

Dr. Vytenis Babrauskas — PUBLICATIONS

* - denotes peer-reviewed publications

*Babrauskas, V., Fires Originating in Branch-Circuit NM Cables due to Installation Damage, *J. Fire Sciences* **36**, 438-450 (2018).

Babrauskas, V., An Avoidable Tragedy (West, Texas Ammonium Nitrate Disaster), *Fire Protection Engineering*, No. 77, 24-26, 28, 30-31 (Q1 2018).

*Babrauskas, V., Firebrands and Embers, **Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires**, S. L. Manzello, ed., Springer International Publishing, http://doi.org/10.1007/978-3-319-51727-8_2-1 (2018).

*Babrauskas, V., Hot Metal Particles, **Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires**, S. L. Manzello, ed., Springer International Publishing, http://doi.org/10.1007/978-3-319-51727-8_3-1 (2018).

*Babrauskas, V., The Ammonium Nitrate Explosion at West, Texas: A Disaster That Could Have Been Avoided, *Fire & Materials* **42**, 164-172 (2018).

*Babrauskas, V., Arc Mapping: A Critical Review, *Fire Technology* **54**, 749-780 (2018).

*Babrauskas, V., and Britton, L. G., Errors in the Compilations of Minimum Explosion Concentration Values for Dust Clouds, *Fire Technology* **54**, 37-55 (2018).

Babrauskas, V., The Grenfell Tower Fire and Fire Safety Materials Testing, *Fire Engineering* **171**:1, 43-44, 46-48 (Jan. 2018).

Babrauskas, V., Editorial – Special Issue ISFI 2016, in Memory of Patrick Kennedy, *J. Fire Sciences* **35**, 343-344 (2017).

*Babrauskas, V., The West, Texas Ammonium Nitrate Explosion: A Failure of Regulation, *J. Fire Sciences* **35**, 396-414 (2017).

Babrauskas, V., and Dyer, R., Wildfire Investigation, *Fire Engineering* **170**:8, 36-37 (Aug. 2017).

Lindeman, A. E., Babrauskas, V., Diamond, M. L., Lucas, D., Petty, S., and Blum, A., Flame Retardants in Furniture: Policies and Implications in North America, *Dioxin 2017*, Vancouver BC (2017).

*Babrauskas, V., Electric Arc Explosions—A Review, *Fire Safety J.* **89**, 7-15 (2017).

*Babrauskas, V., Phosphorus Explosions, *Process Safety & Environmental Protection* **107**, 87-93 (2017).

Babrauskas, V., Arc Mapping: New Science or New Myth? pp. 890-905 in *Fire & Materials 2017*, Interscience Communications Ltd., London (2017).

*Babrauskas, V., Engineering Variables to Replace the Concept of ‘Noncombustibility,’ *Fire Technology* **53**, 353-373 (2017).

Babrauskas, V., The West, Texas Ammonium Nitrate Explosion: A Failure of Regulation, pp. 49-65 in *Proc. Intl. Symp. on Fire Investigation Science & Technology – ISFI 2016*, NAFI, Sarasota FL (2016).

*Babrauskas, V., Gas-Fired Space Heaters: Defective Products, Defective Standards, and Burned Victims, *Fire & Arson Investigator* **67**:1, 40-50 (July 2016).

Babrauskas, V., Book Review – SFPE Handbook of Fire Protection Engineering, *J. Fire Sciences* **34**, 164-167 (2016).

Babrauskas, V., The Ammonium Nitrate Explosion at West, Texas: A Disaster That Could Have Been Avoided, pp. 1-11 in *Interflam 2016*, Interscience Communications Ltd., London (2016).

*Babrauskas, V., Electrical Fires, pp. 662-704 in **SFPE Handbook of Fire Protection Engineering**, 5th ed., Springer, New York (2016).

*Babrauskas, V., Heat Release Rates, pp. 799-904 in **SFPE Handbook of Fire Protection Engineering**, 5th ed., Springer, New York (2016).

*Babrauskas, V., The Cone Calorimeter, pp. 952-980 in **SFPE Handbook of Fire Protection Engineering**, 5th ed., Springer, New York (2016).

*Babrauskas, V., Explosions of Ammonium Nitrate Fertilizer in Storage or Transportation Are Preventable Accidents, *J. Hazardous Materials* **304**, 134-149 (2016).

*Babrauskas, V., UN Test O.1 Errors in Quantifying the Behavior of Solid Oxidizers, *J. Loss Prevention in the Process Industries* **39**, 1-6 (2016).

Babrauskas, V., and Stapleton, H., Halogenated Flame Retardant Use in Residential Settings—Are They Safe for Our Health? *Fire Protection Engineering* No. 68, 11-16, 18, 20, 22 (4th Q., 2015); Response to Letter to the Editor, *Fire Protection Engineering* No. 71, 8, 10 (3rd Q., 2016).

Babrauskas, V., Will Firefighters Be Any Safer Under the New Hazardous Materials Code? *Fire Engineering* **168**:11, 66-70 (Nov. 2015).

Fleming, J. M., and Babrauskas, V., Investigating Smoke Alarm Effectiveness in Fatal Fires, *Fire Engineering* **168**:7, 45-46, 48-54 (July 2015).

Babrauskas, V., Using Modern Fire Science...to Put Undeserving Persons in Prison, *The National Fire Investigator (NAFI)* 7-8 (Winter 2015). Reprinted in: *Flash Point* (Fire Investigation Association of Alberta) **40**, 9-10 (Spring 2015).

Babrauskas, V., Gas-Fired Space Heaters: Defective Products, Defective Standards, and Burned Victims, pp. 972-986 in *Proc. Fire & Materials 2015 Conf.*, Interscience Communications Ltd, London (2015).

*Babrauskas, V., Arc Breakdown over Very Small Gap Distances, *Fire & Arson Investigator* **65**:3, 40-46 (Jan. 2015).

Babrauskas, V., Fires Originating in Branch-Circuit NM Cables due to Installation Damage, pp. 17-28 in *ISFI 2014—Proc. Intl. Symp. on Fire Investigation Science & Tech.*, Natl. Assn. Fire Investigators, Sarasota FL (2014).

Fleming, J. M., and Babrauskas, V., Investigative Bias Involving Smoke Alarms in Fatal Fires, pp. 231-242 in *ISFI 2014—Proc. Intl. Symp. on Fire Investigation Science & Tech.*, Natl. Assn. Fire Investigators, Sarasota FL (2014).

*Babrauskas, V., Fuoco, R., and Blum, A., Flame Retardant Additives in Polymers: When Do the Fire Safety Benefits Outweigh the Toxicity Risks? pp. 87-118 in **Polymer Green Flame Retardants**, C. D. Papaspyrides and P. Kiliaris, eds., Elsevier, Amsterdam (2014).

Babrauskas, V., ed., **Fire Science Applications to Fire Investigations**, 3rd ed. (CD-ROM), Interscience Communications Ltd, London (2014).

Babrauskas, V., Singla, V., Rich, D., and Lucas, D., Letter to the Editor on upholstered furniture tests, *NFPA J.* **108**:1, 7 (Jan./Feb. 2014).

*Babrauskas, V., Some Neglected Areas in Fire Safety Engineering, *Fire Science & Technology (Tokyo)* **32**:1, 35-48 (2013).

Babrauskas, V., Arc Breakdown in Air over Very Small Gap Distances, pp. 1489-1498 in *Proc. Interflam 2013*, vol.2, Interscience Communications Ltd., London (2013).

Dedeo, M., Singla, V., Stapleton, H., Babrauskas, V., and Blum, A., British Furniture Fire Regulations: Do the Benefits Justify the Health and Environmental Risks? *BFR2013—Sixth Intl. Symp. on Flame Retardants*, San Francisco (2013).

*Babrauskas, V., Lucas, D., Eisenberg, D., Singla, V., Dedeo, M., and Blum, A., Flame Retardants in Building Insulation: A Case for Re-evaluating Building Codes, *Building Research & Information* **40**, 738-755 (2012).

Blum, A., Babrauskas, V., and Birnbaum, L., Replacements for PentaBDE Flame Retardant: Is There an Improvement in Fire Safety or Health Impacts? *Dioxin 2012—32nd Intl. Symp. on Halogenated Persistent Organic Pollutants*, Cairns, QLD, Australia (2012).

Blum, A., Babrauskas, V., Fuoco, R., and Birnbaum, L., Fire Safety and Health Assessment of Flame Retardant Chemicals in Furniture Foam, *BFR 2012 – 13th Workshop on Brominated and Other Flame Retardants*, Winnipeg, MB, Canada (2012).

Babrauskas, V., Rich, D., Singla, V., and Blum A., Toxic Chemicals and Toxic Money: The Science and Politics of Flammability Standards, *Fire Safety Science News* No. 33, 21-23 (2012).

Babrauskas, V., Book Review: An Introduction to Fire Dynamics, *J. Fire Sciences* **30**, 473-474 (2012).

Babrauskas, V., Ignition & Combustion: Some Scientific Principles, pp. 18-5 to 18-12 in **A Guide to Commercial Kitchen Fires**, P. Ackland, ed., Phillip Ackland Holdings Ltd., Summerland BC, Canada (2012).

Babrauskas, V., Book Review: Handbook of Tunnel Fire Safety, *J. Fire Sciences* **30**, 273-274 (2012).

Blum, A., Babrauskas, V., Fuoco, R., and Birnbaum, L., Risk-Benefit Assessment of Flame Retardant Chemicals, *2012 Annual Meeting*, Society of Toxicology, San Francisco CA (2012).

Lucas, D., and Babrauskas, V., Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks?, *2012 ACS PMSE Preprints*, American Chemical Society, Washington (2012).

Babrauskas, V., Fire Damage, or Equipment Breakdown? *The National Fire Investigator* 5-16 (Winter 2012).

