

REMOTE PRP

REGENERATION OF THE OUTPUT CURVE FOR MODEL 3

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DOUBLE PRECISION CGF(500),TT(500)
DOUBLE PRECISION DA(50),UA(50),BMA(50),AKA(50),A(50),P(50),Q(50),B(50),UO(50),VO(50),WA(50)
DOUBLE PRECISION WD,U,X,BM,AK,FF,SS,Z,Y,BE,UU,V,THETA,RR,AL,FI,FZ
FORMAT(5E20.8)
FORMAT(4I5,2E20.8)
FORMAT(I3,2D20.8)
FORMAT(4Y)
FORMAT(//)
FORMAT(* REGENERATION OF THE OUTPUT CURVE USING MODEL 3.*/ )
FORMAT(* DO=*,F10.3,5X,* JO=*,F10.3,5X,* MO=*,F10.3 //)
FORMAT(* START POINT NUMBER =*,I4,5X,* FINISH POINT NUMBER =*,I4,5X,* TIME AXIS INTERVAL =*,F5.3/)
FORMAT(// * CONCENTRATION PROFILE.*/ )
FORMAT(6D20.8)

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THETA=DATAN(4.*W*U*(BM*FF+1.))**2*W/(D*D))
S5=U*X/(2.*D)
RR=DSQRT(DSQRT(U**4/(16.*D**4)+W*(BM*FF+1.))**2*W/(D*D))
AL=S5-X*RR*DCOS(THETA)
F1=DEXP(AL)
F2=-RR*X*DSIN(THETA)
A(I)=-F1*DSIN(F2)/TOR
B(I)=F1*DCOS(F2)/TOR
VO(I)=(B(I)*Q(I))-A(I)*P(I))*TOR
VO(I)=(A(I)*Q(I)+B(I)*P(I))*TOR

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L.0055      DO 100 J=2,NC0
L.0056      100 WRITE(9,101)P(J),Q(J),A(J),B(J),UO(J),VO(J)
L.0057      101 FORMAT(6E20.8)
L.0058      TEMP=0.
L.0059      9 CG=0.5*Q(1)
L.0060      DO 6 I=2,NC0
L.0061      6 CG=CG+UO(I)*DSIN(WA(I)*T)+VO(I)*DCOS(WA(I)*T)
L.0062      CGF(NN)=CG
L.0063      TT(NN)=T
L.0064      IF(CG.GT.TEMP)TEMP=CG
L.0065      NN=NN+1
L.0066      IF(T.GT.TF)GO TO 99
L.0067      T=T+DELT2
L.0068      GO TO 9
L.0069      99 NN=NN-1
L.0070      Z=FAC/TEMP
L.0071      DO 102 K=1,NN
L.0072      102 CGF(K)=Z*CGF(K)
L.0073      DO 141 L=1,NN,16
L.0074      141 WRITE(6,140)(CGF(L+I),I=1,16)
L.0075      140 FORMAT(16F6.1)
L.0076      READ(9,1)CUMHY
L.0077      END
L.0078 /DATA

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END OF PRINT * NO OF LINES PRINTED-- 78

REGENERATION OF THE OUTPUT CURVE USING MODEL 3 .

PO= .988 UO= 8.489 MO= 64.304

START POINT NUMBER = 722 FINISH POINT NUMBER = 953 TIME AXIS INTERVAL = .144

CONCENTRATION PROFILE.

-9	-9	-8	-7	-6	-5	-4	-2	-1	.1	.3	.6	.8	1.1	1.4	1.7
2.0	2.4	2.8	3.2	3.7	4.2	4.7	5.2	5.8	6.3	7.0	7.6	8.3	9.0	9.7	10.4
11.2	12.0	12.8	13.7	14.6	15.5	16.4	17.3	18.3	19.2	20.2	21.2	22.2	23.3	24.3	25.3
26.4	27.4	28.5	29.6	30.6	31.7	32.7	33.8	34.8	35.8	36.9	37.9	38.8	39.8	40.8	41.7
42.6	43.5	44.3	45.1	45.9	46.7	47.4	48.1	48.7	49.4	49.9	50.5	51.0	51.4	51.8	52.2
52.5	52.8	53.0	53.2	53.4	53.4	53.5	53.5	53.5	53.4	53.2	53.1	52.8	52.6	52.3	51.9
51.5	51.1	50.6	50.1	49.5	49.0	48.3	47.7	47.0	46.3	45.6	44.8	44.0	43.2	42.4	41.5
40.6	39.8	38.9	37.9	37.0	36.1	35.1	34.2	33.2	32.3	31.3	30.4	29.4	28.5	27.6	26.6
25.7	24.8	23.9	23.0	22.1	21.3	20.4	19.6	18.8	18.0	17.2	16.4	15.7	15.0	14.3	13.6
12.9	12.3	11.7	11.1	10.5	10.0	9.4	8.9	8.4	8.0	7.5	7.1	6.7	6.3	5.9	5.6
5.2	4.9	4.6	4.3	4.1	3.8	3.6	3.3	3.1	2.9	2.7	2.5	2.3	2.2	2.0	1.9
1.7	1.6	1.5	1.4	1.3	1.2	1.0	.9	.9	.8	.7	.6	.5	.4	.3	.3
.2	.1	.1	.0	.1	.2	.2	.3	.4	.4	.5	.5	.6	.7	.7	.8
-.8	-.9	-.9	-1.0	-1.0	-1.1	-1.1	-1.1	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.4	-1.4
-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM 1

