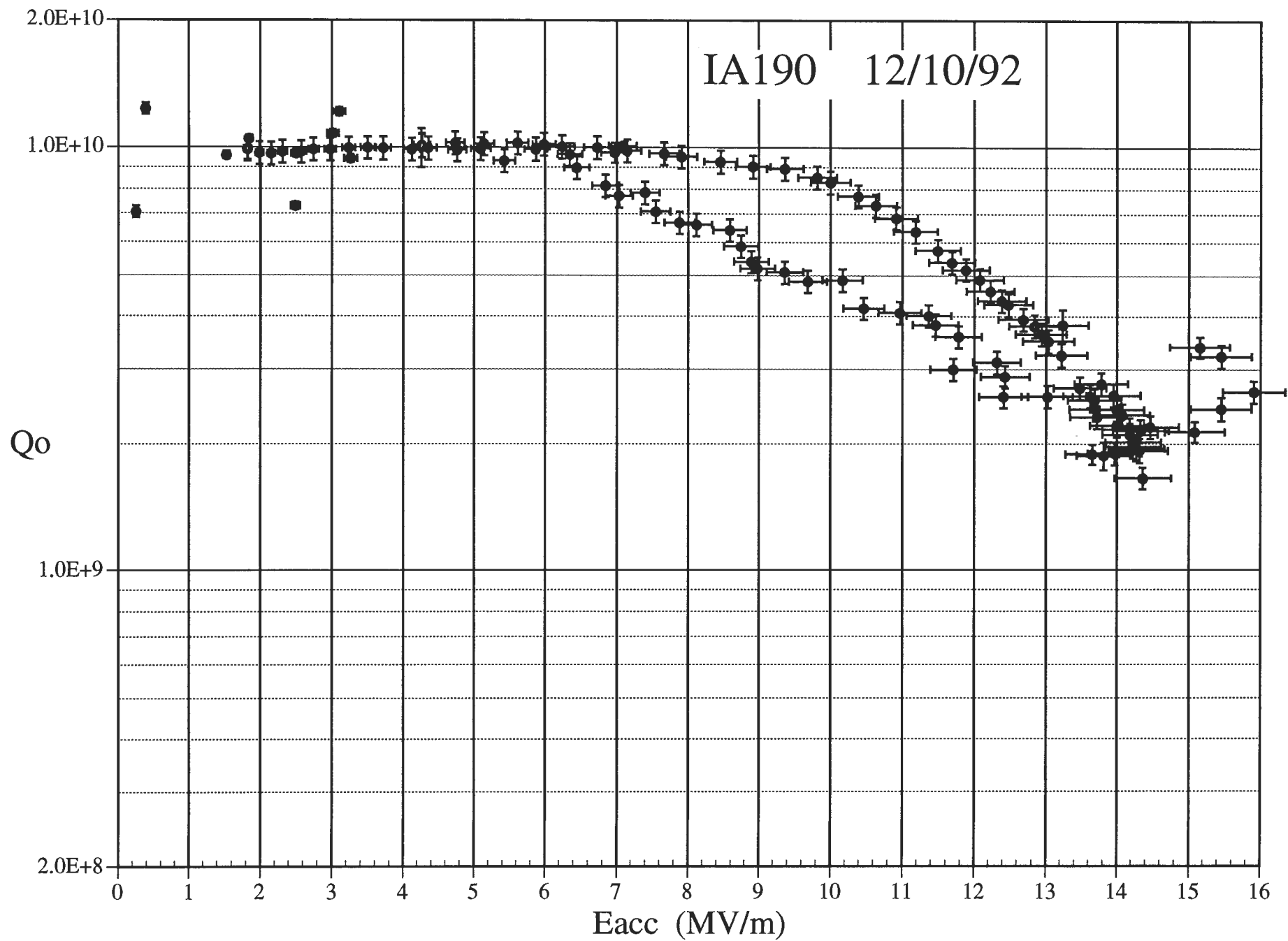


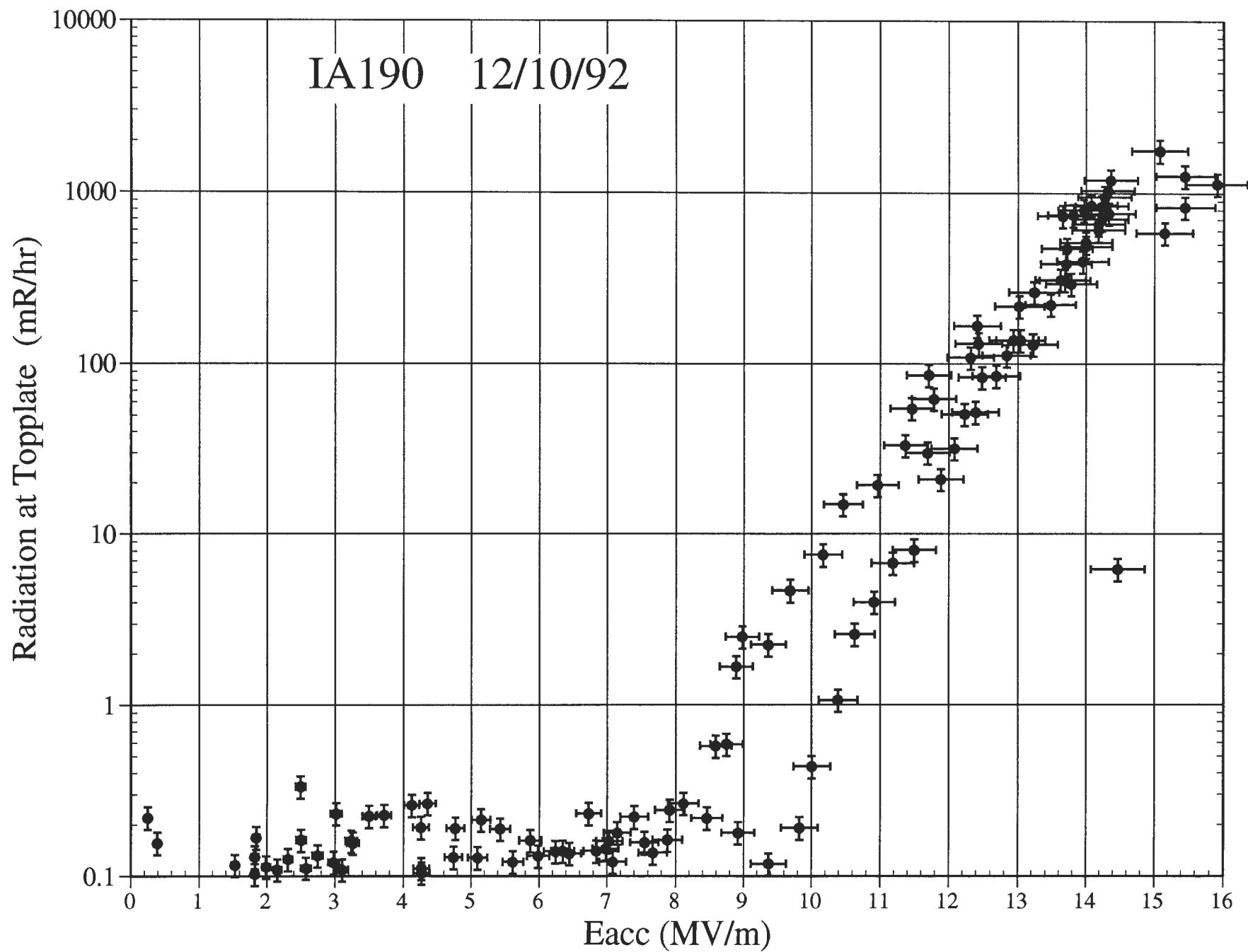
IA239 12/8/92



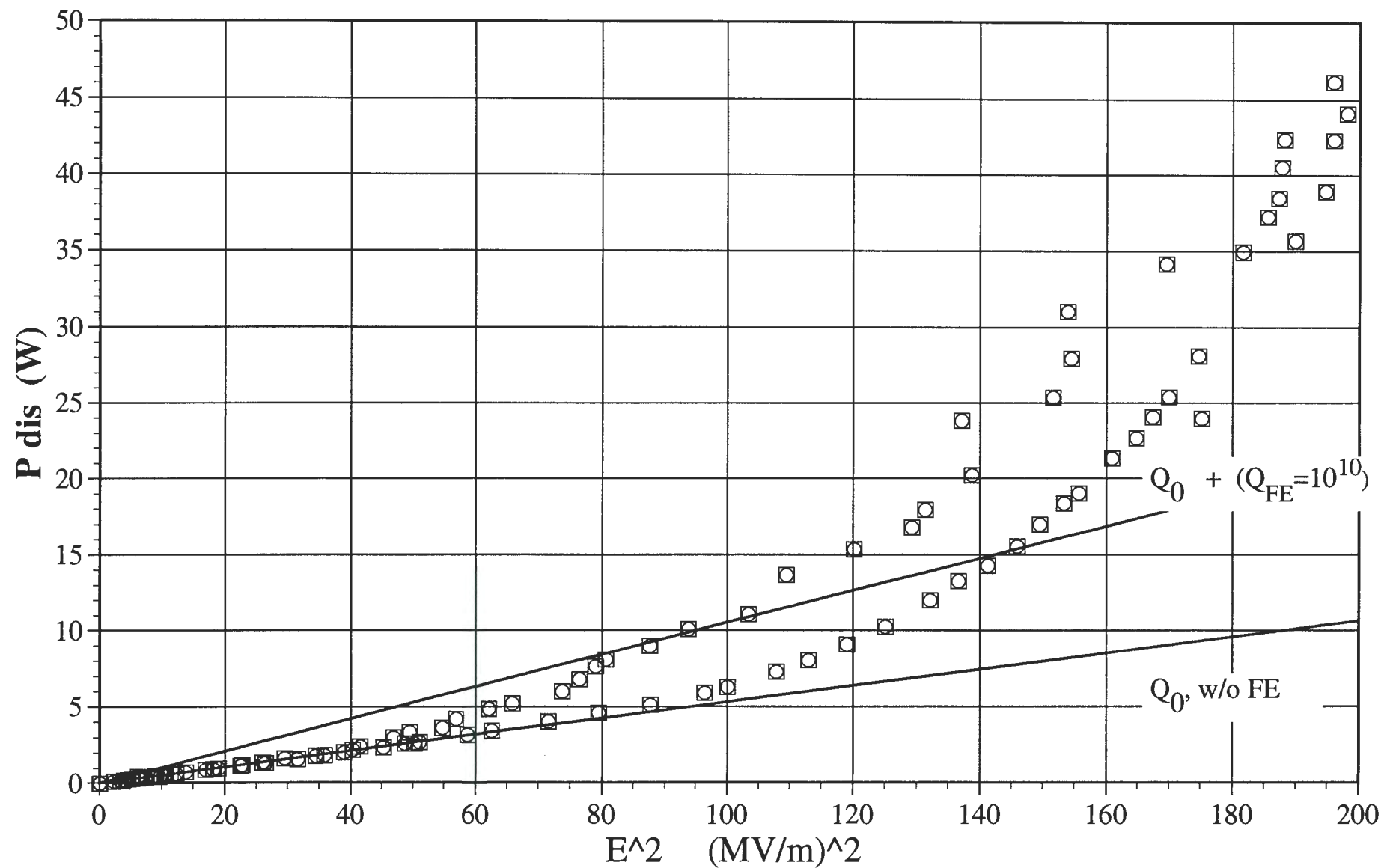
IA239 12/8/92



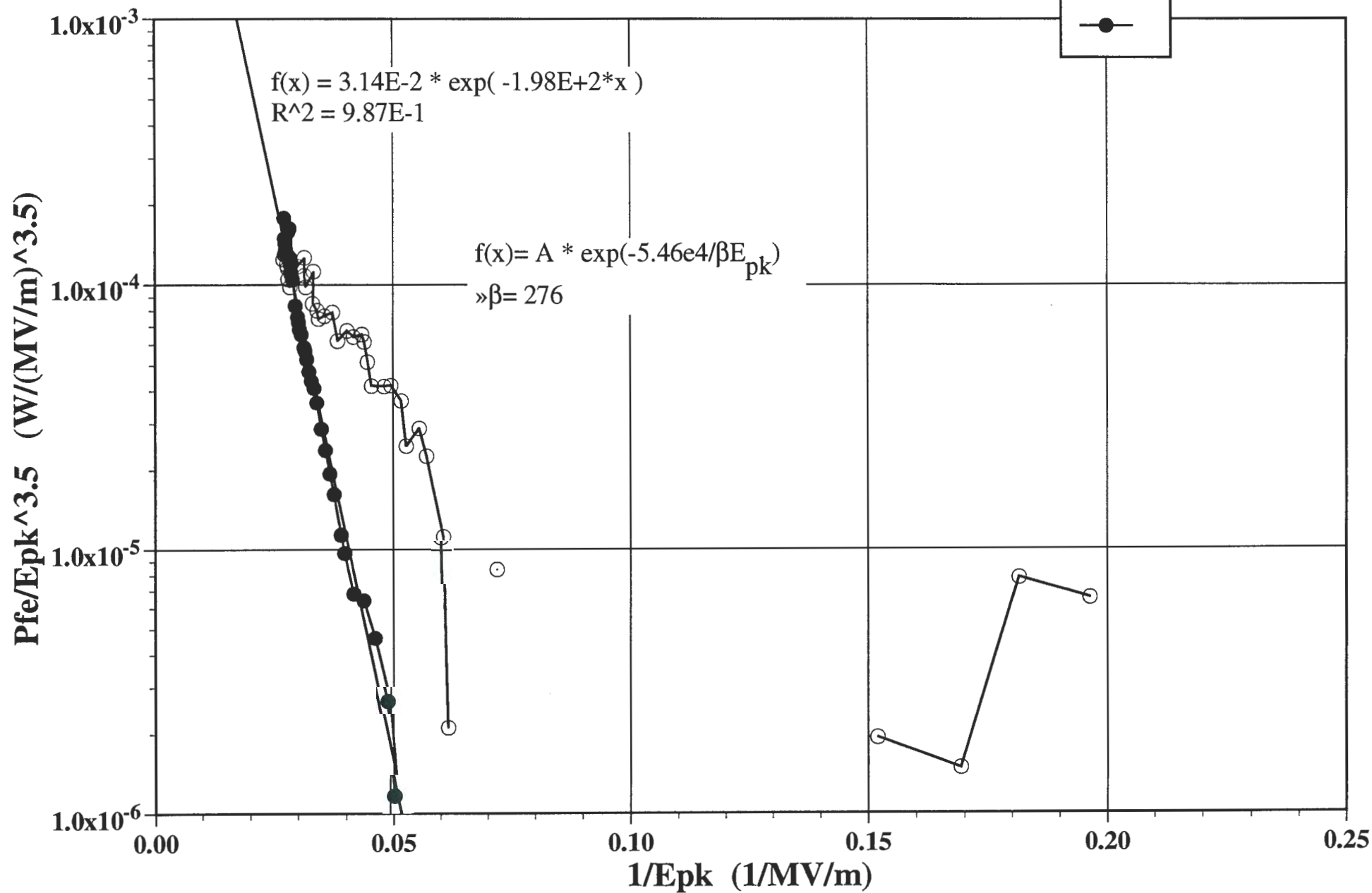


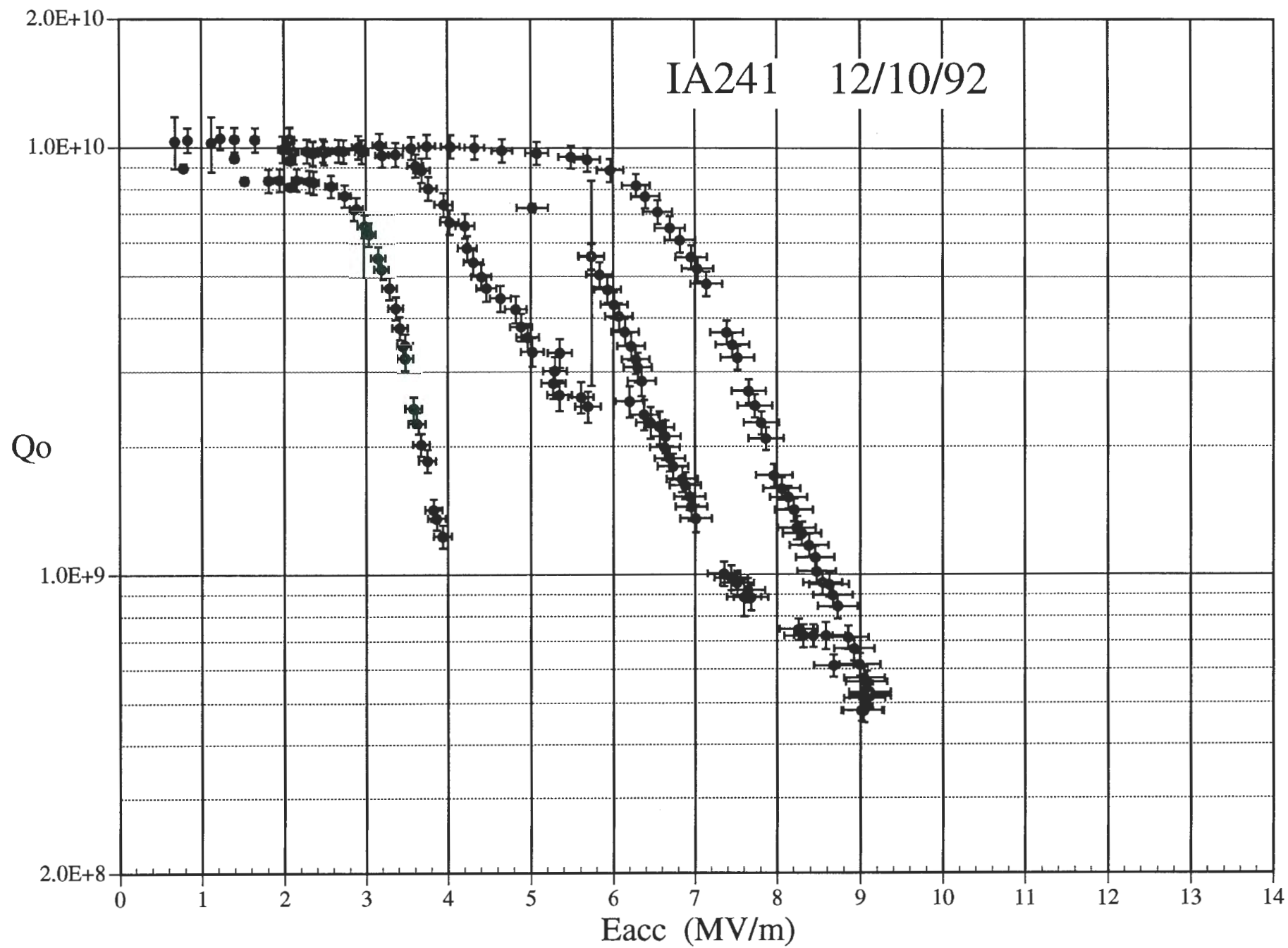


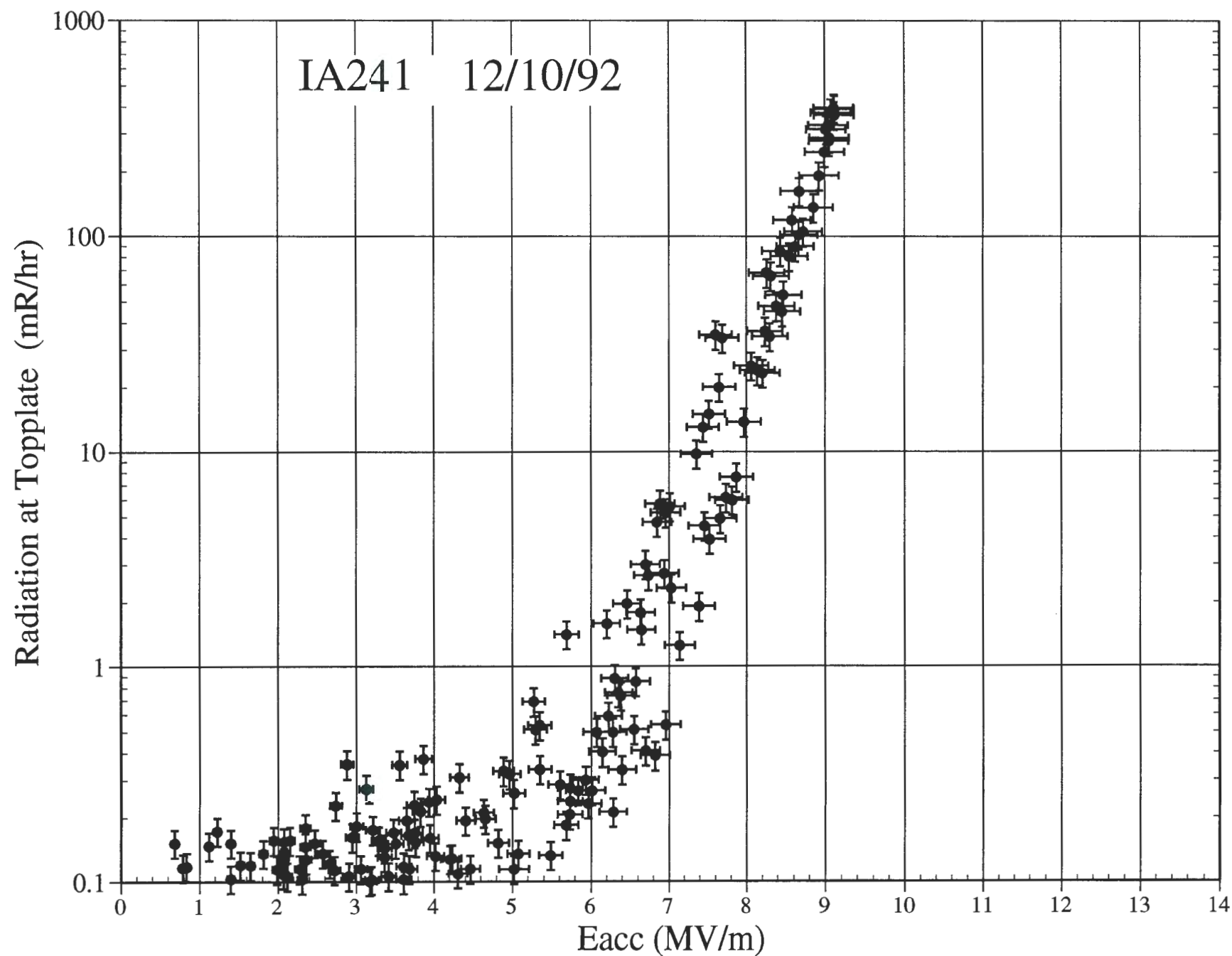
IA190 12/10/92



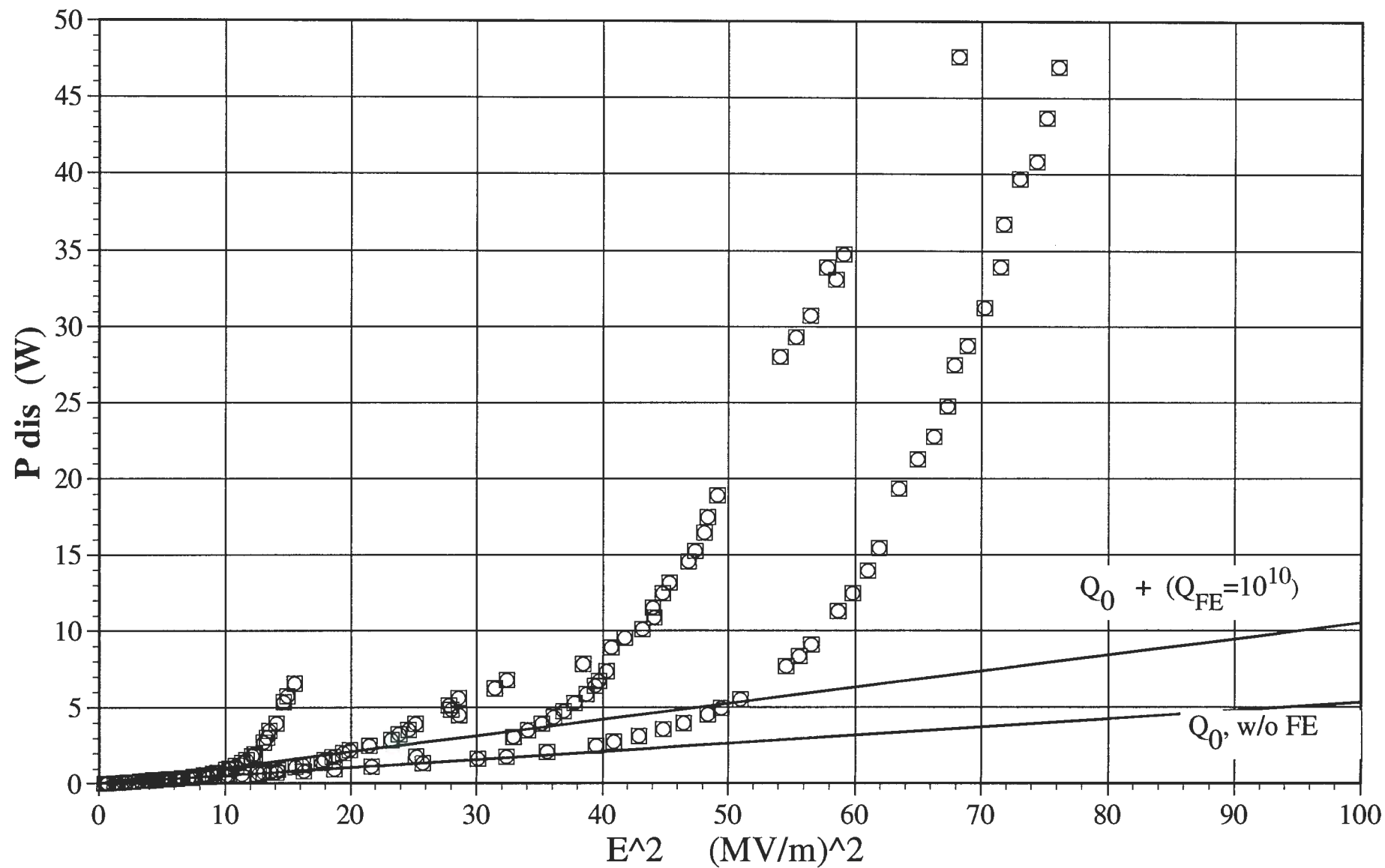
IA190 12/10/92



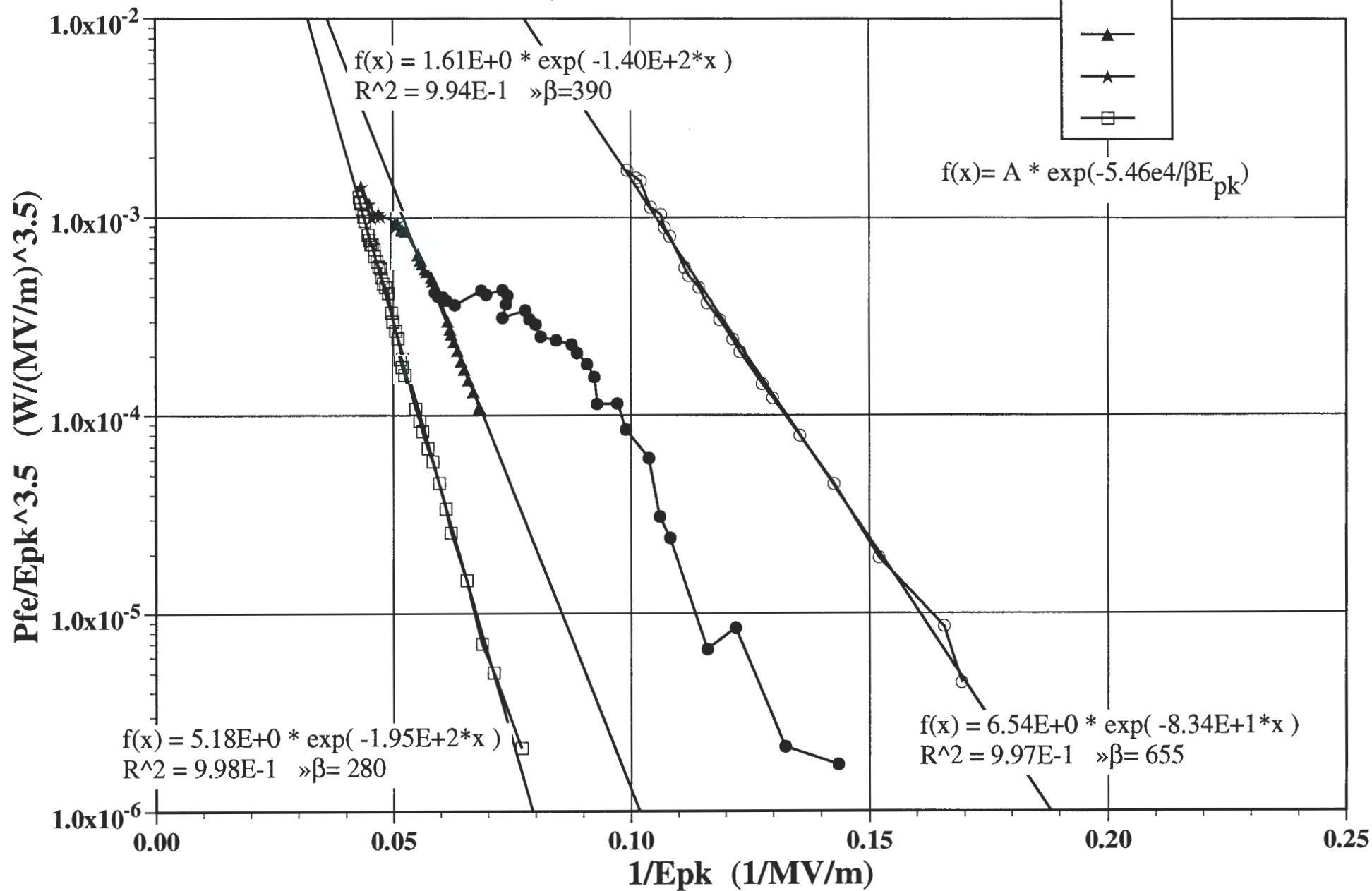


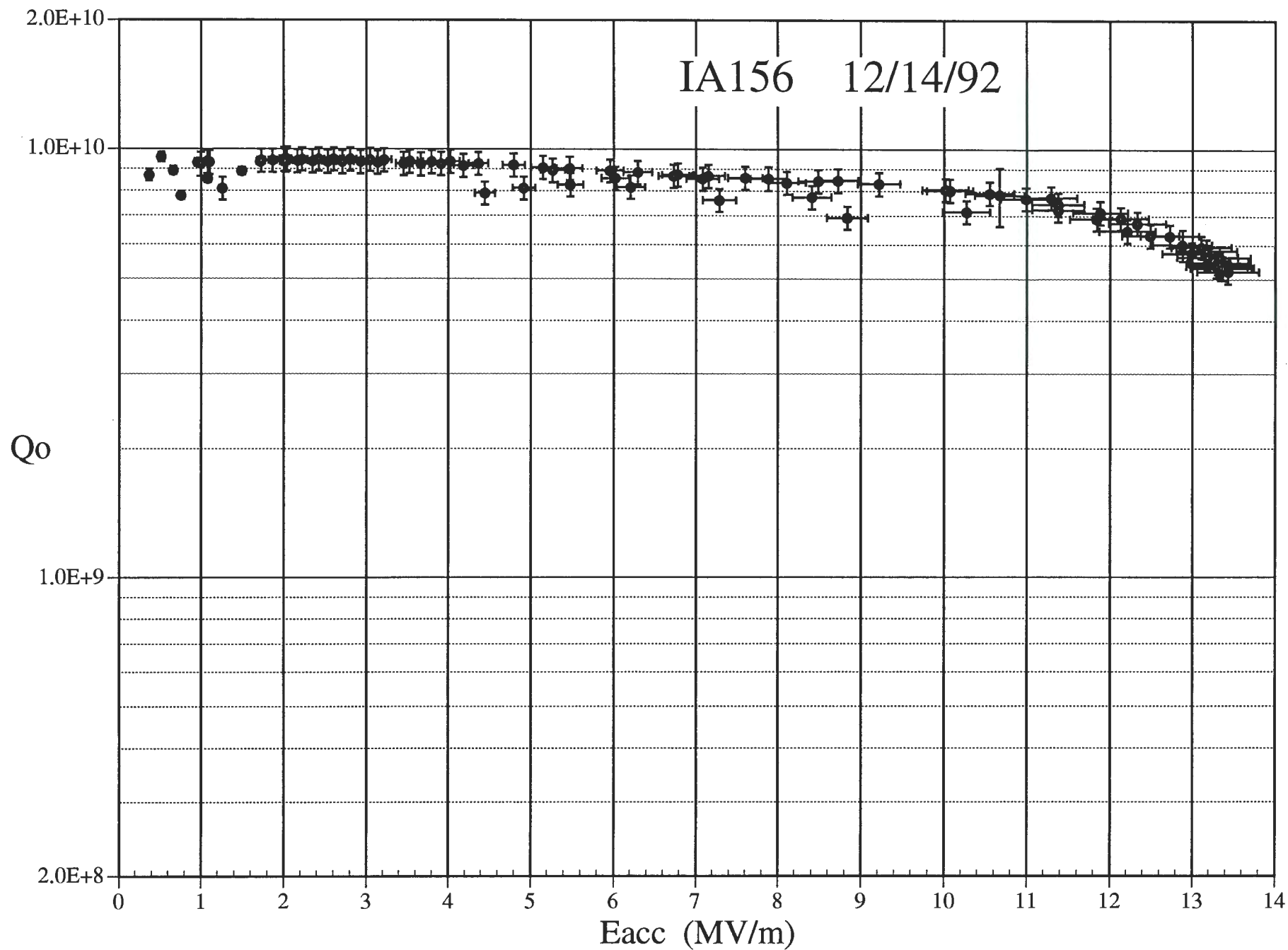


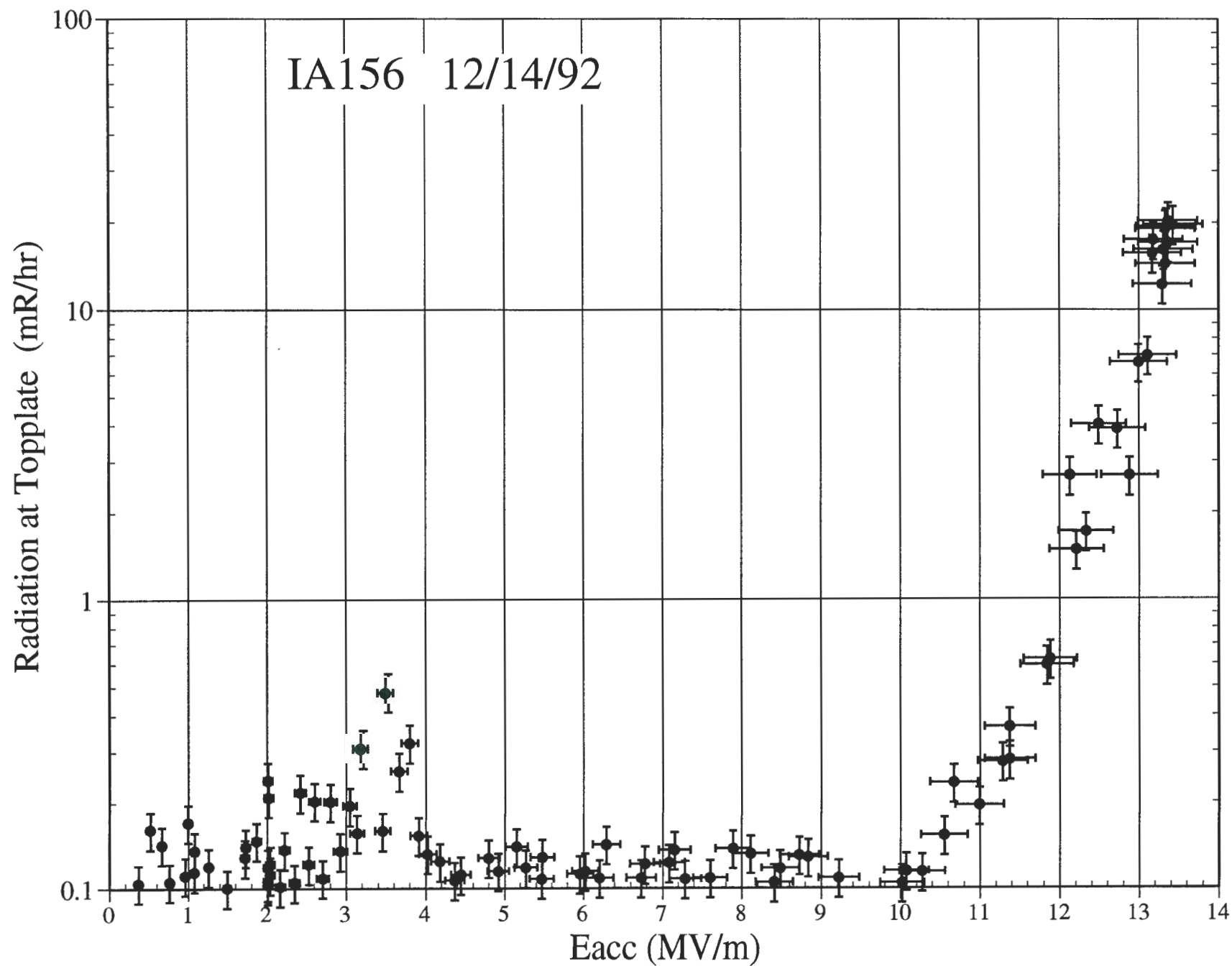
IA241 12/10/92



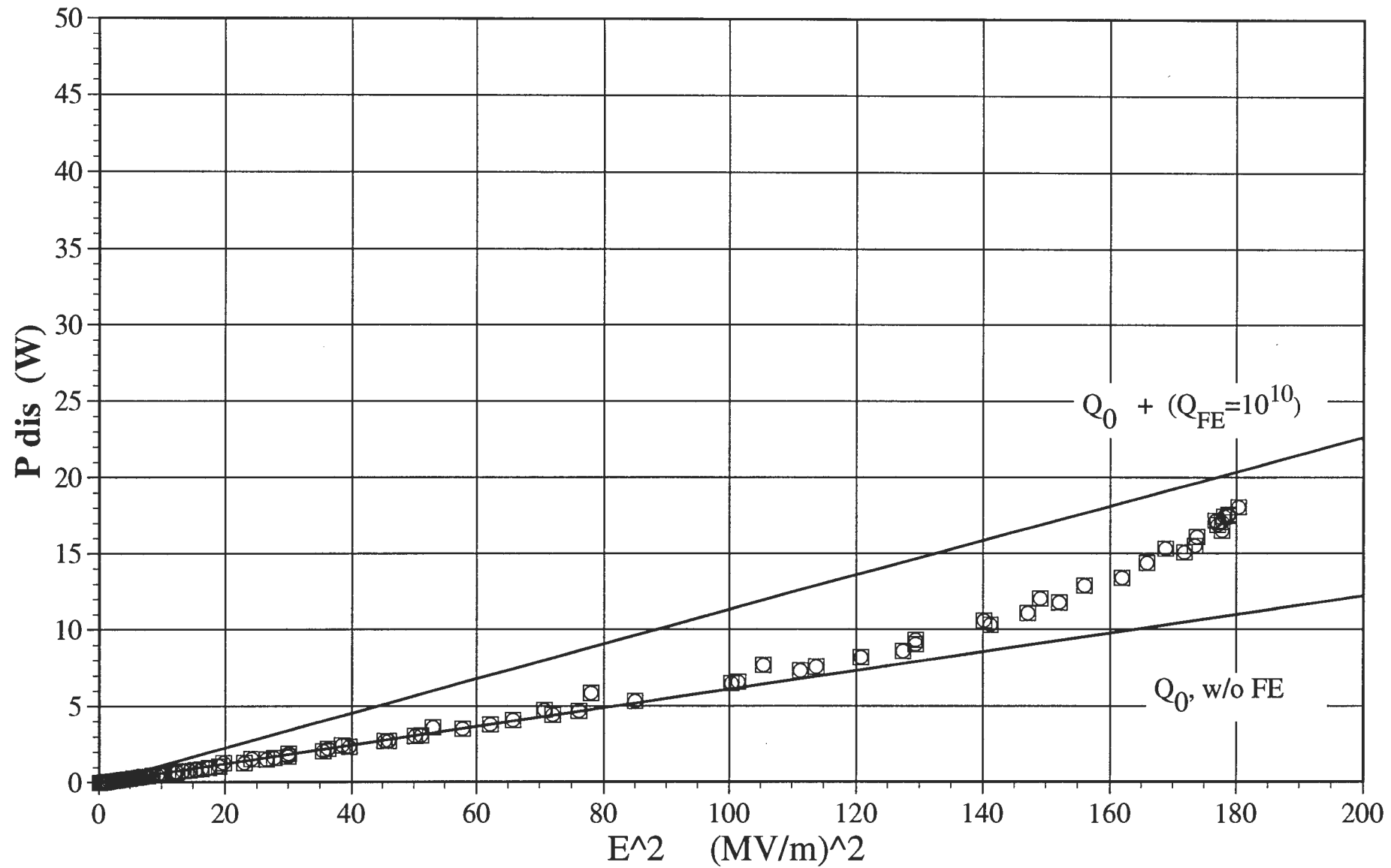
IA241 12/10/92



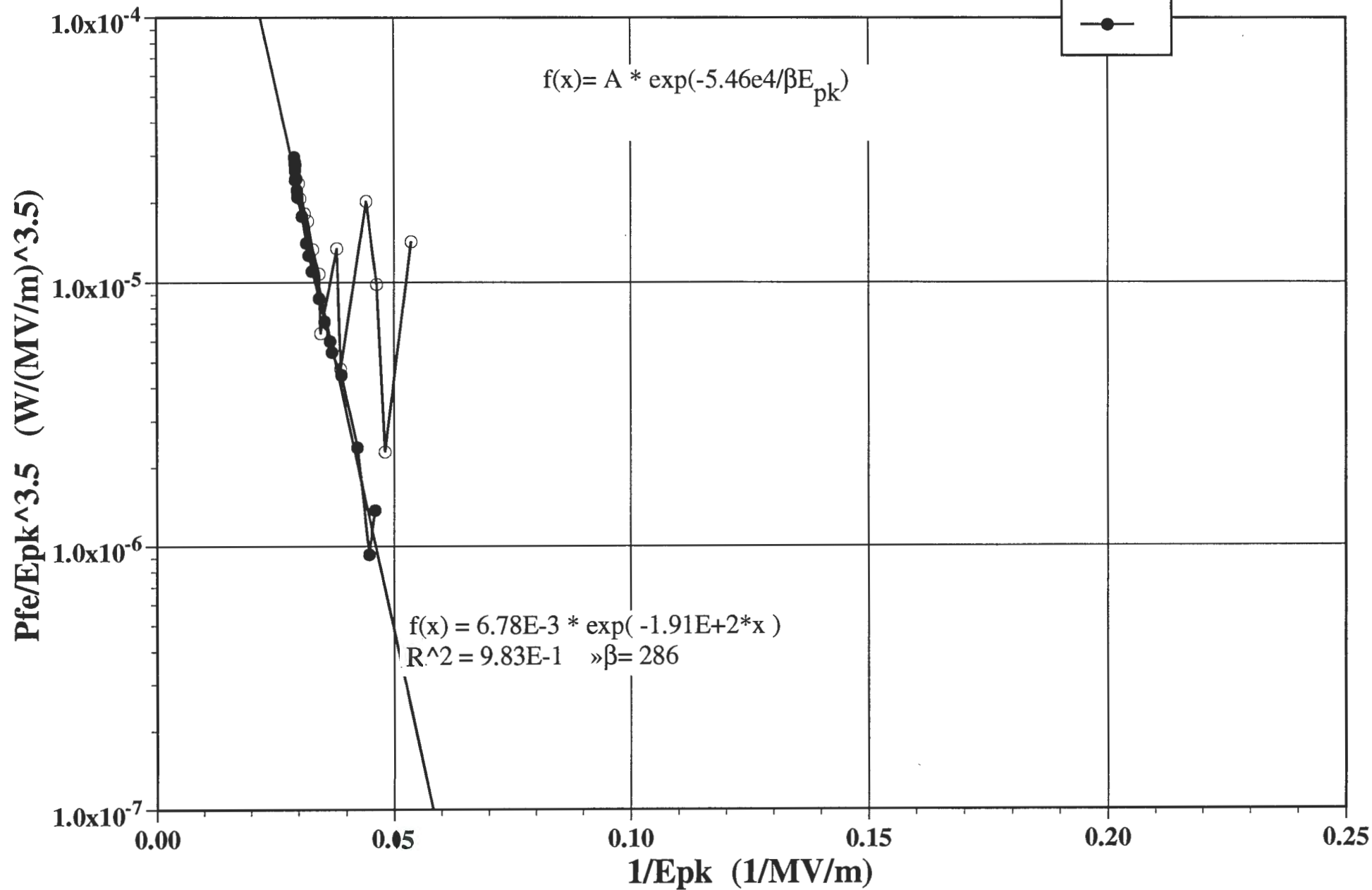


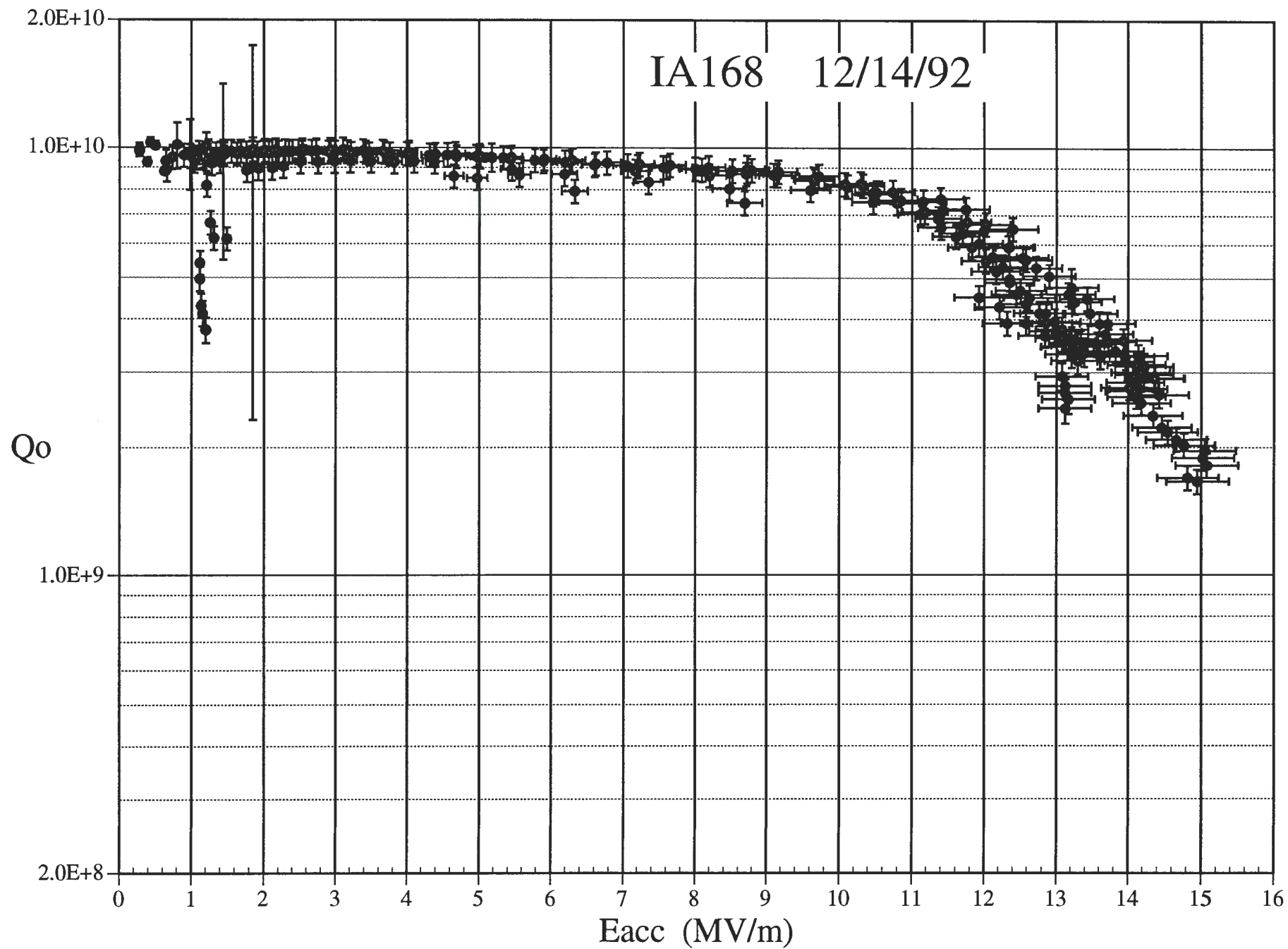


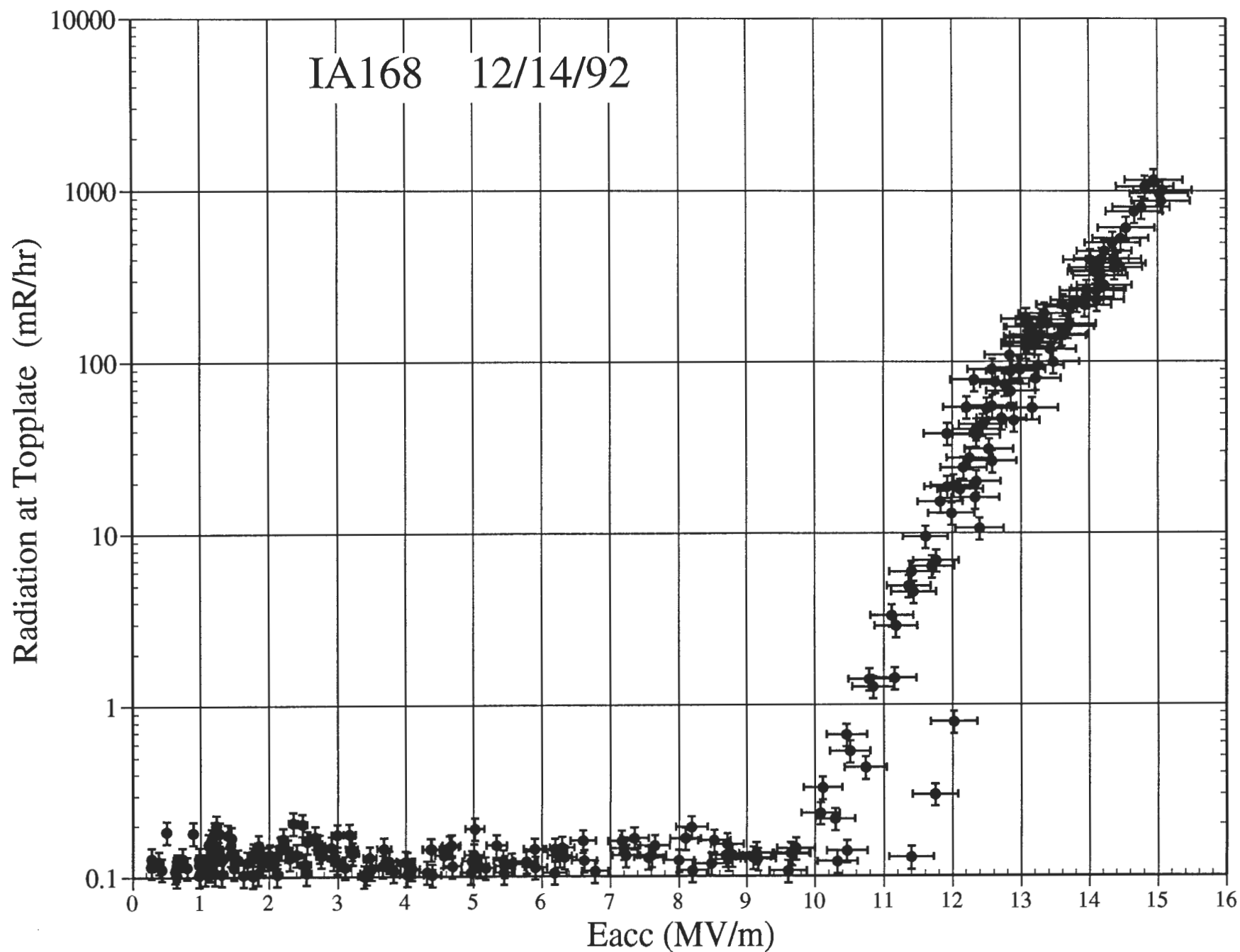
IA156 12/14/92



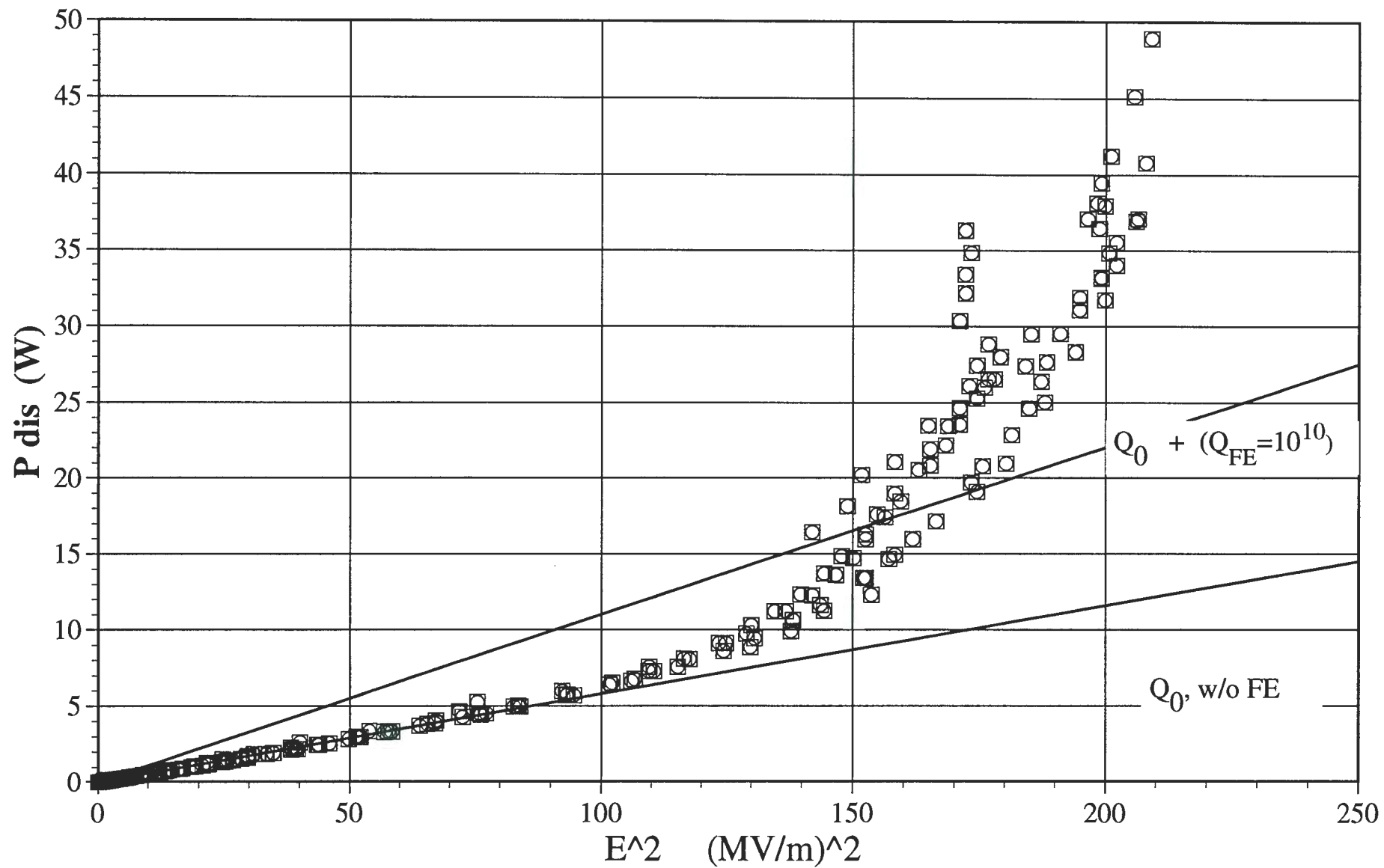
IA156 12/14/92



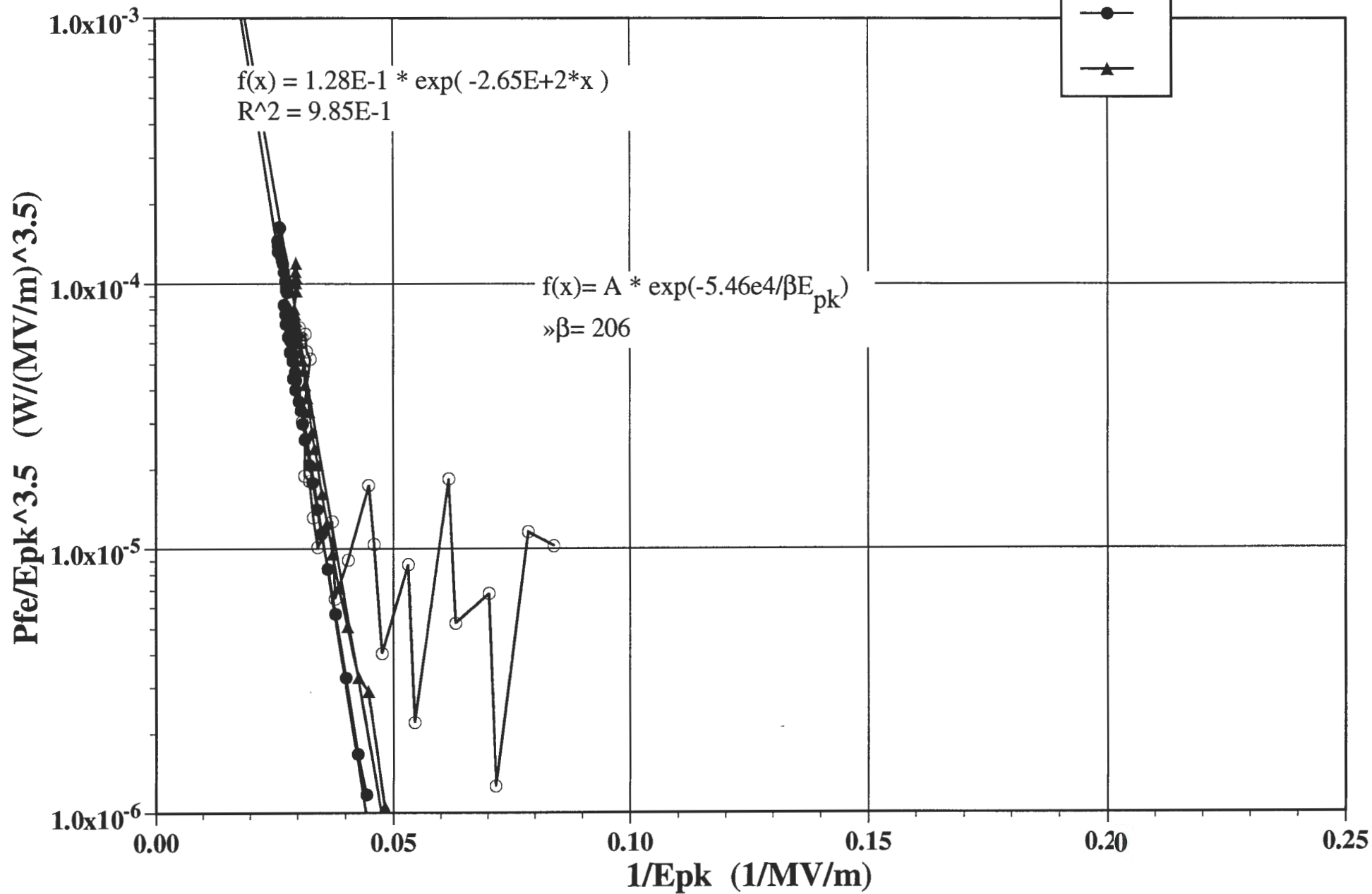


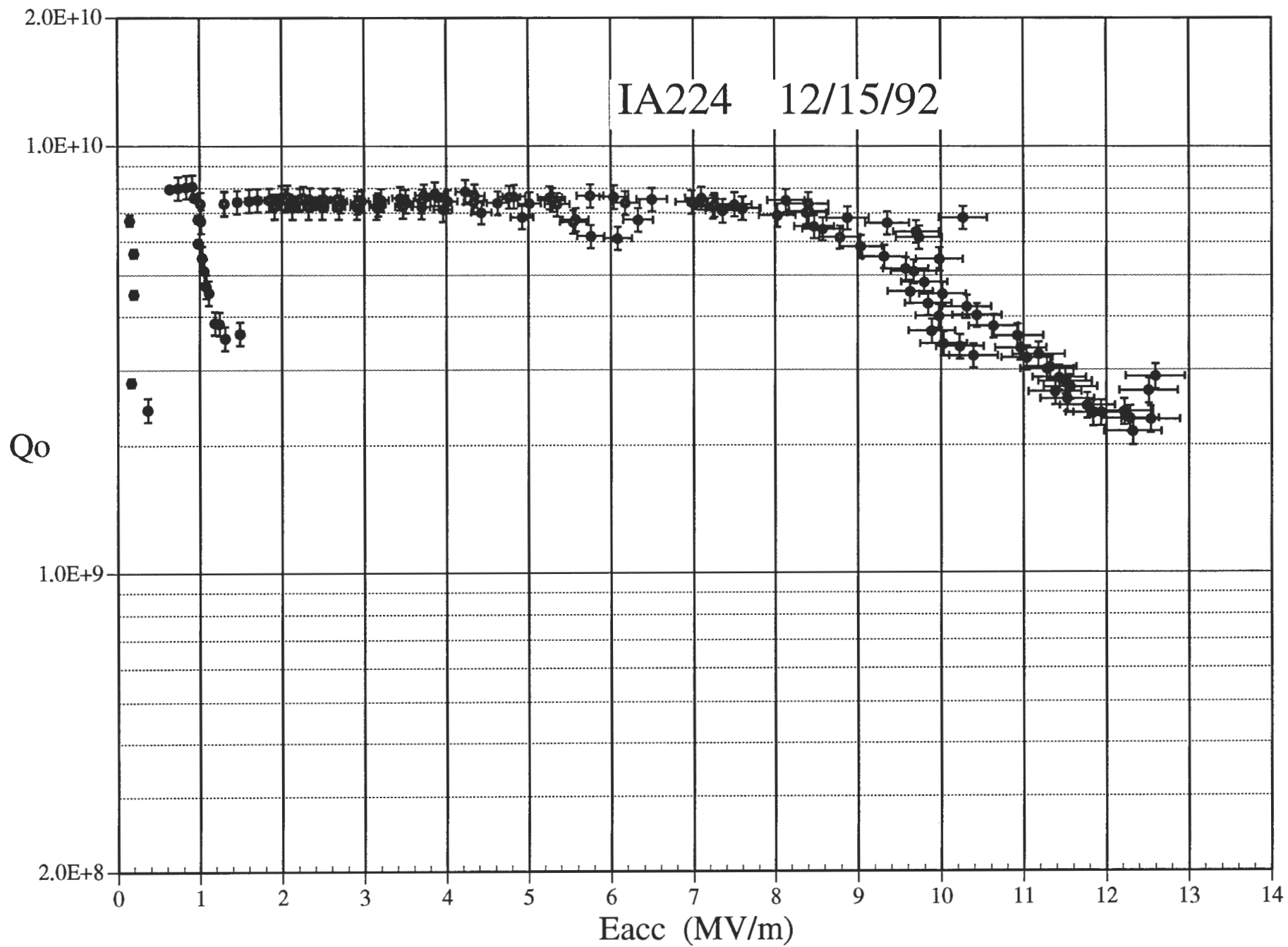


