

PASS Bibliography

P.Sigmund, A. Schinner

Binary theory of heavy-ion stopping

Europ. Phys. J. D **12**, 425-434 (2000)

P.Sigmund, A.Schinner

Nonperturbative theory of charge-dependent heavy-ion stopping

Phys. Scr. **T92**, 222 (2001)

P.Sigmund, A.Schinner

Resolution of the frozen-charge paradox in stopping of channeled heavy ions

Phys. Rev. Lett. **86**, 1486-1489 (2001)

P.Sigmund, A.Schinner

Effective charge and related/unrelated quantities in heavy-ion stopping

Nucl. Instrum. Methods B **174**, 535-540 (2001)

P.Sigmund, A.Schinner

Heavy-ion stopping: Bohr theory revisited

Fundamental & Applied Aspects of Modern Physics, ed. by S.H.Connell & R.Tegen **World Sci.**, 178-187 (2001)

P.Sigmund, A.Schinner

Binary theory of antiproton stopping

Europ. Phys. J. D **15**, 165 (2001)

P.Sigmund, A.Schinner

Binary Theory of Electronic Stopping

Nucl. Instrum. Methods B **195**, 64-90 (2002)

P.Sigmund, A.Schinner

Binary Theory of Light-Ion Stopping

Nucl. Instrum. Methods B **193**, 49-55 (2002)

L.G.Glazov, P.Sigmund, A. Schinner

Statistics of heavy-ion stopping

Nucl. Instrum. Methods B **195**, 183-187 (2002)

P.Sigmund, A.Fettouhi, A.Schinner

Material dependence of electronic stopping

Nucl. Instrum. Methods B **209**, 19-25 (2003)

P.Sigmund, A.Schinner

Barkas effect, shell correction, screening and correlation in collisional energy-loss straggling of an ion beam

Europ. Phys. J. D **23**, 201-209 (2003)

P.Sigmund, A.Schinner

Binary theory of electronic stopping, a powerful update to Bohr's classic from 1913

AIP Conference Proceedings **680**, 98-101 (2003)

P.Sigmund, A.Schinner

Anatomy of the Barkas effect

Nucl. Instrum. Methods B **212**, 110-117 (2003)

A.Sharma, A.Fettouhi, A.Schinner, P.Sigmund

Stopping of swift ions in compounds

Nucl. Instrum. Methods B **218**, 19-28 (2004)

P.Sigmund, R.Bimbot, H.Geissel, H.Paul, A.Schinner

Stopping of ions heavier than helium

ICRU Report, J. ICRU **73**, 1-254 (2005)

P.Sigmund, A.Sharma, A.Schinner, A.Fettouhi

Valence structure effects in the stopping of swift ions

Nucl. Instrum. Methods B **230**, 1-6 (2005)

A. Fettouhi, H. Geissel, A. Schinner, P. Sigmund

Stopping of high-Z ions at intermediate velocities

Nucl. Instrum. Methods B **245**, 22-27 (2006)

P.Sigmund, A.Schinner

Shell correction in stopping theory

Nucl. Instrum. Methods B **243**, 457-460 (2006)

P.Sigmund, A.Schinner

Erratum

Europ. Phys. J. D **37**, 155 (2006)

M.S. Weng, A. Schinner, A. Sharma, P. Sigmund

Primary electron spectra from swift heavy-ion impact:

Scaling relations and estimates from modified Bohr theory

Europ. Phys. J. D **39**, 209-221 (2006)

P. Sigmund, A. Schinner

Electron ejection in collisions between swift heavy ions and atoms

Nucl. Instrum. Methods B **258**, 116-120 (2007)

P. Sigmund, A. Schinner

Z2 structure and gas-solid effect in the stopping of slow ions

Nucl. Instrum. Methods B **263**, 349-356 (2007)

S.L.McLawhorn, L.H.Toburen, J.L.Shinpaugh,

E.L.B.Justitiano, M.Dingfelder, K.Tökesi, B.Sulik,

P.Sigmund, A.Schinner, C.O.Reinhold, D.R.Schultz

Ionization of neon by intermediate energy carbon ions

ICPEAC- Photonic, Electronic and Atomic Collisions ,
(2007)

