Table 2
Shock loading conditions and recovered track densities.

Shot	Striker mineral[a]	Projectile velocity (km/sec)	Shock pressure (kb)	Track density (cm^{-2})
Na-Ca glass				
B60	B	0.600	67 ± 3[b]	$<2 \times 10^3$
B61	B	0.426	48 ± 3[b]	$<2 \times 10^3$
B59	B	0.504	58 ± 3[b]	$<2 \times 10^3$
B103	A	0.417	33 ± 3[b]	5.5×10^4
B102	A	0.532	42 ± 3[b]	6.5×10^4
T-1	A	0.38	31 ± 3[b]	1.3×10^5
T-2	A	0.14	10[b]	1.3×10^5
Tektite glass				
B143	A	0.481	38 ± 2[b]	$4.9 (\pm 0.4) \times 10^6$
B144	L	1.10	42 ± 3[b]	$4.8 (\pm 0.3) \times 10^6$
B145	B	0.735	83 ± 4[b]	$4.5 (\pm 0.5) \times 10^6$
B142	W	(0.90–1.0)	133 ± 10[b]	~ 0
B152	B	0.962	112 ± 2[b]	$0–3.9 (\pm 0.9) \times 10^6$
Apatite				
A34[c]	W	1.20	154[b]	granulated
A33[d]	W	1.06	132[b]	granulated
B62[d]	B	0.729	83[b]	granulated
B64[d]	B	0.718	82[b]	granulated
B134[c]	B	0.810	92 ± 3[b]	granulated
B135	B	1.02	120 ± 3[b]	granulated
B136	L	1.18	45 ± 5[c]	$9.7 (\pm 0.6) \times 10^4$
B161	A	0.3	25 ± 5[b]	$\sim 10^5$
Biotite				
B131	B	0.758	58 ± 3[e]	$5.5 (\pm 0.6) \times 10^3$
B130	L	0.653	16 ± 2[e]	$4.8 (\pm 0.5) \times 10^3$
B132	L	1.196	36 ± 2[e]	$4.2 (\pm 0.5) \times 10^3$
B133	B	1.058	92 ± 5[e]	$5.3 (\pm 0.8) \times 10^3$
B160	W	0.943	133 ± 6[b]	$\sim 5 \times 10^3$
B185	W	0.882	173 ± 5[f]	$\sim 5 \times 10^3$

a) B = brass (Cu 36%, Zn 33%, Pb 2%); A = 2024 aluminium; W = tungsten alloy (W 90%, Ni 7%, Cu 3%); L = Lexan; b) pressure in 2024 aluminium container; c) shocked at 45° to (0001); d) shocked along (0001); e) pressure in NaI container; f) pressure in 304 stainless steel container.

(plastic) projectiles. The projectiles were launched to speeds in the range 0.4 to 1.2 km/sec using the 20 mm Caltech Propellant Gun. The three-flight projectile velocity was measured, prior to impact using the technique described by Horz and Ahrens [11].

Since the specimens were thin compared to either the flyer plate thickness or the thickness of the encapsulating medium on one or both sides of the sample wafer, the sample shock pressures achieved can be shown to be equal to those in the surrounding medium. Shock pressures were calculated using the impedance matching method [12]. The Hugoniot data used for the various driver plate materials are from McQueeen and Marsh [13] for leaded brass, Rice et al. [14] for 2024 aluminum, Jones et al. [15] for Lexan, and Ahrens and Lower [16] for tungsten alloy.

After shock-loading, the aluminum and in one case, 304 stainless steel, capsules were machined open to expose the specimens. The material examined for fission track erasure was taken from the center of the disc to assure that edge-effects originating at the outer