/inp MGD1
/inc MGD1
/inc MGD1
/end run

Note: Variable dummy is for carriage control only
Type in value of TOR
/keep MGD150

PROGRAM 2

/inp MGD2
/inc MGD2 1,3
/ins MGD150
/inc MGD2 5
/end run

Note: Variable dummy is for carriage control only
Type in value of TOR
/keep MGD6

PROGRAM 3

/inp MGD6
/inc MGD6 1,1
/ins MGD6 4
type values of D,U,M,k
/end run

PROGRAM 4

/inp PROSEN
/inc MGD6
/inc MGD6
/inc MGD6
/ins MGD6 1,1
/ins MGD6 4
/end run

PROGRAMS 5,6,7 and 8

/inp
/inc MGD6 to 60T
/inc MGD6
/end run

L.0001 .953153014183040E+00.8276933339293712D+01
L.0002 .963460121015240D+00.837690600697880D+01
L.0003 .955126333266900D+00.837716843128499D+01
L.0004 .951734312039080D+00.837733604434323D+01
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L.0018 .850214909086730D+00.838872016590705D+01
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L.0020 .817733896806000D+00.839137316913556D+01
L.0021 .799990437622590D+00.839270990473761D+01
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L.0026 .697654454374290D+00.839861546560196D+01

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.373D-18
.233D-17
.102D-15
.101D-14
.244D-13
.124D-12
.697D-11
.135D-10
.430D-09
.231C-12
.738D-12
.409D-11
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L.0001	002.100
L.0002	006
L.0003	0.840000000.054500000.2086
L.0004	*****
L.0005	0010010207220953.14377.14377
L.0006	0.6.615.325.033.039.043.045.246.647.047.046.545.544.543.542.2.
L.0007	41.039.838.437.236.034.833.532.331.130.029.028.027.026.025.024.0.
L.0008	23.022.221.320.719.919.018.217.817.016.415.815.214.714.013.613.1.
L.0009	12.812.311.911.511.010.810.610.210.09.69.28.88.48.07.67.2.
L.0010	6.86.46.05.65.24.84.64.24.03.83.63.23.02.82.62.4.
L.0011	2.22.01.81.61.41.21.0.8.6.4.2.0.0.
L.0012	0.00.20.30.40.50.60.70.80.91.01.11.21.31.41.61.8.
L.0013	2.02.22.52.73.03.23.43.63.94.24.75.25.86.27.07.6.
L.0014	8.29.09.810.611.412.313.114.15.116.217.318.419.520.722.23.2.
L.0015	24.425.726.928.29.330.631.833.34.335.636.938.39.40.41.42.1.
L.0016	43.244.345.346.347.148.48.849.550.50.551.51.551.952.252.652.8.
L.0017	53.53.153.253.353.353.353.253.153.52.852.452.51.651.250.850.2.
L.0018	42.849.48.547.947.246.545.945.44.543.642.842.41.340.539.638.8.
L.0019	38.37.36.35.534.633.933.032.231.530.730.29.228.427.727.76.2.
L.0020	25.624.924.23.422.822.21.420.820.19.519.18.518.17.517.16.5.
L.0021	16.15.515.14.514.013.713.413.112.812.412.011.811.411.10.810.5.
L.0022	10.29.99.79.59.39.18.98.78.58.38.17.97.77.57.37.7.
L.0023	6.96.76.56.36.15.95.75.55.35.14.04.74.54.34.13.0.
L.0024	3.83.73.63.53.43.33.23.13.02.92.82.72.62.52.42.3.
L.0025	2.22.12.01.91.81.71.61.51.41.31.21.11.00.90.80.7.
L.0026	0.60.50.40.30.20.10.00.00.00.00.00.00.0.

MGD5.

L.0001	10	183000000D+03	.83999997E+00	.54499999E-01	.20850998E+06	.150000000D+03	.33333333D-02
L.0002		722 102 953	.14376998E+00	.47059996D-02	.46777677D-02	.41443310D-02	.51686797D-02
L.0003		.65322369D+03		-.65423133D-02	-.44038860D-04	-.63475508D-02	.14676130D-02
L.0004		.74764438D-03		.44650752D-02	.45726236D-02	.56461380D-02	.27992634D-02
L.0005		.14778413D-02		.11924205D-03	-.61850677D-02	-.25116393D-02	-.54861723D-02
L.0006		.21738258D-02		-.43191252D-02	.40701641D-02	-.14427937D-02	.55225612D-02
L.0007		.28201630D-02		.56395132D-02	.24791025D-03	.43261389D-02	-.31256526D-02
L.0008		.34033291D-02		-.35220658D-02	-.39059157D-02	-.49235341D-02	-.34368579D-03
L.0009		.39121962D-02		.43653273D-03	.49709149D-02	.32371971D-02	.31509997D-02
L.0010		.43383981D-02		.36513140D-02	-.28733571D-02	-.36345260D-03	-.40812814D-02
L.0011		.46765612D-02		-.42533080D-02	-.67236923D-02	-.21726134D-02	.29802760D-02
L.0012		.49243919D-02		.21915828D-02	.33214538D-02	.32259503D-02	-.69774652D-03
L.0013		.50826154D-02		.92461990D-03	-.35558411D-02	-.25481872D-02	-.14720352D-02
L.0014		.51548024D-02		.30233096D-02	.15472399D-02	.77915921D-03	.25011897D-02
L.0015		.51470135D-02		.29303249D-02	.11505052D-02	.10132868D-02	-.21010536D-02
L.0016		.50674234D-02		-.99990841D-03	-.27527096D-02	-.19417654D-02	.74438391D-03
L.0017		.49258103D-02		.13057003D-02	.24017487D-02	.17163283D-02	.70669909D-03
L.0018		.47330231D-02		.24885829D-02	-.52542284D-03	-.68254959D-03	-.15095186D-02
L.0019		.45004305D-02		-.19662917D-02	-.13574690D-02	-.47543250D-03	.13967390D-02
L.0020		.42393840D-02		.30757089D-03	.22036207D-02	.11517386D-02	-.61940080D-03
L.0021		.39607243D-02		.12972863D-02	-.15973478D-02	-.1137948D-02	-.28783719D-03
L.0022		.36743533D-02		.18795087D-02	.13851293D-03	.54321734D-03	.84192605D-03
L.0023		.33888917D-02		.12510701D-02	.11476242D-02	.14841111D-03	-.84962452D-03
L.0024		.31114336D-02		-.31162775D-04	-.15212708D-02	-.58460572D-03	.44228786D-03
L.0025		.28474061D-02		-.95623211D-03	.93689393D-03	.61157348D-03	.67876433D-04
L.0026		.26005312D-02		.11611563D-02	.57488973D-04	-.32524500D-03	-.39412077D-03
L.0027		.23728857D-02					
L.0028		.21650460D-02					
L.0029							
L.0030							

