

# Literaturverzeichnis

- [1] R.M. Cornell and U. Schwertmann; *The Iron Oxides*, VCH, Weinheim 1996.
- [2] M. F. Perutz; *Nature* 228 (1970) 726.
- [3] J. C. Mallinson; *The Foundations of Magnetic Recording*; 2nd Ed, Academic, New York 1993
- [4] J.W. Geus; *Applied Catalysis* 25 (1986) 313.
- [5] J. Hagen; *Technische Katalyse: Eine Einführung*, VCH, Weinheim 1996.
- [6] R. Schlögl *Handbook of Heterogeneous Catalysis*; G. Ertl(Ed.), H. Knötzinger (Ed.), J. Weitkamp(Ed.), Wiley-VCH, 4 (1997) 1697
- [7] K. Kochloefl *Handbook of Heterogeneous Catalysis*; G. Ertl(Ed.), H. Knötzinger (Ed.), J. Weitkamp(Ed.), Wiley-VCH (1997) 2151
- [8] Chemical Markets Associates, Inc;
- [9] H. Ohlinger ans S. Stadelmann; *Ullmanns Enzyklopädie der technischen Chemie*; Urban (Ed.), Schwarzenberg (Ed.), München-Berlin, 16, 1965, 460
- [10] M. Muhler, J. Schütze, M. Wesemann, T. Rayment, A. Dent, and R. Schlögl, G. Ertl; *J. Catal.* 126 (1990) 339.
- [11] S. Carra and L. Forni; *Ind. Eng. Chem. Process Des. Dev.* 4 (1965) 281
- [12] T. Hirano; *Appl. Catal.* 26 (1986) 65
- [13] T. Hirano; *Appl. Catal.* 28 (1986) 119
- [14] K. Coulter, D. W. Goodman, and R. G. More; *Catal. Lett.* 31 (1995) 1
- [15] M. Henzler and W. Göpel; *Oberflächenphysik des Festkörpers*, Teubner Studienbücher, Stuttgart 1994.

- [16] K. Christmann; *Introduction to Surface Physical Chemistry*, Steinkopff, Darmstadt 1991.
- [17] M. P. Seah and W. A. Dench; *Surf. Interface Anal.* 1 (1979) 2.
- [18] V.E. Henrich and P.A. Cox; *The Surface Science of Metal Oxides*, Cambridge Univ. Press, Cambridge 1994.
- [19] W. Weiss; *Surf. Sci.* 377 (1997) 943
- [20] M. Ritter, W. Ranke and W. Weiss; *Phys. Rev. B* 57 (1998) 7240
- [21] W. Weiss, M. Ritter, D. Zscherpel, M. Swoboda and R. Schlögl; *J. Vac. Sci. Technol. A* 16 (1998) 21
- [22] M. Ritter; *Dissertation*, Technische Universität Berlin 1998
- [23] D. Zscherpel; *Dissertation*, Freie Universität Berlin 1998
- [24] D. Zscherpel, W. Ranke, W. Weiss and R. Schlögl; *J. Chem. Phys.* 108 (1998) 9506
- [25] Y. Joseph; *Diplomarbeit*, Freie Universität Berlin 1998
- [26] C. Kuhrs; *Dissertation*, Freie Universität Berlin 2000
- [27] Sh. K. Shaikhutdinov, Y. Joseph, C. Kuhrs, W. Ranke, and W. Weiss; *Farad. Disc.* 114 (1999) 363
- [28] G. Ketteler; *Diplomarbeit*, Freie Universität Berlin 1999
- [29] G. Ketteler, W. Weiss, and W. Ranke; eingereicht bei *Surf. Rev. Lett.* (2001)
- [30] P. J. Kisliuk, *J. Phys. Chem. Solids* 5 (1958) 78
- [31] M. Horn-von Hoegen; *Z. Kristallogr.* 214 (1999) 1
- [32] J. F. Moulder, W. F. Stickle, P. E. Sobol, and K. D. Bomben; *Handbook of X-ray Photoelectron Spectroscopy*, J. Chastain (Ed. ), Perkin Elmer Cooperation, Eden Prairie, Minnesota, USA 1992
- [33] D. A. Shirley; *Phys. Rev. B* 5 (1972) 4709
- [34] J. Stöhr; *NEXAFS-Spectroscopy*, Springer, Heidelberg Berlin 1996