IA168 12/14/92

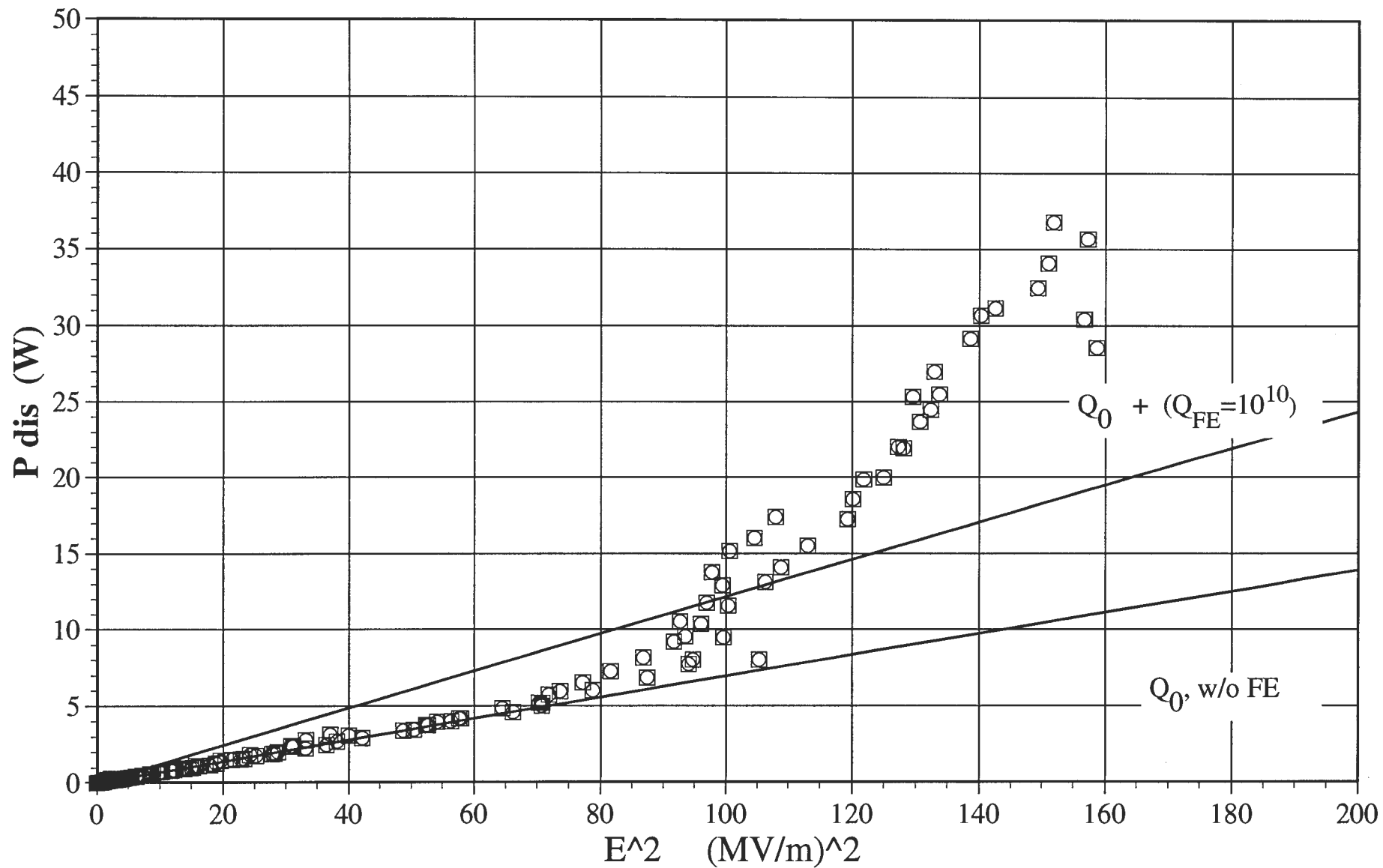


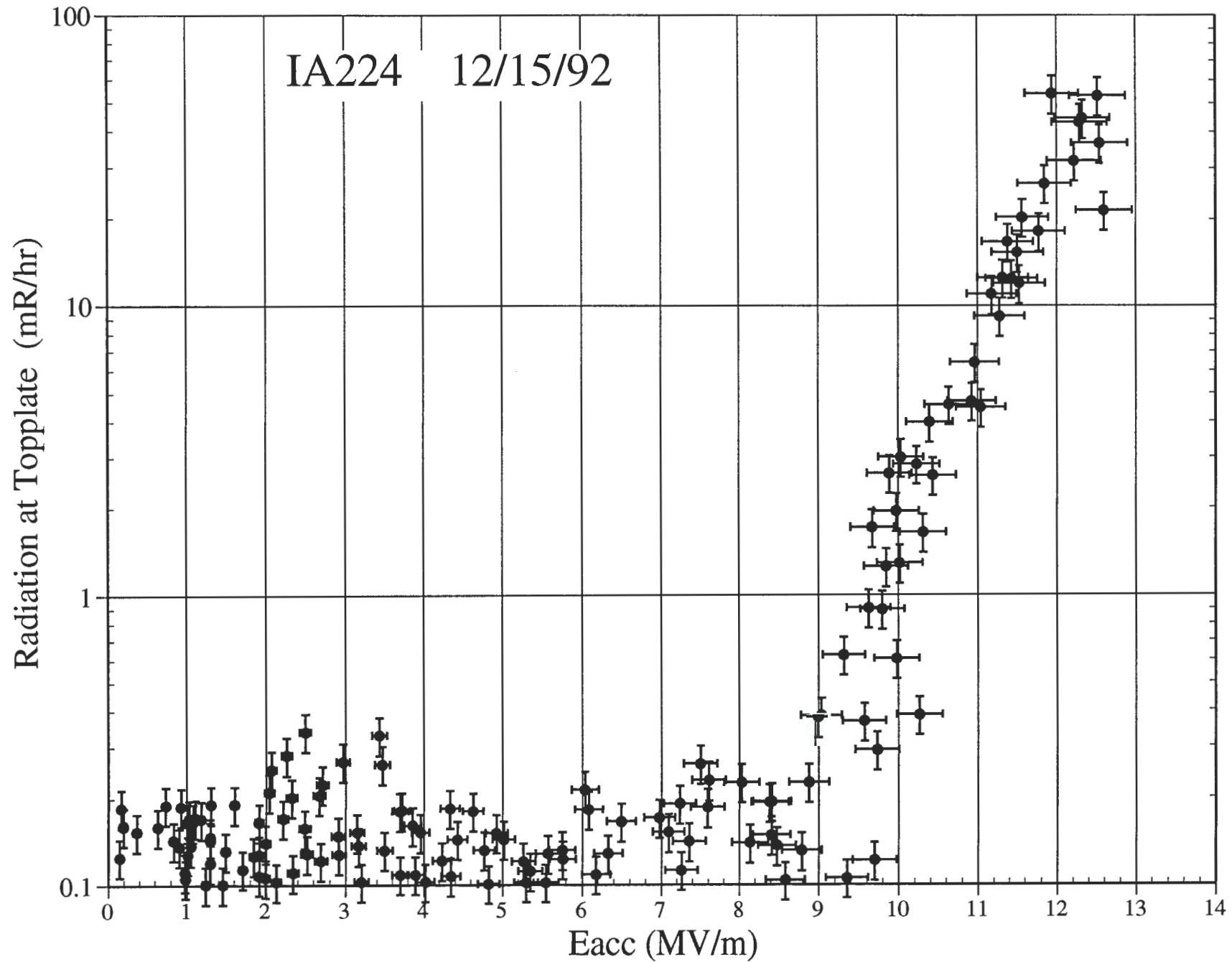
IA168 12/14/92



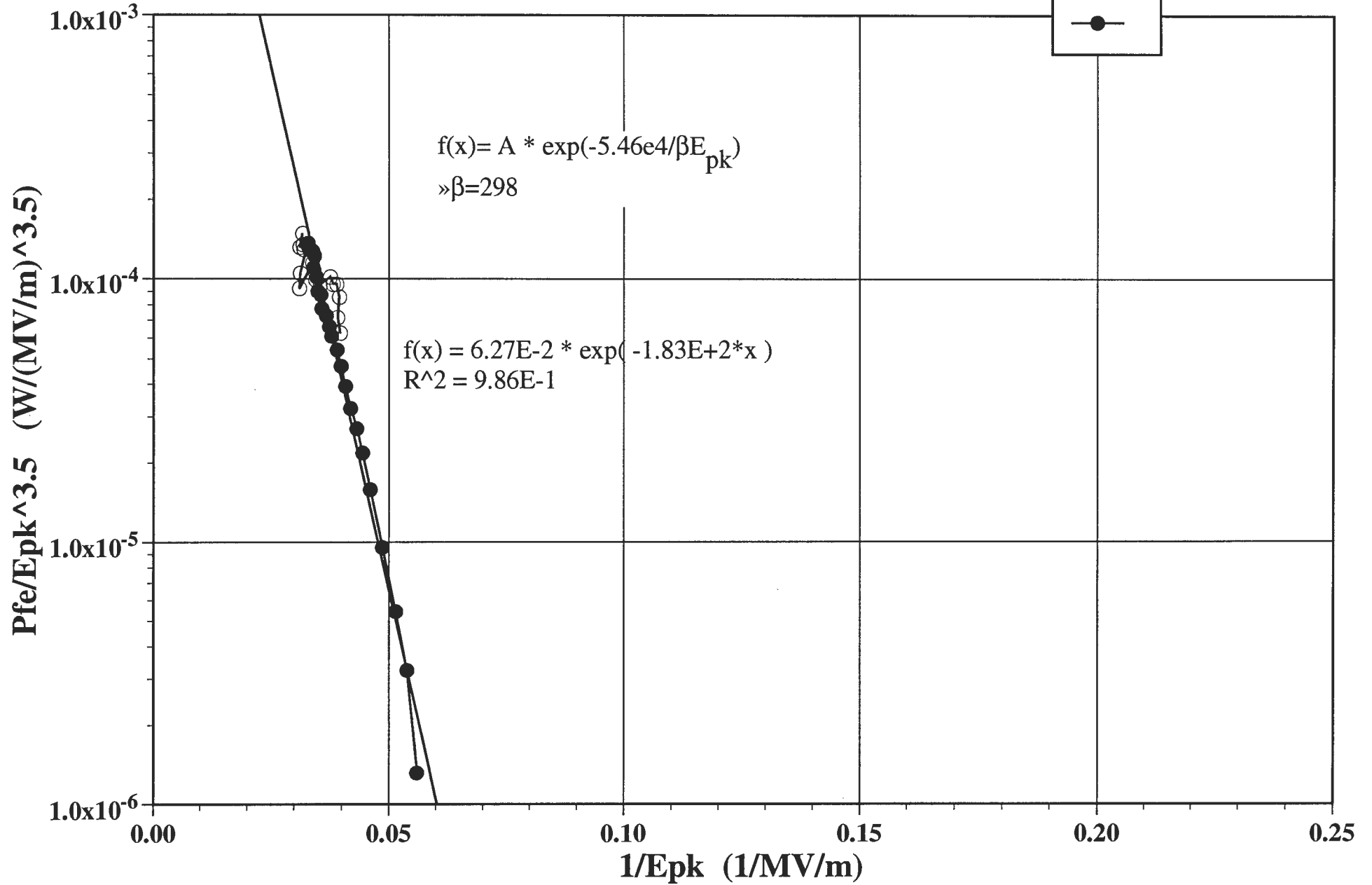


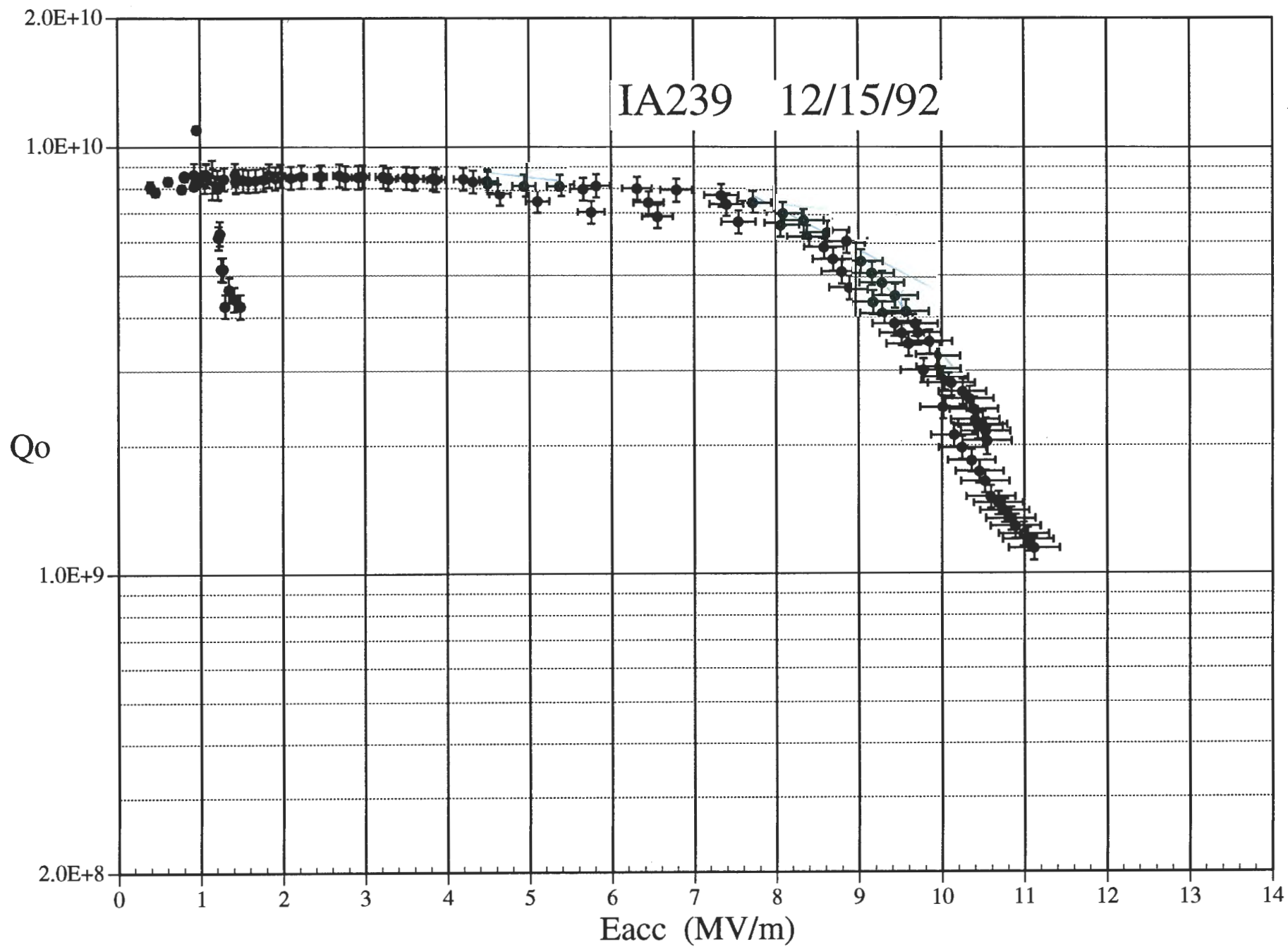
IA224 12/15/92

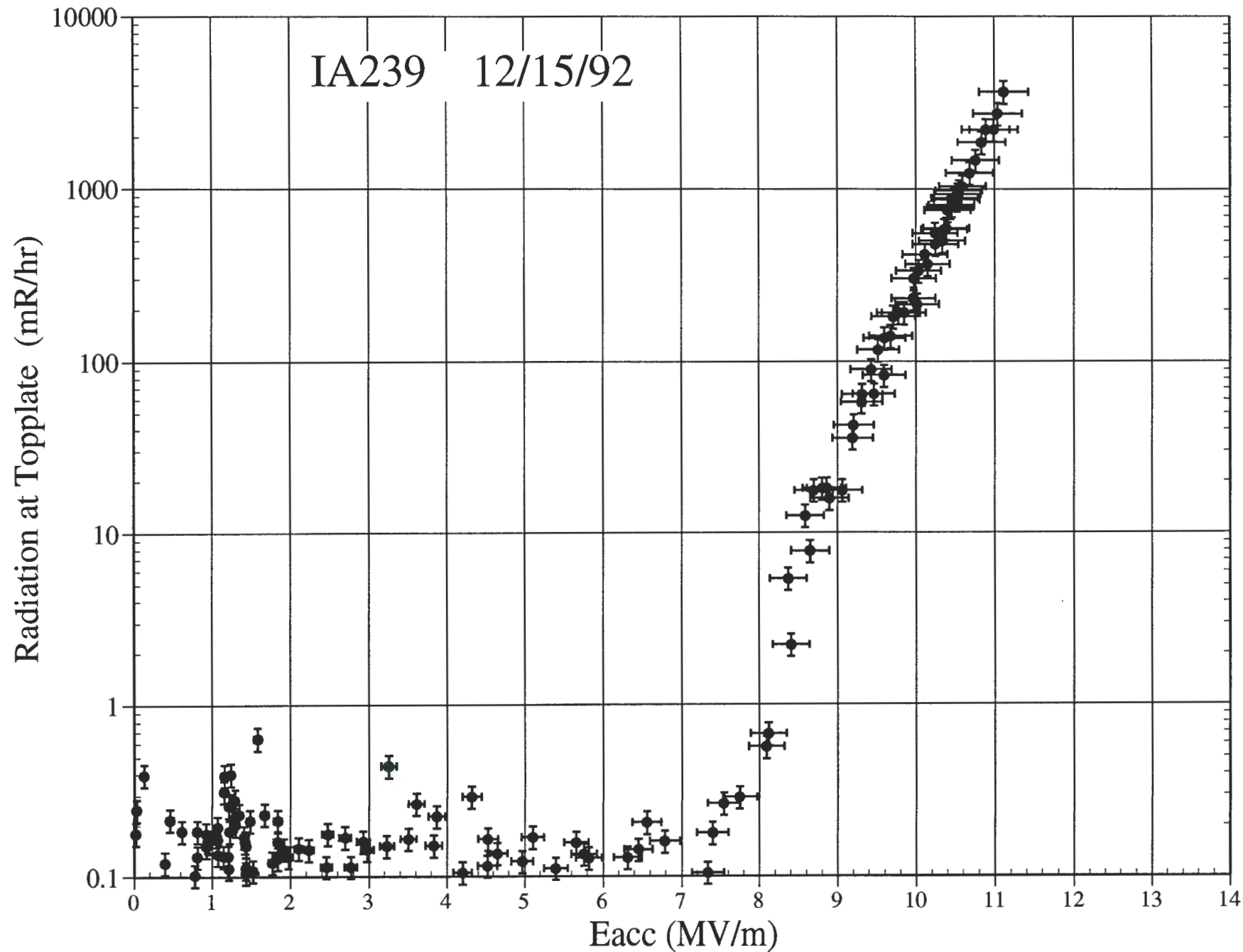




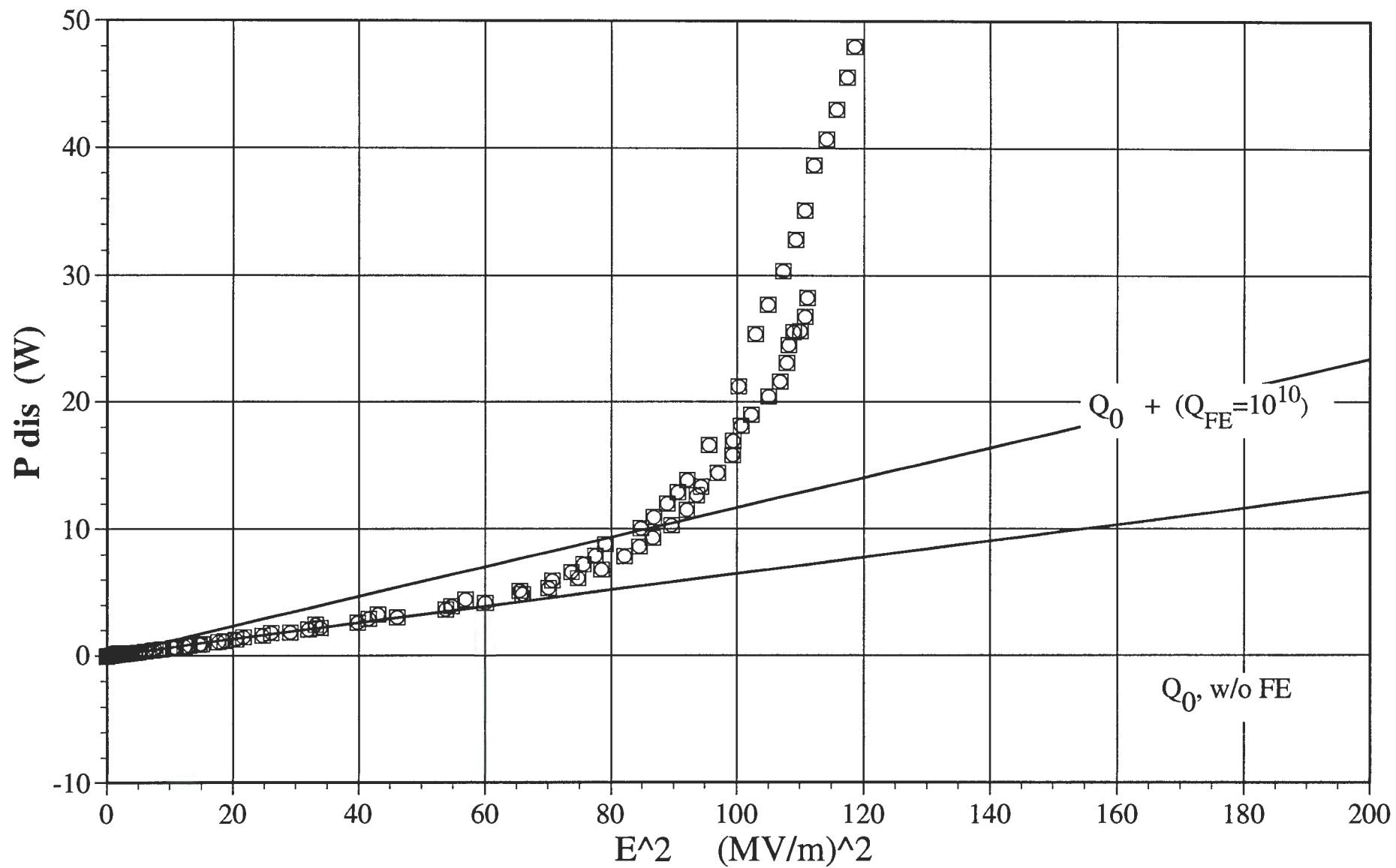
IA224 12/15/92



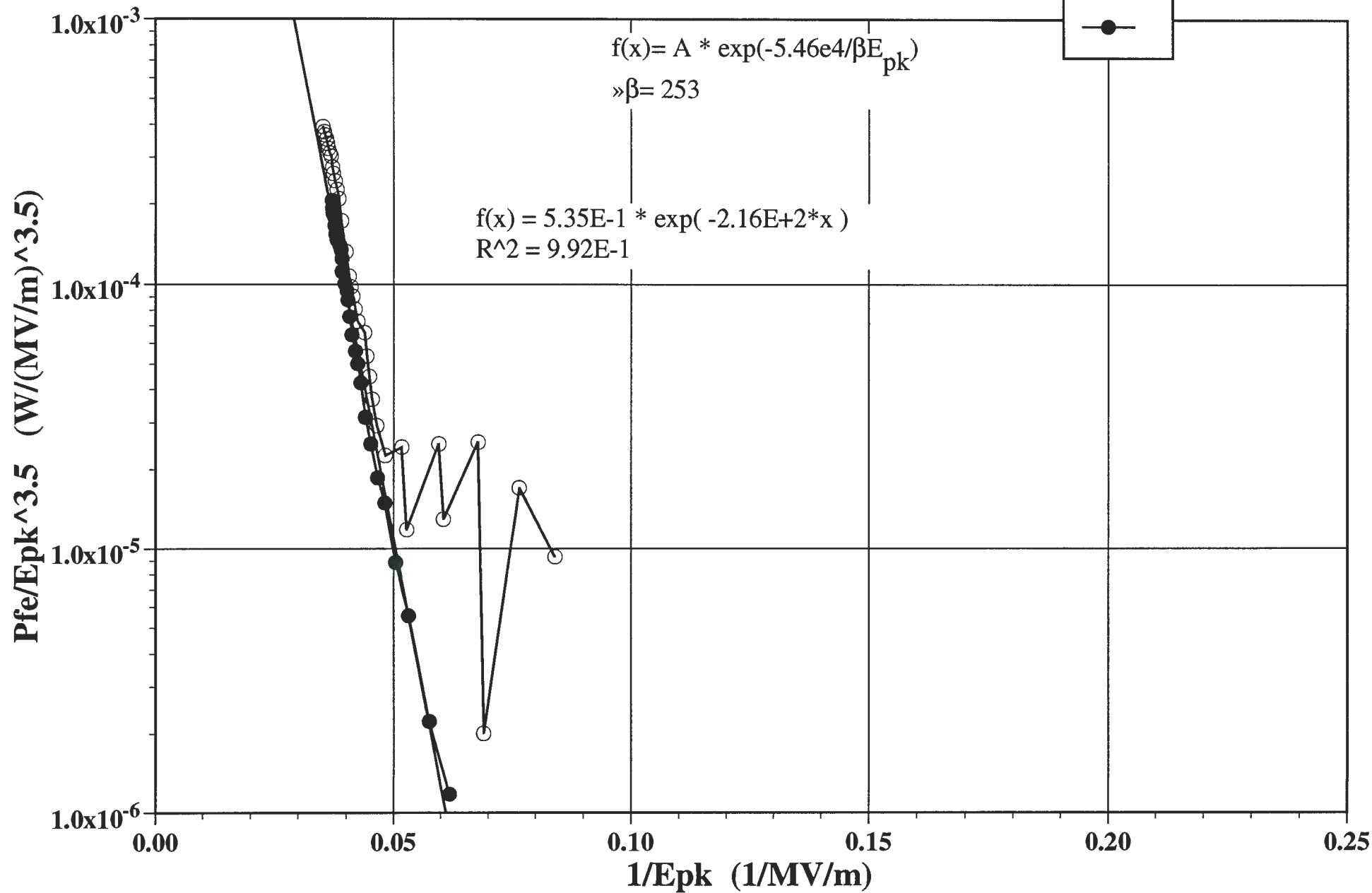


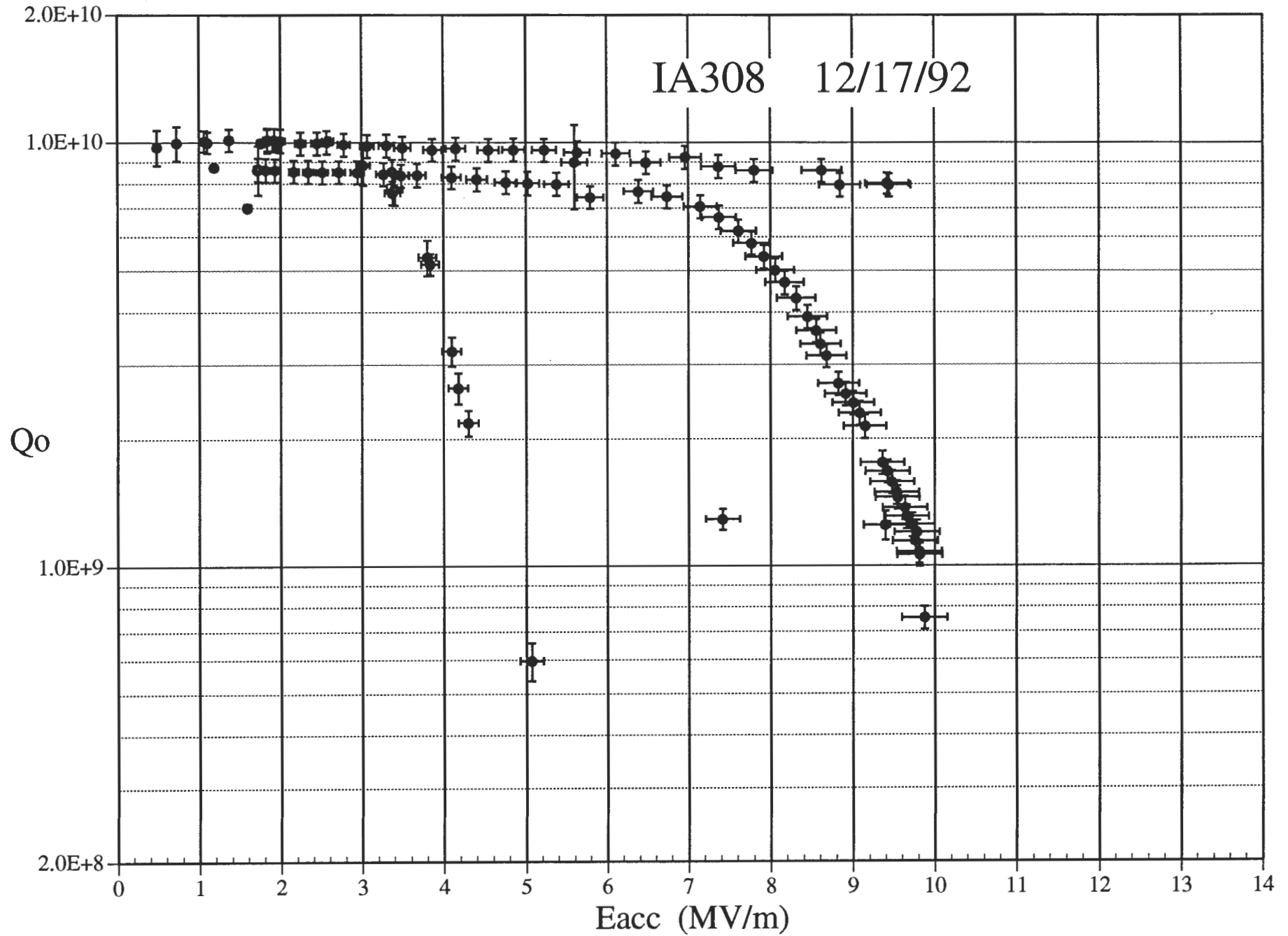


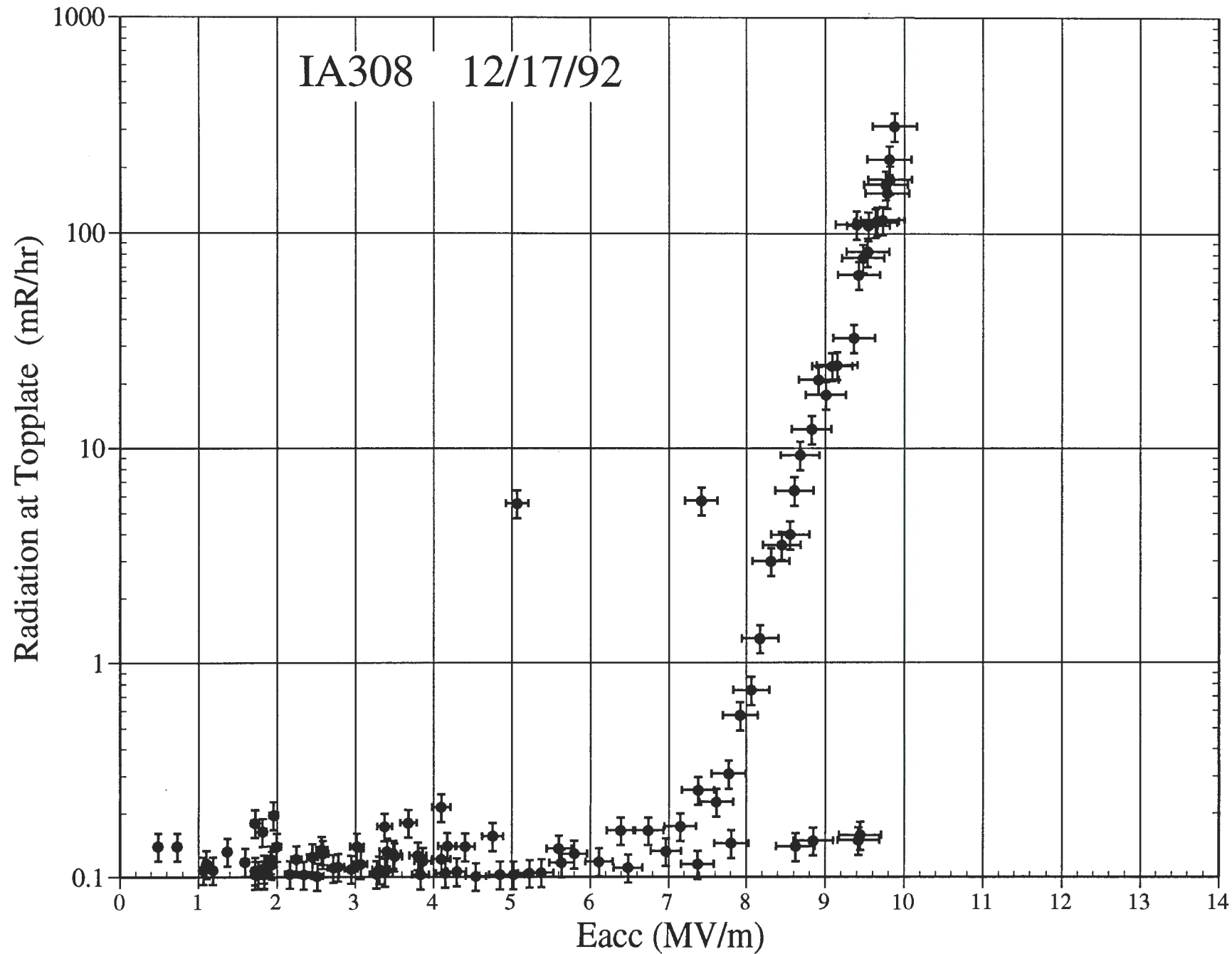
IA239 12/15/92



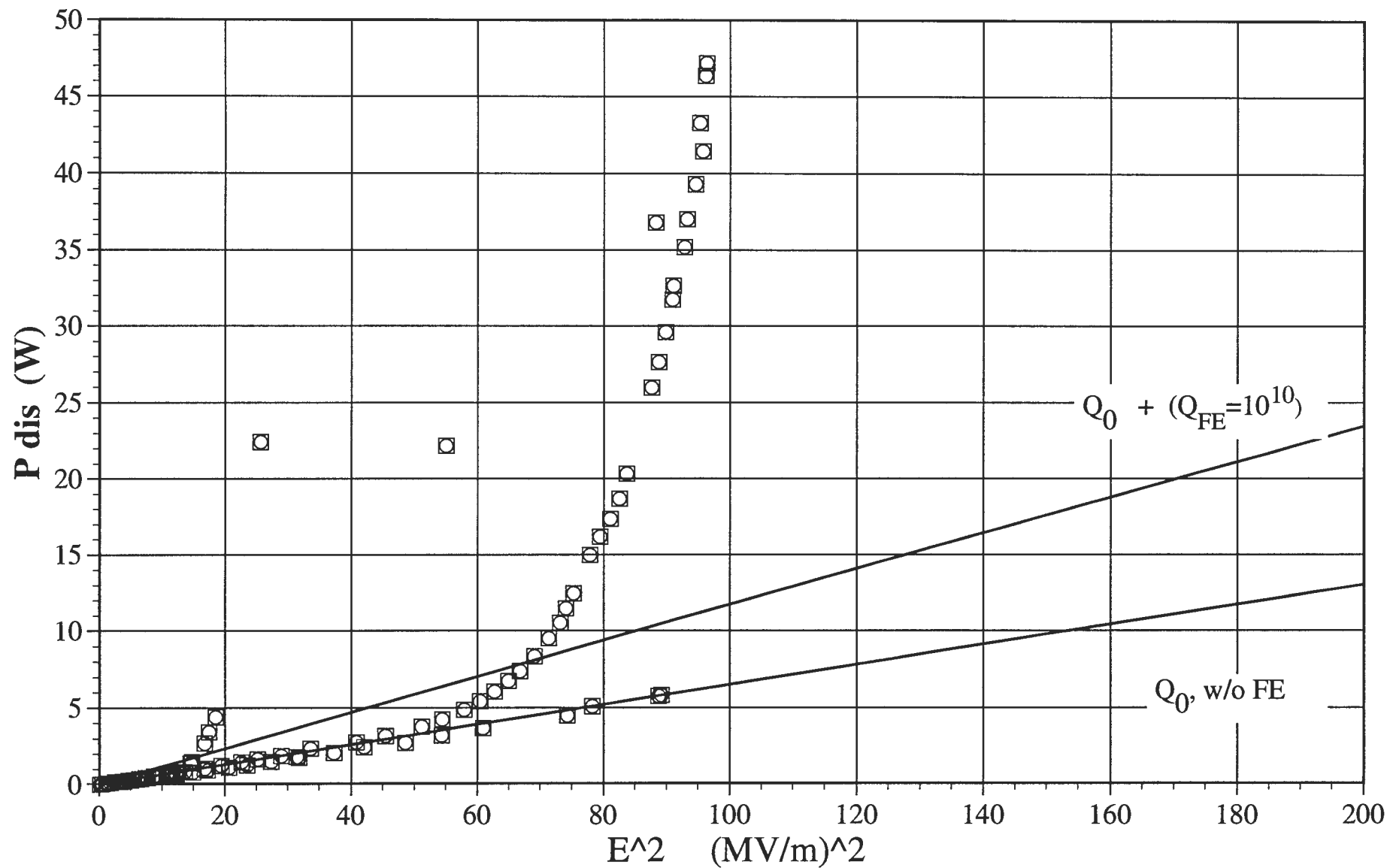
IA239 12/15/92



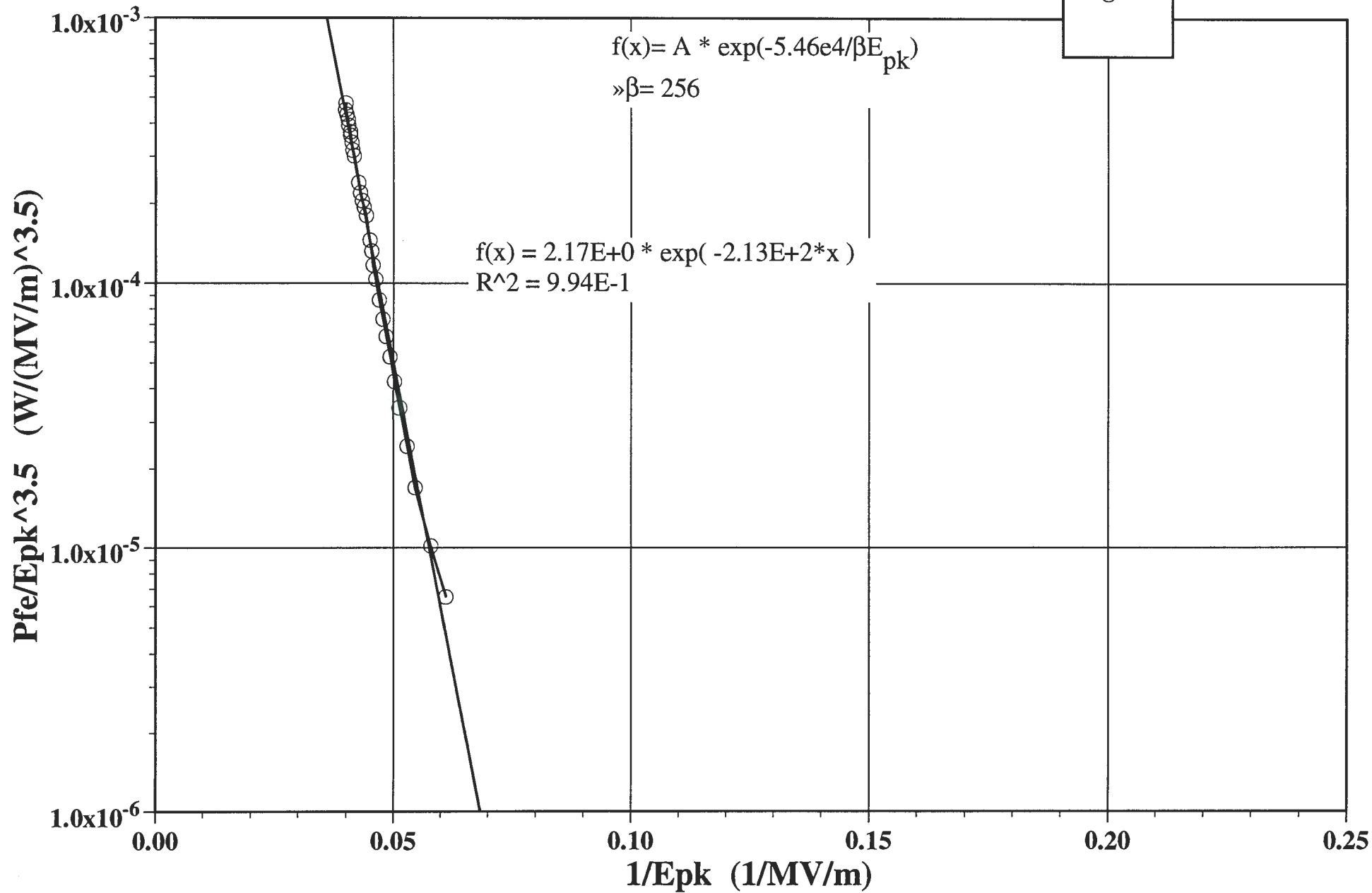


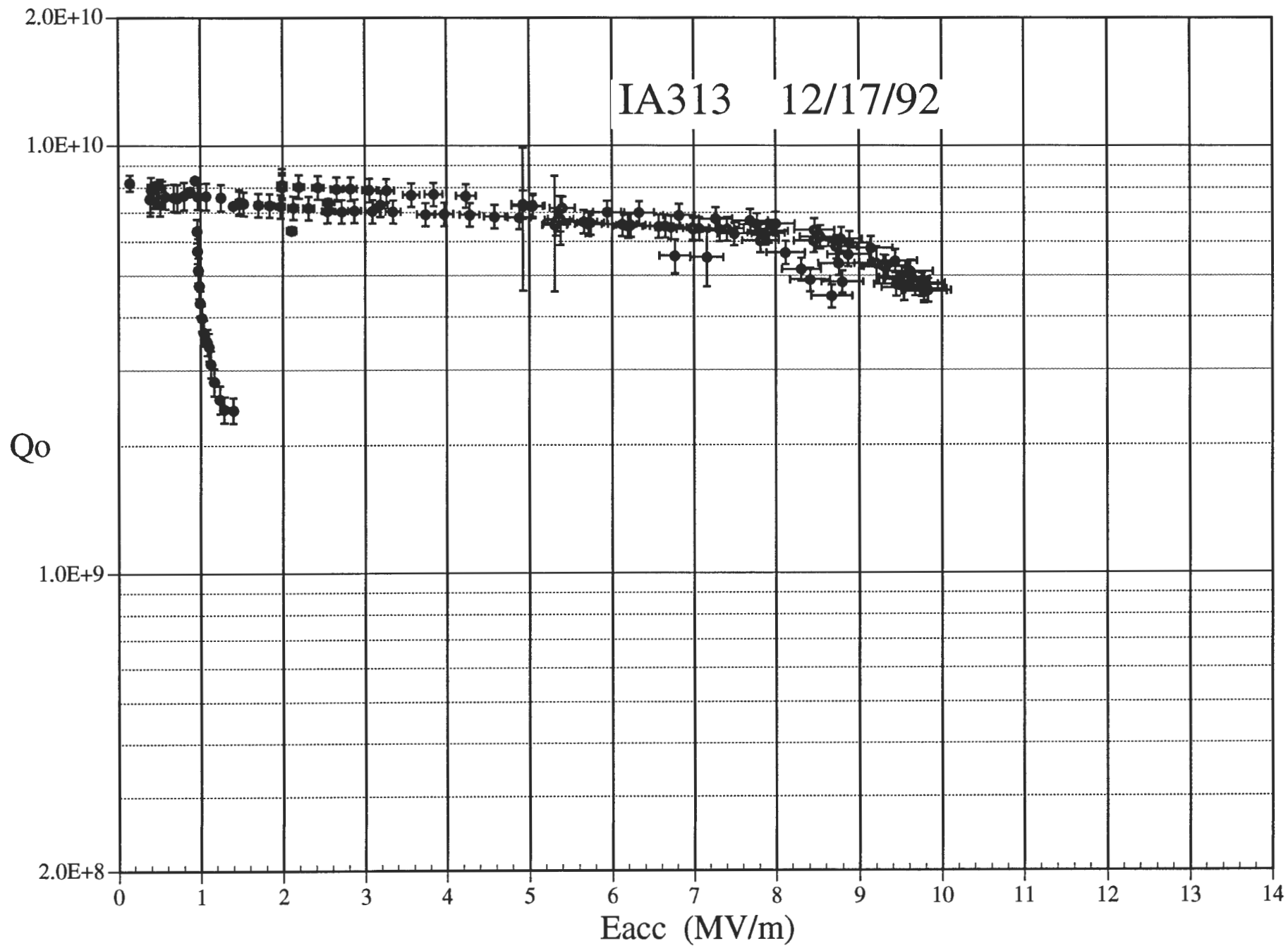


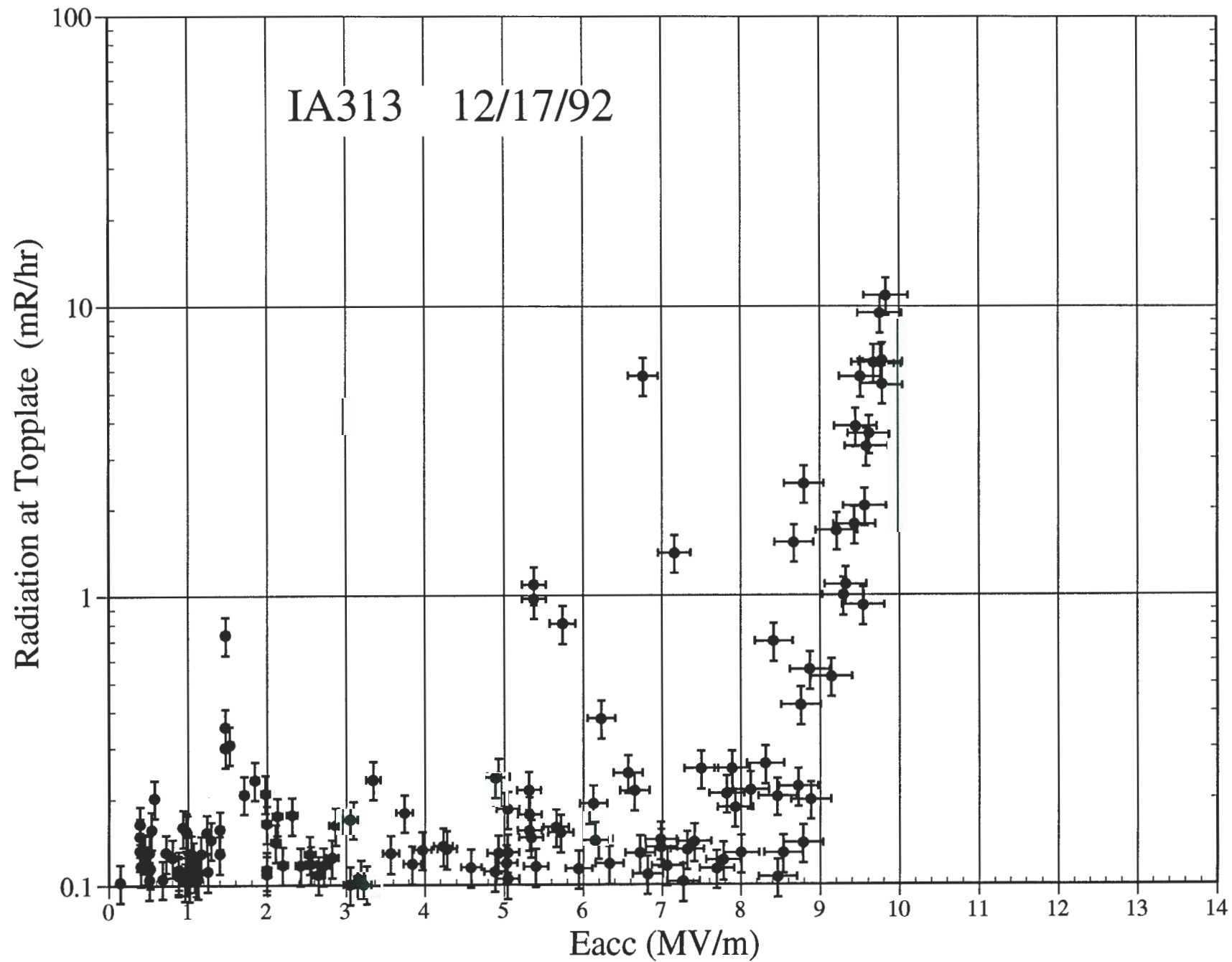
IA308 12/17/92



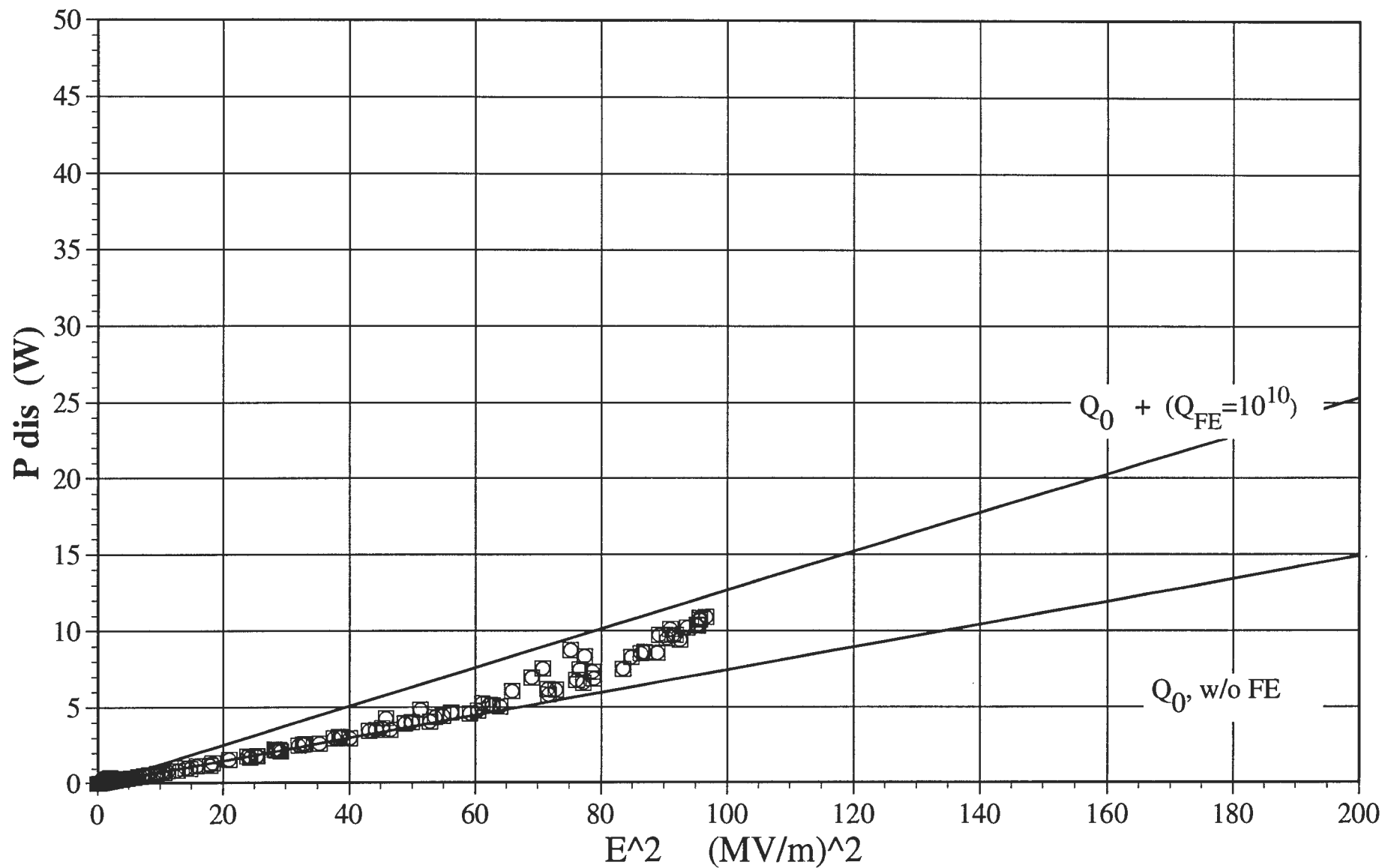
IA308 12/17/92



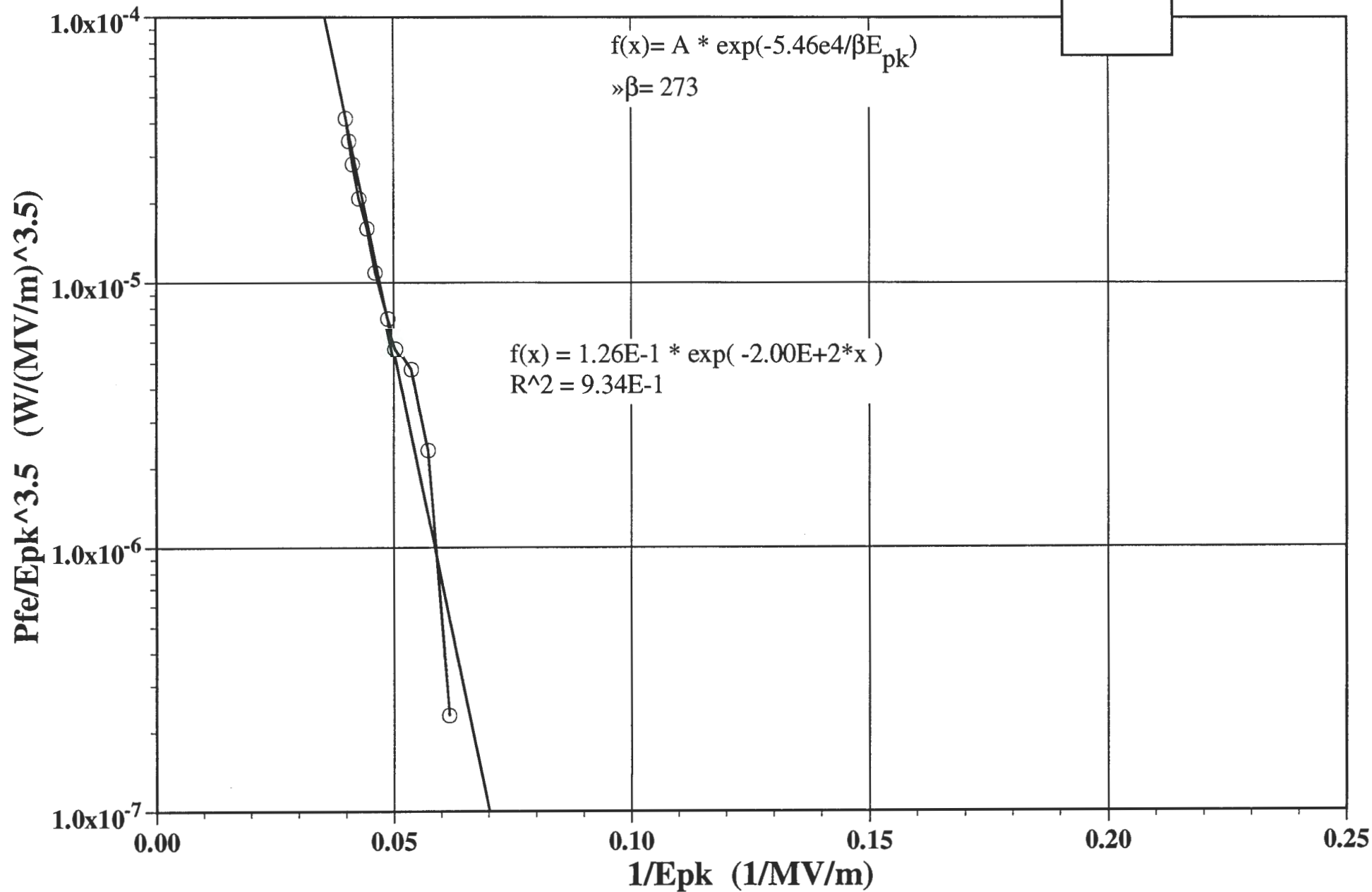


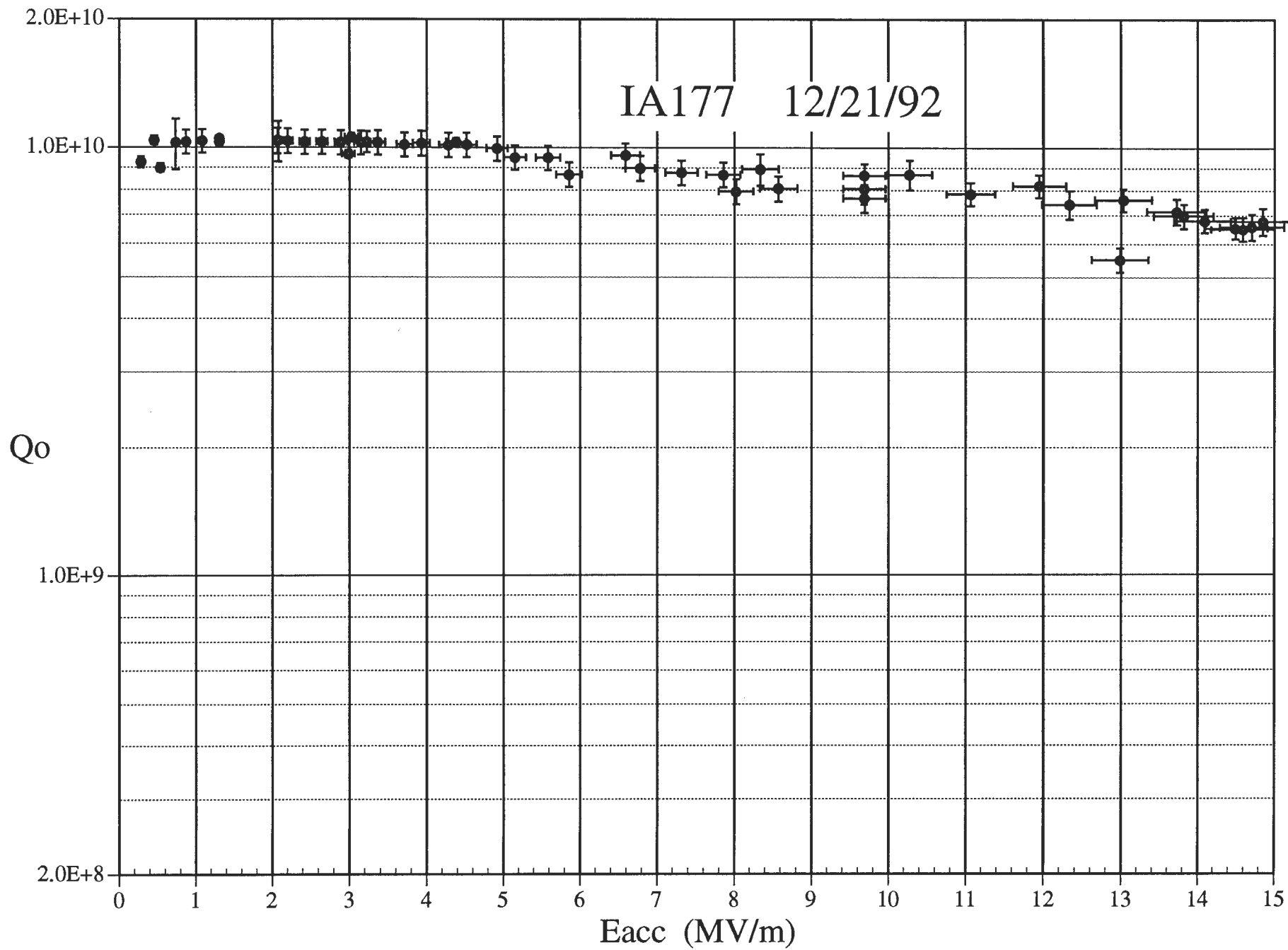


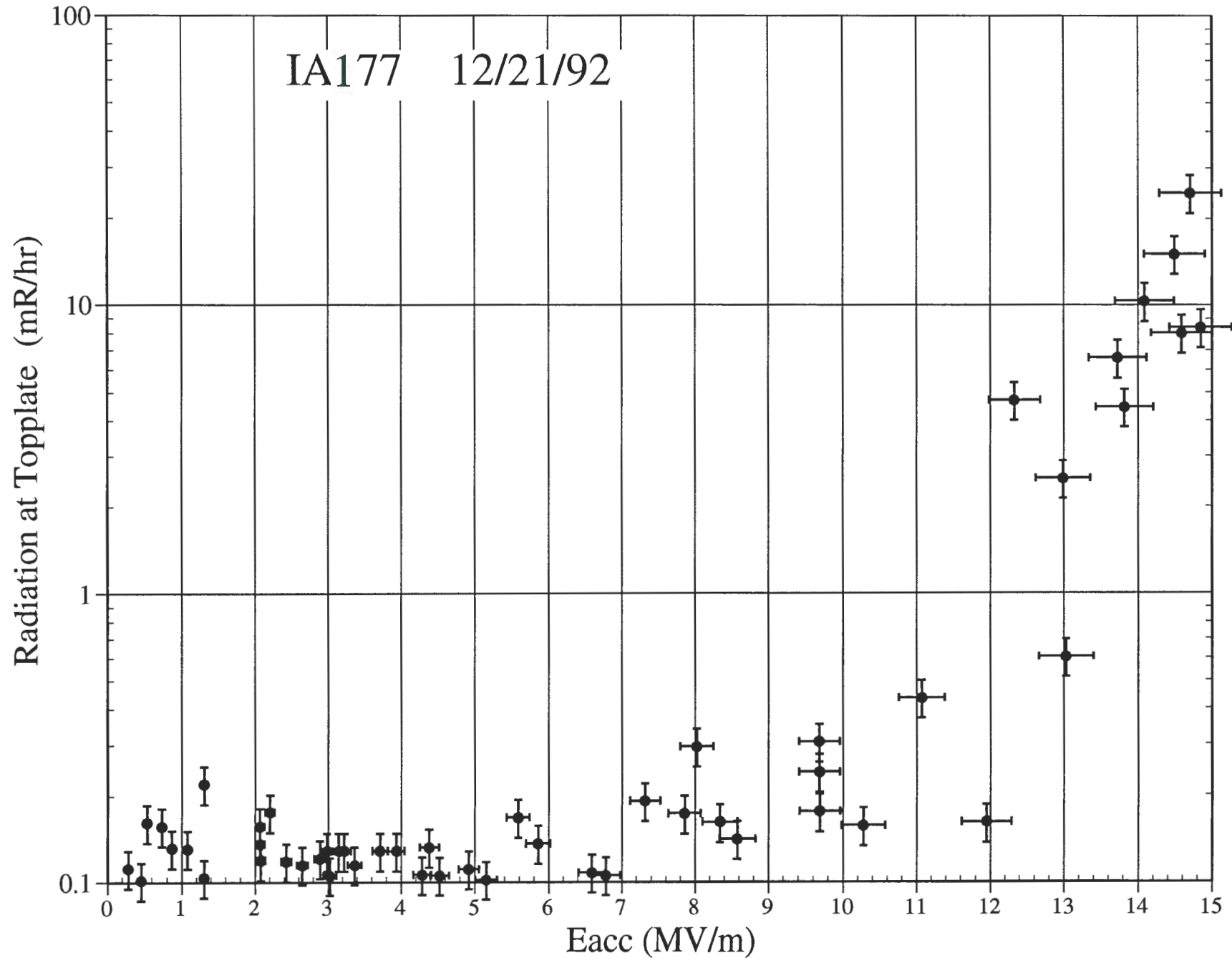
