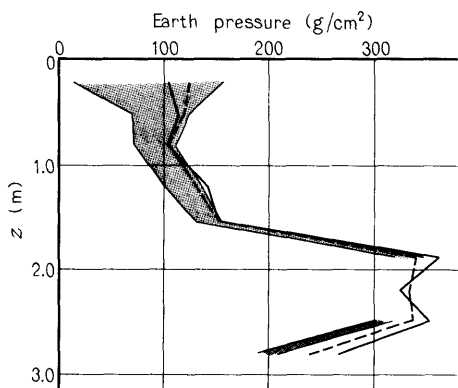


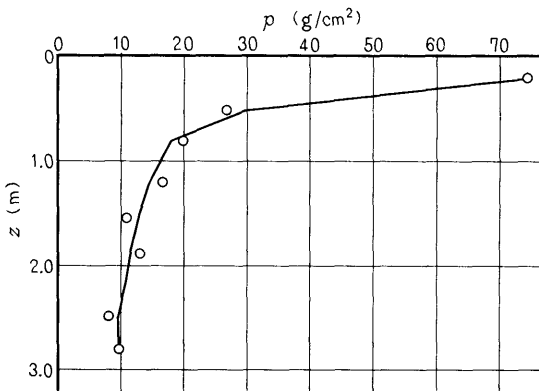
II-2-10.4



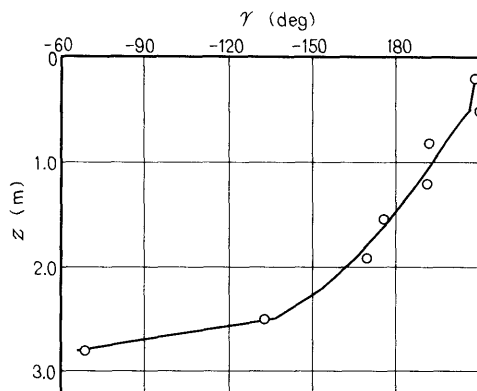
①

z m	p g/cm ²	γ deg
0.21	74.5	152
0.51	26.8	150
0.81	19.8	168
1.21	16.7	169
1.54	11.0	-176
1.89	12.9	-169
2.20	—	—

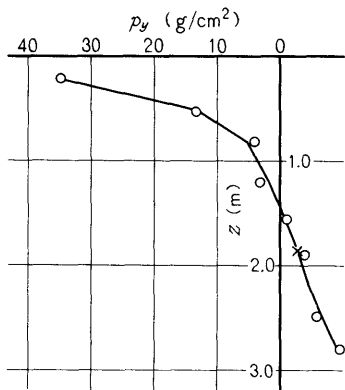
z m	p g/cm ²	γ deg
2.49	8.0	-133
2.80	9.8	-69
Bottom (No. 6)	69.6	-11
z m	D mm	λ deg
0	0.407	-25
2.16	0.134	-39
$f = 10.4$ Hz		



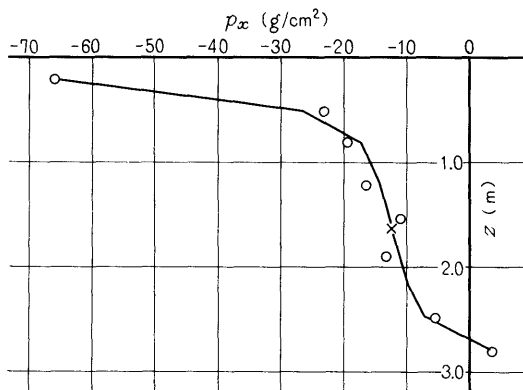
②



③



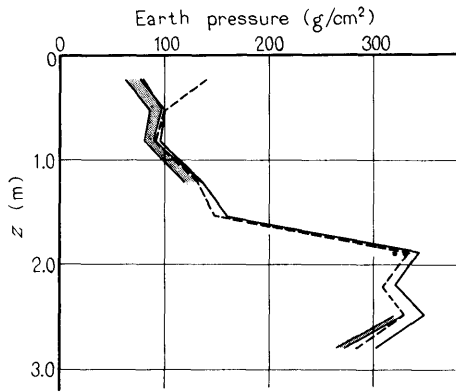
④



⑤

Fig. 39-(49)

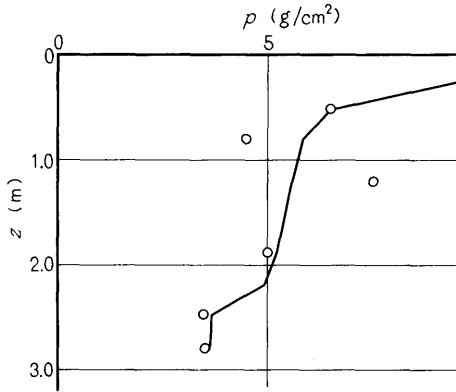
II-3-6.07



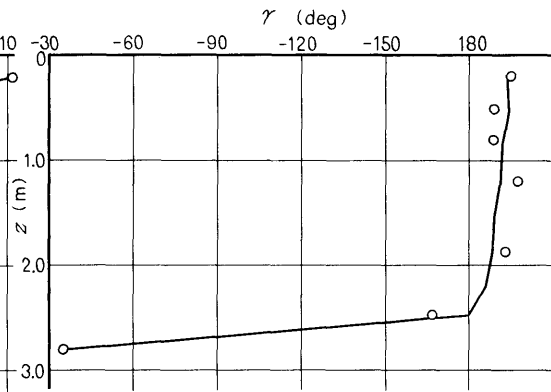
①

z m	p g/cm ²	γ deg
0.21	10.1	165
0.51	6.5	171
0.81	4.5	171
1.21	7.5	163
1.54	—	—
1.89	5.0	167
2.20	—	—

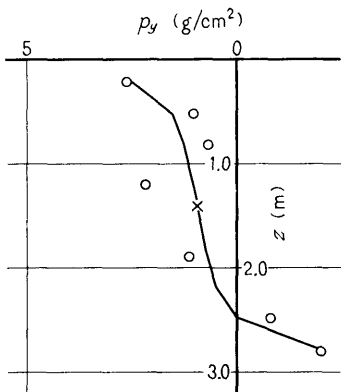
z m	p g/cm ²	γ deg
2.49	3.5	-167
2.80	3.5	-35
Bottom (No. 6)	29.1	-18
z m	D mm	λ deg
0	0.115	-6
2.16	0.0376	-18
$f = 6.07$ Hz		



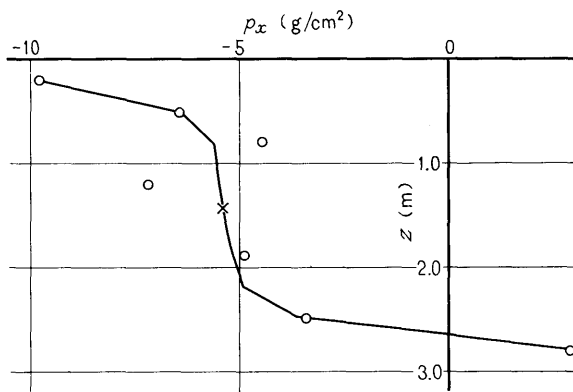
②



③



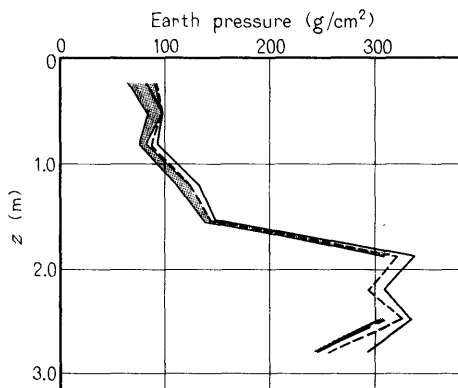
④



⑤

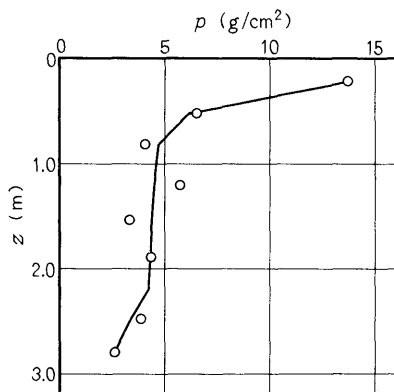
Fig. 39-(50)

II-3-6.54

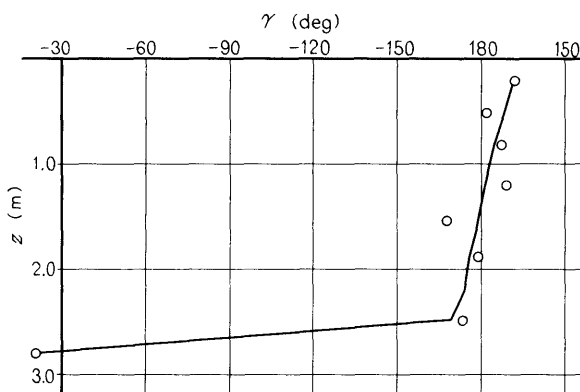


①

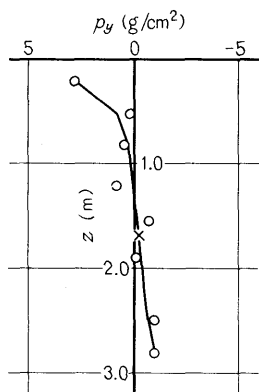
z m	p g/cm ²	γ deg	z m	p g/cm ²	γ deg
0.21	13.7	168	2.49	3.8	-166
0.51	6.5	178	2.80	2.6	-21
0.81	4.1	173	Bottom (No.6)	—	—
1.21	5.7	171	z m	D mm	λ deg
1.54	3.3	-168	0	0.121	-12
1.89	4.3	-179	2.16	0.0375	-25
2.20	—	—	$f = 6.54$ Hz		



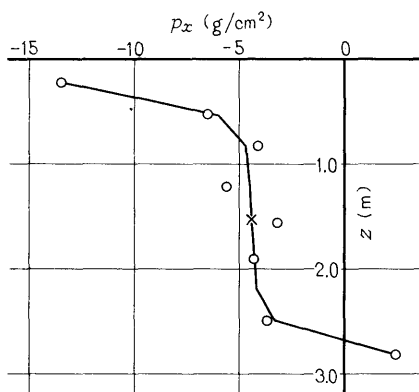
②



③



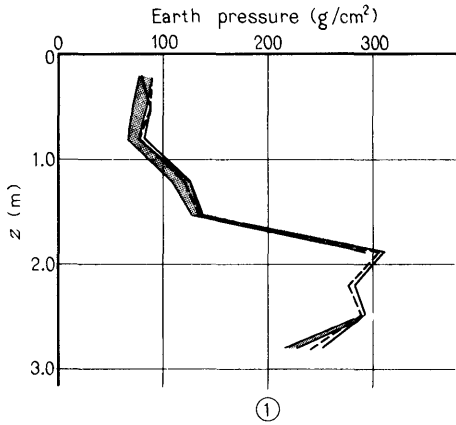
④



⑤

Fig. 39-(51)

II-3-7.41



z m	p g/cm^2	γ deg	z m	p g/cm^2	γ deg
0.21	16.7	172	2.49	2.5	-140
0.51	6.8	179	2.80	5.0	-34
0.81	4.8	172	Bottom (No. 6)	46.8	-21
1.21	7.7	151	z m	D mm	λ deg
1.54	4.1	174	0	0.195	-15
1.89	5.3	-178	2.16	0.0633	-28
2.20	—	—	$f = 7.41$ Hz		

