

UNIVERSITAT DE BARCELONA

DEPARTAMENT DE CIENCIAS

MORFOLÓGIQUES I

ODONTO-ESTOMATOLOGIA

TESIS DOCTORAL

**"ESTUDIO RUGOSIMÉTRICO DE LA
SUPERFICIE DE LA CERÁMICA
FELDESPÁTICA UTILIZADA EN LA
ELABORACIÓN DE RESTAURACIONES
CERAMO-METÁLICAS"**

PRESENTADA POR EL LICENCIADO EN

MEDICINA Y CIRUGÍA:

JOSÉ MARÍA ANGLADA CANTARELL

DIRECTORES:

PROF. F. J. GASCÓN MAYORDOMO (E.P.D.)

PROF. J. SALSENCH CABRÉ

BARCELONA JUNIO 1992



J. Anglada Cantarell

PERTHOMETER M4P
DAT.
OBJ. IPG 2b

LT 4.8 MM
RA 0.48 UM
RZ 1.14 UM
RMAX 2.32 UM
RPM 0.52 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 2c

LT 4.8 MM
RA 0.77 UM
RZ 1.72 UM
RMAX 2.78 UM
RPM 0.67 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 3a

LT 4.8 MM
RA 0.22 UM
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RPM 0.22 UM
PC<1.3> 000 /CM

PERTHOMETER M4P
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OBJ. IPG 3b

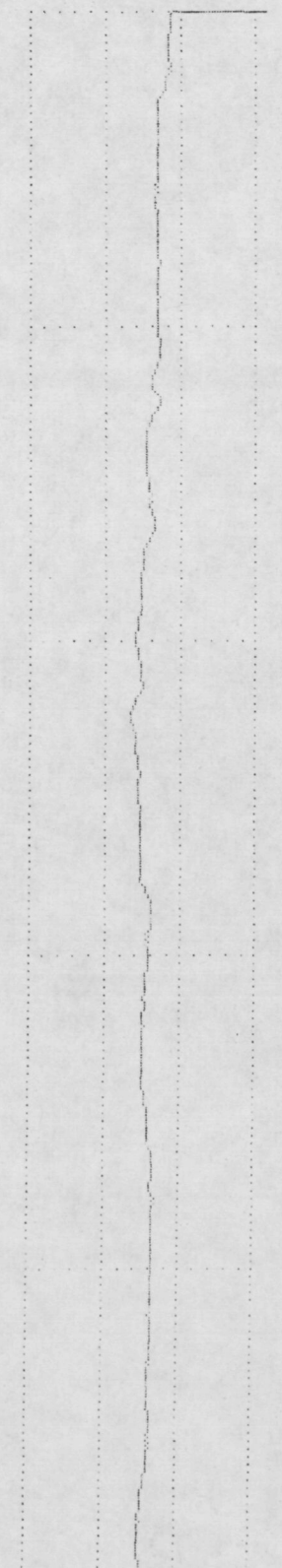
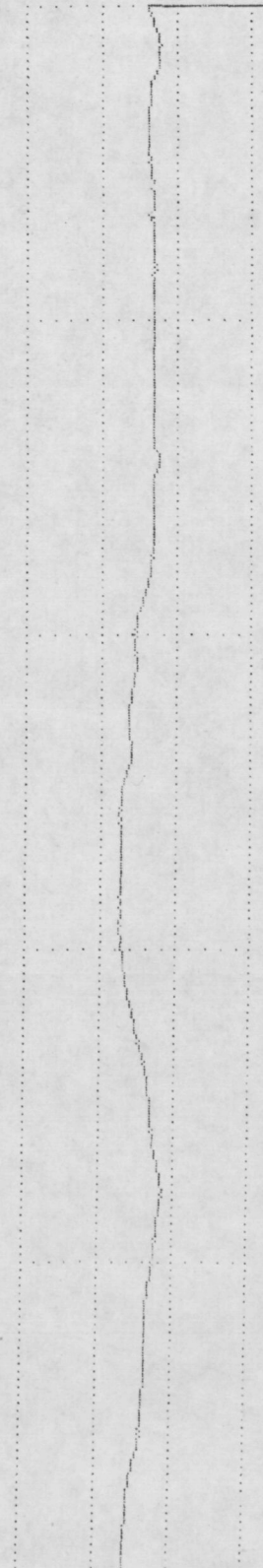
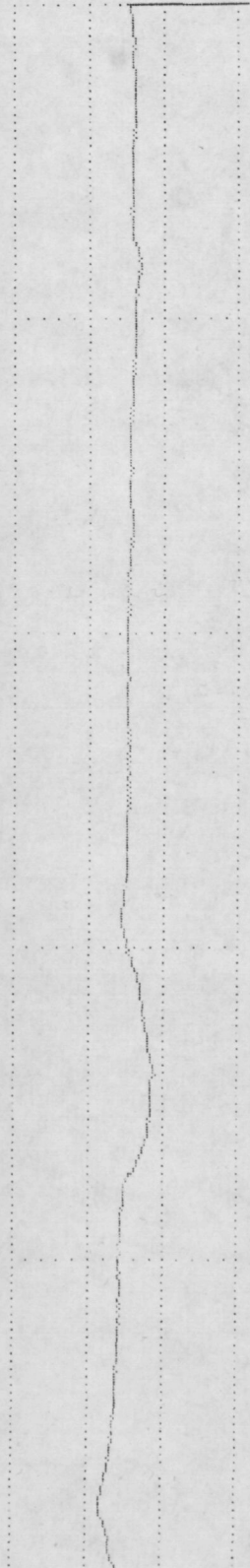
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RPM 0.27 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. *IPG 3c*

LT 4.8 MM
RA 0.34 UM
RZ 1.02 UM
RMAX 1.52 UM
RPM 0.57 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 4a*

LT 4.8 MM
RA 0.44 UM
RZ 1.34 UM
RMAX 2.14 UM
RPM 0.56 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 4b*

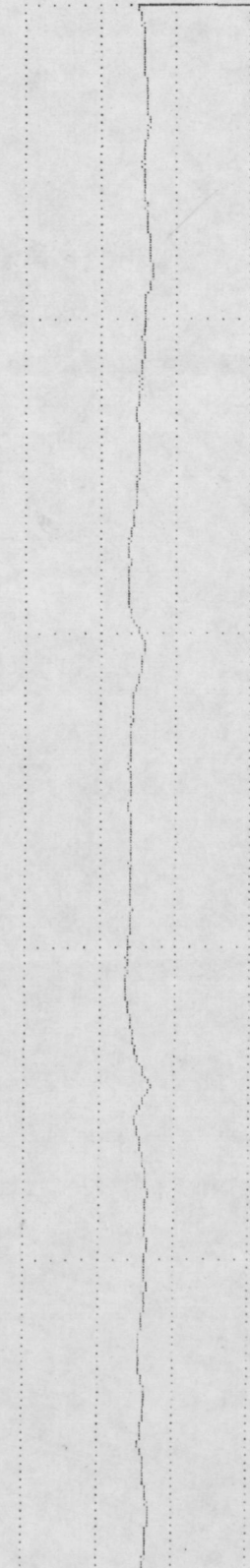
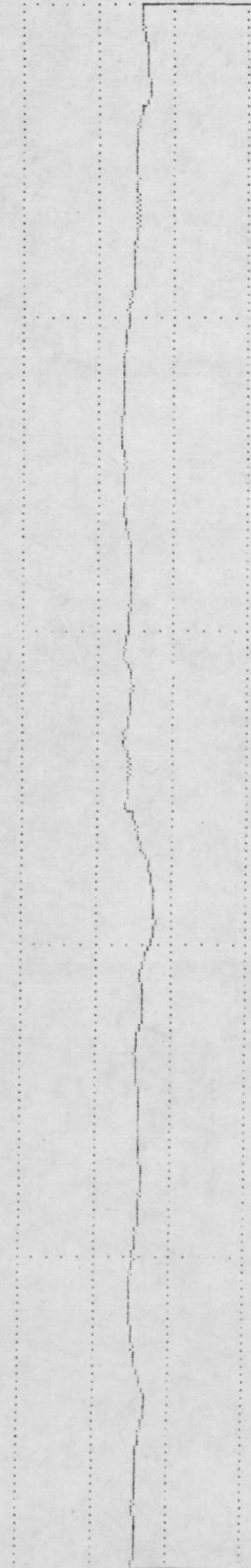
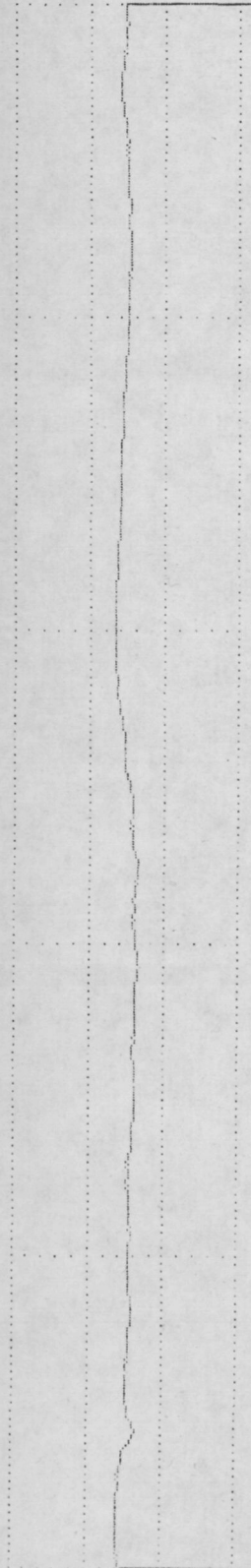
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RA 0.40 UM
RZ 1.04 UM
RMAX 1.56 UM
RPM 0.44 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 4c*

