

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	n	k	n	k
7.0		0.1771	0.682	2.45		
6.75		0.1837	0.756	2.58		
6.5		0.1907	0.847	2.73		
6.25		0.1984	0.968	2.89		
6.0	48,390	0.2066	1.11	3.05	1.010 [20]	2.909 [20]
5.98	48,230	0.2073			1.036	2.928
5.96	48,070	0.2080			1.046	2.944
5.94	47,910	0.2087			1.066	2.937
5.92	47,750	0.2094			1.070	2.963
5.9	47,590	0.2101			1.083	2.982
5.88	47,430	0.2109			1.088	2.987
5.86	47,260	0.2116			1.102	3.005
5.84	47,100	0.2123			1.109	3.015
5.82	46,940	0.2130			1.119	3.025
5.8	46,780	0.2138	1.24	3.18	1.133	3.045
5.78	46,620	0.2145			1.139	3.061
5.76	46,460	0.2153			1.155	3.073
5.74	46,300	0.2160			1.164	3.086
5.72	46,130	0.2168			1.175	3.102
5.7	45,970	0.2175			1.180	3.112
5.68	45,810	0.2183			1.195	3.135
5.66	45,640	0.2191			1.211	3.150
5.64	45,490	0.2198			1.222	3.169
5.62	45,330	0.2206			1.235	3.190
5.6	45,170	0.2214	1.40	3.33	1.247	3.206
5.58	45,010	0.2222			1.265	3.228
5.56	44,840	0.2230			1.280	3.245
5.54	44,680	0.2238			1.299	3.267
5.52	44,520	0.2246			1.319	3.285
5.5	44,360	0.2254	1.51	3.40	1.340	3.302
5.48	44,200	0.2263			1.362	3.319
5.46	44,040	0.2271			1.389	3.334
5.44	43,880	0.2279			1.416	3.350
5.42	43,710	0.2288			1.445	3.359
5.4	43,550	0.2296	1.64	3.44	1.471	3.366
5.38	43,390	0.2305			1.502	3.368
5.36	43,230	0.2313			1.526	3.368
5.34	43,070	0.2322			1.548	3.364
5.32	42,910	0.2331			1.566	3.358
5.3	42,750	0.2339	1.75	3.42	1.579	3.353
5.28	42,590	0.2348			1.585	3.346
5.26	42,420	0.2357			1.590	3.344
5.24	42,260	0.2366			1.591	3.344
5.22	42,100	0.2375			1.592	3.347
5.2	41,940	0.2384	1.78	3.36	1.589	3.354
5.18	41,780	0.2394			1.586	3.363
5.16	41,620	0.2403			1.582	3.376

(continued)

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	n	k	n	k
					1.579	3.389
5.14	41,460	0.2412			1.573	3.408
5.12	41,300	0.2422		3.42	1.571	3.429
5.1	41,130	0.2431	1.72		1.570	3.451
5.08	40,970	0.2441			1.569	3.477
5.06	40,810	0.2450			1.568	3.504
5.04	40,650	0.2460			1.569	3.533
5.02	40,490	0.2470		3.58	1.570	3.565
5.0	40,330	0.2480	1.68		1.575	3.598
4.98	40,170	0.2490			1.580	3.632
4.96	40,000	0.2500			1.584	3.670
4.94	39,840	0.2510			1.591	3.709
4.92	39,680	0.2520			1.597	3.749
4.9	39,520	0.2530			1.608	3.789
4.88	39,360	0.2541			1.618	3.835
4.86	39,200	0.2551			1.629	3.880
4.84	39,040	0.2562			1.643	3.928
4.82	38,880	0.2572			1.658	3.979
4.8	38,710	0.2583			1.673	4.031
4.78	38,550	0.2594			1.692	4.088
4.76	38,390	0.2605			1.713	4.149
4.74	38,230	0.2616			1.737	4.211
4.72	38,070	0.2627			1.764	4.278
4.7	37,910	0.2638			1.794	4.350
4.68	37,750	0.2649			1.831	4.426
4.66	37,590	0.2661			1.874	4.506
4.64	37,420	0.2672			1.927	4.590
4.62	37,260	0.2684			1.988	4.678
4.6	37,100	0.2695			2.059	4.764
4.58	36,940	0.2707			2.140	4.849
4.56	36,780	0.2719			2.234	4.933
4.54	36,620	0.2731			2.339	5.011
4.52	36,460	0.2743			2.451	5.082
4.5	36,290	0.2755			2.572	5.148
4.48	36,130	0.2768			2.700	5.206
4.46	35,970	0.2780			2.833	5.257
4.44	35,810	0.2792			2.974	5.304
4.42	35,650	0.2805			3.120	5.344
4.4	35,490	0.2818			3.277	5.381
4.38	35,330	0.2831			3.444	5.414
4.36	35,170	0.2844			3.634	5.435
4.34	35,000	0.2857			3.849	5.439
4.32	34,840	0.2870			4.086	5.395
4.3	34,680	0.2883			4.318	5.301
4.28	34,520	0.2897			4.525	5.158
4.26	34,360	0.2910			4.686	4.989
4.24	34,200	0.2924			4.805	4.812
4.22	34,040	0.2938			4.888	4.639
4.2	33,880	0.2952				