IA313 12/17/92



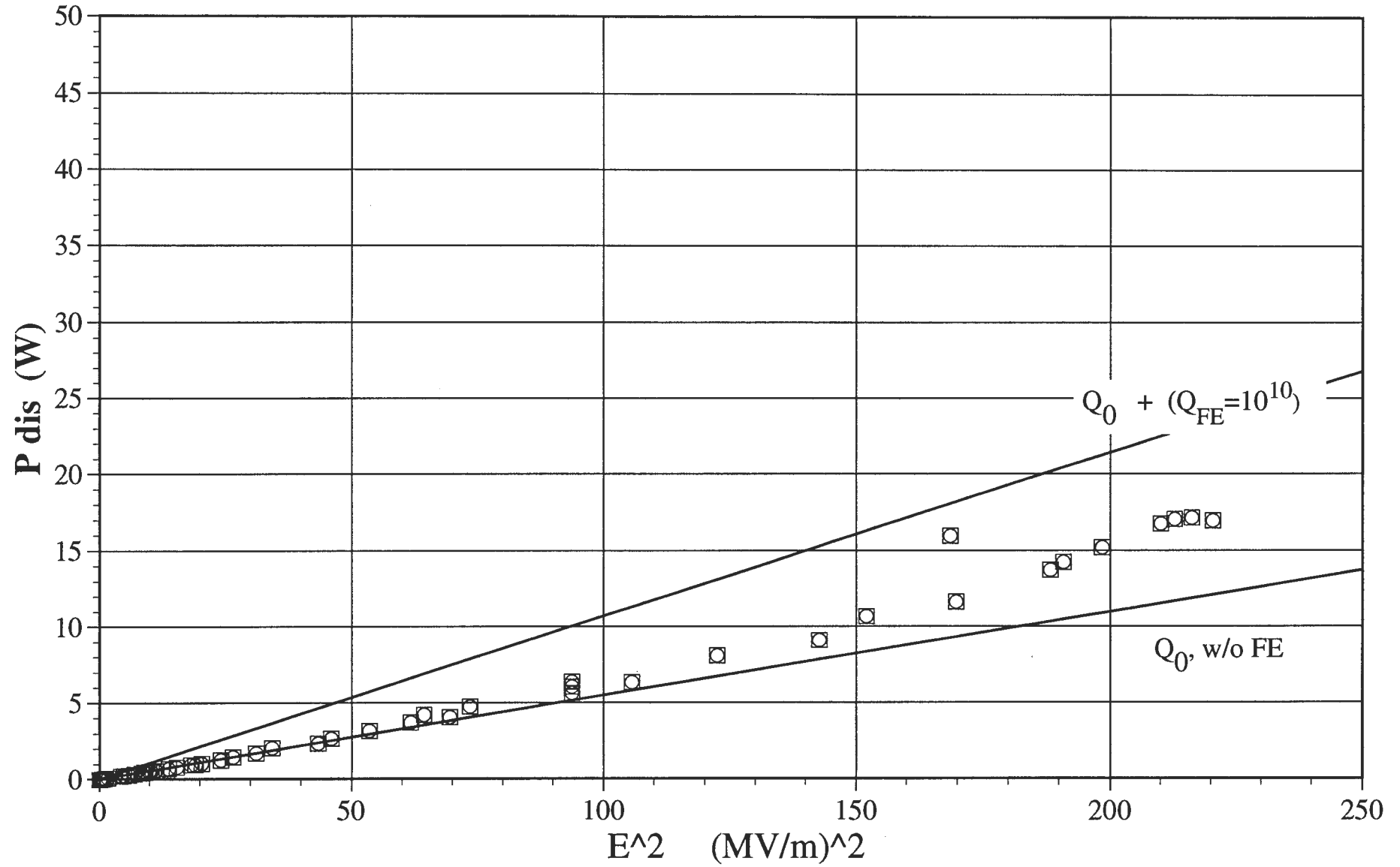
IA313 12/17/92

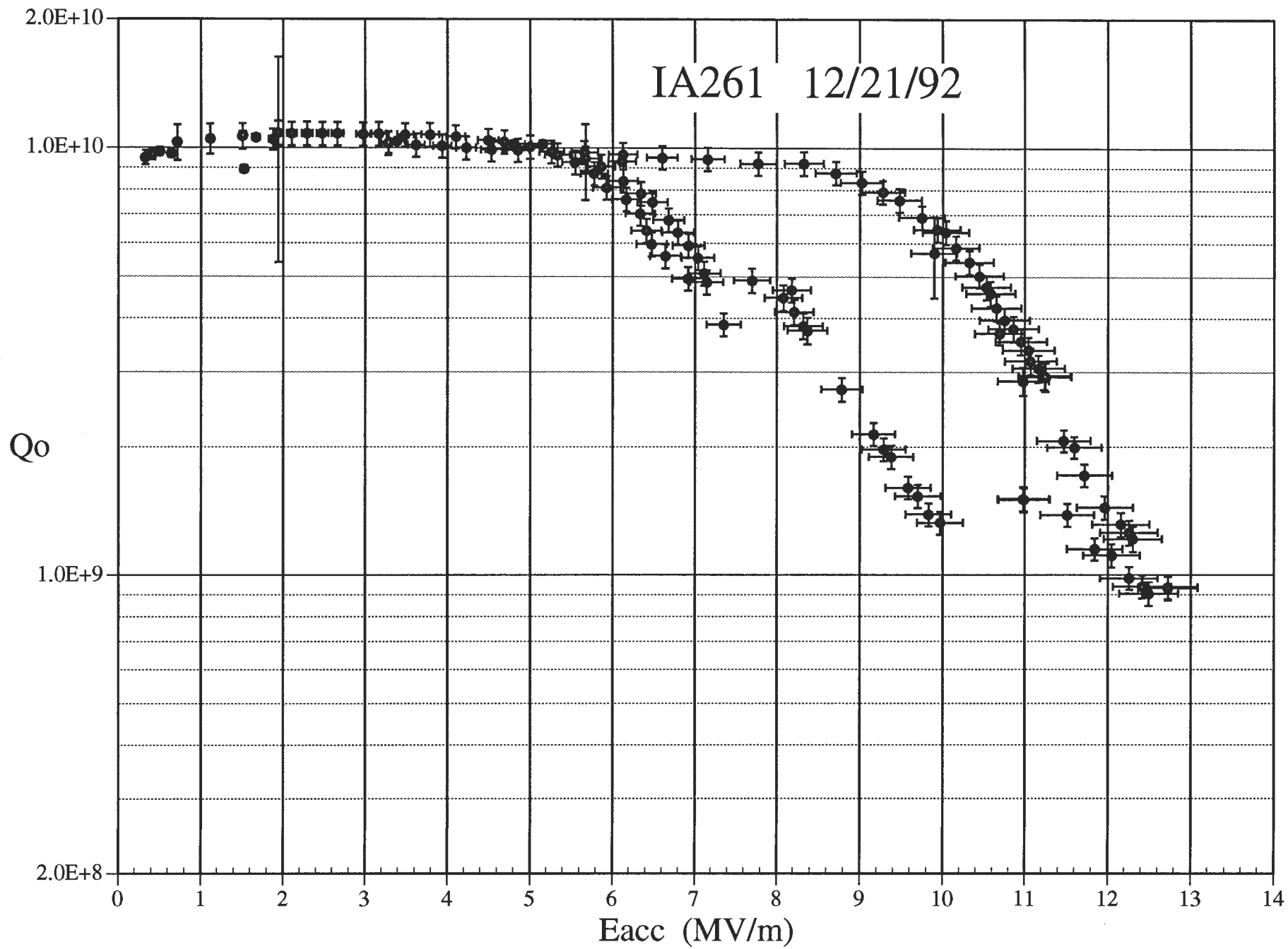


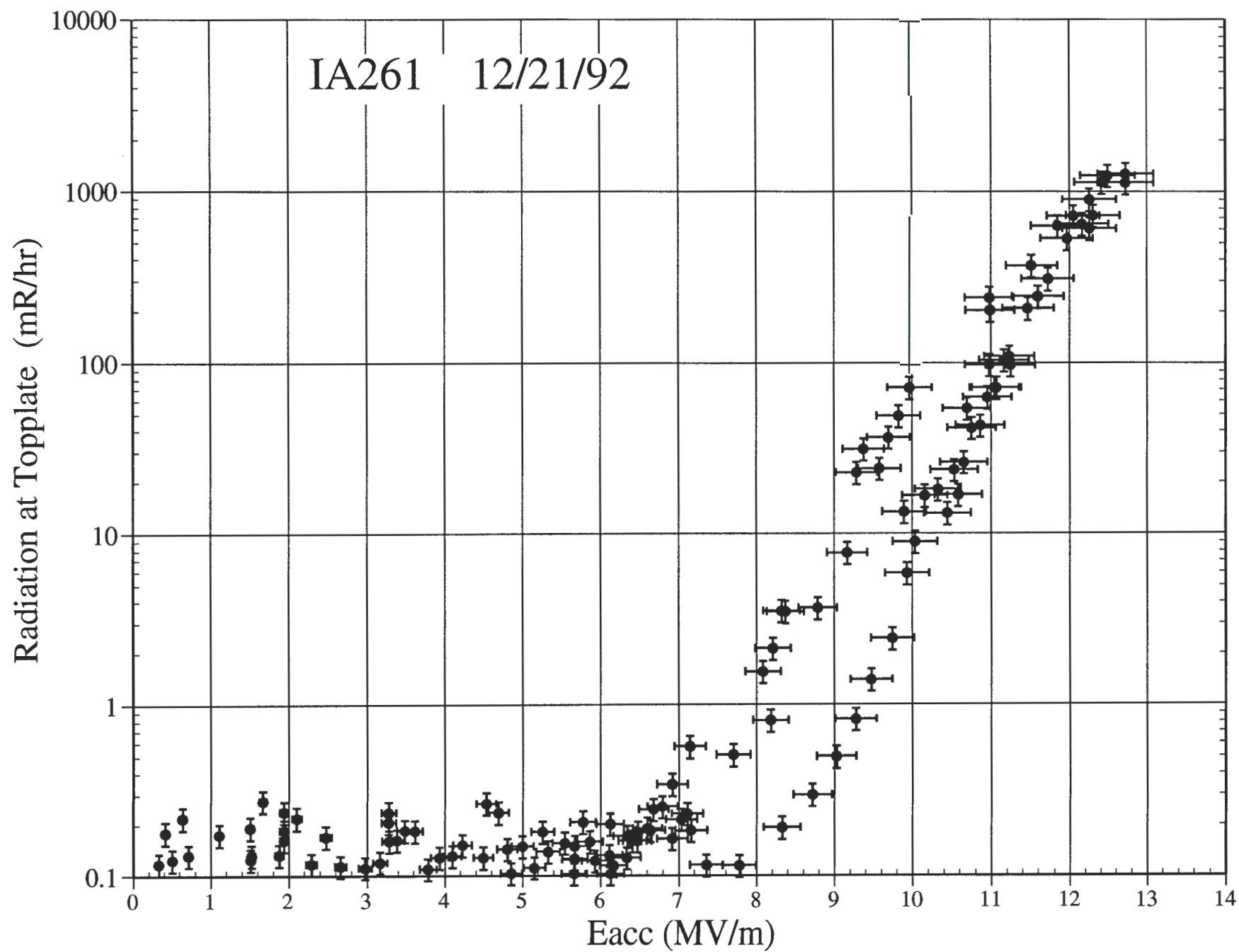




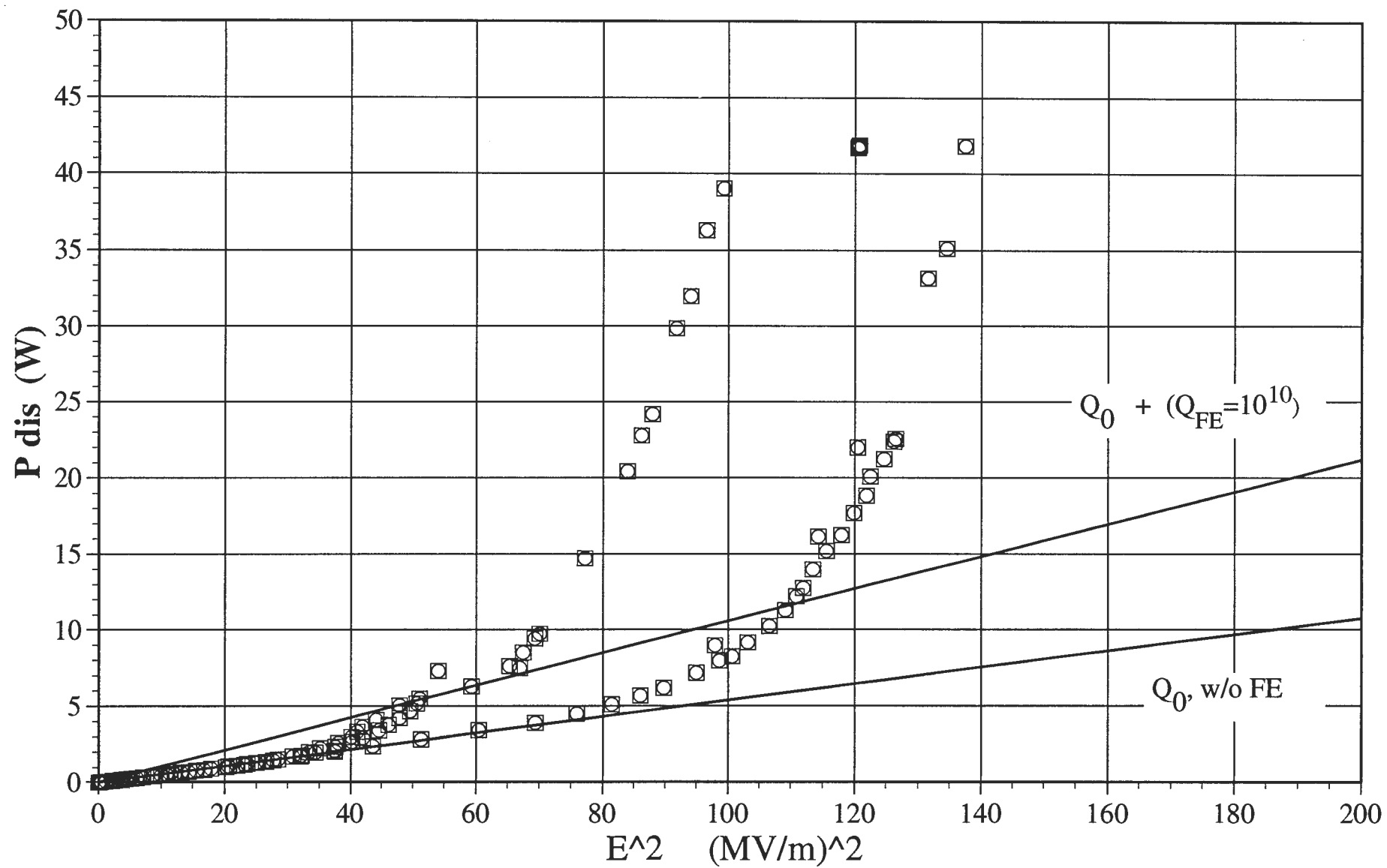
IA177 12/21/92



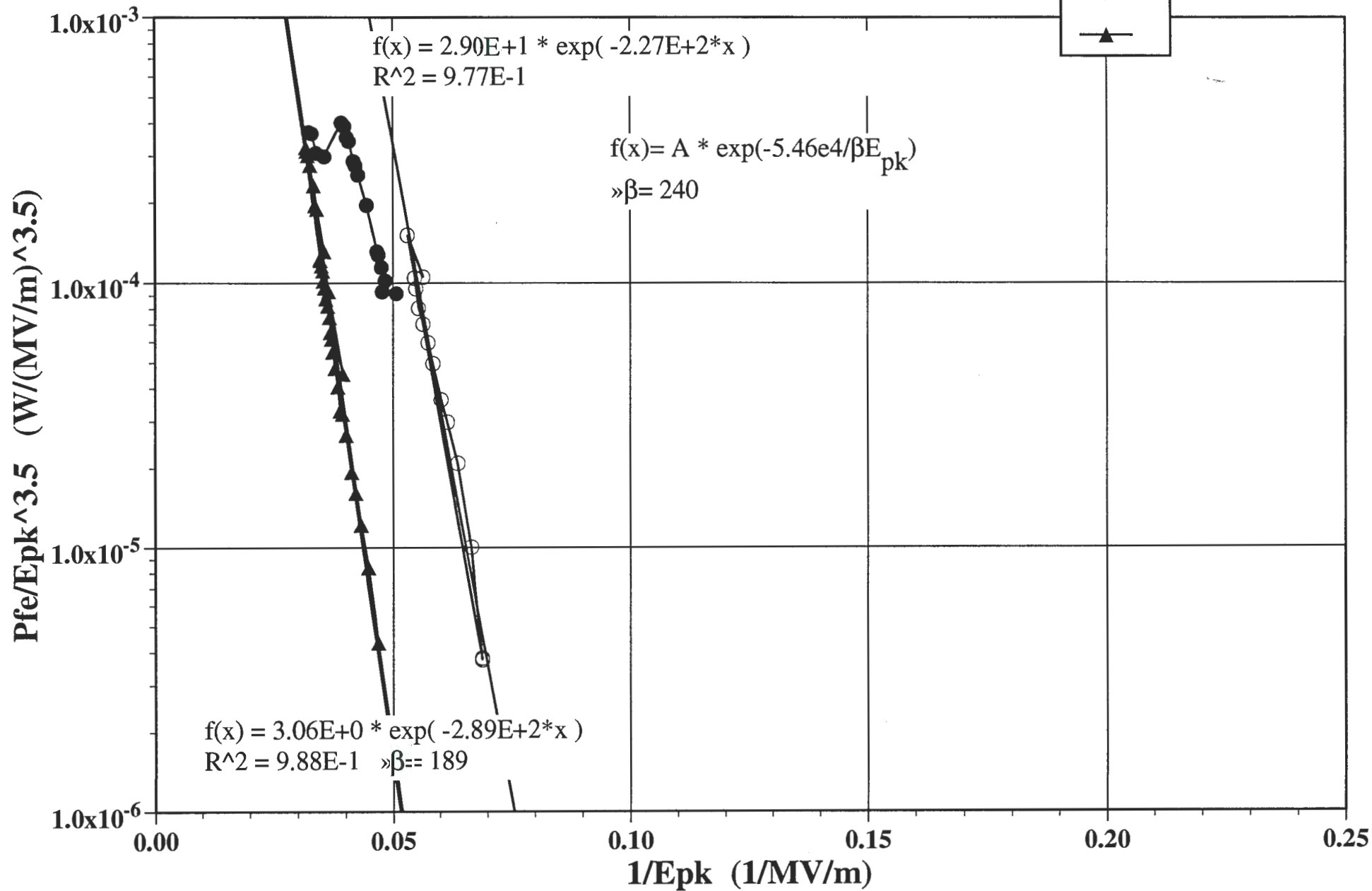


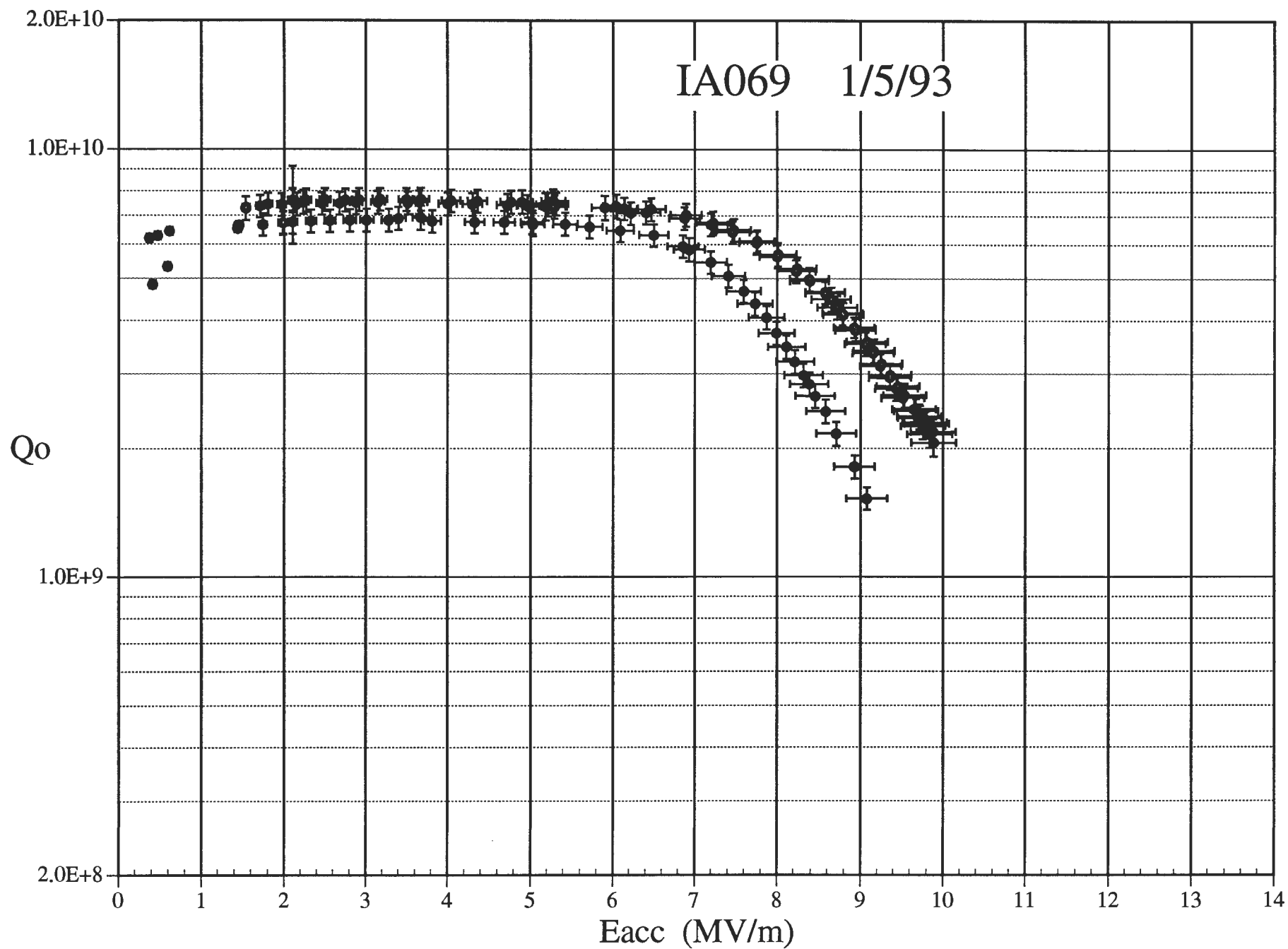


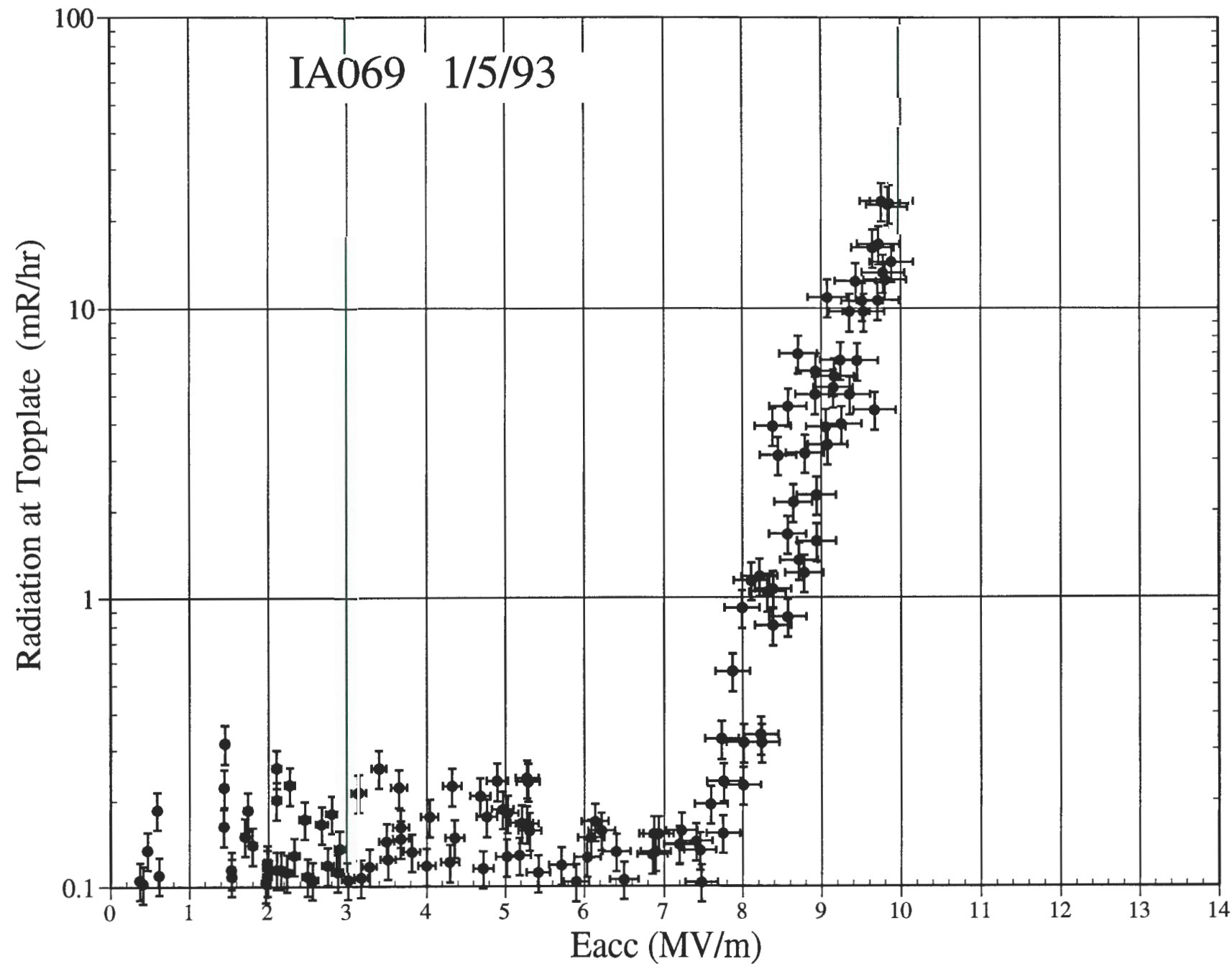
IA261 12/21/92



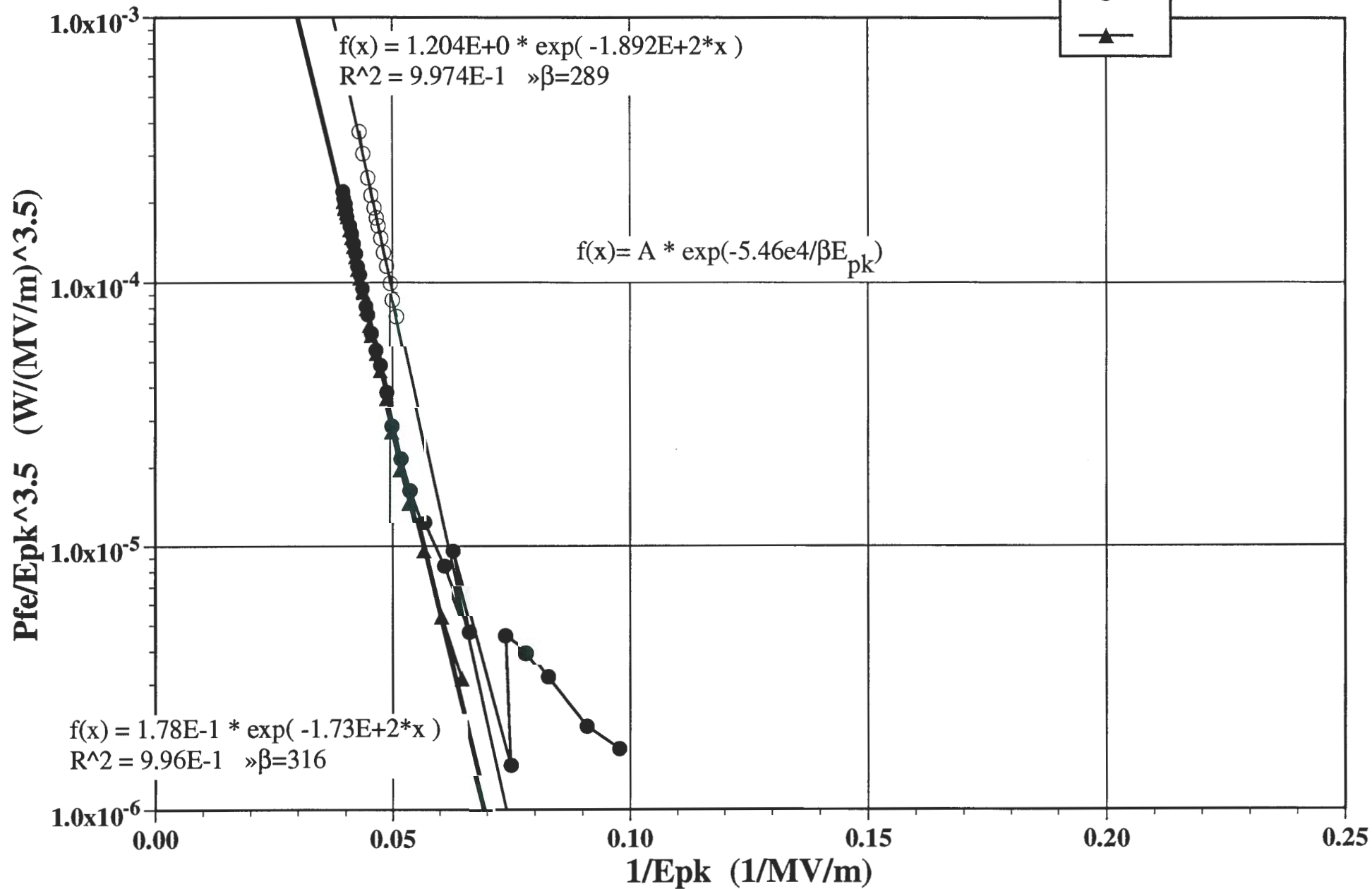
IA261 12/21/92



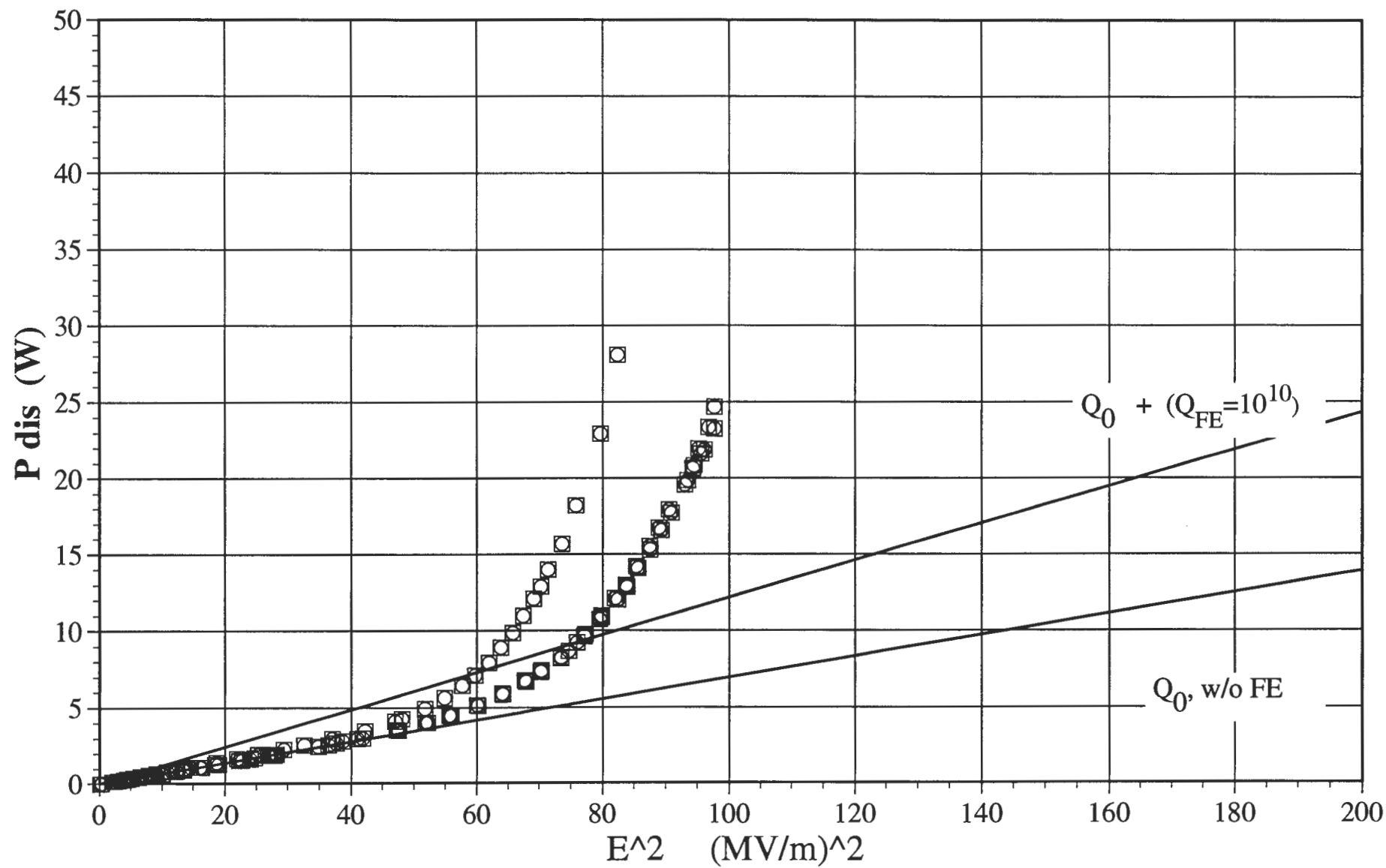


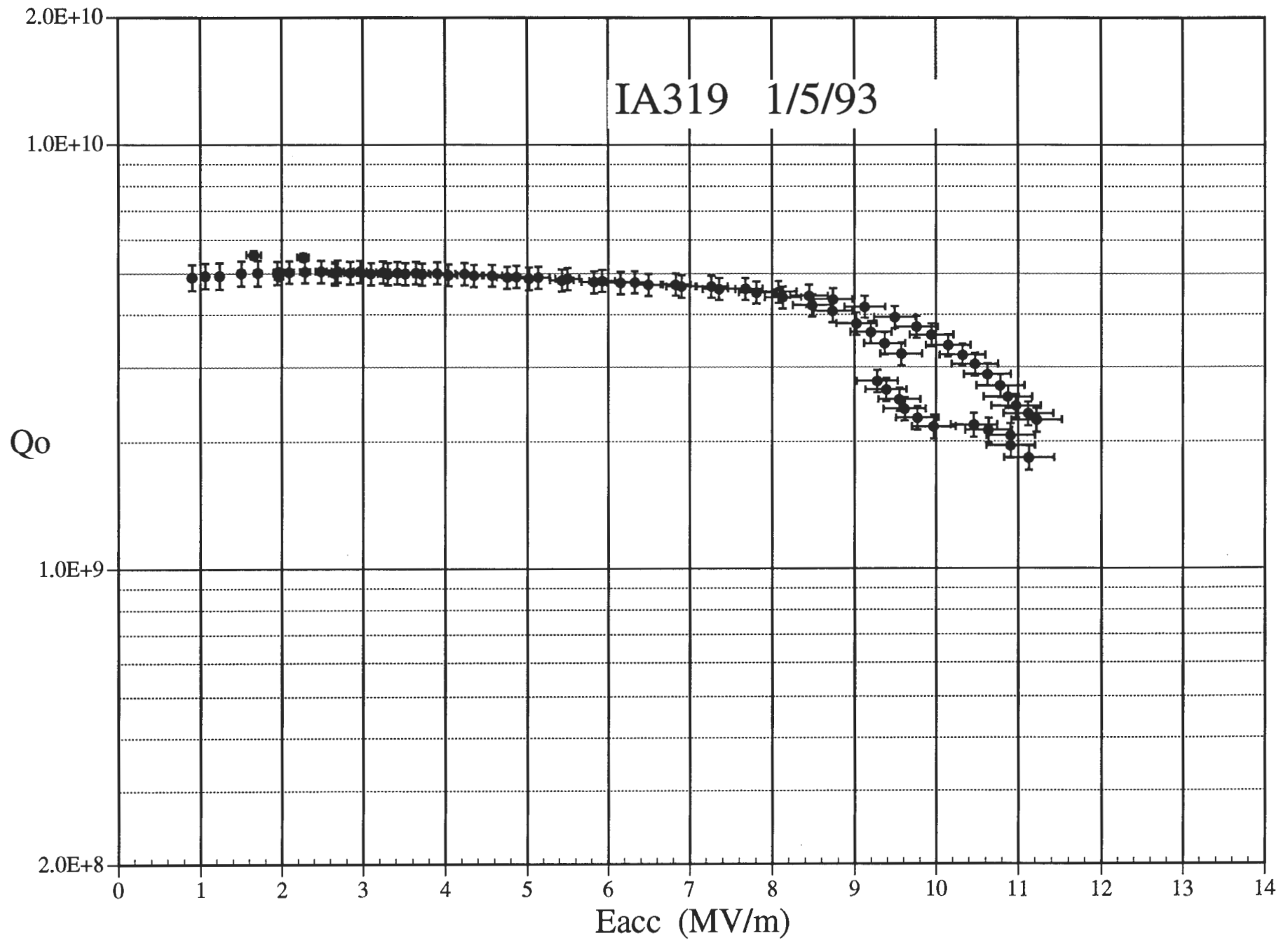


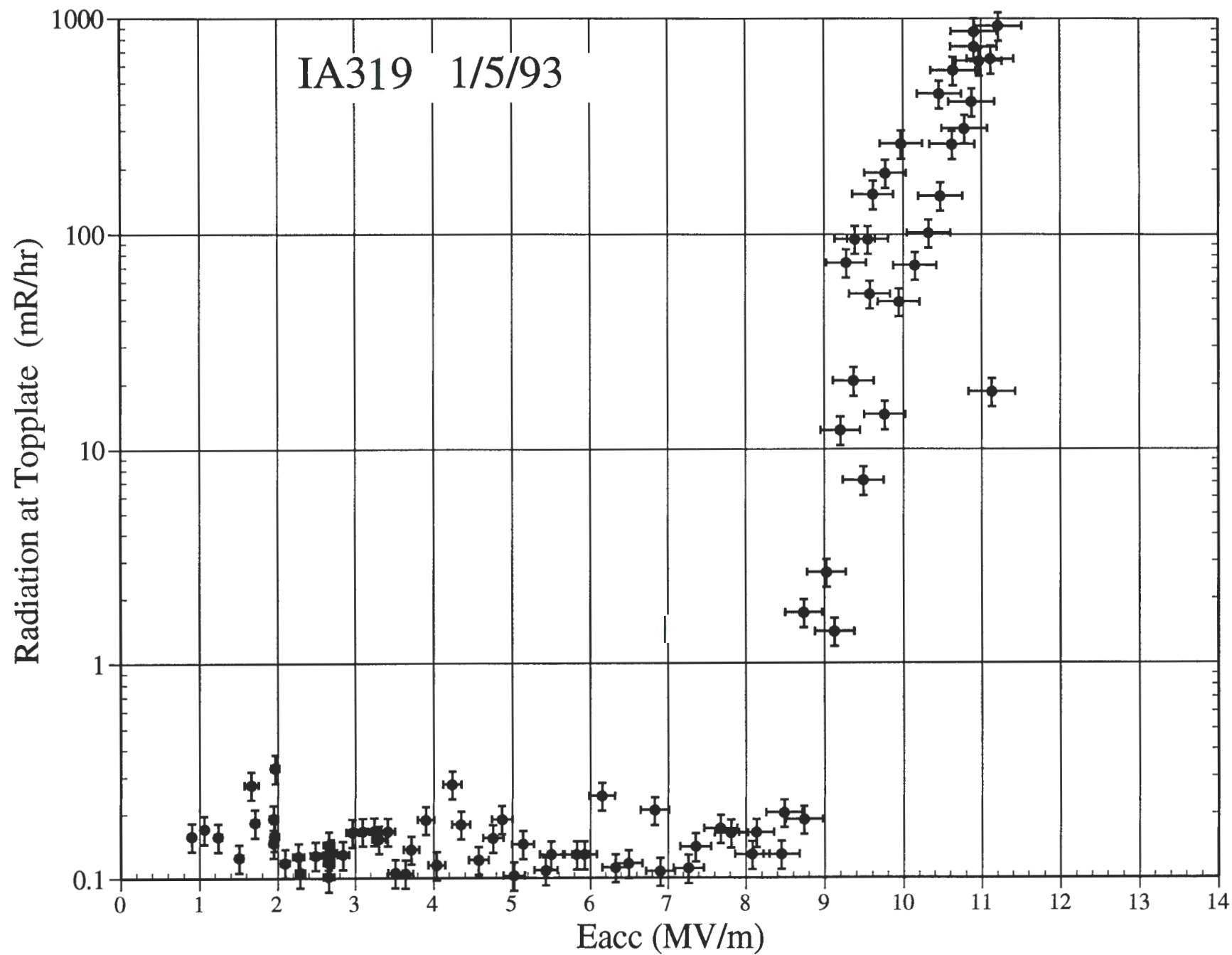
IA069 1/5/93



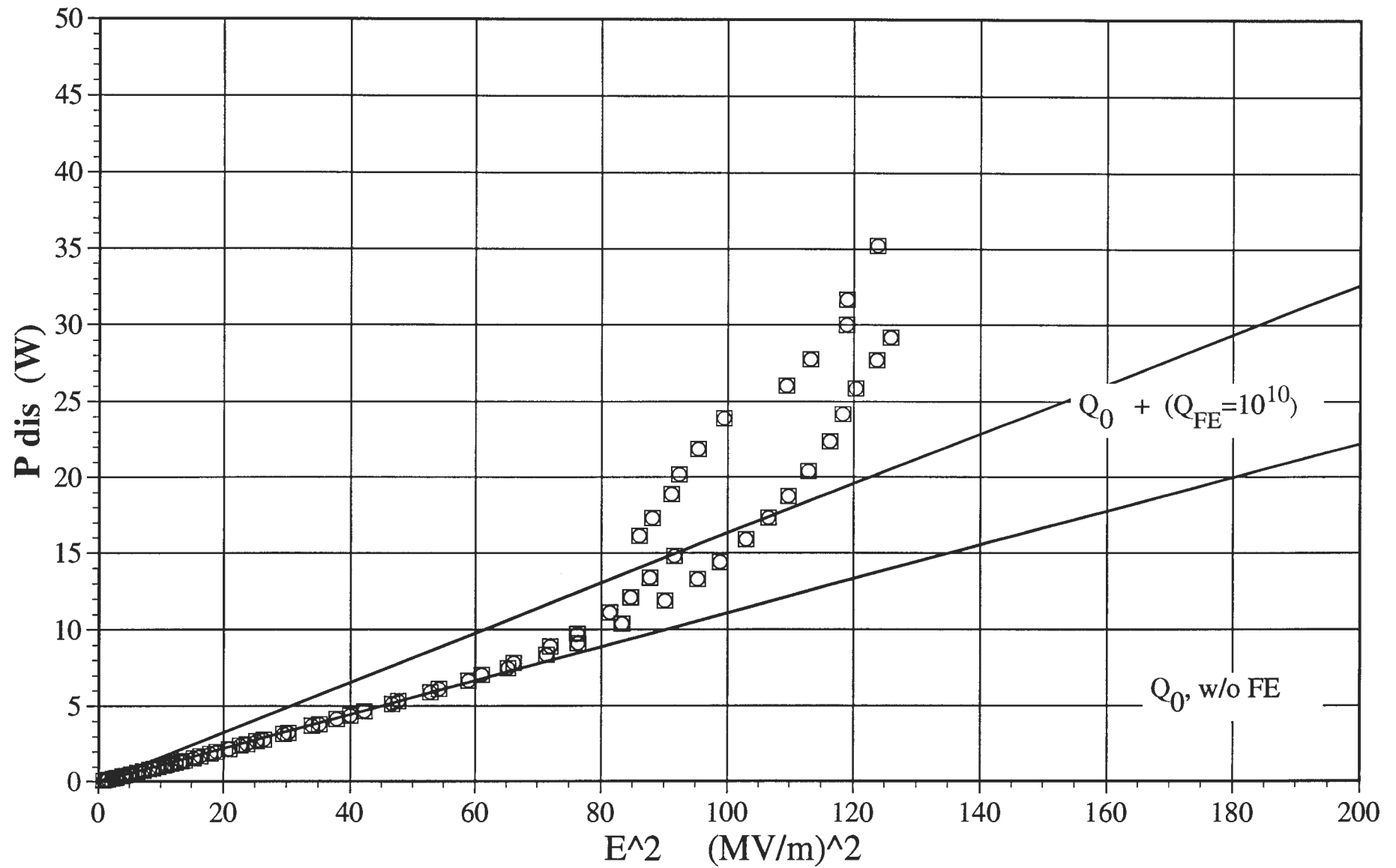
IA069 1/5/93



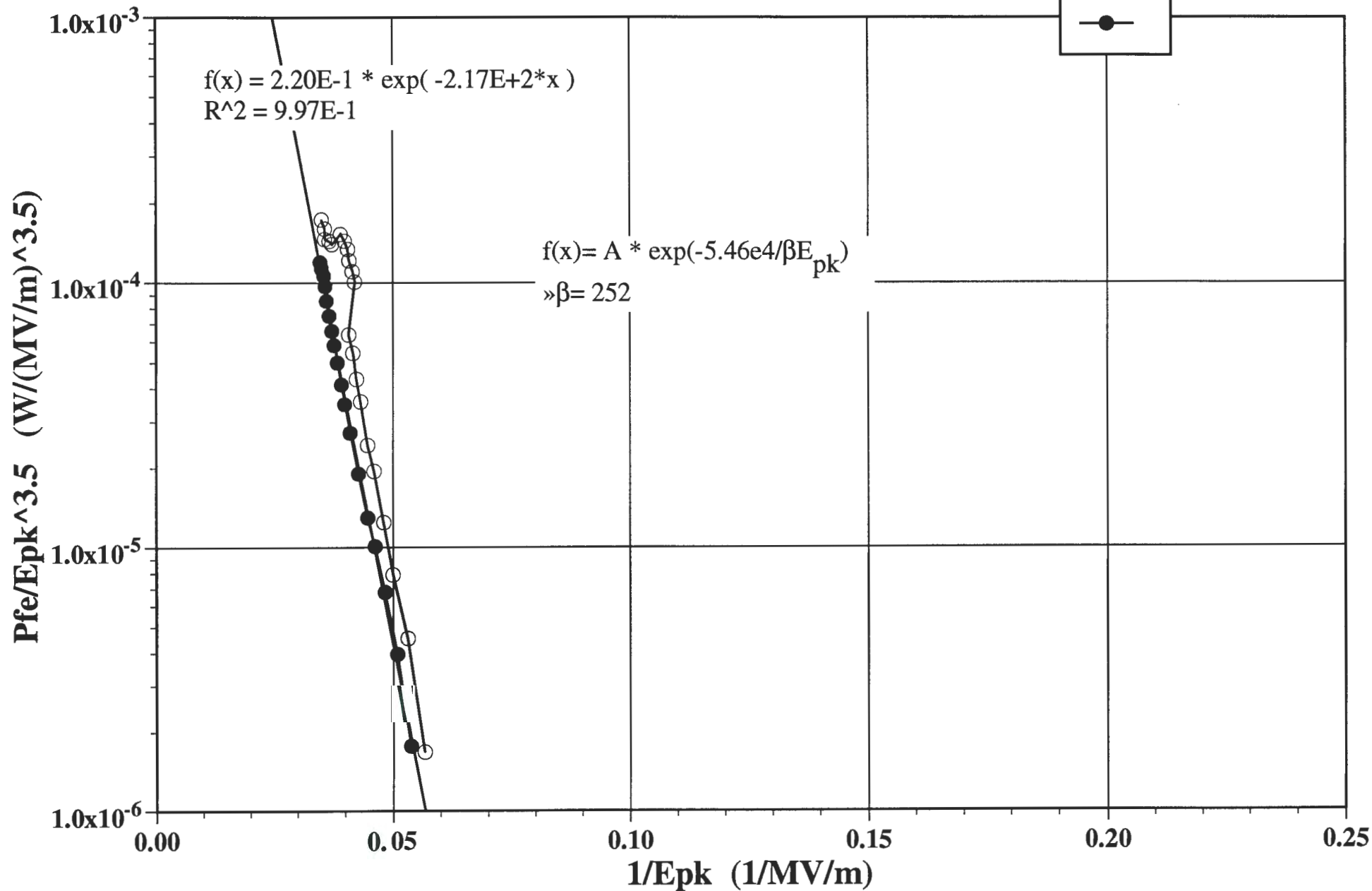


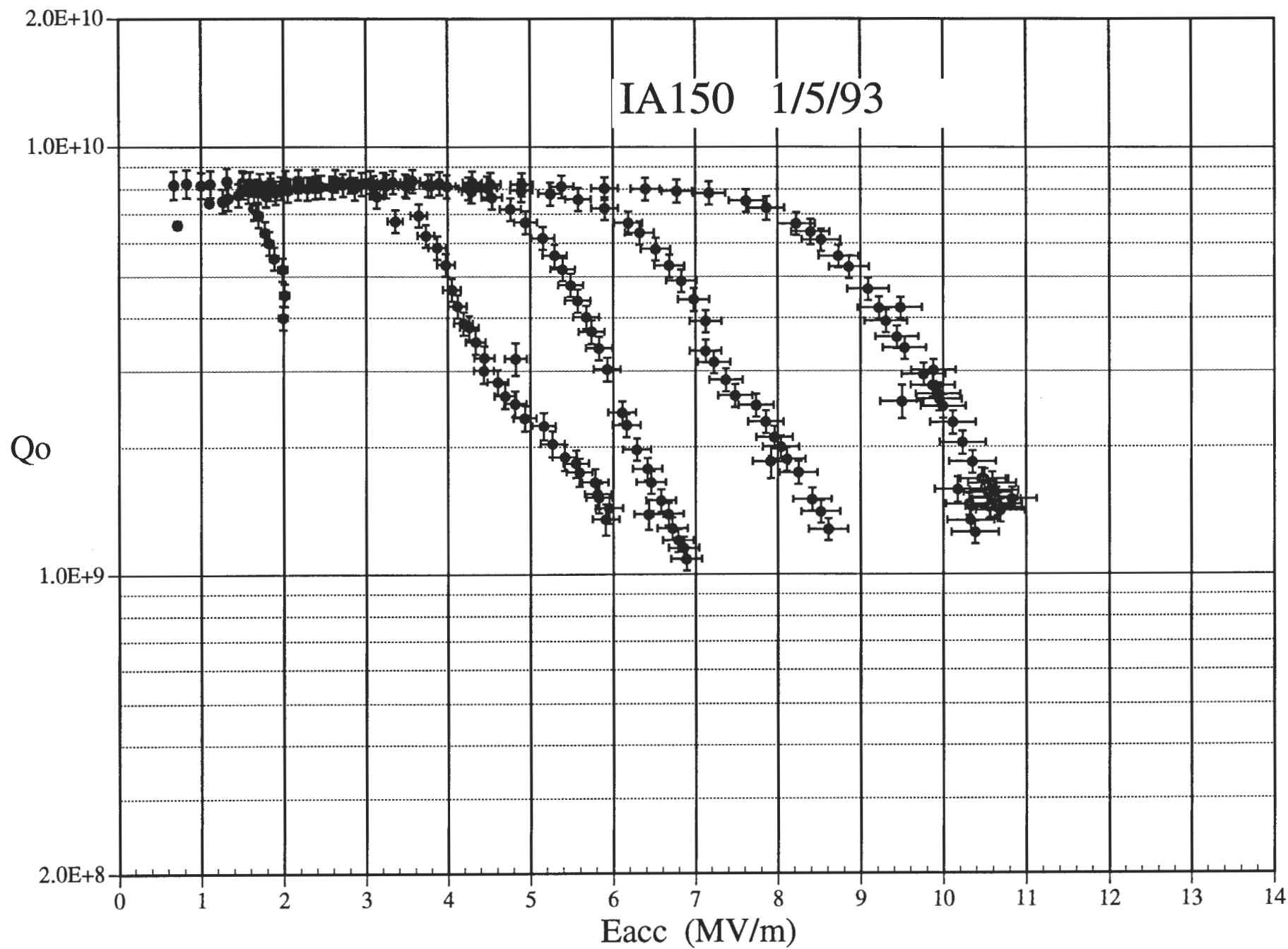


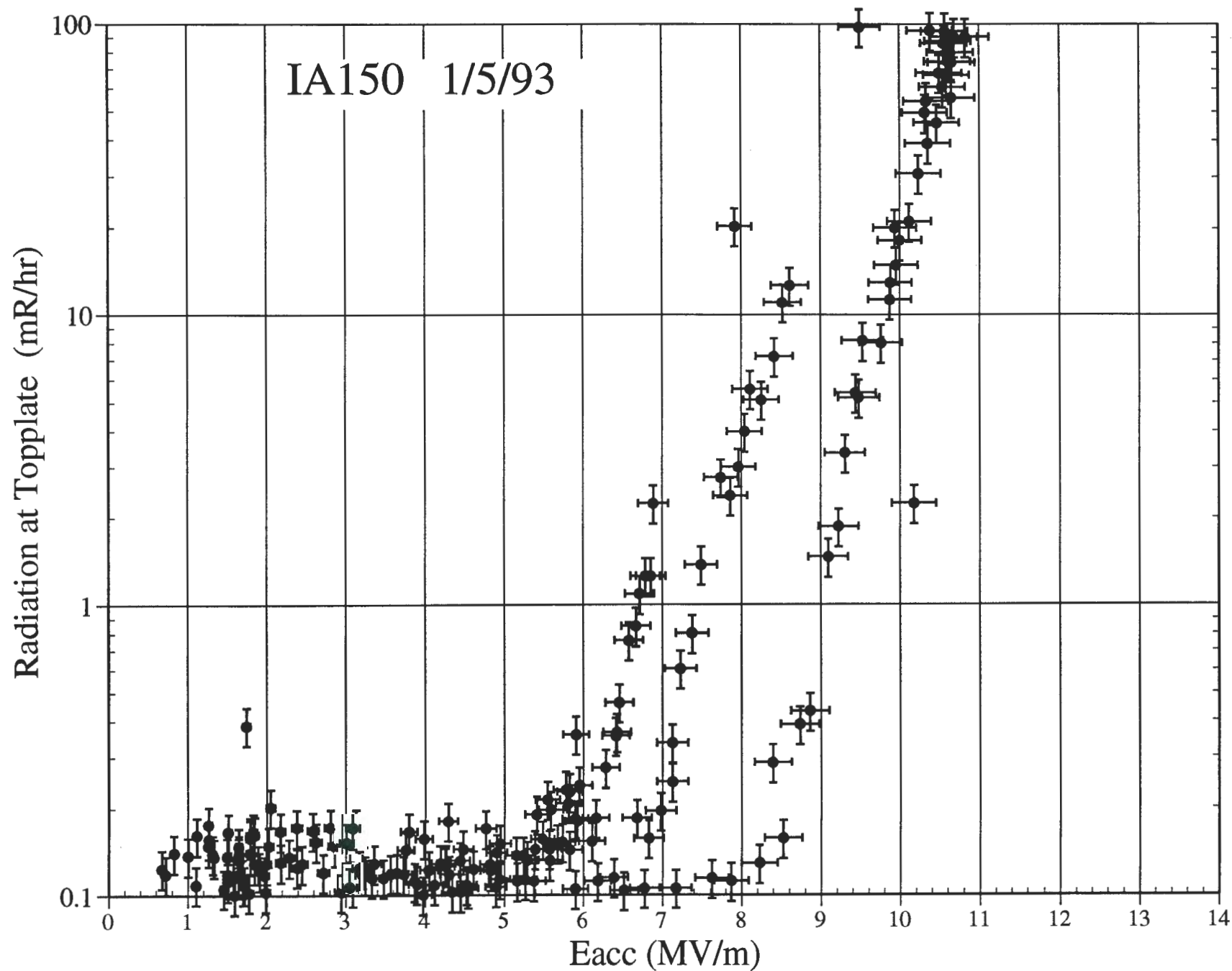
IA319 1/5/93



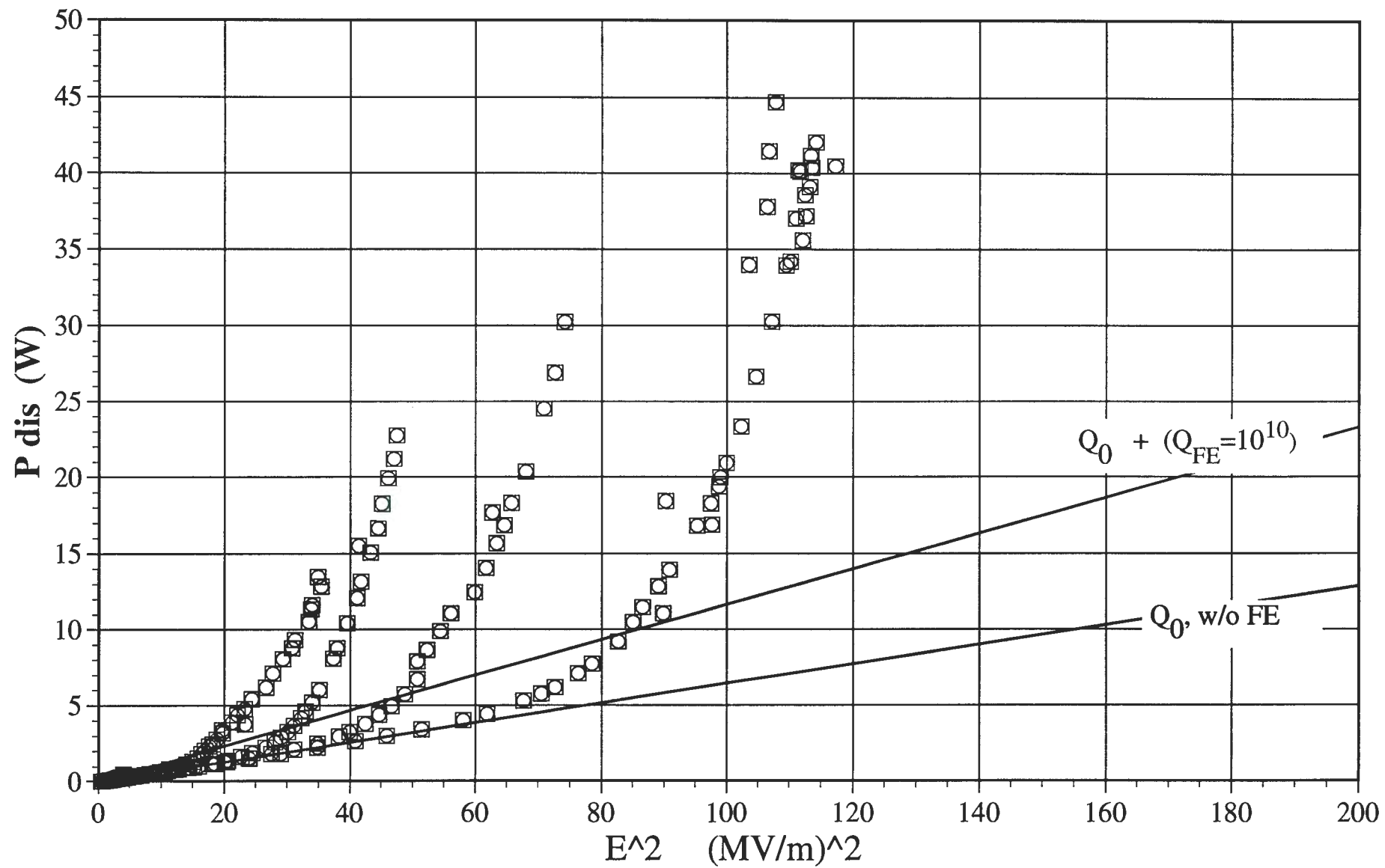
IA319 1/5/93



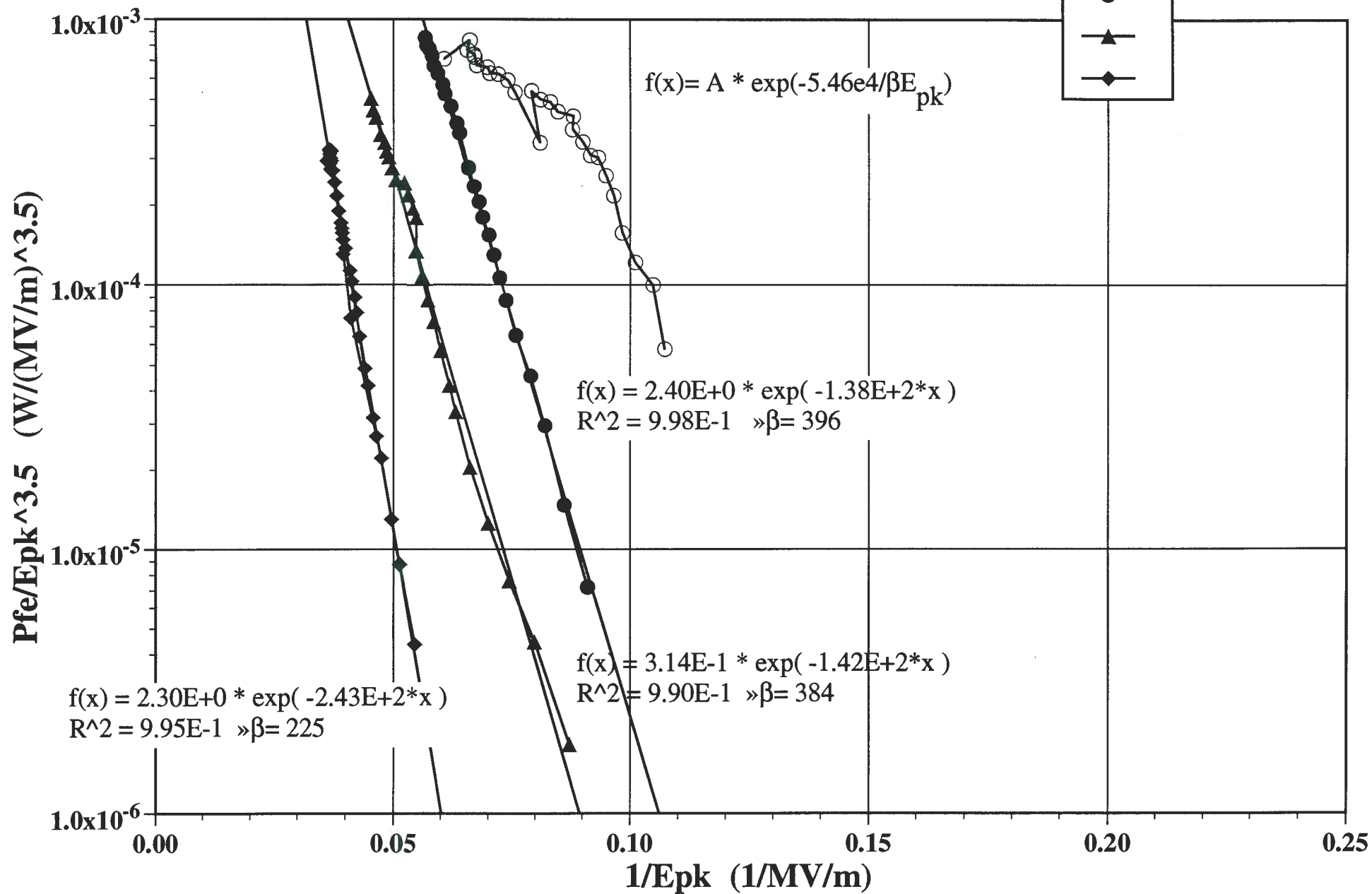