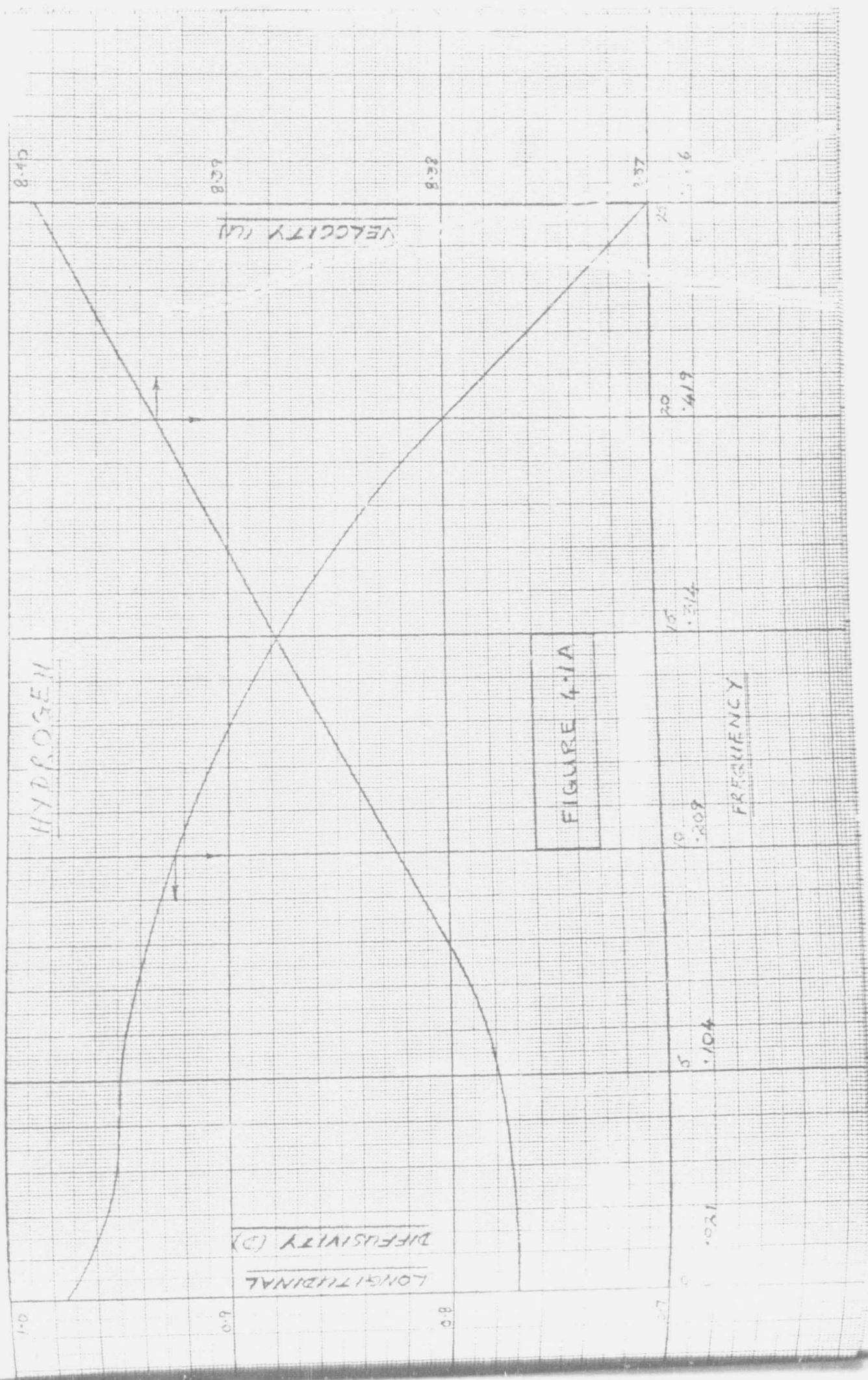
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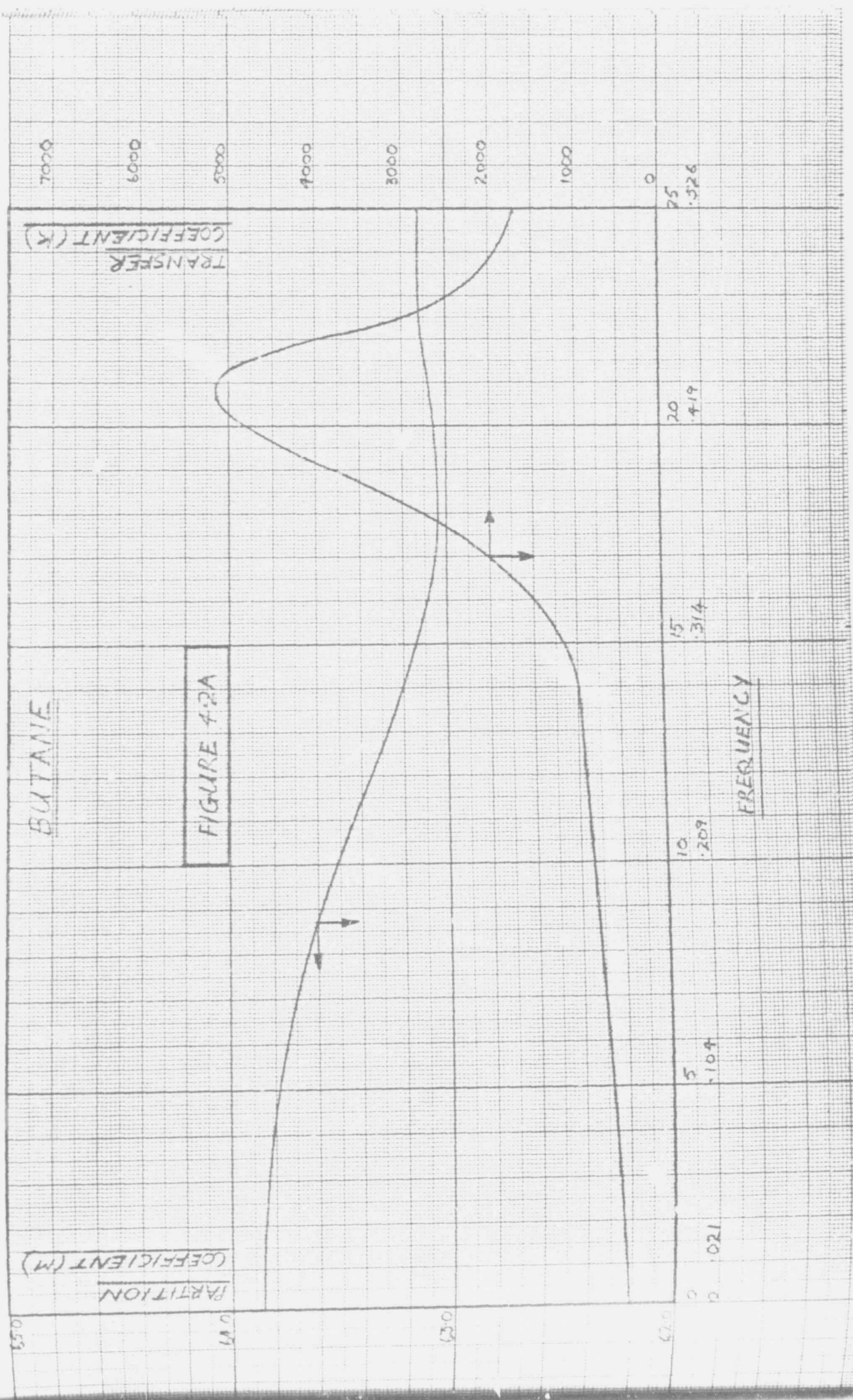
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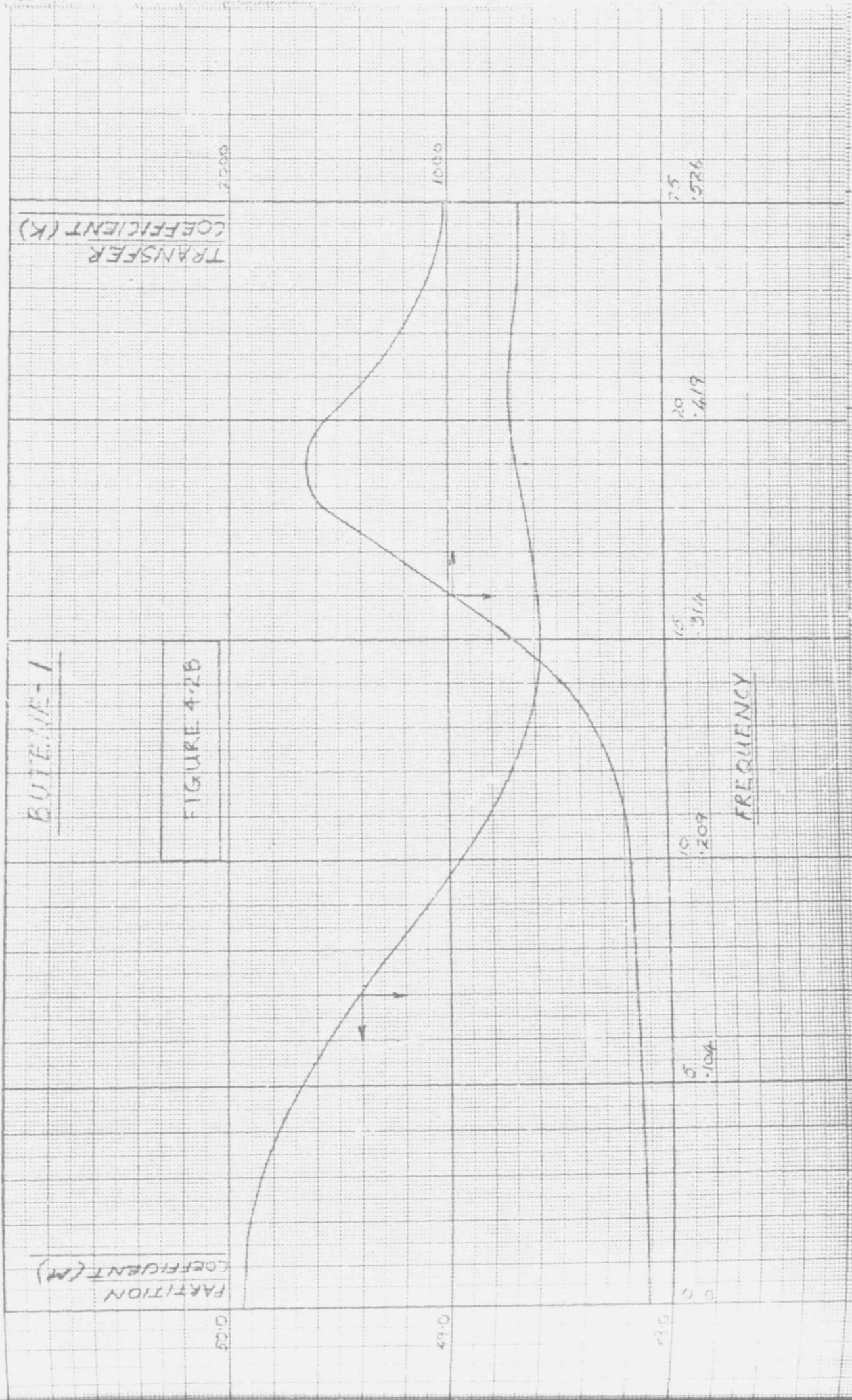
