

# Stopping for Ion : **He** , Target = **Ar**

Pub. Year	Authors, Title, Journal Citation and Comments	Citation Numb
<b>1925</b>	Gurney, R. W. 'The Stopping-Power of Gases for Alpha-Particles of Different Velocities' <i>Proc. Roy. Soc., A107, 340-349 (1925)</i> <i>Comment : S. 5.3, 6.1 MeV He -&gt; H2, He, O2, Ne, Ar, Kr, Xe Rel. To Air</i>	<b>1925-Gurn</b> 0061
<b>1927</b>	Gibson, G. E. Eyring, H. 'The Ionization and Stopping Power of Various Gases for Alpha Particles from Polonium' <i>Phys. Rev., 30, 553-561 (1927)</i> <i>Comment : S. He (2-7 MeV) -&gt; H, He, N, O, Ne, Ar, CH2. Early stopping paper- values based on differential of range/ionization measurements.</i>	<b>1927-Gibs</b> 1577
<b>1934</b>	Mano, G. 'Recherches Sur L'Absorption Des Rayons Alpha' <i>Ann. de Physique, 1, 408-531 (1934)</i> <i>Comment : S. 4.2-7.7 MeV He -&gt; H2, He, Ne, Ar, Air</i>	<b>1934-Mano</b> 0085
<b>1934</b>	Naidu, R. 'Sur Les Courbes D'Ionisation Des Rayons Alpha Du Polonium Dans Les Gaz Rares' <i>J. Phys. Radium, 5, 575-77 (1934)</i> <i>Comment : S. 3-7 MeV He -&gt; He, Ne, Ar, Kr, Xe. All Rel. To Air</i>	<b>1934-Naid</b> 0093
<b>1944</b>	Gray, L. H. 'The Ionization Method of Measuring Neutron Energy' <i>Proc. Comb. Phil. Soc., 40, 72-102 (1944)</i> <i>Comment : S. H, He (.25 -8 MeV) -&gt; He, N, O, Ne, Ar, Air. Early paper on stopping and ionization effects of charged particles.</i>	<b>1944-Gray</b> 1578
<b>1953</b>	Weyl, P. K. 'The Energy Loss of Hydrogen, Helium, Nitrogen and Neon Ions in Gases' <i>Phys. Rev., 91, 289-96 (1953)</i> <i>Comment : S. 150-450 keV H, D, He, N, Ne -&gt; H2, He, Air, Ar</i>	<b>1953-Weyl</b> 0131
<b>1960</b>	Schambra, P. E. Rauth, A. M. Northcliffe, L. C. 'Energy Loss Measurements for Heavy Ions in Mylar and Polyethylene' <i>Phys. Rev., 120, 1758 (1960)</i> <i>Comment : S. He, B, Be, C, N, O, F, Ne (10 MeV/amu) -&gt; Mylar, Polyethylene</i>	<b>1960-Scha2</b> 1931
<b>1962</b>	Martin, F. W. Northcliffe, L. C. 'Energy Loss and Effective Charge of He, C, and Ar Ions' <i>Phys. Rev., 128, 1166-1174 (1962)</i> <i>Comment : S. He, C, Ar (4-400 MeV) -&gt; H, He, N, Ar</i>	<b>1962-Mart</b> 0148
<b>1965</b>	Hosono, K. Ishiwari, R. Uemura, Y. 'Measurement of Absolute Energy Loss of 28 MeV Alpha Particles in Various Materials' <i>Bull. Inst. Chem. Res. Kyoto Univ., 43, 323-29 (1965)</i> <i>Comment : S. 28 MeV He -&gt; Au, Sn, Mylar</i>	<b>1965-Hoso</b> 0268