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RA 0.58 UM
RZ 1.43 UM
RMAX 1.82 UM
RPM 0.46 UM
PC<1.3> 002 /CM

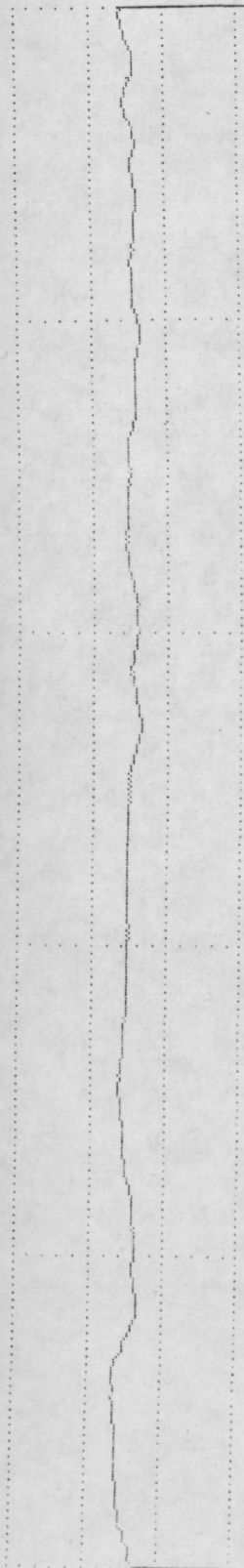
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 5a

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RPM 0.49 UM
PC<1.3> 002 /CM

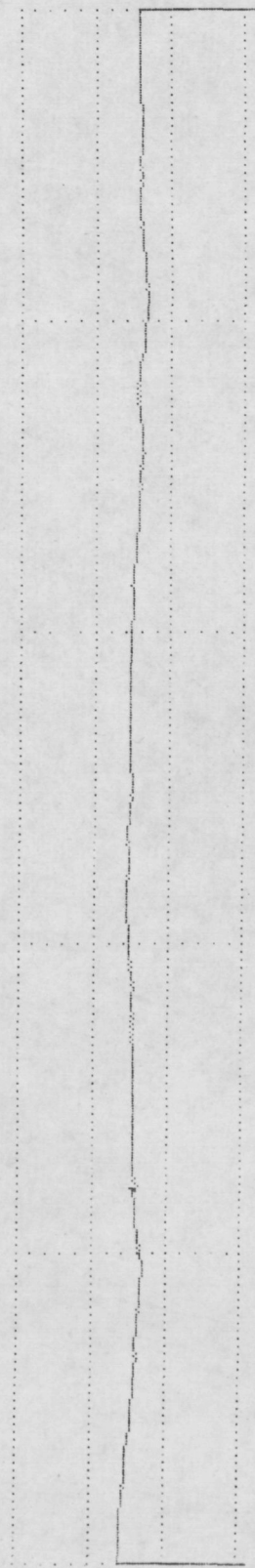
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 5b

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RA 0.30 UM
RZ 0.79 UM
RMAX 1.28 UM
RPM 0.23 UM
PC<1.3> 000 /CM

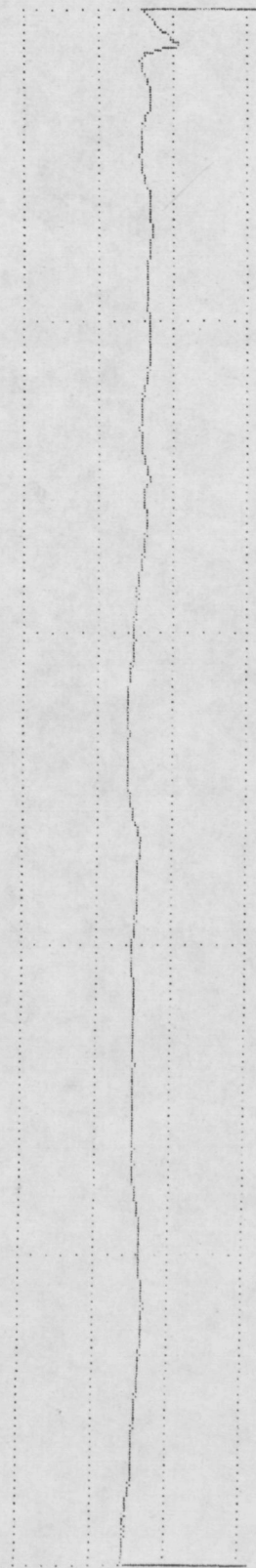
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
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OBJ. IPG 5c

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RMAX 2.80 UM
RPM 0.21 UM
PC<1.3> 000 /CM

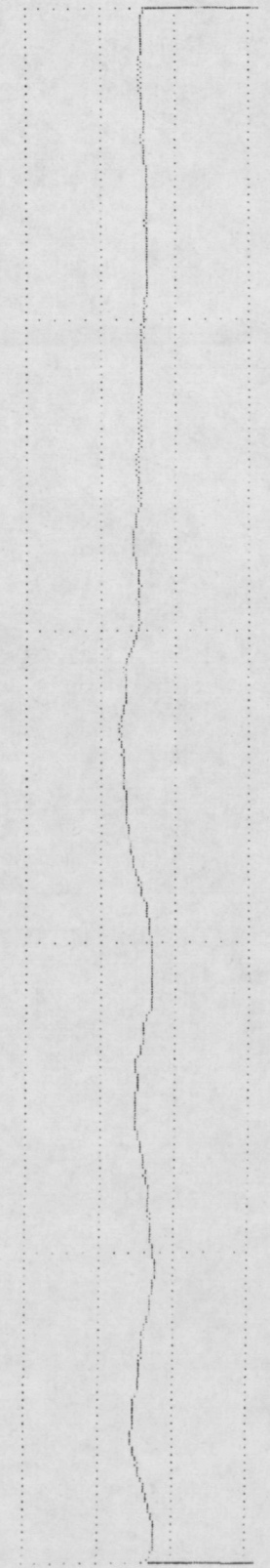
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 6a

LT 4.8 MM
RA 0.44 UM
RZ 1.23 UM
RMAX 2.10 UM
RPM 0.46 UM
PC<1.3> 000 /CM

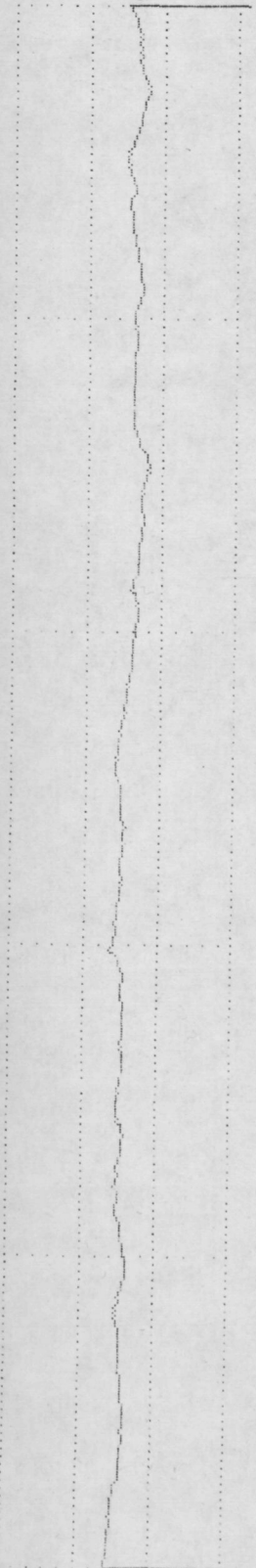
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. JPG 6 b

LT 4.8 MM
RA 0.41 UM
RZ 1.24 UM
RMAX 1.46 UM
RPM 0.38 UM
PC<1.3> 002 /CM

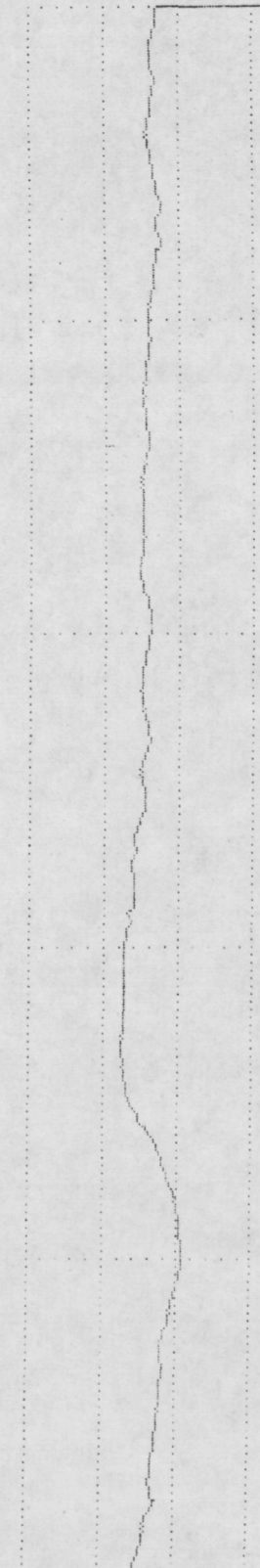
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. JPG 6 c