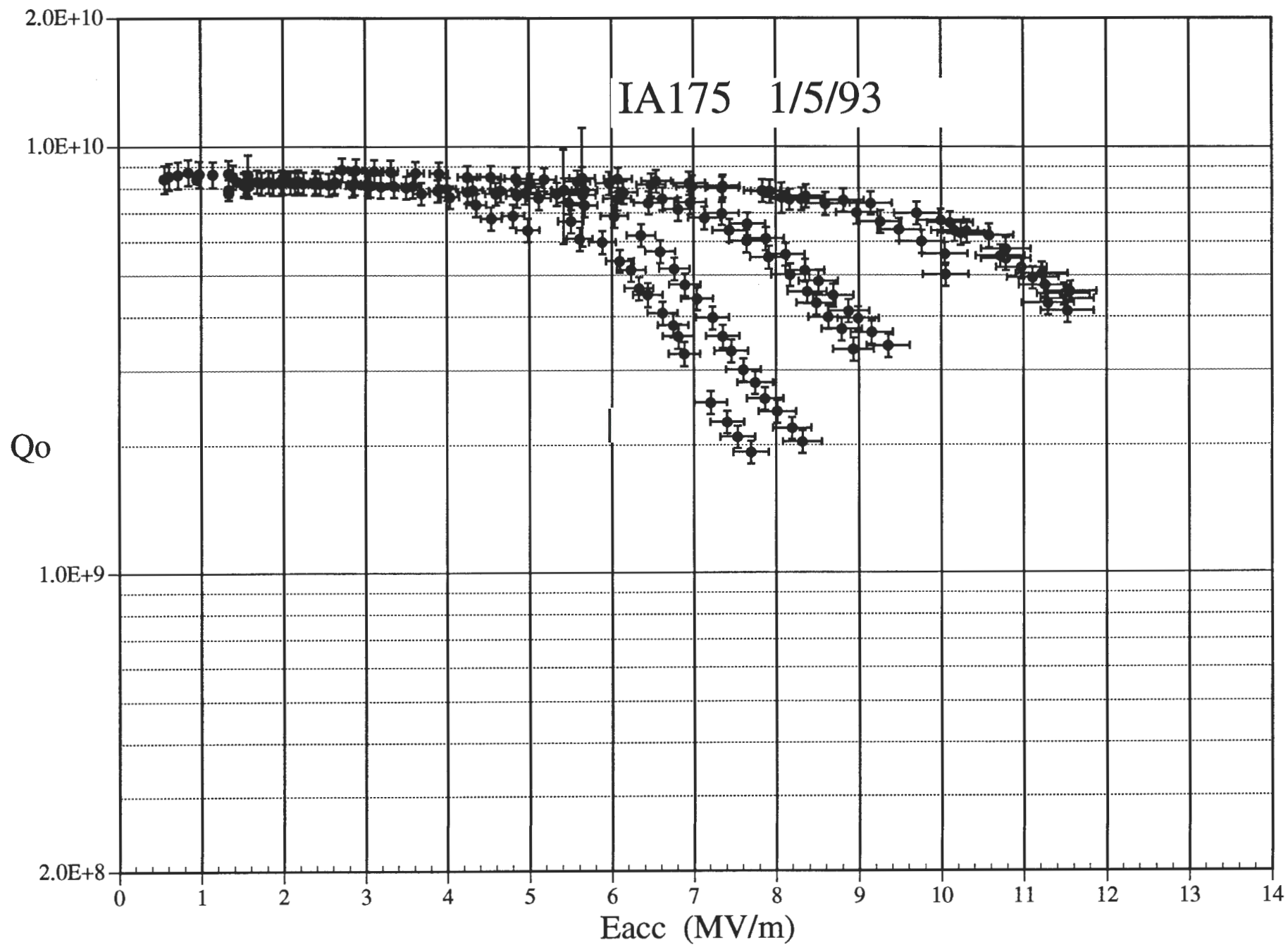


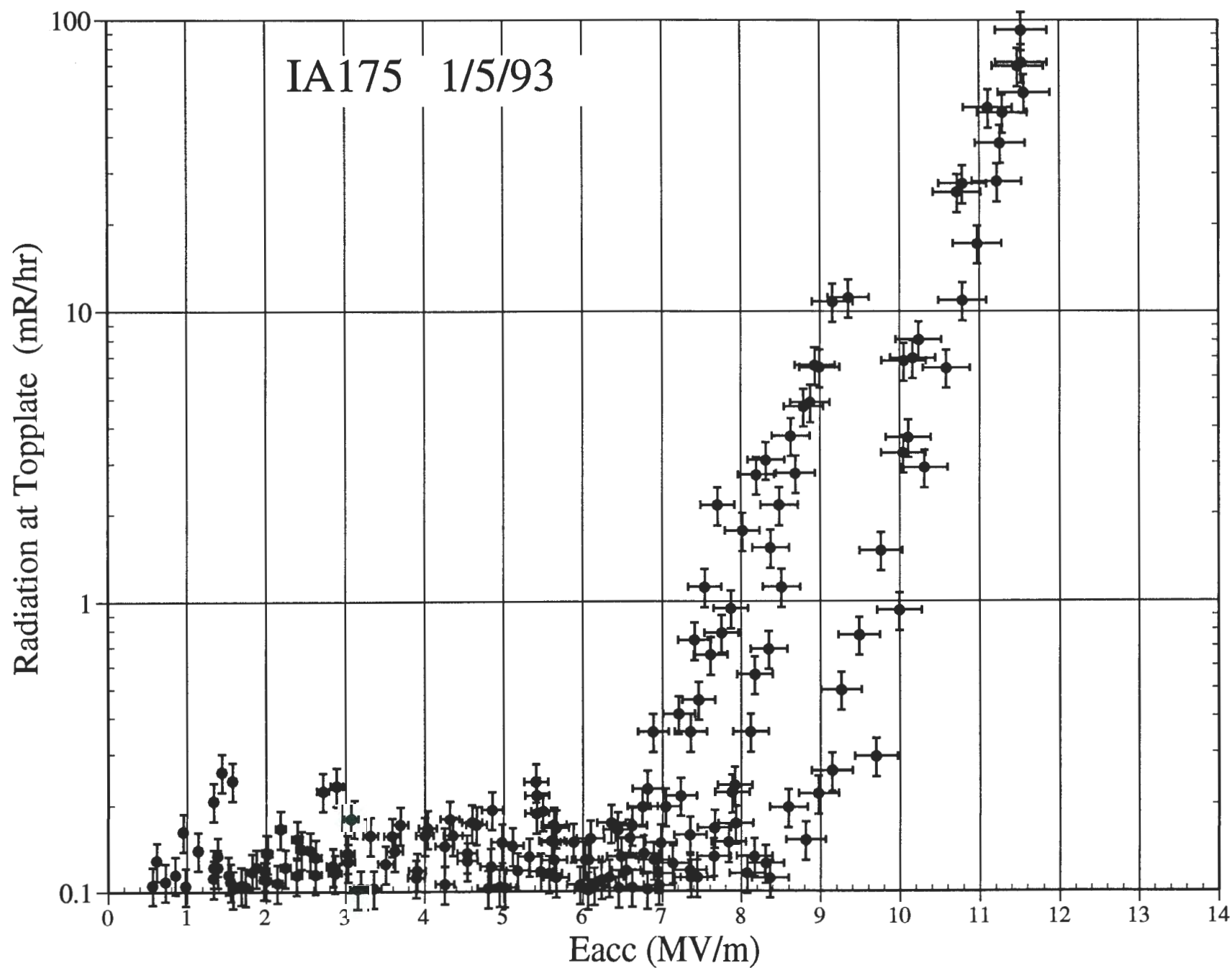
IA150 1/5/93



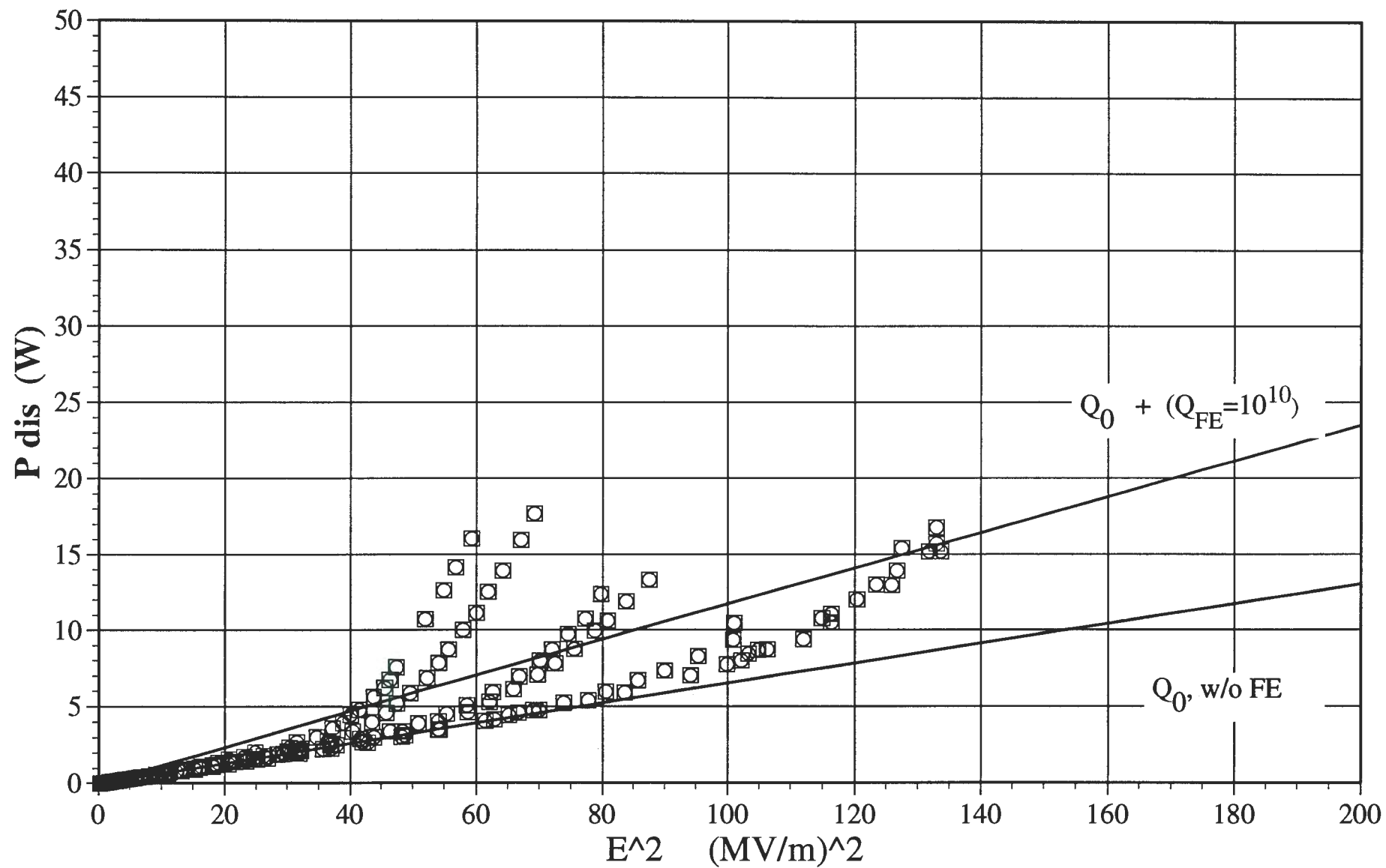
IA150 1/5/93



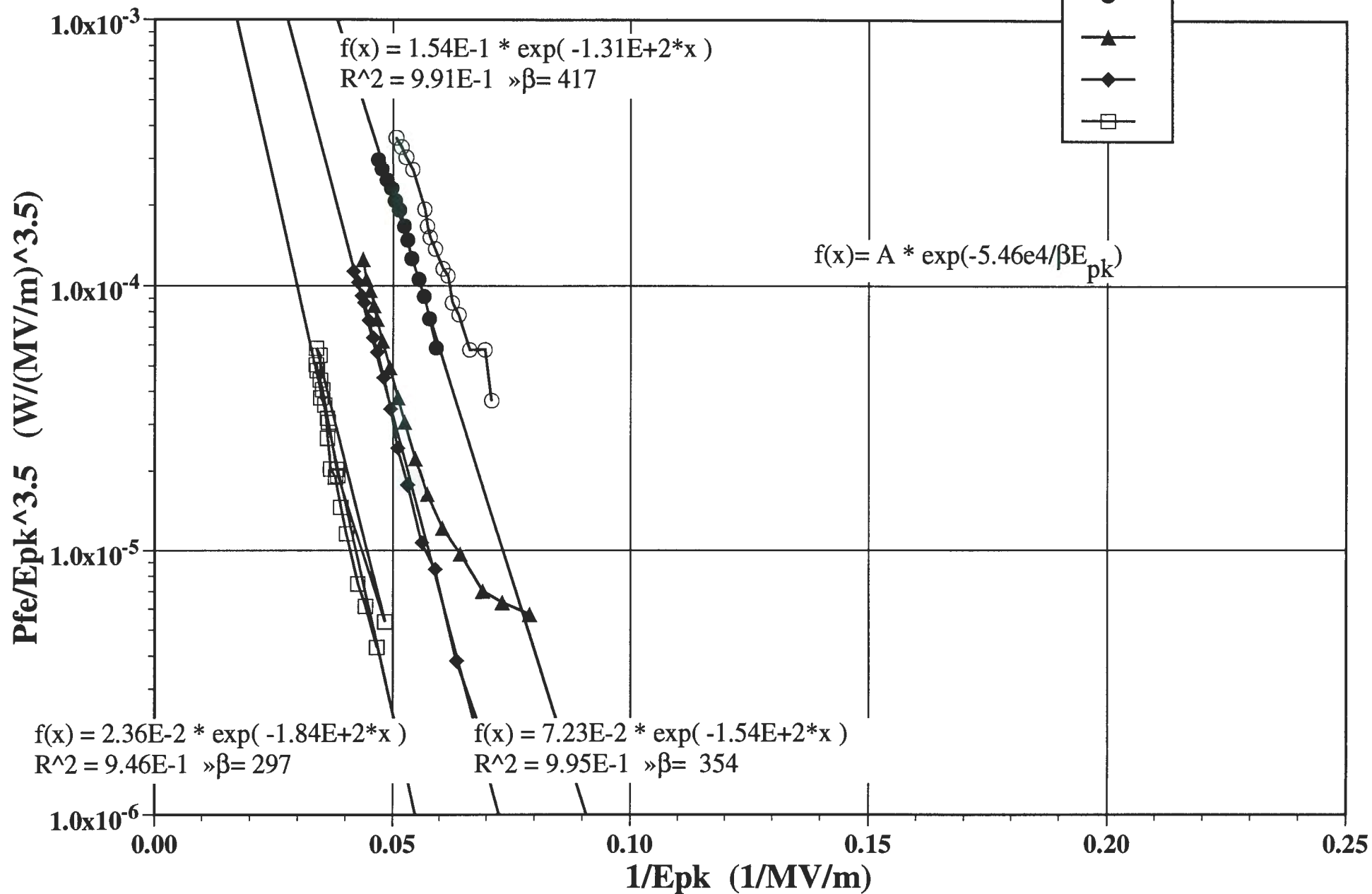


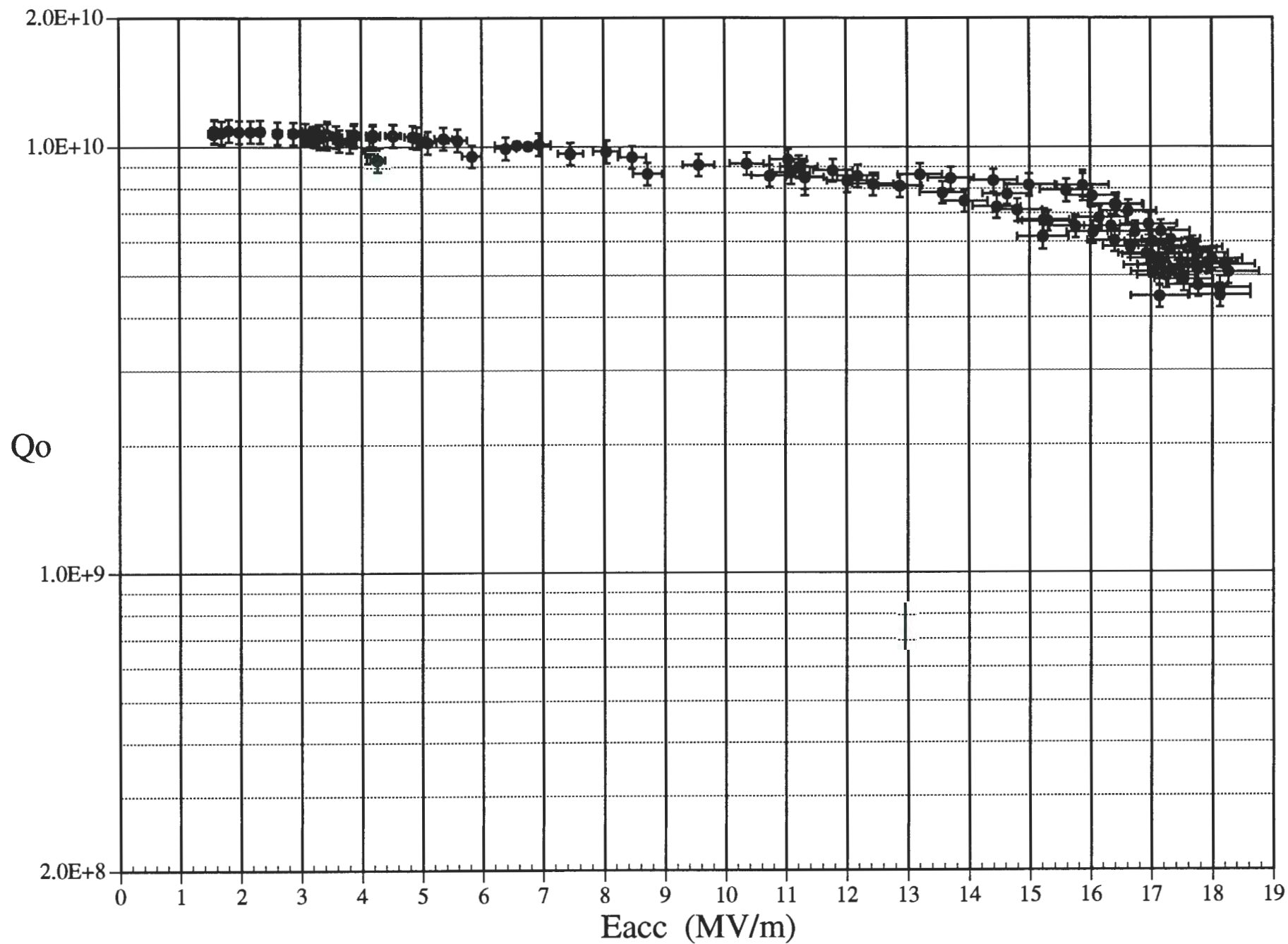


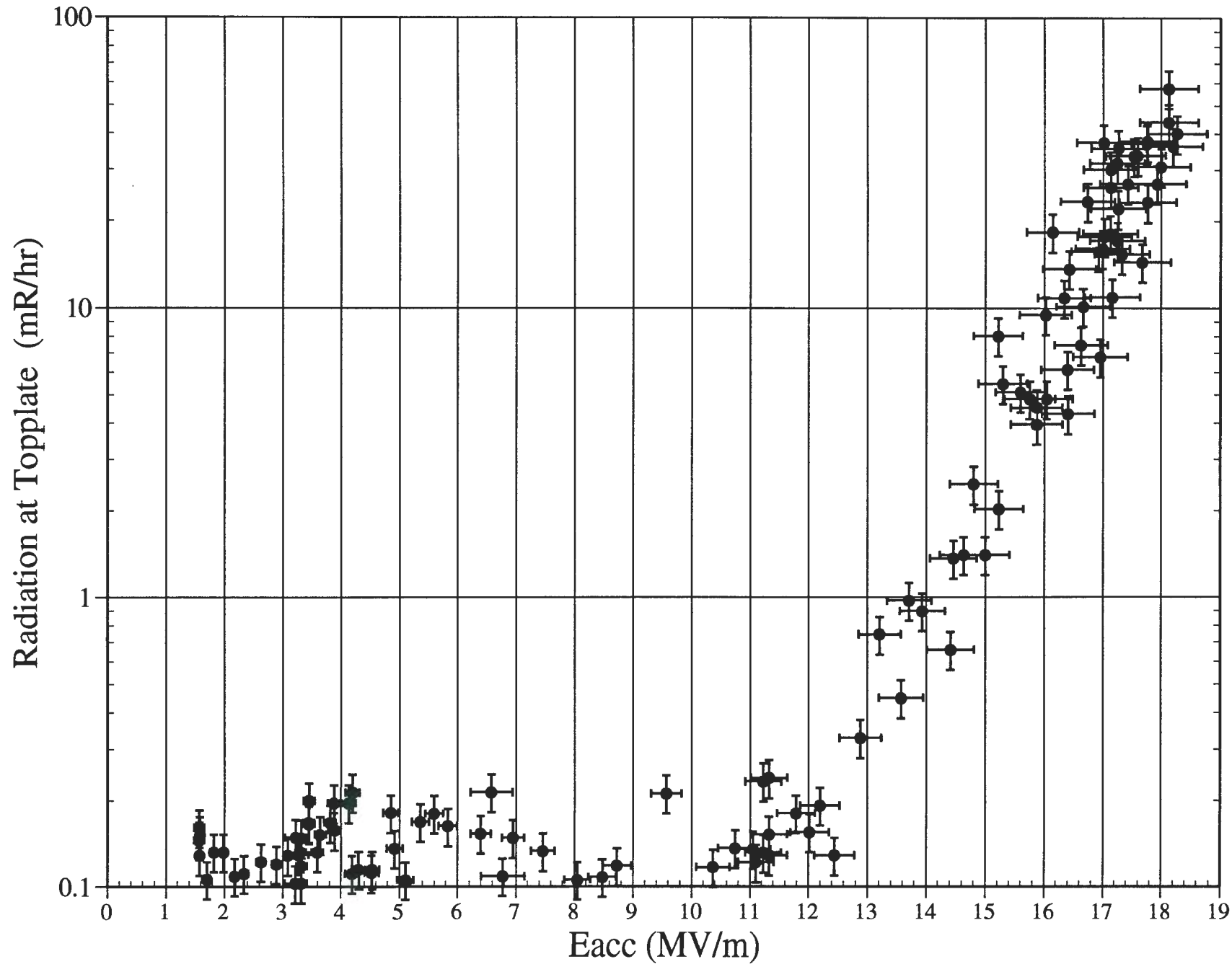
IA175 1/5/93



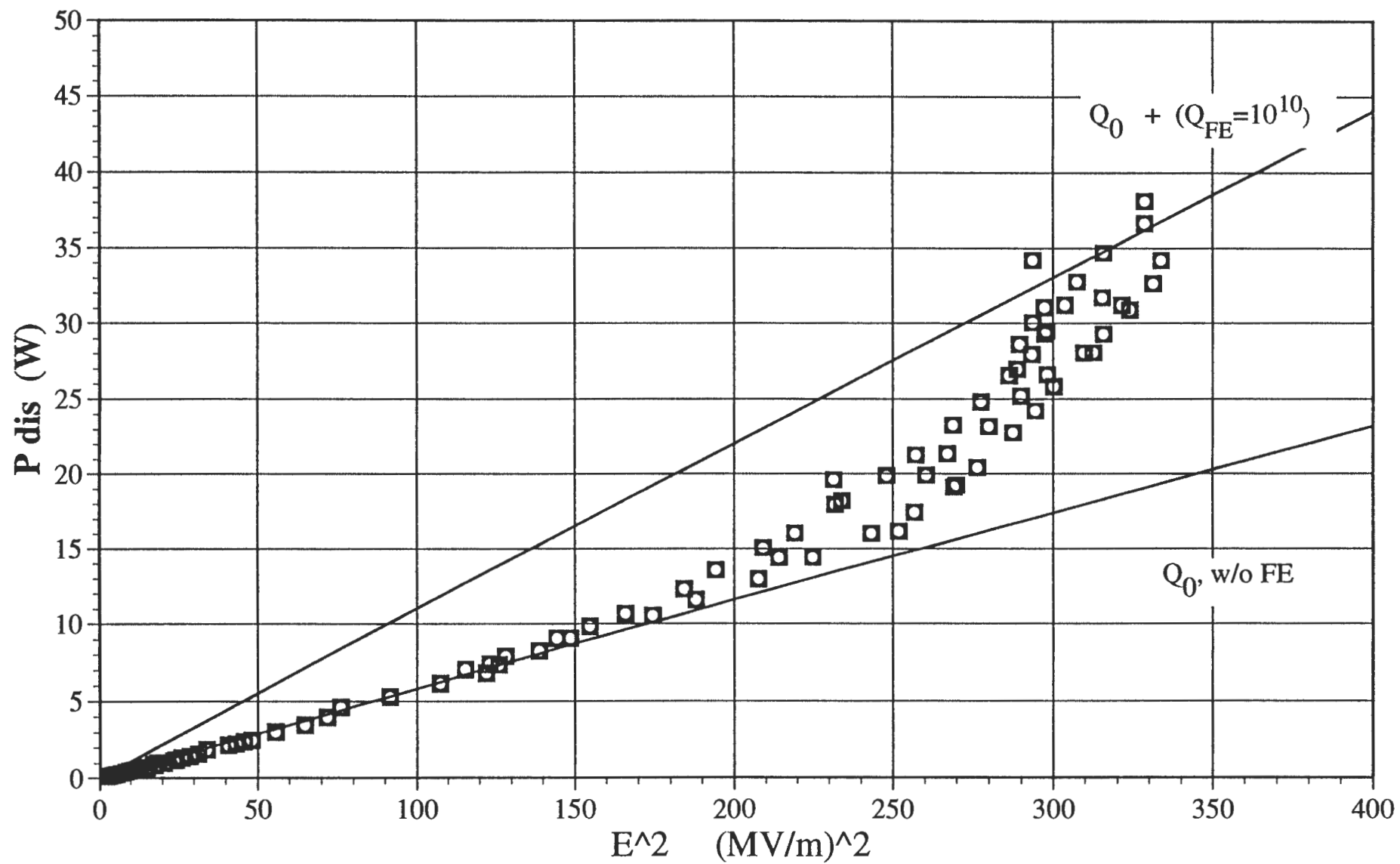
IA175 1/5/93



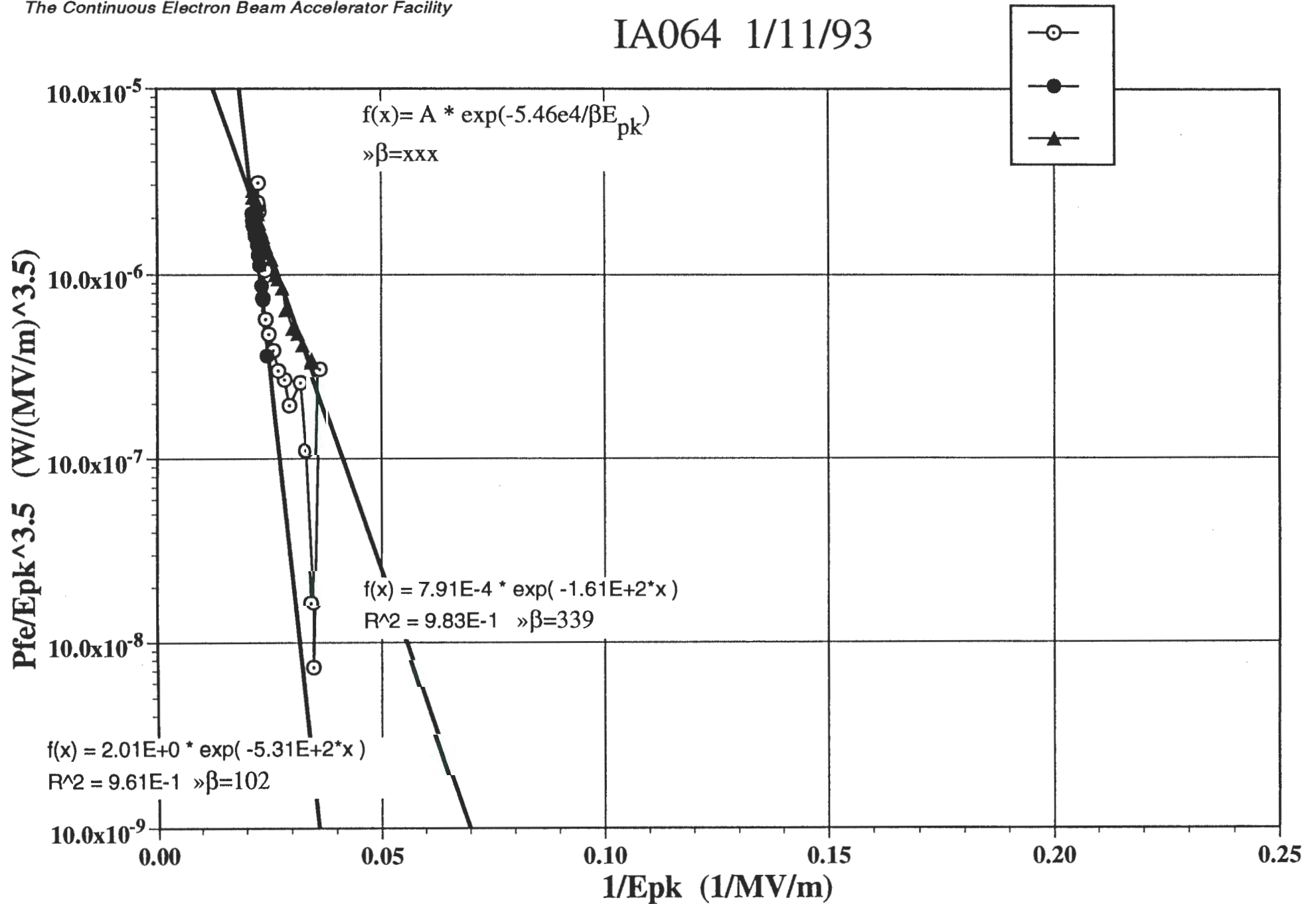


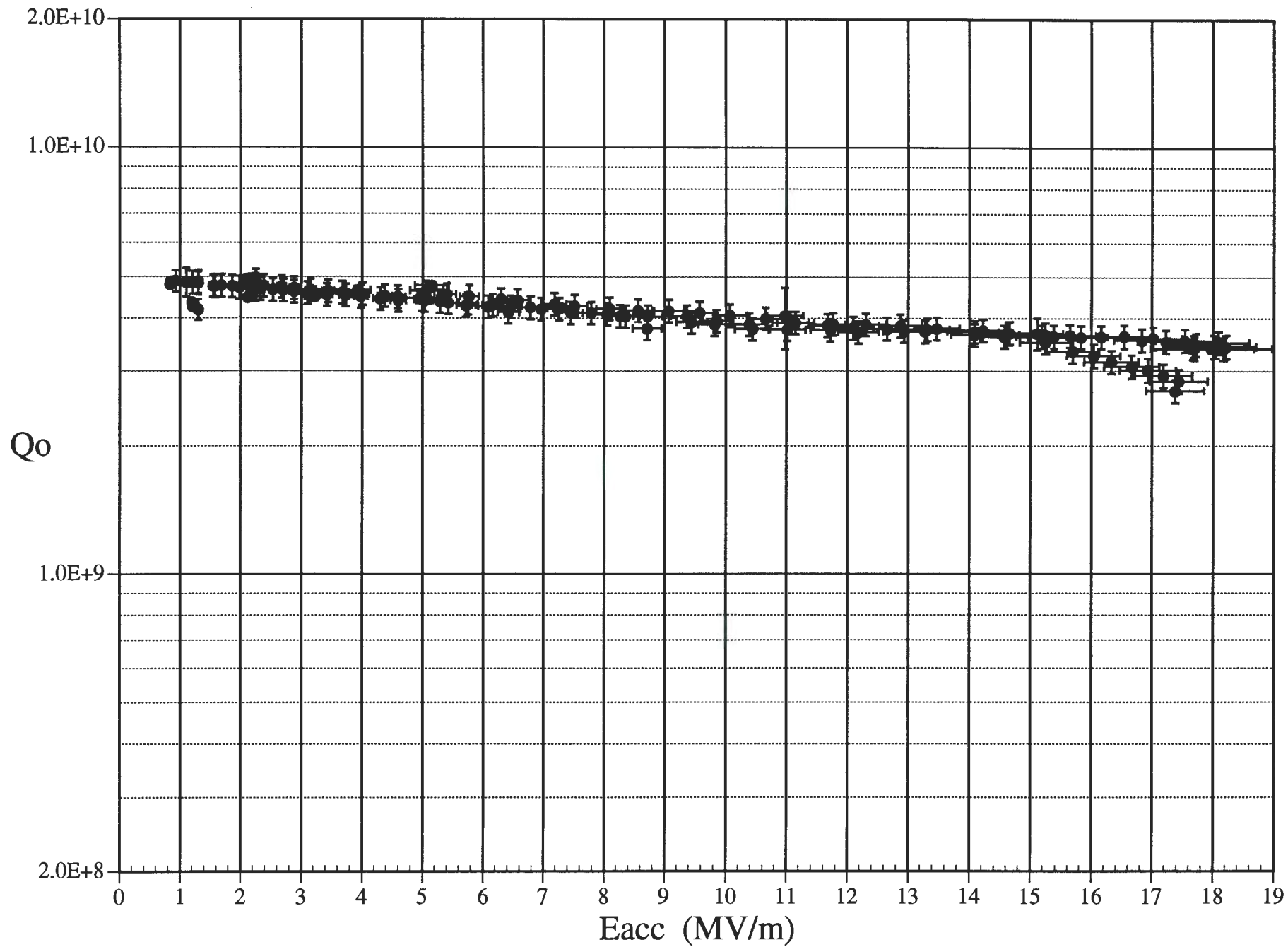


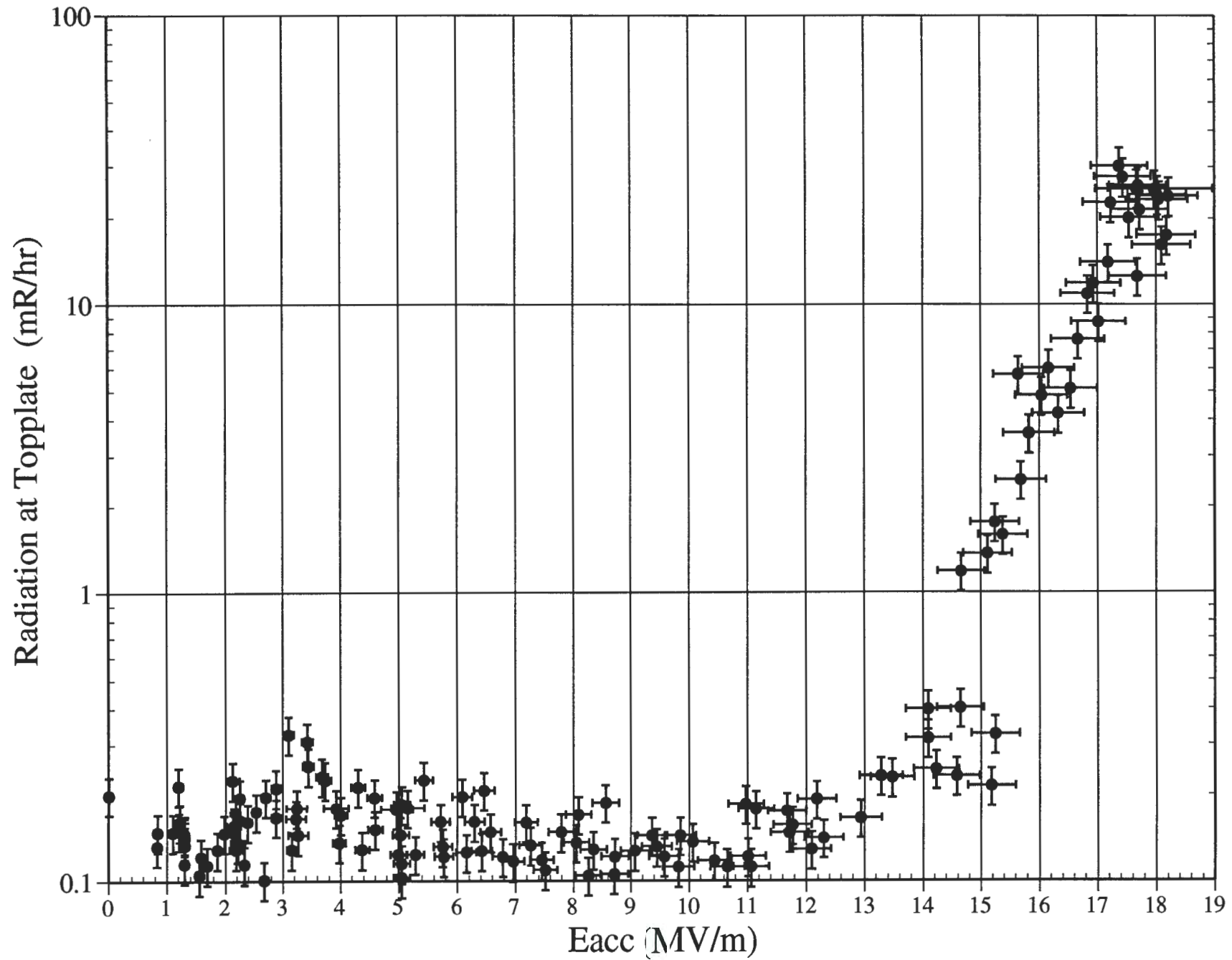
IA064 1/11/93



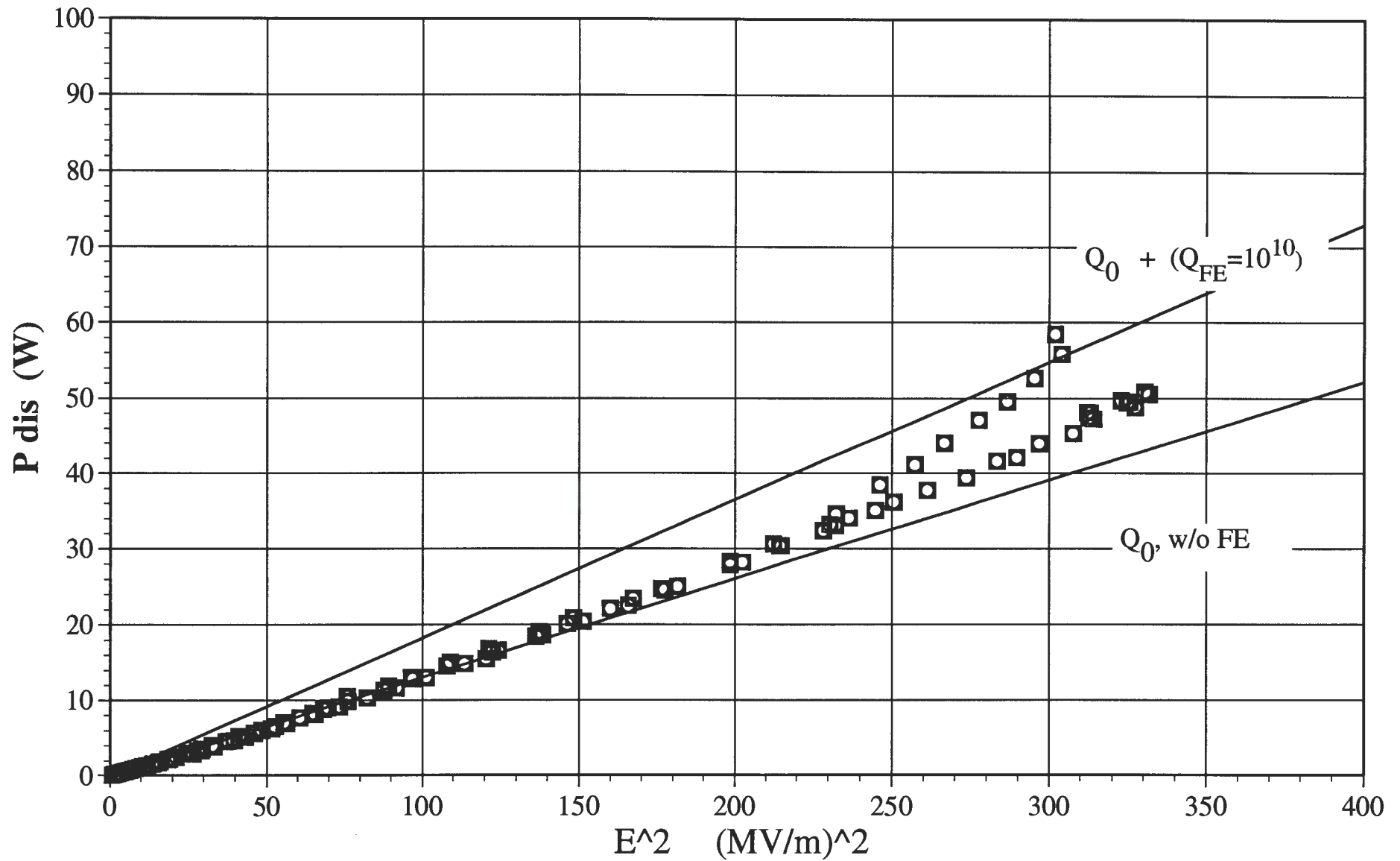
IA064 1/11/93



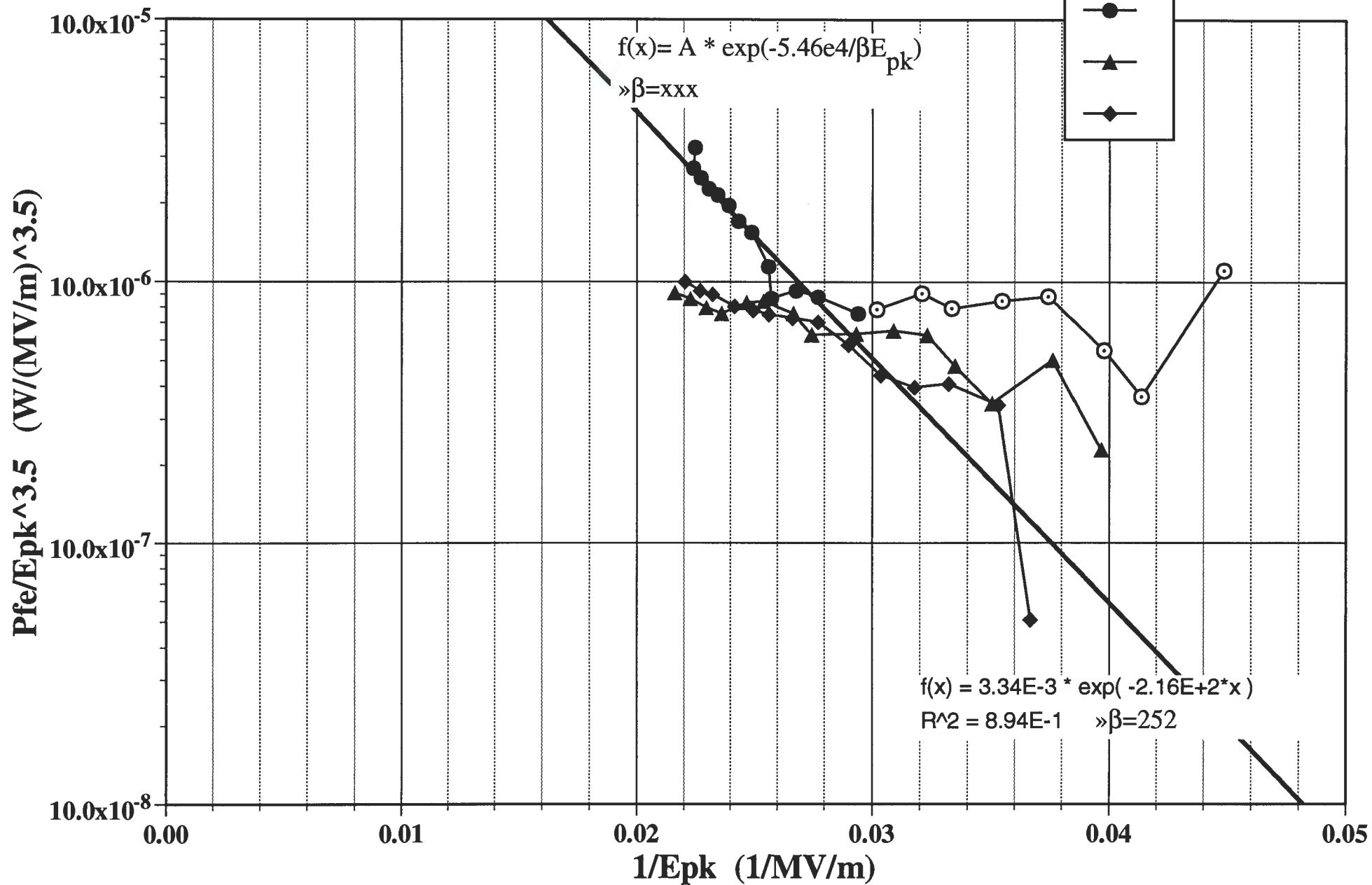


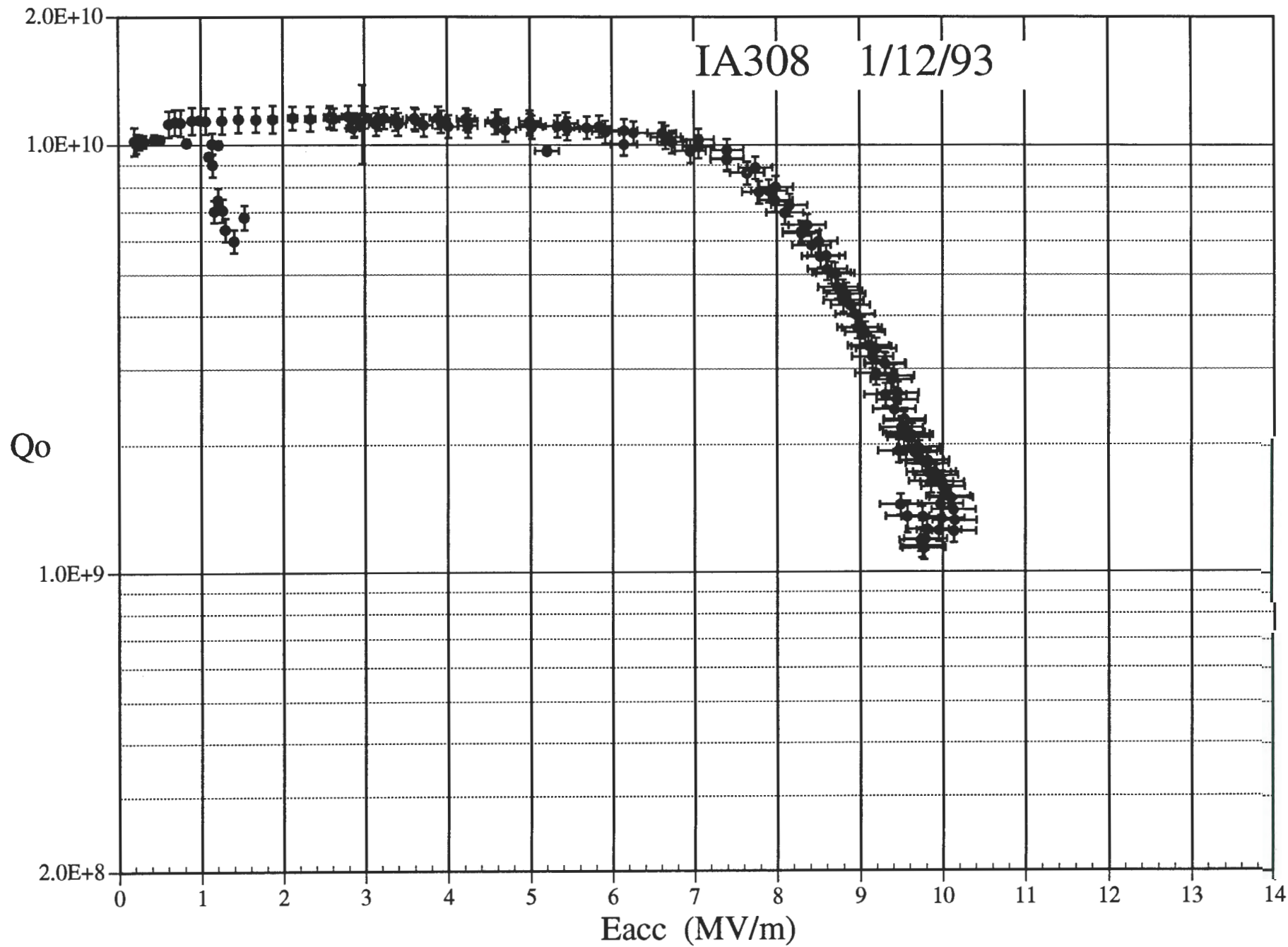


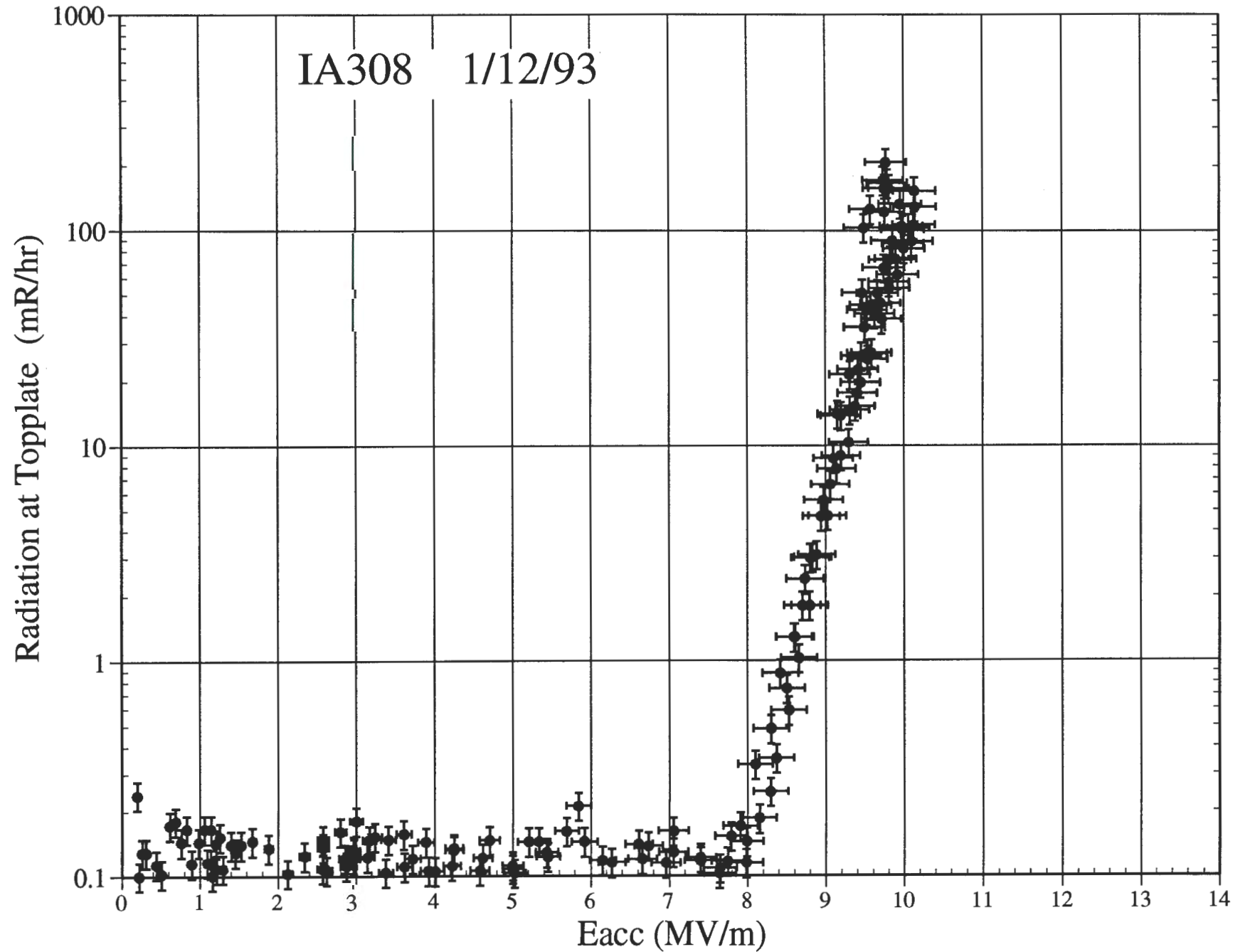
IA142 1/11/93



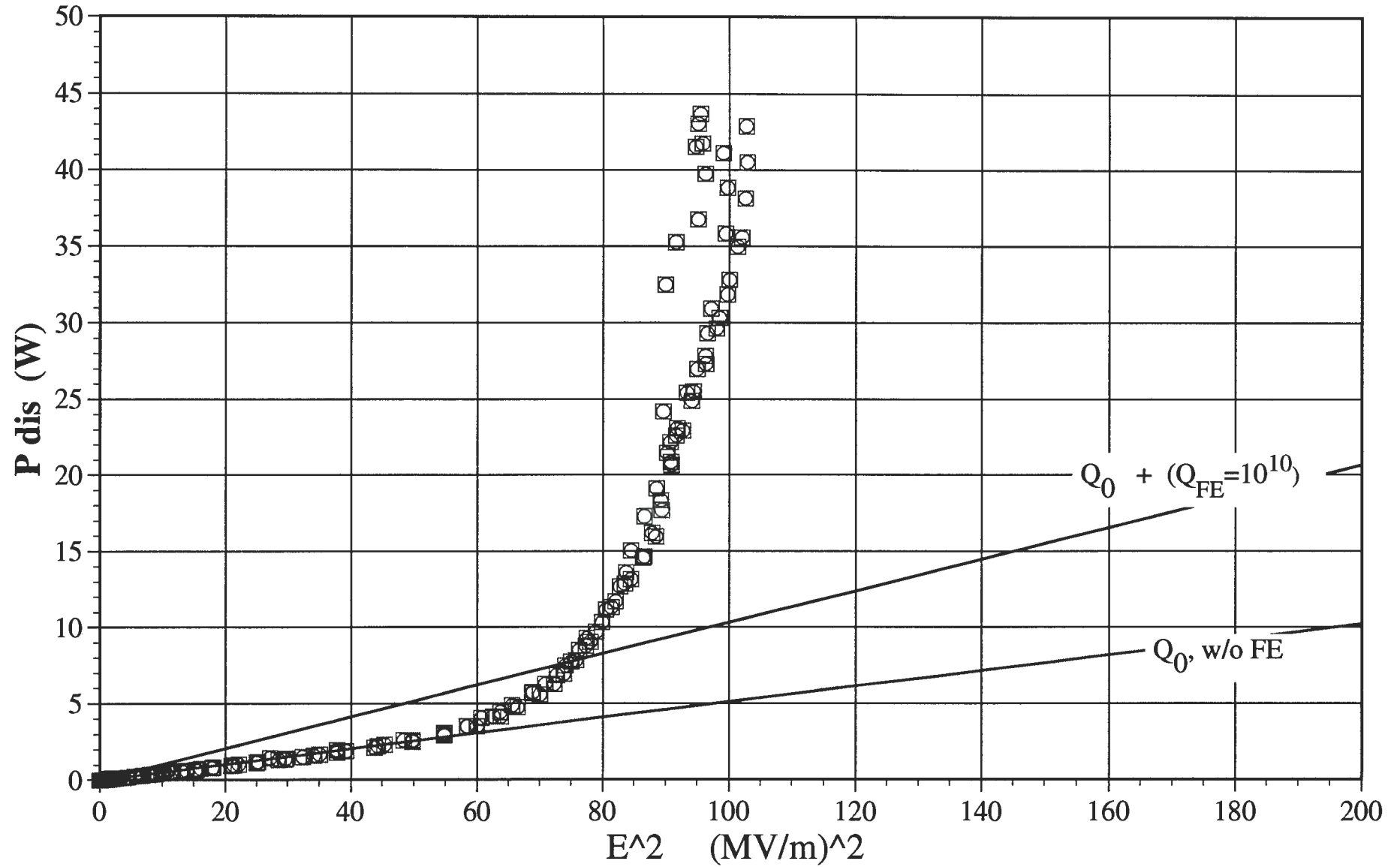
IA142 1/11/93



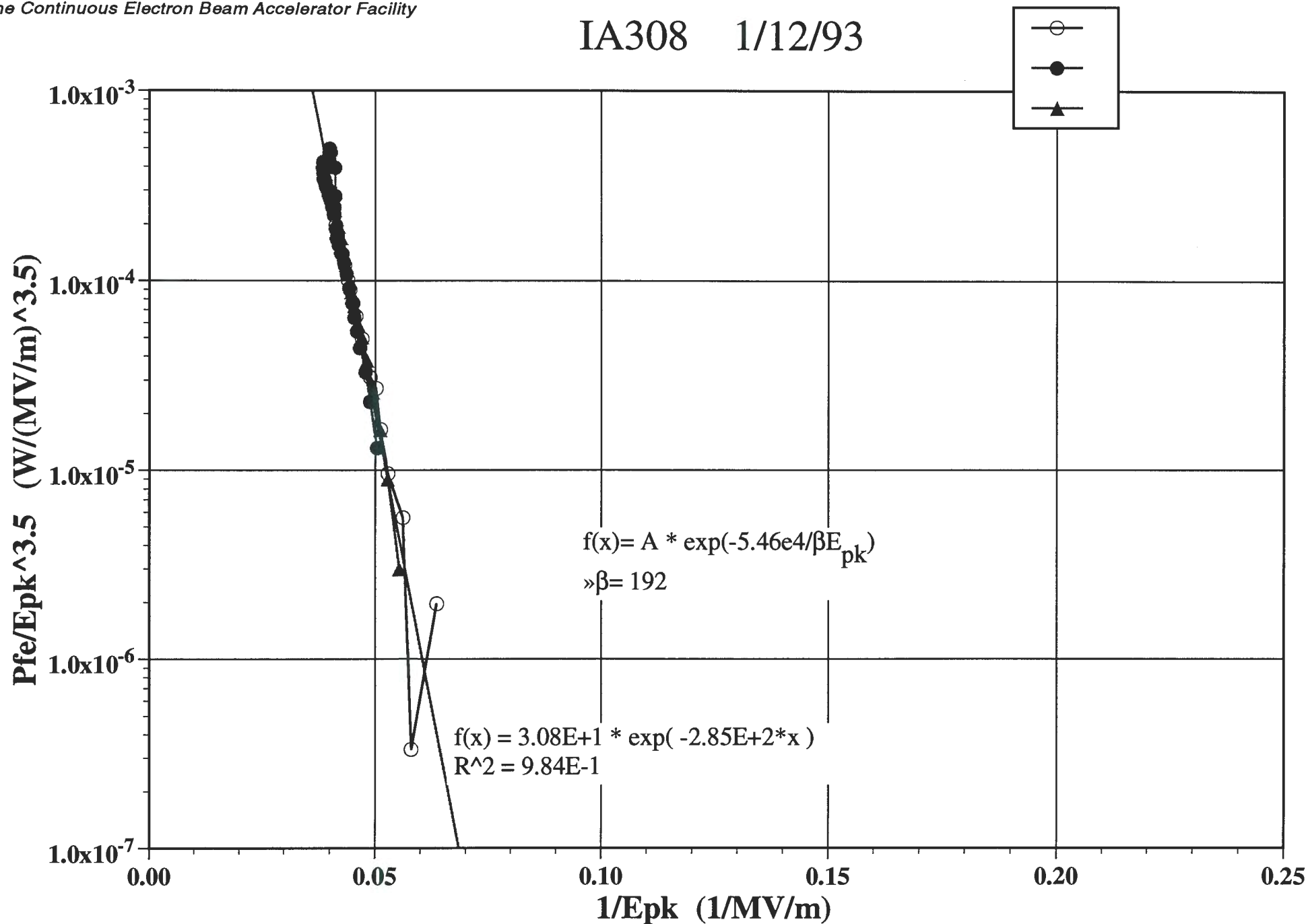


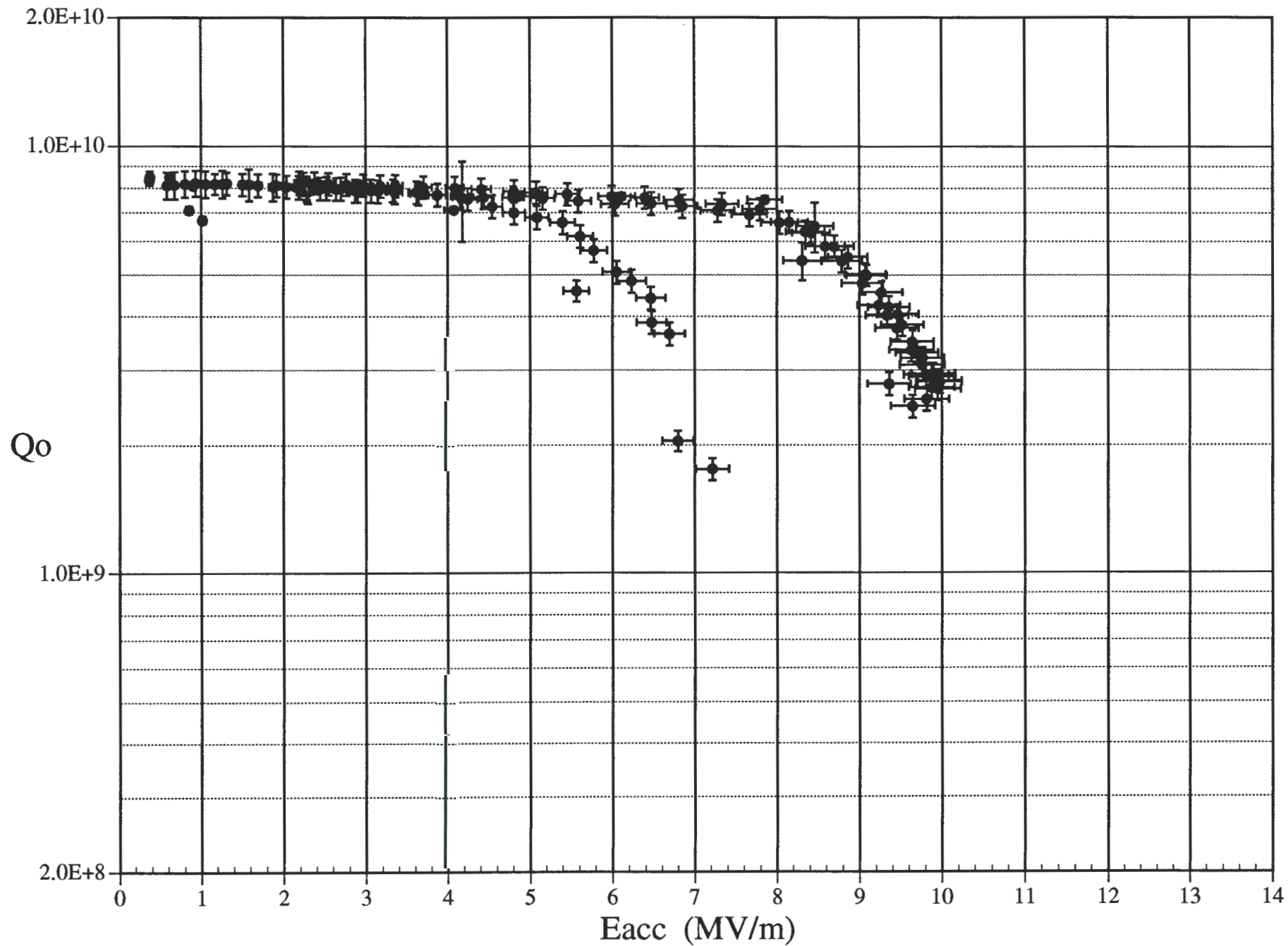