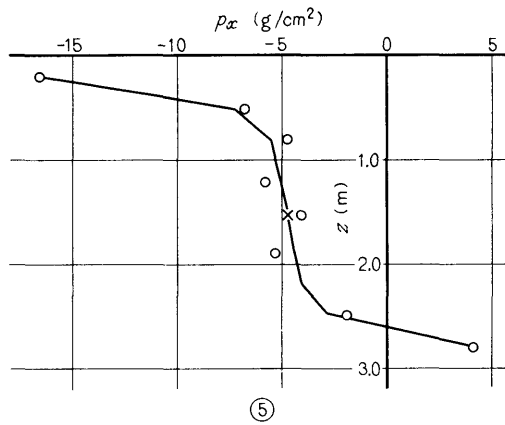
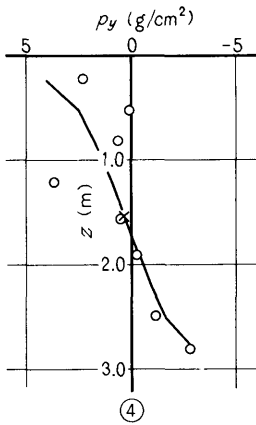
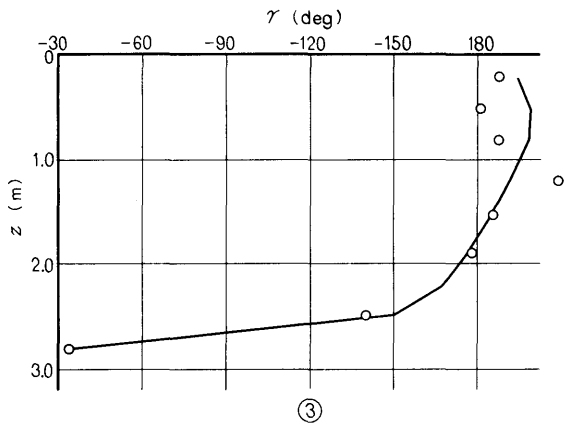
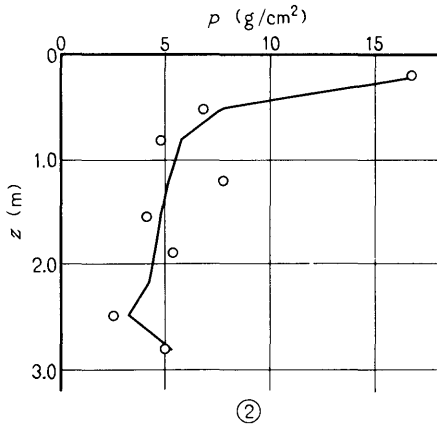
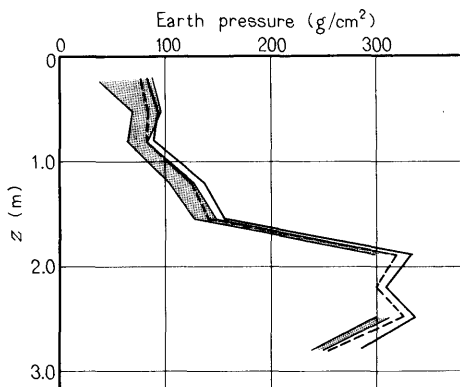


Fig. 39- (52)

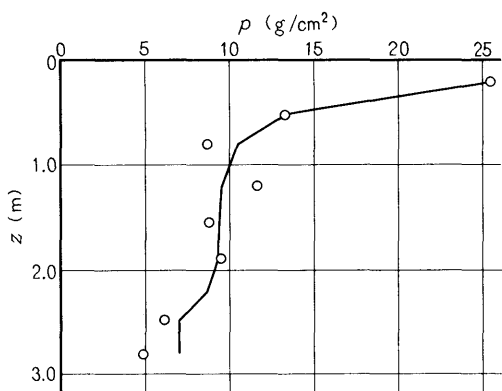
II-3-8.40



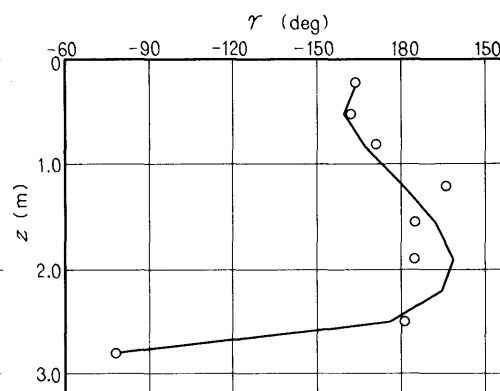
①

z m	p g/cm ²	γ deg
0.21	25.5	-164
0.51	13.3	-162
0.81	8.7	-171
1.21	11.7	169
1.54	8.8	175
1.89	9.5	175
2.20	—	—

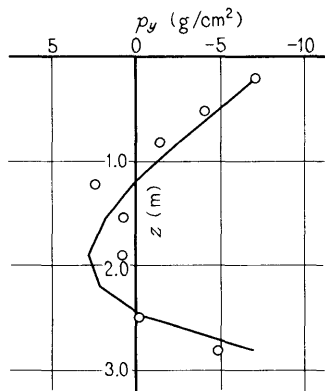
z m	p g/cm ²	γ deg
2.49	6.2	-179
2.80	4.9	-78
Bottom (No. 6)		59.0 -52
z m	D mm	λ deg
0	0.287	-47
2.16	0.115	-7
$f = 8.40$ Hz		



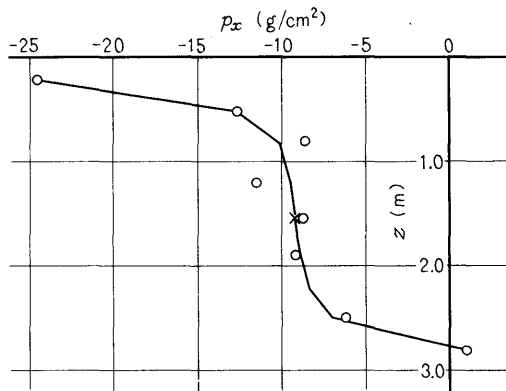
②



③



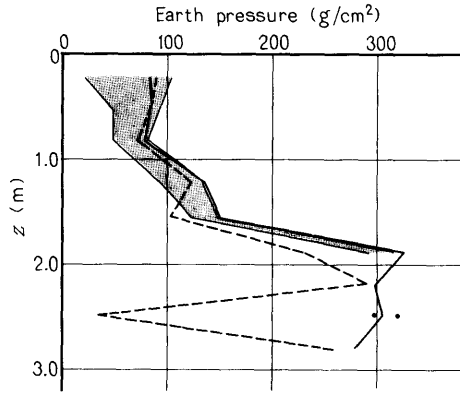
④



⑤

Fig. 39-(53)

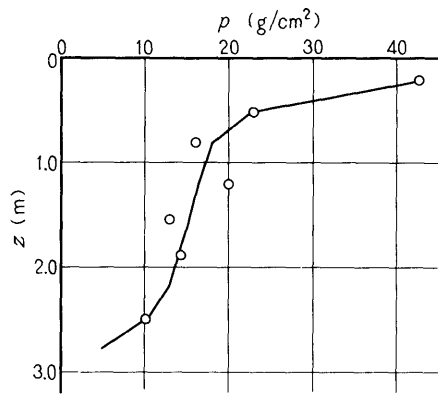
II-3-9.63



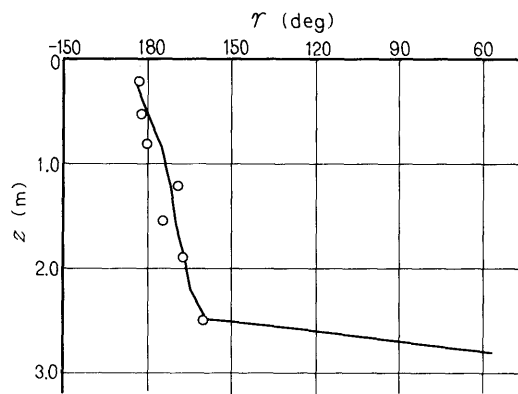
①

z m	p g/cm ²	γ deg
0.21	42.3	-177
0.51	22.9	-178
0.81	16.0	180
1.21	19.9	169
1.54	13.0	174
1.89	14.2	167
2.20	—	—

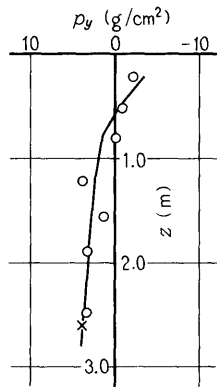
z m	p g/cm ²	γ deg
2.49	10.4	160
2.80	—	—
Bottom (No. 6)	39.8	-77
z m	D mm	λ deg
0	0.193	-50
2.16	0.069	-80
$f = 9.63$ Hz		



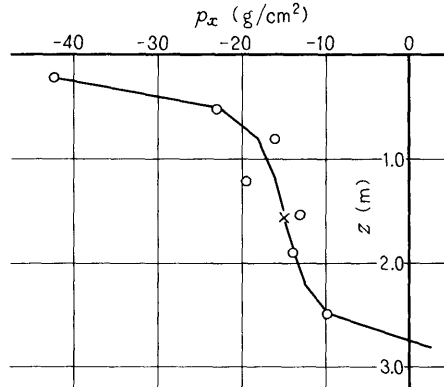
②



③



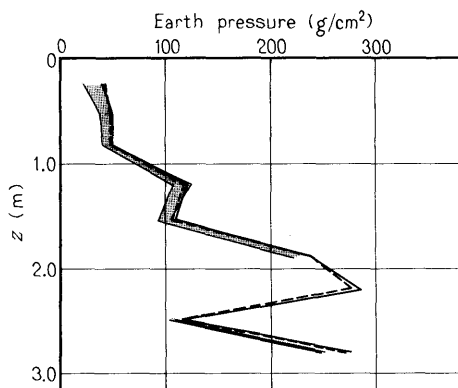
④



⑤

Fig. 39-(54)

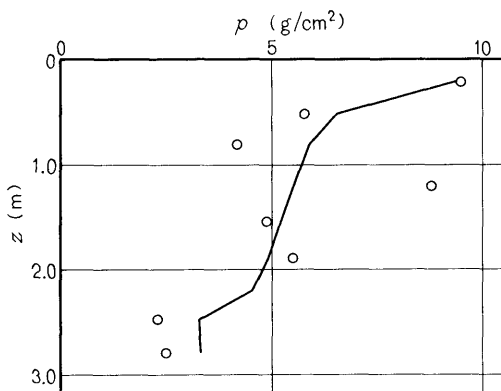
II-4-6.07



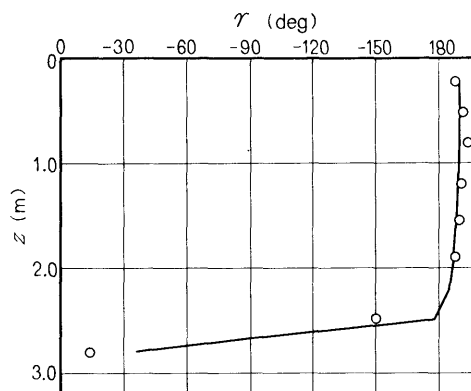
①

z m	p g/cm ²	γ deg
0.21	9.5	171
0.51	5.8	168
0.81	4.2	166
1.21	8.8	169
1.54	4.9	170
1.89	5.5	172
2.20	—	—

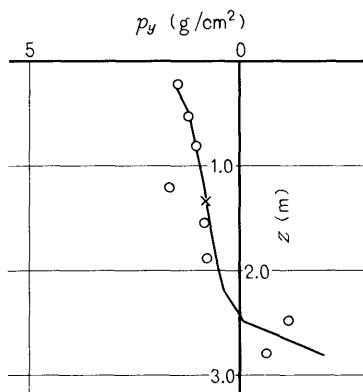
z m	p g/cm ²	γ deg
2.49	2.3	-150
2.80	2.5	-14
Bottom (No. 6)	21.8	-2
z m	D mm	λ deg
0	0.138	-2
2.16	0.0443	-11
$f = 6.07$ Hz		