*Babrauskas, V., Blum, A., Daley, R., and Birnbaum, L., Flame Retardants in Furniture Foam: Benefits and Risks, pp. 265-278 in *Fire Safety Science—Proc. 10th Intl. Symp.*, Intl. Assn. for Fire Safety Science, London (2011).

Blum, A. D., Daley, R., and Babrauskas, V., Regulatory Policy Leading to Halogenated Flame Retardants in Furniture and Baby Products: Fire Safety and Health Concerns, *Dioxin 2011—31st Intl. Symp. on Halogenated Persistent Organic Pollutants*, Brussels (2011).

*Gann, R. G., Babrauskas, V., Grayson, S. J., and Marsh, N. D., Hazards of Combustion Products: Toxicity, Opacity, Corrosivity, and Heat Release: The Experts' Views on Capability and Issues, *Fire & Materials* **35**, 115-127 (2011).

Babrauskas, V., and Wichman, I. S., Fusing of Wires by Electrical Current, pp. 769-778 in *Proc. Fire & Materials 2011*, Interscience Communications Ltd, London (2011).

Babrauskas, V., and Jones, J. C., Forum: On the Criterion for Flashover, *J. Fire Sciences* **29**, 93-94 (2011).

Babrauskas, V., Book Review—Dictionary of Fire Protection Engineering, *J. Fire Sciences* **28**, 573 (2010).

*Babrauskas, V., Fleming, J. M., and Russell, D. B., RSET/ASET, A Flawed Concept for Fire Safety Assessment, *Fire & Materials* **34**, 341-355 (2010).

Babrauskas, V., Fire Damage, or Equipment Breakdown? pp. 119-130 in *ISFI 2010 – Proc. 4th Intl. on Fire Investigation Science and Technology*, Natl. Assn. of Fire Investigators, Sarasota FL (2010).

Babrauskas, V., Putting Out the Fire with Gasoline – Not a Good Idea! *Fire Safety & Technology Bull.* **5:8**, 2-3 (Aug. 2010).

Babrauskas, V., Electric Arc Explosions, pp. 1283-1296 in *Interflam 2010—Proc. 12th Intl. Conf.*, Interscience Communications Ltd, London (2010).

Babrauskas, V., Electrical Fires: Research Needed to Improve Fire Safety, *Fire Protection Engineering* No. 46, 20-22, 24-26, 28-30 (2nd Q. 2010).

*Babrauskas, V., Unexposed-Face Temperature Criteria in Fire Resistance Tests: A Reappraisal, *Fire Safety J.* **44**, 813-818 (2009).

*Babrauskas, V., and Krause, U., Ignition Sources, pp. 13-31 in **Fires in Silos**, U. Krause, ed., Wiley-VCH Verlag, Weinheim (2009).

Babrauskas, V., Fleming, J. M., and Russell, D. B., RSET/ASET, A Flawed Concept for Fire Safety Assessment, pp. 315-328 in *Proc. Fire & Materials 2009*, Interscience Communications Ltd, London (2009).

Babrauskas, V., and Janssens, M., Quantitative Variables to Replace the Concept of 'Noncombustibility,' pp. 77-90 in *Proc. Fire & Materials 2009*, Interscience Communications Ltd, London (2009).

*Babrauskas V., Research on Electrical Fires: The State of the Art (The Emmons Plenary Lecture), pp. 3-18 in *Fire Safety Science—Proc. 9th Intl. Symp.*, Intl. Assn. for Fire Safety Science, London (2008).

*Babrauskas, V., Electrical Fires, pp. 3-479 to 3-498 in **The SFPE Handbook of Fire Protection Engineering**, 4th ed., National Fire Protection Assn., Quincy MA (2008).

*Babrauskas, V., The Cone Calorimeter, pp. 3-90 to 3-108 in **The SFPE Handbook of Fire Protection Engineering**, 4th ed., National Fire Protection Assn., Quincy MA (2008).

*Babrauskas, V., Heat Release Rates, pp. 3-1 to 3-59 in **The SFPE Handbook of Fire Protection Engineering**, 4th ed., National Fire Protection Assn., Quincy MA (2008).

Babrauskas, V., Smoke Detectors: Technologies Are NOT of Equal Value or Interchangeable, *Fire Safety & Technology Bull.* **3:12**, 2-4 (Dec. 2008).

Babrauskas, V., Quantifying the Combustion Product Hazard on the Basis of Test Results, pp. 339-353 in **Hazards of Combustion Products: Toxicity, Opacity, Corrosivity and Heat Release**, V. Babrauskas, R. G. Gann, and S. J. Grayson, eds., Interscience Communications Ltd., London (2008).

Babrauskas, V., and Grayson, S. J., Heat Release Test Methods, pp. 255-282 in **Hazards of Combustion Products: Toxicity, Opacity, Corrosivity and Heat Release**, V. Babrauskas, R. G. Gann, and S. J. Grayson, eds., Interscience Communications Ltd., London (2008).

Babrauskas, V., Gann, R. G., and Grayson, S. J., eds., **Hazards of Combustion Products: Toxicity, Opacity, Corrosivity and Heat Release**, Interscience Communications Ltd., London (2008).

Babrauskas, V., Ignition of Gases, Vapors, and Liquids by Hot Surfaces, pp. 5-13 in *ISFI 2008—Proc. 3rd Intl. Symp. on Fire Investigation Science & Technology*, Natl. Assn. of Fire Investigators, Sarasota FL (2008).

Babrauskas, V., Upholstered Furniture and Mattresses, pp. 6-103 to 6-128 in **Fire Protection Handbook**, 20th ed., National Fire Protection Assn., Quincy MA (2008).

Babrauskas, V., Tables and Charts, pp. 6-269 to 6-294 in **Fire Protection Handbook**, 20th ed., National Fire Protection Assn., Quincy MA (2008).

*Babrauskas, V., Ignition: A Century of Research and an Assessment of Our Current Status, *J. Fire Protection Engineering* **17**, 165-183 (2007).

Babrauskas, V., and Zicherman, J., Obituary – R. Brady Williamson (1933-2007), *Fire & Materials* **31**, 355-357 (2007).

*Babrauskas, V., Gray, B. F., and Janssens, M. L., Prudent Practices for the Design and Installation of Heat-Producing Devices near Wood Materials, *Fire & Materials* **31**, 125-135 (2007).

Babrauskas, V., Engineering Design and Analysis Using Computer Models: Are We Going Too Fast or not Fast Enough?, pp. 1-9 in *Proc. Interflam 2007*, Vol. 1, Interscience Communications Ltd., London (2007).

*Babrauskas, V., and Simonson, M., Fire Behaviour of Plastic Parts in Electrical Appliances—Standards versus Required Fire Safety Objectives, *Fire & Materials* **31**, 83-96 (2007).

Babrauskas, V., ed., **Fire Science Applications to Fire Investigations**, 2nd ed. (CD-ROM book), Interscience Communications Ltd., London (2007).

Babrauskas, V., Unexposed-face Temperature Criteria in Fire Resistance Tests: A Reappraisal, *Proc. Fire and Materials 2007*, Interscience Communications Ltd., London (2007).

Babrauskas, V., Gray, B. F., and Janssens, M. L., Prudent Practices for the Design and Installation of Heat-Producing Devices near Wood Materials, *Proc. Fire and Materials 2007*, Interscience Communications Ltd., London (2007).

Babrauskas, V., Burning Down the House: How Electrical Faults Cause Fires, *NEC Digest* 42-47 (Dec. 2006).

Babrauskas, V., The Principles of Electrical Fires, pp. 45-51 in *IFSI 2006 - Proc. 2nd Intl. Symp. on Fire Investigation Science and Technology*, Natl. Assn. of Fire Investigators, Sarasota FL (2006).

*Babrauskas, V., Mechanisms and Modes for Ignition of Low-voltage, PVC-insulated Electrotechnical Products, *Fire & Materials* **30**, 150-174 (2006).

*Babrauskas, V., Effective Heat of Combustion for Flaming Combustion of Conifers, *Canadian J. Forest Research* **36**, 659-663 (2006).

Bannister, W., Lai, F., Paramasawat, W., Sriseubsai, W., Donatelli, A., Li, J., Bonner, F., Schott, N., Kurup, P., Egan, J., Jahngen, E., Muangchareon, P., Euaphantasate, N., Chiang, S., Sengupta, S. K., Kuo, C.-S., Nagarajan, R., Chaospuhum, J., Meesrisom, A., Kongkadee, V., and Babrauskas, V., Anionic Effects in Hot Surface Catalyzed Combustions, *Proc. 16th HOTWC—Halon Options Technical Working Conf.*, Nat. Inst. Stand. & Technol., Gaithersburg MD (2006).

Babrauskas, V., Ignition of Solids—What Have We Learned in a Half-Century of Research? pp. 89-97 in *Flame Retardants 2006*, Interscience Communications Ltd, London (2006).

*Babrauskas, V., Charring Rate of Wood as a Tool for Fire Investigations, *Fire Safety J.* **40**, 528-554 (2005).

Babrauskas, V., Some Basic Facts About Ignition Events During Fueling of Motor Vehicles at Filling Stations, *California Fire/Arson Investigator* **16**, 25 (Apr. 2005).

Babrauskas, V., Book Review. Fire Standards, *Fire Safety J.* **40**, 302-303 (2005).

Babrauskas, V., Book Review. Analysis and Interpretation of Fire Scene Evidence, *Fire Safety J.* **40**, 300-302 (2005).

Babrauskas, V., Book Review. Fire Investigation, *Fire Safety J.* **40**, 299-300 (2005).

Babrauskas, V., Risk of Ignition of Forest Fires from Black Powder or Muzzle-Loading Firearms, report prepared for the U.S. Forest Service, San Dimas T&D Center (2005).