- [35] A. Knop-Gericke, M. Hävecker, T. Schedel-Niedrig, and R. Schlögl; *Top. Catal.* 10 (2000) 187
- [36] S. Bernstorff, W. Braun, M. Mast, W. Peatmann, and T. Schroeter; *Rev. Sci. Instrum.* 60 (1989) 2097
- [37] W. B. Peatman, J. Bahrdt, F. Eggenstein, G. Reichhardt, and F. Senf; *Rev. Sci. Instrum.* 66 (1995) 2801
- [38] K. J. S. Sawhney, F. Senf, M. Scheer, F. Schäfers, J. Bahrdt, A. Gaup, and W. Gudat; *Nucl. Instr. Meth. A* 390 (1997) 395
- [39] F. Nakao; *Vacuum* 25 (1975) 431
- [40] W. Ranke and W. Weiss; *Surf. Sci.* 414 (1998) 236
- [41] U. Scheithauer, G. Meyer, and M. Henzler; *Surf. Sci.* 178 (1986) 441
- [42] M. Wühn; *Dissertation*, Ruhr-Universität Bochum 2000
- [43] A. Knop-Gericke, M. Hävecker, T. Neisius, and T. Schedel-Niedrig; *Nucl. Instrum. Methods A* 406 (1998) 311
- [44] G. Ketteler, W. Weiss, W. Ranke, and R. Schlögl; *Phys. Chem. Chem. Phys.* 3 (2001) 1114
- [45] F. Koch and J. B. Cohen; *Acta Cryst. B* 25 (1969) 275
- [46] A. K. Cheetham, B. E. F. Fender and R. I. Taylor; *J. Phys. C* 4 (1971) 2160
- [47] P. B. Battle and A. K. Cheetham; *J. Phys. C Solid State Phys.* 12 (1979) 337
- [48] P. W. Tasker; *J. Phys. C: Solid State Phys.* 12 (1979) 4977
- [49] W. Ranke, M. Ritter, and W. Weiss; *Phys Rev. B* 60 (1999) 1527
- [50] W. Weiss and M. Ritter; *Phys. Rev. B* 59 (1999) 5201
- [51] R. Dieckmann; *Ber. Bunsenges. Phys. Chem.* 86 (1982) 112
- [52] M. Ritter and W. Weiss; *Surf. Sci.* 432 (1999) 81
- [53] Sh. K. Shaikhutdinov, M. Ritter, X.-G. Wang, H. Over, and W. Weiss; *Phys. Rev. B* 60 (1999) 11062

- [54] X.-G. Wang, W. Weiss, Sh. K. Shaikhutdinov, M. Ritter, M. Petersen, F. Wagner, R. Schlögl, and M. Scheffler; *Phys. Rev. Lett.* 81 (1998) 1038
- [55] D. Frickel, W. Ranke, and R. Schlögl; in Vorbereitung
- [56] Sh. K. Shaikhutdinov and W. Weiss; *Surf. Sci.* 432 (1999) L623
- [57] M. Grillo, private Mitteilung
- [58] N.G. Condon, F.M. Leibsle, A.R. Lennie, P.W. Murray, D.J. Vaughan, and G. Thornton; *Phys. Rev. Lett.* 75 (1995) 1961
- [59] Inorganic Crystal Structure Database, FIZ Karlsruhe, Germany 12 (1999)
- [60] Z. Tomkowicz and A. Szytula; *J. Phys. Chem. Solids* 38 (1977) 1117
- [61] C. Li, A. F. Reid, and S. Saunders; *J. Solid State Chem.* 3 (1971) 614
- [62] K. Joseph and T. Gnanasekaran; *Thermochimica Acta* 342 (1999) 153
- [63] A. Kotarba, private Mitteilung
- [64] G. J. Dudley, B. C. H. Steele, and A. T. Howe; *J. Solid State Chem.* 18 (1976) 141
- [65] S. Nariki, S. Ito, and N. Yoneda; *Am. Ceram. Soc. Bull.* 66 (1987) 1250
- [66] J. N. Brønsted; *Rec. Trav. Chim. Pays-Bas* 42 (1923) 718
- [67] G. N. Lewis; *Valence and the structure of Molecules* the Chemical Catalogue Co., New York 1923
- [68] R. G. Pearson; *J. Am. Chem. Soc.* 85 (1963) 3533
- [69] T. Clark and R. Koch; *The chemist's electronic book of orbitals*, Springer, Heidelberg, New York 1999
- [70] P. A. Thiel, T. E. Madey; *Surf. Sci. Rep.* 7 (1987) 211
- [71] Y. Joseph, W. Ranke, and W. Weiss; *J. Phys. Chem. B* 104 (2000) 3224
- [72] J. J. Cowell, A. K. Santra, R. Lindsay, R. M. Lambert, A. Baraldi, A. Goldoni; *Surf. Sci.* 437 (1999) 1
- [73] K. Hermann and M. A. Van Hove; *LEED Pattern analyser program package V1.2*; FHI der MPG (Dpt. Theory), Berlin, Germany (1999)