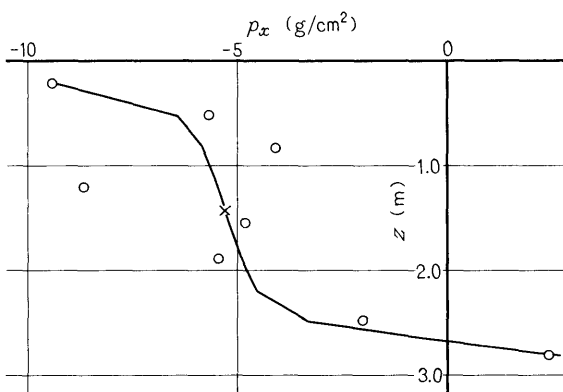
②



③



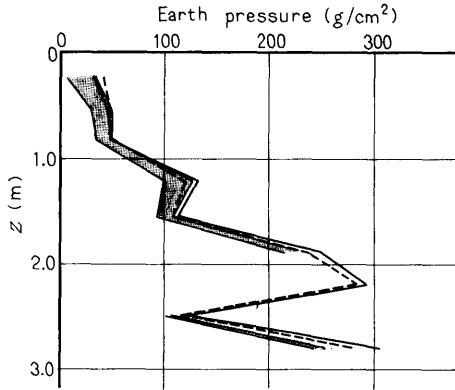
④



⑤

Fig. 39-(55)

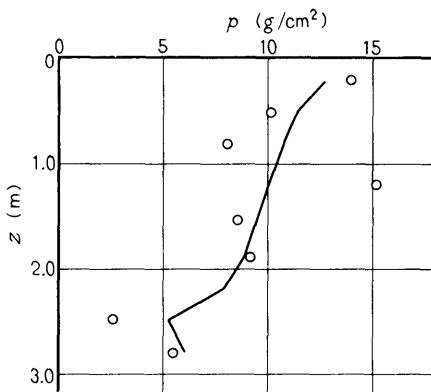
II-4-8.0



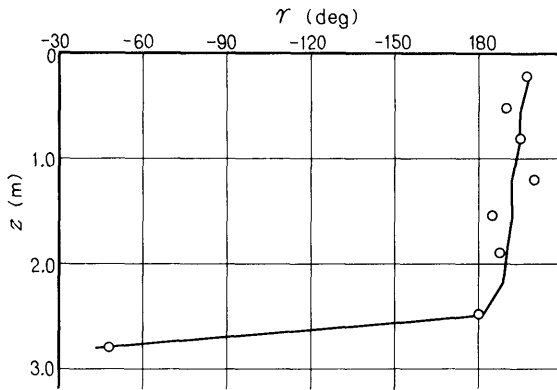
①

z m	p g/cm ²	γ deg
0.21	13.9	163
0.51	10.1	170
0.81	8.0	165
1.21	15.1	160
1.54	8.6	175
1.89	9.1	172
2.20	—	—

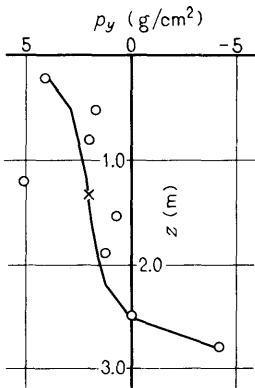
z m	p g/cm ²	γ deg
2.49	2.6	180
2.80	5.5	-48
Bottom (No. 6)	55.1	-21
z m	D mm	λ deg
0	0.354	-22
2.16	0.114	-37
$f = 8.0$ Hz		



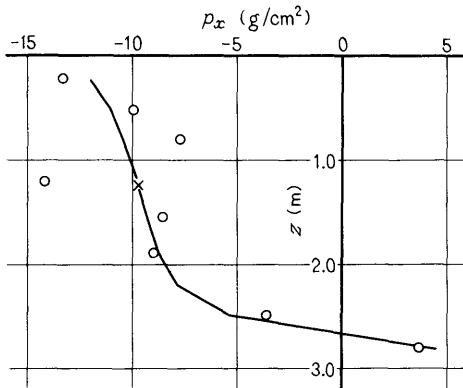
②



③



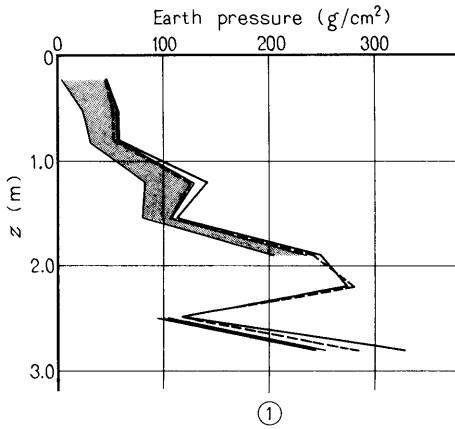
④



⑤

Fig. 39-(56)

II-4-10.1



z m	p g/cm^2	γ deg
0.21	21.9	173
0.51	16.6	176
0.81	13.0	172
1.21	22.6	174
1.54	14.1	175
1.89	15.9	173
2.20	—	—

z m	p g/cm^2	γ deg
2.49	5.6	173
2.80	3.5	-155
Bottom (No.6)		
	63.6	-59
z m	D mm	λ deg
0	0.459	-58
2.16	0.166	-81
$f = 10.1$ Hz		

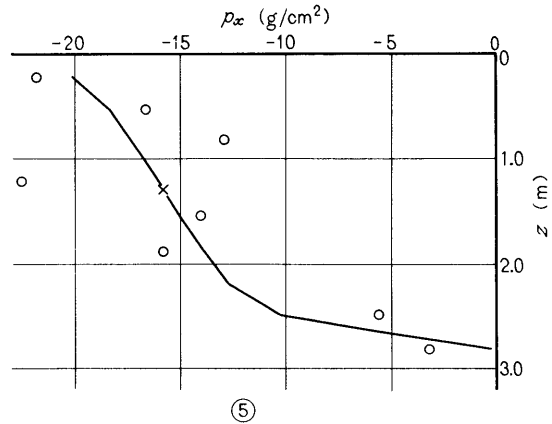
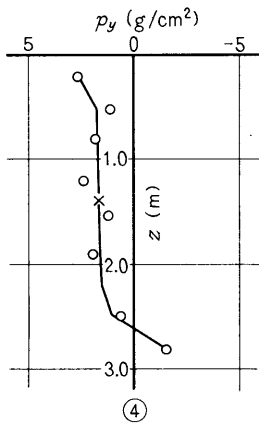
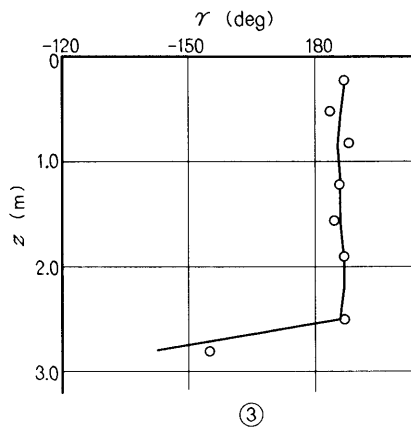
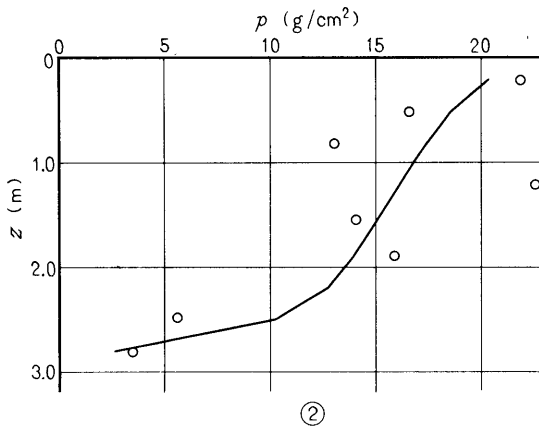
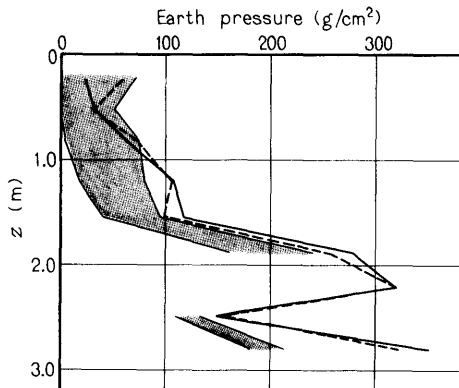


Fig. 39-(57)

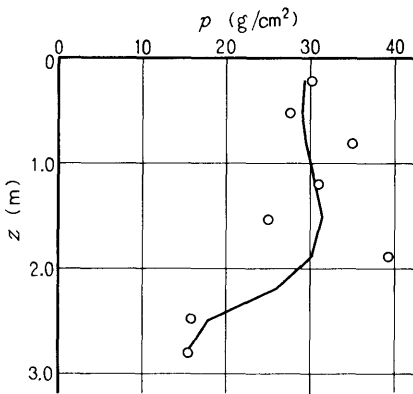
II-4-14.0



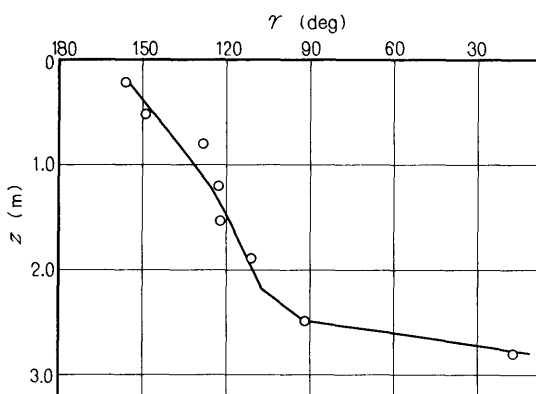
①

z m	p g/cm ²	γ deg
0.21	30.0	156
0.51	27.5	149
0.81	35.0	128
1.21	30.9	123
1.54	25.0	122
1.89	39.3	111
2.20	—	—

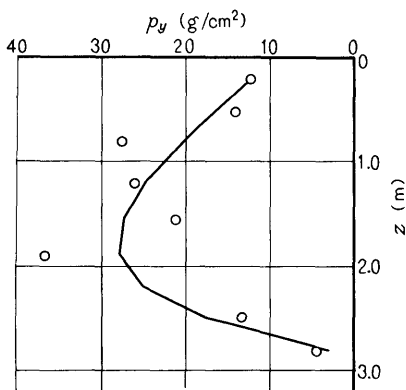
z m	p g/cm ²	γ deg
2.49	13.3	92
2.80	15.3	17
Bottom (No.6)	98.0	-81
z m	D mm	λ deg
0	0.734	-90
2.16	0.257	-124
$f = 14.0$ Hz		



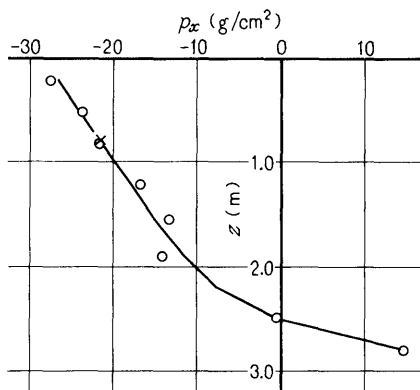
②



③



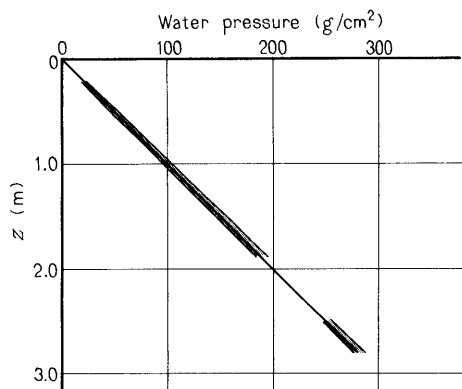
④



⑤

Fig. 39-(58)