Babrauskas, V., Mechanisms and Modes for Ignition of Low-Voltage PVC Wires, Cables, and Cords, pp. 291-309 in *Fire & Materials 2005*, Interscience Communications Ltd., London (2005).

Babrauskas, V., Book Review. Explosion Protection: Electrical Apparatus and Systems for Chemical Plants, Oil and Gas Industry, Coal Mining Industry, *Fire Safety J.* **39**, 759-760 (2004).

*Babrauskas, V., Truck Insurance v. MagneTek: Lessons to Be Learned Concerning Presentation of Scientific Information, *Fire & Arson Investigator* **55**:2, 9-10 (Oct. 2004).

Babrauskas, V., Book Review. Plastics Flammability Handbook: Principles, Regulations, Testing, and Approval, *Fire Safety J.* **39**, 525-527 (2004).

Babrauskas, V., Wood Char Depth: Interpretation in Fire Investigations, *2004 Intl. Symp. on Fire Investigation*, The Fire Service College, Moreton-in-Marsh, UK (2004).

*Armstrong, A., Babrauskas, V., Holmes, D. L., Martin, C., Powell, R., Riggs, S., and Young, L. D., The Evaluation of the Extent of Transporting or “Tracking” an Identifiable Ignitable Liquid (Gasoline) throughout Fire Scenes during the Investigative Process, *J. Forensic Sciences* **49**, 741-748 (2004).

*Babrauskas, V., Arc Beads from Fires: Can ‘Cause’ Beads Be Distinguished from ‘Victim’ Beads by Physical or Chemical Testing? *J. Fire Protection Engineering* **14**, 125-147 (2004).

Babrauskas, V., Charring Rate of Wood as a Tool for Fire Investigations, pp. 1155-1170 in *Interflam 2004*, Interscience Communications Ltd, London (2004).

- Babrauskas, V., Electrical Discharges through Air: What Voltage Is Required to Cause Arcs and Sparks? *Fire Findings* **12**:1, 1-4 (Winter 2004).
- Babrauskas, V., Cone Calorimeter Annotated Bibliography, 2003 edition, Fire Science Publishers, Issaquah WA (2004).
- *Babrauskas, V., Peacock, R. D., and Reneke, P. A., Defining Flashover for Fire Hazard Calculations. Part II. *Fire Safety J.* **38**, 613-622 (2003).
- Babrauskas, V., A Hazardous Electrical Connector, *Fire & Arson Investigator* **53**:4, 9 (July 2003).
- *Babrauskas, V., **Ignition Handbook**, Fire Science Publishers/Society of Fire Protection Engineers, Issaquah WA (2003).
- Babrauskas, V., **Ignition Handbook Database** (CD-ROM), Fire Science Publishers, Issaquah WA (2003).
- Babrauskas, V., ed., **Fire Science Applications to Fire Investigations** (CD-ROM book), Interscience Communications Ltd., London (2003).
- Babrauskas, V., Properly Designed Experiments Are Still Needed in Order to Understand Low-Temperature, Long-Term Ignitions of Wood, *Fire & Arson Investigator* **53**:3, 7-9 (Apr. 2003).
- Babrauskas, V., Letter to the Editor (on price of ANSI standards), *Fire Technology* **39**, 293 (2003).
- Babrauskas, V., Upholstered Furniture and Mattresses, pp. 8-243 to 8-267 in **Fire Protection Handbook**, 19th ed., National Fire Protection Assn., Quincy MA (2003).
- Babrauskas, V., Tables and Charts, pp. A-1 to A-21 in **Fire Protection Handbook**, 19th ed., National Fire Protection Assn., Quincy MA (2003).
- Babrauskas, V., Fires due to Electric Arcing: Can ‘Cause’ Beads Be Distinguished from ‘Victim’ Beads by Physical or Chemical Testing? pp. 189-201 in *Fire and Materials 2003*, Interscience Communications Ltd., London (2003).
- Babrauskas, V., Letter to the Editor (on fire hazards versus risks), *Fire Technology* **39**, 7-8 (2003).
- *Babrauskas, V., Ignition of Wood: A Review of the State of the Art, *J. Fire Protection Engineering* **12**, 163-189 (2002).
- Babrauskas, V., The Role of Testing in Building Design, *Fire Protection Engineering* No. 15, 3 (Summer 2002).
- Babrauskas, V., How Do Electrical Wiring Faults Lead to Structure Ignitions? *Fire and Arson Investigator* **52**:3, 39-45, 49 (Apr. 2002).
- *Babrauskas, V., Heat Release Rates, pp. 3-1 to 3-37 in **SFPE Handbook of Fire Protection Engineering**, 3rd ed., National Fire Protection Assn., Quincy MA (2002).
- *Babrauskas, V., The Cone Calorimeter, pp. 3-63 to 3-81 in **SFPE Handbook of Fire Protection Engineering**, 3rd ed., National Fire Protection Assn., Quincy MA (2002).
- Babrauskas, V., Furniture Flammability—U.S. Regulations in Draft Form, *Fire and Flammability Bull.* 2 (Mar. 2002).

*Månsson, M., Lönnermark, A., Blomqvist, P., Persson, H., and Babrauskas, V., TOXFIRE--Fire Characteristics and Smoke Gas Analyses in Under-Ventilated Large-Scale Combustion Experiments (SP Report 1996:44), Swedish National Testing and Research Institute, Borås (2001).

Babrauskas, V., Ignition of Wood: A Review of the State of the Art, pp. 71-88 in *Interflam 2001—Proc. 9th Intl. Conf.*, Interscience Communications Ltd., London (2001).

Babrauskas, V., Book Review: An Introduction to Mathematical Fire Modeling, *Fire Safety J.* **36**, 515-517 (2001).

Babrauskas, V., Pyrophoric Carbon... The Jury is Still Out, *Fire and Arson Investigator* **51**:2, 12-14 (Jan. 2001).

Babrauskas, V., How Do Electrical Wiring Faults Lead to Structure Ignitions? pp. 39-51 in *Proc. Fire and Materials 2001 Conf.*, Interscience Communications Ltd., London (2001).

Krasny, J. F., Parker, W. J., and Babrauskas, V., **Fire Behavior of Upholstered Furniture and Mattresses**, William Andrew Publishing, Norwich NY (2001).

Babrauskas, V., Positive-Pressure Door Testing: Research and Code Implementation, *Building Standards* **69**, 26-28, 30, 41 (Jul./Aug. 2000).

*Babrauskas, V., Fire Safety Improvements in the Combustion Toxicity Area: Is There a Role for LC₅₀ Tests? *Fire and Materials* **24**, 113-119 (2000).

*Babrauskas, V., Fire Test Methods for Evaluation of Fire-Retardant Efficacy in Polymeric Materials, pp. 81-113 in A. F. Grand and C. A. Wilkie, eds., **Fire Retardancy of Polymeric Materials**, Marcel Dekker, New York (2000).

Babrauskas, V., No Exit: The Performance Track of the Coming International Building Code Will Be Good for Engineers and Property Owners, but Will It Be Good for Fire Safety? *Fire Chief* **44**, 50-58 (Mar. 2000).

*Babrauskas, V., Burning Item Sub-Models, in Measurement Needs for Fire Safety: Proceedings of an International Workshop, T. J. Ohlemiller et al., eds. (NISTIR 6527), Nat. Inst. Stand. & Technol., Gaithersburg MD (2000).

*Babrauskas, V., and Wetterlund, I., Comparative Data from LIFT and Cone Calorimeter Tests on 6 Products, Including Flame Flux Measurements (SP Report 1999:14). Swedish National Testing and Research Institute, Borås (1999).

*Andersson, B., Babrauskas, V., Holmstedt, G., Särdaqvist, S., and Winter, G., Simulated Fires in Substances of Pesticide Type (Report 3087), Dept. of Fire Safety Engineering, Lund University, Lund, Sweden (1999).

Babrauskas, V., Performance-Based Fire Safety Engineering Design: The Role of Fire Models and Fire Tests, pp. 799-807 in *Interflam '99*, Interscience Communications Ltd., London (1999).

Babrauskas, V., Daems, D., and Berrier, R., Large-Scale Fire Tests Examining the Safety of Various Insulated Steel Roof Deck Constructions, pp. 355-366 in *Interflam '99*, Interscience Communications Ltd., London (1999).

*Peacock, R. D., Reneke, P. A., Bukowski, R. W., and Babrauskas, V., Defining Flashover for Fire Hazard Calculations, *Fire Safety J.* **32**, 331-345 (1999).

Lönnermark, A., and Babrauskas, V., TOXFIRE - Fire Characteristics and Smoke Gas Analysis in Under-ventilated Large-scale Combustion Experiments. Theoretical Background and Calculations (SP Report 1996:49). Swedish National Testing and Research Institute, Borås [1999].

*Babrauskas, V., Gann, R. G., Levin, B. C., Paabo, M., Harris, R. H., Peacock, R. D., and Yusa, S., A Methodology for Obtaining and Using Toxic Potency Data for Fire Hazard Analysis, *Fire Safety J.* **31**, 345-358 (1998).

*Babrauskas, V., and Wetterlund, I., Testing of Furniture Composites in the Cone Calorimeter: A New Specimen Preparation Method and Round Robin Results, *Fire Safety J.* **30**, 179-194 (1998).

Babrauskas, V., Ensuring the Public's Right to Adequate Fire Safety under Performance-Based Building Codes, pp. 239-247 in *Proc. 1998 Pacific Rim Conf. and 2nd Intl. Conf. on Performance-Based Codes and Fire Safety Design Methods*, International Code Council/SFPE (1998).

Babrauskas, V., Book Review. Reaction to Fire of Construction Products (1996). Area A: Test methods. Area B: Fire Modeling, *Fire Safety J.* **30**, 399-401 (1998).

