

Bibliography

- [1] C. Kittel, *Introduction to solid state physics* (Wiley, New York, 1986).
- [2] B. Pate, *Diamond: electronic properties and applications* (L.S. Pan and D.R. Kania [Ed.], Kluwer Academic, Boston, 1995).
- [3] A. Zangwill, *Physics at surfaces* (Cambridge University Press, Cambridge, 1988).
- [4] W. Mönch, *Surfaces and interfaces of solids* Springer series in surface sciences **Vol. 26** (Springer-Verlag, Heidelberg, 1993).
- [5] S.M. Sze, *Physics of semiconductor devices* (Wiley, New York, 1981).
- [6] L. Aballe, *Electronic structure and quantum size effects in ultrathin metal films*, PhD thesis, Freie Universität Berlin (2001).
- [7] Z. Zhang, Q. Niu, and Ch. K. Shih, *Phys. Rev. Lett.*, **80**, 5381 (1998).
- [8] H. Hertz, *Annalen der Physik und Chemie*, **31**, 983 (1887), and A. Einstein, *Annalen der Physik*, **17**, 132 (1905).
- [9] *Photoemission and the electronic properties of surfaces* (B. Feuerbacher, B. Fitton, R.F. Willis [Ed.], Wiley, New York, 1978).
- [10] P.J. Feibelman and D.E. Eastman, *Phys. Rev. B*, **10**, 4932 (1974).
- [11] H. Lüth, *Surfaces and interfaces of solids*, Springer series in surface sciences **Vol. 15** (Springer-Verlag, Heidelberg, 1993).
- [12] K. Siegbahn, C. Nordling, A. Fahlman, R. Nordberg, K. Hamrin, J. Hedman, G. Johansson, T. Belgmark, S.E. Karlsson, I. Lindgren, B. Lindberg, *ESCA atomic, molecular and solid state structure studied by means of electron spectroscopy* (Almquist and Wiksell, Uppsala, 1967).

- [13] P. Masri, *Surf. Sci. Rep.*, **48**, 1 (2002).
- [14] P.G. Neudeck, *J. Elec. Mat.*, **24**, 283 (1995).
- [15] U. Starke, *Phys. Stat. Sol. B*, **202**, 475 (1997).
- [16] K. Takayanagi, T. Tanishiro, M. Takahashi, and S. Takahashi, *J. Vac. Sci. Technol. A*, **3**, 1502 (1985).
- [17] J.J. Lander, G.W. Gobeli, and J. Morrison, *J. Appl. Phys.*, **34**, 2298 (1963).
- [18] D. Haneman, *Phys. Rev.*, **121**, 1093 (1961).
- [19] R.E. Schlier and H.E. Farnsworth, *J. Chem. Phys.*, **30**, 917 (1959).
- [20] K.C. Pandey and J.C. Phillips, *Phys. Rev. B*, **13**, 750 (1976).
- [21] F.J. Himpsel, P. Heimann, T.-C. Chiang, and D.E. Eastman, *Phys. Rev. Lett.*, **45**, 1112 (1980).
- [22] S. Brennan, J. Stöhr, R. Jaeger, and J.E. Rowe, *Phys. Rev. Lett.*, **45**, 1414 (1980).
- [23] K.C. Pandey, *Phys. Rev. Lett.*, **47**, 1913 (1981).
- [24] F.J. Himpsel, P. Heimann, and D.E. Eastman, *Phys. Rev. B*, **24**, 2003 (1981).
- [25] P. Chiaradia, A. Cricenti, S. Selci, and G. Chiarotti, *Phys. Rev. Lett.*, **52**, 1145 (1984).
- [26] J. Pollmann and P. Krüger, *Handbook of surface science*, **Vol. 2**, 96 (Elsevier Science B.V., 2000).
- [27] A. Garcia and M.L. Cohen, *Phys. Rev. B*, **47**, 4215 (1993).
- [28] M. Sabisch, P. Krüger, and J. Pollmann, *Phys. Rev. B*, **51**, 13367 (1995).
- [29] F. Bozso, L. Muehlhoff, M. Trenary, W.J. Choyke, and J.T. Yates, *J. Vac. Sci. Technol. A*, **2**, 1271 (1984).
- [30] J. Pollmann, P. Krüger, and M. Sabisch, *Phys. Stat. Sol. B*, **202**, 421 (1997).