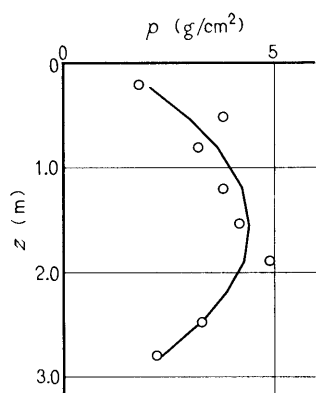
II-5-4.03



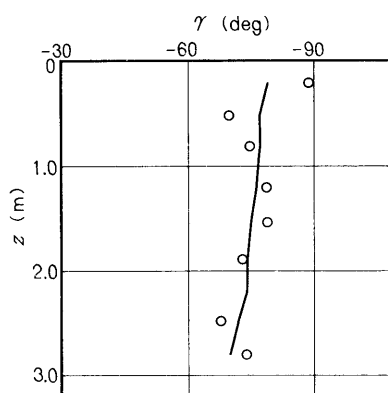
①

z m	p g/cm ²	γ deg
0.21	1.8	-89
0.51	3.8	-70
0.81	3.2	-75
1.21	3.8	-79
1.54	4.2	-79
1.89	4.9	-73
2.20	—	—

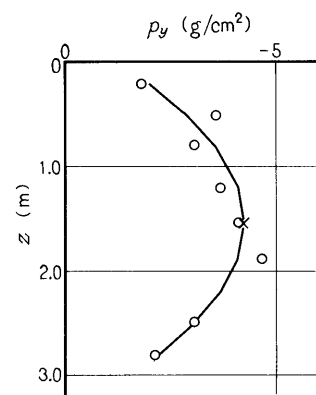
z m	p g/cm ²	γ deg
2.49	3.3	-68
2.80	2.2	-74
Bottom (No.6)	31.9	0
z m	D mm	λ deg
0	1.19	-49
2.16	0.388	-53
$f = 4.03$ Hz		



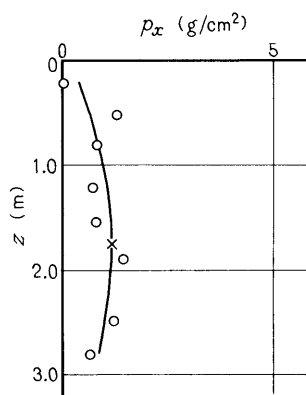
②



③



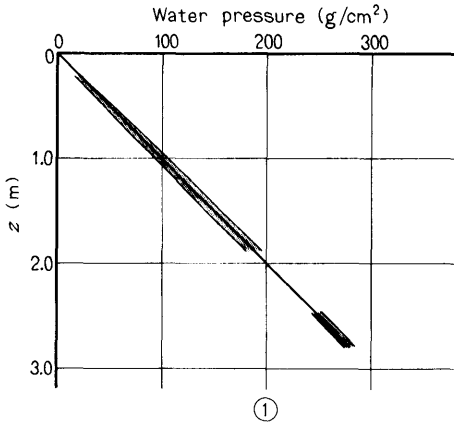
④



⑤

Fig. 39-(59) Vertical distributions of water pressures
 ○: Observed values —: Empirical formula

II-5-4.50



z m	p g/cm ²	γ deg
0.21	2.6	-135
0.51	3.9	-126
0.81	5.4	-128
1.21	5.8	-125
1.54	6.7	-125
1.89	6.9	-126
2.20	—	—

z m	p g/cm ²	γ deg
2.49	4.0	-136
2.80	4.8	-121
Bottom (No. 6)	36.2	-41
z m	D mm	λ deg
0	1.35	-99
2.16	0.450	-109
$f = 4.50$ Hz		

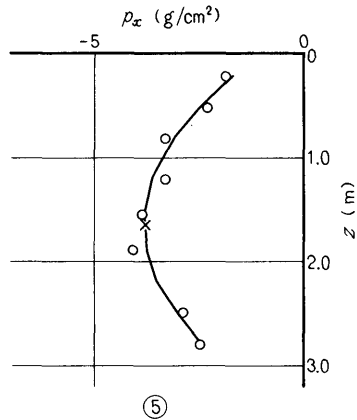
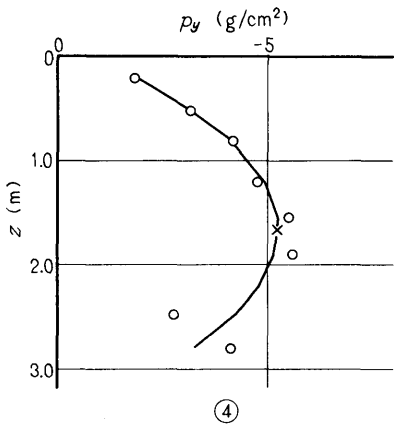
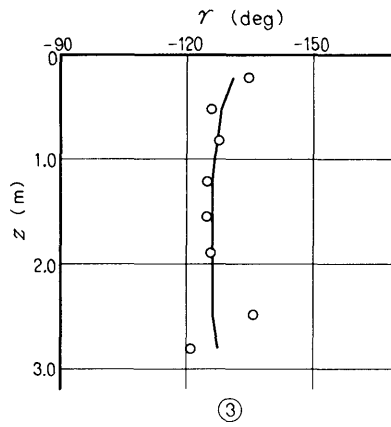
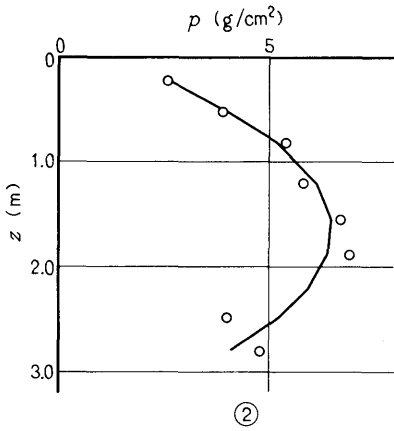
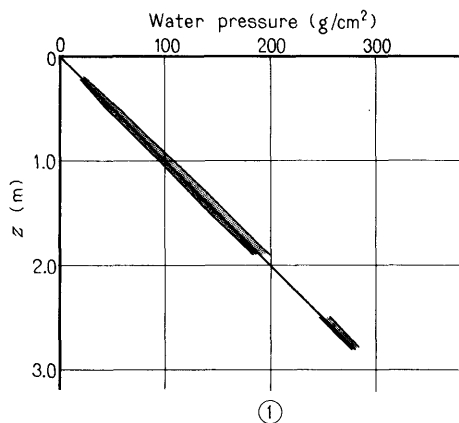


Fig. 39-(60)

II-5-5.02



z m	p g/cm ²	γ deg	z m	p g/cm ²	γ deg
0.21	3.0	-141	2.49	4.7	-139
0.51	5.3	-136	2.80	4.2	-148
0.81	6.3	-128	Bottom (No. 6)	36.5	-67
1.21	7.2	-131	z m	D mm	λ deg
1.54	7.1	-128	0	1.16	-109
1.89	7.7	-134	2.16	0.394	-117
2.20	—	—	f = 5.02 Hz		

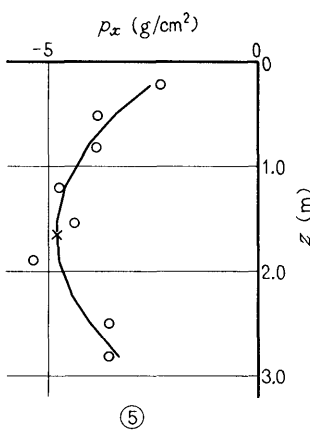
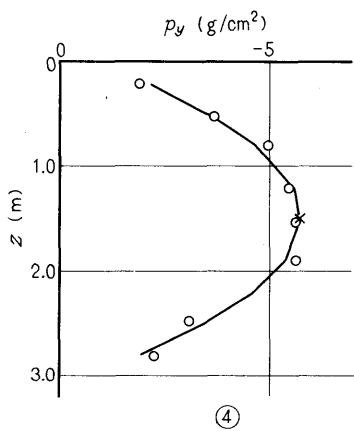
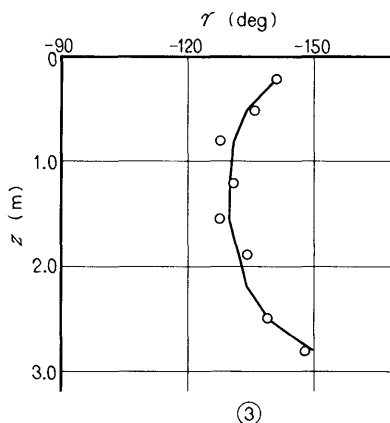
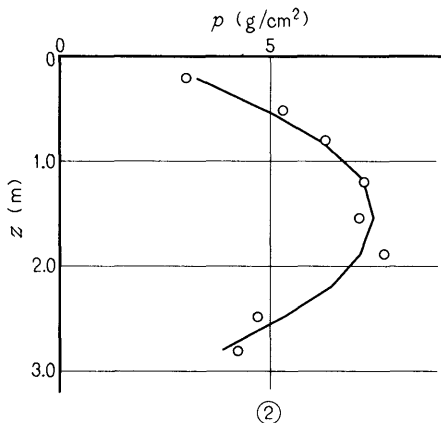
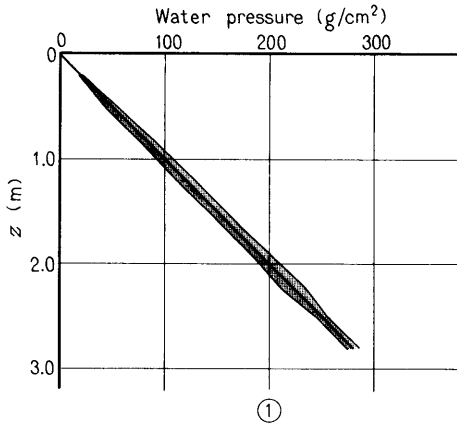


Fig. 39-(61)

II-5-6.0



z m	p g/cm ²	γ deg
0.21	2.6	-169
0.51	6.3	-153
0.81	6.8	-154
1.21	8.4	-154
1.54	7.8	-155
1.89	8.5	-153
2.20	9.9	-168

z m	p g/cm ²	γ deg
2.49	5.0	-162
2.80	6.3	-159
Bottom (No. 6)	27.4	-58
z m	D mm	λ deg
0	0.855	-130
2.16	0.302	-140
$f = 6.0$ Hz		

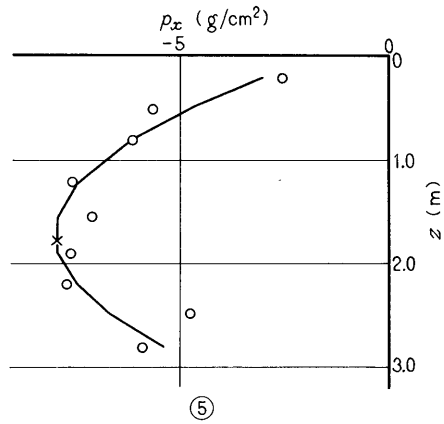
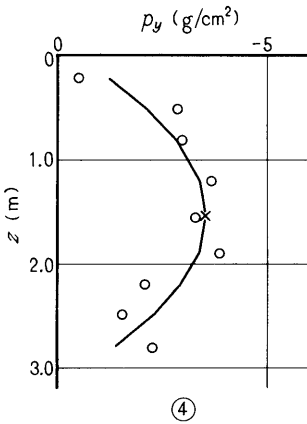
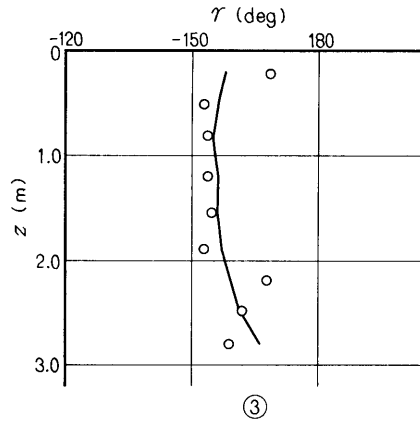
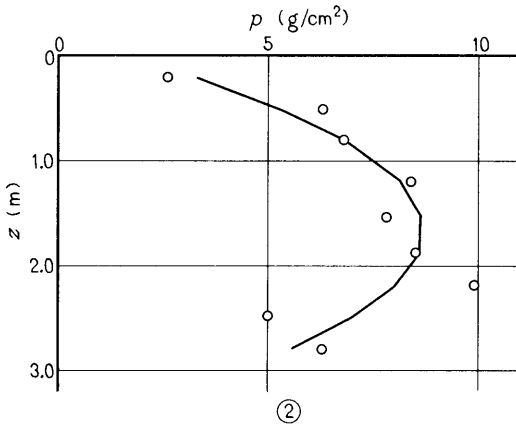
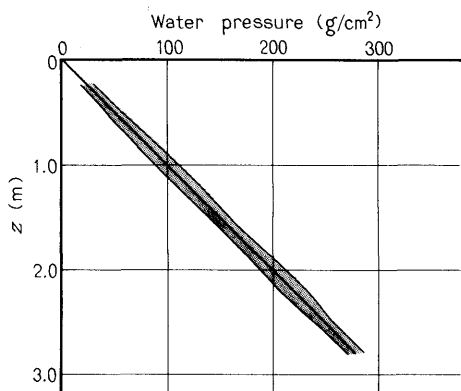