Babrauskas, V., and Holmes, D., Fire Findings Special Report. Part III. Heat Release Rate. *Fire Findings* **6:3** 12-13 (1998).

Babrauskas, V., and Holmes, D., Fire Findings Special Report. Part II. Heat Release Rate. *Fire Findings* **6:2** 7-11 (1998).

Babrauskas, V., and Holmes, D., Fire Findings Special Report. Part I. Heat Release Rate. *Fire Findings* **6:1** 7-11 (1998).

Babrauskas V., Letter to the Editor on AES technique, *The Fire Place (Washington Chapter IAAI Newsletter)*, 4 (Apr./May 1998).

Babrauskas, V., Glass Breakage in Fires, *The Fire Place (Washington Chapter IAAI Newsletter)*, 15-18 (Feb./Mar. 1998). Reprinted in: *Hotline (Missouri Chapter IAAI Newsletter)* **14**, 18-21 (Summer 1998).

Babrauskas, V., Fire Safety Improvements in the Combustion Toxicity Area: Is There a Role for LC₅₀ Tests? pp. 213-224 in *Flame Retardants '98*, Interscience Communications, London (1998).

Babrauskas, V., Letter to the Editor on IMO tests *Fire & Materials* **22**, 44 (1998).

Babrauskas, V., Letter to the Editor on 'Use of Small-scale Testing to Predict Cal 133 Performance,' *Fire & Materials* **22**, 43 (1998).

Babrauskas, V., Redefining the Value of π in the European Union (Editorial), *Fire Safety J.* **29**, ix-x (1997).

Babrauskas, V., Hazards from Toxicity in Fires: How Should Material Properties Be Taken into Account?, pp. 37-50 in *Proc. Fire Risk and Hazard Assessment—Research Application Symposium*, National Fire Protection Research Foundation, Quincy MA (1997).

*Babrauskas, V., and Krasny, J. F., Upholstered Furniture Transition from Smoldering to Flaming, *J. Forensic Sciences* **42**, 1029-1031 (1997).

Babrauskas, V., Harmonizing Fire-Resistance Furnaces Utilizing the Plate Thermometer, *Building Standards* **66**, 11-14 (Sept./Oct. 1997).

Babrauskas, V., Why Was the Fire so Big? The Role of Heat Release Rate in Describing Fires, *Fire and Arson Investigator* **47:4**, 54-57 (June 1997).

Babrauskas, V., Book Review: Fire Engineering and Emergency Planning Research and Applications, *Fire Safety J.* **28**, 289-290 (1997).

*Babrauskas, V., Baroudi, D., Myllymäki, J., and Kokkala, M., The Cone Calorimeter Used for Predictions of the Full-scale Burning Behaviour of Upholstered Furniture, *Fire and Materials* **21**, 95-105 (1997).

*Babrauskas, V., Sandwich Panel Fire Performance in Full-scale and Bench-scale Fire Tests, *Fire and Materials* **21**, 53-65 (1997).

Babrauskas, V., White, J. A. jr., and Urbas, J., Testing for Surface Spread of Flame: New Tests to Come into Use, *Building Standards* **66:2**, 13-18 (March/April 1997).

Babrauskas, V., Upholstered Furniture and Mattresses, pp. 4-190 to 4-204 in **Fire Protection Handbook**, 18th ed., National Fire Protection Assn., Quincy MA (1997).

Babrauskas, V., Tables and Charts, pp. A-1 to A-17 in **Fire Protection Handbook**, 18th ed., National Fire Protection Assn., Quincy MA (1997).

*Babrauskas, V., Fire Modeling Tools for Fire Safety Engineering: Are They Good Enough? *J. Fire Protection Engineering* **8**, 87-95 (1996).

Babrauskas, V., Fire Safety Engineering Principles for Performance-Based Building Regulations: A Novel Approach, Report prepared for the UK Home Office, London (1996).

Andersson, B., Babrauskas, V., Holmstedt, G., Särdaqvist, S., and Winter, G., Scaling of Combustion Products: Initial Results from the TOXFIRE Study, pp. 65-74 in *Industrial Fires III—Workshop Proc.* (EUR 17477EN), European Commission/Risø National Laboratory, Risø, Denmark (1996).

*Babrauskas, V., Facade Fire Tests: Towards an International Test Standard, *Fire Technology* **32**, 219-230 (1996).

*Babrauskas, V., and Wetterlund, I., The CBUF Cone Calorimeter Test Protocol: Results from International Round Robin Testing (SP Report 1996:12), Swedish National Testing and Research Institute, Borås (1996).

Babrauskas, V., The Results of a Major Upholstered Furniture Fire Study, *NFPA J.* **90**, 84-88 (July/Aug 1996).

*Babrauskas, V., A Comparative Examination of the Fire Performance of Pipe Insulation, *Process Safety Progress* **15**, 114-120 (1996).

Babrauskas, V., Wall insulation products: Full-scale tests versus evaluation from bench-scale toxic potency data, pp. 257-274 in *Interflam '96*, Interscience Communications Ltd, London (1996).

Babrauskas, V., Full-scale Combustion Toxicity Tests of Three Building Products, paper T13 in *Smoke Toxicity*, Ecomed Verlagsgesellschaft, Landsberg, Germany (1996).

Babrauskas, V., A Comparative Examination of the Fire Performance of Pipe Insulation, Paper 8f in *Proc. 30th Annual Loss Prevention Symp.*, American Institute of Chemical Engineers, New York (1996).

Babrauskas, V., Facade Fire Tests: Towards an International Test Standard, pp. 100-109 in *Proc. 21st Intl. Conf. on Fire Safety*, Product Safety Corp., Sissonville WV (1996).

Babrauskas, V., Italian Toxicity Seminar Draws Large Audience, *Fire & Flammability Bull.*, 14 (Dec. 1995).

*Babrauskas, V., Specimen Heat Fluxes for Bench-scale Heat Release Rate Testing, *Fire and Materials* **19**, 243-252 (1995).

*Babrauskas, V., and Wetterlund, I., The Role of Flame Flux in Opposed-flow Flame Spread, *Fire and Materials* **19**, 275-281 (1995).

Babrauskas, V., Sandwich Panel Fire Performance—Full-scale and Bench-scale Assessments, pp. 1-21 in *Proc. 4th Intl. Fire and Materials Conf.*, Interscience Communications Ltd., London (1995).

Babrauskas, V., Baroudi, D., Myllymäki, J., and Kokkala, M., The Cone Calorimeter Used for Predictions of the Full-scale Burning Behaviour of Upholstered Furniture, pp. 203-217 in *Proc. 4th Intl. Fire and Materials Conf.*, Interscience Communications Ltd., London (1995).

*Babrauskas, V., The Generation of CO in Bench-scale Fire Tests and the Prediction for Real-scale Fires, *Fire and Materials* **19**, 205-213 (1995).

*Babrauskas, V., Designing Products for Fire Performance: The State of the Art of Test Methods and Fire Models, *Fire Safety J.* **24**, 299-312 (1995).

Babrauskas, V., The Development and Evolution of the Cone Calorimeter: A Review of 12 Years of Research and Standardization, pp. 3-22 in *Fire Standards in the International Marketplace* (ASTM STP 1163), A.F. Grand, ed., American Society for Testing and Materials, Philadelphia (1995).

*Babrauskas, V., and Wetterlund, I., Choice of Optical Calibration Filters for Laser Photometers, *Fire Safety J.* **24**, 197-199 (1995).

Peacock, R. D., Bukowski, R. W., and Babrauskas, V., Defining Flashover for Fire Hazard Calculations, pp. 82-91 in *Fire Calorimetry* (DOT/FAA/CT-95/46), Federal Aviation Administration Technical Center, Atlantic City NJ (1995).

Babrauskas, V., Oxygen Consumption Calorimetry: ASTM and ISO Apparatuses, pp. 33-44 in *Fire Calorimetry* (DOT/FAA/CT-95/46), Federal Aviation Administration Technical Center, Atlantic City NJ (1995).

Babrauskas, V., Fire Safety Engineering—Not Yet a Time for Complacency, *Fire Retardant Chemicals Assn. Newsletter* 22 (No. 1), 2 (June 1995).

*Babrauskas, V., Burning Rates (Section 3/Chapter 1), pp. 3-1 to 3-15 in **The SFPE Handbook of Fire Protection Engineering**, 2nd ed., National Fire Protection Association, Quincy MA (1995).

*Babrauskas, V., The Cone Calorimeter (Section 3/Chapter 3), pp. 3-37 to 3-52 in **The SFPE Handbook of Fire Protection Engineering**, 2nd ed., National Fire Protection Association, Quincy MA (1995).

Babrauskas, V., Measurement of Smoke (Letter to the Editor), *Fire and Materials* **19**, 153 (1995).

*Parker, W. J., and Babrauskas, V., Chapter 7 “Small Scale Testing of Furniture Composites,” pp. 151-165 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme* (Report EUR 16477 EN), Directorate-General Science, Research and Development (Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Babrauskas, V., Chapter 8.1 & 8.2 “Predicting full scale furniture burning behaviour from small scale data,” pp. 167-189 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme* (Report EUR 16477 EN), Directorate-General Science, Research and Development (Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Babrauskas, V., Chapter 11 “Material selection and design strategies for furniture manufacturer,” pp. 240-246 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme* (Report EUR 16477 EN), Directorate-General Science, Research and Development (Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Babrauskas, V., and Wetterlund, I., Chapter A5.1 and A5.2 “Repeatability and reproducibility of the CBUF test methods,” pp. 307-325 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme* (Report EUR 16477 EN), Directorate-General Science, Research and Development

(Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Babrauskas, V., Chapter A6.1 - A6.3 "Cone Calorimeter testing," pp. 339-352 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme (Report EUR 16477 EN)*, Directorate-General Science, Research and Development (Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Babrauskas, V., Chapter A9 "Assessment of the Dietenberger Model," pp. 377-384 in Sundström, B., ed., *Fire Safety of Upholstered Furniture—The Final Report on the CBUF Research Programme (Report EUR 16477 EN)*, Directorate-General Science, Research and Development (Measurements and Testing), European Commission. Distributed by Interscience Communications Ltd, London (1995).