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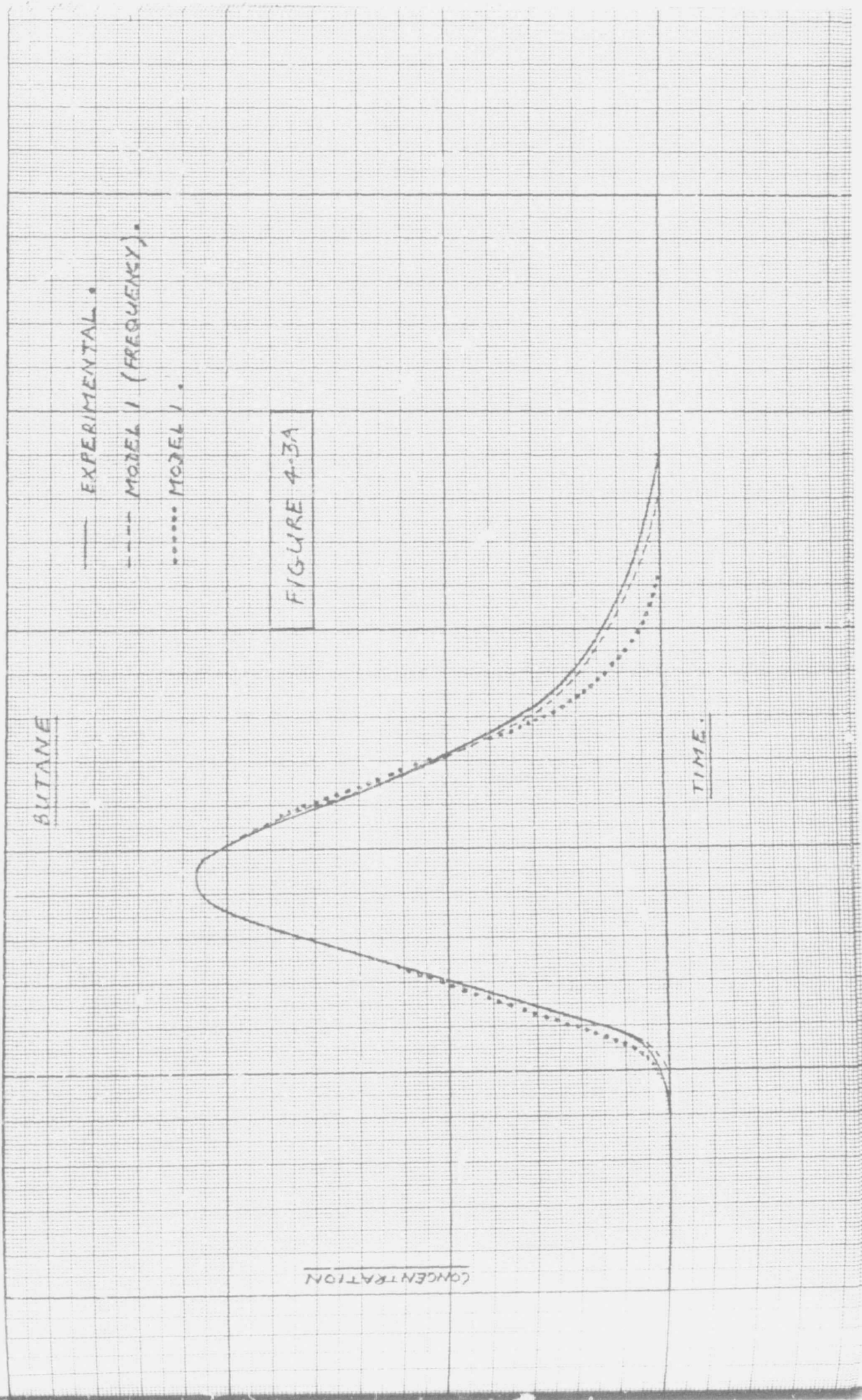
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L.0009 0. 1. 0. 0. 0. 0. 0. 0. 0. 0.
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L.0012 0. 0. 0. 0. 1. 0. 0. 0. 0. 0.