Fig. 39-(62)

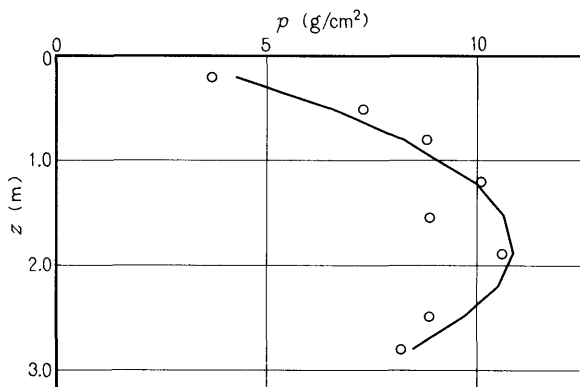
II-5-8.04



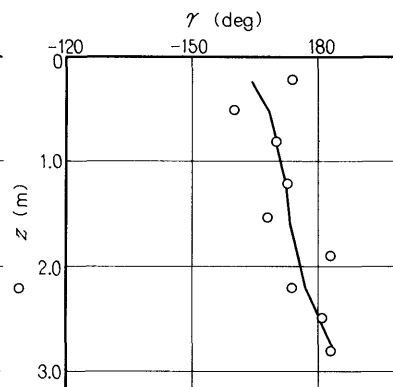
①

z m	p g/cm ²	γ deg
0.21	3.7	-174
0.51	7.3	-160
0.81	8.8	-170
1.21	10.1	-173
1.54	8.9	-168
1.89	10.6	177
2.20	12.9	-174

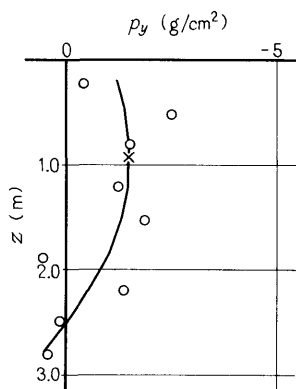
z m	p g/cm ²	γ deg
2.49	8.9	179
2.80	8.2	177
Bottom (No.6)	27.2	-42
z m	D mm	λ deg
0	0.557	-144
2.16	0.217	-153
$f = 8.04$ Hz		



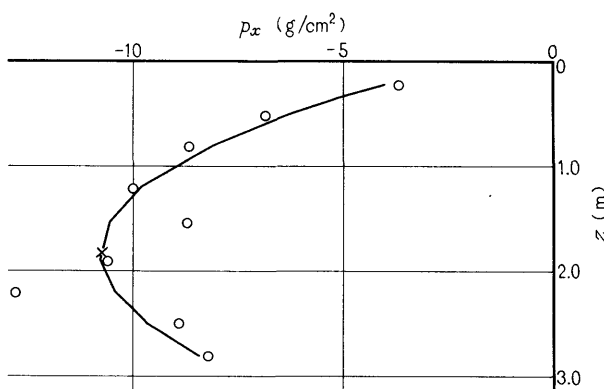
②



③



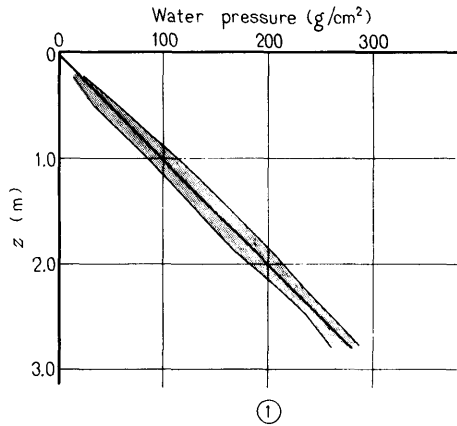
④



⑤

Fig. 39-(63)

II-5-10.1



z m	p g/cm ²	γ deg	z m	p g/cm ²	γ deg
0.21	5.0	165	2.49	12.6	142
0.51	10.0	169	2.80	13.6	146
0.81	12.3	163	Bottom (No.6)	31.2	-44
1.21	14.3	161	z m	D mm	λ deg
1.54	15.0	156	0	0.434	-138
1.89	17.1	155	2.16	0.208	-158
2.20	11.9	159	$f =$	10.1	Hz

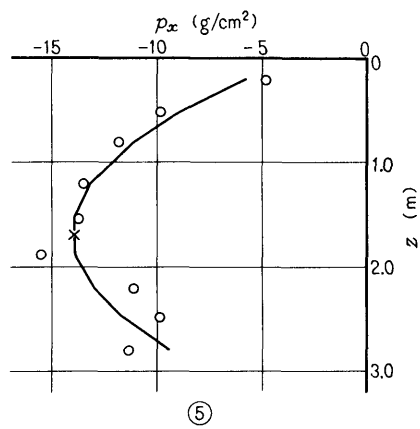
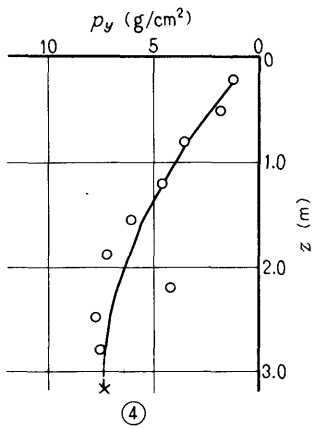
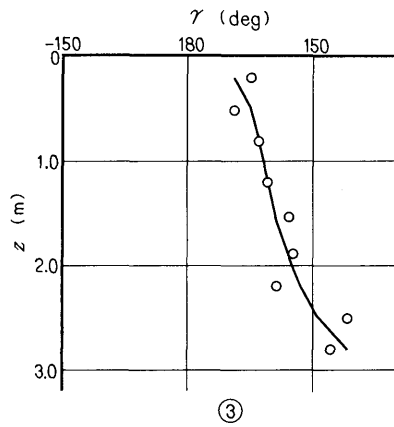
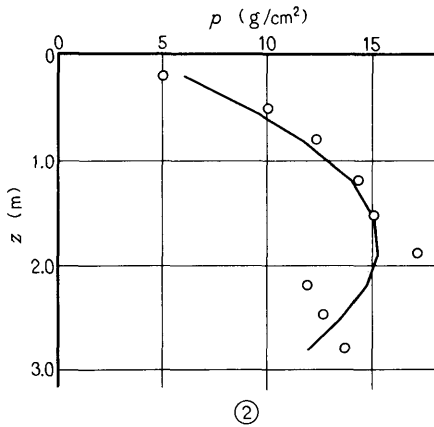
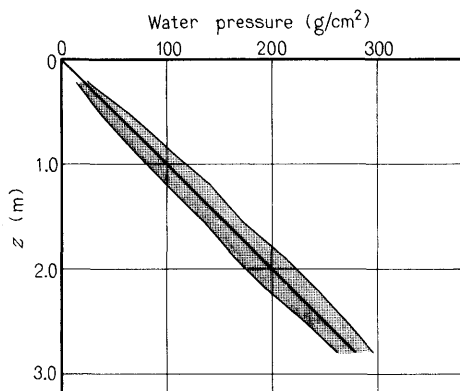


Fig. 39-(64)

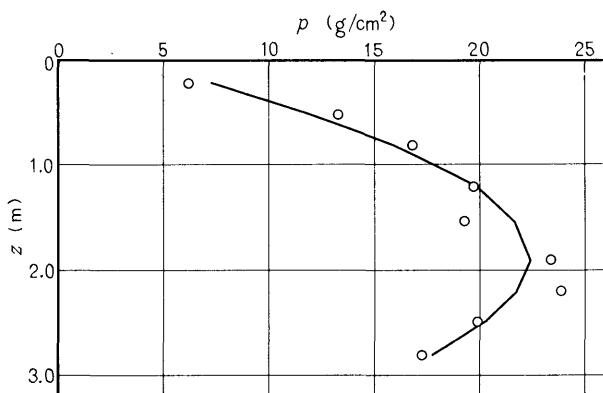
II-5-12.1



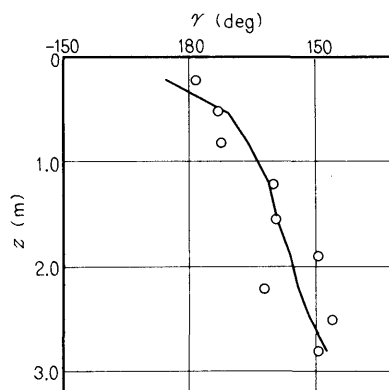
z m	p g/cm ²	γ deg
0.21	6.2	178
0.51	13.3	173
0.81	16.8	172
1.21	19.7	160
1.54	19.3	159
1.89	23.4	149
2.20	23.9	162

z m	p g/cm ²	γ deg
2.49	19.9	146
2.80	17.3	149
Bottom (No.6)	56.1	-20
z m	D mm	λ deg
0	0.402	-131
2.16	0.213	-163
$f = 12.1$ Hz		

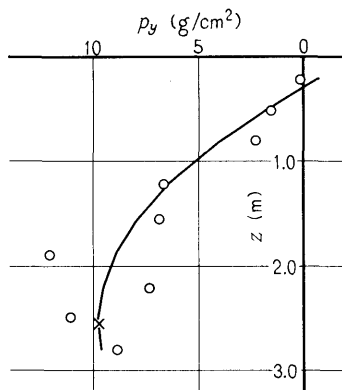
①



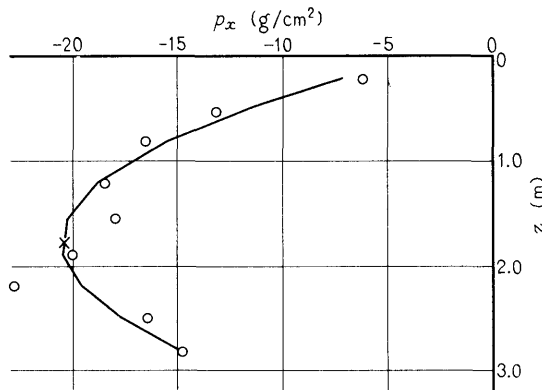
②



③



④



⑤

Fig. 39- (65)

付 録 B

Fig. 40-(1)~(9) は Eq. (27) の八つの係数を, Fig. 40-(10) は Eq. (24) の六つの係数を振動数 f に対してプロットしたものである。そのときの次数 n の値は Table 3 に示されている。