IA308 1/12/93

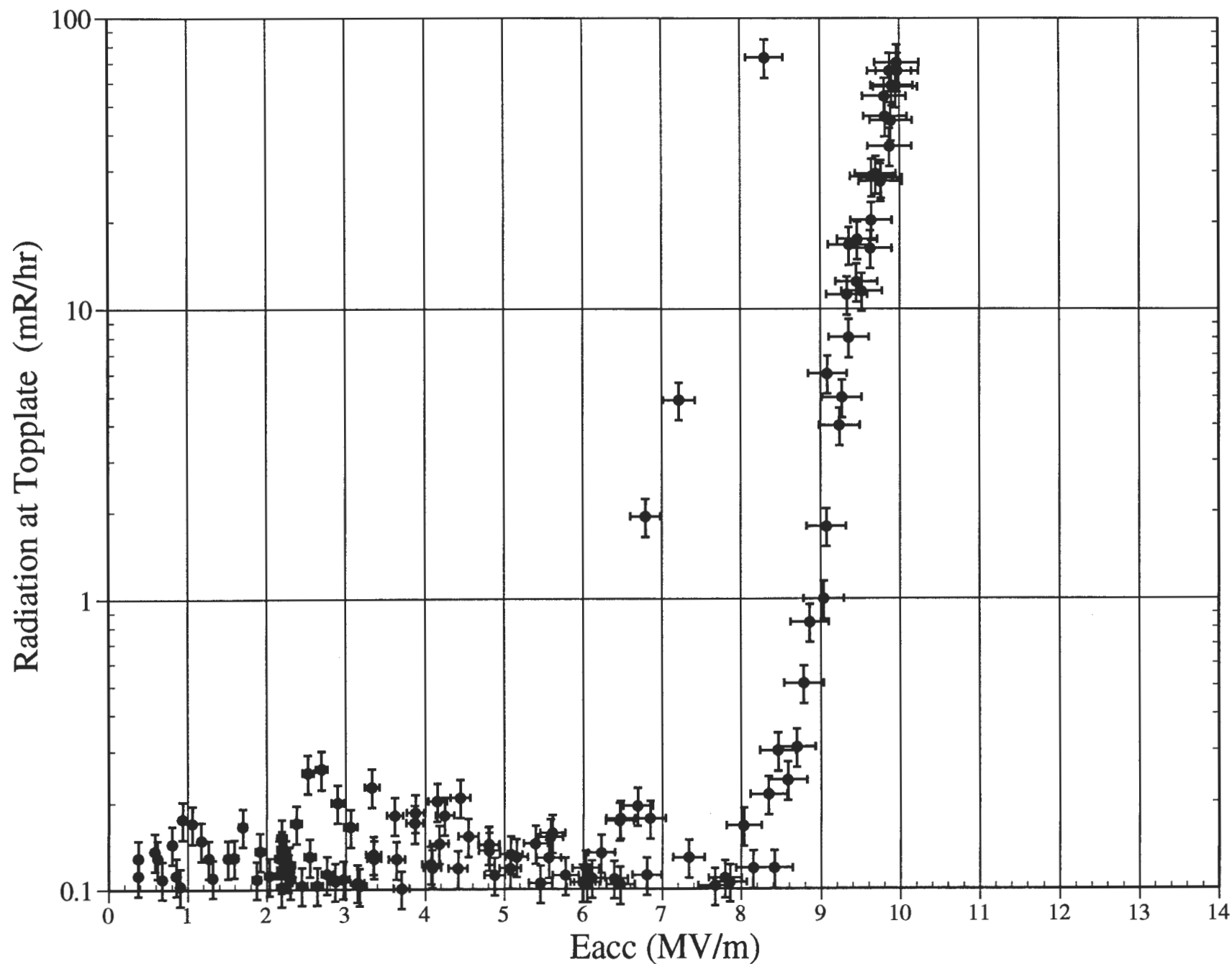


IA308 1/12/93

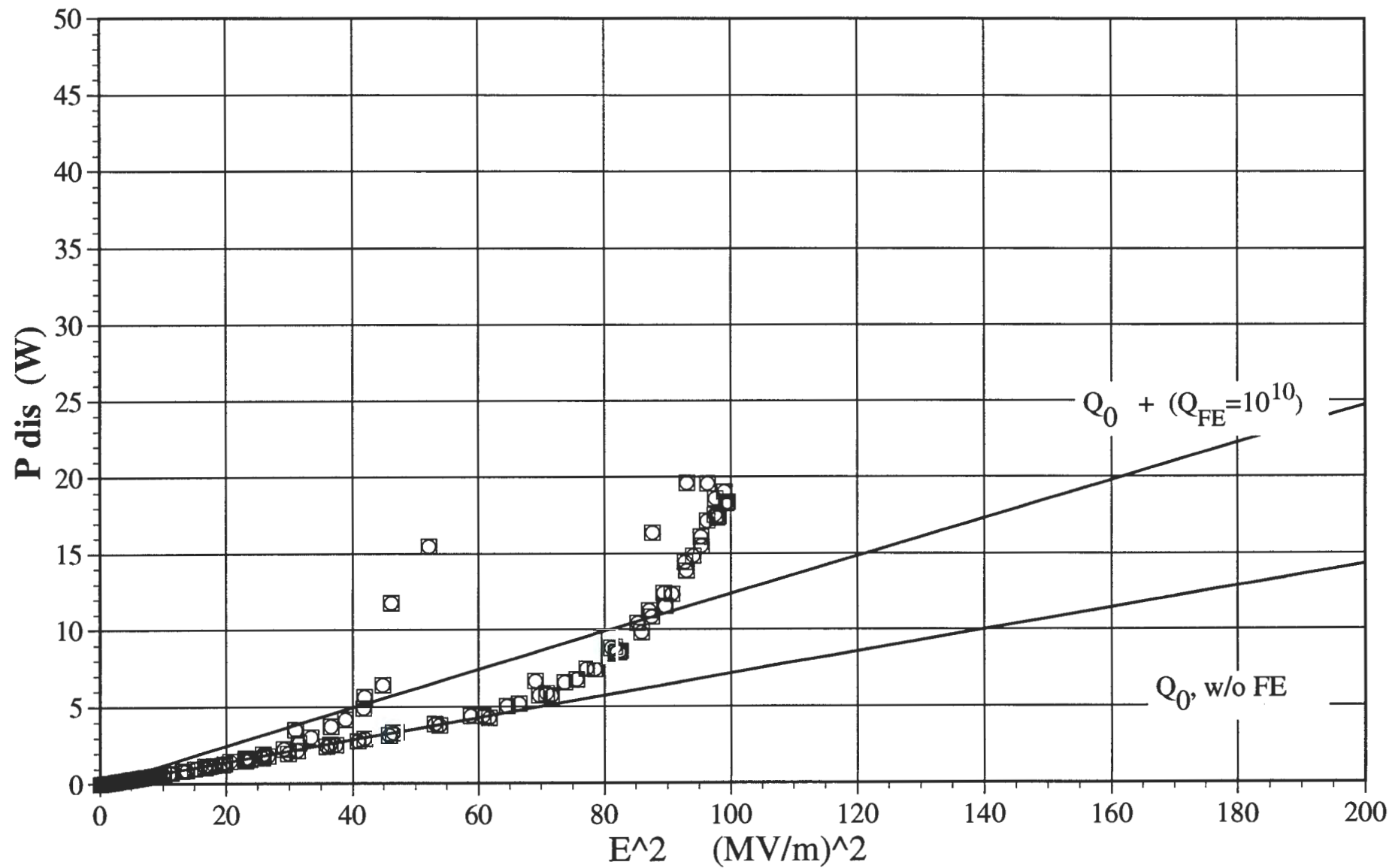




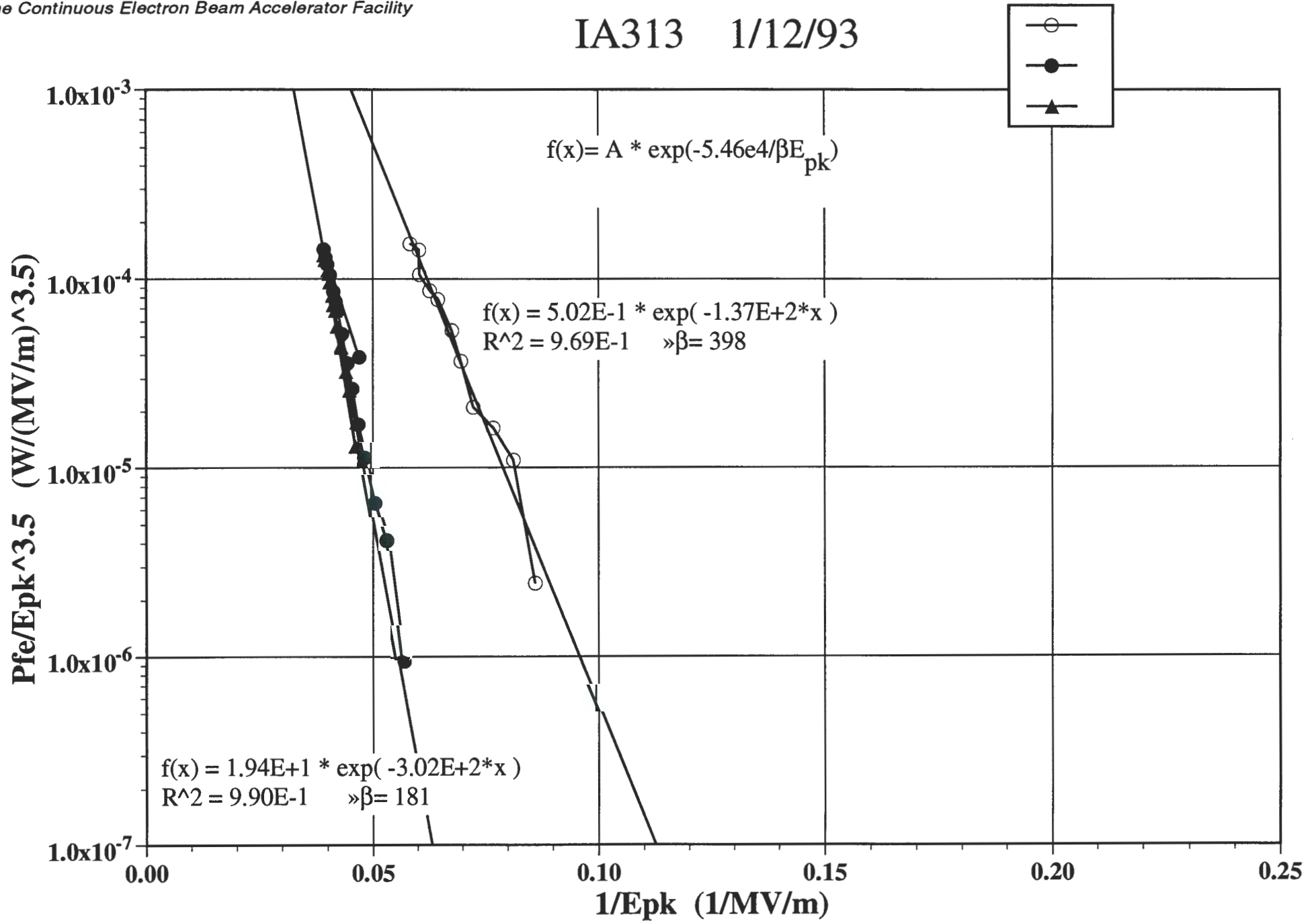
IA313 1/12/93



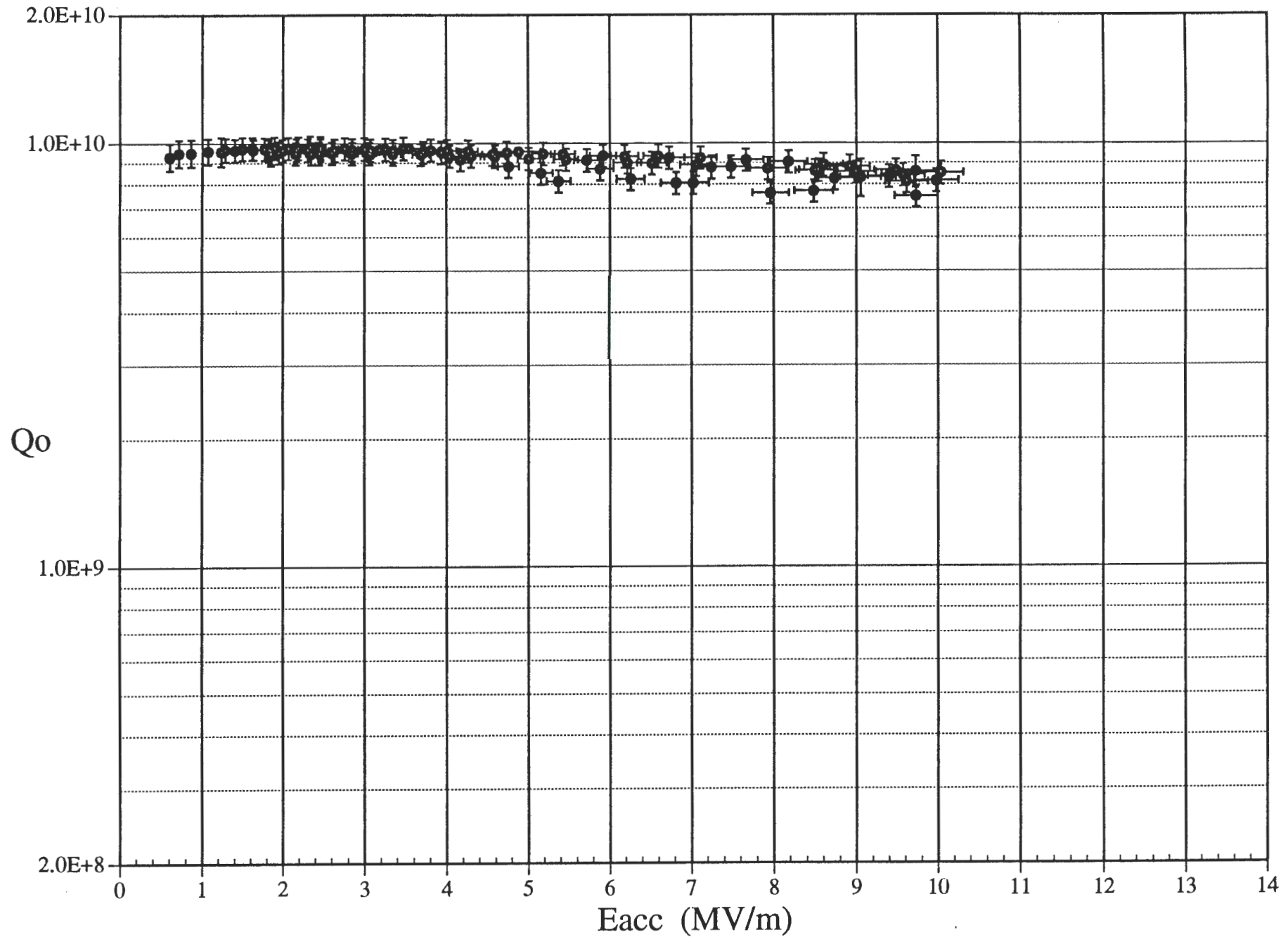
IA313 1/12/93

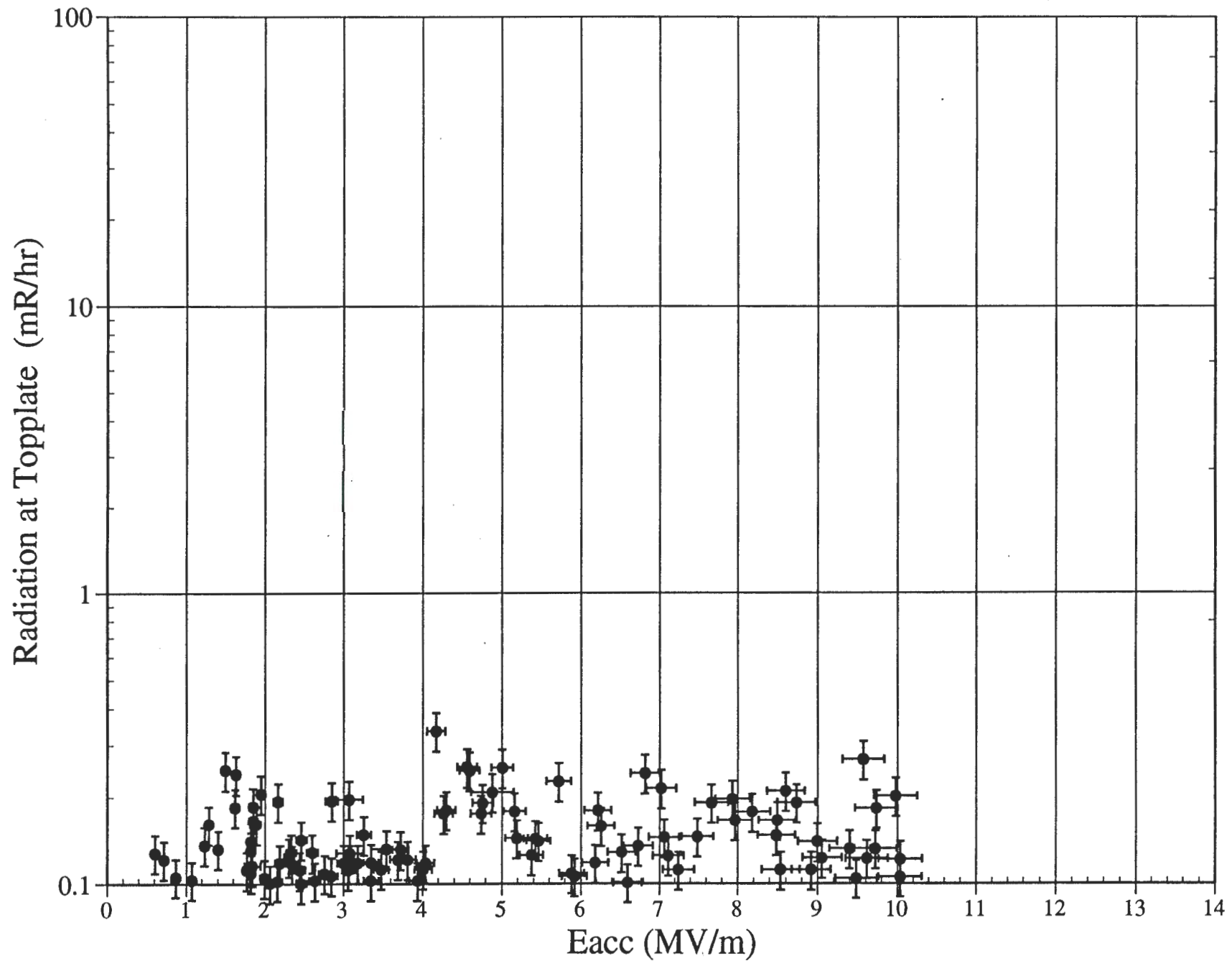


IA313 1/12/93

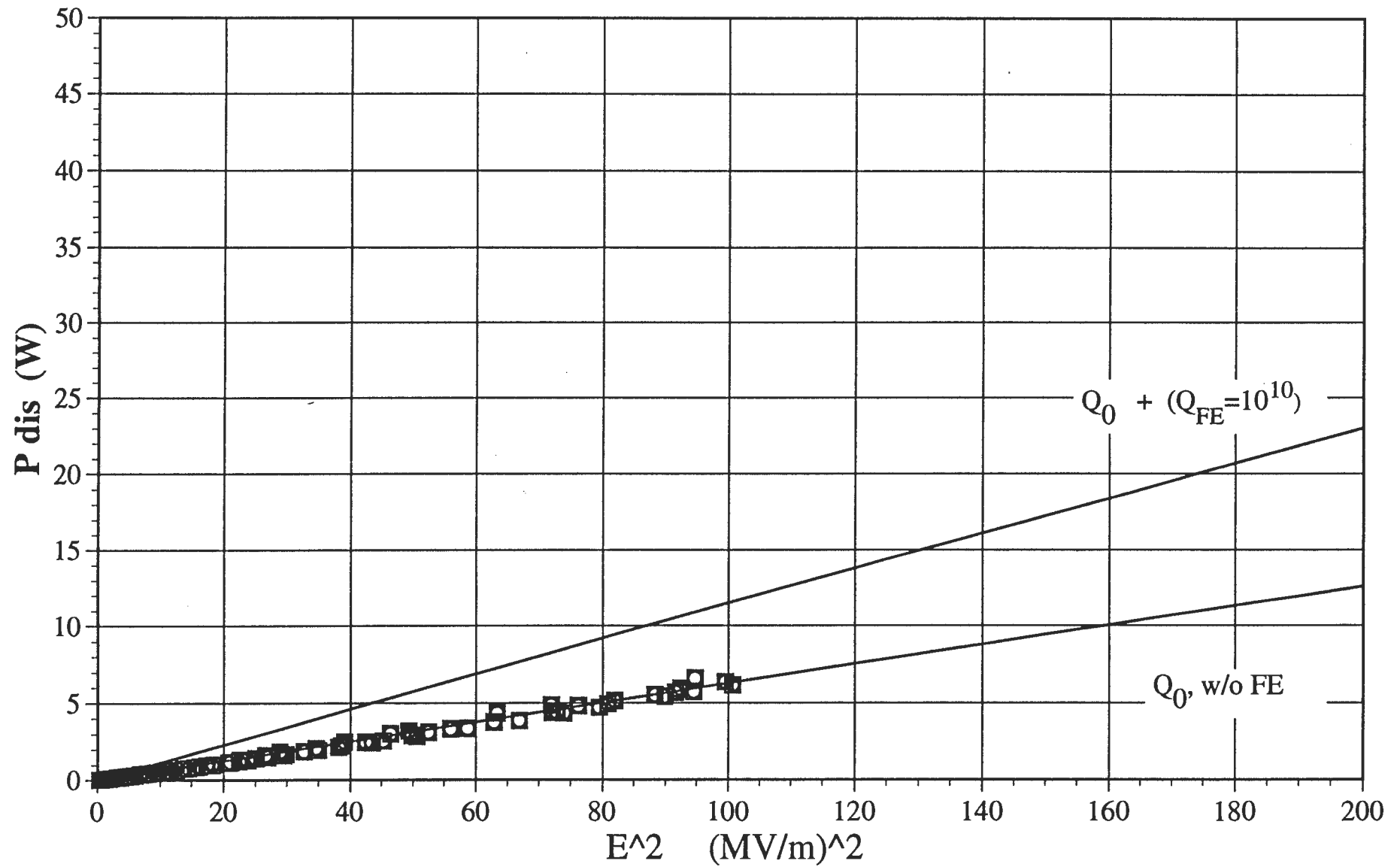


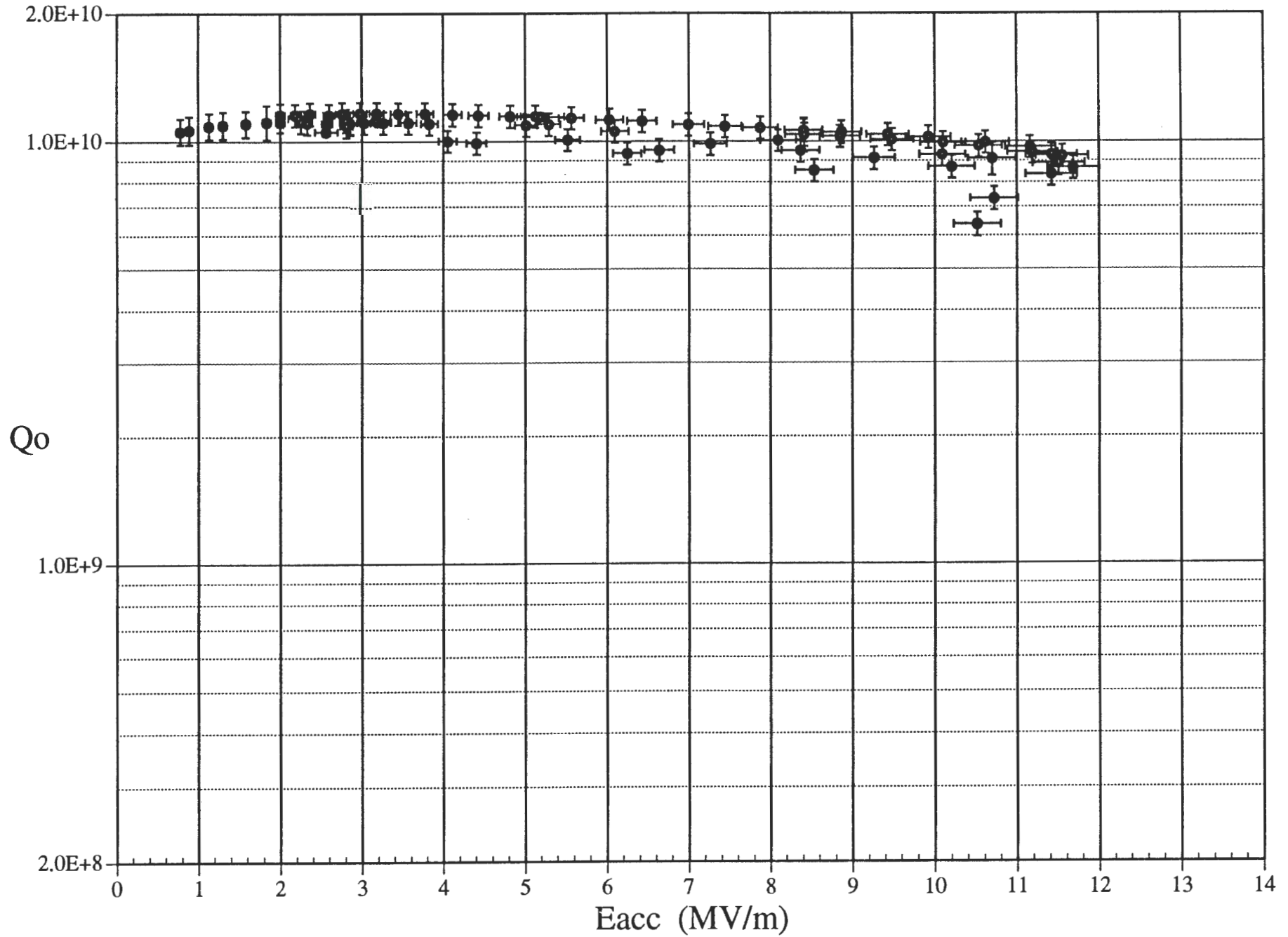
IA200 1/14/93

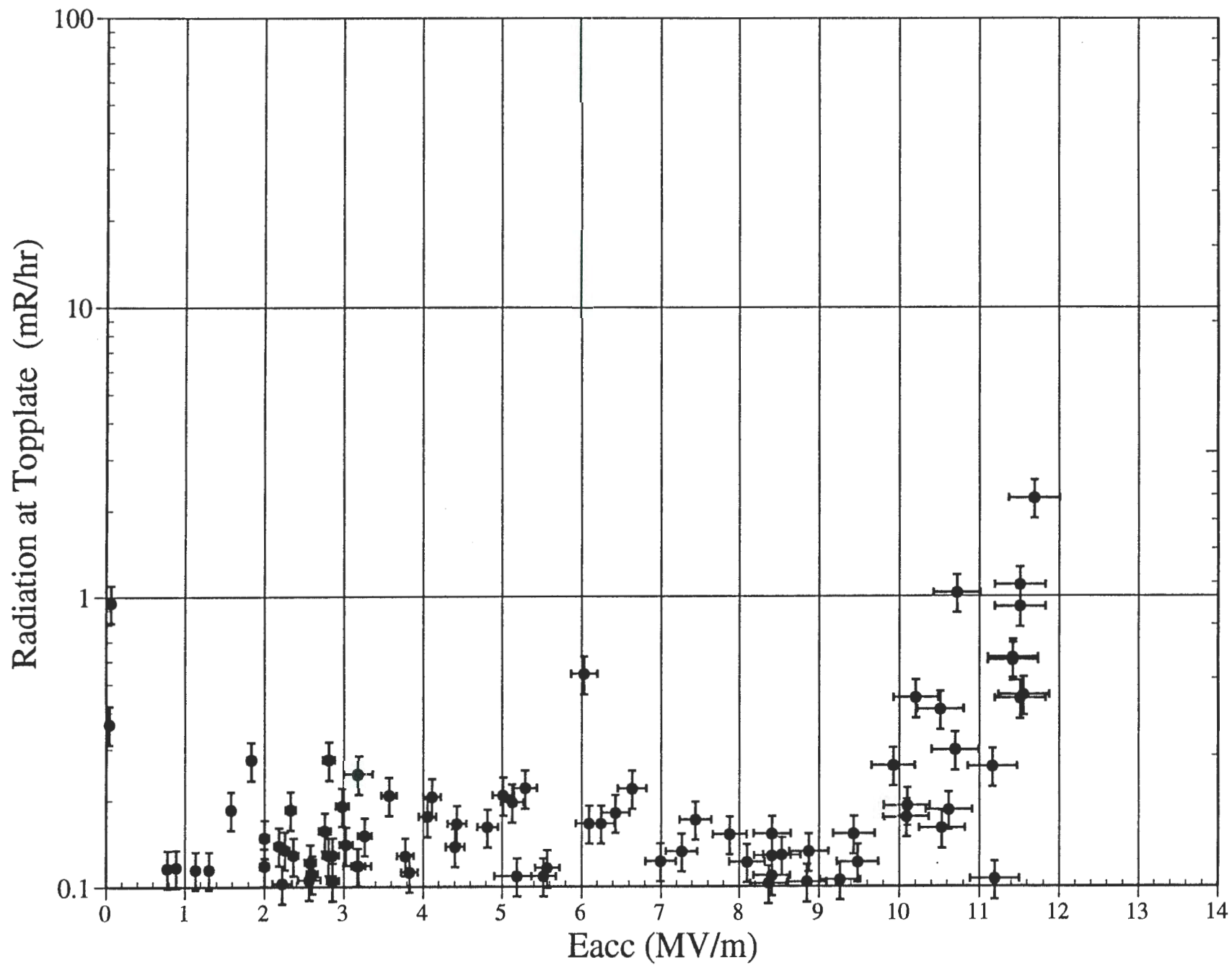




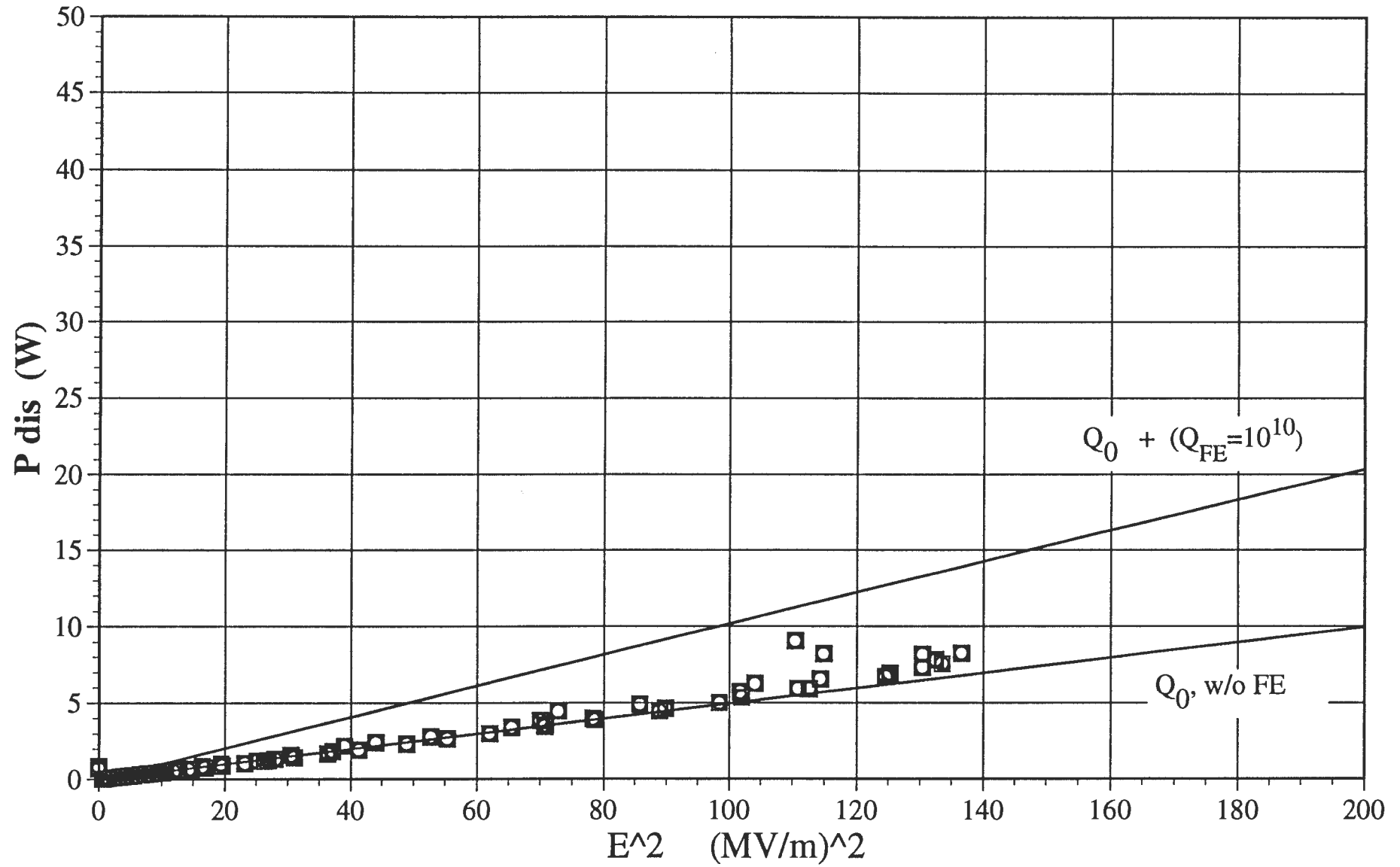
IA203 1/14/93



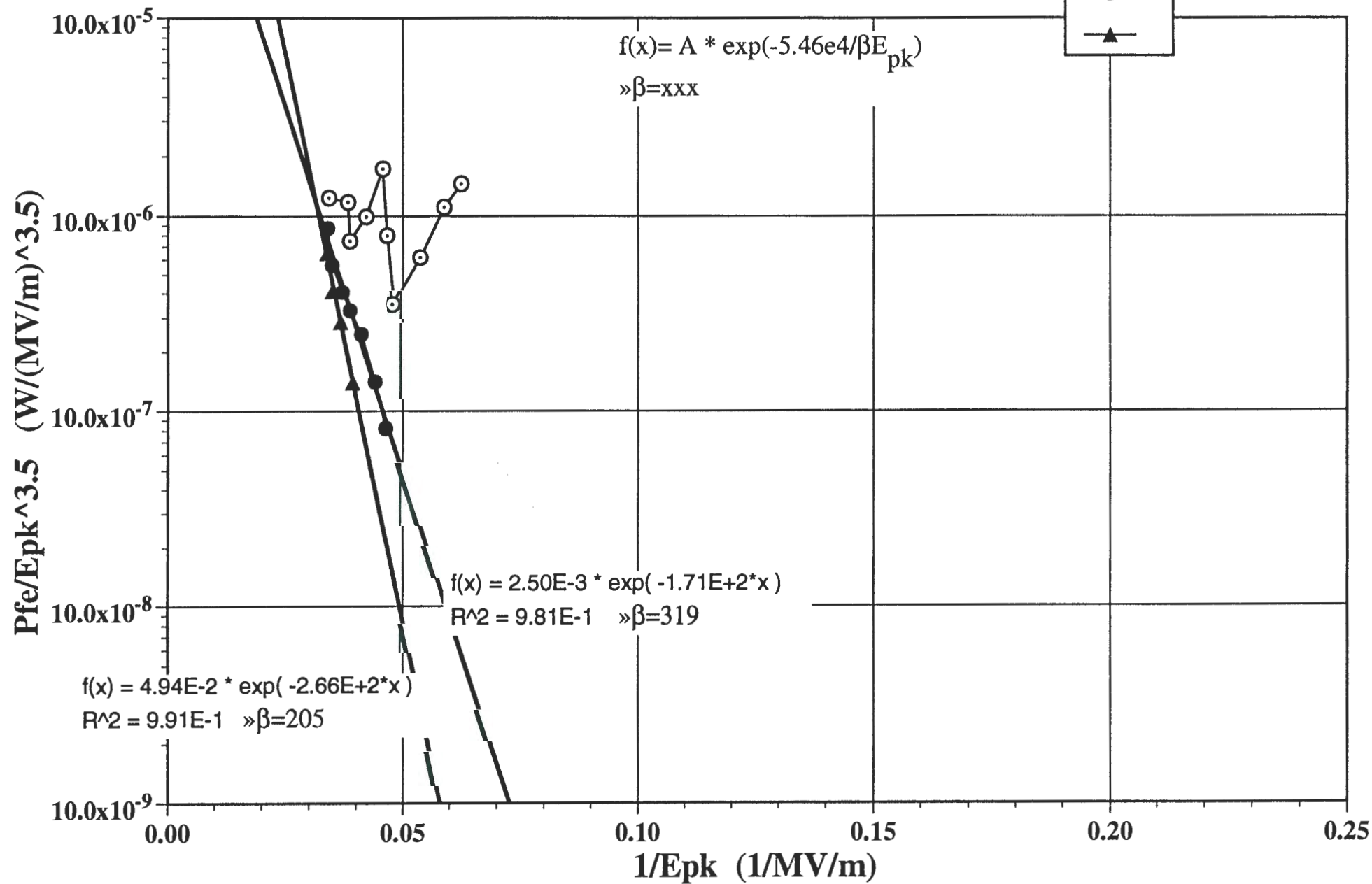


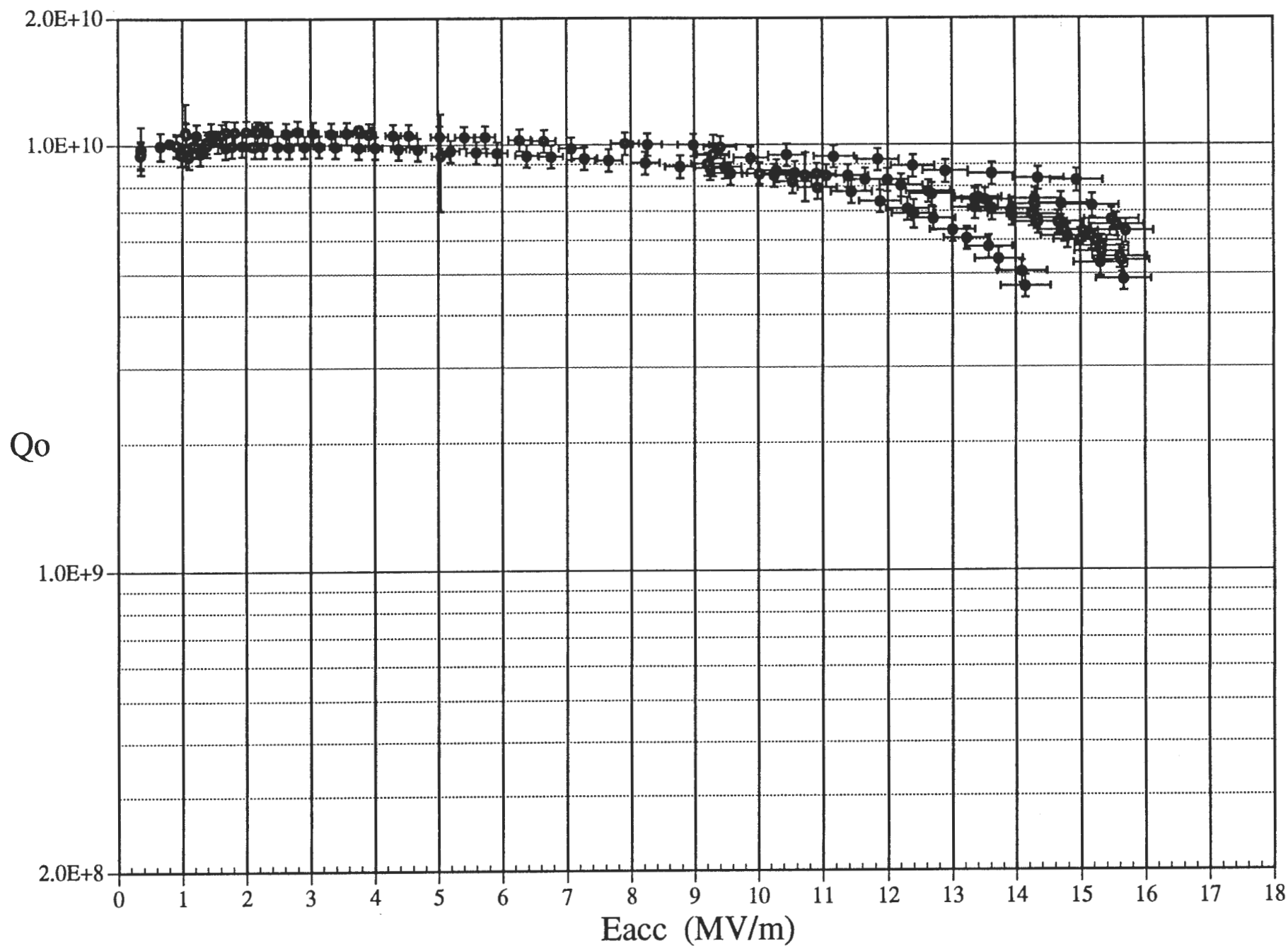


IA210 1/14/93

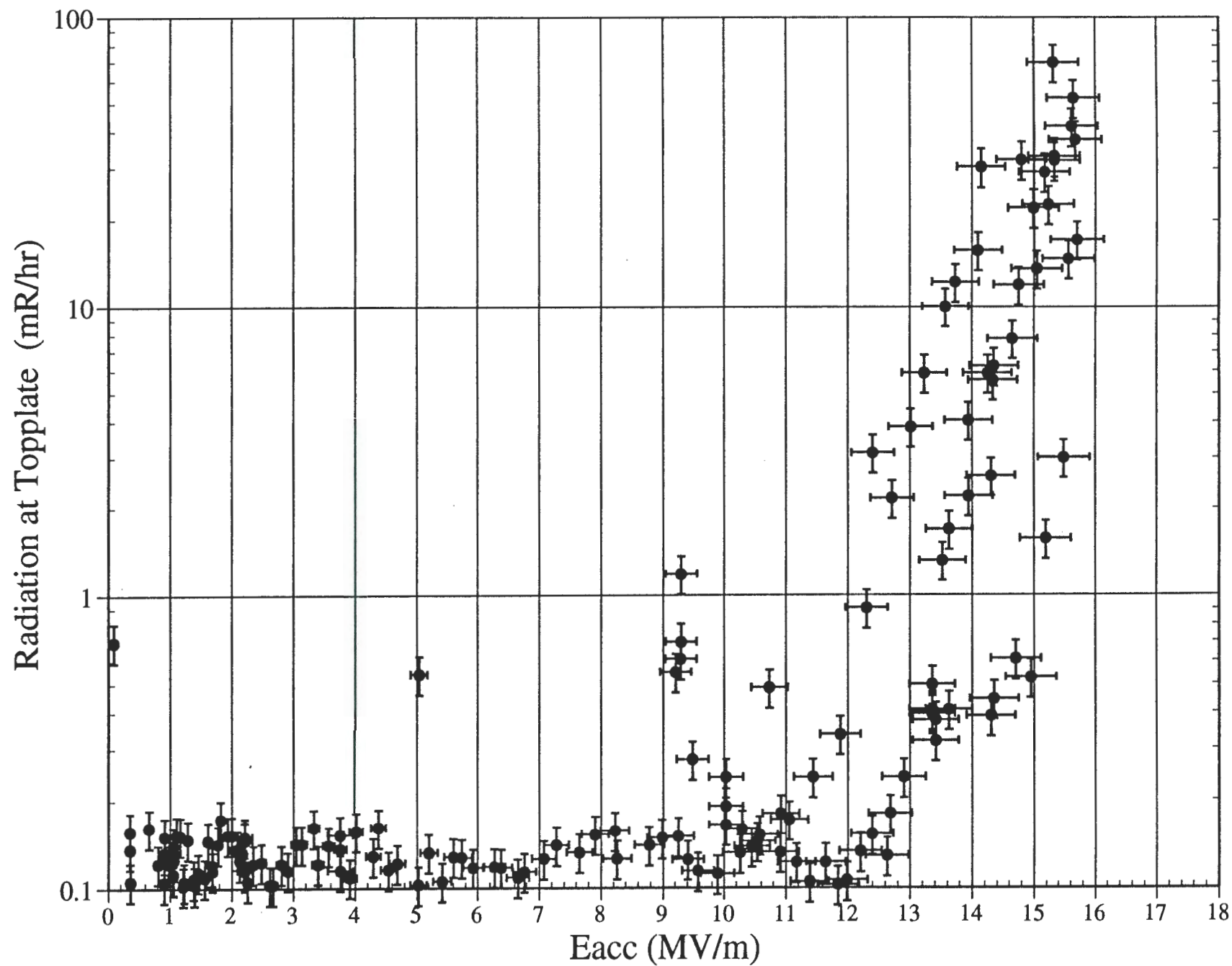


IA210 1/14/93

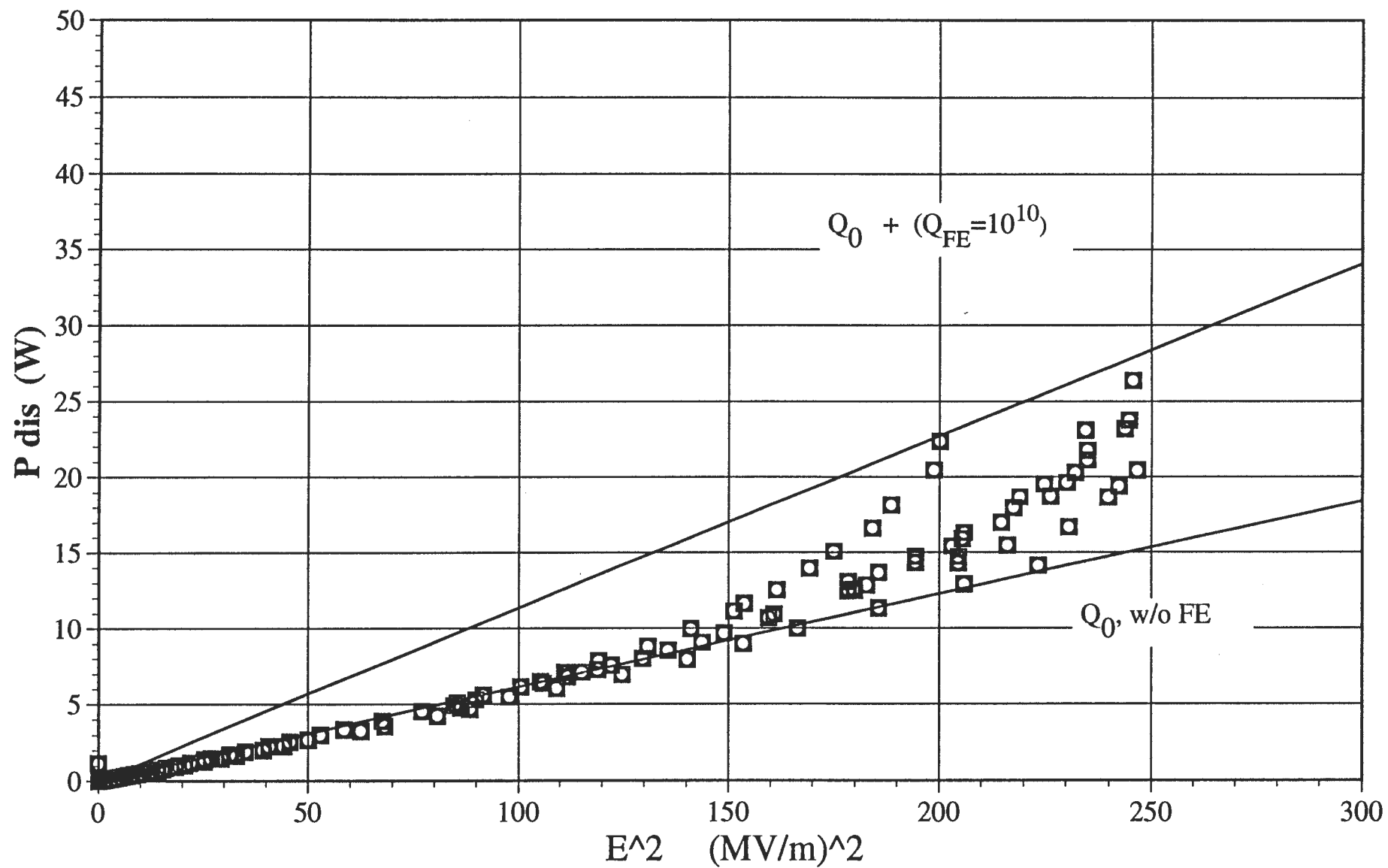




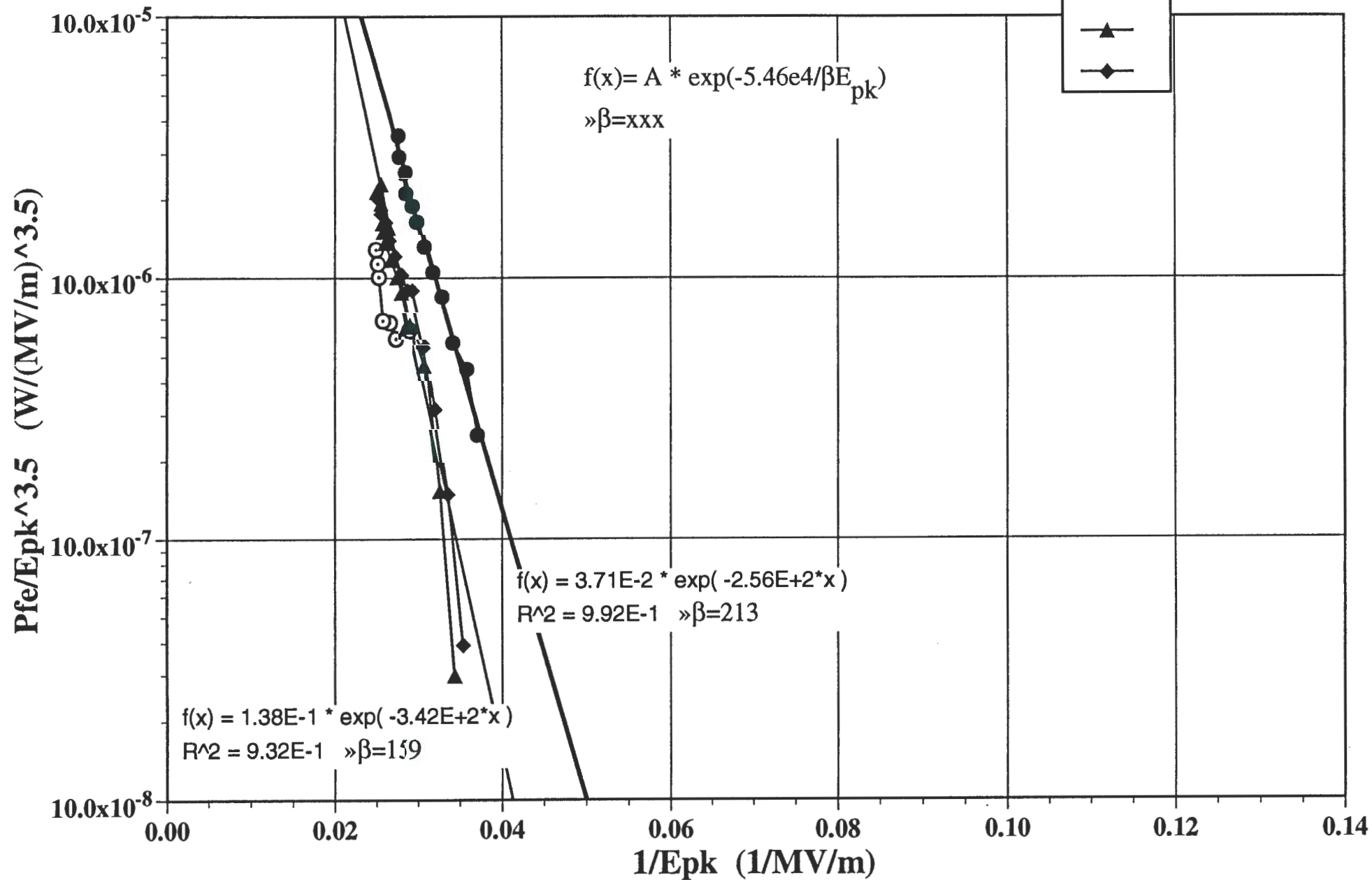
IA040 1/15/93

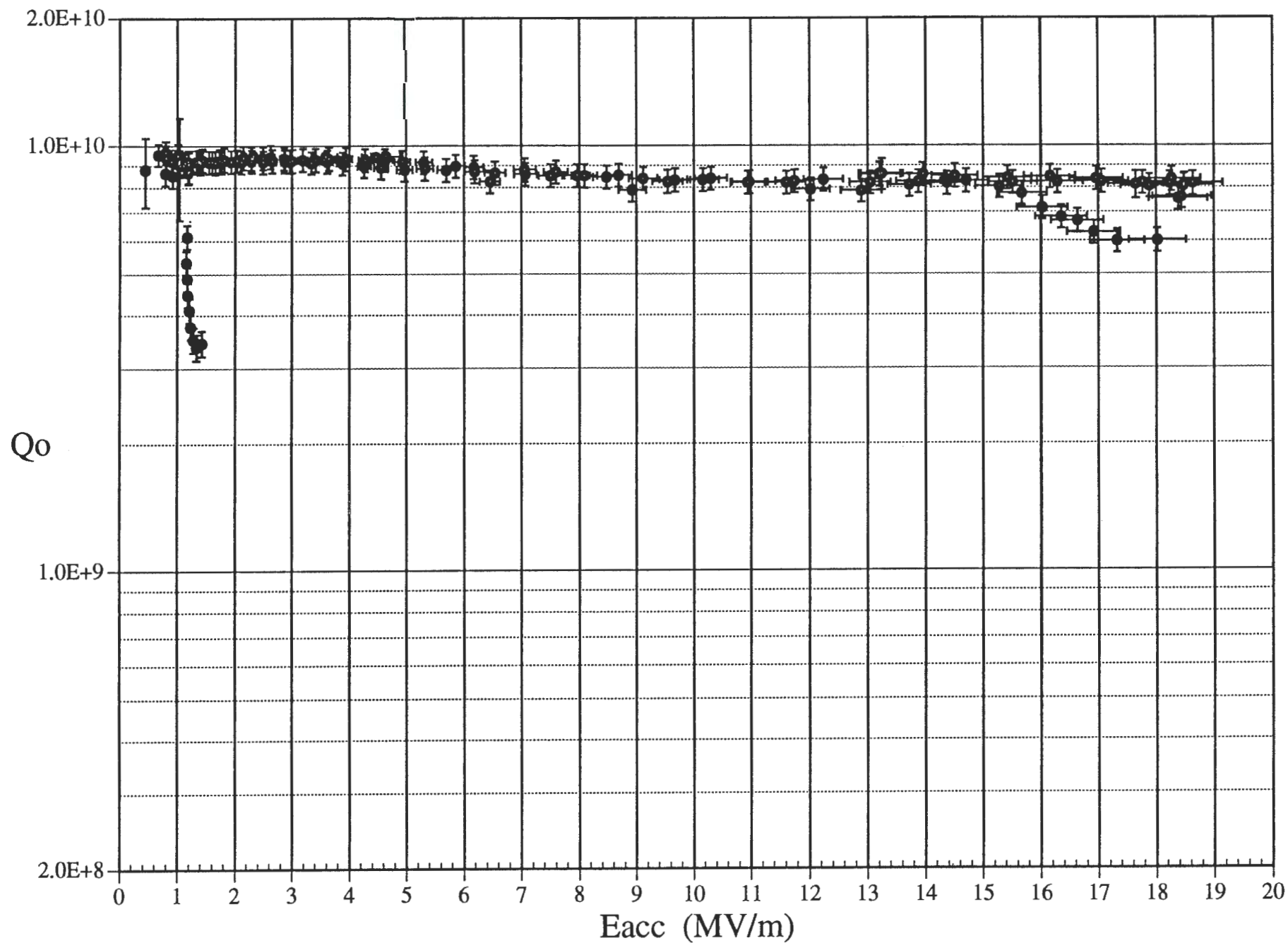


IA040 1/15/93

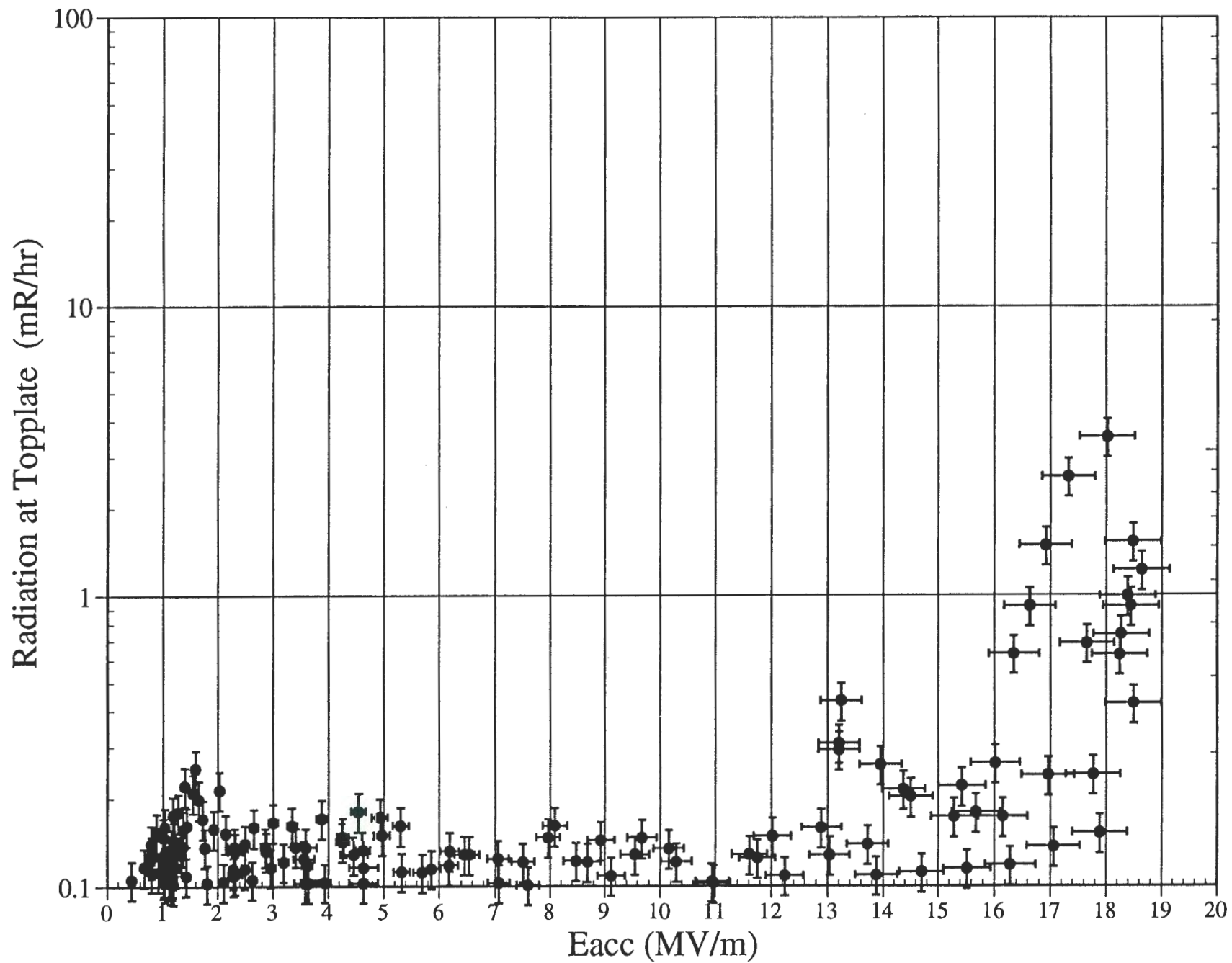