LT 4.8 MM
RA 0.77 UM
RZ 2.09 UM
RMAX 4.12 UM
RPM 0.56 UM
PC<1.3> 002 /CM

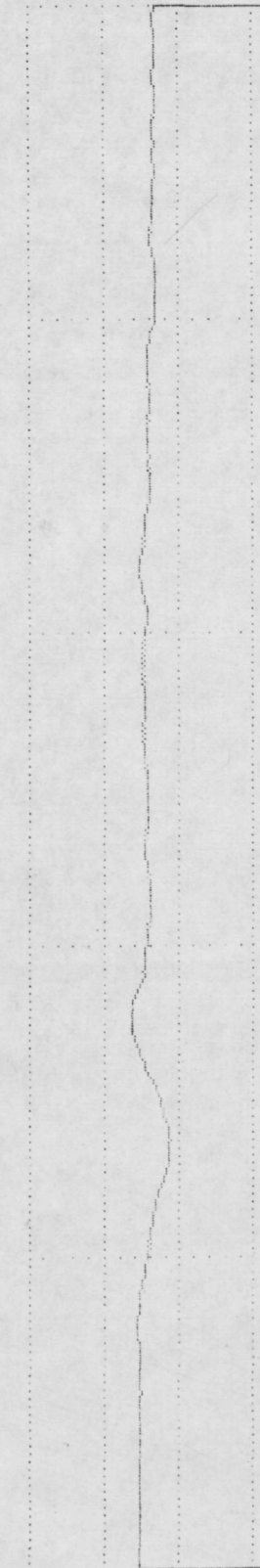
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. JPG 7 a

LT 4.8 MM
RA 0.44 UM
RZ 1.12 UM
RMAX 2.62 UM
RPM 0.24 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. JPG 7 b

LT 4.8 MM
RA 0.90 UM
RZ 1.97 UM
RMAX 3.96 UM
RPM 0.58 UM
PC<1.3> 002 /CM

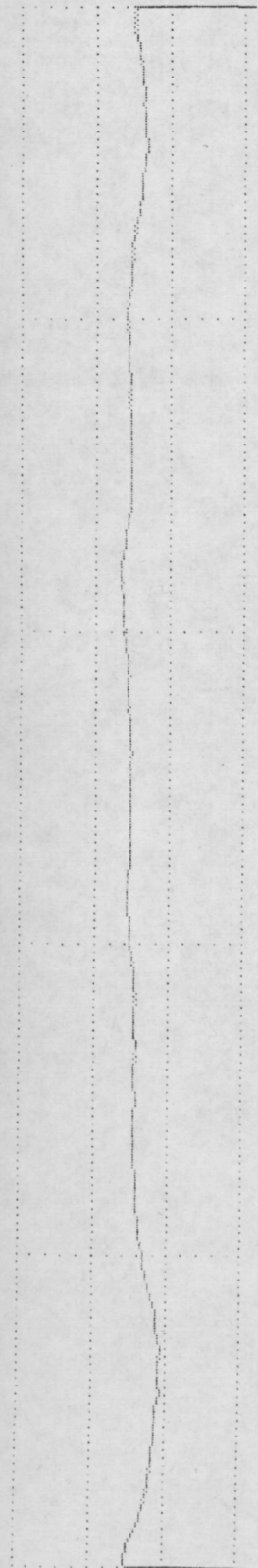
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 7c

LT 4.8 MM
RA 0.52 UM
RZ 1.17 UM
RMAX 2.30 UM
RPM 0.44 UM
PC<1.3> 002 /CM

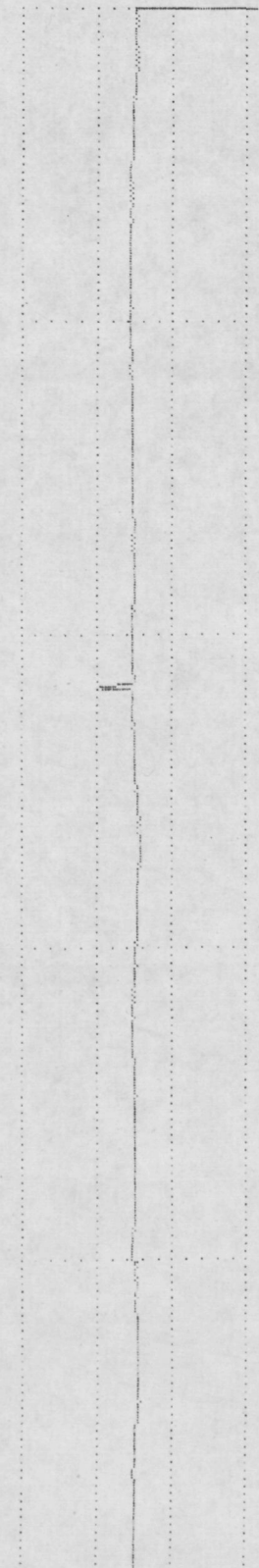
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 8a

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RA 0.13 UM
RZ 0.82 UM
RMAX 2.68 UM
RPM 0.67 UM
PC<1.3> 000 /CM

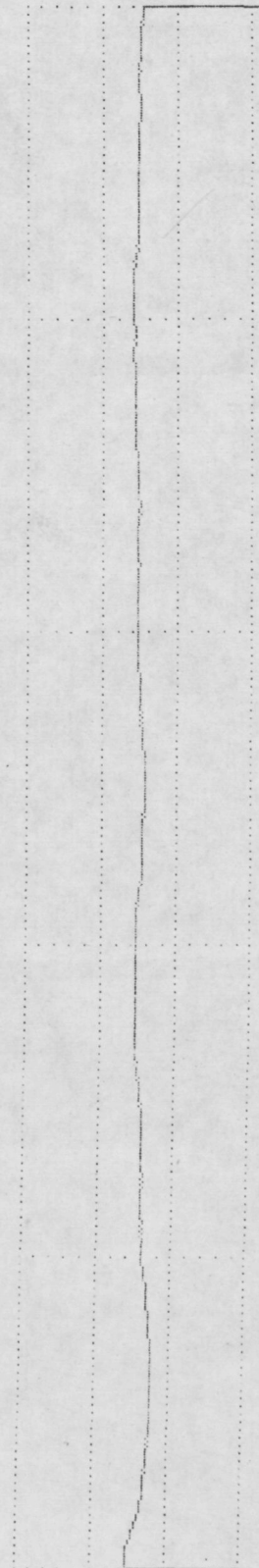
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 8b

LT 4.8 MM
RA 0.34 UM
RZ 0.80 UM
RMAX 1.40 UM
RPM 0.36 UM
PC<1.3> 000 /CM

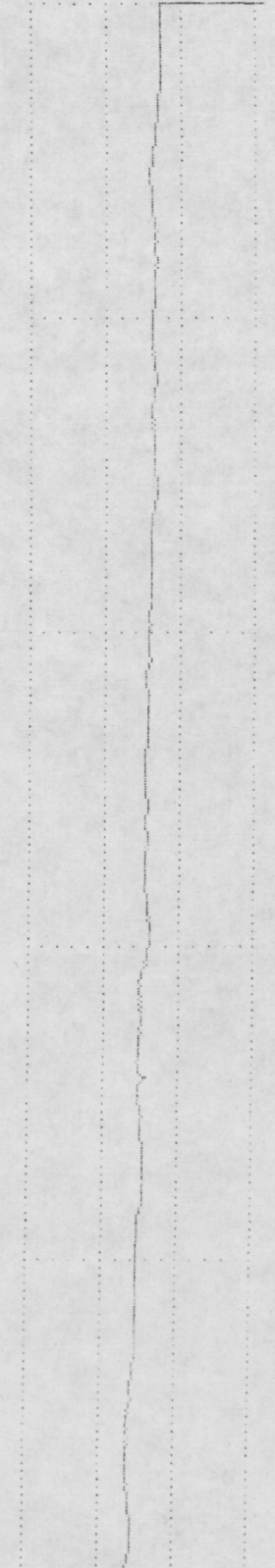
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 8c