- [74] K. Wandelt; *Surf. Sci. Rep.* 2 (1982) 1
- [75] T. Schedel-Niedrig, W. Weiss, and R. Schlögl; *Phys. Rev. B* 52 (1995) 17449
- [76] S. Gota, E. Guiot, M. Henriot, aand M. Gautier-Soyer; *Phys. Rev. B* 60 (1999) 14387
- [77] Y. Gao, J. Kim, S. A. Chambers, and G. Bai; *J. Vac. Sci. Technol. A* 15 (1997) 332
- [78] M. Oku, K. Wagatsuma, and T. Konishi; *J. Electron Spec. Related Phenomen.* 98-99 (1999) 277
- [79] M. Muhler, R. Schlögl, and G. Ertl; *J. Catal.* 138 (1992) 413
- [80] Y. Joseph, G. Ketteler, C. Kuhrs, W. Ranke, W. Weiss, and R. Schlögl; *Phys. Chem. Chem. Phys.* 3 (2001) 4141
- [81] H.-P. Bonzel, G. Pirug, and A. Winkler; *Surf. Sci.* 175 (1986) 287
- [82] H.-P. Bonzel, and H. J. Krebs; in *Physics and Chemistry of Alkali Metal Adsorption*, H.-P. Bonzel(Ed.), A. M. Bradshaw (Ed.), and G. Ertl(Ed.), Elsevier (1989)
- [83] C. Puglia, P. Bennich, J. Haselstöm, P. A. Brühwiler, A. Nilsson, A. J. Maxwell, N. Martinson, and P. Rudolf; *Surf. Sci.* 383 (1997) 149
- [84] A. F. Carley, S. D. Jackson, J. N. O'Shea, and M. W. Roberts; *Surf. Sci.* 440 (1999) L868
- [85] B. Lamontagne, F. Seymond, and D. Roy; *Surf. Sci.* 327 (1995) 371
- [86] J. X. Wu, M. S. Ma, H. G. Zheng, H. W. Yang, J. S. Zhu, and M. R. Ji; *Phys. Rev. B* 60 (1999) 17102
- [87] J. Jupille, P. Dolle, and M. Besancon; *Surf. Sci.* 260 (1992) 271
- [88] A. Caballereo, J. P. Espinos, A. Fernandez, L. Soriano, and A. R. Gonzalez-Elipe; *Surf. Sci.* 364 (1996) 253
- [89] P. Graat and M. A. J. Somers; *Surf. Interface Anal.* 26 (1998) 773
- [90] S. J. Rosendaal, B. van Asselen, J. W. Elsenaar, A. M. Vredenberg, and F. H. P. M. Habraken; *Surf. Sci.* 442 (1999) 329

- [91] N. V. Dvoretskii, E. G. Stepanov, and Y. Yun; *Inorg. Mater.* 27 (1999) 1064
- [92] R. J. Lad and V. E. Henrich; *Phys. Rev. B* 39 (1989) 13478
- [93] P. S. Bagus, C. R. Brundle, T. T. Chuang, and K. Wandelt; *Phys. Rev. Lett.* 39 (1977) 1229
- [94] S. Sugano, Y. Tanabe, and H. Kamimura; *Multiplets of Transition-Metal Ions in Crystals*, Academic, New York 1970
- [95] Y. Q. Cai, M. Ritter, W. Weiss, and A. M. Bradshaw; *Phys. Rev. B* 58 (1998) 5043
- [96] A. Fujimori, M. Saeki, N. Kimizuka, M. Taniguchi, and S. Suga; *Phys. Rev. B* 34 (1986) 7318
- [97] M. Grüne, J. Radnik, and K. Wandelt; *Surf. Sci.* 402-404 (1998) 236
- [98] A. N. Koveshnikov, R. H. Madjoe, J. Karunamuni, R. L. Stockbauer, and R. L. Kurtz; *J. Appl. Phys.* 87 (2000) 5929
- [99] A. Fujimori, N. Kimizuka, M. Taniguchi, and S. Suga; *Phys. Rev. B* 36 (1987) 6691
- [100] Z. Y. Wu, S. Gota, F. Jollet, M. Pollak, M. Gautier-Soyer, and C. R. Natoli; *Phys. Rev. B* 55 (1997) 2570
- [101] C. Colliex, T. Manoubi, and C. Ortiz; *Phys. Rev. B* 44 (1991) 11402
- [102] F. M. F. de Groot, M. Grioni, J. C. Fuggle, J. Ghijsen, A. Sawatzky, and H. Petersen; *Phys. Rev. B* 40 (1989) 5715
- [103] J. G. Chen, B. Frühberger, and M. L. Colaianni; *J. Vac. Sci. Technol. A* 14 (1996) 1668
- [104] E. Guiot, Z. Y. Wu, S. Gota, and M. Gautier-Soyer; *J. Electron Spec. Related Phenomen.* 101-103 (1999) 371
- [105] C. L. Chang, G. Chern, C. L. Chen, H. H. Hsieh, C. L. Dong, W. F. Pong, C. H. Chao, H. C. Chien, and S. L. Chang; *Solid State Commun.* 109 (1999) 599
- [106] J. P. Crocombette, M. Pollak, F. Jollet, N. Thromat, and M. Gautier-Soyer; *Phys. Rev. B* 52 (1995) 3143

