

Literaturverzeichnis

- [1] G.E. Fougere, J.R. Weertman , R.W. Siegel. Processing and mechanical behavior of nanocrystalline Fe. *Nanostruct. Mater.*, 5(2):127, 1995.
- [2] R. W. Siegel, S. Ramasamy, H. Hahn, Z. Li, T. Lu , R. Gronsky. Synthesis, characterisation and properties of nanophase TiO₂. *J. Mater. Res.*, 6:1367, 1988.
- [3] P. Buffat, J. P. Borel. Size effect on the melting temperature of gold particles. *Phys. Rev. A*, 13:2287, 1976.
- [4] M. Schmidt, R. Kusche, B. von Issendorff , H. Haberland. Irregular variations in the melting point of size-selected atomic clusters. *Nature*, 393:1998, 1998.
- [5] S. A. Nepijko, R. Wiesendanger. Size dependence of the Curie temperature of separate nickel particles studied by interference electron microscopy. *Europhys. Lett.*, 31:567, 1995.
- [6] Z. X. Tang, C. M. Sorensen, K. J. Klabunde , G. C. Hadjipanaisyis. Size-dependent magnetic properties of manganese ferrite fine particles. *J. Appl. Phys.*, 69(8), 1991.
- [7] S. E. Pratsinis. *Vapor Synthesis of Ceramic Powders, Ceramic Powder Science III*, pages 227–238. eds. G.L. Messing and H. Hausner and S.-C. Hirano, 1990.

- [8] P. Roth, A. Hospital. Design and test of a Particle Mass Spectrometer (PMS). *J. Aerosol Sci.*, 25(1):61–73, 1994.
- [9] A. Kurz. Strukturelle und magnetische Eigenschaften von ferro- und antiferromagnetischen Nanopartikeln. Diplomarbeit, Gerhard-Mercator-Universität Duisburg, 2000.
- [10] A. M. Kanury. *Introduction to combustion phenomena*. Gordon and Breach Science Publishers, New York, 4 edition, 1984.
- [11] R. M. Fristrom, A. A. Westenberg. *Flame Structure*. McGraw Hill Book Company, 1965.
- [12] M. Vollmer, K. Weber. Keimbildung in übersättigten Gebieten. *Z. Phys. Chem.*, 119:277–301, 1926.
- [13] R. Becker, W. Döring. Kinetische Behandlung der Keimbildung in übersättigten Dämpfen. *Ann. Phys.*, 24:719–752, 1935.
- [14] G. D. Ulrich. Theory of Particle Formation and Growth in Oxide Synthesis Flames. *Combust. Sci. and Tech.*, 4:47–57, 1971.
- [15] S. K. Friedlander. *Smoke, Dust and Haze*. John Wiley, New York, 2000.
- [16] D. W. Schaefer, A. J. Hurd. Growth and structure of combustion aerosols: fumed silica. *Aerosol Sci. Technol.*, 12:876–890, 1990.
- [17] M. K. Wu, S. K. Friedlander. Enhanced power law agglomerate growth in the free-molecular regime. *J. Aerosol Sci.*, 124(3):273–282, 1993.
- [18] T. Matsoukas, S. K. Friedlander. Dynamics of aerosol agglomerate formation. *J. Colloid Interf. Sci.*, 146(2):495–506, 1991.
- [19] R. J. Kee, J. F. Grcar, M. D. Smooke , J. A. Miller. PREMIX. A Fortran Program for Modelling Steady Laminar One-Dimensional Premixed Flames, 1985. Sandia Report, Sandia National Laboratories, SAND 85-8240.

- [20] M. W. Chase, C. A. Davies, J. R. Downey, D. J. Frurip, R. A. McDonald , A. N. Syverud. *JANAF Thermochemical Tables*. Natl. Bur. Stand., Washington, 3rd edition, 1985.
- [21] R. J. Kee, J. A. Miller , T. H. Jefferson. CHEMIKIN. A General Purpose, Problem-Independent, Transportable, FORTRAN Chemical Kinetics Code. Technical Report SAND 8003, Sandia National Laboratories, 1980.
- [22] D. Kaufmann, P. Roth. Numerical simulation of one-dimensional laminar flames, propagating into reacting premixed gases. *Combust. Flame*, 80:385–394, 1990.
- [23] K. E. Lewis, D. M. Golden , G. P. Smith. Organometallic Bond Dissociation Energies: Laser Pyrolysis of $\text{Fe}(\text{CO})_5$, $\text{Cr}(\text{CO})_6$, $\text{Mo}(\text{CO})_6$, and $\text{W}(\text{CO})_6$. *J. Am. Chem. Soc.*, 106:3905, 1984.
- [24] G. Kasper, S-N Shon , D. T. Shaw. Controlled formation of chain aggregates from very small metal oxide particles. *Am. Ind. Hyg. Assoc.*, 41:288–296, 1980.
- [25] M. Frenklach, S. J. Harris. Aerosol Dynamics Modelling using the Methods of Moments. *J. Colloid Interface Sci.*, 118:252, 1987.
- [26] K. T. Whitby. Determination of aerosol growth rates in the atmosphere using lumped mode aerosol dynamics. *J. Aerosol Sci.*, 12:174, 1981.
- [27] E. Otto. *Modellierung Brownscher und elektrischer Koagulation submikroner Partikel*. Dissertation, Gerhard-Mercator Universität Duisburg, 1997.
- [28] M. Smoluchowski. Versuch einer mathematischen Theorie der Koagulationskinetik kolloider Lösungen. *Z. Phys. Chem.*, 92:129, 1917.
- [29] F. Gelbhard, J. H. Seinfeld. Numerical solution of the dynamic equation for particulate systems. *J. Comp. Phys.*, 28:357–375, 1978.