I-1

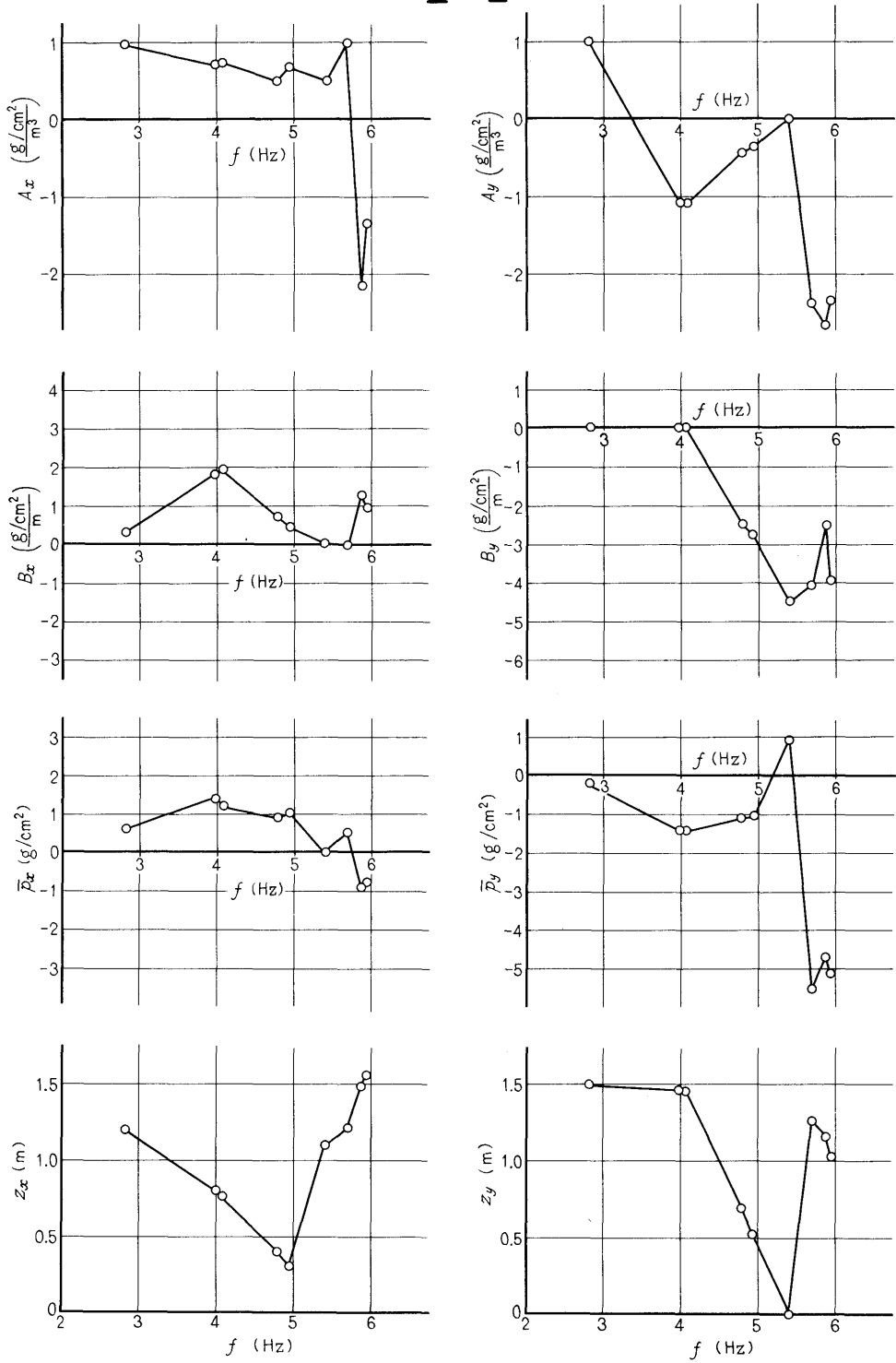


Fig. 40-(1) Frequency responses of the coefficients in Eq.(27)

I-2

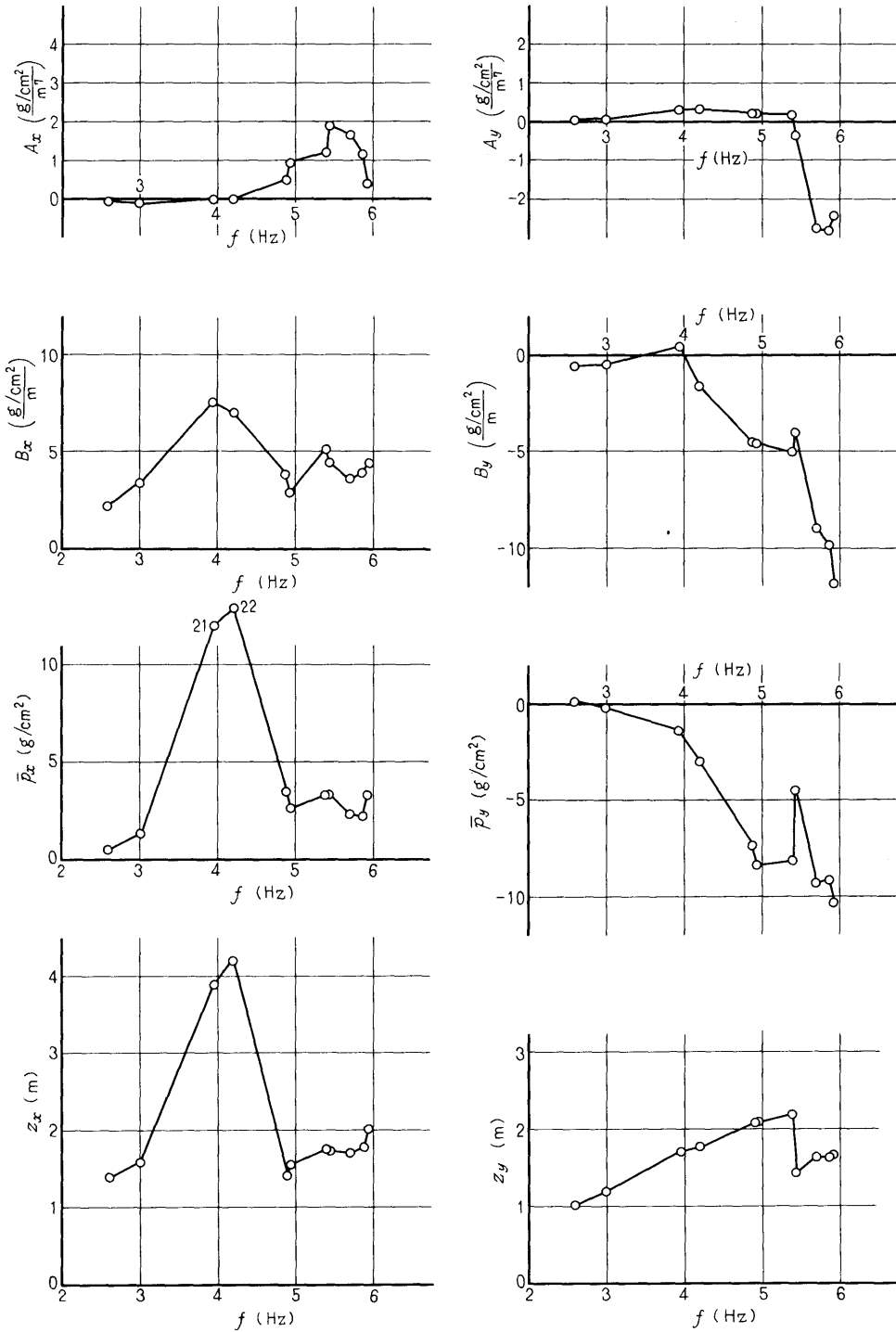


Fig. 40-(2)

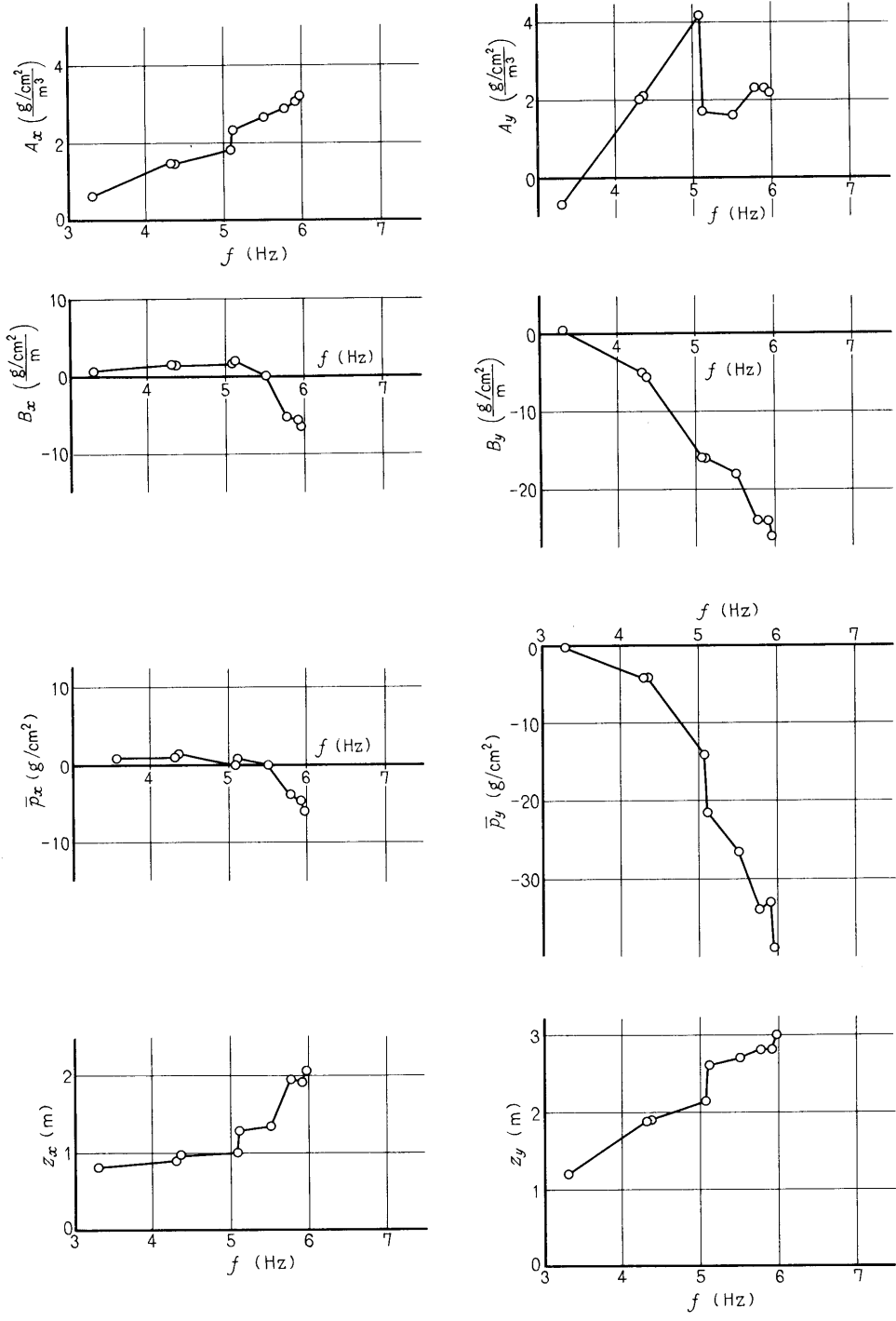


Fig. 40-(3)