- S.P.Møller, A.Csete, T.Ichioka, H.Knudsen, H.-P.Kristiansen, U.I.Uggerhøj, H.H.Andersen, P.Sigmund, A.Schinner
Antiproton and proton energy loss straggling at keV energies
Eur. Phys. J. D **46**, 89-92 (2008)
- P.Sigmund, H. Paul, A.Schinner
Stopping of ions heavier than helium. Erratum
J. ICRU,
http://icru.org/images/pdf/errata_and_addenda.pdf,
(2009)
- A. Schinner, P. Sigmund
Impact-parameter-dependent stopping of swift ions. I. Binary theory
Europ. Phys. J. D **56**, 41-50 (2010)
- P. Sigmund, A. Schinner
Impact-parameter-dependent stopping of swift ions. II. Application to channeling
Eur. Phys. J. D **56**, 51-60 (2010)
- P. Sigmund, A. Schinner
Impact-parameter-dependent stopping of swift ions. III. Bunching and packing in energy-loss straggling
Eur. Phys. J. D **58**, 105-116 (2010)
- P. Sigmund, A. Schinner
Stopping of swift hydrogen diclusters: Oscillator model
Eur. Phys. J. D **61**, 39-50 (2011)
- P. Sigmund, O. Osmani, A. Schinner
Charge-Exchange Straggling in Equilibrium
Nucl. Instrum. Methods B **269**, 804-809 (2011)
- A. Schinner, P. Sigmund
Polarization wake of penetrating ions: Oscillator model
Eur. Phys. J. D **66**, 56, 1-11 (2012)
- C.Vockenhuber, J.Jensen, J.Julin, H.Kettunen, M.Rossi, T.Sajavara, O.Osmani, A.Schinner, P.Sigmund, H.J.Whitlow
Energy-loss straggling of 2-10 MeV/u Kr ions in gases
Europ. Phys. J. D **67**, 145 (2013)
- P.Sigmund, A.Schinner
Notes on Barkas-Andersen Effect
Eur. Phys. J. D **68**, 318 (2014)
- P.Sigmund, A.Schinner
Velocity Dependence of Heavy-Ion Stopping below the Maximum
Nucl. Instrum. Methods B **342**, 292-299s (2014)
- P.Sigmund, O.Osmani, A.Schinner
Anatomy of Charge-Exchange Straggling
Nucl. Instrum. Methods B **338**, 101-107 (2014)
- P. Sigmund, A. Schinner
Progress in understanding heavy-ion stopping
Nucl. Instrum. Methods B **382**, 15-25 (2016)
- P. Sigmund, A. Schinner
Systematics of heavy-ion charge-exchange straggling
Nucl. Instrum. Methods B **384**, 30-36 (2016)
- P.Sigmund, A.Schinner
Note on measuring electronic stopping of slow ions
Nucl. Instrum. Methods B **410**, 78-88 (2017)
- P. Sigmund, A. Schinner
Electronic stopping in oxides beyond Bragg additivity
Nucl. Instrum. Methods B **415**, 110-116 (2018)
- P. Sigmund, A. Schinner
Is electronic stopping of ions velocity-proportional in the velocity-proportional regime?
Nucl. Instrum. Methods **440** (2019) 41
- P. Sigmund, V. Kuzmin, A. Schinner
Reciprocity analysis of electronic stopping of slow ions
Nucl. Instrum. Methods B,
<https://doi.org/10.1016/j.nimb.2018.12.006>
- A. Schinner, P. Sigmund
Expanded PASS stopping code
Nucl. Instrum. Methods B,
<https://doi.org/10.1016/j.nimb.2018.10.047>
- V.I. Shulga, A. Schinner, P. Sigmund
Effect of angular dependent electronic energy loss on stopping measurements in reflection
Presented at XXIVth Intl. Symposium on Ion-Surface Interactions, Moscow 2019