*Peacock, R. D., Reneke, P. A., Jones, W. W., Bukowski, R. W., and Babrauskas, V., New Concepts for Fire Protection of Passenger Rail Transportation Vehicles, *Fire and Materials* **19**, 71-87 (1995).

*Babrauskas, V., Flame Fluxes in Opposed-flow Flame Spread: A Review of the Literature (SP Report 1995:06), Swedish National Testing and Research Institute, Borås (1995).

Fire Models Developed during the EEC Research Programme CBUF, *Seminario Internazionale "La tossicità degli effluenti dell'incendio: stato dell'arte delle tecniche di valutazione e prospettive nella normativa di prevenzione,"* La Direzione Generale della Protezione Civile e dei Servizi Antincendi, Ministero dell'Interno, Rome (1995).

Babrauskas, V., Book Review: Fire Safety Design and Concrete (by T. Z. Harmathy), *Fire Safety J.* **23**, 439-442 (1994). Published 1995.

Babrauskas, V., Toxic Fire Hazard Comparison of Pipe Insulations: The Realism of Full-scale Testing Contrasted with Assessments from Bench-scale Toxic Potency Data Alone, pp. 439-452 in *Asiaflam '95*, Interscience Communications Ltd, London (1995).

Babrauskas, V., Letter to the Editor: Comments on Heat Release Rate, *Fire Technology* **30**, 478-9 (1994).

*Babrauskas, V., Describing Product Fire Performance—Manufacturers' Needs versus Modelers' Needs, *Fire and Materials* **18**, 289-296 (1994).

Grayson, S. J., Babrauskas, V., and Hirschler, M. M., A New International Standard for Flammability Testing, *Plastics Engineering* **50**:4, 29-31 (Apr. 1994).

Babrauskas, V., and Wetterlund, I., The Role of Flame Flux in Opposed-flow Flame Spread, pp. 75-87 in *Proc. Fire and Materials, 3rd Intl. Conf.* Interscience Communications Ltd, London (1994).

Mulholland, G., Babrauskas, V., Parker, W. J., and Twilley, W. H., The Phi-meter: A Fuel-independent Instrument for Monitoring Combustion Equivalence Ratio, pp. 159-160 in *Annual Conference of Fire Research (NISTIR 5499)*, S. B. Smith, ed. Natl. Inst. Stand. and Technol., Gaithersburg MD D (1994).

*Babrauskas, V., and Wetterlund, I., Optimising Foil Thickness for Cone Calorimeter Tests of Furniture Composites, *Fire Safety J.* **22**, 417-422 (1994).

*Grayson, S. J., Babrauskas, V., and Hirschler, M. M., New International Standard will Have Major Impact on Japanese Plastics Standards, *J. Japanese Assn. for Fire Science and Technology* **44**, No. 3 (whole number 210), 6-10 (May/June 1994). Text is in Japanese.

*Babrauskas, V., and Thureson, P., Short Communication: Drying Agents' Effects on CO₂ Readings, *Fire and Materials* **18**, 261-2 (1994).

- *Babrauskas, V., Parker, W. J., Mulholland, G., and Twilley, W. H., The Phi-meter: A Simple, Fuel-independent Instrument for Monitoring Combustion Equivalence Ratio, *Rev. Scientific Instruments* **65**, 2367-2375 (1994).
- *Gann, R. G., Babrauskas, V., Peacock, R. D., and Hall, J. R., jr., Fire Conditions for Smoke Toxicity Measurement, *Fire and Materials* **18**, 193-199 (1994).
- *Bukowski, R. W., and Babrauskas, V., Developing Rational, Performance-based Fire Safety Requirements in Model Building Codes, *Fire and Materials* **18**, 173-191 (1994).
- Grayson, S. J., Babrauskas, V., and Hirschler, M. M., A New International Standard for Flammability Testing, *Plastics Engineering* **50**, 29-31 (April 1994).
- *Babrauskas, V., Bench-Scale Predictions of Mattress and Upholstered Chair Fires: Similarities and Differences, pp. 50-62 in *Fire and Flammability of Furnishings* (ASTM STP 1233), American Society for Testing and Materials, Philadelphia (1994).
- *Babrauskas, V., and Wetterlund, I., Fire Testing of Furniture in the Cone Calorimeter—The CBUF Test Protocol (SP Report 1994:32), SP Swedish National Testing and Research Institute, Borås (1994).
- Babrauskas, V., Toxic Fire Hazards: Control by Limiting Toxic Potency or Control by Limiting Burning Rate?, pp. 239-250 in *Flame Retardants '94*, Interscience Communications Ltd., London (1994).
- *Peacock, R. D., Bukowski, R. W., Jones, W. W., Reneke, P. A., Babrauskas, V., and Brown, J. E., Fire Safety of Passenger Trains: A Review of Current Approaches and of New Concepts (NIST Tech. Note 1406), Natl. Inst. Stand. and Technol., Gaithersburg MD (1994).
- *Peacock, R. D., Bukowski, R. W., Jones, W. W., Reneke, P. A., Babrauskas, V., and Brown, J. E., Fire Safety of Passenger Trains: A Review of U. S. and Foreign Approaches (DOT/FRA/ORD-93/23, DOT-VNTSC-FRA-93-26), Federal Railroad Administration, U. S. Dept. of Transportation, Washington, DC (1993).
- *Babrauskas, V., and Wetterlund, I., Instructions for Cone Calorimeter Testing of Furniture Samples (Technical Note SP AR 1993:65), Swedish National Testing and Research Institute, Borås (1993).
- Bukowski, R., and Babrauskas, V., Plan for Rational Performance-Based Fire Safety Portions of a Model Building Code. Final report to American Forest & Paper Association (1993).
- Babrauskas, V., Describing Product Fire Performance—Manufacturers' Needs versus Modelers' Needs, pp. 13-26 in *Fire and Materials— 2nd Intl. Conf. and Exhibition*, Interscience Communications Ltd, London (1993).
- Babrauskas, V., Heat Release Rate in Fires, the Oxygen Consumption Principle, and the Cone Calorimeter, Building Research Institute, Taiwan (1993).
- Babrauskas, V., Ten Years of Heat Release Research with the Cone Calorimeter, pp. III-1 to III-8 in *Heat Release and Fire Hazard*, Vol. I, Y. Hasemi, ed., Building Research Institute, Tsukuba, Japan (1993).
- *Babrauskas, V., Mattress and Upholstered Chair Fires—Similarities and Differences (NISTIR 5152), Natl. Inst. Stand. and Technol., Gaithersburg MD (1993).
- Babrauskas, V., Specimen Heat Fluxes for Bench-scale Heat Release Rate Testing, pp. 57-74 in *Interflam '93*, Interscience Communications Ltd, London (1993).
- Snell, J. E., Babrauskas, V., and Fowell, A. J., Elements of a Framework for Fire Safety Engineering, pp. 447-456 in *Interflam '93*, Interscience Communications Ltd, London (1993).

- *Babrauskas, V., Toxic Hazard from Fires: A Simple Assessment Method, *Fire Safety J.* **20**, 1-14 (1993).
- Babrauskas, V., Book Review: Structural Fire Protection, *Fire Safety J.* **20**, 293-295 (1993).
- *Babrauskas, V., Twilley, W. H., and Parker, W. J., The Effects of Specimen Edge Conditions on Heat Release Rate, *Fire and Materials* **17**, 51-63 (1993).
- Babrauskas, V., Letter to the Editor on fire model survey, *J. Fire Protection Engineering* **5**, 35 (1993).
- Babrauskas, V., and Parker, W. J., Reaction to Fire of Upholstered Furniture: The Dominant Role of Heat Release Rate & Techniques for its Measurement, report to the European Commission, Brussels (1992).
- Babrauskas, V., Toxicity, Fire Hazard and Upholstered Furniture, pp. 125-133 in *3rd European Conf. on Furniture Flammability (EUCOFF)*, Brussels, Interscience Communications Ltd, London (1992).
- Gann, R. G., Babrauskas, V., Braun, E., Levin, B. C., Paabo, M., Harris, R. H., jr., Peacock, R. D., and Yusa, S., Toxicity Data for Fire Hazard Analysis, pp. 171-177 in *Proc. 12th Joint Panel Meeting of the UJNR Panel on Fire Research and Safety*, Building Research Institute, Tsukuba, Japan (1992).
- Kashiwagi, T., and Babrauskas, V., Progress Report on U. S. Research on Materials and Test Methods, pp. 242-254 in *Proc. 12th Joint Panel Meeting of the UJNR Panel on Fire Research and Safety*, Building Research Institute, Tsukuba, Japan (1992).
- *Babrauskas, V., Analysis of Barrier Material for Noncombustibility (Report FR 3989), Natl. Inst. Stand. and Technol., Gaithersburg MD (1992).
- *Babrauskas, V., Cone Calorimeter Annotated Bibliography 1982-1991 (Tech. Note 1296), Natl. Inst. Stand. and Technol., Gaithersburg MD (1992).
- Babrauskas, V., How Will Europe's Unified Standards Affect US Building Products? *NFPA J.* **86**, 45-49 (Sep. /Oct. 1992).
- *Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).
- *Babrauskas, V., From Bunsen Burner to Heat Release Rate Calorimeter, Chapter 2, pp. 7-29 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E& FN Spon, London (1992).
- *Babrauskas, V., The Cone Calorimeter, Chapter 4, pp. 61-91 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).
- *Babrauskas, V., Full-Scale Heat Release Rate Measurements, Chapter 5, pp. 93-111 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E. & F. N. Spon, London (1992).
- *Babrauskas, V., Simple Cases of Heat Release Rates, Part B, Pools. Chapter 7, pp. 201-206 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).
- *Babrauskas, V., Related Quantities, Part A, Heat of Combustion and Potential Heat, Chapter 8, pp. 207-223 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).
- *Babrauskas, V., Related Quantities, Part D, Gas Species Measurement, Chapter 8, pp. 251-5 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).
- *Babrauskas, V., Urbas, J., and Richardson, L., Related Quantities, Part E, Non-combustibility, Chapter 8, pp. 257-264 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

*Babrauskas, V., Effect of Environmental Variables, Chapter 10, pp. 307-325 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

*Babrauskas, V., Plastics, Part B, The Effect of FR Agents on Polymer Performance, Chapter 12, pp. 423-446 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

*Ames, S. A., Babrauskas, V., and Parker, W. J., Upholstered Furniture: Predictions by Correlations, Chapter 15, pp. 519-543 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

*Babrauskas, V., Aircraft Applications, Part C, Comparative Heat Release Rates for Aircraft Materials Measured in Different Apparatuses, Chapter 17, pp. 583-590 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

*Babrauskas, V., Handling Fire Data: The FDMS, Chapter 18, pp. 591-607 in Babrauskas, V., and Grayson, S. J., eds., **Heat Release in Fires**, E&FN Spon, London (1992).

