

CURRICULUM VITAE

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Birth date: March 18, 1939

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EDUCATION

1961-1963	University of Montreal School of Medicine	Ph.D. Physiology 1963
1960-1961	University of Montreal School of Medicine	M.S. Physiology 1961
1956-1960	University of Montreal School of Pharmacy	B.S. 1960

APPOINTMENTS AND POSITIONS

1960-1963	University of Montreal School of Medicine Department of Physiology	Graduate Student Teaching Assistant
1963-1970	Hazelton Laboratories Falls Church, Virginia	Section Supervisor to Associate Director of Inhalation Division
1970-1975	University of Pittsburgh Graduate School of Public Health Department of Occupational Health Pittsburgh, Pennsylvania 15261	Associate Professor of Respiratory Physiology and Toxicology

1975-1978	University of Pittsburgh Graduate School of Public Health Department of Industrial and Environmental Health Sciences Pittsburgh, Pennsylvania 15261	Professor of Respiratory Physiology and Toxicology
1978-1990	University of Pittsburgh Graduate School of Public Health Department of Industrial Environmental Health Sciences Pittsburgh, Pennsylvania 15261	Department Chairman and Professor of Respiratory Physiology and Toxicology
1990-2002	University of Pittsburgh Graduate School of Public Health Department of Environmental and Occupational Health Pittsburgh, Pennsylvania 15238	Professor of Respiratory Physiology and Toxicology
2002-present	University of Pittsburgh	Professor Emeritus

MAJOR COURSES TAUGHT AT THE UNIVERSITY OF PITTSBURGH

Industrial Toxicology/Organ Systems Toxicology
Respiratory Physiology and Pathophysiology
Fate and Transport of Chemicals in the Environment

EMINENT TOXICOLOGIST LECTURE SERIES—SOCIETY OF TOXICOLY--2016

“QSARs to Commemorate the Fiftieth Anniversary of the RD50”

<http://www.toxicology.org/education/edu/eminent.asp>

HONORS

2004	Inhalation Section of Society of Toxicology: Career Award
2002	American Society for Testing and Materials (ASTM). Award of Appreciation
2000	Society of Toxicology: Enhancement of Animal Welfare Award
1993	Carpenter, Smyth and Weil Career Achievement Award. Allegheny-Erie Chapter of the Society of Toxicology
1991	Academy of Toxicological Sciences: Outstanding Achievement in Toxicology
1987	City of New York; University of Pittsburgh Method for Toxicity of Combustion Products
1986	State of New York; University of Pittsburgh Method for Toxicity of Combustion Products
1984	American Society for Testing and Materials; Standard Test Method for Sensory Irritancy of Airborne Chemicals, ASTM E981-84
1981	Frank Blood Award of the Society of Toxicology
1974 - 1978	Toxicology Study Section, National Institutes of Health
1973 - 1977	Committee on Toxicology National Research Council, National Academy of Sciences
1974	Frank Blood Award of the Society of Toxicology
1970-1973	Special Fellowship, National Institute of Environmental Health Sciences
1971	Society of Toxicology Achievement Award
1961	Lunsford Richardson Award
1960	Warner Lambert Award

PROFESSIONAL AND SCIENTIFIC SOCIETIES

1997	The QSAR and Modeling Society
1989	Fellow, Academy of Toxicological Sciences
1986	American Society for Testing and Materials
1984	National Fire Protection Association
1983	American Conference of Governmental Industrial Hygienists
1981	American Public Health Association
1980	Certification, American Board on Toxicology
1968	The Society of Toxicology
1964	American Association for the Advancement of Science

MAJOR RESEARCH AWARDS AT UNIVERSITY OF PITTSBURGH

NIEHS	Pneumotoxicity of Chemicals: 1980 to 1996
NBS	Toxicity of Plastic Combustion Products: 1974 to 1991
NIEHS	Respiratory Tract Irritants: Tolerance, Hypersensitivity: 1973 to 1977
NIOSH	Respiratory Tract Irritants: Mechanisms: 1973 to 1981
PRC	Screening Procedures to Evaluate Toxicity of Thermal Degradation Products from Cellular Materials: 1975 to 1979
MOBAY	Chemical Fellowship in Toxicology: 1977 to 1980
NIEHS	Special Fellowship: 1970-1974

REFEREED ARTICLES IN SCIENTIFIC JOURNALS

Alarie Y., Stone H. and Latour R. (1961) Influences of constricting and dilating micro-aerosols on "pressure-volume" curves of isolated atelectatic rats' lungs. *Arch. Intern. Pharmacodyn.* **133**, 470-480.

Rosenberg E., Alarie Y. and Robillard E. (1962) Effects of dust and aerosol inhalation on surface and tissue elasticity of rat lungs. *Can. J. Biochem. and Physiol.* **40**, 1359-1365.