- [31] J.F. Morar, F.J. Himpsel, G. Hollinger, J.L. Jordan, G. Hughes, and F.R. McFeely, *Phys. Rev. B*, **33**, 1340 (1986).
- [32] L.I. Johansson, F. Owman, and P. Martensson, *Phys. Rev. B*, **53**, 13793 (1996).
- [33] P.-A. Glans, T. Balasubramanian, M. Syväjärvi, R. Yakimova, and L.I. Johansson, *Surf. Sci.*, **470**, 284 (2001).
- [34] I. Braicovich, *The chemical physics of solid surfaces and heterogenous catalysis*, **Vol. 5** (D.A. King and D.P. Woodruff [Ed.], Elsevier, Amsterdam, 1988).
- [35] P. Grünberg, R. Schreiber, Y. Pang, M.B. Brodsky, and H. Sowers, *Phys. Rev. Lett.*, **57**, 2442 (1986) and R. Schad, P. Beliën, G. Verbanck, V.V. Moshchalkov, Y. Bruynseraede, H.E. Fischer, S. Lefebvre, and M. Bessiere, *Phys. Rev. B*, **59**, 1242 (1999).
- [36] H. Ohno, *J. Magn. Magn. Mater.*, **200**, 110 (1999).
- [37] F. Matsukura, H. Ohno, A. Shen, and Y. Sugawara, *Phys. Rev. B*, **57**, 2037 (1998).
- [38] G. Aeppli and Z. Fisk, *Comments Condens. Matter Phys.*, **16**, 155 (1992).
- [39] N. Manyala, Y. Sidis, J.F. DiTusa, G. Aeppli, D.P. Young, and Z. Fisk, *Nature*, **404**, 581 (2000).
- [40] N. Manyala, Y. Sidis, J.F. DiTusa, G. Aeppli, D.P. Young, and Z. Fisk, *Nature Materials*, **3**, 2255 (2004).
- [41] M.L. Reed, N. A. El-masry, H.H. Stadelmaier, M.E. Ritums, N.J. Reed, C.A. Parker, J.C. Roberts, and S.M. Bedair, *Appl. Phys. Lett.*, **79**, 3473 (2001).
- [42] Y. Ishikawa, K. Tajima, D. Bloch, and M. Roth, *Solid State Commun.*, **19**, 525 (1976).
- [43] A. Irizawa, A. Yamasaki, M. Okazaki, S. Kaasi, A. Sekiyama, S. Imada, S. Suga, E. Kulatov, H. Ohta, and T. Nanba, *Solid State Commun.*, **124**, 1 (2002).

- [44] Y.C. Lian and L.J. Chen, *Appl. Phys. Lett.*, **48**, 359 (1986).
- [45] V.K. Zaitsev and S.V. Ordin, *Fiz. Tverd. Tela*, **21**, 2517 (1979).
- [46] I. Kawasumi, M. Sakata, I. Nishida, K. Masumoto, *J. Mater. Sci.*, **16**, 355 (1981).
- [47] H. Haak, *private communication*.
- [48] M.M.R. Evans, J.C. Glueckstein, and J. Nogami, *Phys. Rev. B*, **53**, 4000 (1996).
- [49] T. Nagao, S. Ohuchi, Y. Matsuoka, and S. Hasegawa, *Surf. Sci.*, **419**, 134 (1999).
- [50] S. Kawamoto, M. Kusaka, M. Hirai, and M. Iwami, *Surf. Sci.*, **242**, 331 (1991).
- [51] M. Tanaka, Q. Zhang, M. Takeguchi, and K. Furuya, *Surf. Sci.*, **532**, 946 (2003).
- [52] R.I.G. Uhrberg, T. Kaurila, and Y.-C. Chao, *Phys. Rev. B*, **58**, R1730 (1998).
- [53] J.-Y. Son, K. Okazaki, T. Mizokawa, A. Fujimori, T. Kanomata, and R. Note, *J. Phys. Soc. Jpn.*, **71**, 1728 (2002).
- [54] W. Speier, E.v. Leuken, J.C. Fuggle, D.D. Sarma, L. Kumar, B. Dauth, and K.H.J. Buschow, *Phys. Rev. B*, **39**, 6008 (1989).
- [55] J.J. Paggel, W. Theis, K. Horn, C. Jung, C. Hellwig, and H. Petersen, *Phys. Rev. B*, **50**, 18686 (1994).
- [56] S. Doniach, M. Sunjic, *J. Phys. C*, **3**, 285 (1970).
- [57] G. Ctistis, U. Deffke, J.J. Paggel, and P. Fumagalli, *J. Magn. Magn. Mater.*, **240**, 420 (2002).
- [58] V. Hinkel, L. Sorba, H. Haak, and K. Horn, *Appl. Phys. Lett.*, **50**, 1257 (1987).
- [59] H. Wu, M. Hortamani, P. Kratzer, and M. Scheffler, *Phys. Rev. Lett.*, **92**, 237202 (2004).