IA040 1/15/93

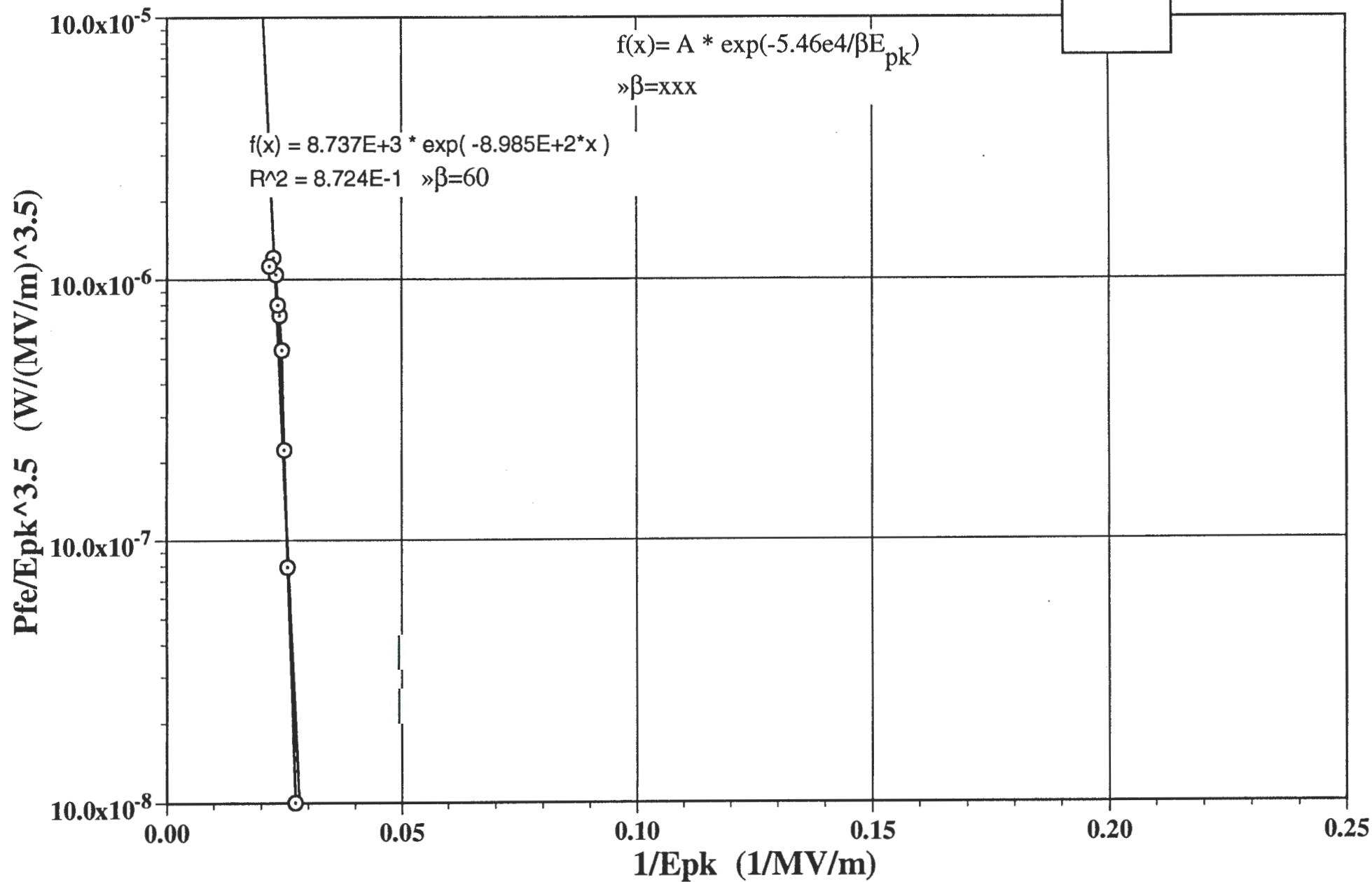




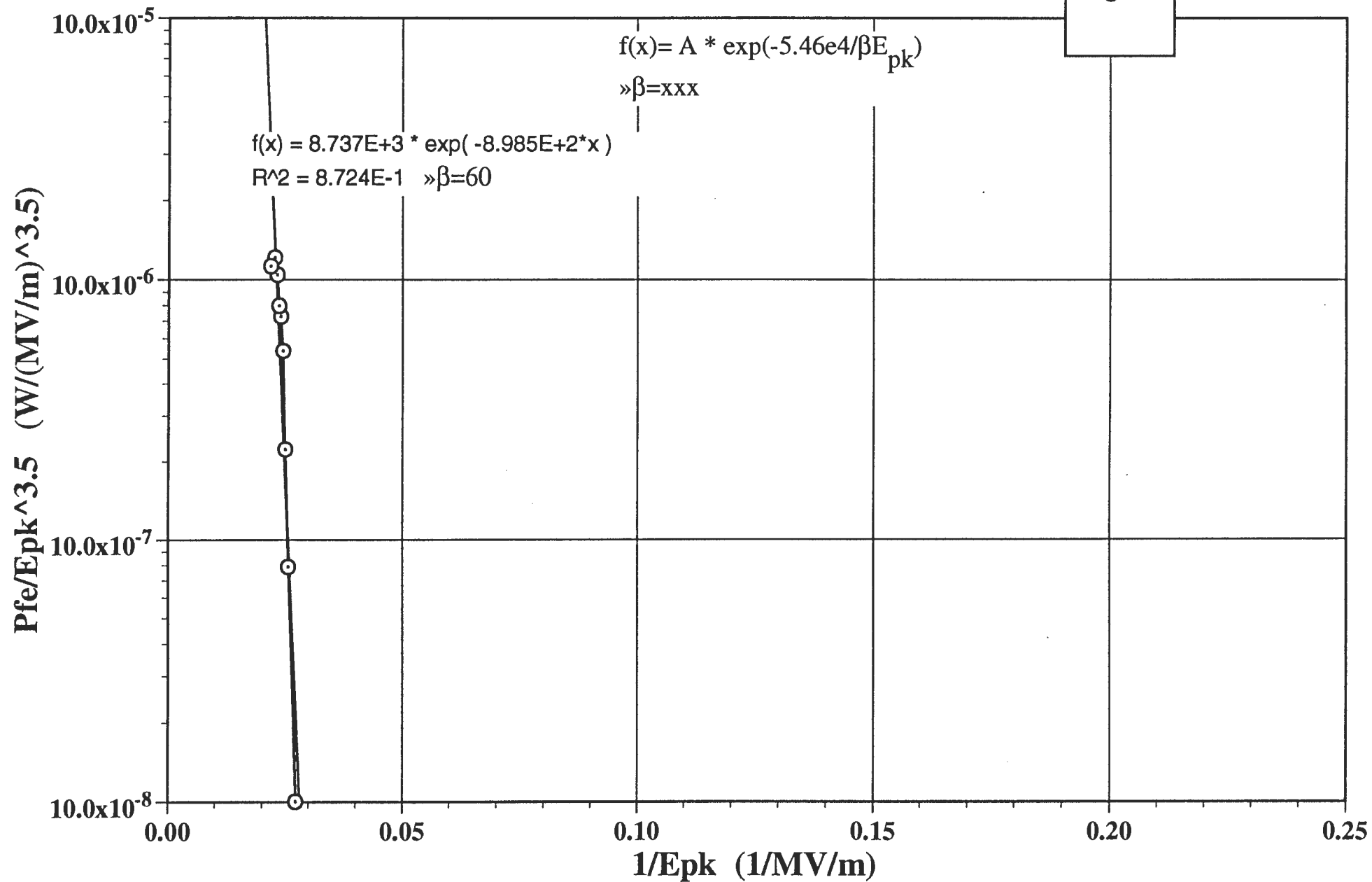
IA255 1/15/93



IA255 1/15/93

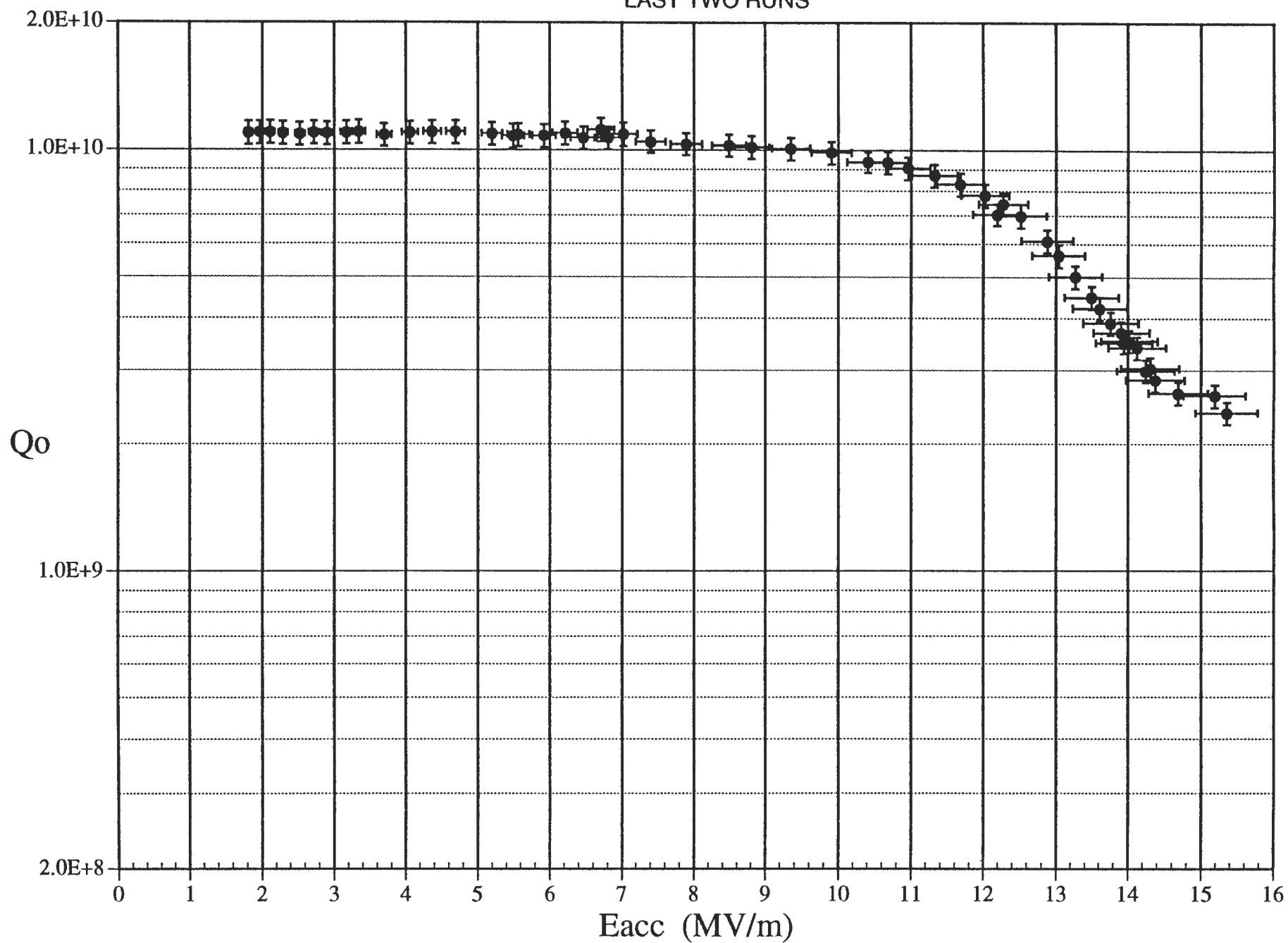


IA255 1/15/93



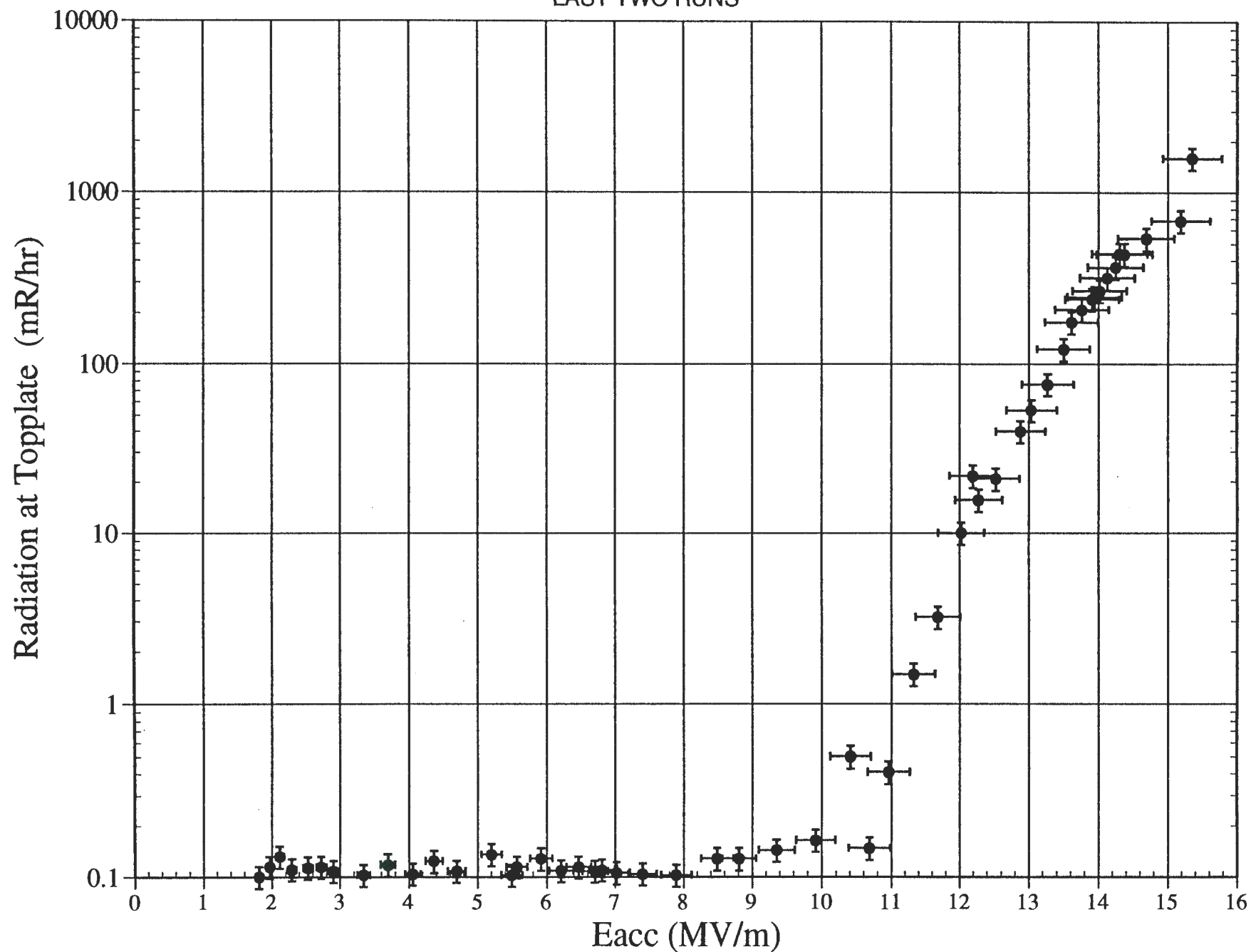
IA050 1/20/93

LAST TWO RUNS



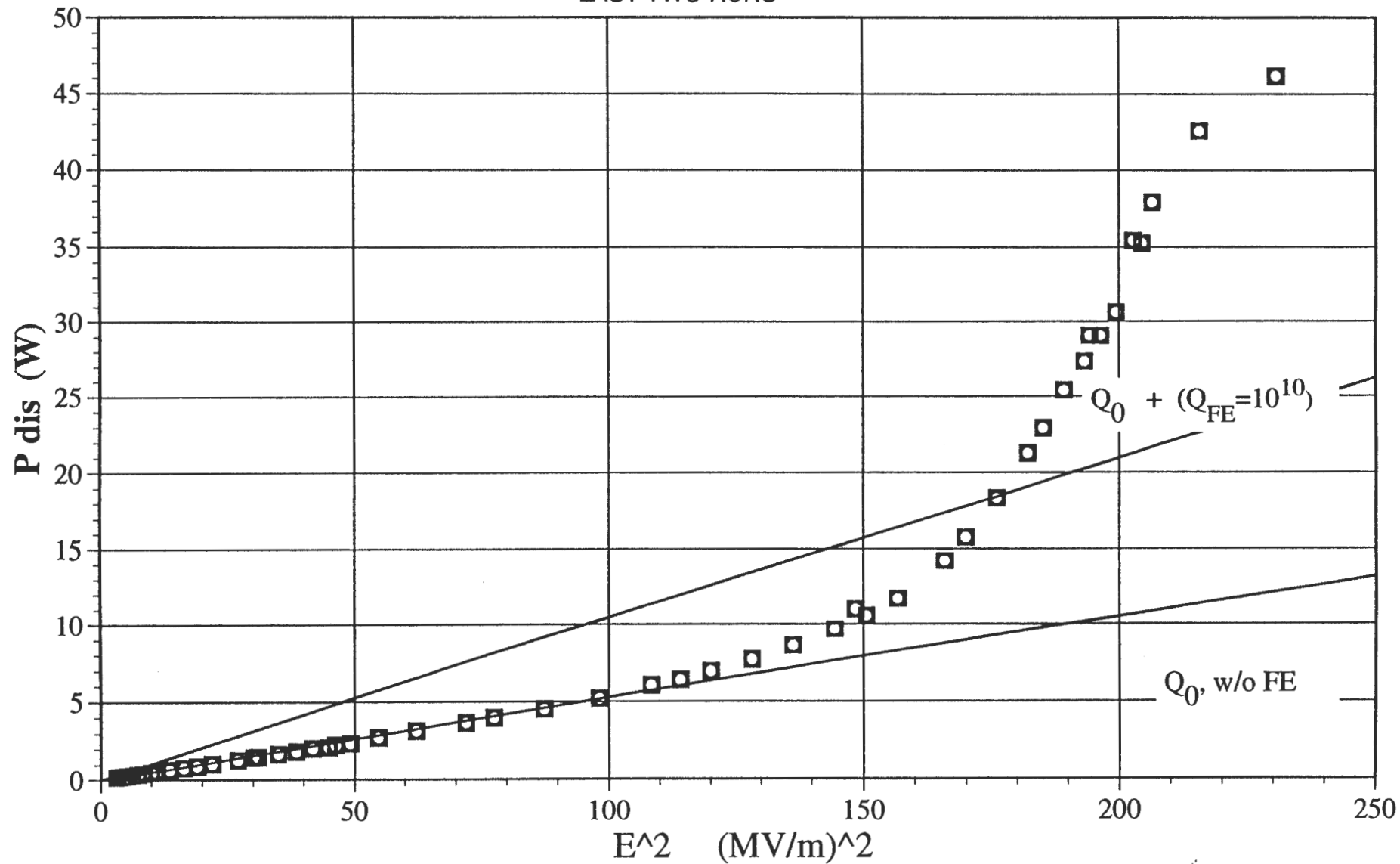
IA050 1/20/93

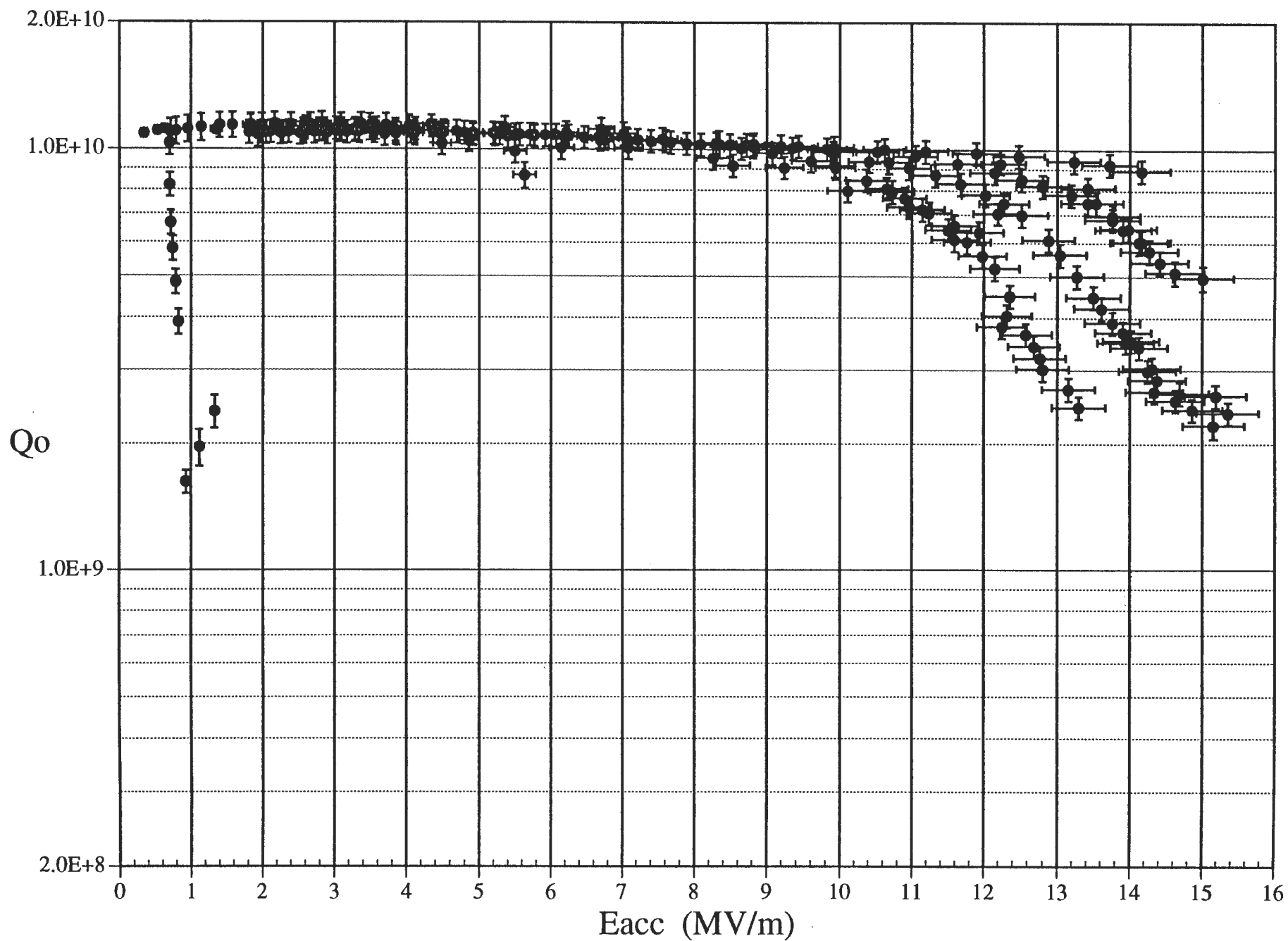
LAST TWO RUNS

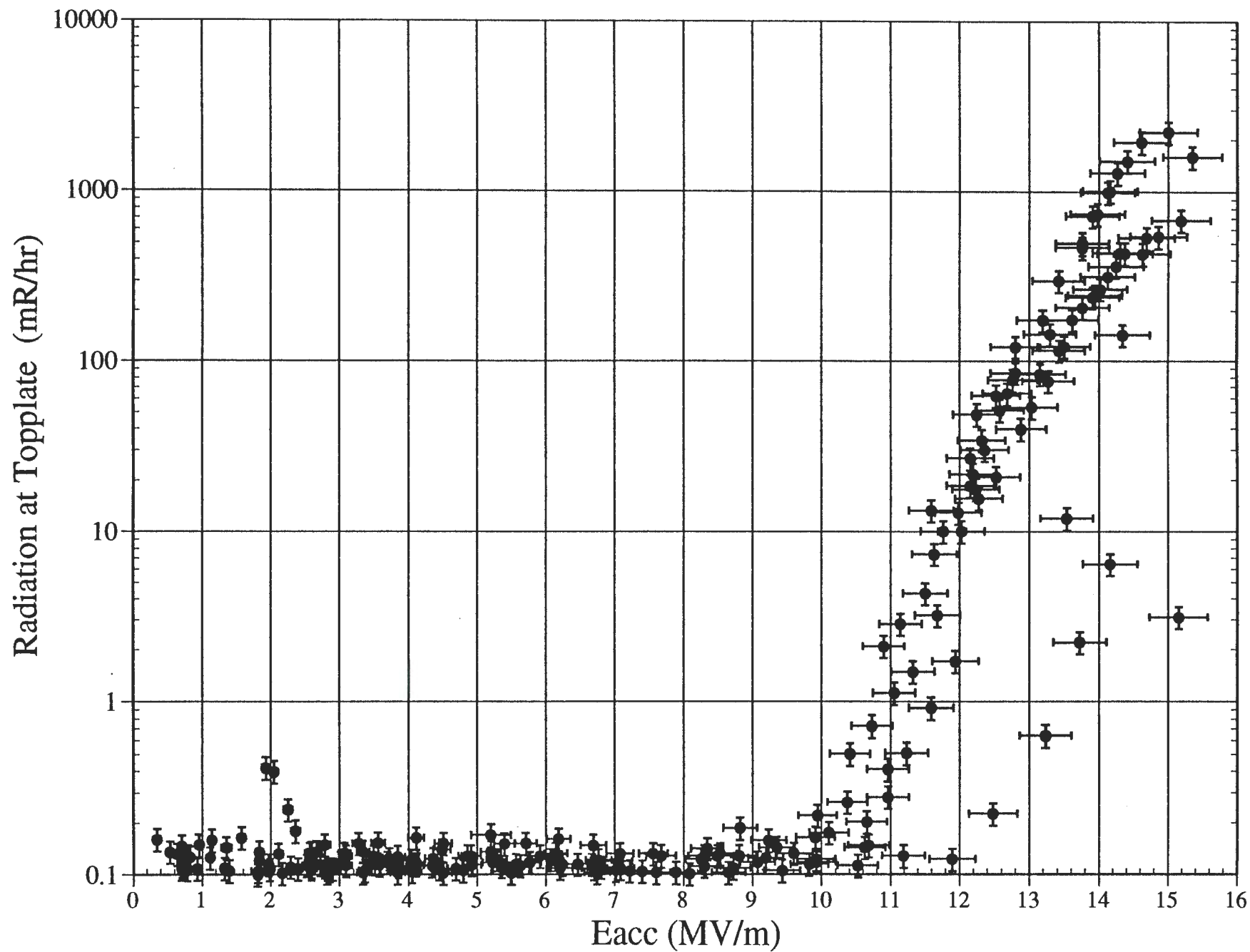


IA050 1/20/93

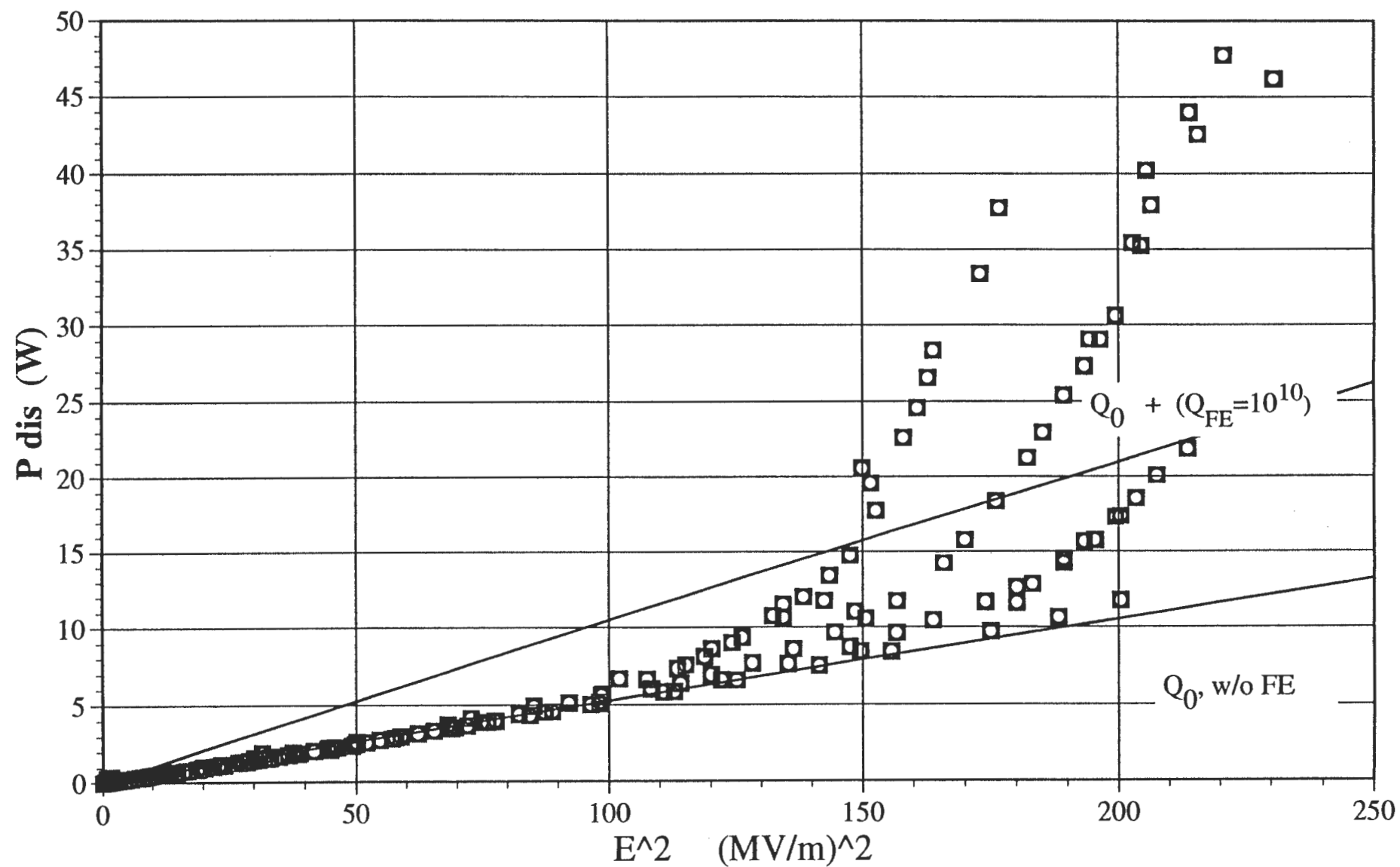
LAST TWO RUNS



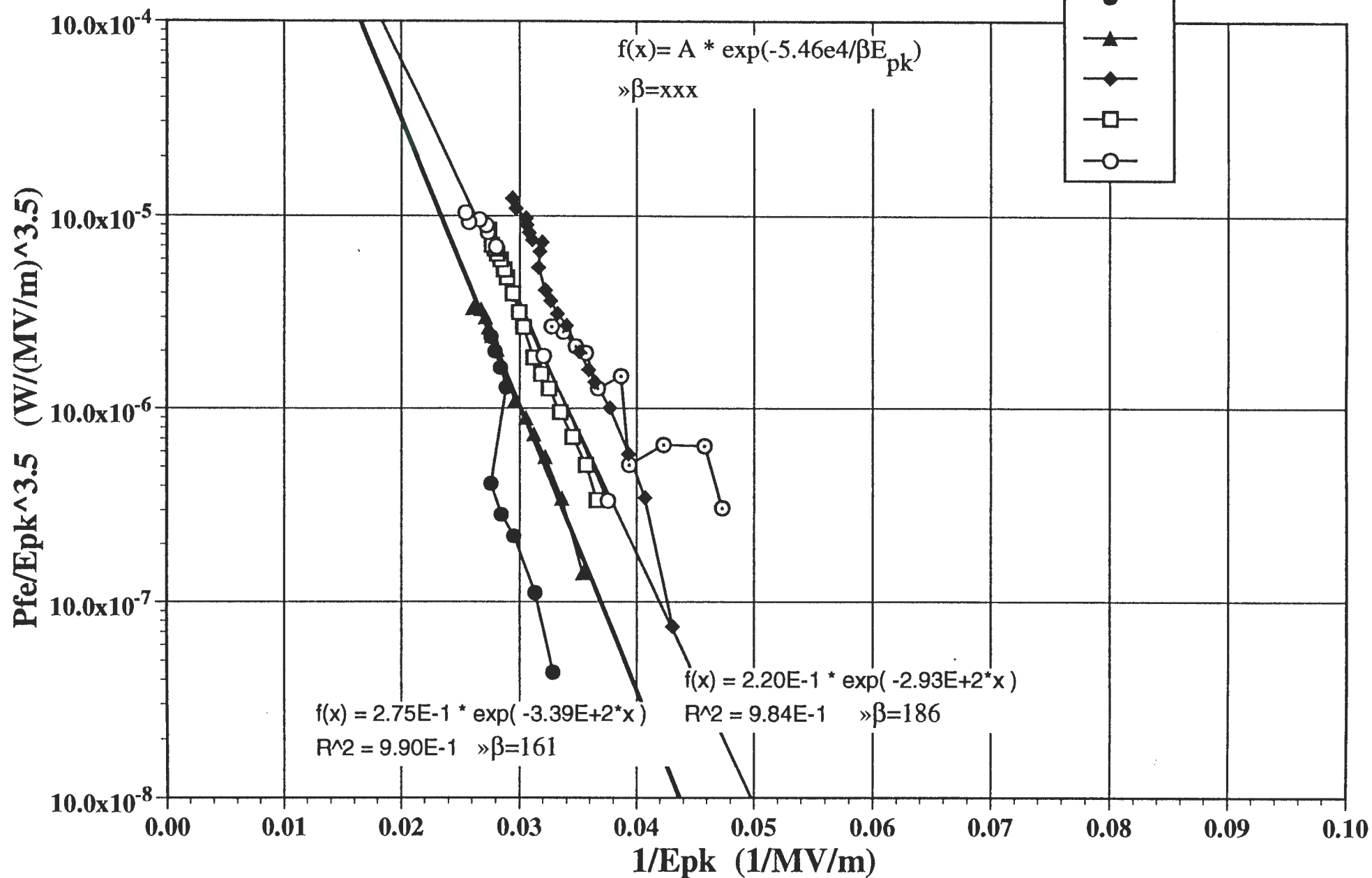


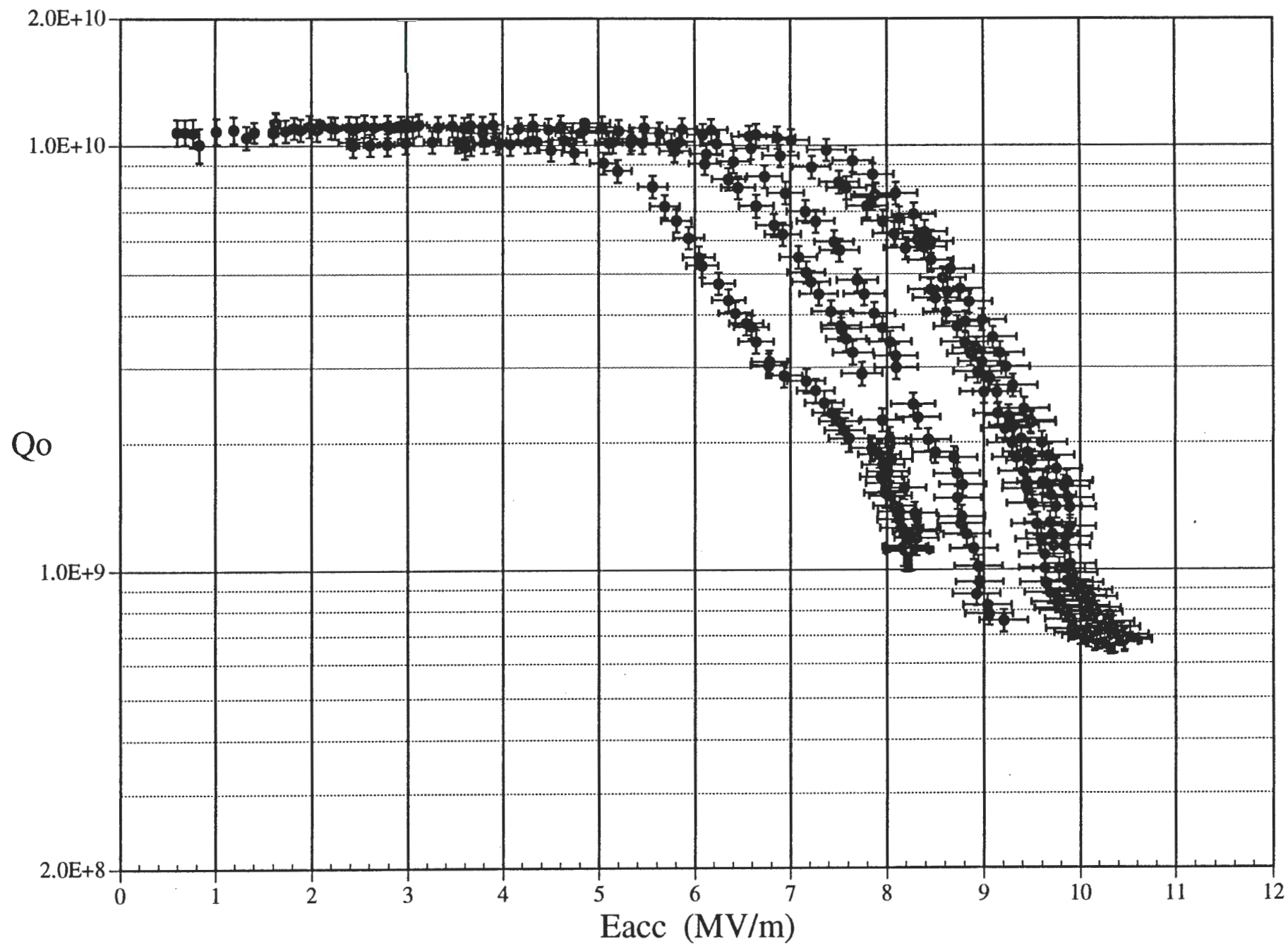


IA050 1/20/93

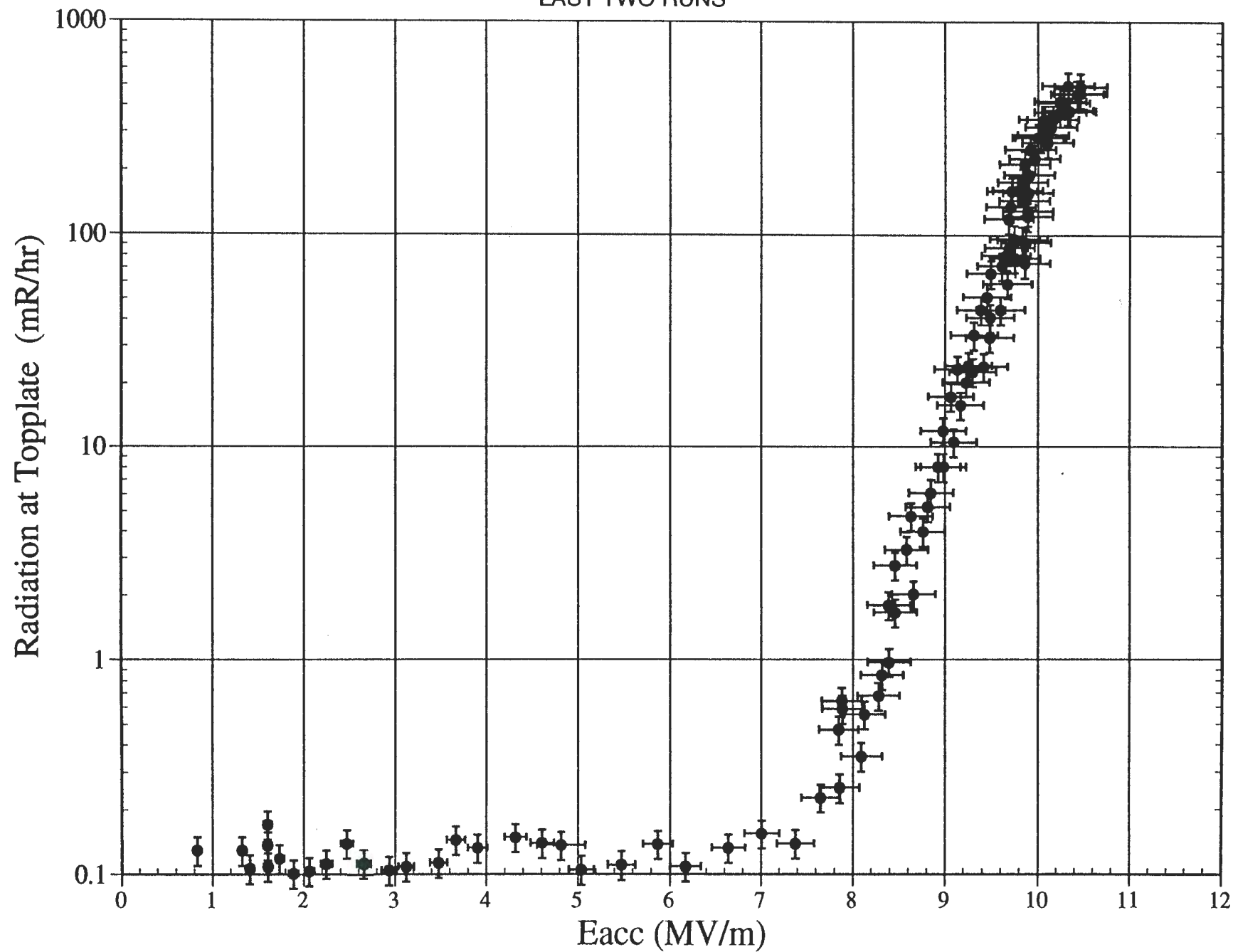


IA050 1/20/93



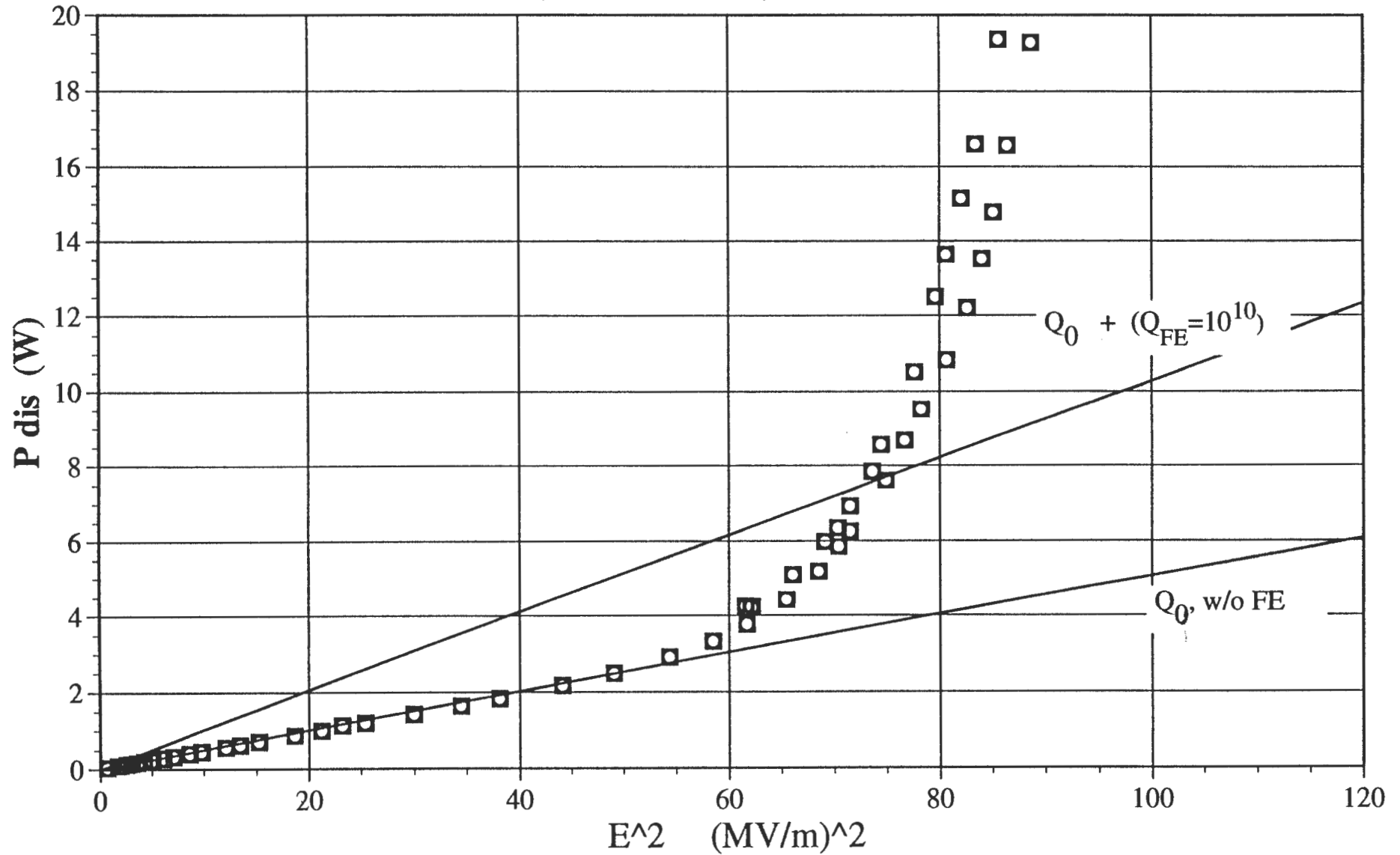


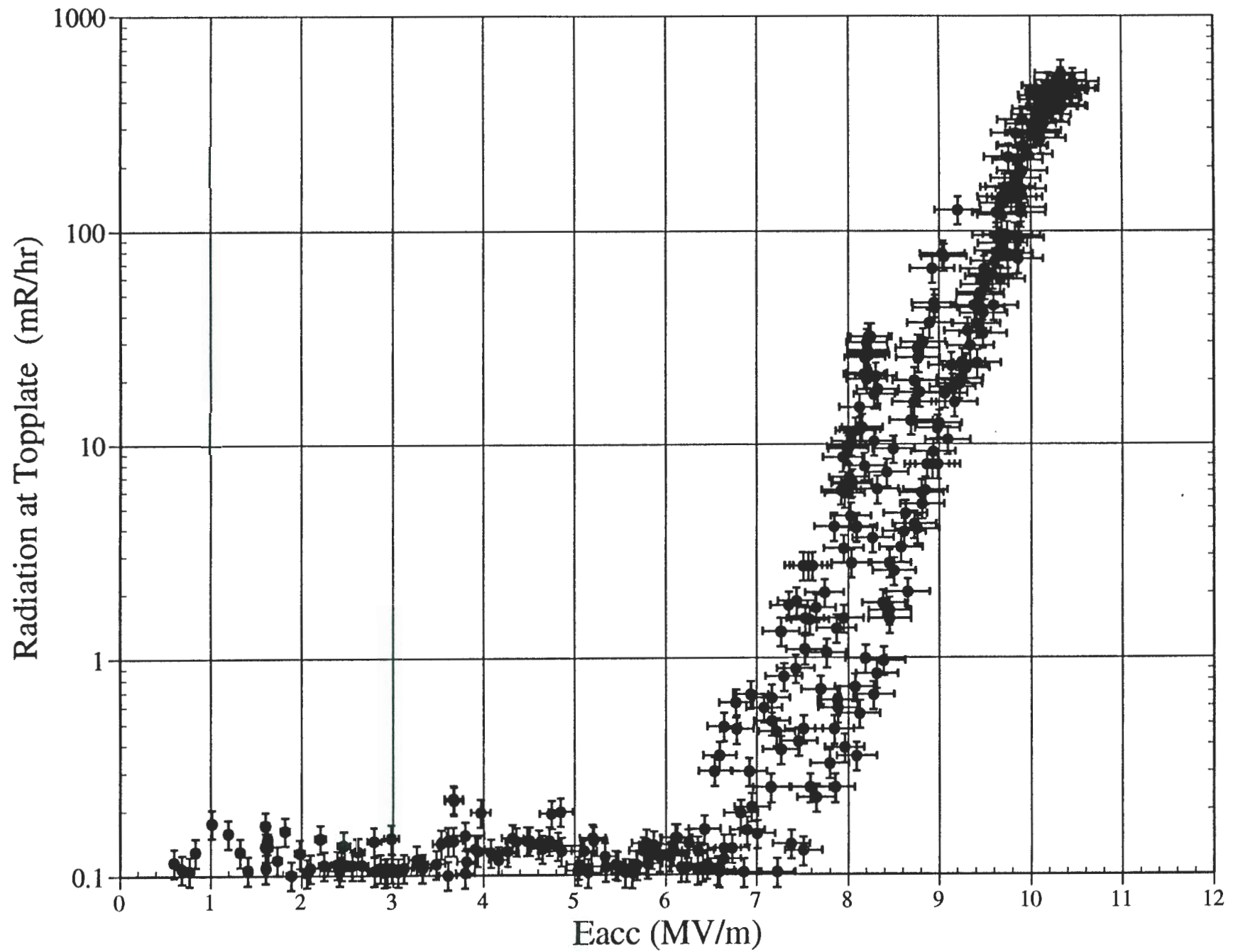
LAST TWO RUNS



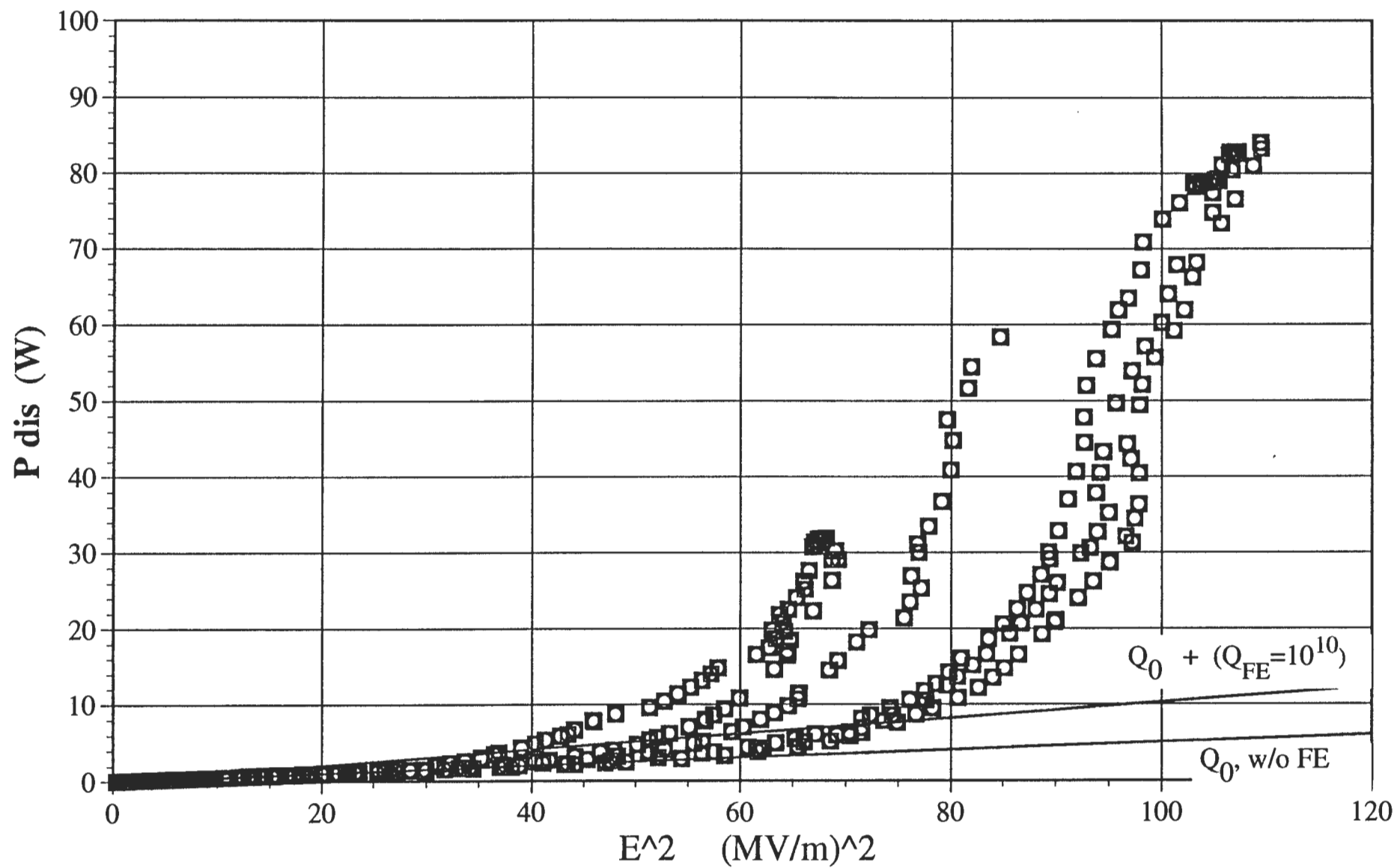
IA284 1/20/93

LAST TWO RUNS
(Y-AXIS EXPANDED)