LT 4.8 MM
RA 0.41 UM
RZ 0.74 UM
RMAX 1.06 UM
RPM 0.19 UM
PC<1.3> 002 /CM

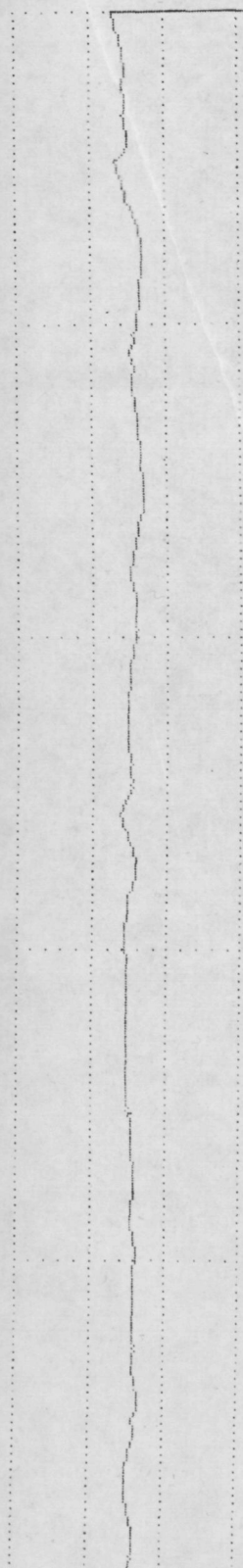
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 9a

LT 4.8 MM
RA 0.31 UM
RZ 1.01 UM
RMAX 1.79 UM
RPM 0.38 UM
PC<1.3> 000 /CM

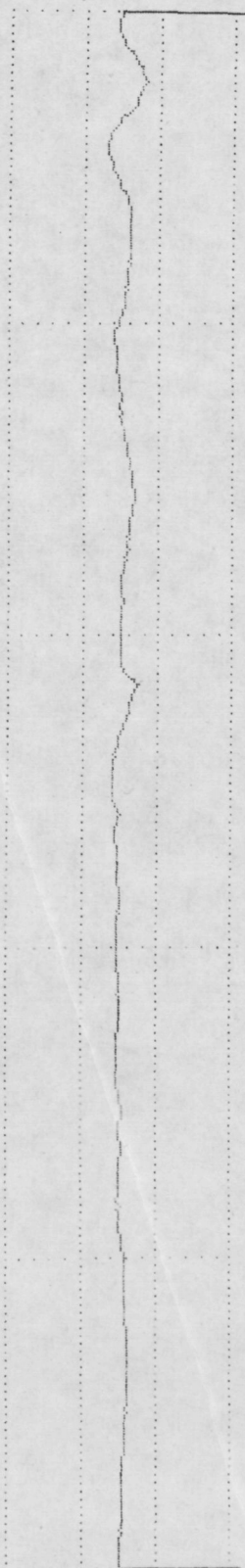
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 9b

LT 4.8 MM
RA 0.28 UM
RZ 1.26 UM
RMAX 2.54 UM
RPM 0.43 UM
PC<1.3> 002 /CM

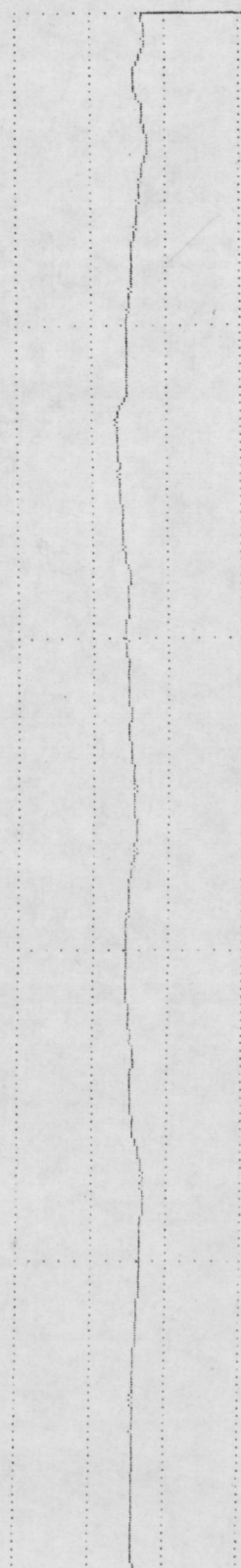
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 9c

LT 4.8 MM
RA 0.37 UM
RZ 0.92 UM
RMAX 1.28 UM
RPM 0.35 UM
PC<1.3> 002 /CM

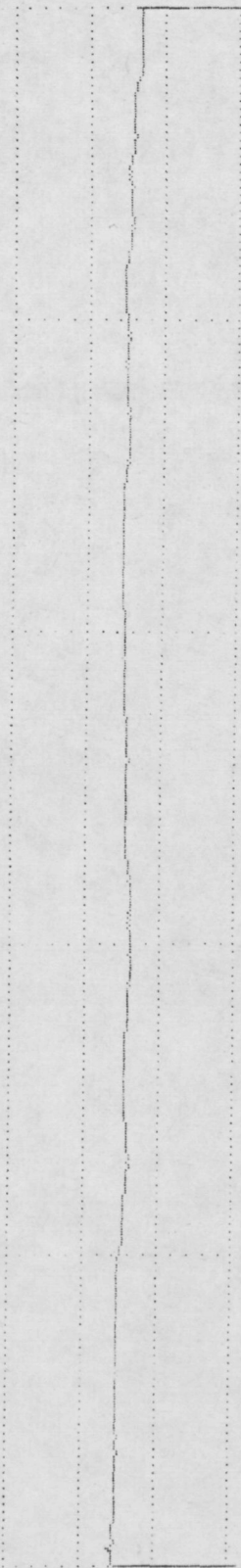
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 10a

LT 4.8 MM
RA 0.21 UM
RZ 0.63 UM
RMAX 1.15 UM
RPM 0.21 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 10b

LT 4.8 MM
RA 0.43 UM
RZ 1.08 UM
RMAX 1.42 UM
RPM 0.48 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 10c

LT 4.8 MM
RA 0.37 UM
RZ 0.85 UM
RMAX 1.21 UM
RPM 0.38 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 11a

LT 4.8 MM
RA 1.34 UM
RZ 2.13 UM
RMAX 3.68 UM
RPM 0.58 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 11b

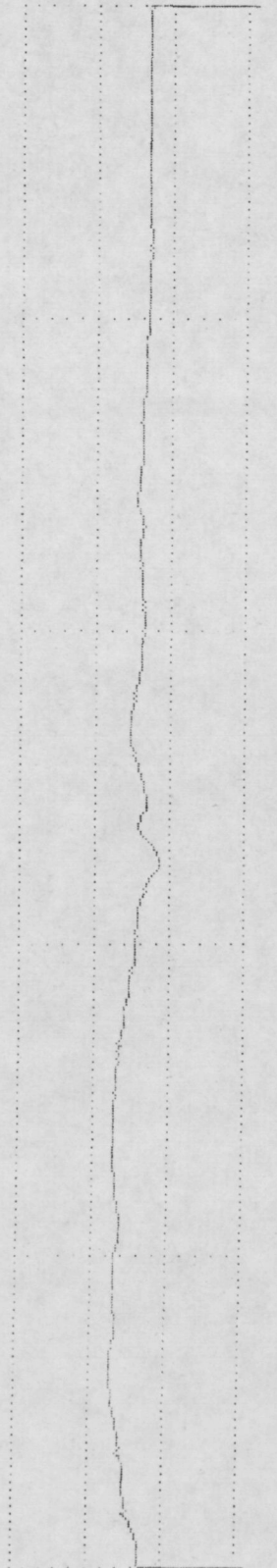
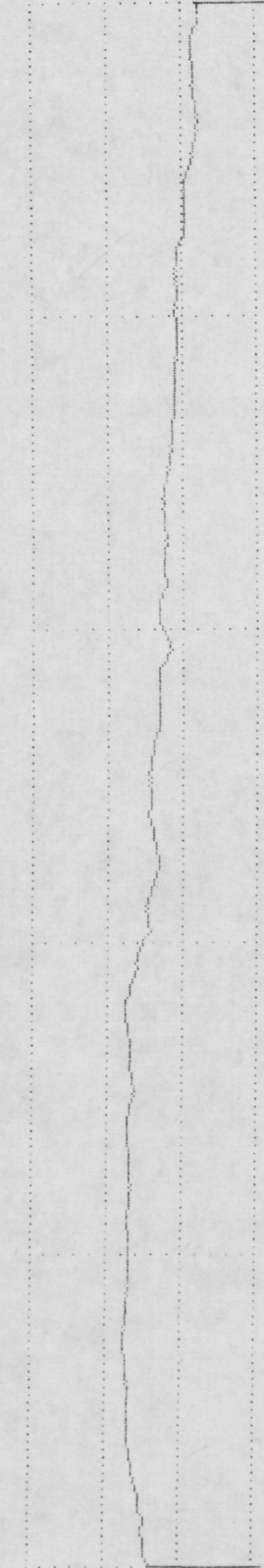
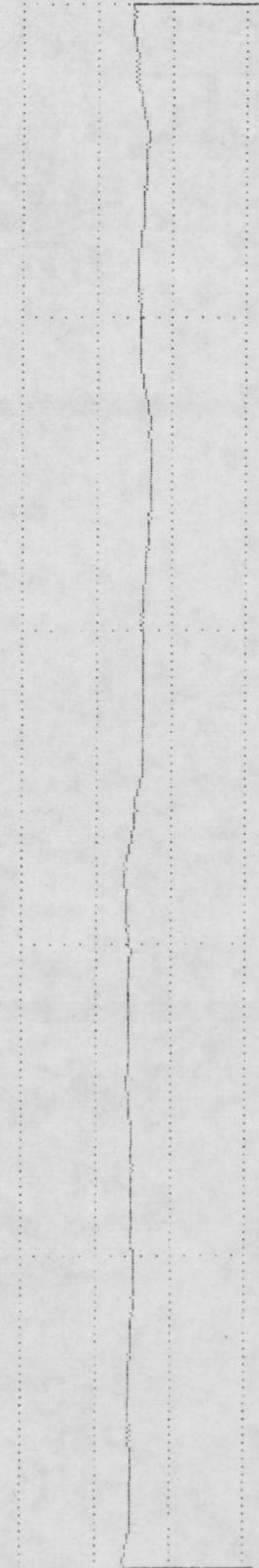
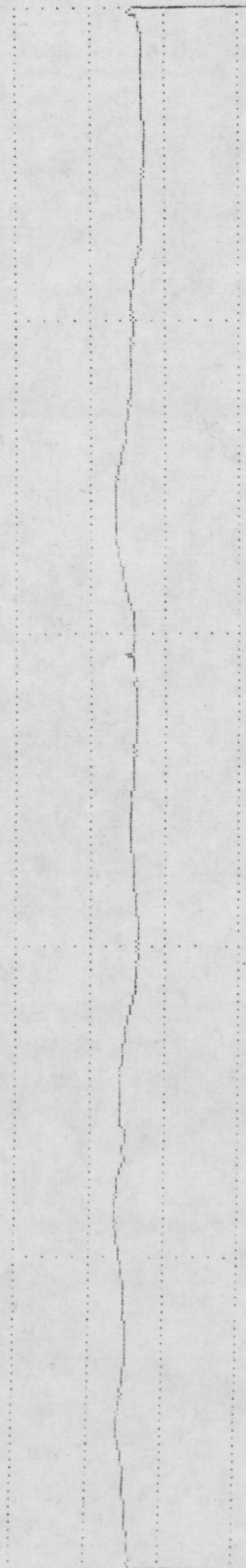
LT 4.8 MM
RA 0.68 UM
RZ 1.48 UM
RMAX 2.20 UM
RPM 0.54 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 11c