- [30] J. D. Landgrebe, S. E. Pratsinis. A discrete-sectional model for particulate production by gas-phase chemical reaction and aerosol coagulation in the free-molecular regime. *J. Colloid Interface Sci.*, 139(1):63–86, 1990.
- [31] J. D. Litster, D. J. Smit , M. J. Hounslow. Adjustable Discretized Population Balance for Growth and Aggregation. *AIChE J.*, 41(3):591, 1995.
- [32] W. Koch, S. K. Friedlander. *Part. Part. Syst. Charact.*, 8:86–89, 1991.
- [33] Y. Xiong, S. E. Pratsinis. Formation of agglomerate particles by coagulation and sintering - Part I. A two-dimensional solution of the population balance equation. *J. Aerosol Sci.*, 24(3):283–300, 1993.
- [34] E. Hering, R. Martin , M. Stohrer. *Physik für Ingenieure*. Springer, Berlin, 7 edition, 1999.
- [35] W. Demtröder. *Experimentalphysik 2*. Springer-Verlag, Berlin, 1999.
- [36] G. Fasching. *Werkstoffe für die Elektrotechnik*. Springer-Verlag, Wien New York, 1984.
- [37] B. D. Cullity. *Introduction to magnetic materials*. Addison-Wesley, Menlo Park, Californien, 1972.
- [38] A. E. Berkowitz, W. J. Schuele , P. F. Flanders. Permanent magnets and fine particles. *J. Appl. Phys.*, 39:1261, 1968.
- [39] C. P. Bean, J. D. Livingston. Superparamagnetism. *J. Appl. Phys.*, 30(4), 1959.
- [40] R. A. McCurrie. *in: Ferromagnetic Materials, Structure and Properties*. Academic Press, London, 1994. p. 171.
- [41] K. Suresh, K. C. Patil. A combustion process for the instant synthesis of γ -iron oxide. *J. Mater. Sci. Lett.*, 12:572–574, 1993.

- [42] T. González-Carreño, P. M. Morales, M. Gracia , C. J. Serna. Preparation of uniform γ -Fe₂O₃ particles with nanometer size by spray pyrolysis. *Mater. Lett.*, 18:151, 1993.
- [43] B. Martínez, A. Roig, E. Molins, T. González-Carreño , C. J. Serna. Magnetic characterization of γ -Fe₂O₃ nanoparticles fabricated by aerosol pyrolysis. *J. Appl. Phys.*, 83(6):3256–3262, 1998.
- [44] A. López, T. González-Carreño, M.P. Morales , C. J. Serna. Magnetic properties of γ -Fe₂O₃ small particles prepared by spray pyrolysis. *J. Magn. Magn. Mater.*, 140-144:383–384, 1995.
- [45] D. Vollath, D. V. Szabó, R. D. Taylor, J. O. Willis , K. E. Sickafus. Synthesis and properties of nanocrystalline superparamagnetic γ -Fe₂O₃. *Nanostr. Mater.*, 6:941–944, 1995.
- [46] S. Grimm, M. Schultz, S. Barth , R. Müller. Flame pyrolysis - a preparation route for ultrafine pure γ -Fe₂O₃ powders and the control of their particle size and properties. *J. Mater. Sci.*, 32:1083–1092, 1997.
- [47] M. R. Zachariah, M. I. Aquino, R. D. Shull , E. B. Steel. Formation of superparamagnetic nanocomposites from vapor phase condensation in a flame. *Nanostr. Mater.*, 5(4):383–392, 1995.
- [48] S. Veintemillas-Verdaguer, M. P. Morales , C. J. Serna. Continuous production of ultrafine γ -Fe₂O₃ powders by laser pyrolysis. *J. Mater. Sci.*, 35:227–231, 1998.
- [49] D. Lindackers, M. G. D. Strecker, P. Roth, C. Janzen , S. E. Pratsinis. Formation and growth of SiO₂ particles in low pressure H₂/O₂/Ar flames doped with SiH₄. *Combust. Sci. and Tech.*, 123:287–315, 1997.
- [50] E. Becker. *Gasdynamik*. B.G. Teubner, Stuttgart, 1966.

- [51] N. A. Fuchs. On the stationary charge distribution on aerosol particles in bipolar ionic atmosphere. *Geofis. Pura Appl.*, 56(185), 1963.
- [52] W. C. Hinds. *Aerosol Technology*. J. Wiley & Sons, New York, 1982.
- [53] S. Bunauer, P. H. Emmet , E. Teller. Adsorption of gases in multimolecular layers. *J. Am. Chem. Soc.*, 60, 1983.
- [54] *Cambridge Crystallographic Data File*. Cristallographic Data Center, University Chemical Laboratory, Lensfiled Road, Cambridge, UK.
- [55] *Metals Data File*. Nat. Res. Council Canada, Chem. Div. Ottawa, Ontario K1A OR0, Kanada.
- [56] *Inorganic Crystal Structure Database*. Fachinformationszentrum Energie Physik Mathematik, Eggenstein-Leopoldshafen, Germany.
- [57] E. Hornbogen. *Durchstrahlungs-Elektronenmikroskopie fester Stoffe*. G. Petzow, H. Warlimont, Verlag Chemie, 1971.
- [58] G. Heber. *Einführung in die Theorie des Magnetismus*. Akademische Verlagsgesellschaft, Wiesbaden, 1982.
- [59] N. N. Greenwood, T. C. Gibb. *Mössbauer Spectroscopy*. Chapman Hall, 1971.
- [60] D. Vollath. *Nachrichten Forschungszentrum Karlsruhe*, 2:197–206, 1999.
- [61] H. Orthner, P. Roth. Unveröffentliche Daten, 2001.