Babrauskas, V., The Generation of CO in Bench-scale Fire Tests and the Prediction for Real-scale Fires, pp. 155-177 in *Proc. First Intl. Fire and Materials Conf.*, Interscience Communications Ltd, London (1992).

Babrauskas, V., Levin, B. C., Gann, R. G., Paabo, M., Harris, R. H. jr., Peacock, R. D., and Yusa, S., Measurement of Toxic Potency for Fire Hazard Analysis, pp. 436-437 Vol. 2, in *Poster Book, CIB World Building Congress*, Conseil International du Bâtiment, Montreal (1992).

*Levin, B. C., Gann, R. G., Babrauskas, V., Paabo, M., Harris, R. H. jr., Peacock, R. D., and Yusa, S., A New Approach for Toxic Potency Measurement for Fire Hazard Analysis, *The Toxicologist* **12**, 237 (Feb. 1992).

*Babrauskas, V., Twilley, W. H., Janssens, M., and Yusa, S., A Cone Calorimeter for Controlled-Atmospheres Studies, *Fire and Materials* **16**, 37-43 (1992).

*Babrauskas, V., and Peacock, R. D., Heat Release Rate: The Single Most Important Variable in Fire Hazard, *Fire Safety J.* **18**, 255-272 (1992).

*Babrauskas, V., Levin, B. C., Gann, R. G., Paabo, M., Harris, R. H. jr., Peacock, R. D., and Yusa, S., Toxic Potency Measurement for Fire Hazard Analysis, *Fire Technology* **28**, 163-167 (1992).

Babrauskas, V., Full-scale Three-storey House Burned in Japanese Test, *Fire & Flammability Bull.*, 7-8 (Feb. 1992).

*Babrauskas, V., Peacock, R. D., Braun, E., Bukowski, R. W., and Jones, W. W., Fire Performance of Wire and Cable: Reaction-to-fire Tests—A Critical Review of the Existing Methods and of New Concepts (Tech. Note 1291), Natl. Inst. Stand. and Technol., Gaithersburg MD (1991).

Babrauskas, V., Appendix A—Tables and Charts, pp. A-1 to A-18 in **Fire Protection Handbook**, 17th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1991).

Babrauskas, V., and Krasny, J. F., Section 3/Chapter 11, Upholstered Furniture and Mattresses, pp. 3-123 to 3-132 in **Fire Protection Handbook**, 17th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1991).

*Babrauskas, V., Levin, B. C., Gann, R. G., Paabo, M., Harris, R. H. jr., Peacock, R. D., and Yusa, S., Toxic Potency Measurement for Fire Hazard Analysis (Spec. Publ. 827), Natl. Inst. Stand. and Technol., Gaithersburg MD (1991).

Babrauskas, V., Urbas, J., and Richardson, L., Determining Non-combustibility through Heat Release Rate Measurement, pp. 11-12 in *Heat Release and Fire Hazard: First US Symp.*, San Diego, CA 1991, Interscience Communications Ltd, London (1991).

Babrauskas, V., Damant, G., and Nurbakhsh, S., Heat Release Rate Testing of Mattresses: Full-Scale Measurements and Bench-scale Predictions, pp. 61-63 in *Heat Release and Fire Hazard: First US Symp.*, San Diego, CA, 1991, Interscience Communications Ltd, London (1991).

Babrauskas, V., Book Review: Introduction to Mathematical Fire Modeling, *Fire & Flammability Bull.*, 9-10 (Oct. 1991).

Babrauskas, V., Levin, B. C., Gann, R. G., Paabo, M., Harris, R. H. jr., Peacock, R. D., and Yusa, S., Toxic Potency Measurement for Fire Hazard Analysis, pp. 151-155 in *Technical and Marketing Issues Impacting the Fire Safety of Electrical, Electronic and Composite Applications. Proc. FRCA Fall 1991 Meeting*, San Diego, CA, Fire Retardant Chemicals Assn., Lancaster PA (1991).

Babrauskas, V., 'Cone Calorimetry' by M. J. Scudamore, P. J. Briggs and F. H. Prager, Letter to the Editor, *Fire and Materials* **15**, 101-102 (1991).

*Harris, R. H. jr., Babrauskas, V., Levin, B. C., and Paabo, M., Data for Fire Hazard Assessment of Selected Non-halogenated and Halogenated Fire Retardants, Report of Test FR 3983 (NISTIR 4649), Natl. Inst. Stand. and Technol., Gaithersburg MD (1991).

Babrauskas, V., Letter to the Editor on paper by Hurd, *Cellular Polymers* **10**:5, 406-412 (1991).

*Villa, K. M. and Babrauskas, V., Cone Calorimeter Rate of Heat Release Measurements for Upholstered Composites of Polyurethane Foams (NISTIR 4652), Natl. Inst. Stand. and Technol., Gaithersburg MD (1991).

Babrauskas, V., North American Experiences in the Use of Cone Calorimeter Data for Classification of Products, pp. 89-103 in *Proc. Intl. EUREFIC Seminar 1991*, Interscience Communications, London (1991).

*Babrauskas, V., Harris, R. H., Jr., Braun, E., Levin, B. C., Paabo, M., and Gann, R. G., The Role of Bench-Scale Test Data in Assessing Full-Scale Fire Toxicity (NIST Tech. Note 1284), Natl. Inst. Stand. and Technol., Gaithersburg MD (1991).

Babrauskas, V., Letter to the Editor (upholstered furniture HRR), *Fire Technology* **27**, 369-370 (1991).

*Peacock, R. D., Davis, S., and Babrauskas, V., Data for Room Fire Model Comparisons, *J. Res. Natl. Inst. Stand. Technol.* **96**, 411-462 (1991).

*Peacock, R. D., and Babrauskas, V., Analysis of Large-Scale Fire Test Data, *Fire Safety J.* **17**, 387-414 (1991).

Mulholland, G., Janssens, M., Yusa, S., Twilley, W. H., and Babrauskas, V., The Effect of Oxygen Concentration on CO and Smoke Produced by Flames, pp. 585-594 in *Fire Safety Science—Proc. 3rd Intl. Symp.*, Elsevier Applied Science, London (1991).

Babrauskas, V., Introduction to Mathematical Fire Modeling (Book Review of book by David M. Birk), *Fire and Flammability Bulletin*, 9-10 (Oct. 1991).

*Babrauskas, V., Peacock, R. D., Janssens, M., and Batho, N. E., Standardizing the Exchange of Fire Data—The FDMS, *Fire and Materials* **15**, 85-92 (1991).

*Babrauskas, V., Effective Measurement Techniques for Heat, Smoke, and Toxic Fire Gases, *Fire Safety J.* **17**, 13-26 (1991).

Babrauskas, V., Development of a Bench Scale Flammability Test for Prison Mattresses, *16th Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1991).

Babrauskas, V., The Development of a Combustion Toxicity Test Protocol Using a Radiant Heat Apparatus, *16th Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1991).

*Babrauskas, V., Harris, R. H., Jr., Braun, E., Levin, B. C., Paabo, M., and Gann, R. G., Large-scale Validation of Bench-scale Fire Toxicity Tests, *J. Fire Sciences* **9**, 125-149 (1991). Reprinted in: *Advances in Combustion Toxicology* **3**, 309-332 (1992).

Babrauskas, V., and Peacock, R. D., Heat Release Rate: The Single Most Important Variable in Fire Hazard, pp. 67-80 in *Fire Safety Developments and Testing: Toxicity, Heat Release, Product Development, Combustion Corrosivity, Fall 1990 meeting*, Fire Retardant Chemicals Association, Lancaster PA (1990).

Babrauskas, V., The Fire Data Management System (FDMS), pp. 32-37 in Report of the Fourth CIB W14 Workshop on Fire Modeling; Conseil International du Bâtiment (CIB) Commission W14 on Fire (NISTIR 4338), J. G. Quintiere, ed. Natl. Inst. Stand. and Technol., Gaithersburg MD (1990).

Babrauskas, V., Cone Calorimeter Drawings, Nat. Inst. Stand. & Technol., Gaithersburg MD (1990).

Babrauskas, V., Harris, R. H., Jr., Braun, E., Levin, B. C., Paabo, M., and Gann, R. G., Large-scale Validation of Bench-scale Fire Toxicity Tests, pp. 3-12 in *Interflam '90: Fifth Intl. Fire Conf. Proc.*, London (1990).