LT 4.8 MM
RA 0.37 UM
RZ 1.31 UM
RMAX 1.80 UM
RPM 0.54 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 12a

LT 4.8 MM
RA 0.66 UM
RZ 1.58 UM
RMAX 2.30 UM
RPM 0.44 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 12b

LT 4.8 MM
RA 0.50 UM
RZ 1.35 UM
RMAX 2.92 UM
RPM 0.22 UM
PC<1.3> 000 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 12c

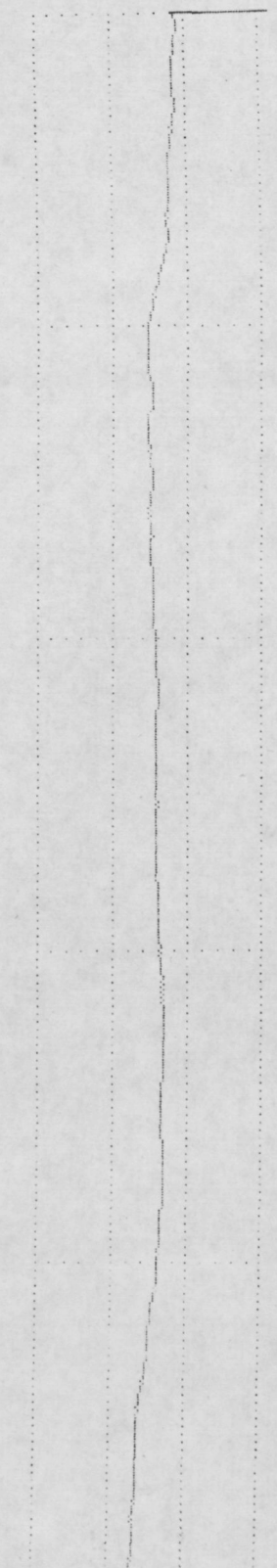
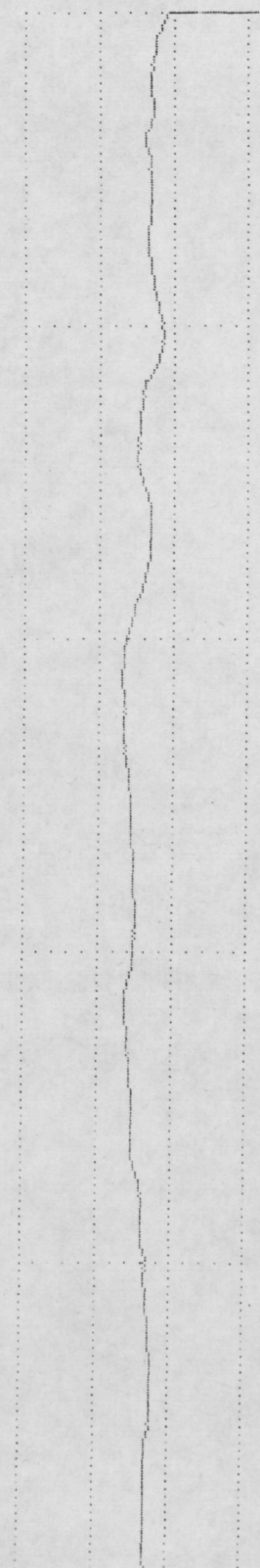
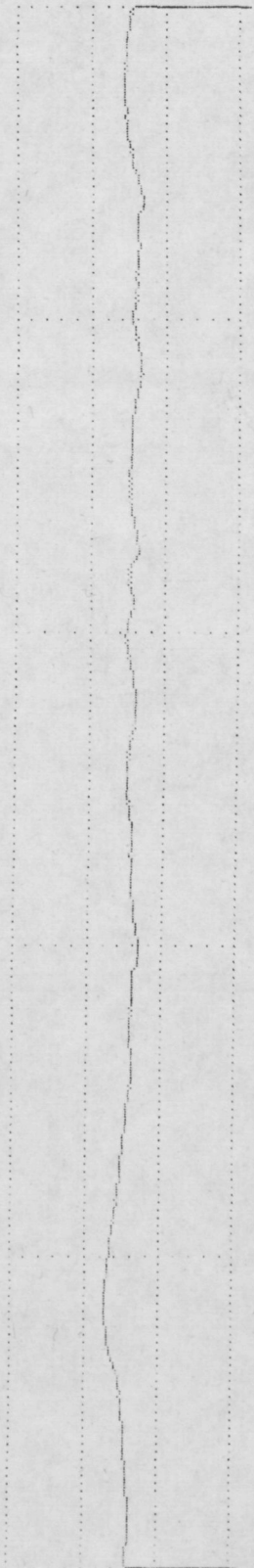
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RZ 1.06 UM
RMAX 1.90 UM
RPM 0.23 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 13a

LT 4.8 MM
RA 0.40 UM
RZ 0.97 UM
RMAX 1.34 UM
RPM 0.50 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 13b

LT 4.8 MM
RA 0.49 UM
RZ 0.99 UM
RMAX 1.58 UM
RPM 0.22 UM
PC<1.3> 000 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 13c

LT 4.8 MM
RA 0.79 UM
RZ 1.68 UM
RMAX 2.76 UM
RPM 0.70 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 14a