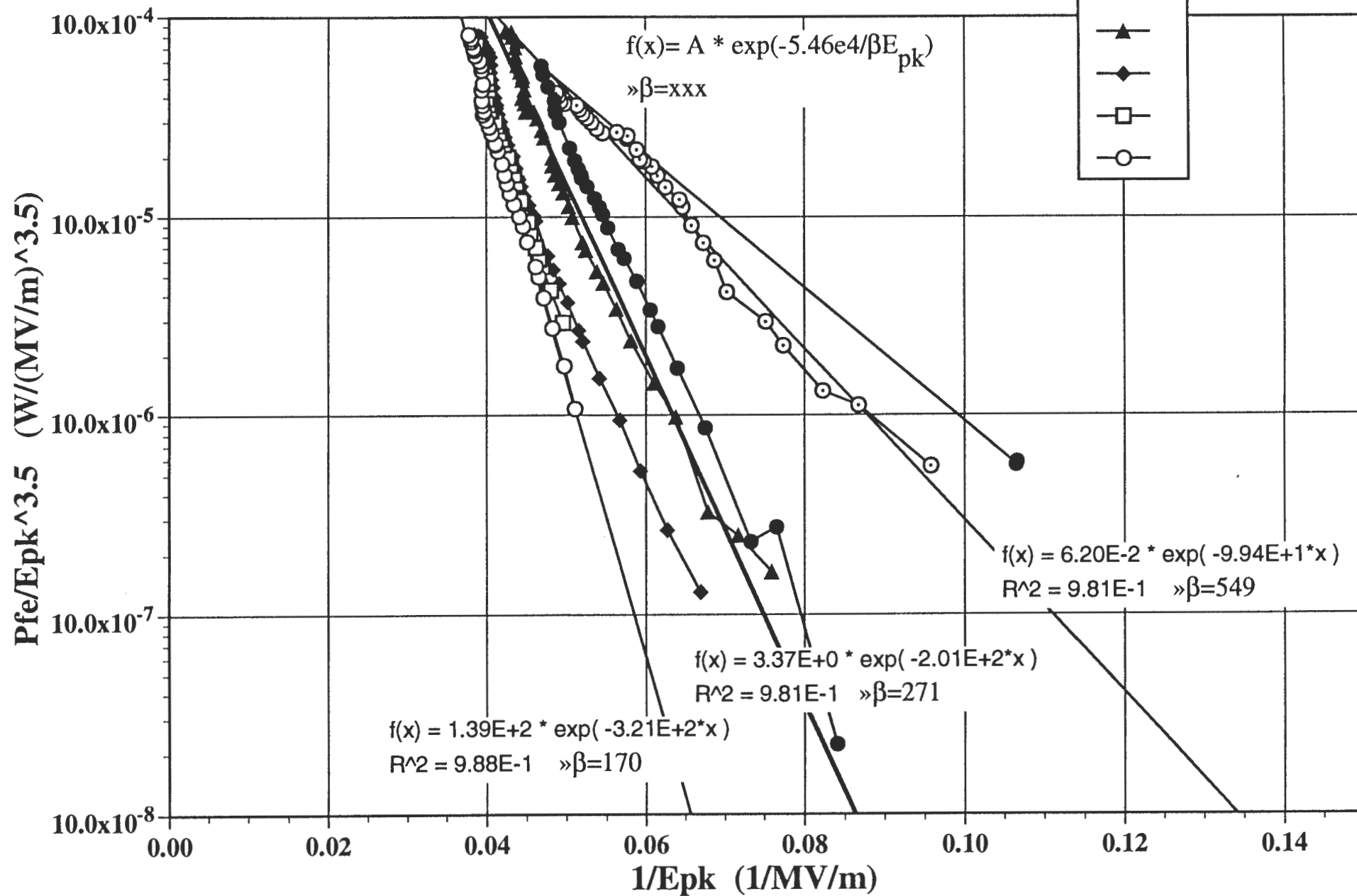


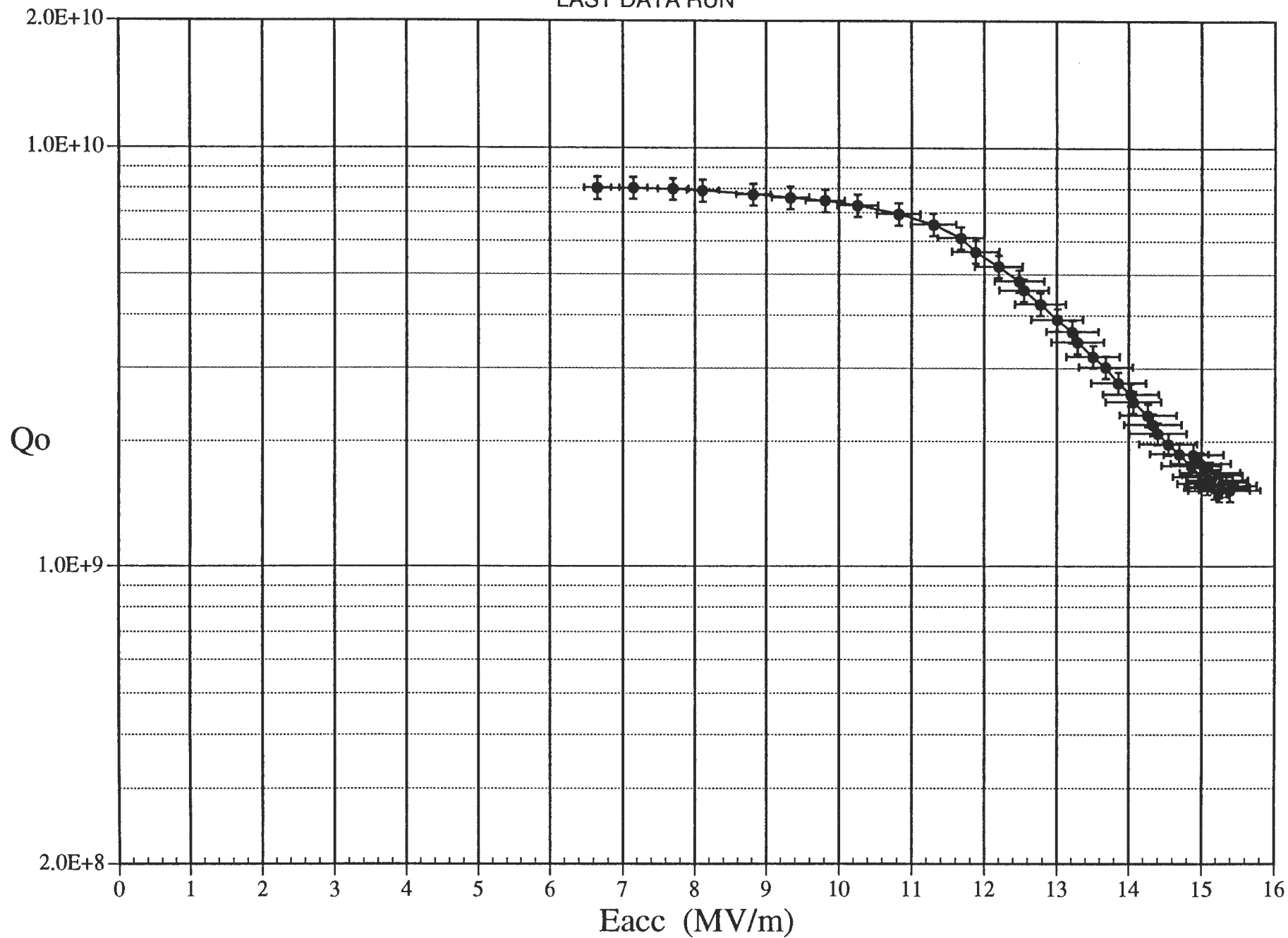


IA284 1/20/93



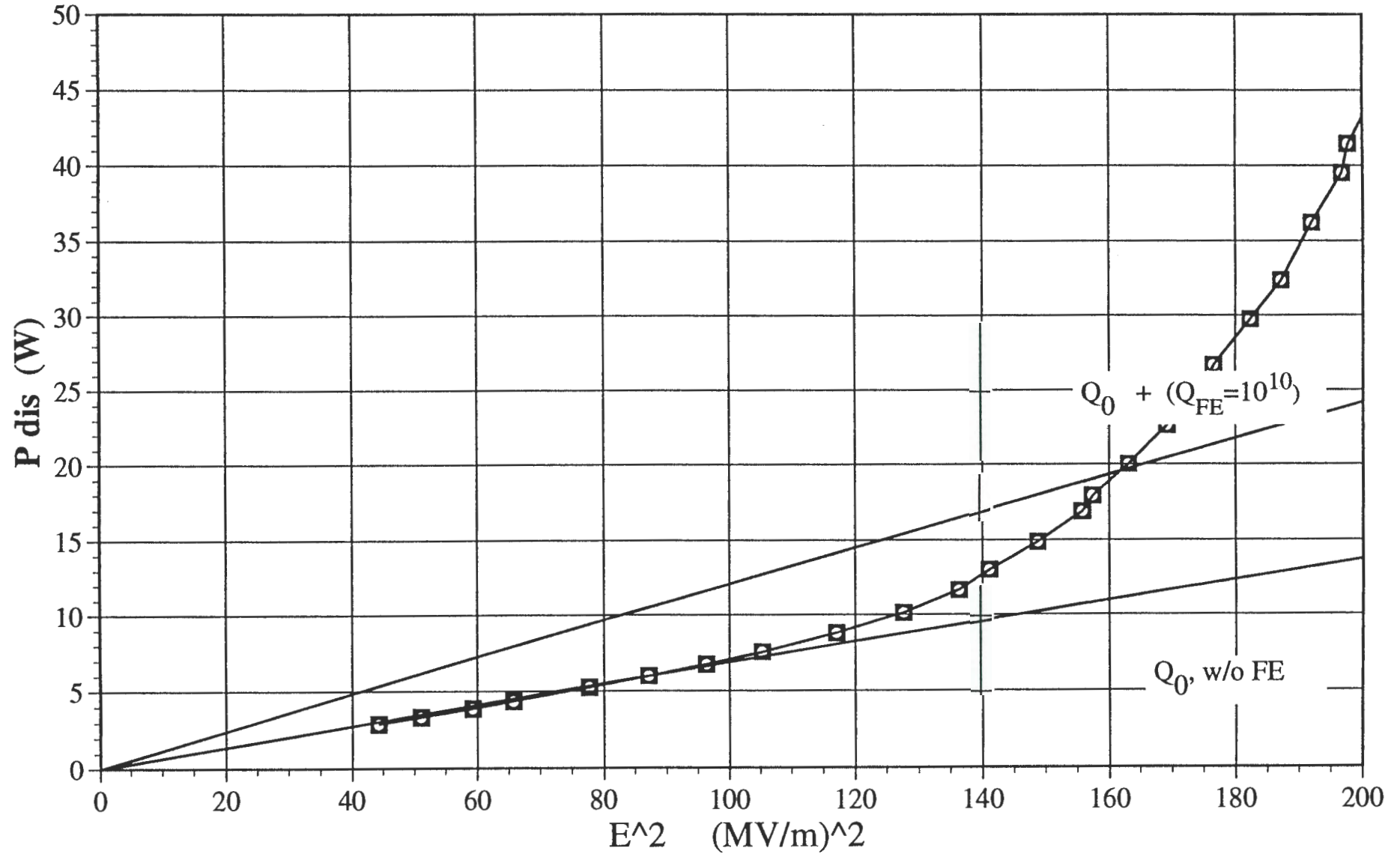
IA284 1/20/93

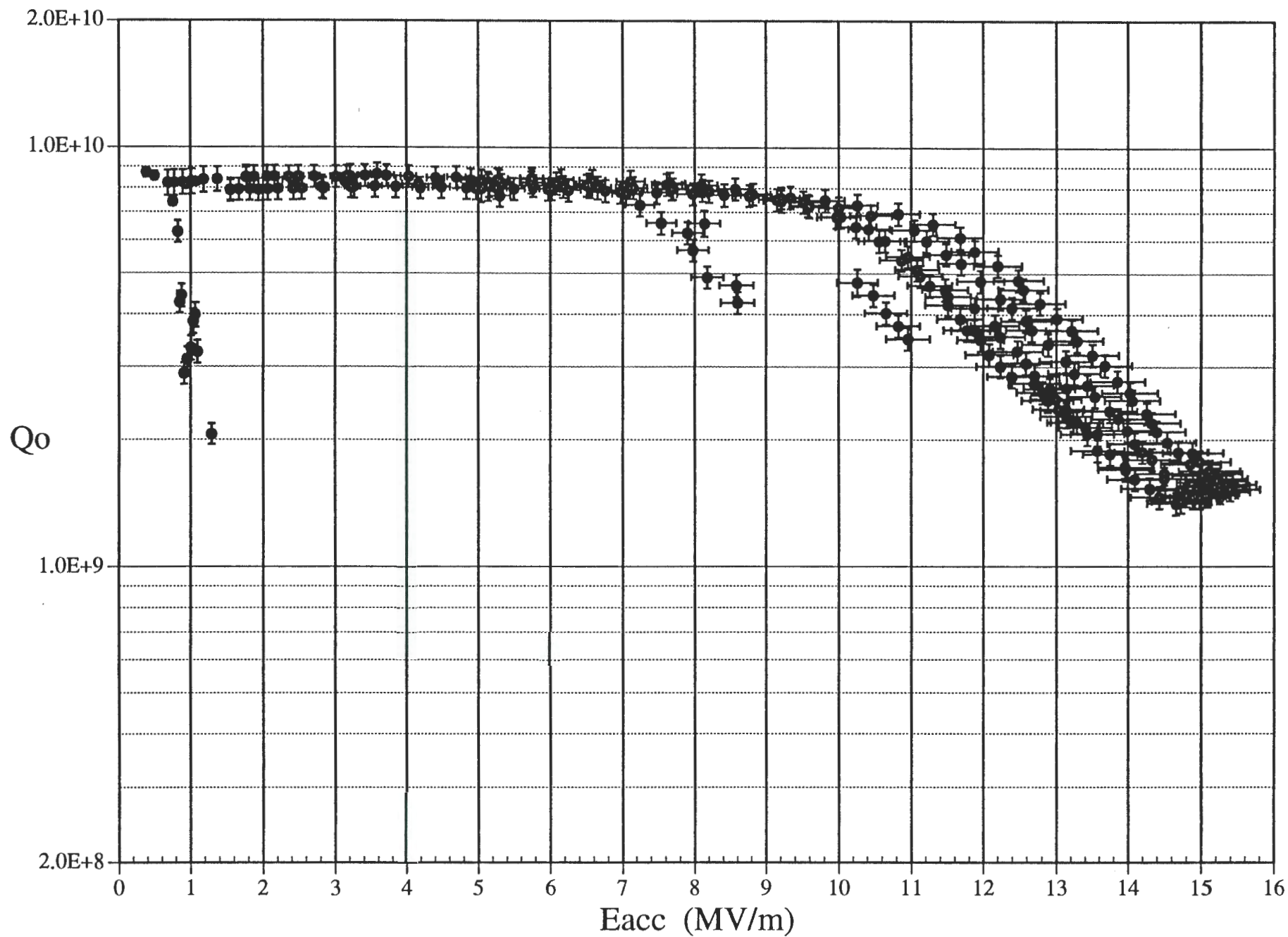


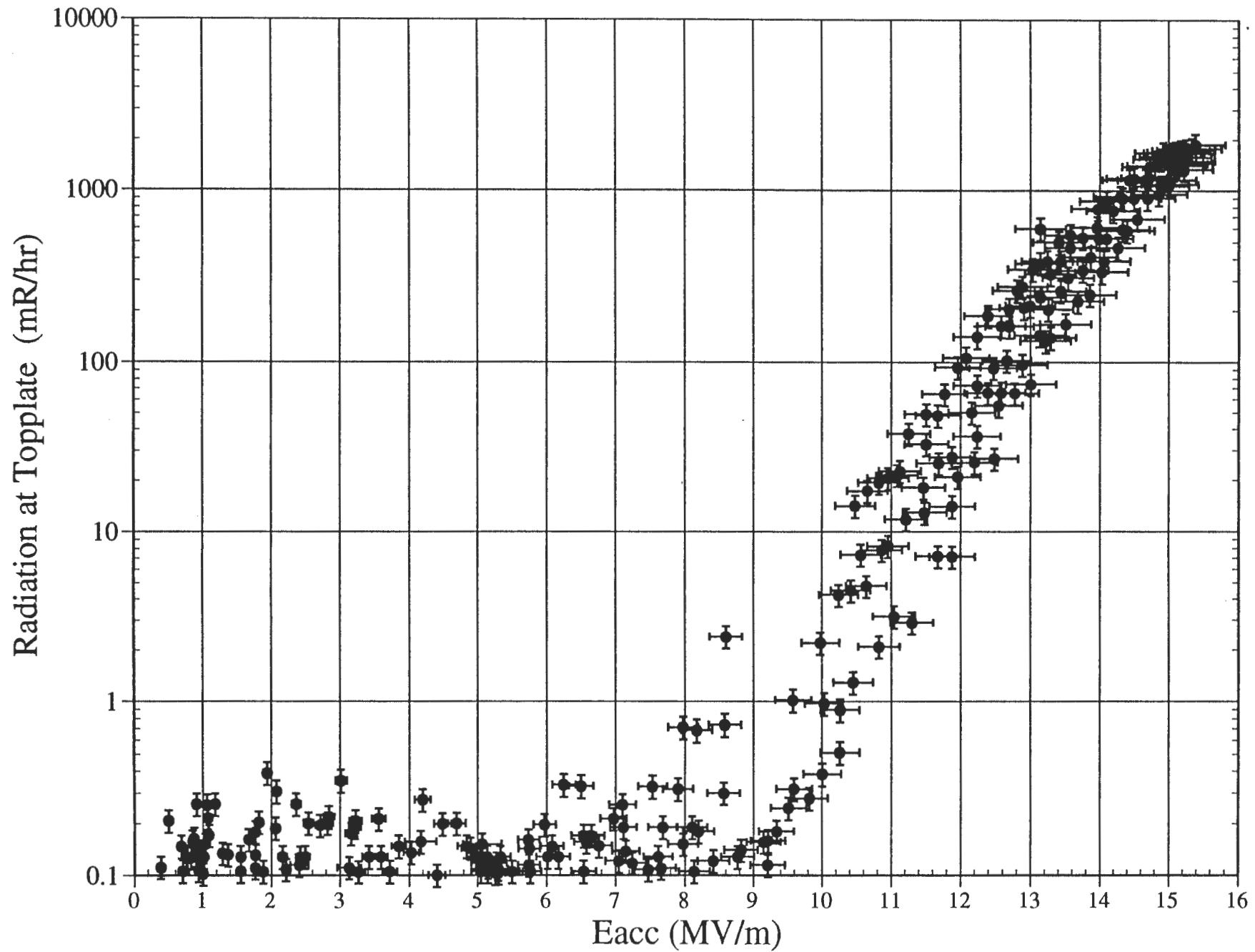


IA072 1/22/93

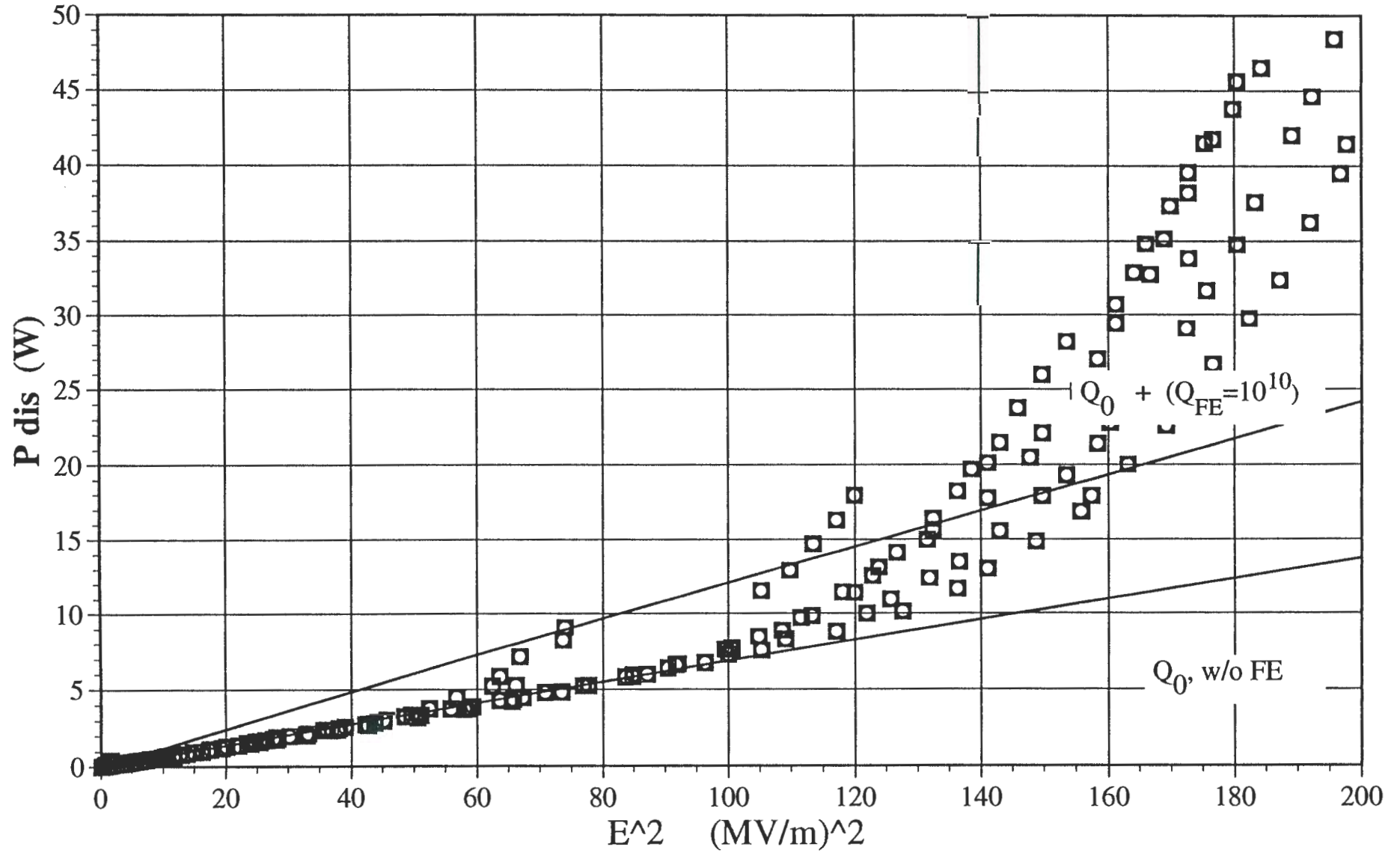
LAST DATA RUN



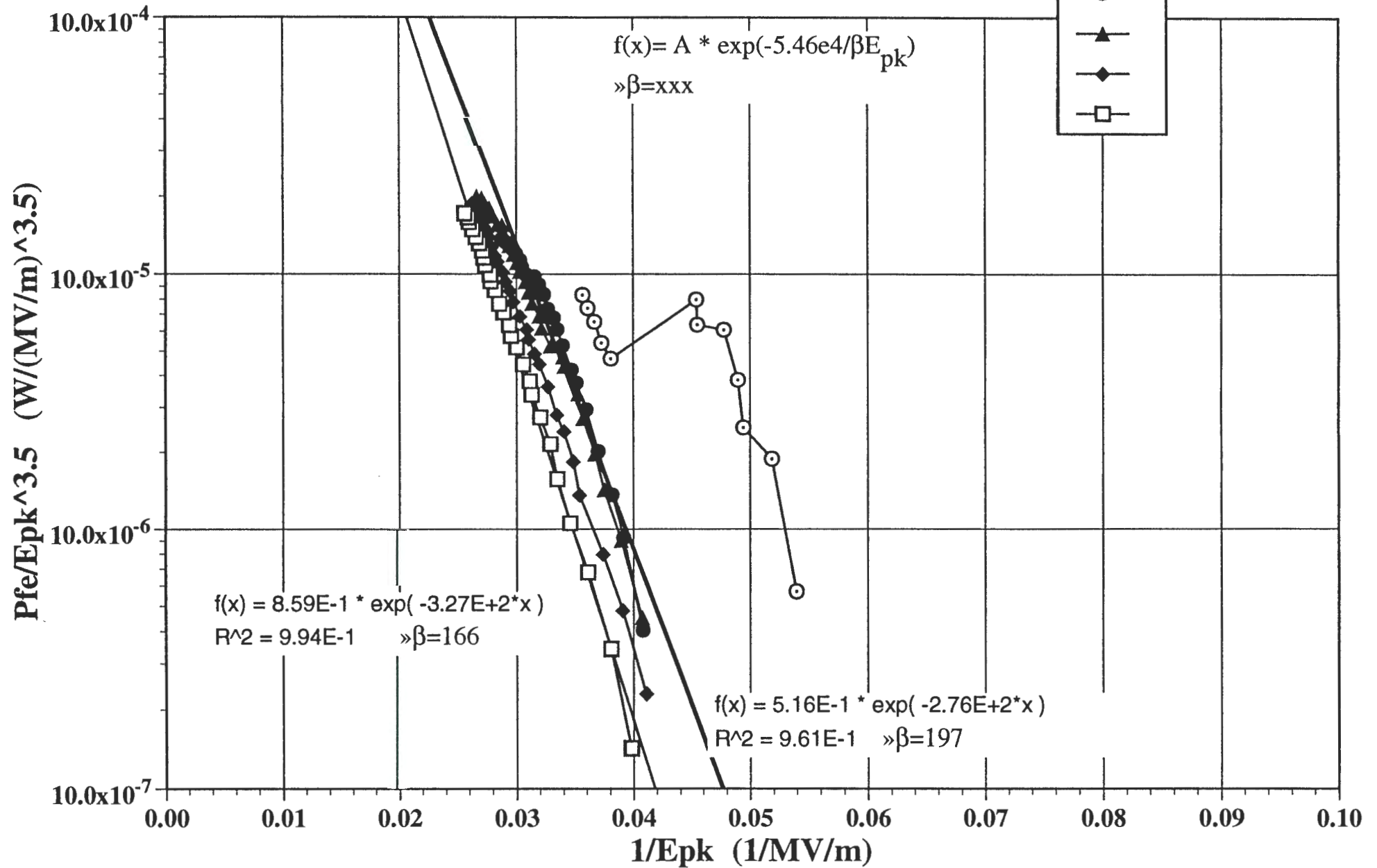


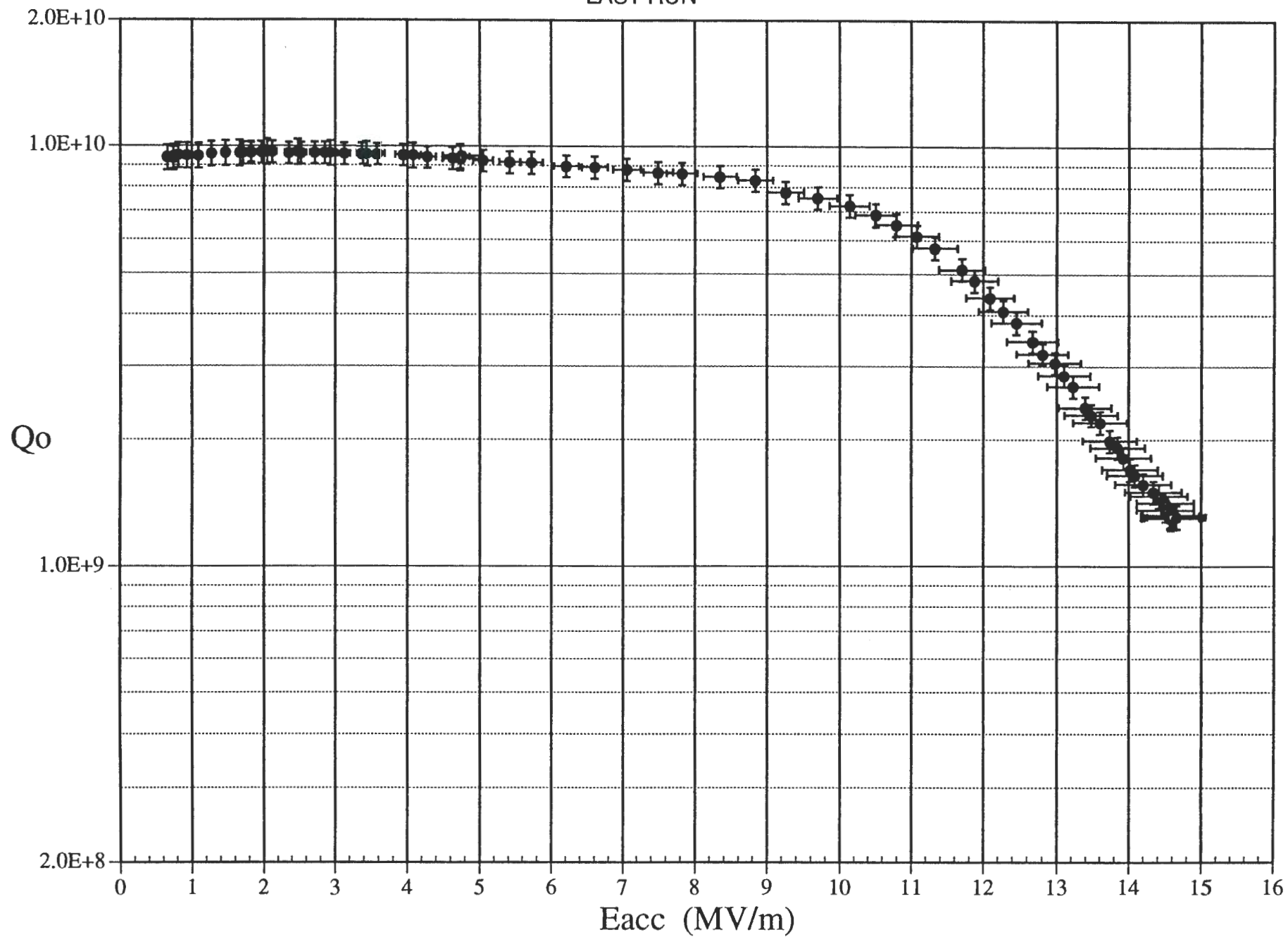


IA072 1/22/93



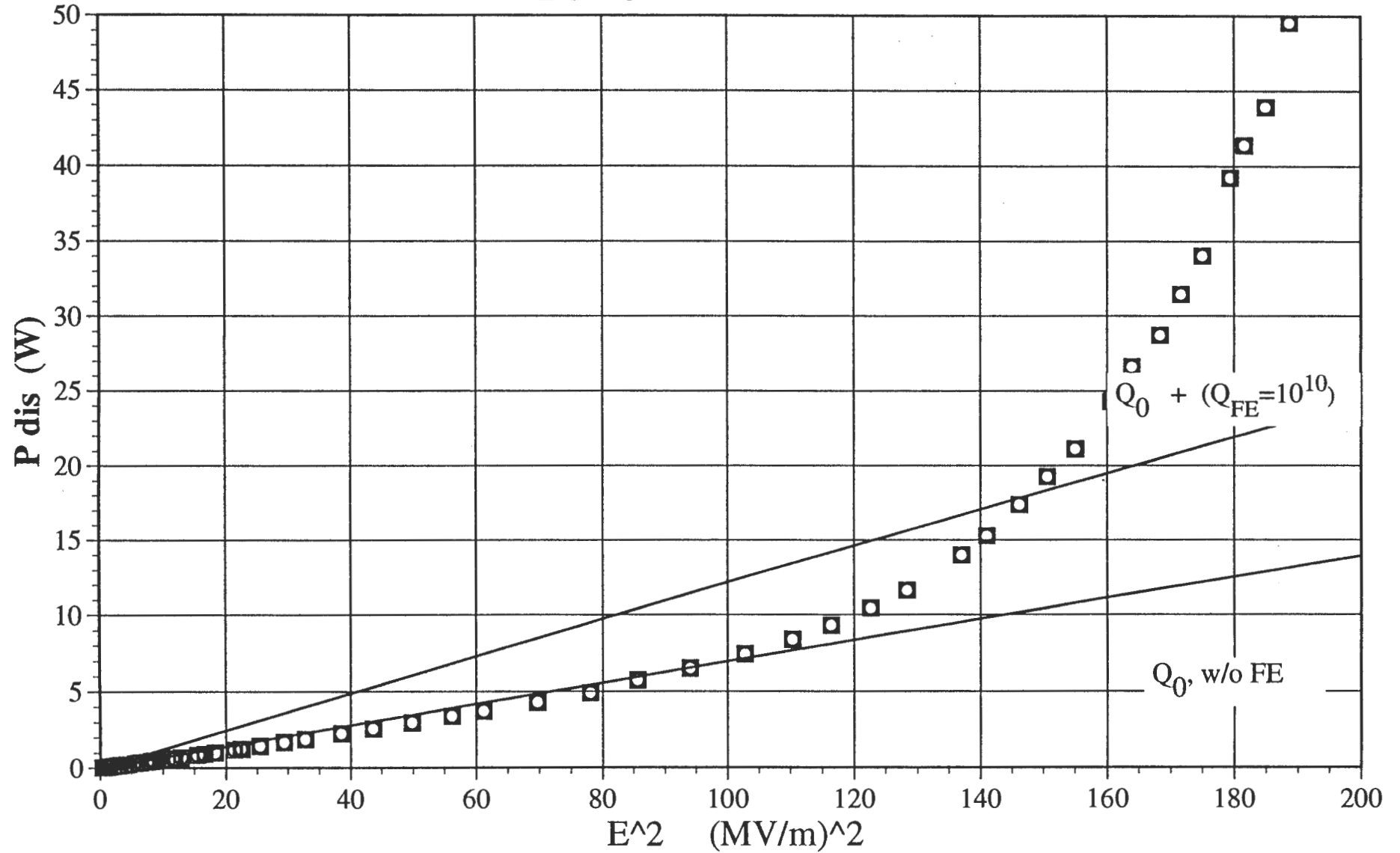
IA072 1/22/93

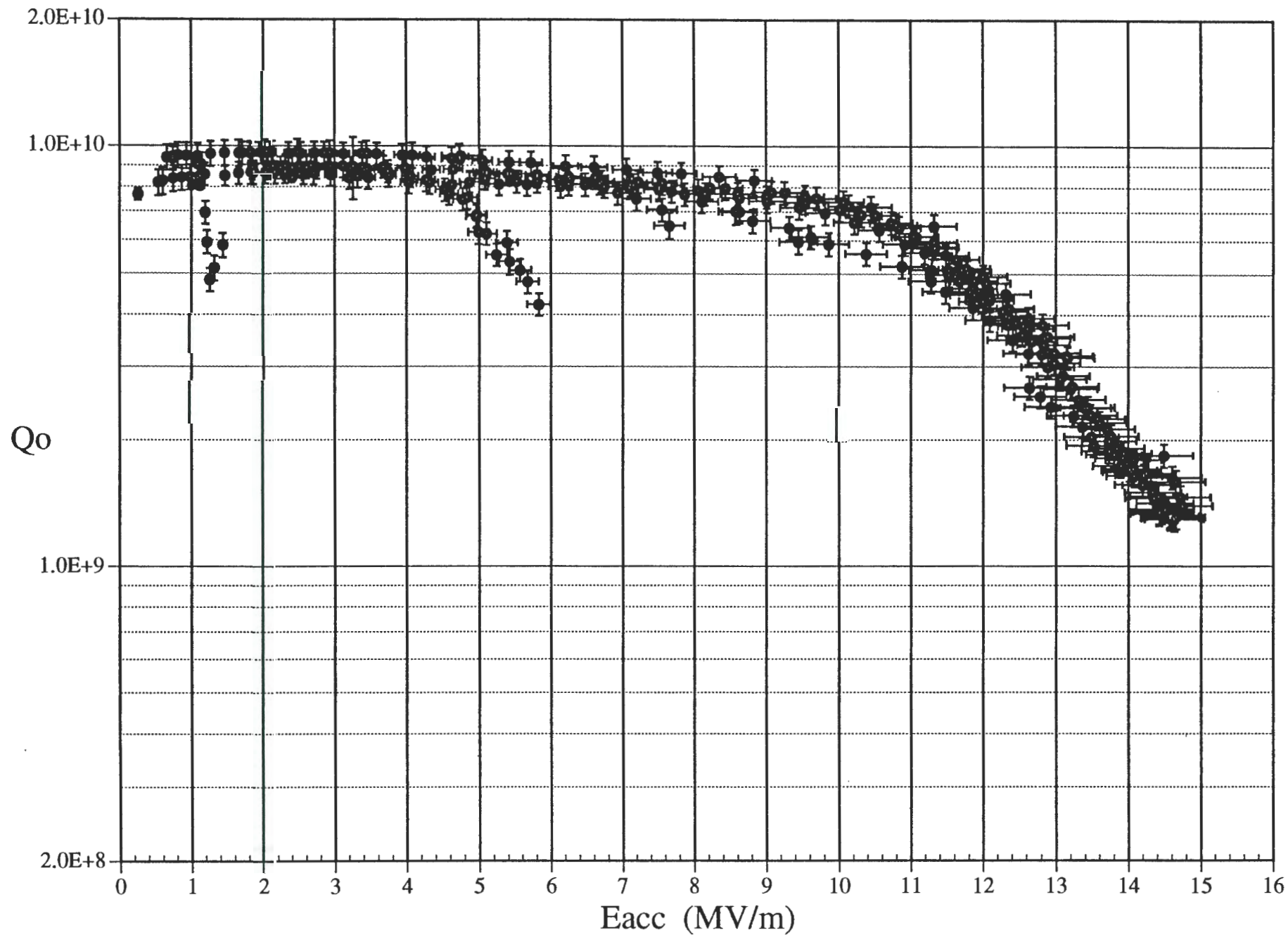




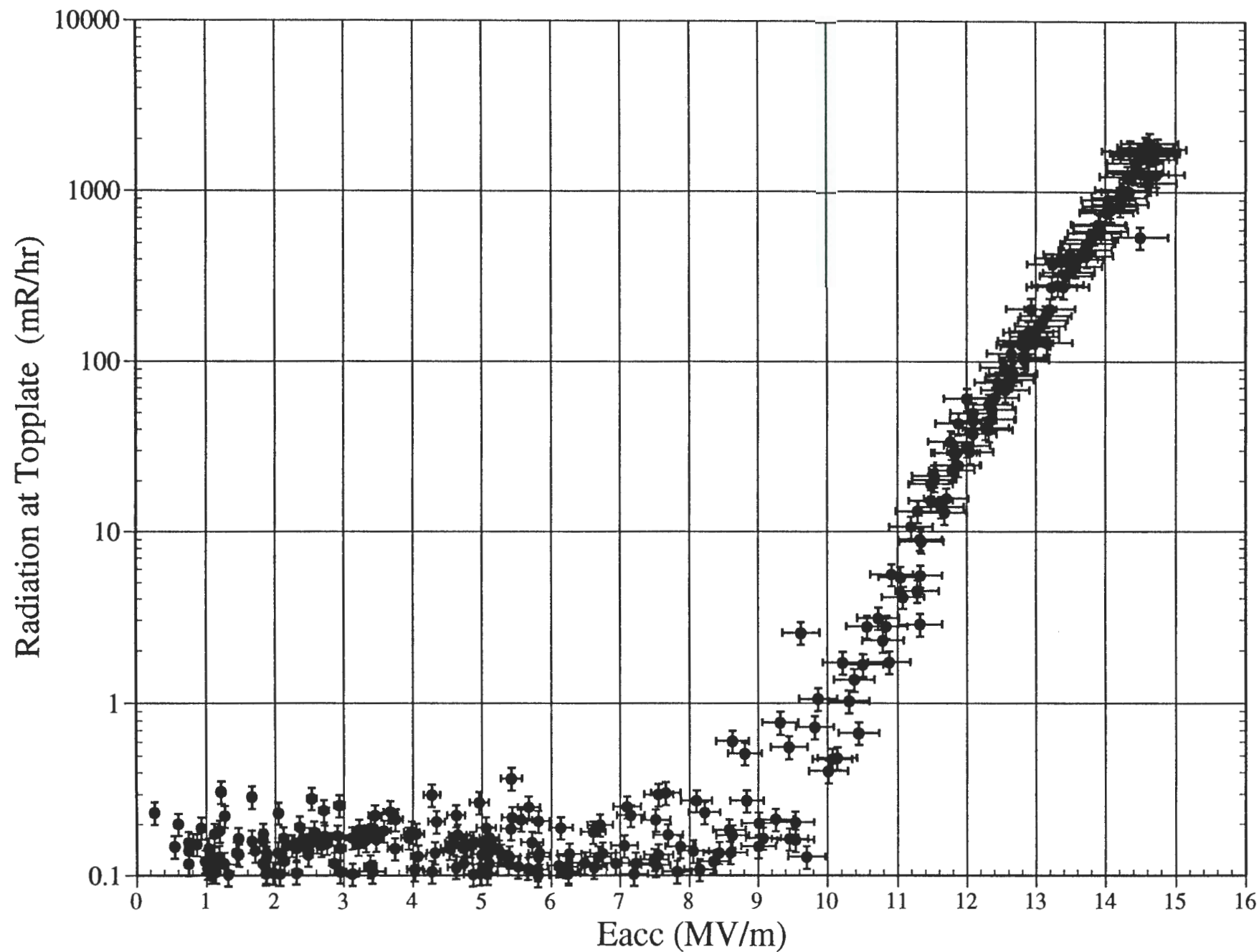
IA105 1/22/93

LAST RUN

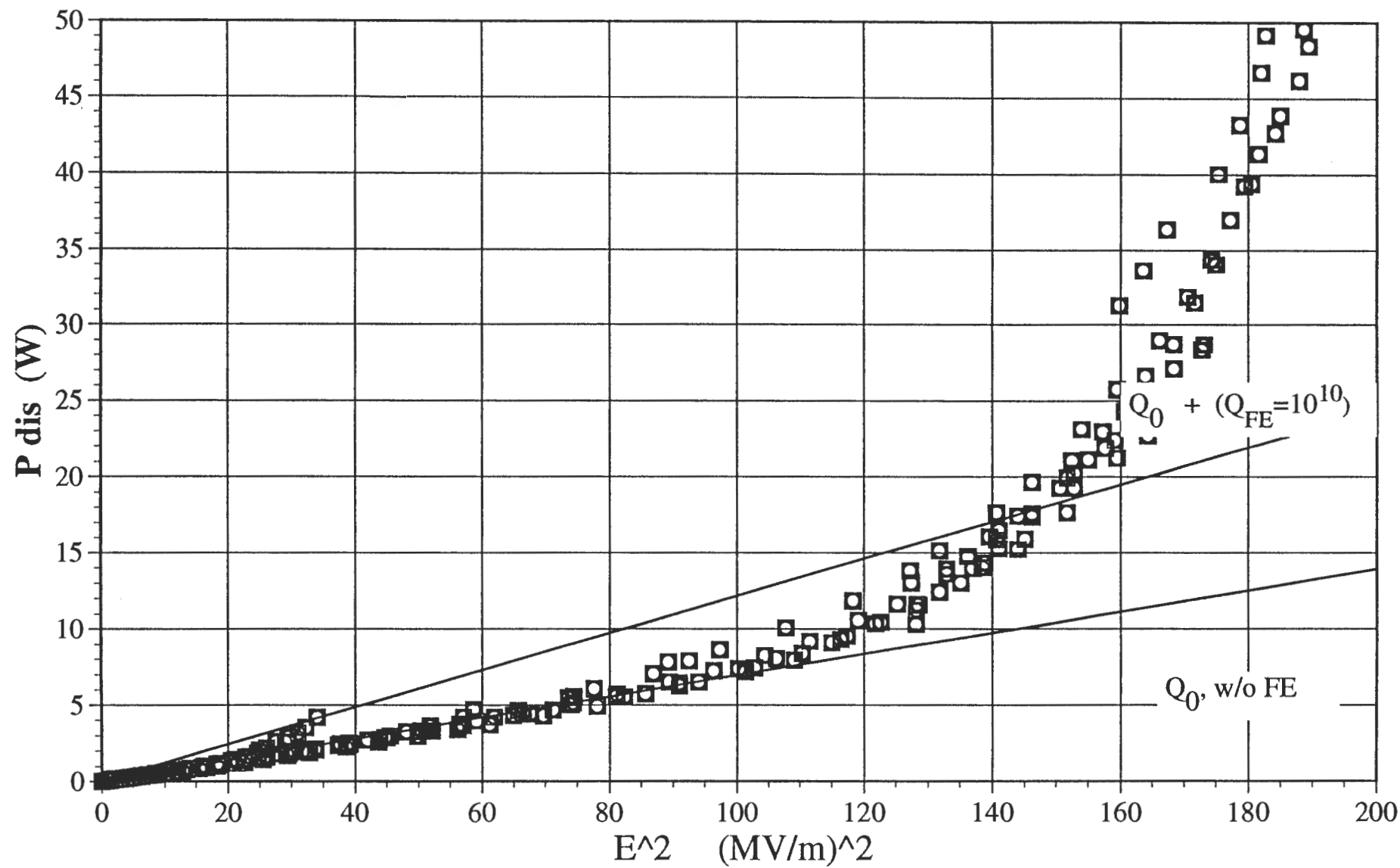




IA105 1/22/93

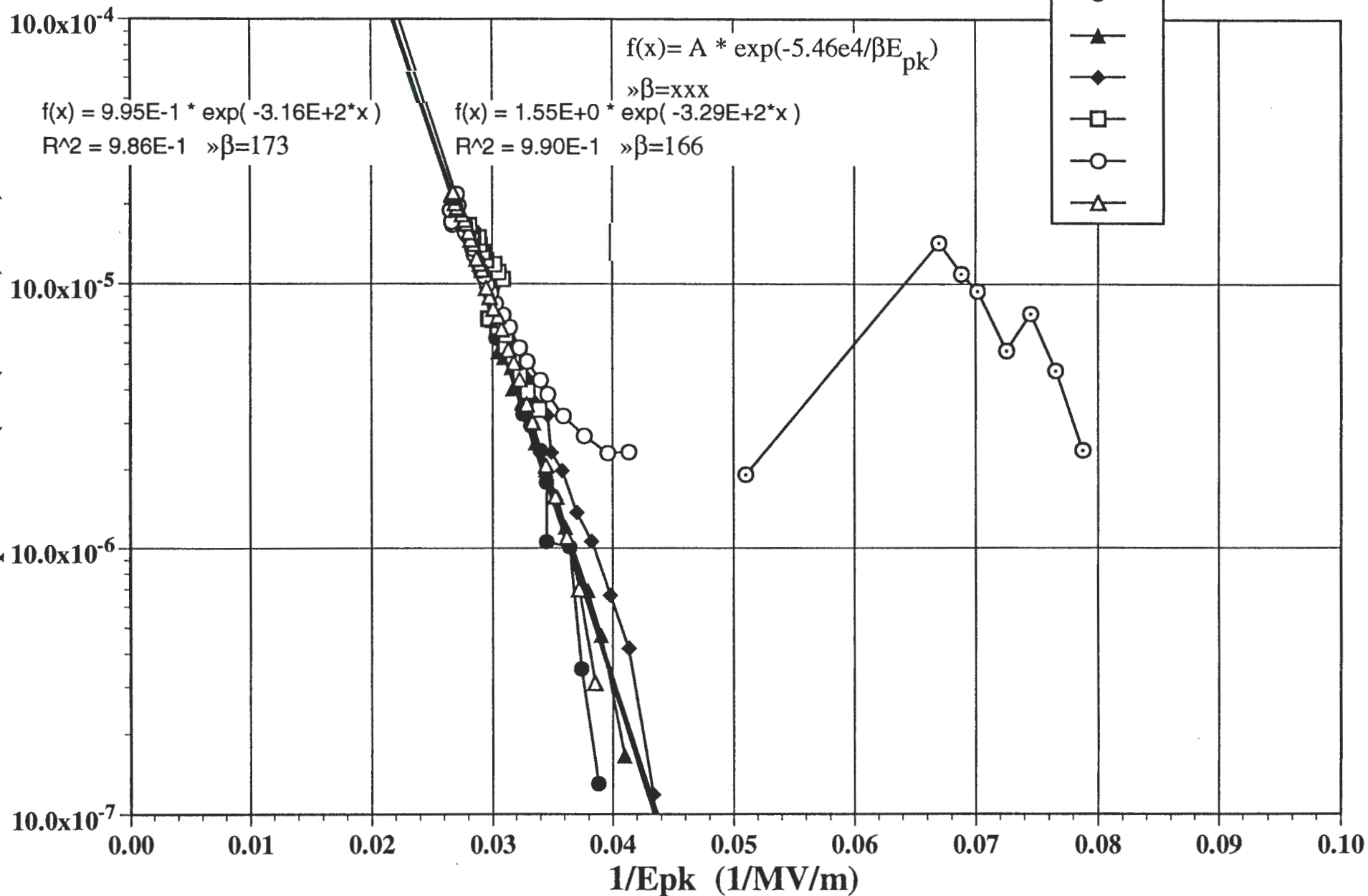


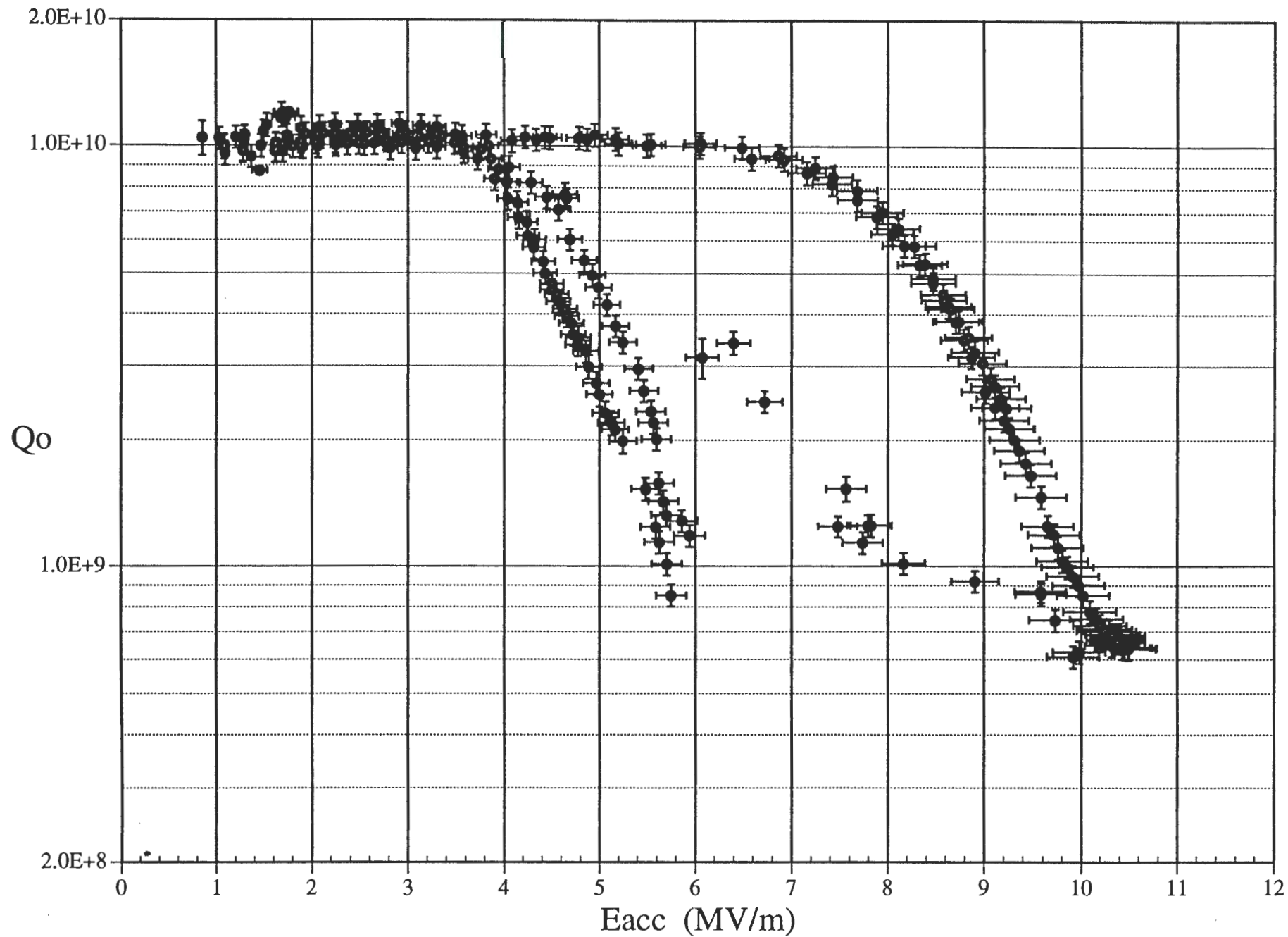
IA105 1/22/93

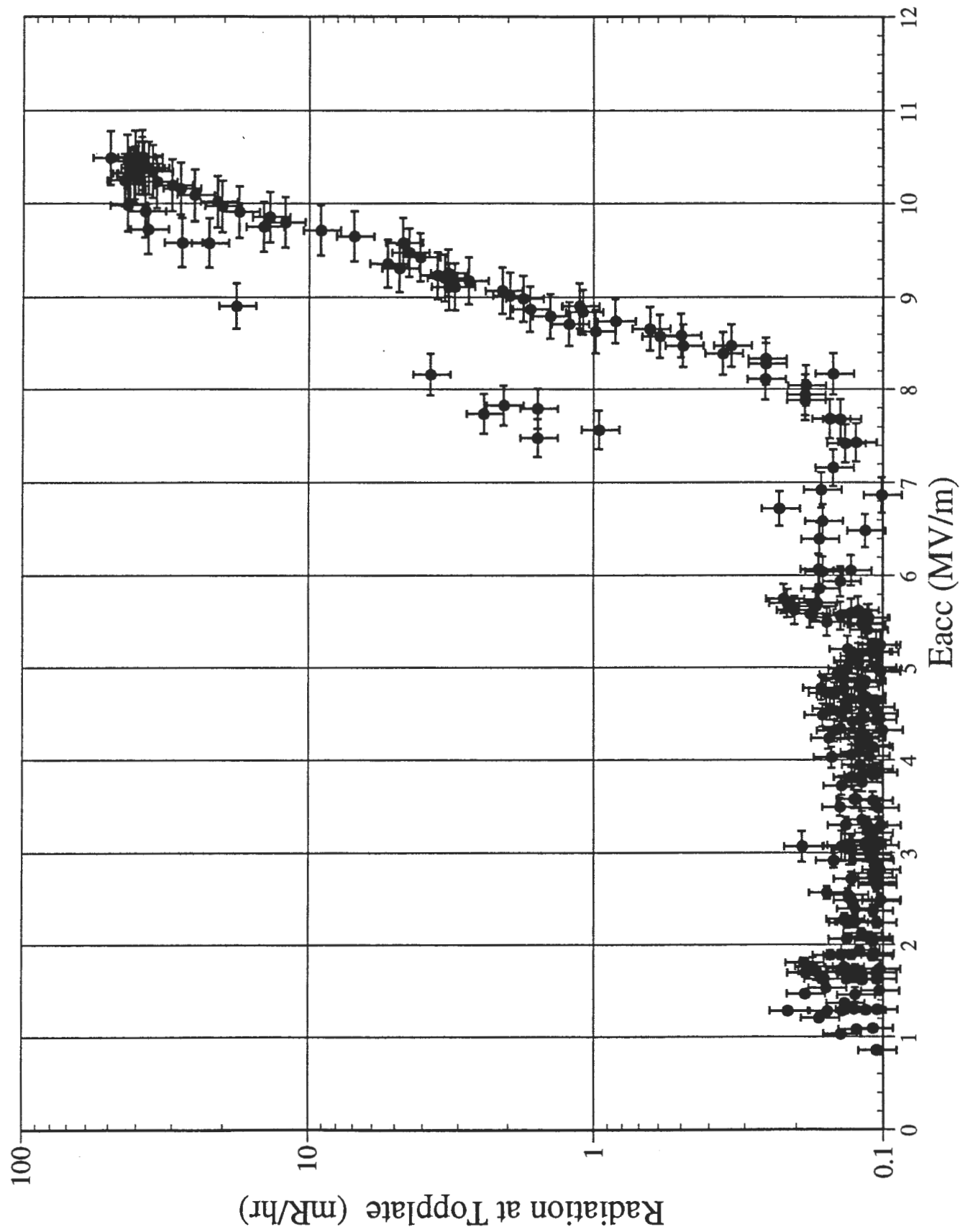


IA105 1/22/93