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L.0014 0. 0. 0. 0. 0. 0. 1. 0. 0. 0.
L.0015 0. 0. 0. 0. 0. 0. 0. 1. 0. 0.
L.0016 0. 0. 0. 0. 0. 0. 0. 0. 1. 0.
L.0017 0. 0. 0. 0. 0. 0. 0. 0. 0. 1.
L.0018 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1
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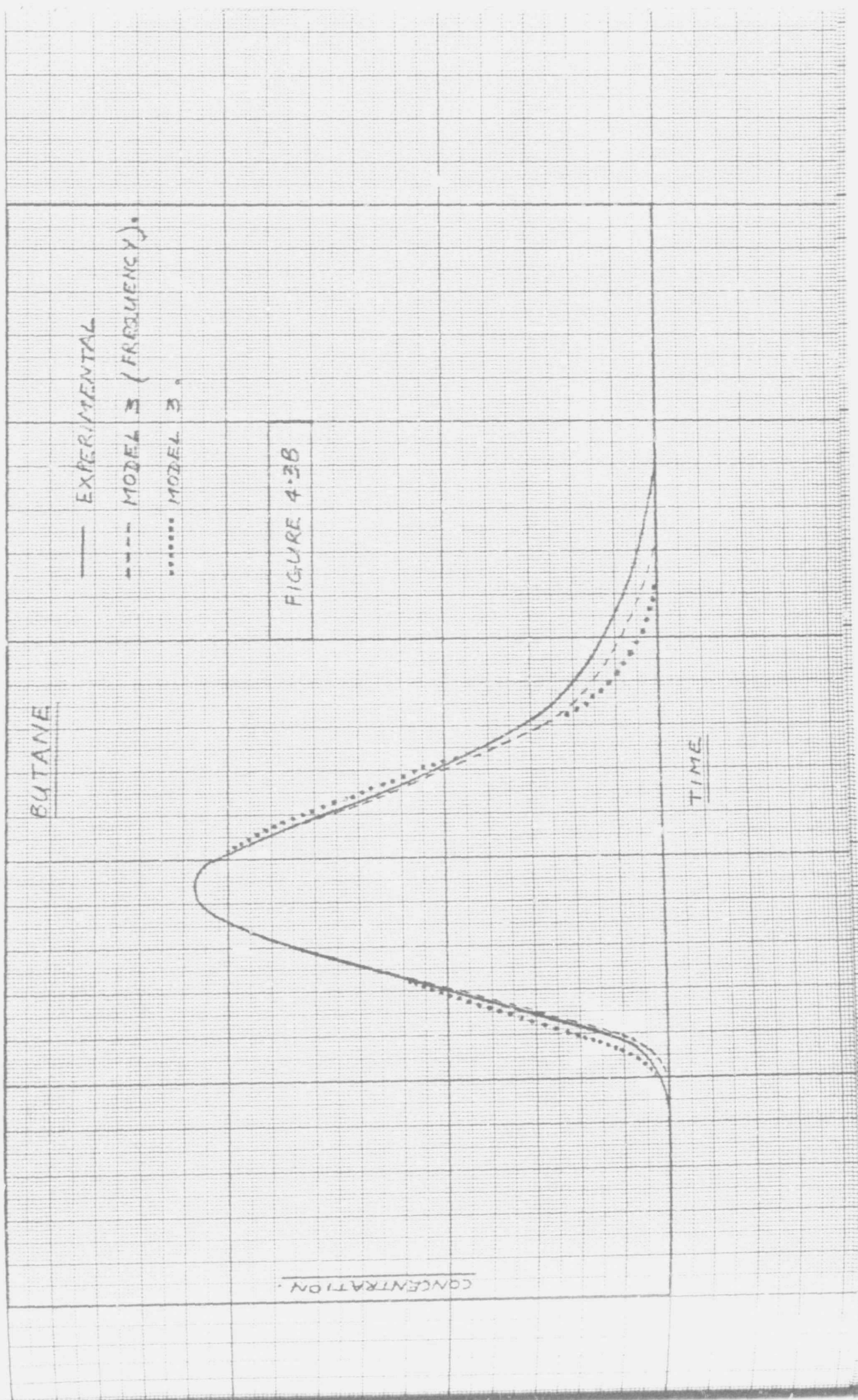
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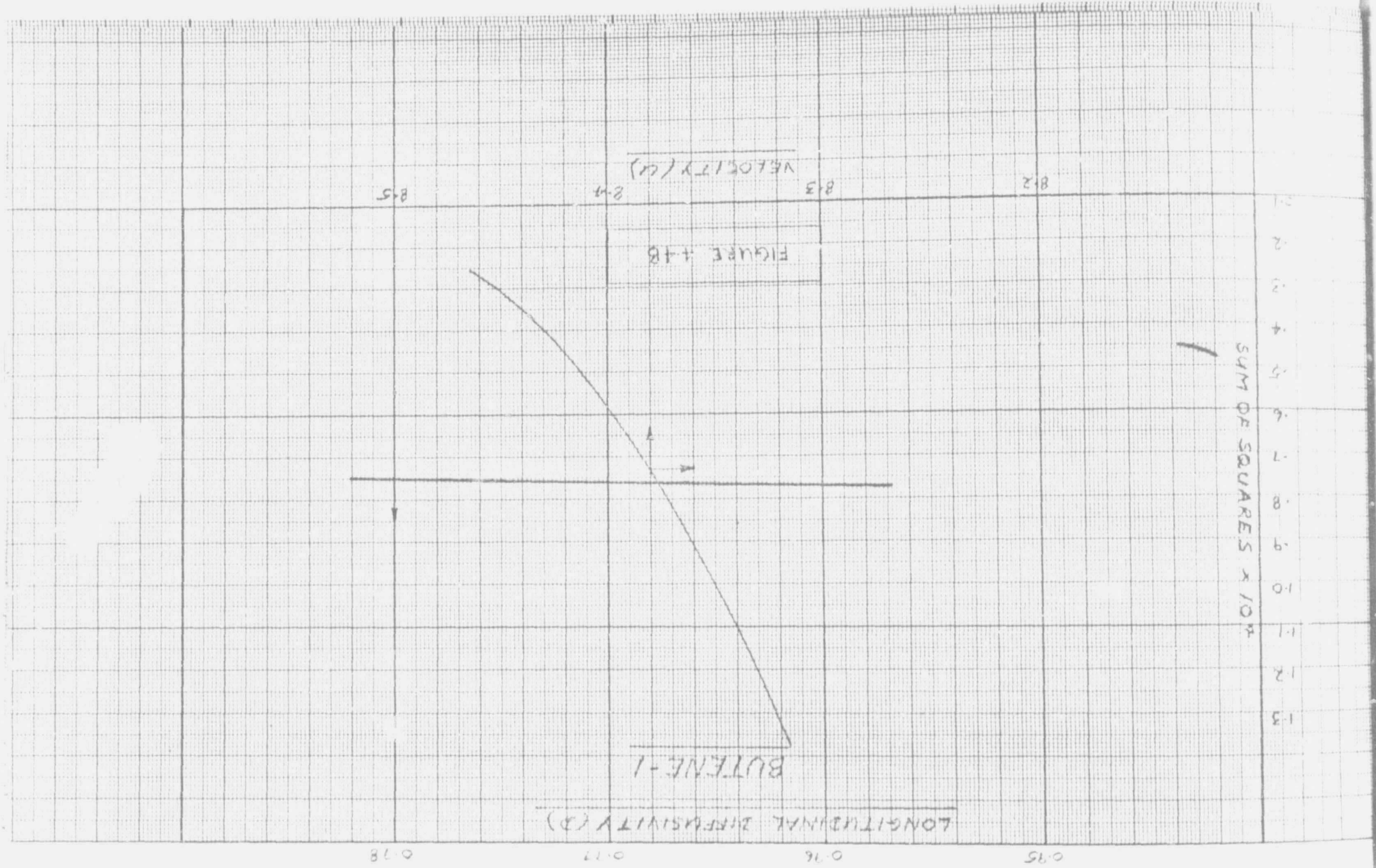