I-4

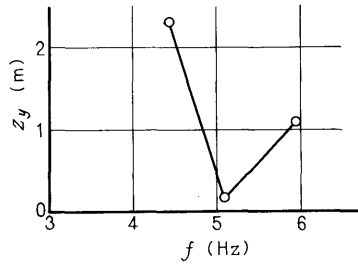
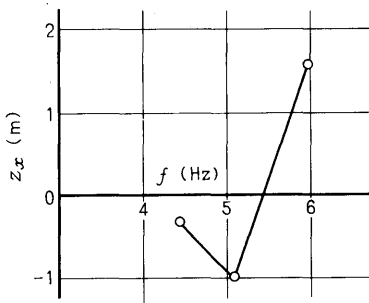
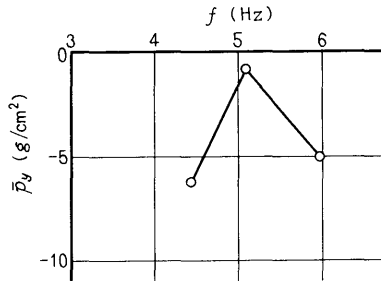
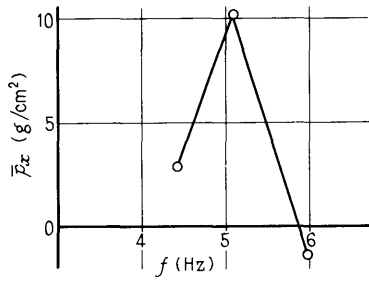
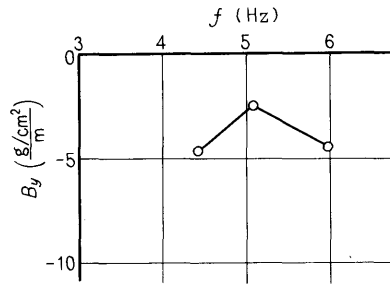
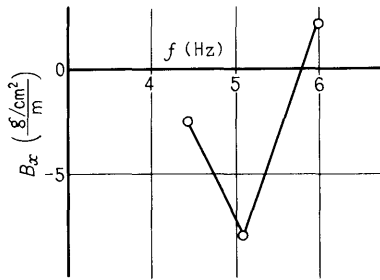
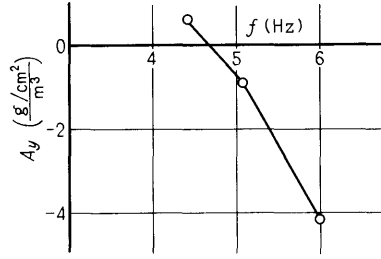
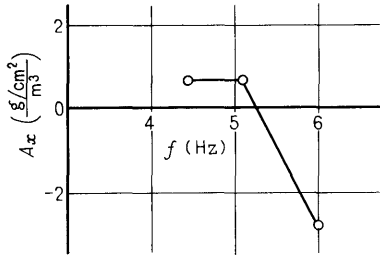


Fig. 40-(4)

I-5

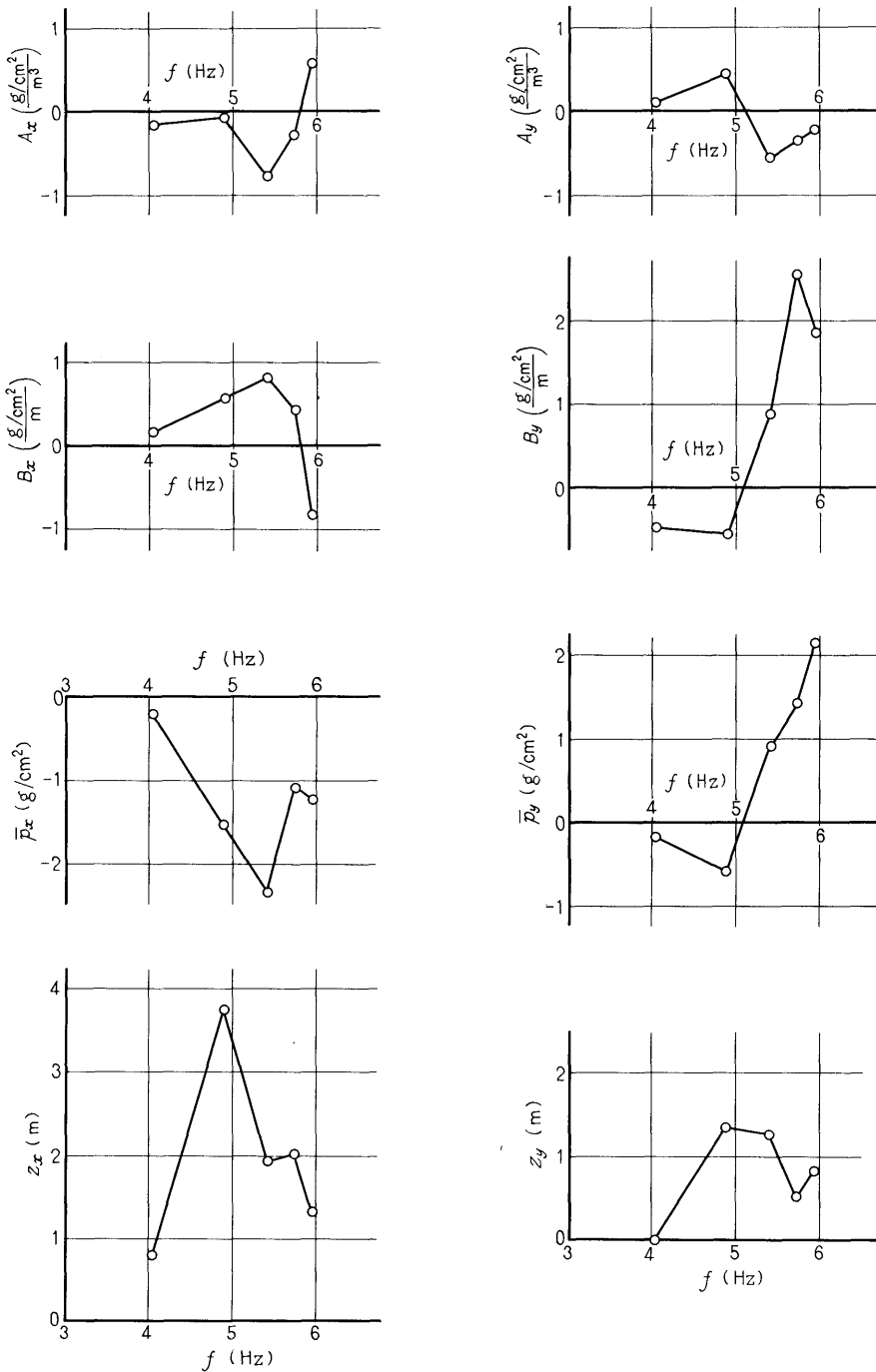


Fig. 40-(5)

II-1

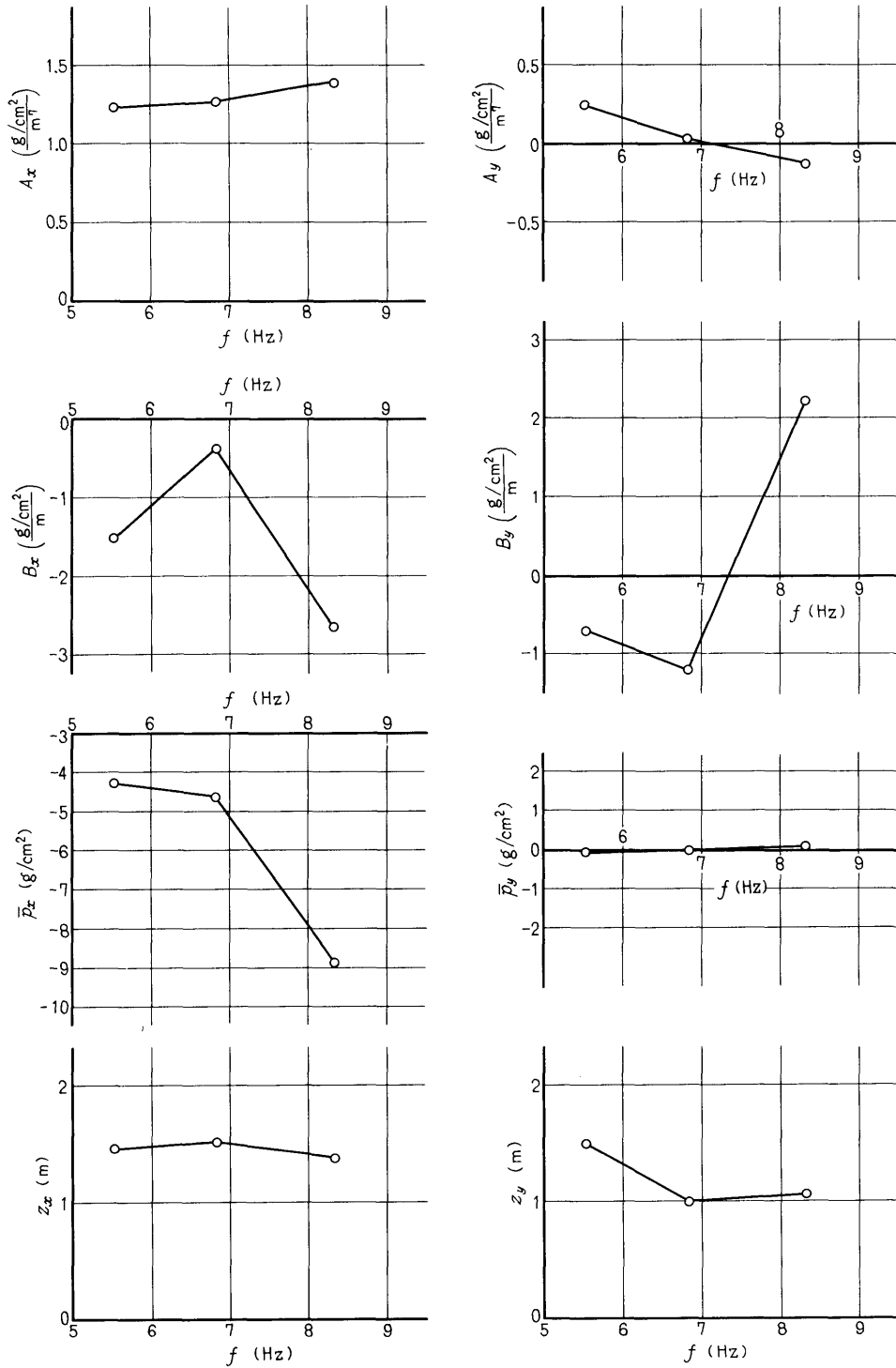


Fig. 40-(6)

II-2

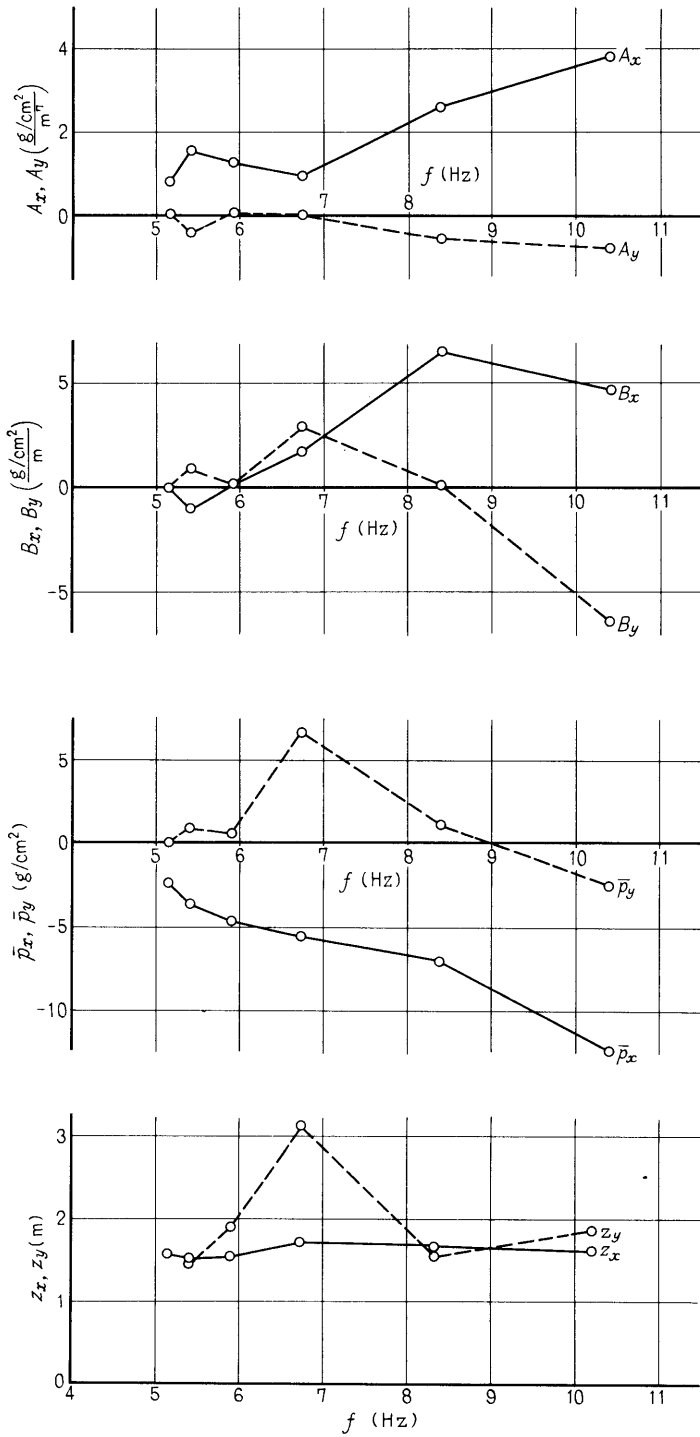


Fig. 40-(7)