- [107] H. Kurata, K. Hojou, and T. Uozumi; *J. Electron Microscopy* 47 (1998) 293
- [108] D. W. Turner, C. Baker, A. D. Baker, C. R. Brundle; *Molecular Photoelectron Spectroscopy*, Wiley-Interscience, 1970
- [109] D. Schmeisser, F. J. Himpsel, G. Hollinger, B. Reihl, and K. Jakobi; *Phys. Rev. B* 27 (1983) 3279
- [110] S. Fölsch, A. Stock, and M. Henzler; *Surf. Sci.* 264 (1992) 65
- [111] K. Morukuma; *J. Chem. Phys.* 55 (1971) 1236
- [112] H. Umeyama and K. Morukuma; *J. Am. Chem. Soc.* 99 (1977) 1316
- [113] X. D. Peng and M. A. Barteau; *Surf. Sci.* 233 (1990) 283
- [114] J. L. Mackay and V. E. Henrich; *Phys. Rev. B* 39 (1989) 6156
- [115] V. A. Gercher and D. F. Cox; *Surf. Sci.* 322 (1995) 177
- [116] R. L. Kurtz, R. Stockbauer, T. E. Madey, E. Roman and J. L. De Segovia; *Surf. Sci.* 218 (1989) 178
- [117] S. Katsumata and D. R. Lloyd; *Chem. Phys. Lett.* 45 (1977) 519
- [118] J. A. Connor, M. Considine, I. H. Hillier, and D. Briggs; *J. Electron Spec. Related Phenomen.* 12 (1977) 143
- [119] J. M. McKay and V. E. Henrich; *Phys. Rev. B* 32 (1985) 6764
- [120] R. J. Lad and V. E. Henrich; *Surf. Sci.* 193 (1988) 81
- [121] R. L. Kurtz and V. E. Henrich; *Phys. Rev. B* 26 (1982) 6682
- [122] W. J. Lo, Y. W. Chung, and G. A. Somorjai; *Surf. Sci.* 71 (1978) 199
- [123] N. B. Brookes, F. M. Quinn, G. Thornton; *Vacuum* 38 (1988) 405
- [124] R. L. Kurtz and V. E. Henrich; *Phys. Rev. B* 28 (1983) 6699
- [125] P. B. Smith and S. L. Bernasek; *Surf. Sci.* 188 (1987) 241
- [126] H. Onishi, C. Egawa, T. Aruga, and Y. Iwasawa; *Surf. Sci.* 191 (1987) 479
- [127] P. Liu, T. Kendelewicz, G. E. Brown Jr., and G. A. Parks; *Surf. Sci.* 412/413 (1998) 287