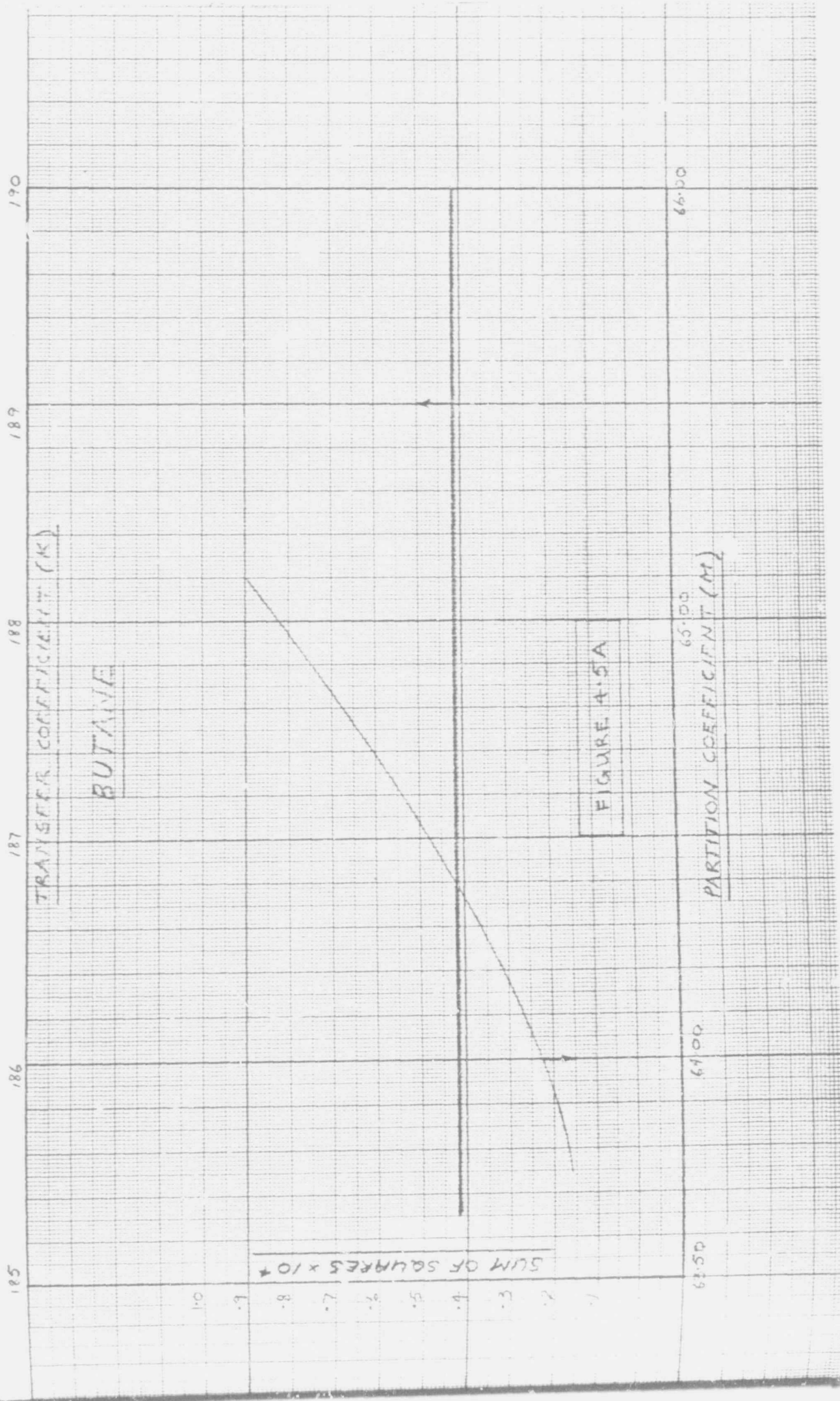












10.4

10.4

10.5

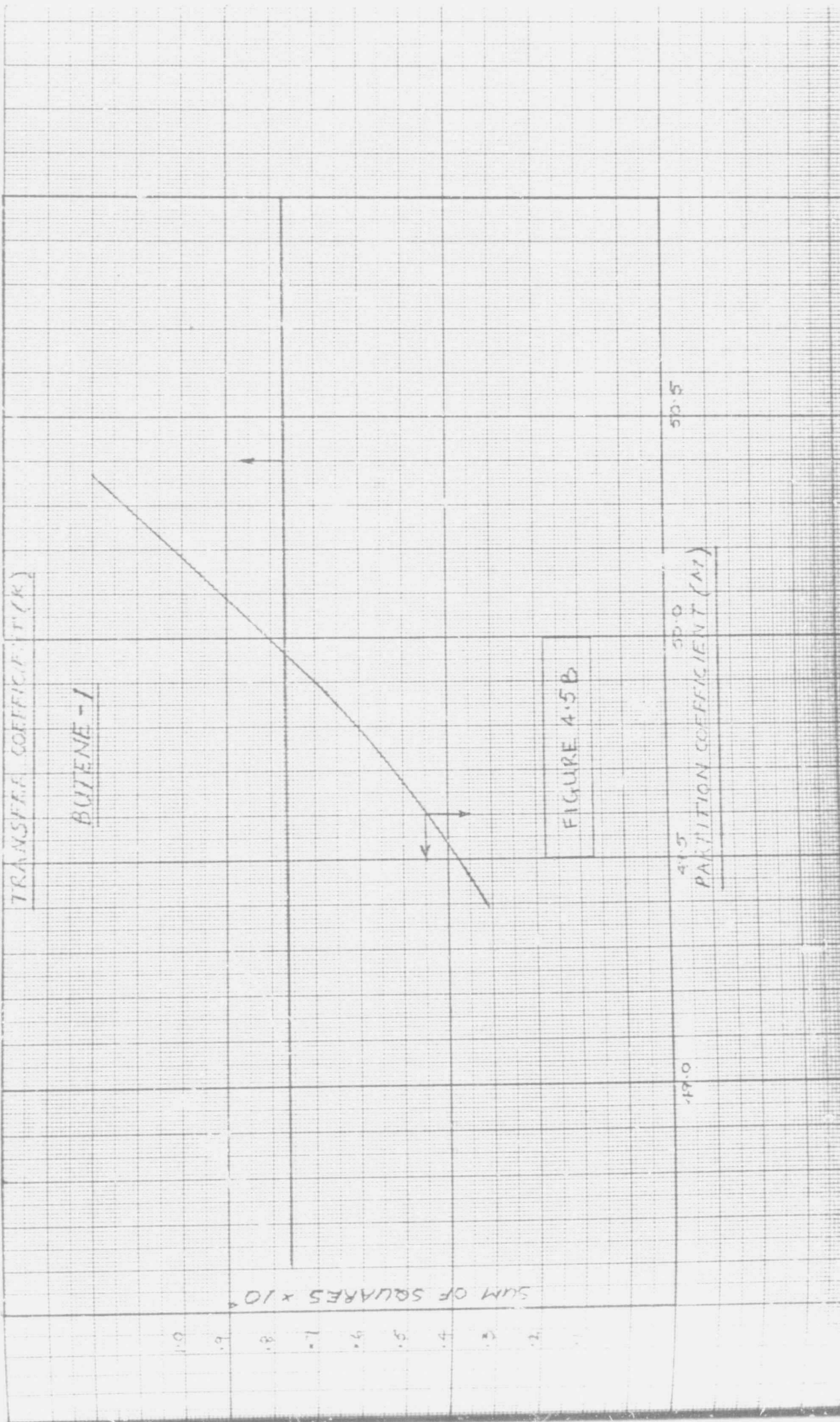
SUM OF SQUARES $\times 10^4$

TRANSFER COEFFICIENT (K)

BUTENE-1

FIGURE 4.5B

PARTITION COEFFICIENT (M)



Author Greenberg M A

Name of thesis Dynamic sescription of a gas chromatographic column. 1969

PUBLISHER:

University of the Witwatersrand, Johannesburg

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