

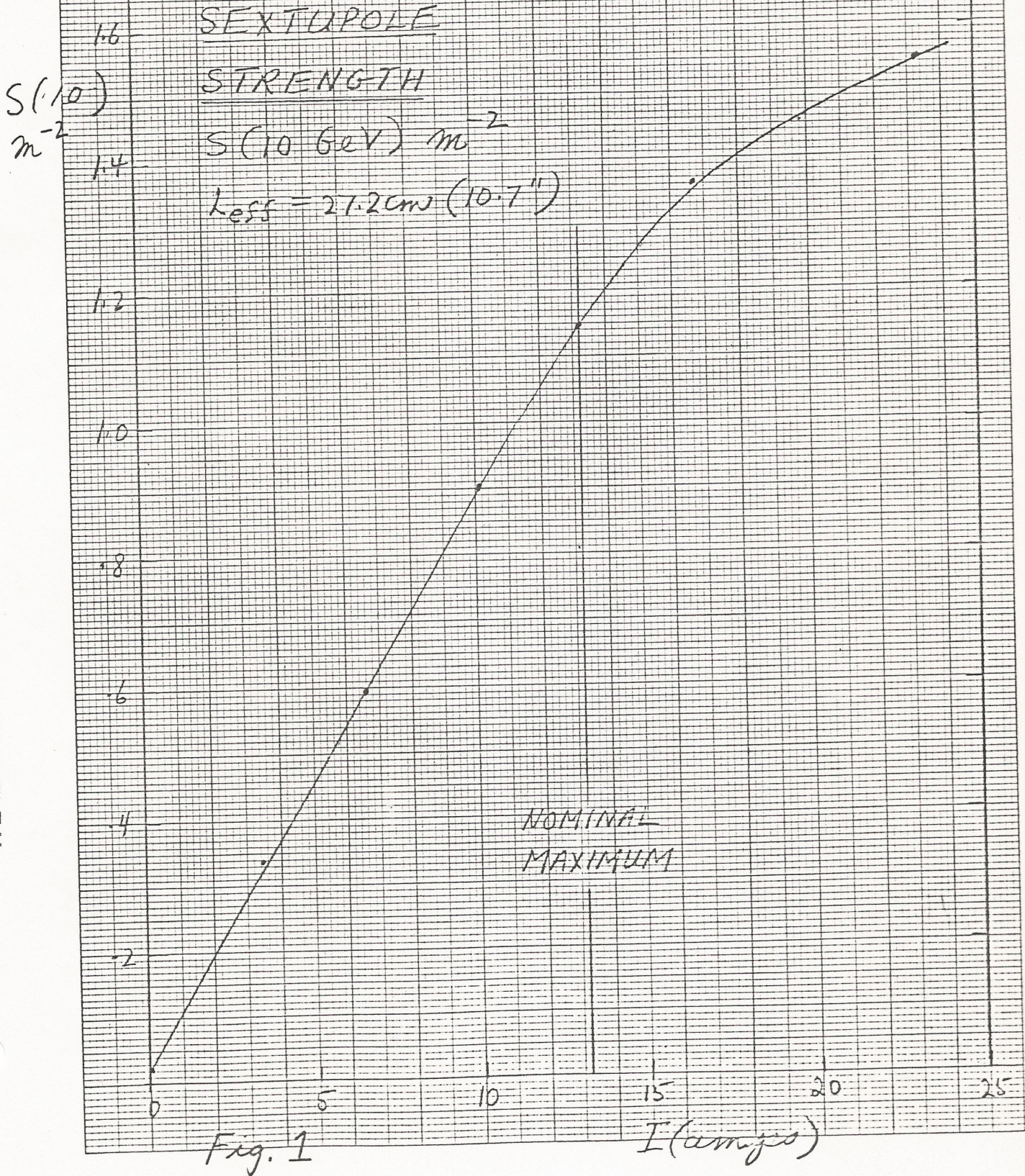
CBN 78-1

# Sextupole Magnetic Measurements

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		Sextupole	Vertical Bend	Units	
	$N_1$	# of turns/coil	160	270	
	$R_1$	resistance of one coil	0.24	1.37	ohms
	$n$	# of coils	6	2	
	$R_{tot}$	resistance with coils in series	1.46	2.74	ohms
	$R_o$	distance from center to pole	1.86		inches
MAX. OF LIN. REGION	$V_m$	voltage	19.3	38.3	volts
	$I_m$	current	13.2	14.0	amps
	$P_m$	power	255	536	watts
	$B_m$	field (at pole for sext. in center for dipole)	1.6	1.0	kGauss
	$S_m(10)^H$	sextupole strength at 10 GeV. Hall probe.	1.15*		$m^{-2}$