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	<i>n</i>	<i>k</i>	<i>n</i>	<i>k</i>
4.18	33,710	0.2966			4.941	4.480
4.16	33,550	0.2980			4.977	4.335
4.14	33,390	0.2995			4.999	4.204
4.12	33,230	0.3009			5.012	4.086
4.1	33,070	0.3024			5.020	3.979
4.08	32,910	0.3039			5.021	3.885
4.06	32,750	0.3054			5.020	3.798
4.04	32,580	0.3069			5.018	3.720
4.02	32,420	0.3084			5.015	3.650
4.0	32,260	0.3100			5.010	3.587
3.98	32,100	0.3115			5.009	3.529
3.96	31,940	0.3131			5.010	3.477
3.94	31,780	0.3147			5.009	3.429
3.92	31,620	0.3163			5.012	3.386
3.9	31,460	0.3179			5.016	3.346
3.88	31,290	0.3195			5.021	3.310
3.86	31,130	0.3212			5.029	3.275
3.84	30,970	0.3229			5.040	3.242
3.82	30,810	0.3246			5.052	3.211
3.8	30,650	0.3263			5.065	3.182
3.78	30,490	0.3280			5.079	3.154
3.76	30,330	0.3297			5.095	3.128
3.74	30,160	0.3315			5.115	3.103
3.72	30,000	0.3333			5.134	3.079
3.7	29,840	0.3351			5.156	3.058
3.68	29,680	0.3369			5.179	3.039
3.66	29,520	0.3388			5.204	3.021
3.64	29,360	0.3406			5.231	3.007
3.62	29,200	0.3425			5.261	2.995
3.6	29,040	0.3444			5.296	2.987
3.58	28,870	0.3463			5.336	2.983
3.56	28,710	0.3483			5.383	2.984
3.54	28,550	0.3502			5.442	2.989
3.52	28,390	0.3522			5.515	2.999
3.5	28,230	0.3542			5.610	3.014
3.48	28,070	0.3563			5.733	3.026
3.46	27,910	0.3583			5.894	3.023
3.44	27,750	0.3604			6.089	2.982
3.42	27,580	0.3625			6.308	2.881
3.4	27,420	0.3647			6.522	2.705
3.38	27,260	0.3668			6.695	2.456
3.36	27,100	0.3690			6.796	2.169
3.34	26,940	0.3712			6.829	1.870
3.32	26,780	0.3734			6.799	1.577
3.3	26,620	0.3757			6.709	1.321
3.28	26,450	0.3780			6.585	1.110
3.26	26,290	0.3803			6.452	0.945

(continued)

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	n	k	n	k
3.24	26,130	0.3827			6.316	0.815
3.22	25,970	0.3850			6.185	0.714
3.2	25,810	0.3875			6.062	0.630
3.18	25,650	0.3899			5.948	0.561
3.16	25,490	0.3924			5.842	0.505
3.14	25,330	0.3949			5.744	0.456
3.12	25,160	0.3974			5.654	0.416
3.1	25,000	0.4000			5.570	0.387
3.08	24,840	0.4025			5.493	0.355
3.06	24,680	0.4052			5.420	0.329
3.04	24,520	0.4078			5.349	0.313
3.02	24,360	0.4105			5.284	0.291
3.0	24,200	0.4133			5.222	0.269
2.98	24,040	0.4161			5.164	0.255
2.96	23,870	0.4189			5.109	0.244
2.94	23,710	0.4217			5.058	0.228
2.92	23,550	0.4246			5.009	0.211
2.9	23,390	0.4275			4.961	0.203
2.88	23,230	0.4305			4.916	0.194
2.86	23,070	0.4335			4.872	0.185
2.84	22,910	0.4366			4.831	0.185
2.82	22,740	0.4397			4.791	0.170
2.8	22,580	0.4428			4.753	0.163
2.78	22,420	0.4460			4.718	0.149
2.76	22,260	0.4492			4.682	0.149
2.74	22,100	0.4525			4.648	0.133
2.72	21,940	0.4558			4.615	0.131
2.7	21,780	0.4592			4.583	0.130
2.68	21,660	0.4626			4.553	0.131
2.66	21,450	0.4661			4.522	0.134
2.64	21,290	0.4696			4.495	0.120
2.62	21,130	0.4732			4.466	0.120
2.6	20,970	0.4769			4.442	0.090
2.58	20,810	0.4806			4.416	0.094
2.56	20,650	0.4843			4.391	0.083
2.54	20,490	0.4881			4.367	0.079
2.52	20,330	0.4920			4.343	0.077
2.5	20,160	0.4959			4.320	0.073
2.48	20,000	0.4999			4.298	0.073
2.46	19,840	0.5040			4.277	0.066
2.44	19,680	0.5081			4.255	0.072
2.42	19,520	0.5123			4.235	0.060
2.4	19,360	0.5166			4.215	0.060
2.38	19,200	0.5209			4.196	0.056
2.36	19,030	0.5254			4.177	0.053
2.34	18,870	0.5299			4.159	0.043
2.32	18,710	0.5344			4.140	0.045