# Stopping for Ion : **He** , Target = **Ar**

Pub. Year	Authors, Title, Journal Citation and Comments	Citation Numb
<b>1968</b>	Hvelplund, P. 'Prisopgave' <i>Aarhus University P. 1-105 (In Danish) (1968)</i> <i>Comment : S, dS. Many Ions (H-Hg) at 50-500 keV -&gt; H, He, Ne, Ar, Kr, Xe, Air</i>	<b>1968-Hvel</b> 0406
<b>1968</b>	Ormrod, J. H. 'Low-Energy Electronic Stopping Cross Sections in Nitrogen and Argon' <i>Can. J. Phys., 46, 497-502 (1968)</i> <i>Comment : S. (5-200 keV) H, D, He, B, C, N, O, F, Ne -&gt; N, Ar</i>	<b>1968-Ormr</b> 0342
<b>1969</b>	Bichsel, H. Hanke, C. C. Buechner, J. 'Precision Energy Loss Measurements for Natural Alpha Particles in Argon' <i>USC-136-148, P. 1-44 (1969)</i> <i>Comment : S. 1-9 MeV He -&gt; Ar</i>	<b>1969-Bich2</b> 0381
<b>1969</b>	Ramirez, J. J. Prior, R. M. Swint, J. B. Quinton, A. R. Blue, R. A. 'Energy Straggling of Alpha Particles through Gases' <i>Phys. Rev., 179, 310-14 (1969)</i> <i>Comment : S, dS. 1-3.5 MeV He -&gt; He, Air, Ar, Kr, Xe</i>	<b>1969-Rami</b> 0388
<b>1970</b>	Hanke, C. C. Bichsel, H. 'Precision Energy Loss Measurements for Natural Alpha Particles in Argon' <i>Kgl. Danske Videnskab. Selskab. Mat. Fys.Medd., 38,No. 3, 1-29 (1970)</i> <i>Comment : S. 1-9 MeV He -&gt; Ar</i>	<b>1970-Hank</b> 0657
<b>1971</b>	Chu, W. K. Powers, D. 'Energy Loss of Alpha Particles in Noble Gases from 0.3 - 2.0 MeV' <i>Phys. Rev. B, 4, 10-15 (1971)</i> <i>Comment : S. 0.3-2.0 MeV He -&gt; He, Ne, Ar, Kr, Xe</i>	<b>1971-Chu</b> 0675
<b>1971</b>	Dolle, F. Schultz, J. Chevallier, P. Sutter, G. 'Etude De Ralentissement Des Particules Alpha De 6.620 MeV Dans Des Absorbants Gazeux (Ne, Ar, Kr) Dans Les Domaine Des Faibles Pertes D'Energie.' <i>J. Physique, 32, 397-403 (1971)</i> <i>Comment : S, dS. 6.62 MeV He -&gt; Ne, Kr, Ar</i>	<b>1971-Doll</b> 0680
<b>1971</b>	Hoyer, U. Waffler, H. 'Der Atomare Bremsquerschnitt von H2, D2, He, N2 und a Fur Alpha-Teilchen in Umladungsgebiet (0.5 < E < 2 MeV).' <i>Z. Naturforschg. 26A, 592-95 (1971)</i> <i>Comment : S. 0.5-2.0 MeV He -&gt; H2, D2, N2, Ar</i>	<b>1971-Hoye</b> 0431
<b>1972</b>	Haque, A. K. M. M. Hora, R. M. 'Energy Loss and Straggling of Alpha Particles in Argon' <i>Nucl. Inst. Methods, 104, 77-83 (1972)</i> <i>Comment : S,dS. 1-8 MeV He -&gt; Ar</i>	<b>1972-Haqu</b> 0464

# Stopping for Ion : **He** , Target = **Ar**

Pub. Year	Authors, Title, Journal Citation and Comments	Citation Numb
<b>1976</b>	Geary, M. J. Haque, A. K. M. M. 'The Stopping Power and Straggling for Alpha Particles in Tissue Equivalent Materials' <i>Nucl. Inst. Methods, 137, 151-5 (1976)</i> <i>Comment : S, dS. 0.5-5.5 MeV He -&gt; Air, Melinex, Mylar</i>	<b>1976-Gear</b> 0912
<b>1977</b>	Besenbacher, F. 'Stopping Power and Straggling for H and He Ions in Gas Targets' <i>Specialeopgave. Aarhus University (1977)</i> <i>Comment : S. dS. 20-500 keV H, He -&gt; H, He N, O, Ne, Ar, Kr, Xe, CO2</i>	<b>1977-Bese</b> 0954
<b>1978</b>	Chu, W. K. Braun, M. Davies, J. A. Matsunami, N. Thompson, D. A. 'Energy Loss of He Ions in Solidified Gases' <i>Nucl. Inst. Methods, 149, 115-120 (1978)</i> <i>Comment : S. 0.5-2.0 MeV He -&gt; Solid Ar, O, CO2</i>	<b>1978-Chu</b> 0963
<b>1979</b>	Aframian, A. 'Dependence of the Stopping Power of Charged Particles in the Physical State of Organic Dielectric Compounds' <i>Appl. Phys., 19, 353-358 (1979)</i> <i>Comment : S. He, Ar, Kr (1-40 MeV/amu) -&gt; Cell-Nitrate, Polyethylene, Polystyrene, Mylar, Melinex</i>	<b>1979-Afra</b> 1252
<b>1979</b>	Besenbacher, F. Andersen, H. H. Hvelplund, P. Knudsen, H. 'Stopping Power of Swift Hydrogen and Helium Ions in Gases' <i>Kgl. Danske Videnskab. Selskab Mat. Fys. Medd. 40, 1-39 (1979)</i> <i>Comment : S. 40 keV-1 MeV H And 100 keV-2.4 MeV He -&gt; H2, He, N2, O2, CO2, Ne, Ar, Kr, Xe</i>	<b>1979-Bese</b> 1160
<b>1979</b>	Dennis, J. A. Powers, D. 'The Dependence of Stopping Power on Physical and Chemical States' <i>Preprint (1979) 8</i> <i>Comment : S. H, He -&gt; Gases (Review Of Current Data)</i>	<b>1979-Denn</b> 1193
<b>1980</b>	Thwaites, D. I. 'Stopping Cross Sections of Various Gases for Alpha Particles in the Energy Region 0.2-5.5 MeV' <i>Phys. Med. Biol., 25 (5), 865-875 (1980)</i> <i>Comment : S. He (0.2-5.5 MeV) -&gt; He, N, Ar, CH4, Air</i>	<b>1980-Thwa</b> 1489
<b>1981</b>	Besenbacher, F. Bottiger, J. Graverson, O. Hansen, J. Sorensen, H. 'Stopping Power of Solid Argon for Helium Ions' <i>Nucl. Inst. Methods, 188, 657-667 (1981)</i> <i>Comment : S. He (0.5-2.8 MeV) -&gt; Ar solid / gas</i>	<b>1981-Bese2</b> 1544
<b>1981</b>	Fukuda, A. 'Stopping Powers in Rare Gases for 40-200 keV Rare-Gas Ions' <i>J. Phys. B, Atom. and Molec. Phys., 14, 4533-4544 (1981)</i> <i>Comment : S. He, Ne, Ar, Kr (40-200 keV) -&gt; He, Ne, Ar, Kr, Xe (Note: stopping for ions of zero deflection)</i>	<b>1981-Fuku</b> 1411