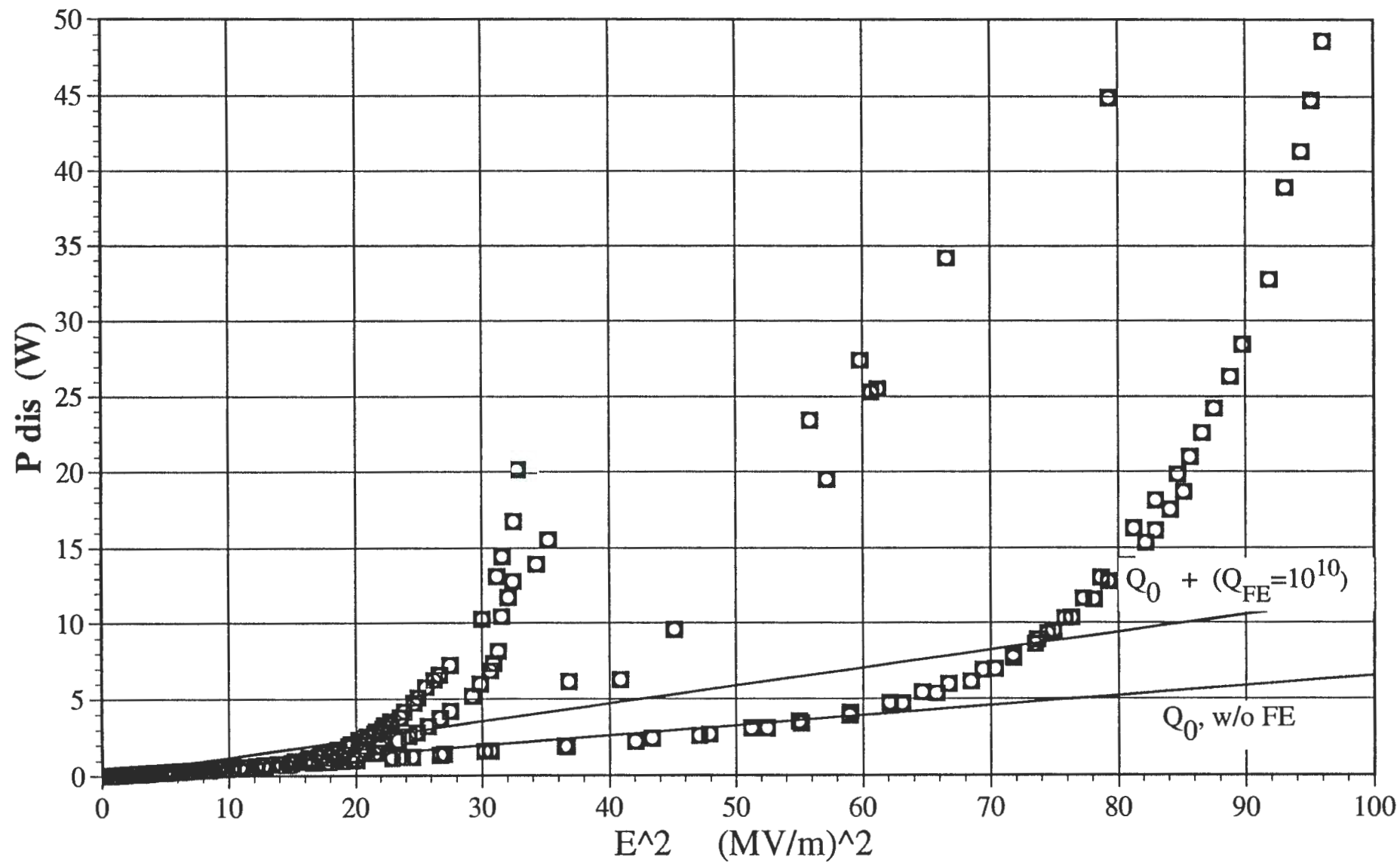
$P_{fe}/E_{pk}^{3.5} (W/(MV/m)^{3.5})$



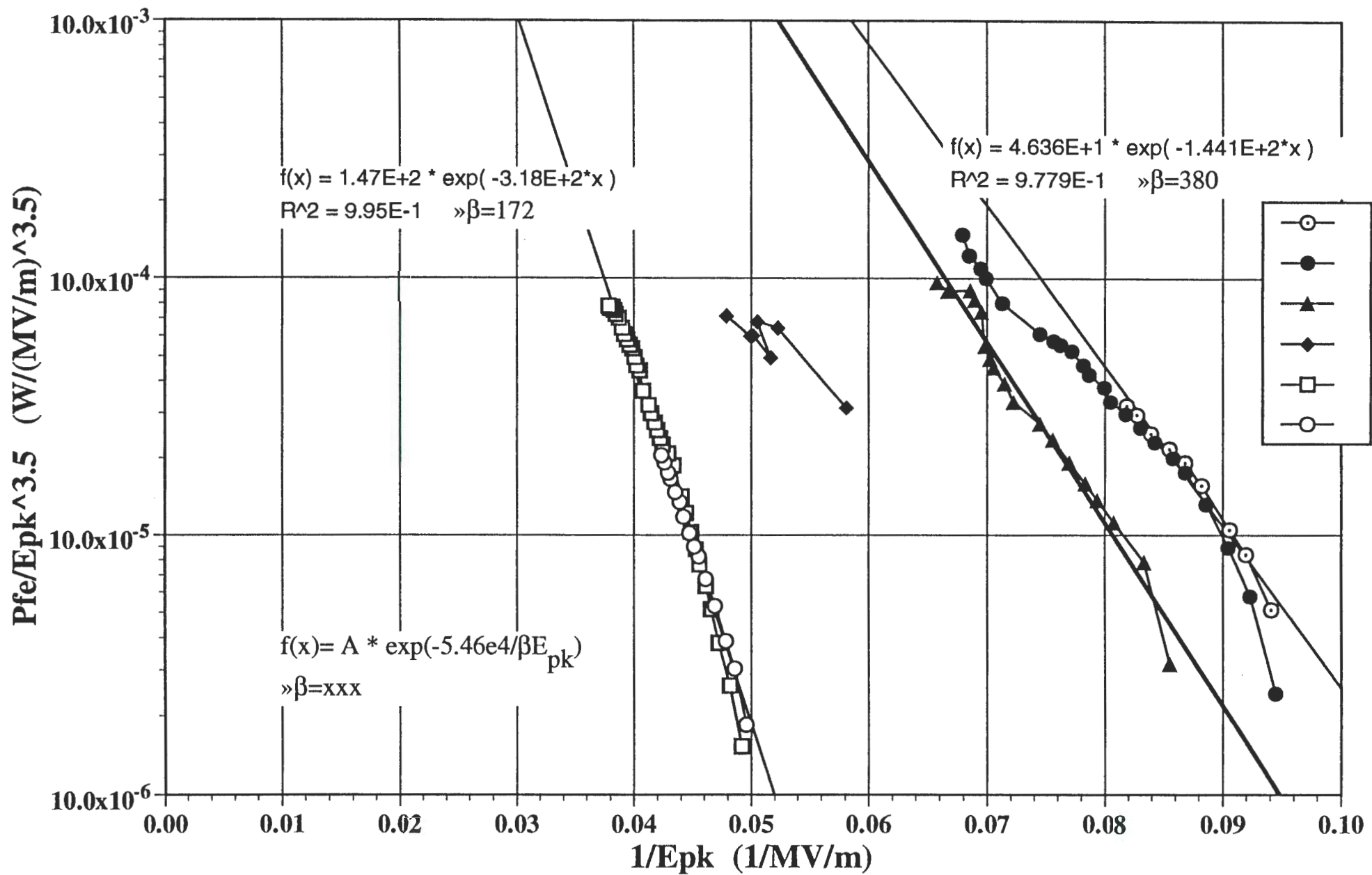


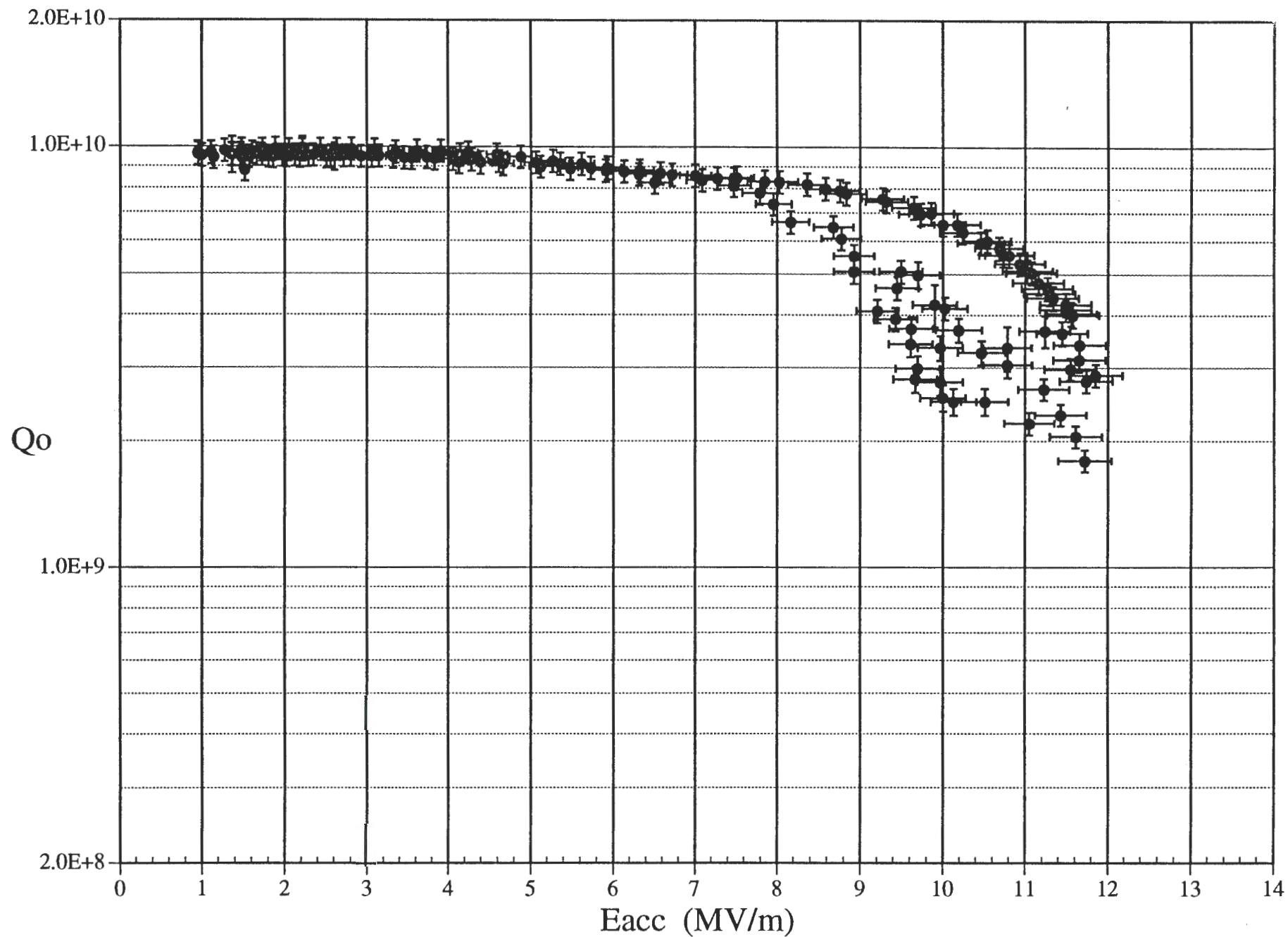


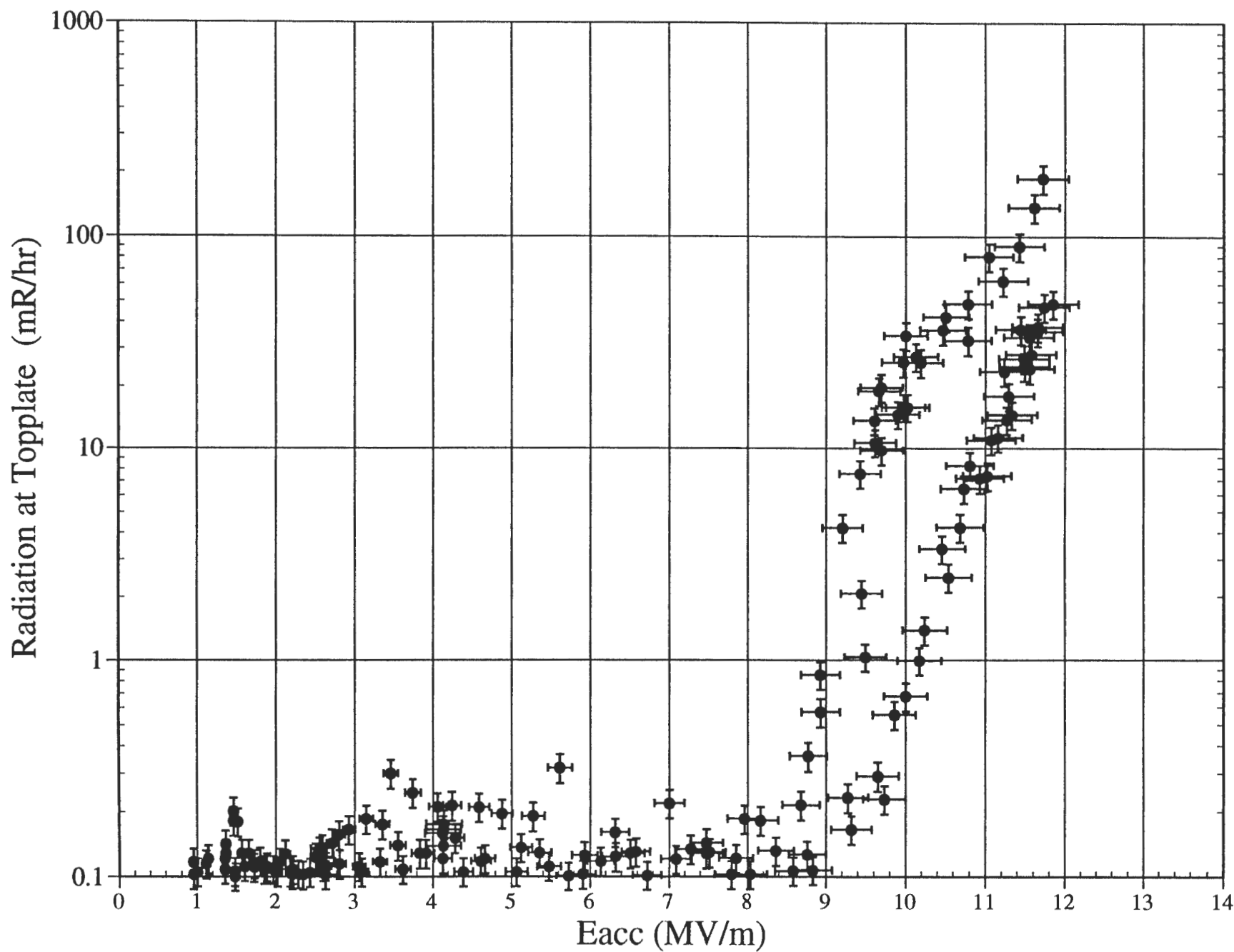
IA186 1/25/93



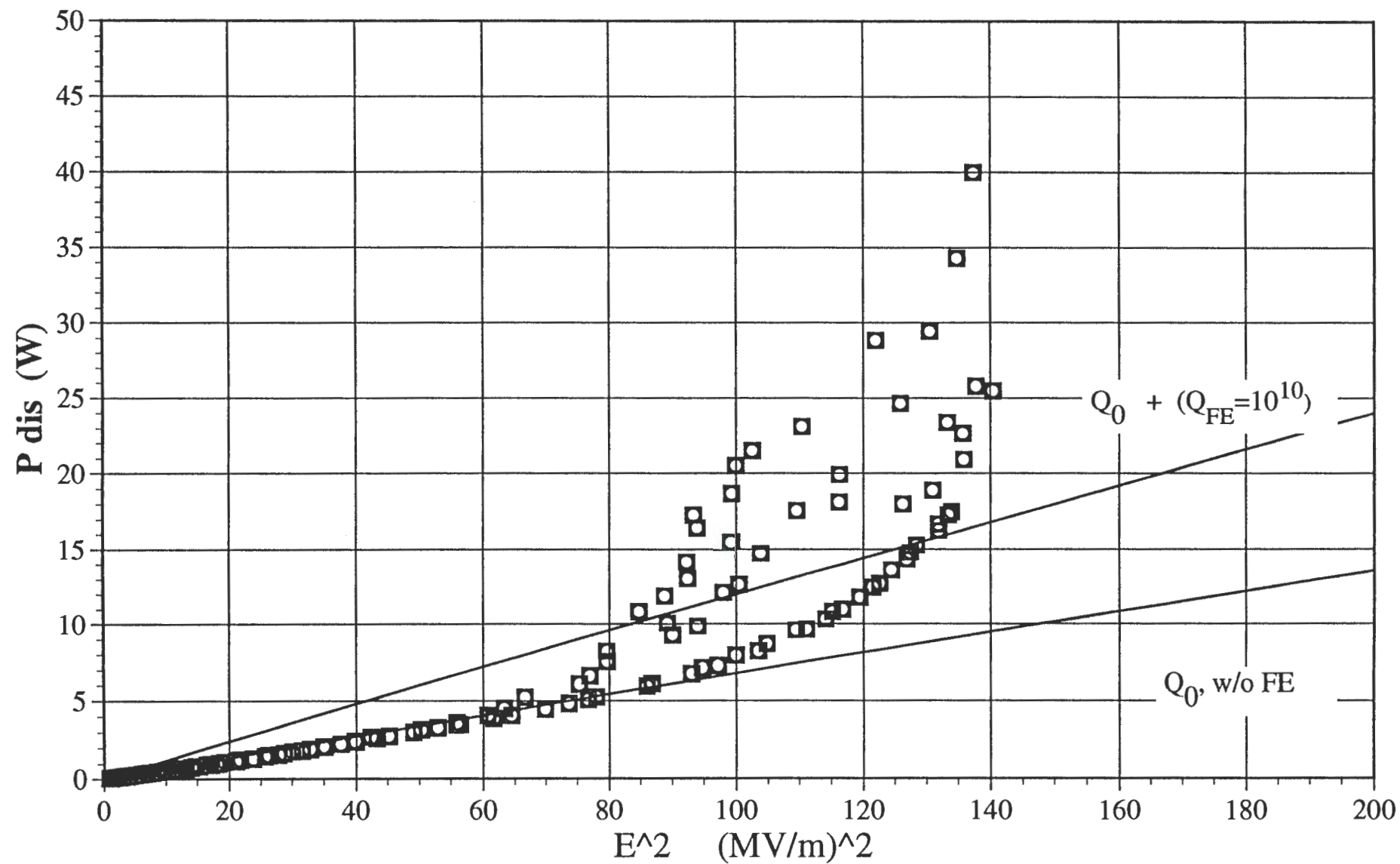
IA186 1/25/93



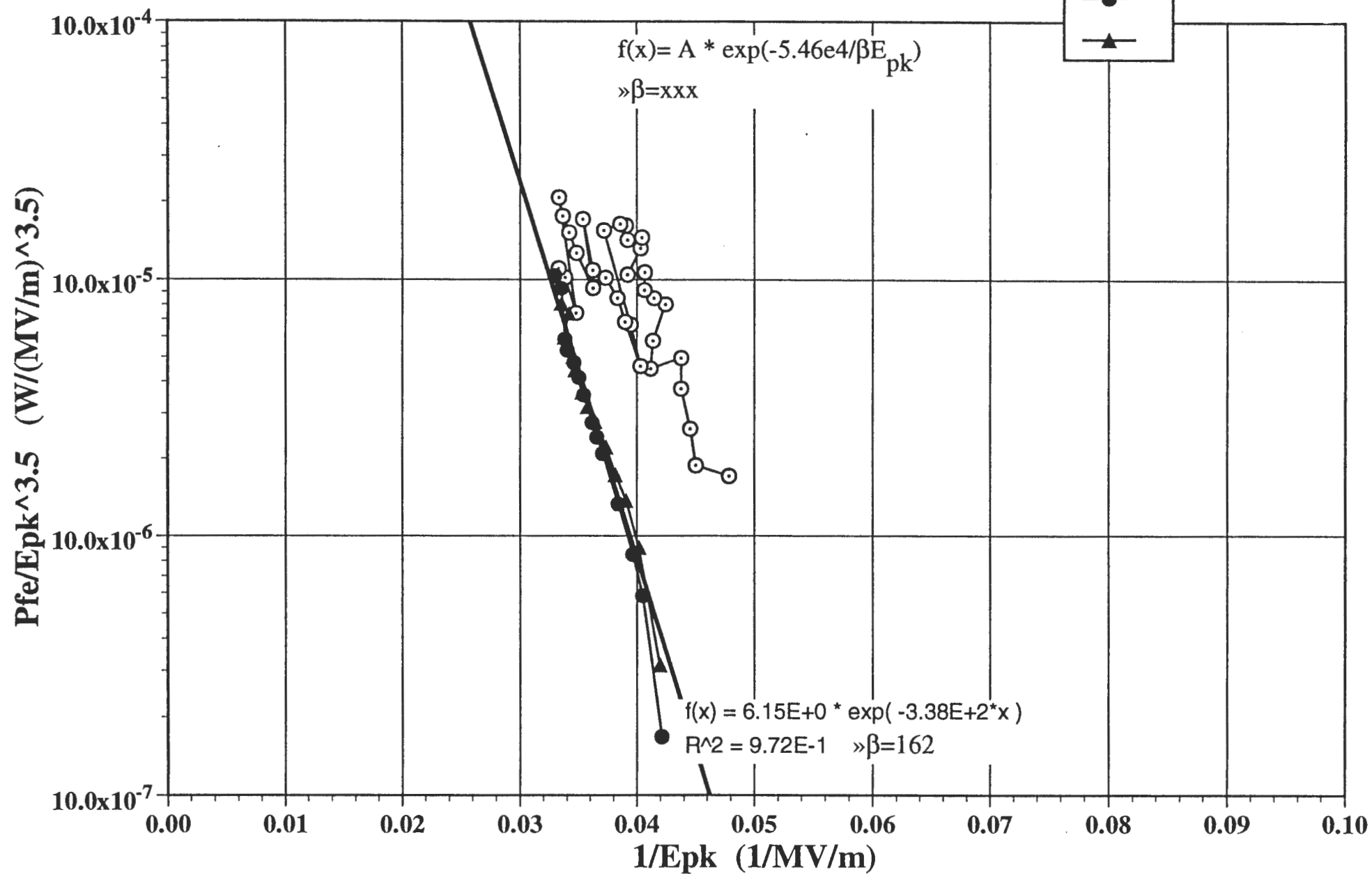


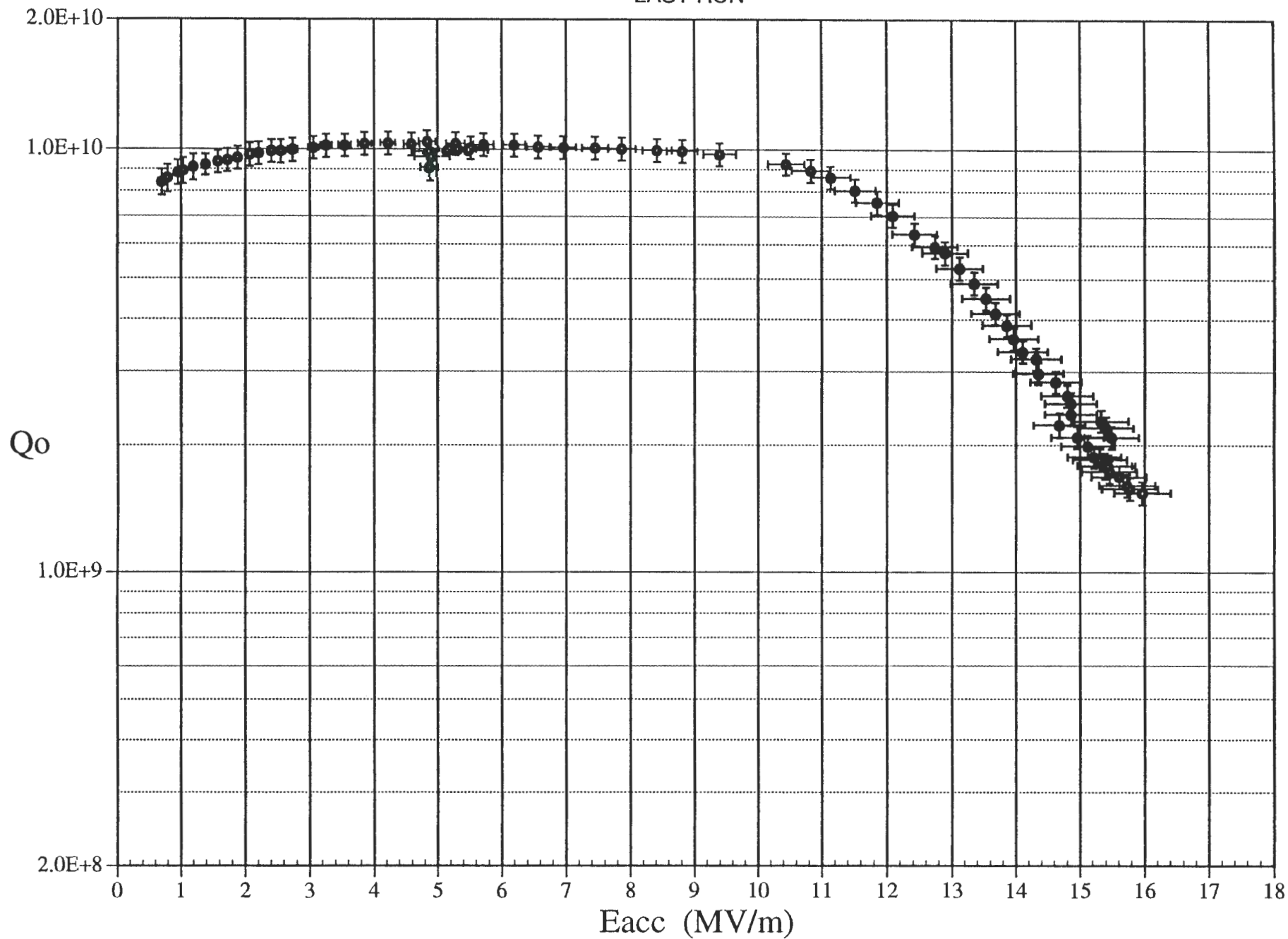


IA228 1/25/93



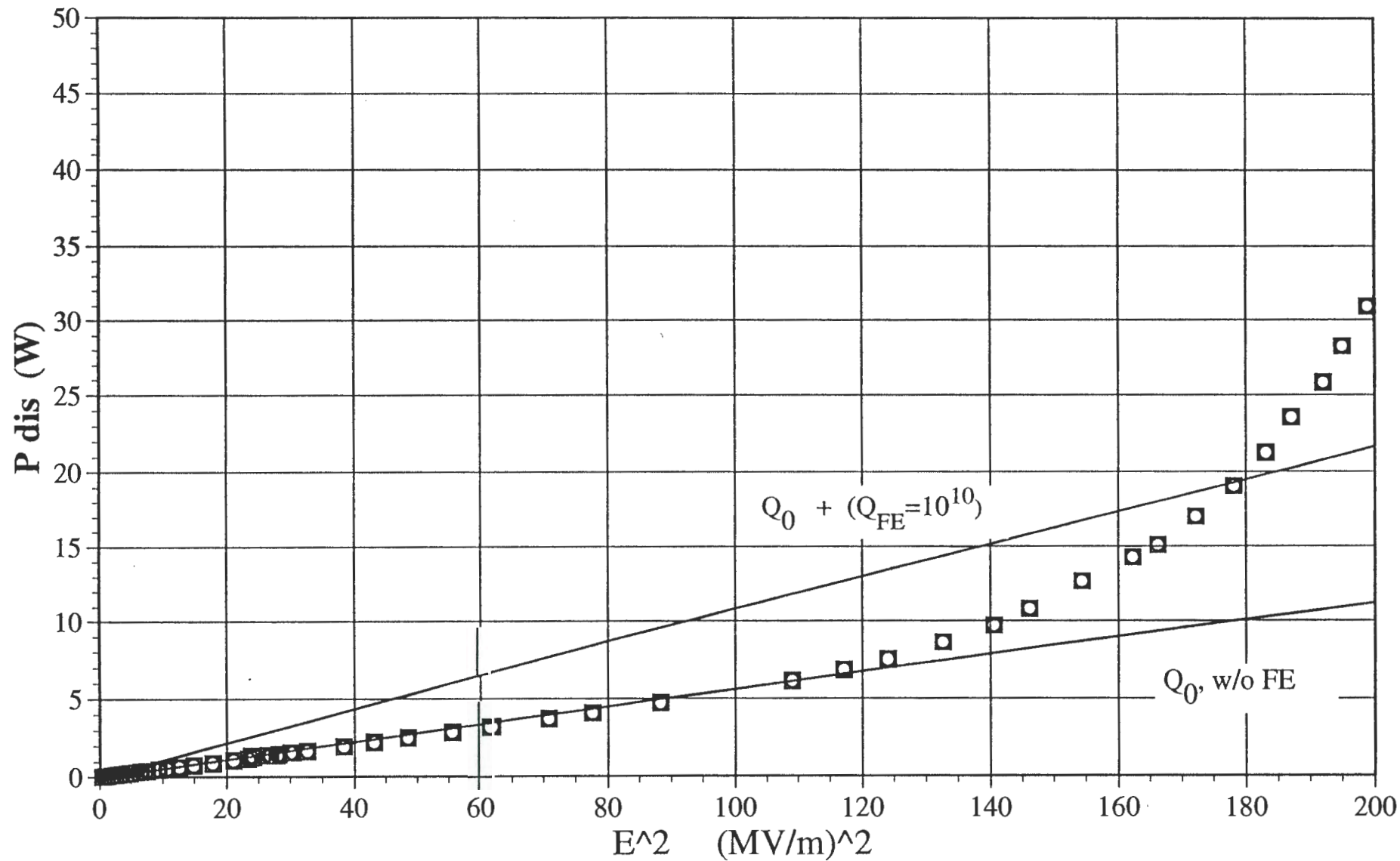
IA228 1/25/93



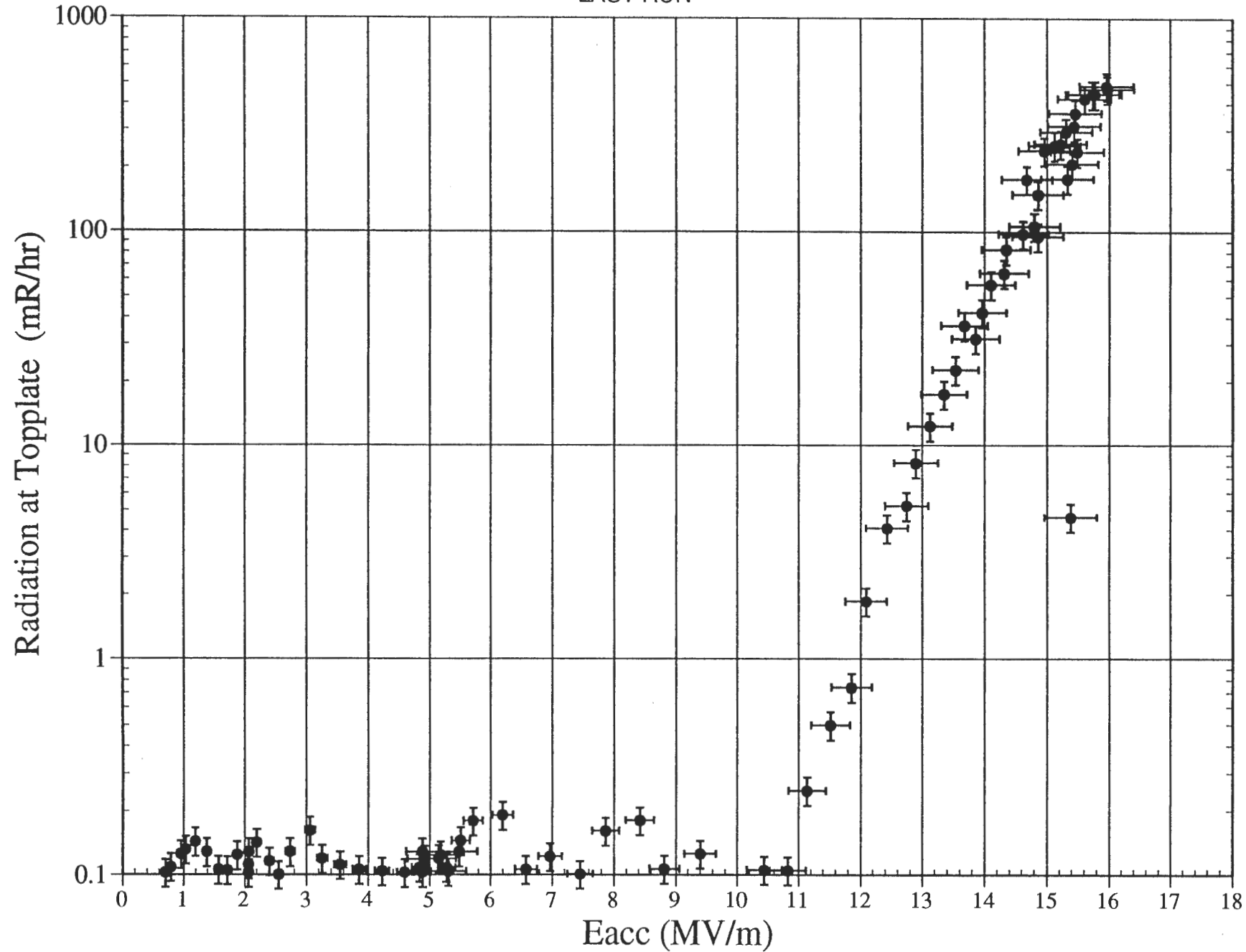


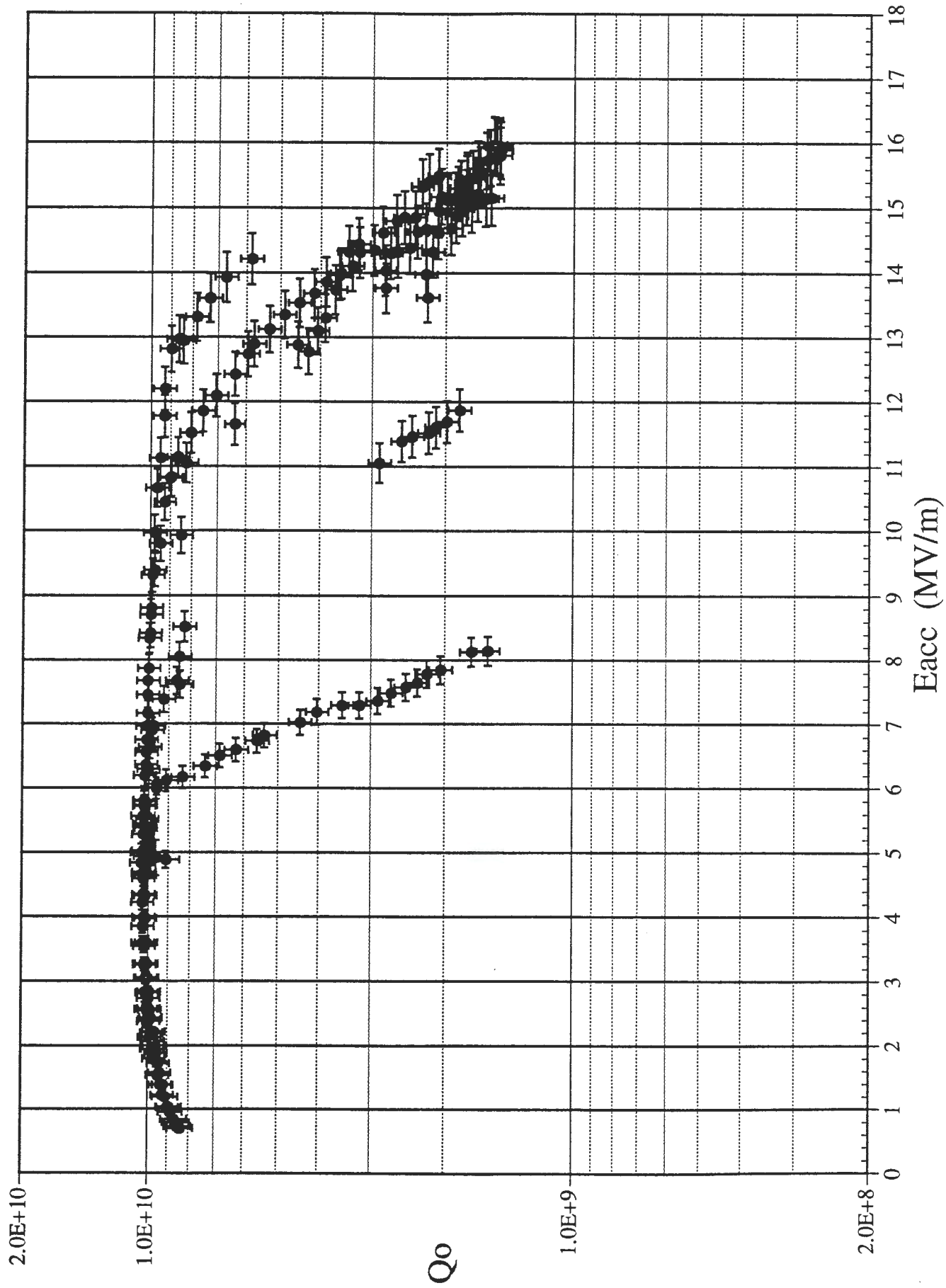
IA028 1/28/93

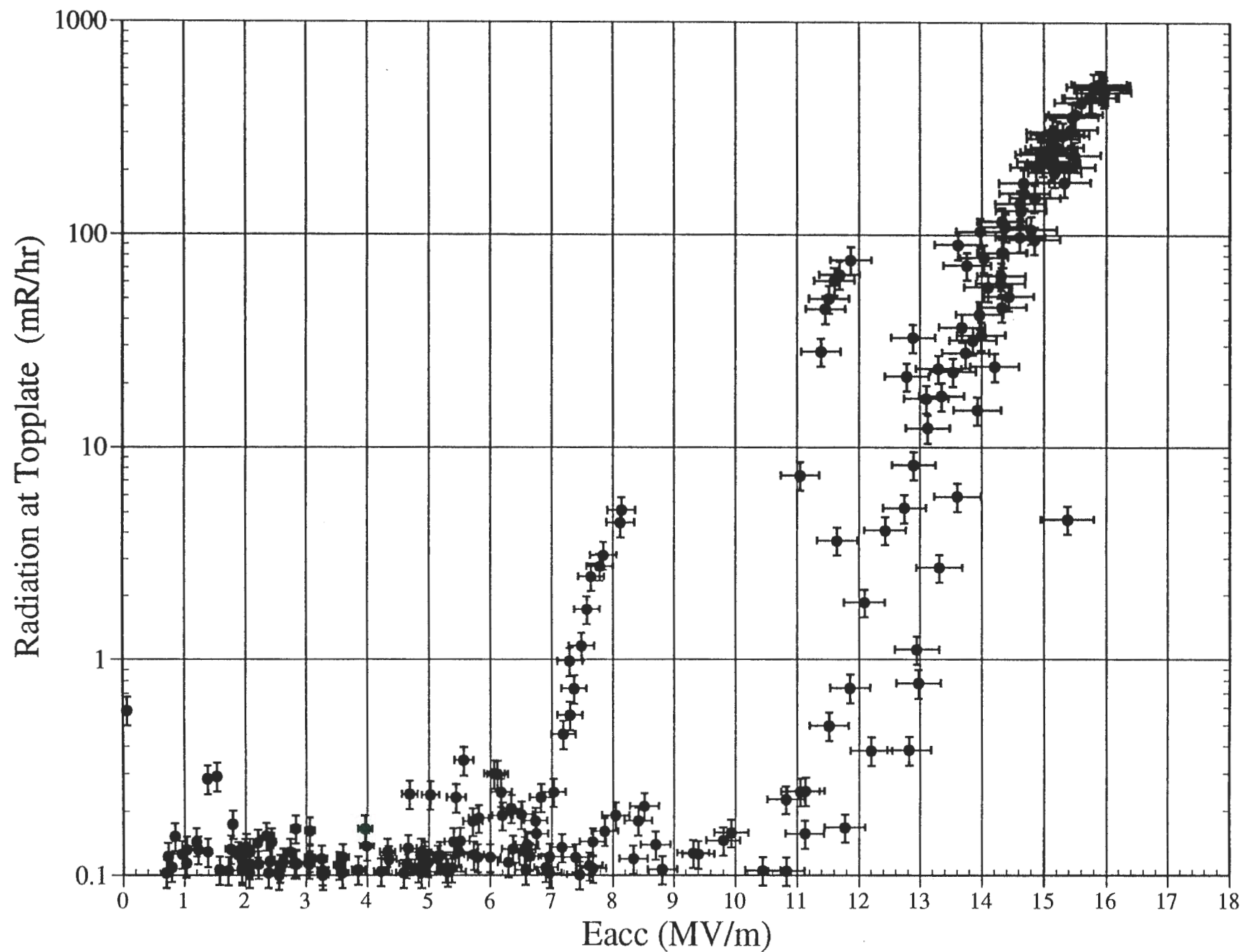
LAST RUN



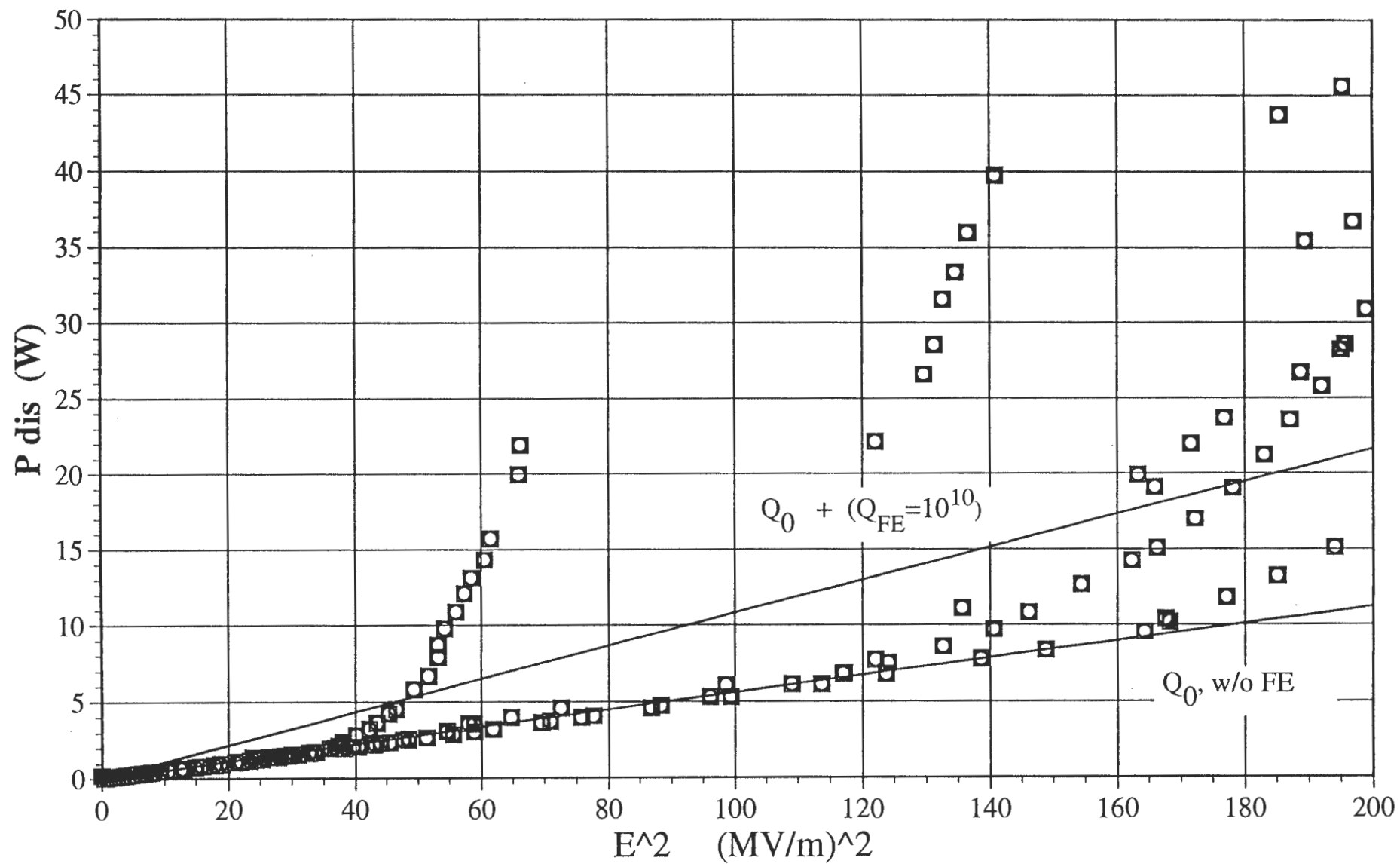
LAST RUN



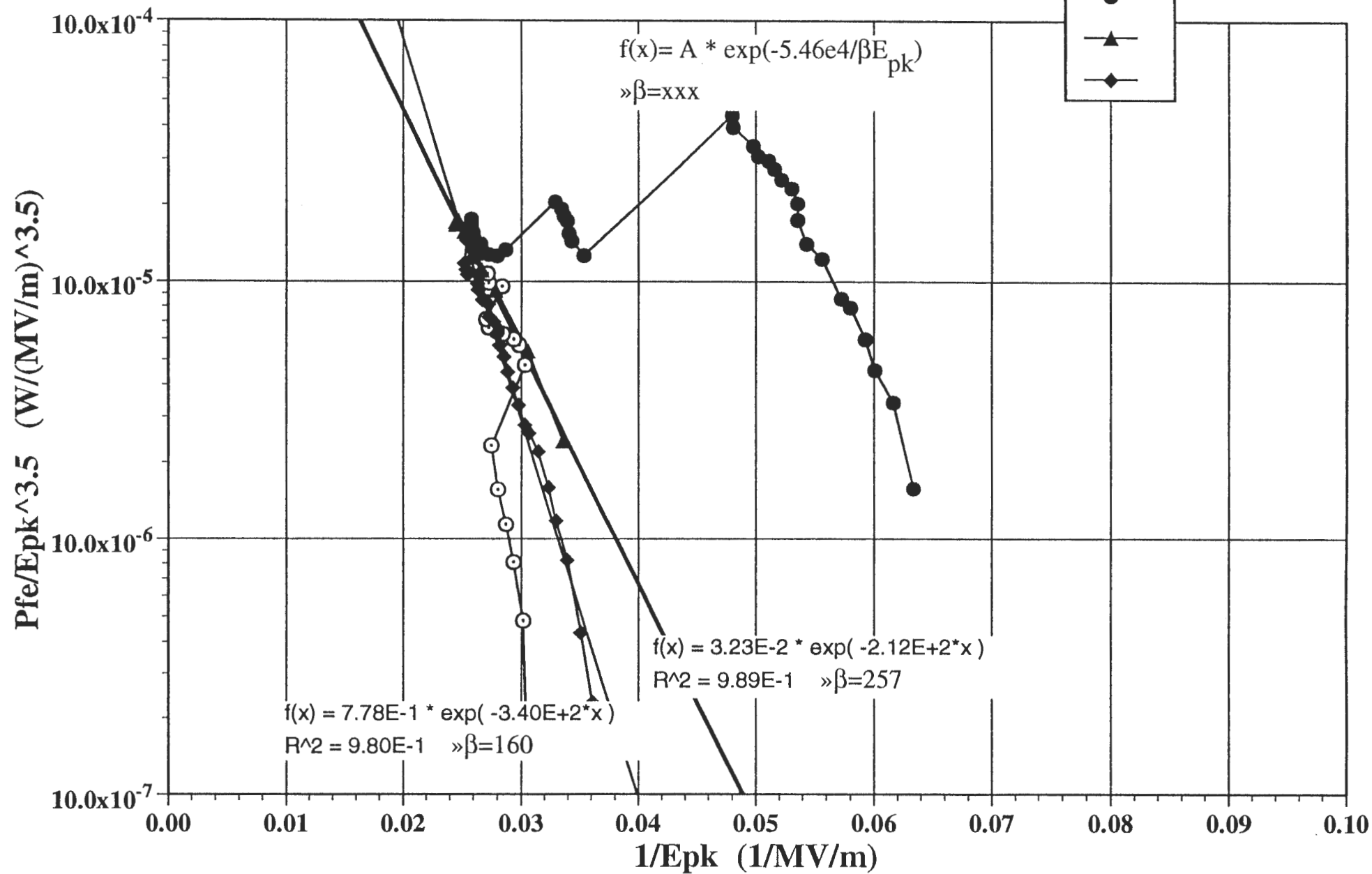


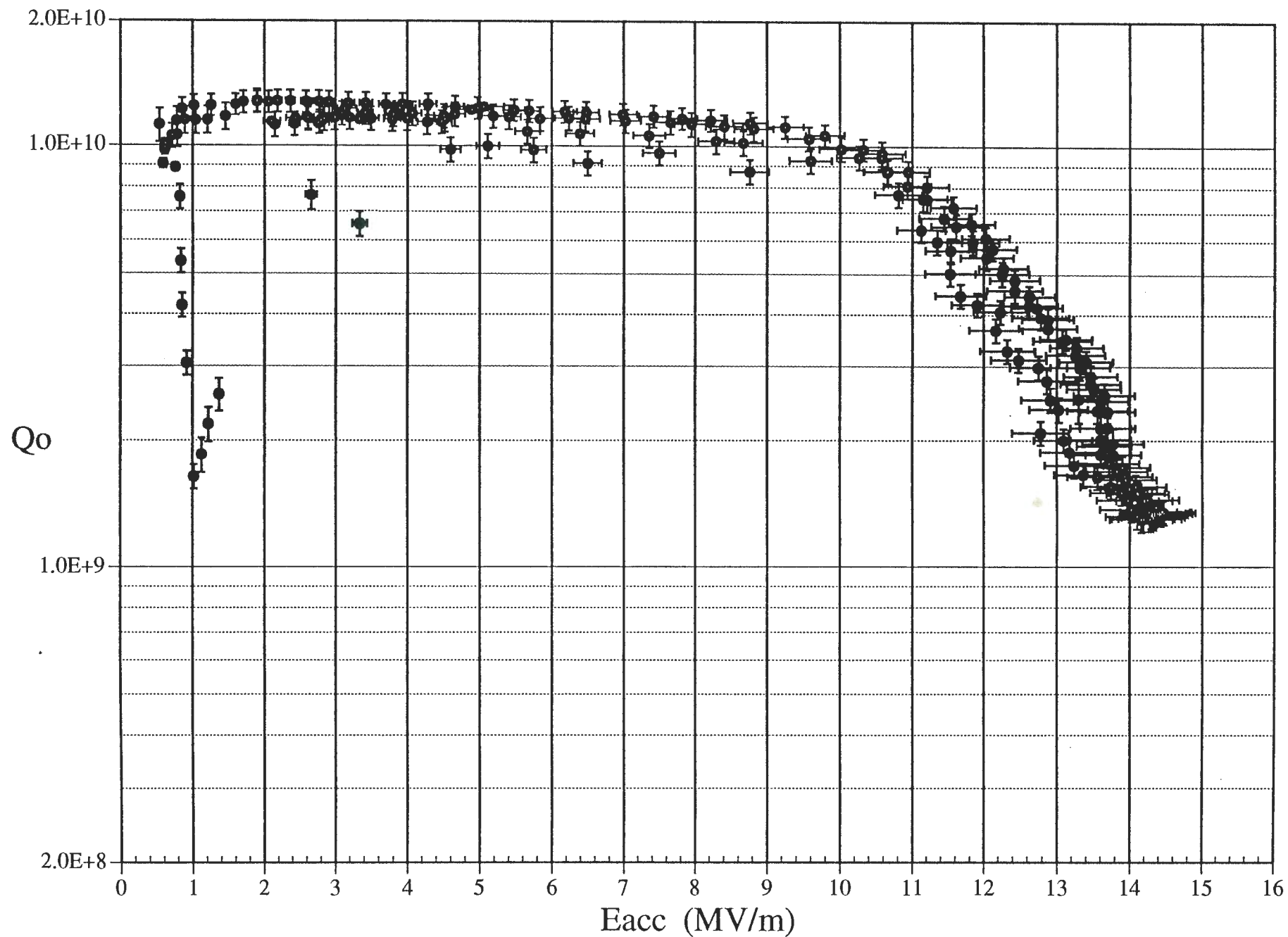


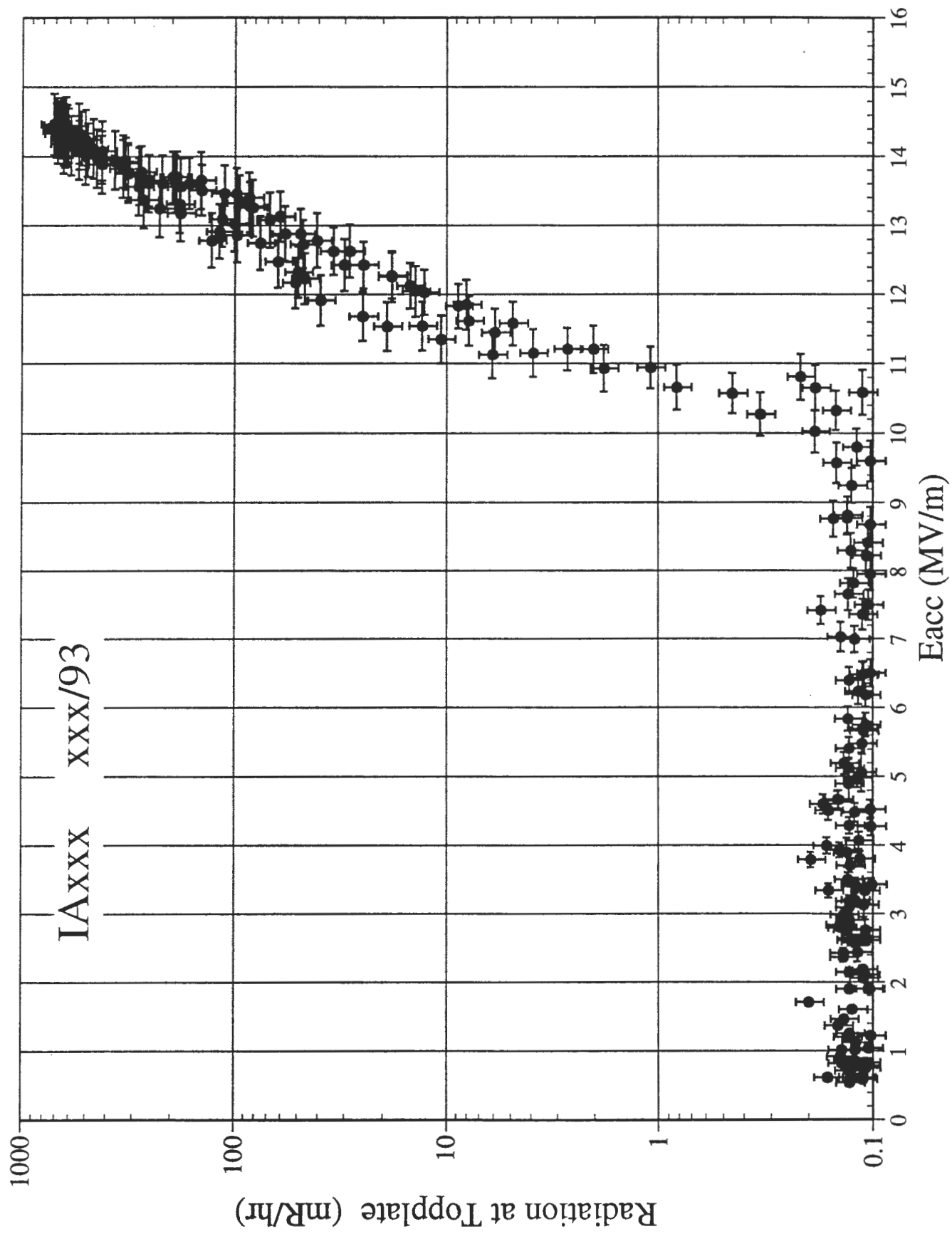
IA028 1/28/93



IA028 1/28/93







IA264 1/28/93

