

# *Stopping for Ion : H* , Target = Ge

| Pub.<br>Year | Authors, Title, Journal Citation and Comments  | Citation<br>Numb   |
|--------------|--|--------------------|
| 1955         | Green, D. W. Cooper, J. N. Harris, J. C.<br><b>'Stopping Cross Section of Metals for Protons of Energies from 400 to 1000 keV'</b><br><i>Phys. Rev., 98, 466-70 (1955)</i><br>Comment : S. 0.4-1.0 MeV H -> Mn, Cu, Ge, Sn, Se, Ag, Sb, Au, Pb, Bi   | 1955-Gree<br>0059  |
| 1962         | Gott, Yu. V. Telkovskiy, V. G.<br><b>'Energy Losses of Light Ions in Thin Metallic Foils'</b><br><i>Radioteknika I. Elek. (USSR), 7, 1956-61 (1962) [Engl. Trans:Rad. Eng. and Electron Phys., 7, 1813-19 (1962)]</i><br>Comment : S. 2-15 keV H, D, He -> Al, Ti, Cu, Ge, Ag, Sn, Au                                    | 1962-Gott<br>0159  |
| 1965         | Sattler, A. R. Dearnaley, G.<br><b>'Anomalous Energy Losses of Protons Channeled in Single Crystal Germanium'</b><br><i>Phys. Rev. Letters, 15, 59-61 (1965)</i><br>Comment : S, dS. 4.25 - 7.75 MeV H, 7.63 MeV D -> Ge (Cryst.)  | 1965-Satt2<br>0252 |
| 1966         | Appleton, B. R. Altman, M. Feldman, L. C. Gibson, W. M. Erginsoy, C.<br><b>'Least Energy Loss and Its Dispersion for pChanneled Protons in Silicon and Germanium Single Crystals'</b><br><i>Bull. Am. Phys. Soc., 11, 176 (1966)</i><br>Comment : S, dS. 3-11 MeV H -> Si, Ge (Both Cryst.)                              | 1966-App1<br>0257  |
| 1967         | Appleton, B. R. Erginsoy, C. Gibson, W. M.<br><b>'Channeling in the Energy Loss of 3-11 MeV Protons in Silicon and Germanium Single Crystals'</b><br><i>Phys. Rev., 161, 330-49 (1967)</i><br>Comment : S. 3-11 MeV H -> Si, Ge (Both Cryst.). Chann. And Random   | 1967-App1<br>0305  |
| 1968         | Sattler, A. R. Dearnaley, G.<br><b>'Channeling in Diamond-Type and Zinc-Blende Lattices: Comparative Effects in Channeling of Protons and Deuterons in Ge, GaAs, and Si'</b><br><i>Phys. Rev., 161, 244-52 (1967)(Erratum, Phys. Rev., 165, 750 (1968))</i><br>Comment : S. 4-7.6 MeV H, D -> Ge, GaAs, Si (All Cryst.)  | 1968-Satt<br>0308  |
| 1968         | Shipatov, E. T. Kononov, B. A.<br><b>'Investigation of the Channeling of Protons in Single Crystals of Ionic Compounds and Semiconductors'</b><br><i>Izv. Vuz. Fiz. No. 9, 52-56 (1968). [Engl. Trans. Soviet Phys. J. No. 9, 46-49, (1968)]</i><br>Comment : S,dS. H (4.7-6.7 MeV) -> NaCl, KCl, KBr, Si, Ge (crystals) | 1968-Ship2<br>0599 |
| 1968         | Shipatov, E. T. Kononov, B. A.<br><b>'Energy Distribution of 6.72 MeV Protons Passing through Monocrystals.'</b><br><i>Atomnaya Energiya (USSR), 25, 439-40 (1968) [Engl. Trans. Sov. Atom. Energy, 25, 1254-55 (1968)].</i><br>Comment : S, dS. 6.72 MeV H -> NaCl, KCl, KBr, Si, Ge (All Cryst.)                       | 1968-Ship3<br>0653 |