- [128] P. Liu, T. Kendelewicz, G. E. Brown Jr., E. J. Nelson, and S. A. Chambers; *Surf. Sci.* 417 (1998) 53
- [129] R. J. Speedy, P. G. Debenetti, R. S. Smith, C. Huang, and B. D. J. Kay; *J. Chem. Phys.* 105 (1996) 240
- [130] D. Eisenberg and W. Kauzmann; *Structure and Properties of Water*, Clarendon, Oxford, UK (1969) 101
- [131] P. Löfgren, P. Ahlström, D. V. Charakov, J. Lausmaa, and B. Kasemo; *Surf. Sci.* 367 (1996) L19
- [132] L. Giordano, J. Goniakowski, and J. Suzanne; *Phys. Rev. Lett.* 81 (1998) 1271
- [133] P. J. D. Lindan, N. M. Harrison, and N. J. Gillan; *Phys. Rev. Lett.* 80 (1998) 762
- [134] D. E. Ramaker; *Chem. Phys.* 80 (1983) 183
- [135] R. A. Rosenberg, P. R. LaRoe, V. Rehn, J. Stöhr, R. Jaeger, and C. C. Parks; *Phys. Rev. B* 28 (1983) 3026
- [136] D. Coulman, A. Puschmann, U. Höfer, H. P. Steinrück, W. Wurth, P. Feulner, and D. Menzel; *J. Chem. Phys.* 93 (1990) 58
- [137] J. Schirmer, A. B. Trofimov, K. J. Randall, J. Feldhaus, A. M. Bradshaw, Y. Ma, C. T. Chen, and F. Sette; *Phys. Rev. A* 47 (1993) 1136
- [138] A. P. Hitchcock and C. E. Brion; *J. Phys. B* 14 (1981) 4399
- [139] R. Lindsay, P. L. Wincott, C. A. Muryn, G. Thornton, S. P. Frigo, J. K. Simons, and R. A. Rosenberg; *Jpn. J. Appl. Phys. Suppl.* 32-2 32 (1993) 347
- [140] K. Tanaka, H. Ikeura, N. Ueno, Y. Kobayashi, K. Obi, T. Sekiguchi, and K. Honma; *Synchrotron radiation and dynamic phenomena; 48 th International Meeting of Physical Chemistry*; A. Beswick (Ed. ) Grenoble, France 1991
- [141] N. Pangher, A. Schmalz und J. Haase; *Chem. Phys. Lett.* 221 (1994) 189
- [142] U. Malaske, H. Pfniür, M. Bassler, M. Weiss, and E. Umbach; *Phys. Rev. B* 53 (1996) 13115
- [143] C. Kuhrs and W. Weiss; *Stud. Surf. Sci. Catal.* 130 (2000) 2225

- [144] M. Getzlaff, private Mitteilung
- [145] K. Weiss, J. Weckesser, and Ch. Wöll; *J. Mol. Struct.* 458 (1996) 143
- [146] K. Weiss, S. Gebert, M. Wühn, H. Wadebold, and Ch. Wöll; *J. Vac. Sci. Tecnol. A* 16 (1998) 1017
- [147] J. L. Solomon, R. J. Madix, and J. Stöhr; *Surf. Sci.* 255 (1991) 12
- [148] C. Kolczewski; *Dissertation*, Ruhr-Universität Bochum 2000
- [149] C. Kuhrs, Y. Arita, W. Weiss, W. Ranke, and R. Schlögl; *Top. Catal.* 14 (2110) 111
- [150] C. Elschenbroich and A. Salzer; *Organometallchemie*; Teubener Stuttgart, 1993
- [151] C. Mainka, P. S. Bagus, A. Schertel, T. Strunskus, M. Grunze, and C. Wöll; *Surf. Sci.* 341 (1995) 1055
- [152] D. Schröder and H. Schwarz, *Angew. Chem.* 107 (1995) 2126
- [153] H. Becker; *Diplomarbeit*, Technische Universität Berlin 1992
- [154] W. Ranke and W. Weiss; *Surf. Sci.* 465 (2000) 317
- [155] Beilstein, *Ergänzungswerk III* 5, 1152
- [156] E. Lindholm, C. Fridh, and L. Åsbrink; *Disc. Farad. Chem. Soc.* (1972) 127
- [157] S. Schelz, N. Schuhler, T. Richmond, and P. Oelhafen; *Thin Solid Films* 266 (1995) 133
- [158] M. Wühn, Y. Joseph, P. S. Bagus, A. Niklewski, R. Püttner, S. Reiss, W. Weiss, M. Martins, G. Kaindl, and C. Wöll; *J. Phys. Chem. B* 104 (2000) 7694
- [159] G. Polzonetti, V. Caravetta, M. V. Russo, G. Contini, P. Parent, and C. Lafon; *J. Electron Spec. Related Phenomen.* 98-99 (1999) 175
- [160] I. Kopinarov, A. Lippitz, J. F. Friedrich, W. E. S. Unger, and C. Wöll; *Polymer* 39 (1998) 3001
- [161] W. Weiss and W. Ranke, eingereicht bei *Progr. Surf. Sci.*
- [162] W. Weiss, D. Zscherpel, and R. Schlögl; *Catal. Lett.* 52 (1998) 215