Babrauskas, V., Modern Test Methods for Flammability, *Recent Advances in Flame Retardancy of Polymeric Materials*, Business Communications Co., Norwalk, CT (1990).

Babrauskas, V., Large-Scale Toxicity Correlations, pp. 80-85 in *11th Joint Meeting of the UJNR Panel on Fire Research and Safety* (NISTIR 4449), N. H. Jason and D. M. Cramer, eds. Natl. Inst. Stand. and Technol., Gaithersburg MD (1990).

*Ryan, J. D., Babrauskas, V., O'Neill, T. J., and Hirschler, M. M., Performance Testing for the Corrosivity of Smoke, pp. 75-88 in *Characterization and Toxicity of Smoke* (ASTM STP 1082), American Society for Testing and Materials, Philadelphia (1990).

Babrauskas, V., The Cone Calorimeter—A New Tool for Fire Safety Engineering, *ASTM Standardization News* **18**, 32-5 (January 1990).

*Babrauskas, V., Modern Test Methods for Flammability (NISTIR 4326), Natl. Inst. Stand. and Technol., Gaithersburg MD (1990).

Babrauskas, V., New Test Methods for Assessing Smoke, Toxic Products, Corrosive Products, and Heat Release in Fires, pp. 20-33 in *Flame Retardants '90*, The British Plastics Federation / Elsevier Applied Science, London (1990).

Babrauskas, V., Observations on the Cone Calorimeter, Letter to the Editor, *Fire and Materials* **14**, 163-164 (1989).

*Babrauskas, V., Flammability of Upholstered Furniture with Flaming Sources, *Cellular Polymers* **8**, 198-224 (1989).

Babrauskas, V., The Fire Data Management System (FDMS), pp. 1-5 in *Intl. Conf. on Fires in Buildings*, Toronto, Interscience Communications Ltd, London (1989).

*Babrauskas, V., Smoke and Gas Evolution Rate Measurements on Fire-retarded Plastics with the Cone Calorimeter, *Fire Safety J.* **14**, 135-142 (1989).

- Babrauskas, V., and Wickström, U. G., The Rational Development of Bench-Scale Fire Tests for Full-Scale Fire Prediction, pp. 813-822 in *Fire Safety Science—Proc. 2nd Intl. Symp.*, Hemisphere Publishing, New York (1989).
- Mulholland, G. M., Henzel, V., and Babrauskas, V., The Effect of Scale on Smoke Emission, pp. 347-357 in *Fire Safety Science— Proc. 2nd Intl. Symp.*, Hemisphere Publishing, New York (1989).
- Babrauskas, V., Toxic Hazard from Fires: A Simple Assessment Method, pp. 16.1 to 16.10 in *Fire: Control the Heat. . . Reduce the Hazard*, QMC Fire & Materials Centre, London (1988).
- Babrauskas, V., Effective Measurement Techniques for Heat, Smoke, and Toxic Fire Gases, pp. 4.1 to 4.10 in *Fire: Control the Heat. . . Reduce the Hazard*, QMC Fire & Materials Centre, London (1988).
- *Babrauskas, V., Harris, R. H., Jr., Gann, R. G., Levin, B. C., Lee, B. T., Peacock, R. D., Paabo, M., Twilley, W., Yoklavich, M. F., and Clark, H. M., Fire Hazard Comparison of Fire-Retarded and Non-Fire-Retarded Products (Spec. Publ. SP 749), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1988).
- *Twilley, W. H., and Babrauskas, V., User's Guide for the Cone Calorimeter (Spec. Publ. SP 745), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1988).
- Mulholland, G. M., Henzel, V., and Babrauskas, V., The Effect of Scale on Smoke Emission, pp. 132-134 in *10th Joint Panel Meeting UJNR*, Building Research Institute, Tsukuba, Japan (1988).
- Gann, R. G., and Babrauskas, V., Comparative Fire Hazards of Fire-Retarded and Non-Retarded Products, pp. 169-172 in *Dynamics of Current Developments in Fire Safety of Polymers*, Joint Meeting of Polymer Modifiers and Additives Div., Society of Plastics Engineers and The Fire Retardant Chemicals Assn., Lancaster PA (1988).
- *Babrauskas, V., Burning Rates, pp. 2-1 to 2-15 in **The SFPE Handbook of Fire Protection Engineering**, Society of Fire Protection Engineers, Boston (1988).
- *Mulholland, G. W., Henzel, V., and Babrauskas, V., Effect of Radiant Flux on Smoke Emission, pp. 100-110 in *9th Joint Panel Meeting of the UJNR Panel on Fire Research and Safety* (NBSIR 88-3753), N. H. Jason and B. A. Houston, eds. [U. S.] Natl. Bur. Stand., Gaithersburg MD (1988).
- Villa, K. M. and Babrauskas, V., Cone Calorimeter Rate of Heat Release Measurements for Upholstered Composites of Polyurethane Foams, pp. 115-6 in *13th Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1988).
- Ryan, J. D., Babrauskas, V., O'Neill, T. J., and Hirschler, M. M., Performance Testing for the Corrosivity of Smoke, pp. 156-168 in *Dynamics of Current Developments in Fire Safety of Polymers—New Products—Compounding—Research Test Developments—Hazard Assessment*, Joint Meeting Society of Plastics Engineers and Fire Retardant Chemicals Assn., Lancaster PA (1988).
- *Babrauskas, V., and Mulholland, G., Smoke and Soot Data Determinations in the Cone Calorimeter, pp. 83-104 in *Mathematical Modeling of Fires* (ASTM STP 983), American Society for Testing and Materials, Philadelphia (1987).
- Babrauskas, V., On the Rate of Heat Release in the Cone Calorimeter, Letter to the Editor, *Fire and Materials* **11**, 205 (1987).
- Nyden, M. R., and Babrauskas, V., Use of FTIR Spectroscopy for Multi-Component Quantization in Combustion Technology, pp. 107-1 to 107-4 in 1987 Combined Technical Meetings: Eastern Section, the Combustion Institute, and The Center for Fire Research Annual Conference on Fire Research, Gaithersburg, MD (1987).

*Bukowski, R. W., Jones, W. W., Levin, B. M., Forney, C. L., Stiefel, S. W., Babrauskas, V., Braun, E., and Fowell, A. J., HAZARD I, Volume 1, Fire Hazard Assessment Method (Report NBSIR 87-3602), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1987).

Babrauskas, V., Smoke and Gas Evolution Rate Measurements on Plastics with the Cone Calorimeter, pp. 20-1 to 20-10 in *Flame Retardants '87* Conference, The Plastics and Rubber Institute, London (1987).

Babrauskas, V., Use of the Cone Calorimeter for Smoke Production Measurements, pp. 41-64 in *Technical Papers, Regional Technical Conference, 'PVC: The issues,'* Society of Plastics Engineers, Inc. (1987).

Babrauskas, V., Fire-Related Standards and Testing, pp. 31-41 and 119-130 in *Spacecraft Fire Safety* (NASA Conference Publication 2476), NASA Lewis Research Center, Cleveland OH (1987).

Babrauskas, V., The Cone Calorimeter—A Versatile Bench-Scale Tool for the Evaluation of Fire Properties, pp. 78-87 in **New Technology to Reduce Fire Losses & Costs**, S. J. Grayson and D. A. Smith, eds., E&FN Spon, London (1986).

*Babrauskas, V., and Parker, W. J., Ignitability Measurements with the Cone Calorimeter, *Fire and Materials* **11**, 31-43 (1987).

Babrauskas, V., Levin, B. C., and Gann, R. G., A New Approach to Fire Toxicity Data for Hazard Evaluation, *Fire J.* **81**, 22-23, 27-28, 70 (March/April 1987).

Babrauskas, V., Chapter 5. 11 Fire Hazards of Materials—Tables and Charts, pp. 5-117 to 5-133 in **Fire Protection Handbook**, 16th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1986).

Babrauskas, V., and Krasny, J. F., Chapter 12. 15, Special Fire Protection and Prevention Problems—Upholstered Furniture and Mattresses, pp. 12-120 to 12-128 in **Fire Protection Handbook**, 16th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1986).

Babrauskas, V., Chapter 21. 5, Fire Modeling and Analysis—Room Fire Temperature Computations, pp. 21-31 to 21-35 in **Fire Protection Handbook**, 16th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1986).

Babrauskas, V., Chapter 21.6, Fire Modeling and Analysis—Pool Fires: Burning Rates and Heat Fluxes, pp. 21-36 to 21-42 in **Fire Protection Handbook**, 16th ed., A. E. Cote and J. L. Linville, eds., National Fire Protection Assn., Quincy MA (1986).

*Babrauskas, V., and Parker, W. J., Ignitability Measurements with the Cone Calorimeter (Report NBSIR 86-3445), [U. S.] Natl. Bur. Stand. (1986).

*Peacock, R. D., Babrauskas, V., and King, G. L., Fire Behavior of Four Upholstered Chairs Submitted by The Society of the Plastics Industry, Inc. (Report FR 3965), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1986).

Babrauskas, V., Levin, B. C., and Gann, R. G., A New Approach to Fire Toxicity Data for Hazard Evaluation, *ASTM Standardization News* **14**, 28-33 (Sept. 1986).

*Babrauskas, V., and Walton, W. D., A Simplified Characterization for Upholstered Furniture Heat Release Rates, *Fire Safety J.* **11**, 181-192 (1986).

*Babrauskas, V., Free Burning Fires, *Fire Safety J.* **11**, 33-51 (1986).

*Babrauskas, V., Comparative Rates of Heat Release from Five Different Types of Test Apparatuses, *J. Fire Sciences* **4**, 148-159 (1986).