- [60] J. Nagamatsu, N. Nakagawa, T. Muranaka, Y. Zenitai, and J. Akimitsu, *Nature*, **410**, 63 (2001).
- [61] C. Buzea and T. Yamashita, *Supercon. Sci. Technol.*, **14**, R115 (2001).
- [62] O. de la Peña, A. Aguayo, and R. de Coss, *Phys. Rev. B*, **66**, 012511 (2002).
- [63] I.P. Batra, S. Ciraci, G.P. Srivastava, J.S. Nelson, and C.Y. Fong, *Phys. Rev. B*, **34**, 24118246 (1986).
- [64] L. Aballe, C. Rogero, P. Kratzer, S. Gokhale, and K. Horn, *Phys. Rev. Lett.*, **87**, 156801 (2001).
- [65] L. Aballe, C. Rogero, and K. Horn, *Phys. Rev. B*, **65**, 125319 (2002).
- [66] G. Hansson and S.A. Flodström, *Phys. Rev. B*, **18**, 1562 (1978).
- [67] U.O. Karlsson, G. Hansson, P. Persson, and S.A. Flodström, *Phys. Rev. B*, **26**, 1852 (1982).
- [68] M. Pessa, H. Asonen, R.S. Rao, R. Prasad, and A. Bansil, *Phys. Rev. Lett.*, **47**, 1223 (1981).
- [69] H. Jones, *Proc. Roy. Soc.*, **A144**, 225 (1934).
- [70] H. Neddermeyer, *Phys. Rev. B*, **13**, 2411 (1976).
- [71] M. Schlüter and C.M. Varma, *Phys. Rev. B*, **23**, 1633 (1981).
- [72] D.T.L. van Agterveld, G. Palasantzas, and J. Th. De Hosson, *Appl. Surf. Sci.*, **152**, 250 (1999).
- [73] P.M. Echenique and J.B. Pendry, *J. Physics C*, **11**, 2065 (1978).
- [74] N.V. Smith, *Phys. Rev. B*, **32**, 3549 (1985).
- [75] E.G. McRae and M.L. Kane, *Surf. Sci.*, **108**, 435 (1981).
- [76] H. Haak and J. Maier, private communication.
- [77] R.L. Benbow and D.W. Lynch, *Phys. Rev. B*, **12**, 5612 (1975).
- [78] G. Neuhold and K. Horn, *Phys. Rev. Lett.*, **78**, 1327 (1997).

- [79] T. Miller, W.E. McMahon, and T.C. Chiang, *Phys. Rev. Lett.*, **77**, 1167 (1996).
- [80] H. Levinson, E.W. Plummer, P.J. Feibelman, *Phys. Rev. Lett.*, **43**, 952 (1979).
- [81] A. Bennett, *Phys. Rev. B*, bf 1, 203 (1970).
- [82] N.D. Lang and W. Kohn, *Phys. Rev. B*, bf 1, 4555 (1970).
- [83] P.J Feibelman, *Prog. Surf. Sci.*, **12**, 287 (1982).
- [84] A. Liebsch, *Elementary excitations on metal surfaces* (Plenum, New York, 1997).
- [85] J.E. Inglesfield and E. Wikborg, *J. Physics F*, **5**, 1706 (1975).
- [86] A. Liebsch, *Phys. Rev. Lett.*, **67**, 2858 (1991).
- [87] K.-D. Tsuei, E.W. Plummer, A. Liebsch, E. Pehlke, K. Kempa, and P. Bakshi, *Surf. Sci.*, **247**, 302 (1991).
- [88] S.R. Barman, C. Stampf, P. Häberle, W. Ibañez, Y.Q. Cai, and K. Horn, *Phys. Rev. B*, **64**, 195410 (2001).
- [89] A.R. Melynk and M.J. Harrison, *Phys. Rev. Lett.*, **21**, 85 (1968).