

ing  
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-  
e perfect extended-chain

linear polyethylene are  
aphical points from many  
lated. The graphical or  
" or "n," respectively, in  
re data for each reference  
+  $BP + CP^2$ . Exami-  
vature ( $C$ ) 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-  
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  
asured pressure. Slopes  
er method are listed in  
ed values of the slopes of  
s calculated by the least  
elting, it is only necessary  
ytron expression. In the

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

Sample or researcher, reference and format	$A$	$B \times 10^2$	$C \times 10^6$	$T_m, ^\circ\text{C}$		$dT_m/dP$ (least squares)	$d^2T_m/dP^2$
				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 <sup>15</sup> (g)	136.8	3.328	-3.708	188.6	210.5	33.3	39
Baltenas and Igonin <sup>16</sup> (n)	133.3	2.765	-1.598	182.2	231.5	27.6	—
Hellwegé et al. <sup>17</sup> (g)	132.5	3.372	-4.028	183.8	200.4	33.7	—
Karasz and Jones <sup>18</sup> (g)	135.8	3.141	-1.935	190.9	244.4	31.4	28.0
Matsuoka <sup>19</sup> (g)	137.1	2.988	-2.210	188.1	231.3	29.9	—
Osugi and Hara <sup>20</sup> (g)	147.1	1.615	-0.2672	178.3	221.2	16.2	25