	$S_m(10)^F$	sextupole strength at 10 GeV. Flux coil.	1.11*		$m^{-2}$
	$\Delta x_m^1(10)^H$	deflection of 10 GeV particle	$.56x^2(m^2)$	.0009	rad
	$T_m$	temperature of coil	barely above room temp.	$\sim 100$	$^{\circ}C$
	$L_{eff}^H$	effective length (Hall)	27.2	31.2	cm
	$L_{eff}^F$	effective length (Flux)	26.4		cm
ABSOLUTE MAX.	$V_{mm}$	voltage	40	38.3	volts
	$I_{mm}$	current	26	14.0	amps
	$P_{mm}$	power	1040	536	watts
	$T_{mm}$	temperature	hot but OK.	$\sim 100$	$^{\circ}C$

\*Since the length of the flux coil was marginal the Hall values are probably more reliable.



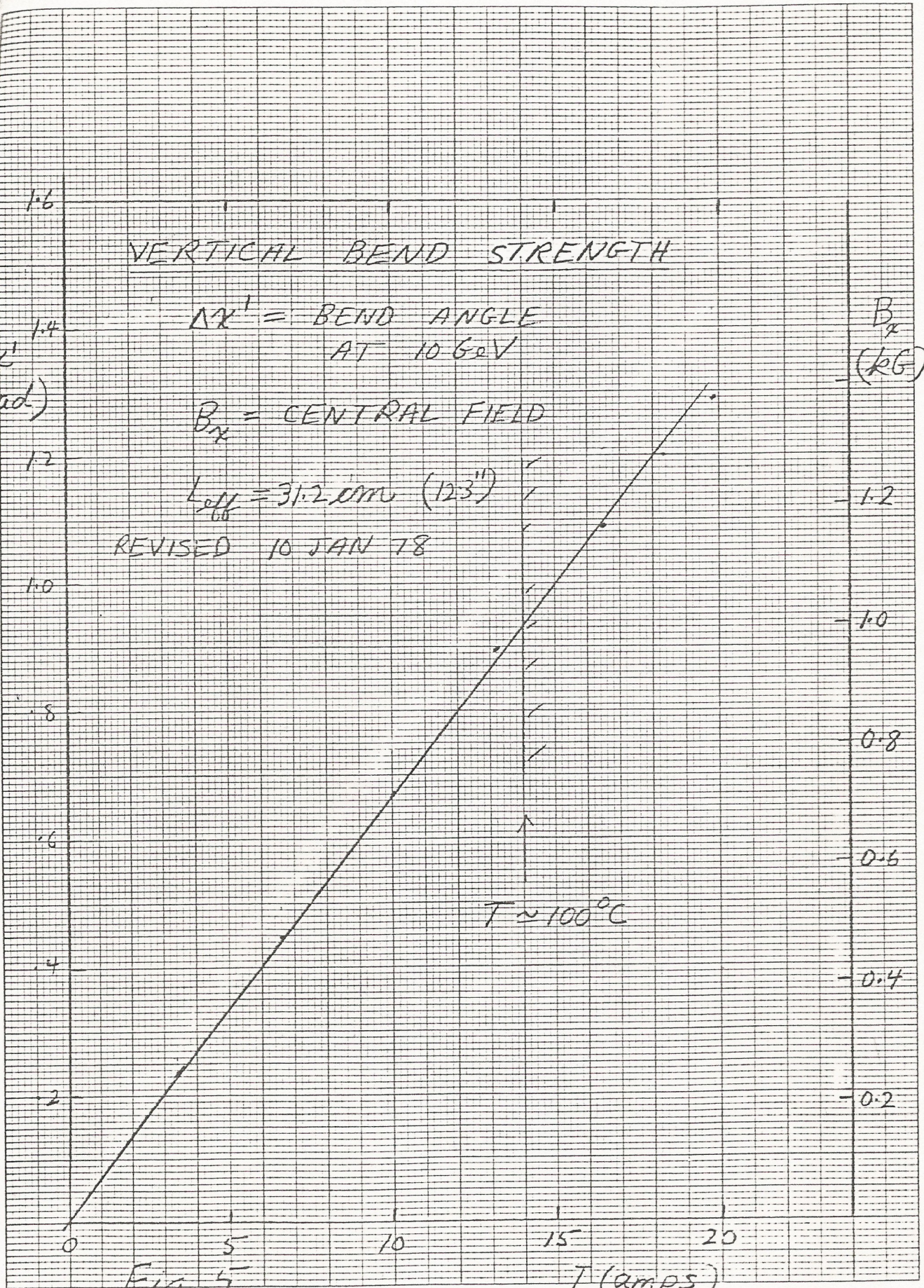


Fig. 5

I (amps)