TABLE 6.—*Sporadic Super-Schmidt meteors with fragmentation index $|\chi|<0.2$: log τ_p/ρ_m^2 as a function of meteor velocity. (all values of log τ_p/ρ_m^2 reduced to the density of short-period meteors).*

Velocity, v (10^5 cms^{-1})	log v	log τ_p/ρ_m^2	S.d. of mean	ϵ_∞	S.d. of mean	no.	w
10–20	6. 220	−11. 360	±0. 130	−0. 37	±0. 09	30	5. 66
20–30	6. 394	−11. 318	0. 094	−0. 46	0. 06	49	4. 69
30–40	6. 522	−11. 001	0. 131	−0. 22	0. 10	20	4. 77
40–50	6. 665	−11. 229	0. 148	−0. 02	0. 16	8	4. 95
50–60	6. 740	−10. 742	0. 182	−0. 04	0. 15	7	3. 67
60–73	6. 819	−10. 680	0. 230	−0. 17	0. 12	11	2. 87

Basic results: $n=1.24\pm0.22$; log $\tau_{op}/\rho_m^2=-19.18\pm1.41$; a.d.=0.51; no. of meteors=125; log $v=6.421\pm0.011$; log $\tau_p/\rho_m^2=-11.214\pm0.040$; $\epsilon_\infty=-0.33\pm0.028$; $w=4.74$.

not seem jeopardized by the effects of fragmentation.

It is very important to note that the broad scatter among the individual values of log τ_p/ρ_m^2 is not the result of the fragmentation. In fact, the average deviation of an individual value from the least-squares general solution is 0.53, while the corresponding average deviation for low-fragmentation meteors is 0.51. The average $|\chi|$ for this last group is 0.08; the average individual difference from the average value of $\bar{s}$ is ∼0.2.[9] Therefore the average value of $3\chi\Delta s$ is 0.05, i.e., one tenth of the actual scatter. Even taking into account the relative inaccuracy with which the χ's are known, the discrepancy remains very large. Several factors may account for such a large spread, among which is the existence of groups of sporadic meteors having different density. On the other hand, the mean of the average deviations of the individual values of log τ_p/ρ_m^2 for shower meteors is about 0.4. This shows clearly that the difference in density is not the only cause of the scatter. To explain it, we must remember that the actual error in the values of the deceleration is much larger than the internal error previously considered.

As a matter of fact, the decelerations of this sample of Super-Schmidt meteors have another

[9] $\left(\bar{s}=\sum_i^{1\cdots\nu} p_i s_i \Big/ \sum_i^{1\cdots\nu} p_i\right)$; $p_{i,\nu}$=number of decelerations of each meteor.

TABLE 7a.—*Sporadic Super-Schmidt meteors: mean values of basic data for three groups, equally populated, of different brightness.*

	Faintest	Intermediate	Brightest meteors
no.	83	82	82
ϵ_∞	−0. 86 ±0. 01	−0. 51 ±0. 01	0. 07 ±0. 02
log v	6. 355±0. 012	6. 452±0. 013	6. 482±0. 015
log τ_p/ρ_m^2	−11. 341±0. 056	−11. 362±0. 050	−11. 165±0. 047
(log τ_p/ρ_m^2) $_{\log v=6.40}$	−11. 30 ±0. 07	−11. 41 ±0. 06	−11. 25 ±0. 06
χ	0. 24 ±0. 05	0. 29 ±0. 04	0. 13 ±0. 03
log σ	−11. 15 ±0. 04	−11. 17 ±0. 04	−11. 24 ±0. 03
s	−0. 06 ±0. 02	−0. 13 ±0. 03	−0. 25 ±0. 04
(log τ_p/ρ_m^2)* $_{\log v=6.40}$ $_{\chi=0.22}$ $_{\log\sigma=-11.19}$ $_{s=-0.15}$	−11. 35 ±0. 14	−11. 40 ±0. 13	−11. 31 ±0. 11

*The reduction of the log τ_p/ρ_m^2 to standard values of χ, log σ, and s is done by means of the correlations discussed on pages 156, 161, and 162.