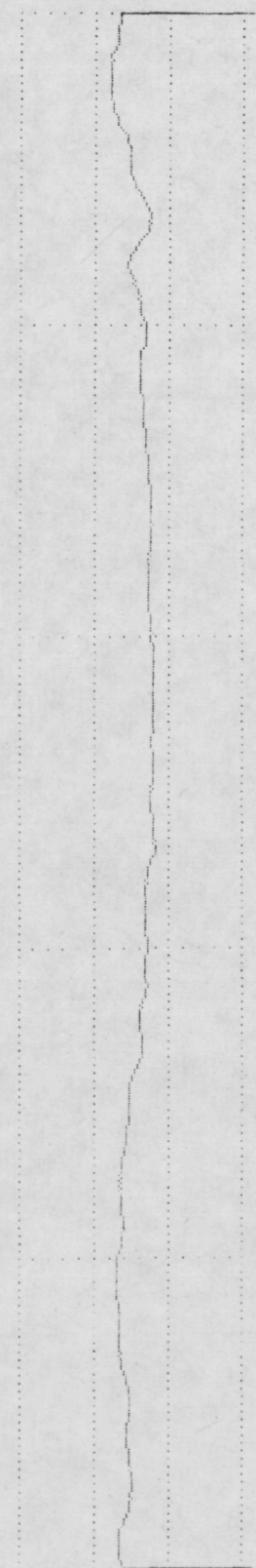
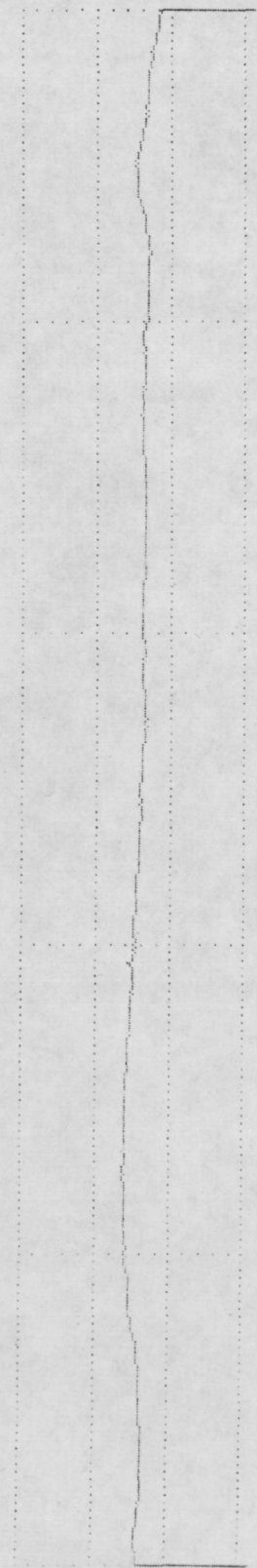
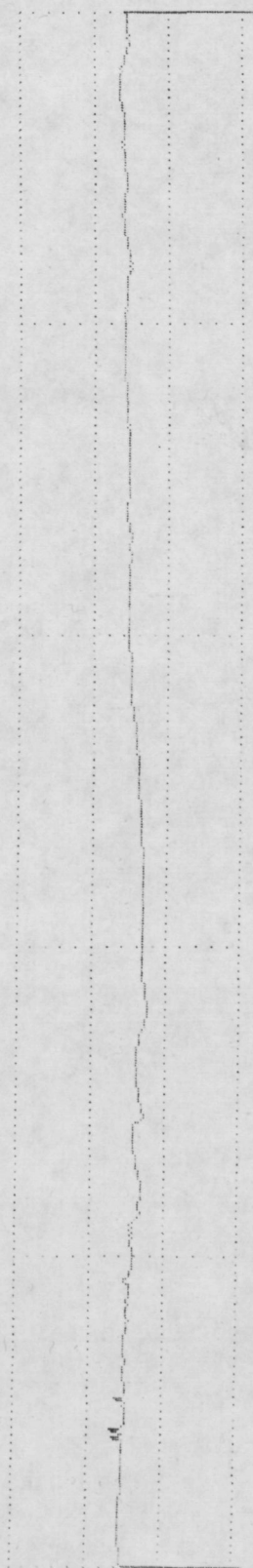
LT 4.8 MM
RA 0.52 UM
RZ 1.22 UM
RMAX 1.62 UM
RPM 0.36 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 14b

LT 4.8 MM
RA 0.61 UM
RZ 1.42 UM
RMAX 1.96 UM
RPM 0.29 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. IPG 14c

LT 4.8 MM
RA 0.80 UM
RZ 1.33 UM
RMAX 3.60 UM
RPM 0.08 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. IPG 15a

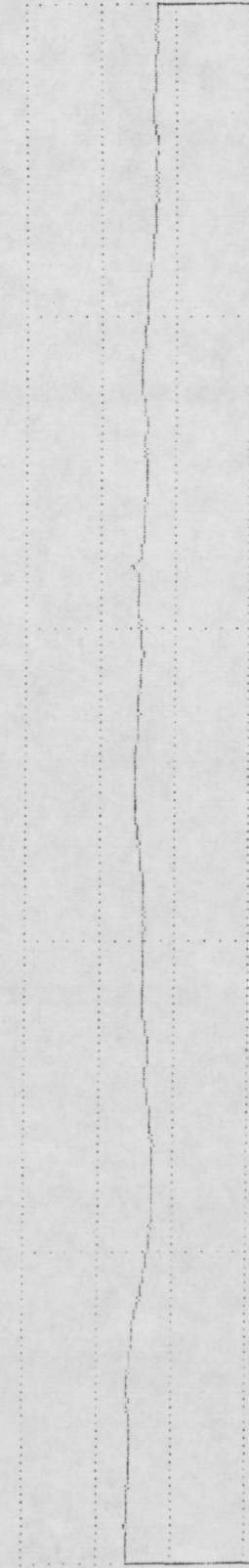
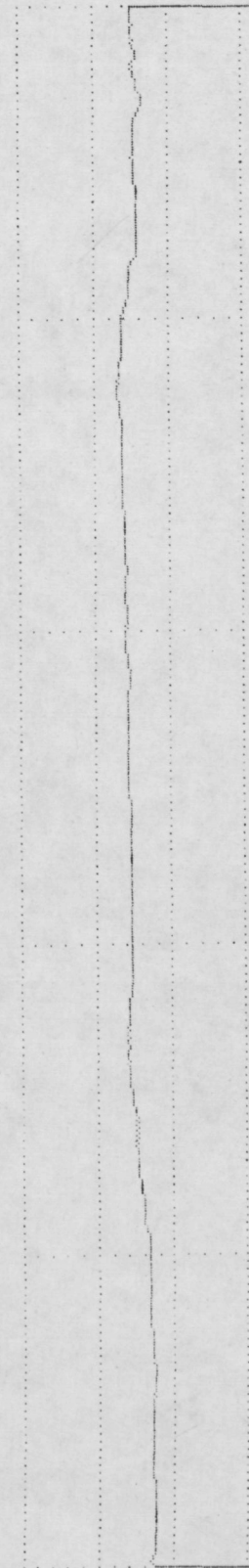
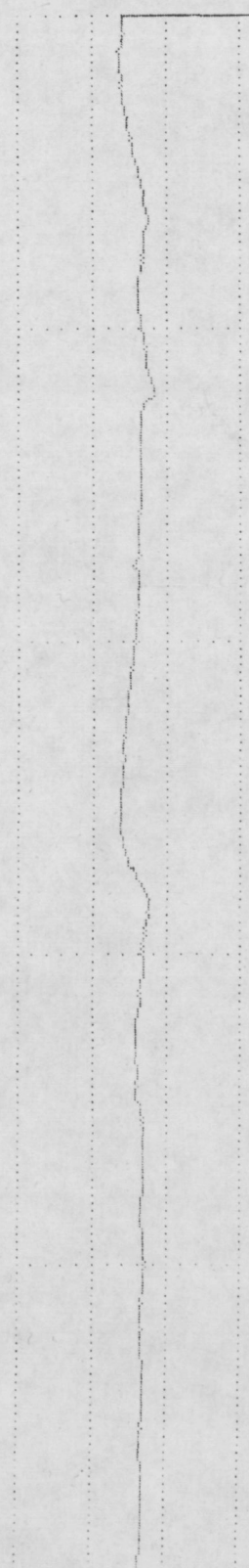
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RA 0.50 UM
RZ 1.09 UM
RMAX 1.44 UM
RPM 0.54 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. IPG 18b

LT 4.8 MM
RA 0.49 UM
RZ 1.06 UM
RMAX 1.32 UM
RPM 0.26 UM
PC<1.3> 000 /CM

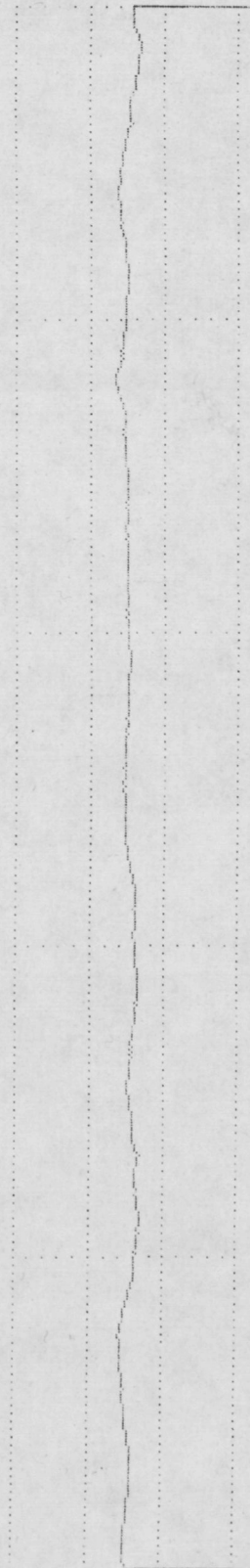
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 15c

LT 4.8 MM
RA 0.27 MM
RZ 0.96 MM
RMAX 1.41 MM
RPM 0.43 MM
PC<1.3> 002 /CM

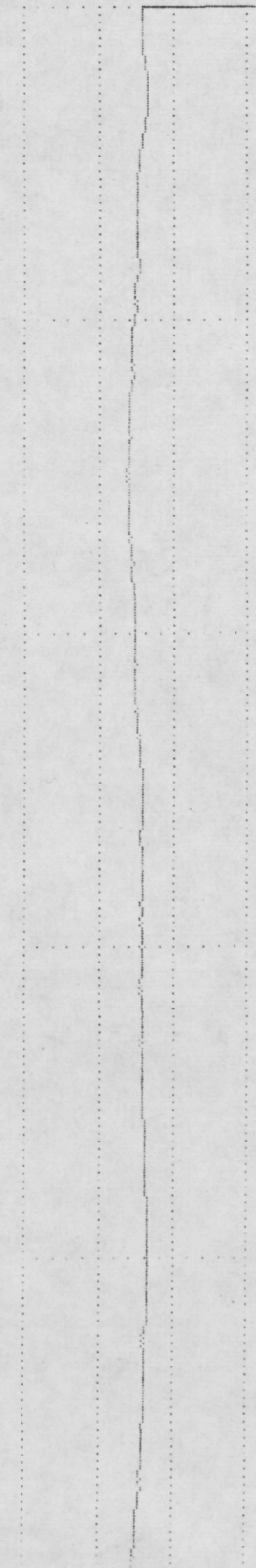
VER 5 MM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 16a