# Stopping for Ion : **He** , Target = **Ar**

<b>Pub. Year</b>	<b>Authors, Title, Journal Citation and Comments</b>	<b>Citation Numb</b>
<b>1982</b>	Nagata, K. Kikuchi, J. Doke, T. Gruhn, C. R. 'Deposited Energy Losses of High Energy Heavy Ions in Thin Gas Layers' <i>Nucl. Inst. Methods, 196, 41 (1982)</i> <i>Comment : S. He (40 MeV/amu) -&gt; Ar (P-5 mixture)</i>	<b>1982-Naga</b> 1725
<b>1983</b>	Baumgart, H. Berg, H. Huttel, E. Pfaff, E. Reiter, G. 'He4 Stopping Cross Sections in H2, He, N2, O2, Ne, Ar, Kr, Xe, CH4 and CO2' <i>Nucl. Inst. Methods, 215, 319-328 (1983)</i> <i>Comment : S. He (0.1-1.2 MeV) -&gt; H2, He, N2, O2, Ne, Ar, Kr, Xe, CH4 and CO2</i>	<b>1983-Baum3</b> 1450
<b>1984</b>	Santry, D. C. Werner, R. D. 'Stopping Powers of C, Al, Si, Ti, Ni, Ag, Au and Mylar using Radioactive Alpha Sources' <i>Nucl. Inst. Methods, B1, 13 (1984)</i> <i>Comment : S. He (2-7 MeV) -&gt; &gt; C, Al, Si, Ti, Ni, Ag, Au, Mylar</i>	<b>1984-Sant</b> 1757
<b>1987</b>	Rauhala, E. Raisanen, J. 'Energy Loss of 1.3-2.6 MeV 4He Ions in Havar, Nickel, Kapton and Mylar Foils' <i>Nucl. Inst. Methods, B24/25, 362-365 (1987)</i> <i>Comment : S. He (1.3-2.6 MeV) -&gt; Ni, Havar, Kapton, Mylar</i>	<b>1987-Rauh</b> 1436
<b>1989</b>	Kiss, A. Z. Somorjai, E. Raisanen, J. Rauhala, E. 'Stopping Powers of 1.5-7.2 MeV He-4 Ions in Havar, Nickel, Kapton and Mylar' <i>Nucl. Inst. Methods, B39, 15-17 (1989)</i> <i>Comment : S. He (1.5-7.2 MeV) -&gt; Havar, Ni, Kapton, Mylar</i>	<b>1989-Kiss</b> 1942
<b>1990</b>	Reiter, G. Kniest, N. Pfaff, E. Clausnitzer, G. 'Proton and Helium Stopping Cross Sections in H, He, N, O, Ne, Ar, Kr, Xe, CH4' <i>Nucl. Inst. Methods, B44, 399-411 (1990)</i> <i>Comment : S. H, He (0.7-3.0 MeV) -&gt; H, He, N, O, Ne, Ar, Kr, Xe, CH4</i>	<b>1990-Reit</b> 1933
<b>1990</b>	Takahiro, K. Nishiyama, F. Yamasaki, T. Osaka, Y. Yamaguchi, S. 'Energy Loss of He-4 Ions in Mylar, Kapton and a-C:H' <i>Nucl. Inst. Methods, B52, 117-120 (1990)</i> <i>Comment : S. He (0.5-2.0 MeV) -&gt; Mylar, Kapton, a-C:H</i>	<b>1990-Taka</b> 1918
<b>1993</b>	Novkovic, D. Subotic, K. Milosevic, Z. Manic, S. Stojanovic, M. 'Alpha Particle Energy Straggling Measurements in Nobel Gases' <i>J. Moscow Phys. Soc. (UK), 3, 215-220 (1993)</i> <i>Comment : dS. He(8.8 MeV) -&gt; He, Ne, Ar, Kr, Xe</i>	<b>1993-Novk</b> 2077
<b>1994</b>	Jin, H. Lu, X. Huang, X. Ye, Y. Xia, Z. 'Energy Loss and Stopping Power of He Ions in Mylar Foils' <i>Chinese Phys. Letters, 11, 200-202 (1994)</i> <i>Comment : S. He -&gt; Mylar</i>	<b>1994-Jin</b> 1813

