

ng
of polyethylene samples
In most cases it is only
linear polyethylene was
presented. Along with
density, morphology, and
without this information, it
ers, since under the com-
measuring quite different
folded-chain crystals will
use data. Heating rates
fast to convert metastable
minimum of reorganiza-
the perfect extended-chain

linear polyethylene are
graphical points from many
dated. The graphical or
"n," respectively, in
are data for each reference
 $+ BP + CP^2$. Exam-
perature (C) of the melting
perimental difficulties as
spread. Apart from our
erential thermal analysis;
measurements. In all the
e decreases in slope with
curves bend toward the P
s and nonpolymeric ma-
e in compressibility with

g curve near atmospheric
ion. One procedure is to
-squares expression and
own in column 7 of Table
low pressures. A better
measured at atmospheric
easured pressure. Slopes
er method are listed in
ed values of the slopes of
s calculated by the least

melting, it is only necessary
yron expression. In the

TABLE IV
Least Squares Analysis of Melting Data $T_m = A + BP + CP^2$

Sample or researcher, reference and format	A	B × 10 ²	C × 10 ⁶	T _m , °C		dT _m /dP (least squares)	dT _m /dP
				At 2 kb	At 5 kb		
Extended chain, this paper (n)	143.7	2.673	-1.475	191.3	240.4	26.7	35.2
Folded-chain, this paper (n)	134.9	1.963	-0.9576	170.6	209.4	19.6	22.1
Folded-chain copolymer, this paper (n)	128.3	1.994	-0.9908	164.2	203.2	19.9	—
Baer and Kardos ¹⁵ (g)	136.8	3.328	-3.708	188.6	210.5	33.3	39
Baltenas and Igonin ¹⁶ (n)	133.3	2.765	-1.598	182.2	231.5	27.6	—
Hellweg ⁶ et al. ¹⁷ (g)	132.5	3.372	-4.028	183.8	200.4	33.7	—
Karasz and Jones ¹⁸ (g)	135.8	3.141	-1.935	190.9	244.4	31.4	28.0
Matsuoka ¹⁹ (g)	137.1	2.988	-2.210	188.1	231.3	29.9	—
Osugi and Hara ²⁰ (g)	147.1	1.615	-0.2672	178.3	221.2	16.2	25