

List of Publications under Joint Authorship by Michael E. Brown and Andrew K. Galwey

Books

- [1a] M.E. Brown, D. Dollimore, A.K. Galwey, Reactions in the solid state, in: C.H. Bamford, C.F.H. Tipper (Eds.), *Comprehensive Chemical Kinetics*, Vol. 22, Elsevier, Amsterdam, 1980, 340 pp.
- [1b] Reactions in the solid state, *Chem. Abstr.* 100 (1984) 105806 (in Russian).
- [2] A.K. Galwey, M.E. Brown, *Thermal Decomposition of Ionic Solids*, Elsevier, Amsterdam, 1999, 597 pp.

Articles published in journals

- [1] M.E. Brown, D. Dollimore, A.K. Galwey, The thermal decomposition of manganese(II) oxalate dihydrate in vacuum and in oxygen, *J. Chem. Soc., Faraday Trans. I* 70 (1974) 1316–1324.
- [2] A.K. Galwey, D.M. Jamieson, M.E. Brown, Thermal decomposition of three crystalline modifications of anhydrous copper(II) formate, *J. Phys. Chem.* 78 (1974) 2664–2670.
- [3] A.K. Galwey, D.M. Jamieson, M.E. Brown, M.J. McGinn, The mechanisms of the solid-phase thermal decomposition reactions of some transition-metal carboxylates, in: P. Barret (Ed.), *Reaction Kinetics in Heterogeneous Chemical Systems*, Elsevier, Amsterdam, 1975, pp. 520–537.
- [4] M.E. Brown, D. Dollimore, A.K. Galwey, A thermochemical investigation of the decomposition of manganese(II) oxalate dihydrate, *Thermochim. Acta* 21 (1977) 103–110.
- [5] M.E. Brown, B. Delmon, A.K. Galwey, M.J. McGinn, Nucleus formation and the kinetics of thermal decomposition of nickel formate, *J. Chim. Phys.* 75 (1978) 147–158.
- [6] A.K. Galwey, M.E. Brown, A differential scanning calorimetric study of the thermal decomposition of nickel formate dihydrate, *Proc. Royal Irish Acad. (Dublin) B* 77 (1977) 465–471.
- [7] M.E. Brown, A.K. Galwey, The distinguishability of selected kinetic models for isothermal solid-state reactions, *Thermochim. Acta* 29 (1979) 129–146.
- [8] A.K. Galwey and M.E. Brown, Compensation parameters in heterogeneous catalysis, *J. Catal.* 60 (1979) 335–338.
- [9] M.E. Brown, A.K. Galwey, M.W. Beck, Thermal decomposition of copper(II) squarate, *Israel J. Chem.* 22 (1982) 215–218.
- [10] M.E. Brown, H. Kelly, A.K. Galwey, M.A. Mohamed, A thermoanalytical study of the thermal decomposition of silver squarate, *Thermochim. Acta* 127 (1988) 139–158.
- [11] A.K. Galwey, M.A. Mohamed, M.E. Brown, Thermal decomposition of silver squarate, *J. Chem. Soc., Faraday Trans. I* 84 (1988) 57–64.
- [12] A.K. Galwey, M.A. Mohamed, S. Rajam, M.E. Brown, Thermal decomposition of copper(II) squarate, *J. Chem. Soc., Faraday Trans. I* 84 (1988) 1349–1356.
- [13] A.K. Galwey, S.G. McKee, T.R.B. Mitchell, M.E. Brown, A.F. Bean, A kinetic and mechanistic study of the thermal decomposition of nickel acetate, *React. Solids* 6 (1988) 173–186.
- [14] A.K. Galwey, S.G. McKee, T.R.B. Mitchell, M.A. Mohamed, M.E. Brown, A.F. Bean, A kinetic and mechanistic study of the thermal decomposition of nickel malonate, *React. Solids* 6 (1988) 187–203.
- [15] M.E. Brown, A.K. Galwey, Arrhenius parameters for solid-state reactions from isothermal rate–time curves, *Anal. Chem.* 61 (1989) 1136–1139.
- [16] M.E. Brown, A.K. Galwey, A. Li Wan Po, Reliability of kinetic measurements for the thermal dehydration of lithium sulphate monohydrate. Part 1. Isothermal measurements of pressure of evolved water vapour, *Thermochim. Acta* 203 (1992) 221–240.
- [17] M.E. Brown, A.K. Galwey, A. Li Wan Po, Reliability of kinetic measurements for the thermal dehydration of lithium sulphate monohydrate. Part 2. Thermogravimetry and differential scanning calorimetry, *Thermochim. Acta* 220 (1993) 131–150.
- [18] M.E. Brown, A.K. Galwey, M.A. Mohamed, H. Tanaka, A mechanism for the thermal decomposition of potassium permanganate crystals based on nucleation and growth, *Thermochim. Acta* 235 (1994) 255–270.
- [19] A.K. Galwey, M.E. Brown, A theoretical justification for the use of the Arrhenius equation in solid state reactions (mainly ionic crystals), *Proc. Roy. Soc. London A* 450 (1995) 501–512.
- [20] A.K. Galwey, M.E. Brown, Kinetic background to thermal analysis and calorimetry, in: M.E. Brown (Ed.), *Handbook of Thermal Analysis*, Vol. 1, Elsevier, Amsterdam, 1998, pp. 147–224 (Chapter 3).