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	n	k	n	k
2.3	18,550	0.5391			4.123	0.048
2.28	18,390	0.5438			4.106	0.044
2.26	18,230	0.5486			4.089	0.044
2.24	18,070	0.5535			4.073	0.032
2.22	17,910	0.5585			4.057	0.038
2.2	17,740	0.5636			4.042	0.032
2.18	17,580	0.5687			4.026	0.034
2.16	17,420	0.5740			4.012	0.030
2.14	17,260	0.5794			3.997	0.027
2.12	17,100	0.5848			3.983	0.030
2.1	16,940	0.5904			3.969	0.030
2.08	16,780	0.5961			3.956	0.027
2.06	16,610	0.6019			3.943	0.025
2.04	16,450	0.6078			3.931	0.025
2.02	16,290	0.6138			3.918	0.024
2.0	16,130	0.6199		2.96 × 10 ⁻² [21]	3.906	0.022
1.98	15,970	0.6262			3.893	0.022
1.96	15,810	0.6326			3.882	0.019
1.94	15,650	0.6391			3.870	0.018
1.92	15,490	0.6458			3.858	0.017
1.9	15,320	0.6526		2.4	3.847	0.016
1.88	15,160	0.6595			3.837	0.016
1.86	15,000	0.6666			3.826	0.015
1.84	14,840	0.6738			3.815	0.014
1.82	14,680	0.6812			3.805	0.013
1.8	14,520	0.6888		2.25	3.796	0.013
1.78	14,360	0.6965			3.787	0.013
1.76	14,200	0.7045			3.778	0.012
1.74	14,030	0.7126			3.768	0.011
1.72	13,870	0.7208			3.761	0.011
1.7	13,710	0.7293		1.97	3.752	0.010
1.68	13,550	0.7380			3.745	0.010
1.66	13,390	0.7469			3.736	0.009
1.64	13,230	0.7560			3.728	0.009
1.62	13,070	0.7653			3.721	0.008
1.6	12,900	0.7749		1.42	3.714	0.008
1.58	12,740	0.7847			3.705	0.007
1.56	12,580	0.7948			3.697	0.007
1.54	12,420	0.8051			3.688	0.006
1.52	12,260	0.8157			3.681	0.006
1.5	12,100	0.8266		1.25 × 10 ⁻²	3.673	0.005
1.4	11,290	0.8856		7.75 × 10 ⁻³		
1.3	10,490	0.9537		2.26		
1.28	10,320	0.9686				6.4 × 10 ⁻⁴ [23]
1.26	10,160	0.9840				5.1
1.24	10,000	0.9999				4.0

(continued)

TABLE XII (Continued)

Silicon

eV	cm ⁻¹	μm	n	k	n	k
1.22	9,840	1.016				2.8
1.2	9,679	1.033		1.07		1.8
1.18	9,518	1.051				1.2×10^{-4}
1.16	9,356	1.069				6.7×10^{-5}
1.14	9,195	1.088				4.2
1.12	9,034	1.107				2.5
1.107	8,929	1.12	3.5361 [1, 2, 3, 8]			
1.10	8,872	1.127				1.3×10^{-5}
1.084	8,741	1.144	3.5295			
1.08	8,711	1.148				5.8×10^{-6}
1.06	8,550	1.170				1.5
1.033	8,333	1.20	3.5193			
0.9037	7,289	1.372	3.5007			
0.8856	7,143	1.4	3.4876			
0.8093	6,527	1.532	3.4784			
0.7749	6,250	1.6	3.4710			
0.7310	5,896	1.696	3.4644			
0.6888	5,556	1.8	3.4578			
0.6199	5,000	2.0	3.4490			
0.5087	4,103	2.4373	3.4434			
0.4959	4,000	2.50	3.4424			
0.4568	3,684	2.7144	3.4393	2.5×10^{-9} [12]		
0.4133	3,333	3.00	3.4361			
0.3753	3,027	3.3033	3.4335			
0.3626	2,925	3.4188	3.4327			
0.3542	2,857	3.50	3.4321			
0.3263	2,632	3.80		1.3×10^{-8}		
0.3100	2,500	4.00	3.4294			
0.2480	2,000	5.00	3.4261	1.99×10^{-7} [15]		
0.2418	1,950	5.128		2.82×10^{-7}		
0.2356	1,900	5.263		2.97		
0.2294	1,850	5.405		3.26		
0.2232	1,800	5.556		3.94		
0.2170	1,750	5.714		4.05		
0.2108	1,700	5.882		4.17		
0.2066	1,667	6.00	3.4242			
0.2046	1,650	6.061		5.64		
0.1984	1,600	6.250		8.46×10^{-7}		
0.1922	1,550	6.452		1.74×10^{-6}		
0.1860	1,500	6.667		2.66×10^{-6}		
0.1798	1,450	6.897		2.45×10^{-5}		
0.1771	1,492	7.00	3.4231			
0.1736	1,400	7.143		1.68		
				1.87 [14]		
0.1674	1,350	7.407		1.62 [15]		
0.1612	1,300	7.692		2.49		
				2.82 [14]		