LT 4.8 MM
RA 0.32 MM
RZ 0.72 MM
RMAX 0.87 MM
RPM 0.25 MM
PC<1.3> 002 /CM

VER 5 MM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 16b

LT 4.8 MM
RA 0.51 MM
RZ 1.38 MM
RMAX 2.50 MM
RPM 0.57 MM
PC<1.3> 002 /CM

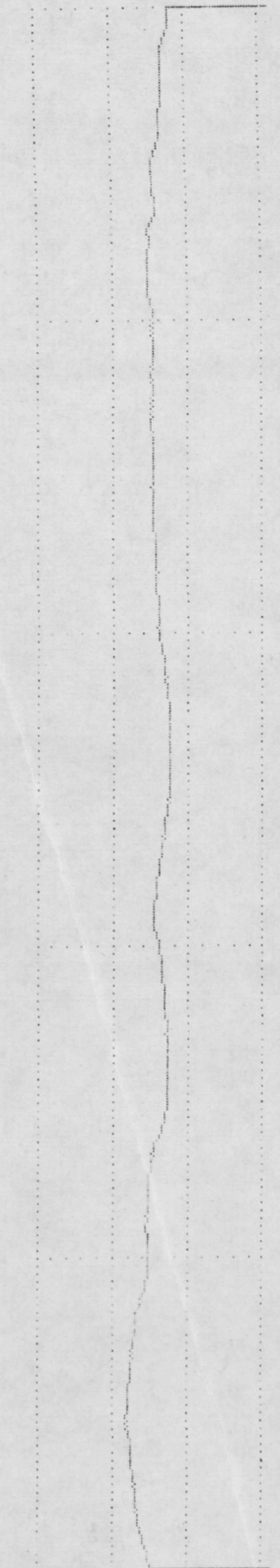
VER 5 MM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 16c

LT 4.8 MM
RA 0.61 MM
RZ 1.29 MM
RMAX 1.64 MM
RPM 0.45 MM
PC<1.3> 002 /CM

VER 5 MM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 17a

LT 4.8 MM
RA 0.42 UM
RZ 1.61 UM
RMAX 2.58 UM
RPM 0.71 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 17b

LT 4.8 MM
RA 0.33 UM
RZ 1.11 UM
RMAX 1.55 UM
RPM 0.26 UM
PC<1.3> 000 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 17c

LT 4.8 MM
RA 0.49 UM
RZ 1.96 UM
RMAX 4.12 UM
RPM 0.98 UM
PC<1.3> 002 /CM

PERTHOMETER M4P
DAT.
OBJ. IPG 18a

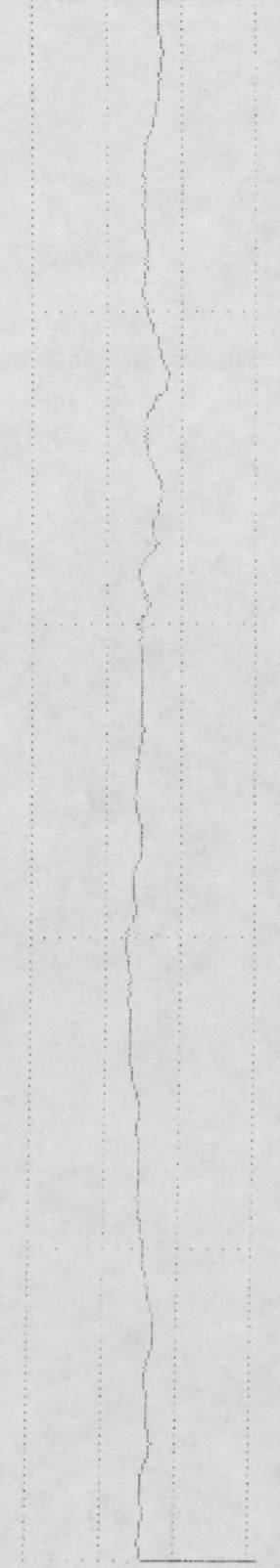
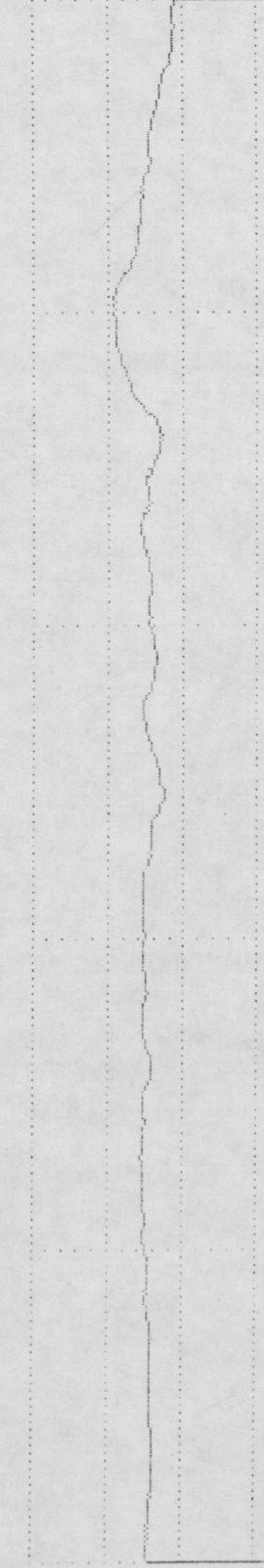
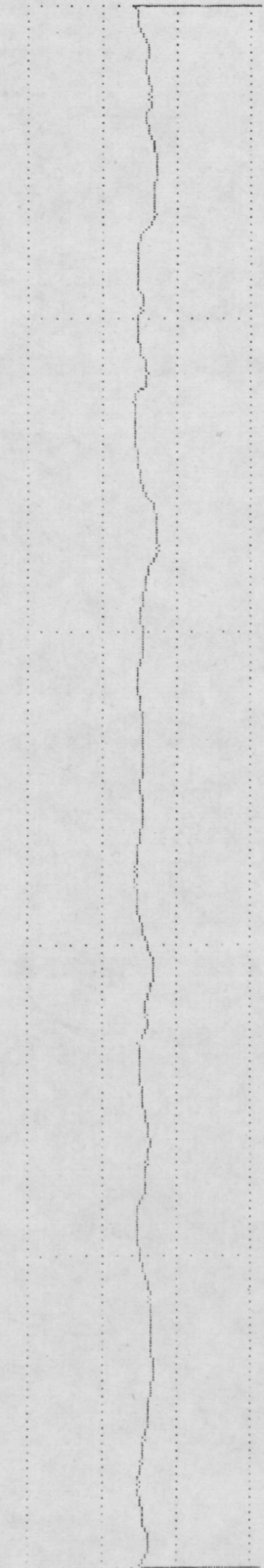
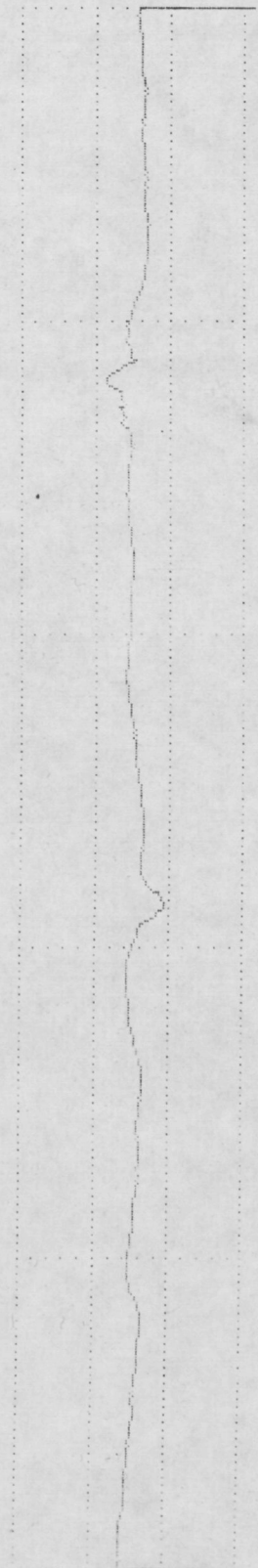
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RA 0.45 UM
RZ 1.28 UM
RMAX 1.90 UM
RPM 0.58 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. *IPG 18b*

LT 4.8 MM
RA 0.38 UM
RZ 1.53 UM
RMAX 2.80 UM
RPM 0.55 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 18c*

LT 4.8 MM
RA 0.43 UM
RZ 1.30 UM
RMAX 2.18 UM
RPM 0.29 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 19a*