- [21] M.E. Brown, A.K. Galwey, G.G.T. Guarini, Structures and functions of reaction interfaces developed during solid state dehydrations, *J. Therm. Anal.* 49 (1997) 1135–1146.
- [22] A.K. Galwey, M.E. Brown, Isothermal kinetic analysis of solid-state reactions using plots of rate against derivative function of the rate equation, in: *Proceedings of the Sixth European Symposium on Thermal Analysis*, Italy, 1994, *Thermochim. Acta* 269–270 (1995) 1–25.
- [23] A.K. Galwey, M.E. Brown, Arrhenius parameters and compensation behaviour in solid state decompositions, *Thermochim. Acta* 300 (1997) 107–115.
- [24] A.K. Galwey, M.E. Brown, Thermal decompositions of solids: stagnation or progress? *J. Therm. Anal. Calorimetry* 60 (2000) 863–877.
- [25] A.K. Galwey, M.E. Brown, Thermal decomposition of nickel squarate dihydrate, *J. Chem. Soc., Faraday Trans. I* 78 (1982) 411–424.
- [26] A.K. Galwey, M.E. Brown, Application of the Arrhenius equation to solid state kinetics: can this be justified? *Thermochim. Acta*, in press.
- [27] A.K. Galwey, M.E. Brown, Compensation parameters in heterogeneous catalysis, *J. Chem. Soc. Faraday I* 78 (1982) 411–424.

Articles published in conference proceedings

- [1] A.K. Galwey, M.J. McGinn, M.E. Brown, Nucleation and growth of particles of nickel during the thermal decomposition of nickel formate, in: J.S. Anderson, M.W. Roberts, F.S. Stone (Eds.), *Reactivity of Solids*, Proceedings of the Seventh International Symposium on the Reactivity of Solids, Bristol, July 1972, Chapman & Hall, 1972, pp. 431–445.
- [2] M.E. Brown, B. Delmon, A.K. Galwey, M.J. McGinn, The nucleation process in the thermal decomposition of nickel formate, in: J. Wood, O. Linnquist, C. Helgesson, N.-G. Vannerberg (Eds.), *Reactivity of Solids*, Proceedings of the Eighth International Symposium, Gothenburg, Sweden, Plenum Press, New York, 1977, pp. 221–226.
- [3] M.E. Brown, D. Dollimore, A.K. Galwey, A thermochemical investigation of the decomposition of manganese(II) oxalate dihydrate, in: D. Dollimore (Ed.), *Proceedings of the First European Symposium on Thermal Analysis*, Heyden, London, 1976, pp. 248–251.
- [4] M.E. Brown, A.K. Galwey, M. Le Patourel, The thermal decomposition of nickel squarate (thermochemical aspects), in: *Thermal Analysis*, Proceedings of the Sixth International Conference on Thermal Analysis, Vol. 2, Bayreuth, Germany, July 1980, Birkhauser, Basel, 1980, pp. 153–158.
- [5] A.K. Galwey, M.E. Brown, The thermal decomposition of nickel squarate (kinetics and electron microscopy), in: *Reactivity of Solids*, Proceedings of the Ninth International Symposium on the Reactivity of Solids, Krakow, Poland, September 1982, pp. 893–897.
- [6] M.E. Brown, G.G.T. Guarini, R. Reed, A.K. Galwey, Form and function of nuclei in decompositions of solids, in: *Reactivity of Solids*, Proceedings of the Ninth International Symposium on the Reactivity of Solids, Krakow, Poland, September 1982, pp. 862–866.
- [7] M.E. Brown, A.K. Galwey, Kinetics of solid-state reactions from isothermal rate–time curves, in: *Thermal Analysis*, Proceedings of the Seventh International Conference on Thermal Analysis, Vol. 1, Kingston, Ont., Canada, August, Wiley/Heyden, Chichester, 1982, pp. 58–64.
- [8] M.E. Brown, R.H.M. Cross, A.K. Galwey, R. Reed, Electron microscopic evidence for solid decomposition mechanisms, in: *Proc. Electron Microsc. Soc. South Africa*, Vol. 11, 1981, pp. 37–38.
- [9] A.K. Galwey, M.E. Brown, The thermal decomposition of nickel squarate (Kinetics and electron microscopy), in: *Proceedings of the Ninth International Symposium on the Reactivity of Solids*, Krakow, Poland, September 1980, pp. 625–629.
- [10] M.E. Brown, G.G.T. Guarini, R. Reed, A.K. Galwey, Form and function of nuclei in decompositions of solids, in: *Proceedings of the Ninth International Symposium on the Reactivity of Solids*, Krakow, Poland, September 1980, pp. 625–629.
- [11] A.K. Galwey, M.E. Brown, Isothermal Kinetic analysis of solid-state reactions using plots of rate against derivative function of the rate equation, in: *Proceedings of the Sixth European Symposium on Thermal Analysis*, Italy 1994, *Thermochim. Acta* 269/270 (1995) 1–25.