Dautrebande L., Robillard E., Alarie Y. and Paganuzzi P. (1963) Influence of airborne, submicronic, inert particulates administered to guinea pigs prior to establishment of acute, total lung atelectasis immediately followed on the excised lungs by determination in vitro of "pressure volume" hysteresis curves. *Arch. Intern. Pharmacodyn.* **144**, 278-292.

Robillard E. and Alarie Y. (1963) Static volume-pressure relations in guinea pig lungs after inhalation of aluminum or iron oxide particles and bronchodilator aerosols. *Can. J. Biochem. and Physiol.* **41**, 461-468.

Robillard E. and Alarie Y. (1963) Mechanical properties and histamine and serotonin content of guinea pig lungs as influenced by microparticles inhalation. *Can. J. Biochem. and Physiol.* **41**, 2177-2182.

Robillard E. and Alarie Y. (1963) Pressure-volume curves in isolated atelectatic rat lungs after aluminum oxide microparticle inhalation. *Can. J. Biochem. and Physiol.* **41**, 1257-1265.

Alarie Y., Robillard E., Paganuzzi P. and Garand A. (1964) Modification of pressure-volume curves obtained in rat lungs after inhalation of surface-active substances and agents. *Rev. Can. Biol.* **23**, 141-149.

Robillard E., Alarie Y., Paganuzzi P. and Dautrebande L. (1964) Pressure-volume curves obtained on isolated atelectatic rats' lungs after short inhalation of various insoluble submicronic and submicroscopic particles. *Arch. Intern. Pharmacodyn.* **147**, 220-228.

Robillard E., Alarie Y., Dagenais-Perusse P., Baril E. and Guilbeault A. (1964) Microaerosol administration of synthetic - dipalmitoyl-L-lecithin in the respiratory distress syndrome: A preliminary report. *Can. Med. Assoc. J.* **90**, 55-57.

Alarie Y. (1966) Irritating properties of airborne materials to the upper respiratory tract. *Arch. Environ. Health* **13**, 433-449.

Banerjee C. M., Alarie Y. and Wollard M. (1968) Gas tensions in conscious monkeys. *Proc. Soc. Exptl. Biol. and Med.* **128**, 1183-1185.

Alarie Y., Ulrich C. E., Haddock R. H., Jennings H. J. and Davis E. F. (1970) Measurements of respiratory system flow resistance in cynomolgus monkeys and guinea pigs with digital computer techniques. *Arch. Environ. Health* **21**, 483-491.

Alarie Y., Ulrich C. E., Busey W. M., Swann H. E. and MacFarland H. N. (1970) Effects of long-term continuous exposure of guinea pigs to sulfur dioxide. *Arch. Environ. Health* **21**, 769-777.

Alarie Y., Krumm A., Haddock R. H. and Jennings H. J. (1971) Measurement of the distribution of ventilation in cynomolgus monkeys with real-time digital computerization. *Arch. Environ. Health* **22**, 633-642.

Alarie Y., Ulrich C. E., Haddock R. H. and Jennings H. J. (1971) Measurement of the mechanical properties of the lung in cynomolgus monkeys with digital computerization. *Arch. Environ. Health* **22**, 643-654.

Alarie Y., Ulrich C. E., Busey W. M., Krumm A. A. and MacFarland H. N. (1972) Effects of long-term continuous exposure to sulfur dioxide in cynomolgus monkeys. *Arch. Environ. Health* **24**, 115-128.

Echardt R. E., MacFarland H. N., Alarie Y. and Busey W. M. (1972) The biologic effect from long-term exposure of primates to carbon monoxide. *Arch. Environ. Health* **25**, 381-387.

Ulrich C. E., Haddock M. P. and Alarie Y. (1972) Airborne irritants and the role of the trigeminal nerve in respiratory rhythmicity. *Arch. Environ. Health* **24**, 37-42.

Alarie Y., Wakisaka I. and Oka S. (1973) Sensory irritation by sulfur dioxide and chlorobenzilidene malononitrile. *Environ. Physiol. Biochem.* **3**, 53-64.

Alarie Y. and Keller L. W. (1973) Sensory irritation by capsaicin. *Environ. Physiol. Biochem.* **3**, 169-181.

Alarie Y. (1973) Sensory irritation of the upper airways by airborne chemicals. *Toxicol. Appl. Pharmacol.* **24**, 279-297.

Alarie Y., Wakisaka I. and Oka S. (1973) Sensory irritation by sulfite aerosols. *Environ. Physiol. Biochem.* **3**, 182-184.

Alarie Y. (1973) Sensory irritation by airborne chemicals. *CRC Critical Reviews in Toxicology* **2**, 299-363.