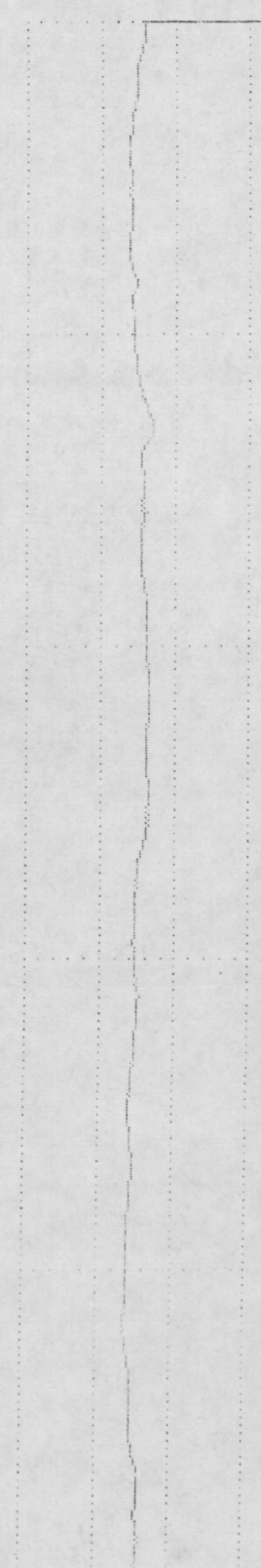
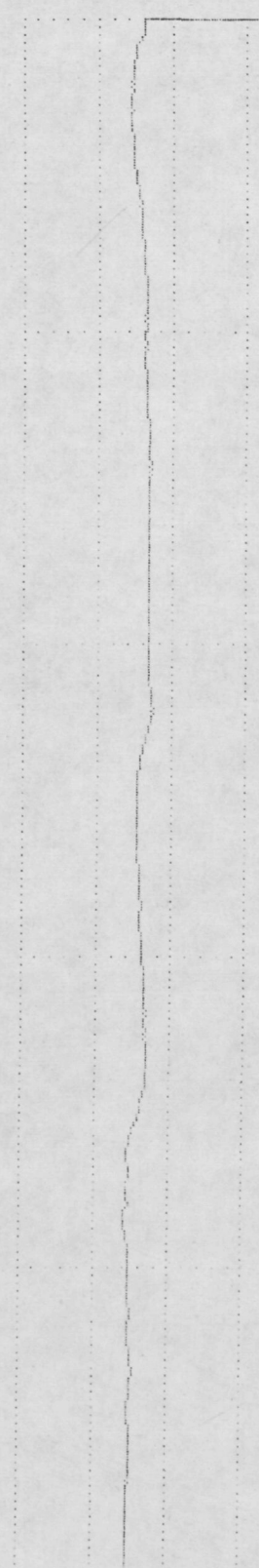
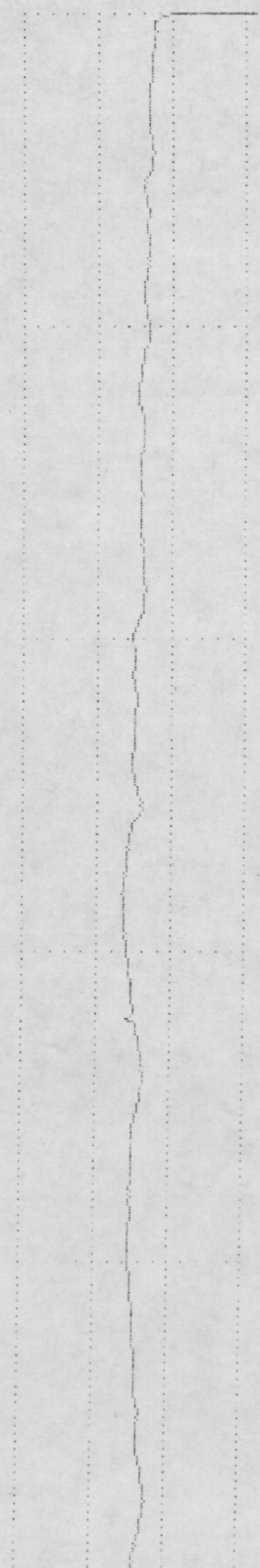
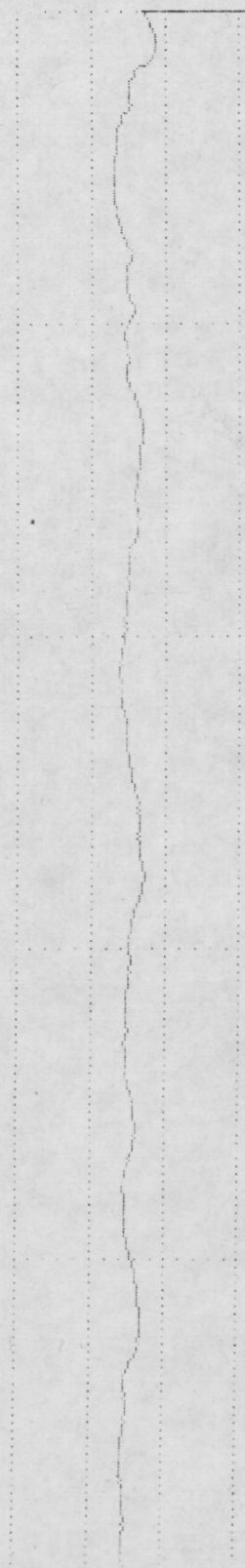
LT 4.8 MM
RA 0.41 UM
RZ 0.94 UM
RMAX 1.33 UM
RPM 0.26 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM

PERTHOMETER M4P
DAT.
OBJ. *IPG 19b*

LT 4.8 MM
RA 0.36 UM
RZ 1.00 UM
RMAX 1.30 UM
RPM 0.52 UM
PC<1.3> 002 /CM

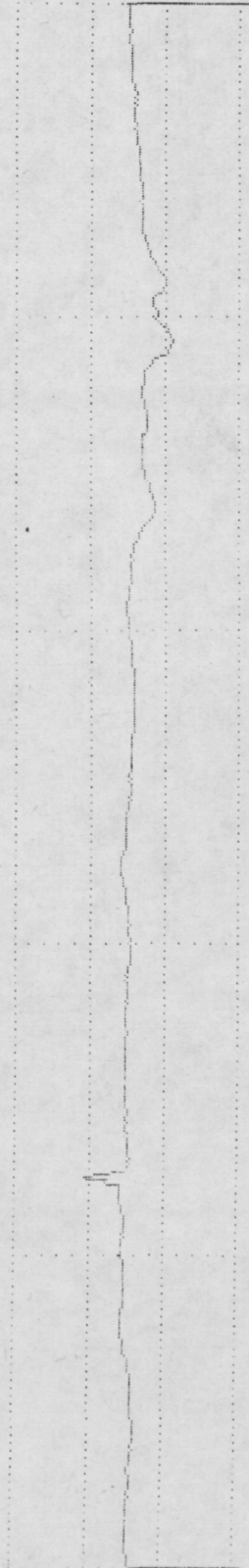
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 19c

LT 4.8 MM
RA 0.50 UM
RZ 2.06 UM
RMAX 3.16 UM
RPM 0.80 UM
PC<1.3> 002 /CM

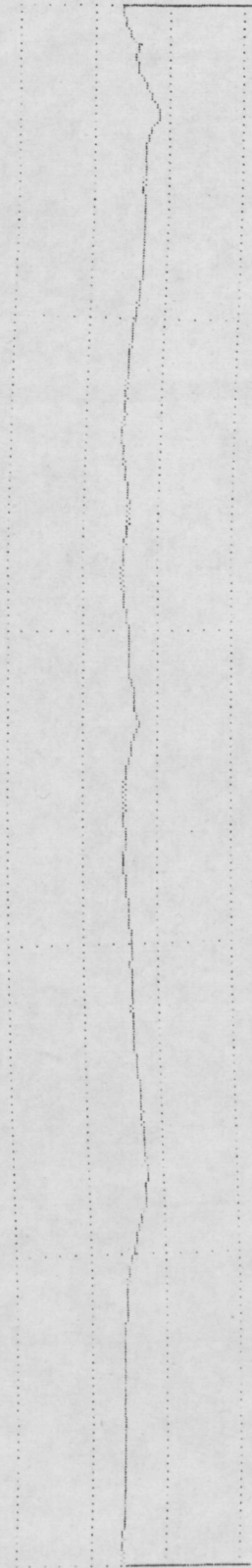
VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 20a

LT 4.8 MM
RA 0.51 UM
RZ 1.24 UM
RMAX 2.50 UM
RPM 0.26 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 20b

LT 4.8 MM
RA 0.47 UM
RZ 1.00 UM
RMAX 1.52 UM
RPM 0.24 UM
PC<1.3> 000 /CM

VER 5 UM
HOR LC .80 MM



PERTHOMETER M4P
DAT.
OBJ. IPG 20c

LT 4.8 MM
RA 0.58 UM
RZ 1.56 UM
RMAX 3.12 UM
RPM 0.41 UM
PC<1.3> 002 /CM

VER 5 UM
HOR LC .80 MM