- *Levin, B. C., Babrauskas, V., Braun, E., Gurman, J., and Paabo, M., An Exploration of Combustion Limitations and Alternatives to the NBS Toxicity Test Method (NBSIR 85-3274), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1985).
- *Babrauskas, V., Report of Test on Fire Behavior of Three Mattresses Submitted by Owens-Corning Fiberglas (Report No. FR 3959), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1985).
- *Babrauskas, V., and Krasny, J. F., Fire Behavior of Upholstered Furniture (NBS Monograph 173), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1985).
- *Quintiere, J. G., Babrauskas, V., Cooper, L., Harkleroad, M., Steckler, K., and Tewarson, A., The Role of Aircraft Panel Materials in Cabin Fires and Their Properties (DOT/FAA/CT-84/30), Federal Aviation Administration, Atlantic City Airport NJ (1985).
- Babrauskas, V., Smoke Measurement Results from the Cone Calorimeter, pp. 420-434, *Proc. 8th Joint Panel Meeting UJNR Panel on Fire Research and Safety*, Building Research Institute, Tsukuba, Japan (1985).
- *Babrauskas, V., and Krasny, J. F., Prediction of Upholstered Chair Heat Release Rates from Bench-Scale Measurements, pp. 268-284 in *Fire Safety Science and Engineering* (ASTM STP882), T. Z. Harmathy, ed., ASTM, Philadelphia (1985).
- Babrauskas, V., Smoke Measurements on Upholstered Furniture Using the Cone Calorimeter, *10th Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1985).
- Babrauskas, V., Fire Engineering Test Development: Bench-Scale Tests to Predict Full-Scale Behavior, pp. 369-392 in *7th Joint Panel Meeting of the UJNR Panel on Fire Research and Safety*, October 24-28, 1983 (NBSIR 85-3118), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1985).
- *Babrauskas, V., Pillow Burning Rates, *Fire Safety J.* **8**, 199-200 (1984/85).
- *Babrauskas, V., Bench-Scale Methods for Prediction of Full-Scale Fire Behavior of Furnishings and Wall Linings (SFPE Technical Report 84-10), Society of Fire Protection Engineers, Boston (1984).
- *Babrauskas, V., Upholstered Furniture Room Fires—Measurements, Comparison with Furniture Calorimeter Data, and Flashover Predictions, *J. Fire Sciences* **2**, 5-19 (1984).
- *Krasny, J. F., and Babrauskas, V., Burning Behavior of Upholstered Furniture Mockups, *J. Fire Sciences* **2**, 205-235 (May/June 1984).
- Babrauskas, V., Upholstered Furniture Heat Release Rate Estimates from Bench-Scale Measurements, *Ninth Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1984).
- *Babrauskas, V., Development of the Cone Calorimeter—A Bench Scale Heat Release Rate Apparatus Based on Oxygen Consumption, *Fire and Materials* **8**, 81-95 (1984).
- *Babrauskas, V., Upholstered Furniture Heat Release Rates: Measurements and Estimation, *J. Fire Sciences* **1**, 9-32 (1983).
- Babrauskas, V., Heat Release Rate Measurements with the Cone Calorimeter, *1983 Center for Fire Research Annual Conference on Fire Research Honoring Professor Howard Emmons*, [U. S.] Natl. Bur. Stand., Gaithersburg MD (1983).
- *Babrauskas, V., Estimating Large Pool Fire Burning Rates, *Fire Technology* **19**, 251-261 (1983).

Babrauskas, V., Recent Upholstered Furniture Burning Studies in Full and Bench Scale, pp. 38-40 in *8th Intl. Conf. on Fire Safety*, Product Safety Corp., Millbrae CA (1983).

*Babrauskas, V., Development of the Cone Calorimeter—A Bench-Scale Heat Release Rate Apparatus Based on Oxygen Consumption (NBSIR 82-2611), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1982).

*Babrauskas, V., Lawson, J. R., Walton, W. D., and Twilley, W. H., Upholstered Furniture Heat Release Rates Measured with a Furniture Calorimeter (NBSIR 82-2604), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1982).

*Babrauskas, V., Performance of the Ohio State University Rate of Heat Release Apparatus Using Polymethylmethacrylate and Gaseous Fuels, *Fire Safety J.* **5**, 9-20 (1982).

Krasny, J., Babrauskas, V., Dipert, R., and Twilley, W., Flame Spread Characteristics of Upholstered Substrates: Full-Scale and Bench-Scale Apparatus Results, Report for CPSC, [U. S.] Natl. Bur. Stand., Gaithersburg MD (1982).

Babrauskas, V., Progress Report for FY 82. Task: Flame Spread Test Development, Report for CPSC, [U. S.] Natl. Bur. Stand., Gaithersburg MD (1982).

*Babrauskas, V., Will the Second Item Ignite? *Fire Safety J.* **4**, 281-292 (1981/82). Also issued as report NBSIR 81-2271.

Babrauskas, V., A Laboratory Flammability Test for Institutional Mattresses, *Fire J.* **75**:6, 35-40, 93 (Nov. 1981).

*Babrauskas, V., A Closed-Form Approximation for Post-Flashover Compartment Fire Temperatures, *Fire Safety J.* **4**, 63-73 (1981).

*Babrauskas, V., Applications of Predictive Smoke Measurements, *J. Fire and Flammability* **12**, 51-64 (1981).

Babrauskas, V., Report for the Period Ending September 30, 1981. Project #154. Plastics Flammability Research, Report for CPSC, [U. S.] Natl. Bur. Stand., Gaithersburg MD (1981).

Babrauskas, V., Combustion of Mattresses Exposed to Flaming Ignition Sources, Part II. Bench-Scale Tests and Recommended Standard Test (NBSIR 80-2186), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1981).

*Babrauskas, V., Estimating Room Flashover Potential, *Fire Technology* **16**, 94-103, 112 (1980).

*Babrauskas, V., Flame Lengths Under Ceilings, *Fire and Materials* **4**, 119-126 (1980).

Babrauskas, V., Readers' Forum (Letter on ASTM E 162 test), *Fire Technology* **16**, 237-238 (1980).

Babrauskas, V., Fire Tests and Hazard Analysis of Upholstered Chairs, *Fire J.* **74**, 35-39 (March 1980).

*Williamson, [R.] B., Grant, C., Zicherman, J., Fisher, F., Hasegawa, H., Spate, H., Watson, H., Babrauskas, V., and Konrad, N., Rehabilitation Guidelines 1980, No. 8: Guideline on Fire Ratings of Archaic Materials and Assemblies, Office of Policy Development and Research, U. S. Dept. of Housing and Urban Development, Washington (1980).

*Babrauskas, V., Full-Scale Burning Behavior of Upholstered Chairs (Tech Note 1103), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1979).

*Babrauskas, V., COMPF2—A Program for Calculating Post-Flashover Fire Temperatures (Tech Note 991), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1979).

vBabrauskas, V., and Wickström, U. G., Thermoplastic Pool Compartment Fires, *Combustion and Flame* **34**, 195-201 (1979).

*Babrauskas, V., and Williamson, R. B., Post-Flashover Compartment Fires—Application of a Theoretical Model, *Fire and Materials* **3**, 1-7 (1979).

*Babrauskas, V., and Williamson, R. B., Post-Flashover Compartment Fires: Basis of a Theoretical Model, *Fire and Materials* **2**, 39-53 (1978).

*Tu, K-M., and Babrauskas, V., The Calibration of a Burn Room for Fire Tests on Furnishings (Tech Note 981), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1978).

*Babrauskas, V., and Williamson, R. B., Temperature Measurement in Fire Test Furnaces, *Fire Technology* **14**, 226-238 (August 1978).

*Babrauskas, V., and Williamson, R. B., The Historical Basis of Fire Resistance Testing, Part I, *Fire Technology* **14**, 184-194, 205 (August 1978).

*Babrauskas, V., and Williamson, R. B., The Historical Basis of Fire Resistance Testing, Part II, *Fire Technology* **14**, 304-316 (November 1978).

Babrauskas, V., Mattress Flammability Testing—Full-Scale and Bench-Scale Results, 1978 Fall Meeting, Combustion Institute, Western States Section, Laguna Beach CA (1978).

Babrauskas, V., Report of Test on Fire Behavior of Three Neoprene Mattresses Submitted by the U.S. Coast Guard (Report No. FR 3939), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1977)

Babrauskas, V., Combustion of Mattresses Exposed to Flaming Ignition Sources, Part I. Full-Scale Tests and Hazard Analysis (NBSIR 77-1290), [U. S.] Natl. Bur. Stand., Gaithersburg MD (1977).

Fisher, F. L., Dreamer, R. B., Hasegawa, H., Babrauskas, V., and Williamson, R. B., Study of Potential Post-Flashover Fires in Wheeler Hall and the Results from a Full Scale Fire Test of a Modified Wheeler Hall Door Assembly (Report UCX 77-3, UCX-2480), Fire Research Group, Univ. California, Berkeley (1977).

*Babrauskas, V., Fire Endurance in Buildings (Ph.D. dissertation), Univ. California, Berkeley (1976).

Babrauskas, V., COMPF: A Program for Calculating Post-flashover Fire Temperatures (UCB FRG 75-2), Fire Research Group, Univ. California, Berkeley (1975).

Babrauskas, V., and Williamson, R. B., Post-Flashover Compartment Fires (Report UCB FRG 75-1), Fire Research Group, Univ. California, Berkeley (1975).

Babrauskas, V., Corrections to the E-119 Time-Temperature Curve (Report UCB FRG WP74-12), Fire Research Group, Univ. California, Berkeley (1974).

Babrauskas, V., Current Efforts in Post-Flashover Simulation (Report UCB FRG WP74-11), Fire Research Group, Univ. California, Berkeley (1974).

Babrauskas, V., Report of Fire, 14 July 1973, Bryant Manor, Operation Breakthrough, Seattle, Washington, Fire Research Group, Univ. California, Berkeley (1973).