# Stopping for Ion : **He** , Target = **Ar**

Pub. Year	Authors, Title, Journal Citation and Comments	Citation Numb
<b>1994</b>	Porter, L.E. Rauhala, E. Raisanen, J. 'Effects of Sample Preparation on the Stopping Powers of Havar for Protons and Alpha Particles' <i>Phys. Rev. B, 49, 11543-11549 (1994)</i> <i>Comment : S. H, He (0.5-1.8 MeV) -&gt; Havar</i>	<b>1994-Port4</b> 2043
<b>1996</b>	Lu, X. T. Jin, C. W. Wu, Z. Q. Xia, Z. H. 'Stopping and Straggling of He Ions in Havar' <i>Chinese Phys. Letters, 13, 520-522 (1996)</i> <i>Comment : S, dS. He -&gt; Havar</i>	<b>1996-Lu</b> 1336
<b>1997</b>	Fukuda, A. 'Stopping Powers of He and Ar Gases for 50-200 keV He-3 Ions' <i>Rad. Prot. Dosimetry, 70, 47-48 (1997)</i> <i>Comment : S. He3 (50-2000 keV) -&gt; He, Ar</i>	<b>1997-Fuku</b> 2180
<b>1999</b>	Apel, P. Spohr, R. Trautmann, C. Vutsadakis, V. 'Track Structure in Polyethylene Terephthalate Irradiated by Heavy Ion: LET Dependence of Track Diameter' <i>Rad. Meas., 31, 51-56 (1999)</i> <i>Comment : S. He (1 - 3 MeV) -&gt; Mylar, Makrofol, Kapton</i>	<b>1999-Apel</b> 2374
<b>2002</b>	Geissel, H. Weick, H. Scheidenberger, C. Bimbot, R. Gardes, D. 'Experimental Studies of Heavy-Ion Slowing Down in Matter' <i>Nucl. Inst. Methods, B195, 3-54 (2002)</i> <i>Comment : S. Summary of 18 Heavy Ion Stopping in 26 Targets</i>	<b>2002-Geis</b> 3141
<b>2002</b>	Trzaska, W. H. Lyapin, V. Alanko, T. Mutterer, M. Raisanen, J. 'New Approach to Energy Loss Measurements' <i>Nucl. Inst. Methods, B195, 147-165 (2002)</i> <i>Comment : S. Ar, Si, O, He, H -&gt; Au, Ni, C, Havar</i>	<b>2002-Trza</b> 3140
<b>2004</b>	Porter, L. E. Trzaska, W. H. Raisanen, J. Lyapin, V. 'Stopping powers of havar for 0.63–5.9 MeV protons and 2.6–24 MeV alpha particles' <i>J. Phys.: Condens. Matter 16, 7663 (2004)</i> <i>Comment : S. H (0.63-5.9 MeV), He (2.6-24 MeV)-&gt;Havar</i>	<b>2004-Port</b> 3232
<b>2010</b>	Damache, S. Moussa, D. Ouichaoui, S. 'Stopping of ~0.2-3.4MeV/amu /sup 1/H/sup +/- and /sup 4/He/sup +/- ions in polyvinyl formal' <i>Nucl. Instrum. Methods B 268, 1759 (2010)</i> <i>Comment : S. H, He (0.2-3.4 MeV/u) -&gt; polyvinyl formal (formvar)</i>	<b>2010-Dama</b> 3162