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|--------------|---|--------------------|
| 1969         | Arkhipov, E. P. Gott, Yu. V.<br><b>'Slowing Down of 0.5 - 30 keV Protons in Some Materials.'</b><br><i>Zh. Eksp. Teor. Fiz., 56, 1146-51 (1969). [Engl. Trans. Sov. Phys. Jetp, 29, 615-18 (1969)]</i><br>Comment : S. 0.5-30 keV H -> C, Ti, Al, Cu, Ni, Fe, Ge, Si, Sb, Bi  | 1969-Arkh<br>0410  |
| 1969         | Gorodetzky, S. Pape, A. Coopermann, E. L. Chevallier, A. Sens, J. C.<br><b>'Pouvoir D'Arret Du Germanium Pour Des Protons D'Energie Comprise Entre 0.5 et 5.5 MeV'</b><br><i>Nucl. Inst. Methods, 70, 11-12 (1969)</i><br>Comment : S. 0.36 - 5.5 MeV H -> Ge   | 1969-Goro<br>0387  |
| 1969         | Shipatov, E. T.<br><b>'Energy and Angular Distributions of Protons Transmitted by Germanium and Silicon Single Crystals Along (110) and (100) Channels in the Crystal Lattice'</b><br><i>Fiz. Tekh. Poluprovodnikov, 2, 1690-91 (1968). [Engl. Trans. Sov. Phys. Semicond., 2, 1408-09 (1969)]</i><br>Comment : S, dS. 6.72 MeV H -> Si, Ge (Both Cryst.) | 1969-Ship2<br>0654 |
| 1970         | Clark, G. J. Morgan, D. V. Poate, J. M.<br><b>'Energy Loss of Channeled Protons in the MeV Region, in D'</b><br><i>W. Palmer, M. W. Thompson, P. D. Townsend: Atomic Collision Phenomena in Solids. North-Holland, Amsterdam, P. 388-99 (1970)</i><br>Comment : S, dS. (4-8 MeV) H -> SiC, W, Fe, Ge, Mo, NaCl, MgO (All Targets Cryst.)                  | 1970-Clar<br>0391  |
| 1976         | Fich, O. Golovchenko, J. A. Nielsen, K. O. Uggerhoj, E. Vraast-Thomsen, C.<br><b>'Ionization Loss of Channeled 1.36 GeV/c Protons and Pions.'</b><br><i>Phys. Rev. Letters, 36, 1245-48 (1976)</i><br>Comment : S. 1.35 GeV/c H, Pi -> Ge (Cryst. Chan. And Random)   | 1976-Fich<br>0874  |
| 1978         | Eckardt, J. C.<br><b>'Energy Loss and Straggling of Protons and Helium Ions Traversing Some Thin Solid Foils'</b><br><i>Phys. Rev. A, 18, 426-433 (1978)</i><br>Comment : S, dS. 20-260 keV H, He -> Ge, Se, Pd, Ag, Sb, Bi   | 1978-Ecka2<br>1154 |
| 1978         | Marshall, R. E. ElFiqi, A. R. Kliwer, J. K.<br><b>'Measurement of Stopping Powers using Ion-Induced X-Ray Emission'</b><br><i>Nucl. Inst. Methods, 150, 241-245 (1978)</i><br>Comment : S. 100 keV H -> Sc, Ni, Cu, Ge  | 1978-Mars<br>1085  |
| 1979         | Chumanov, V. Ya. Izmailov, Sh. Z. Pokhil, G. P. Sirotinin, E. I. Tulinov, A. F.<br><b>'On the Determination of Energy Losses by Charged Particles from the Backscattered Energy Spectra'</b><br><i>Phys. Stat. Sol. A, 53, 51-62 (1979)</i><br>Comment : S. 0.1-1.4 MeV H -> W, 0.1-0.25 MeV H -> Ge  | 1979-Chum<br>1236  |

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|----------------------|--|---------------------------|
| <b>1980</b>          | Izmailov, Sh. Z. Sirotinin, E. I. Tulinov, A. F.<br><b>'Energy Loss of Protons in Si, Ge, and Mo'</b><br><i>Nucl. Inst. Methods, 168, 81-84 (1980)</i><br><i>Comment : S, dS. 1-1 MeV H -&gt; Si, Ge, Mo</i>   | <b>1980-Izma</b><br>1342  |
| <b>1984</b>          | Sirotinin, E. I. Tulinov, A. F. Khodyrev, V. A. Mizgulin, V. N.<br><b>'Proton Energy Loss in Solids'</b><br><i>Nucl. Inst. Methods, B4, 337 (1984) -1</i><br><i>Comment : S. H (0.1-6.0 MeV) -&gt; Al, Si, Sc, V, Cu, Zn, Ga, Ge, Y, Zr, Nb, Mo, Ag, Cd, In, Sn, La, Sm, Gd, Yb, Hf, Ta, W, Pt, Au, Pb</i> | <b>1984-Siro</b><br>1770  |
| <b>1992</b>          | Eppacher, C. Semrad, D.<br><b>'The Effective Charge of He Ions in Metals'</b><br><i>Nucl. Inst. Methods, B67, 138-141 (1992)</i><br><i>Comment : S. H, He (1-2.5 Vo) -&gt; Ge, Sn and Pb</i>   | <b>1992-Eppa</b><br>1898  |
| <b>1992</b>          | Eppacher, Ch. Semrad, D.<br><b>'Dependence of Proton and Helium Energy Loss in Solids upon Plasma Properties'</b><br><i>Nucl. Inst. Methods, B69, 33-38 (1992)</i><br><i>Comment : S. H, He (20-250 keV/amu) -&gt; Au, Cr, Ag, Al, Ge, Sn, Pb</i>  | <b>1992-Eppa2</b><br>2161 |
| <b>1996</b>          | Ikeda, A. Sumitomo, K. Nishioka, T. Kido, Y.<br><b>'Stopping Powers and Energy Straggling for 50-300 keV H in Amorphous Si and Ge Films'</b><br><i>Nucl. Inst. Methods, B115, 34-38 (1996)</i><br><i>Comment : S, dS. H (50-300 keV) -&gt; Si, Ge</i>  | <b>1996-Iked</b><br>2029  |