II-3

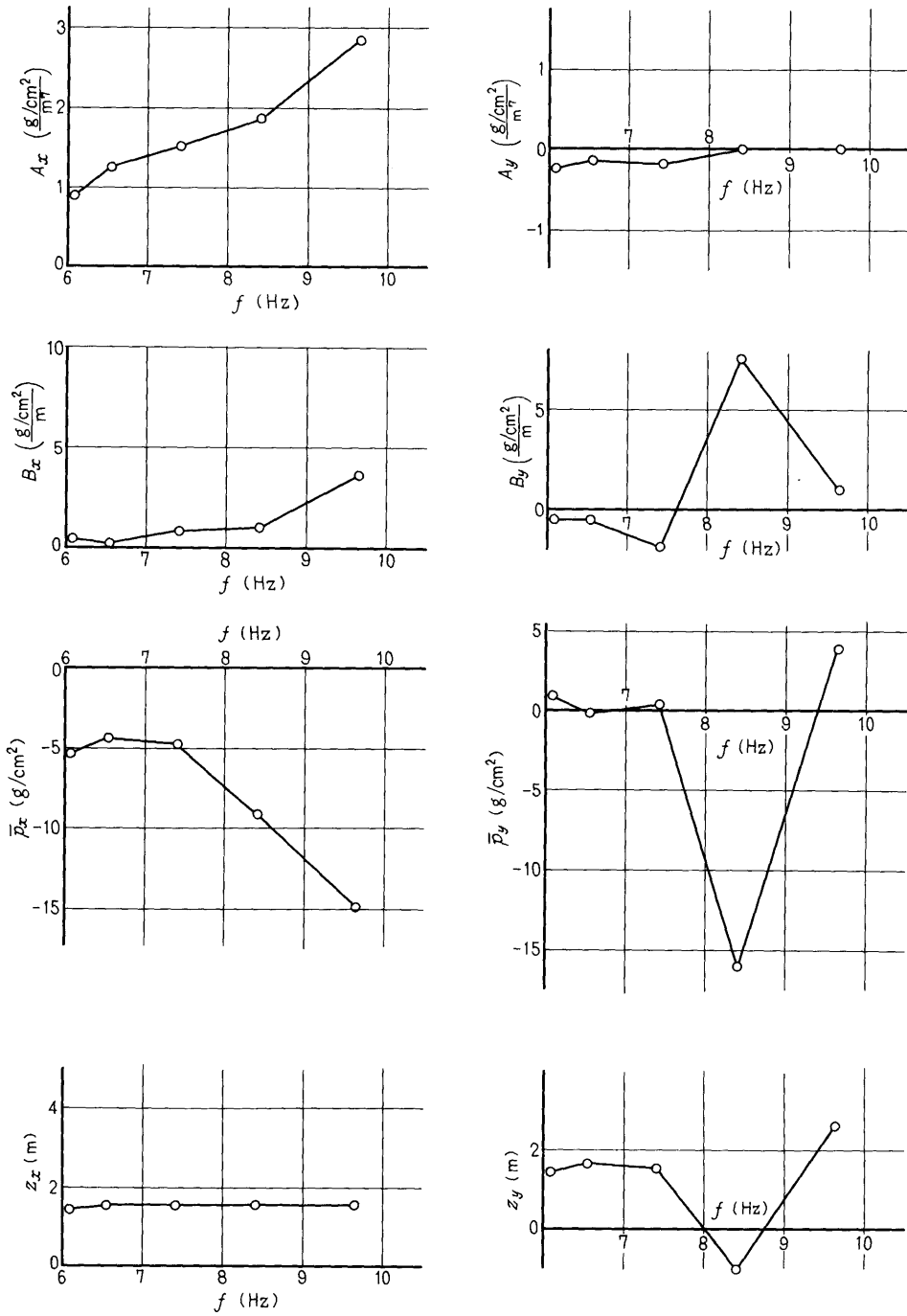


Fig. 40-(8)

II-4

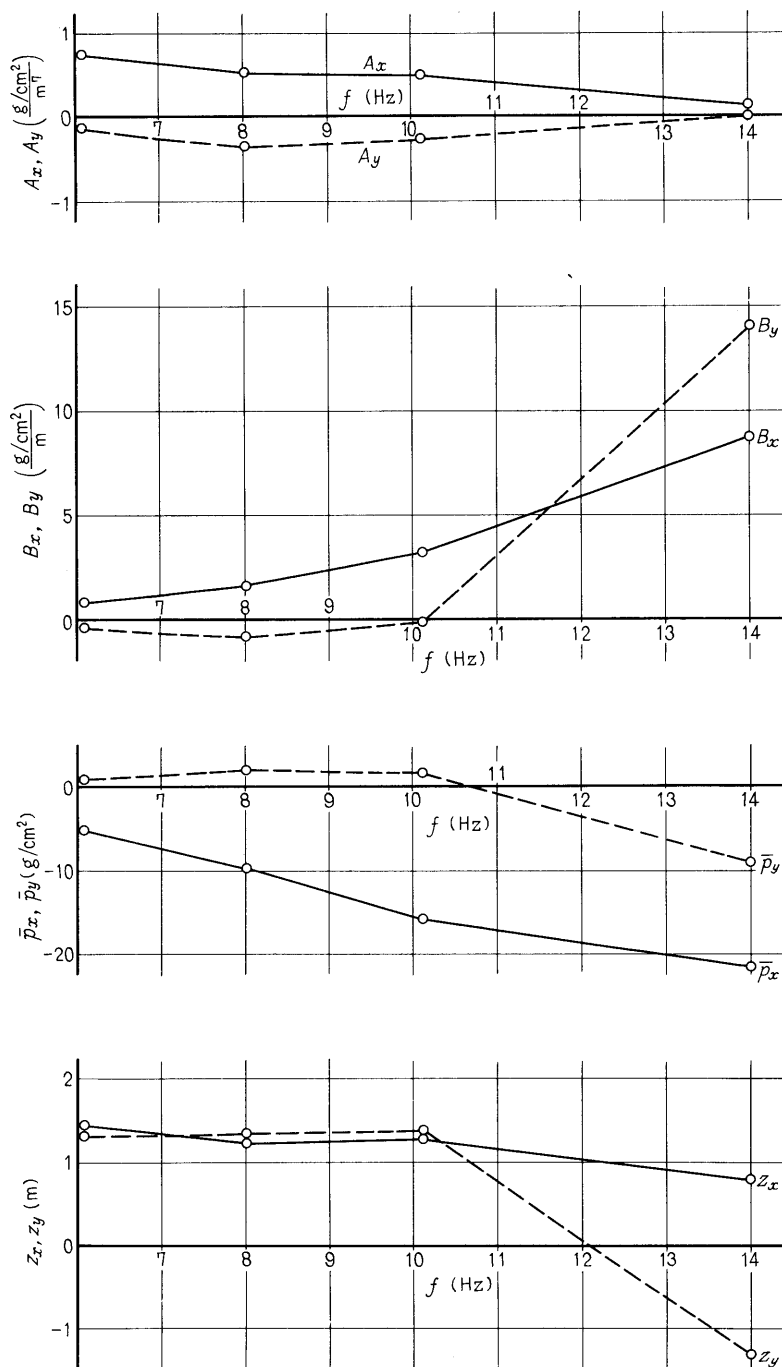


Fig. 40-(9)

II-5

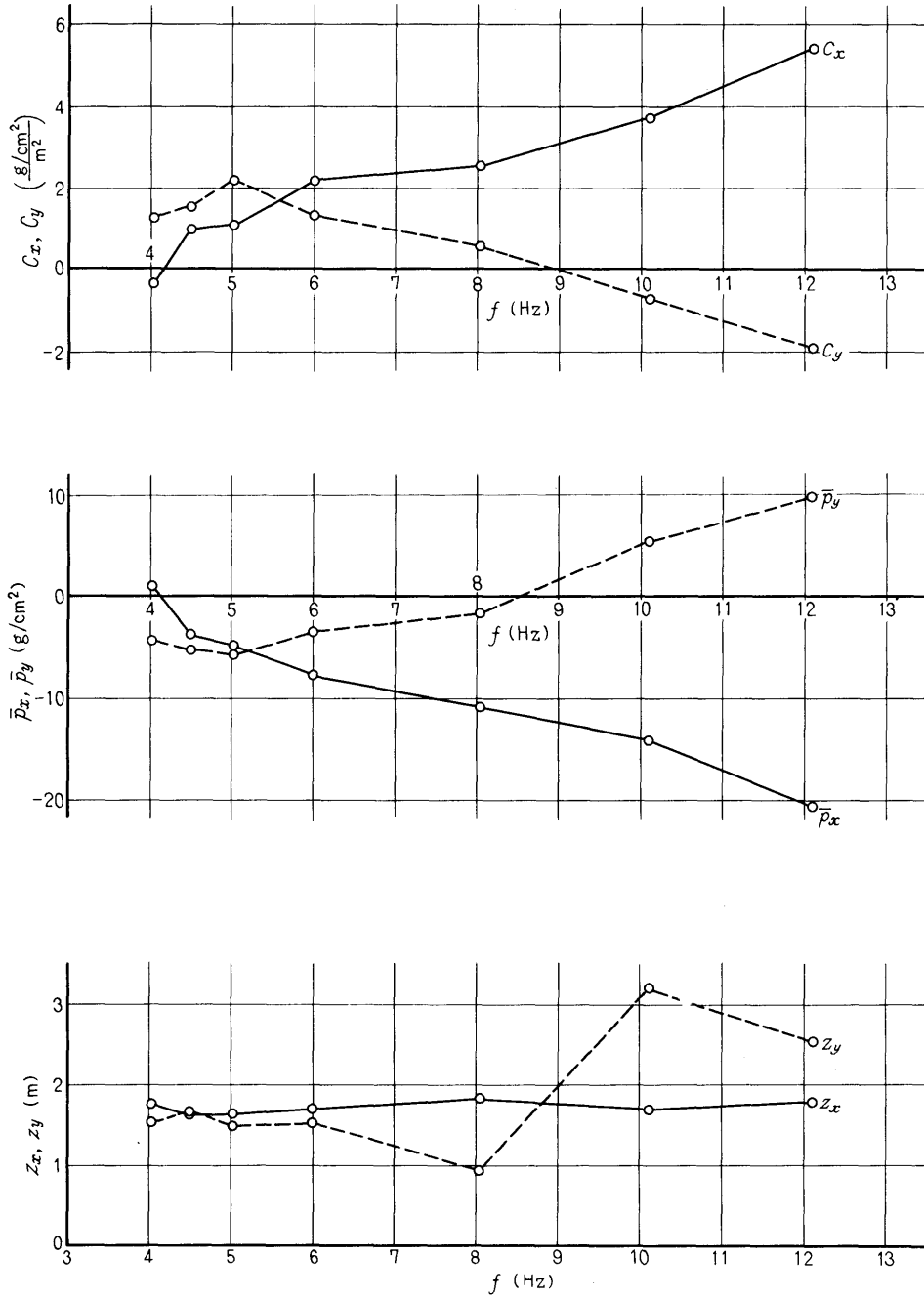


Fig. 40-(10) Frequency responses of the coefficients in Eq.(24)