Alarie Y., Busey W. M., Krumm A. A. and Ulrich C. E. (1973) Long-term continuous exposure to sulfuric acid mist in cynomolgus monkeys and guinea pigs. *Arch. Environ. Health* **27**, 16-24.

Alarie Y., Kantz R. J., Ulrich C. E., Krumm A. A. and Busey W. M. (1973) Long-term continuous exposure to sulfur dioxide and fly ash mixtures. *Arch. Environ. Health* **27**, 251-253.

Alarie Y., Lin C. K. and Geary D. L. (1974) Sensory irritation evoked by plastic decomposition products. *Am. Ind. Hyg. Assoc. J.* **35**, 654-661.

Alarie Y. (1975) Effects of chronic exposure to various pollutants on monkeys. *Progress in Biometeorology* **1**, Part 1.

Alarie Y., Barrow C., Choby M. A. and Quealy J. F. (1975) Pulmonary atelectasis following administration of halogenated hydrocarbons. *Toxicol. Appl. Pharmacol.* **31**, 233-242.

Alarie Y., Busey W. M., Ulrich C. E., Kantz R. J. and Krumm A. A. (1975) Long-term continuous exposure of cynomolgus monkeys and guinea pigs to sulfur dioxide, sulfuric acid mist, fly ash and their mixtures. *Arch. Environ. Health* **30**, 254.

Alarie Y., Wilson E., Civic T., Magill J., Funt J., Barrow C. and Frohlinger J. (1975) Sensory irritation by polyurethane decomposition products. *Journal of Fire and Flammability/Combustion Toxicology* **2**, 139-150.

Barrow C. S., Alarie Y. and Stock M. F. (1976) Sensory irritation evoked by the thermal decomposition products of plasticized polyvinyl chloride. *Fire and Materials* **1**, 147-153.

Barrow C., Alarie Y., Warrick J. and Stock M. (1977) A comparison of the sensory irritation response to chlorine and hydrogen chloride in mice. *Arch. Environ. Health* **32**, 68-76.

Kane L. and Alarie Y. (1977) Sensory irritation to formaldehyde and acrolein during single and repeated exposures in mice. *Am. Ind. Hyg. Assoc. J.* **38**, 509-522.

Anderson R. and Alarie Y. (1978) Screening procedures to recognize "supertoxic" decomposition products from polymeric materials under thermal stress. *J. Combustion Toxicol.* **5**, 54-63.

Anderson R. C. and Alarie Y. (1978) An attempt to translate toxicity of polymer thermal decomposition products into a toxicological hazard index and discussion on the approaches selected. *J. Combustion Toxicol.* **5**, 476-484.

Anderson R. C. and Alarie Y. (1978) Approaches to the evaluation of the toxicity of decomposition products of polymeric materials under thermal stress. *J. Combustion Toxicol.* **5**, 214-221.

Anderson R. C. and Alarie Y. (1978) Toxicological evaluation of thermal decomposition products of synthetic cellular materials. Part 1. *J. Combustion Toxicol.* **5**, 111-129.

Anderson R. C., Dierdorf J., Stock M. F., Matijak M., Sawin R. and Alarie Y. (1978) Use of experimental materials to assess the ability of toxicological testing schemes in rating the hazards of polymeric materials under thermal stress. *Fire and Materials* **2**, 136-140.

Barrow C. S., Alarie Y. and Stock M. F. (1978) Sensory irritation and incapacitation evoked by thermal decomposition products of polymers and comparisons with known sensory irritants. *Arch. Environ. Health* **33**, 79-88.

Kane L. and Alarie Y. (1978) Evaluation of sensory irritation from acrolein- formaldehyde mixtures. *Am. Ind. Hyg. Assoc. J.* **39**, 270-274.

Kane L. and Alarie Y. (1978) Sensory irritation of certain photochemical oxidants. *Arch. Environ. Health* **33**, 244-249.

Karol M. H., Ioset H. H., Riley J. and Alarie Y. (1978) Hapten-specific respiratory hypersensitivity in guinea pigs. *Am. Ind. Hyg. Assoc. J.* **39**, 546-556.

Karol M. H., Ioset H. H. and Alarie Y. (1978) Tollyl-specific antibodies in workers with hypersensitivity to toluene diisocyanate. *Am. Ind. Hyg. Assoc. J.* **39**, 454-458.

Lucia H., Barrow C. S., Stock M. F. and Alarie Y. (1978) A semi-quantitative method for assessing anatomic damage to the upper respiratory tract of the laboratory mouse. *J. Combustion Toxicol.* **4**, 472-486.

Lucia H. L., Burton A. K., Anderson R., Stock M. F. and Alarie Y. (1978) Renal damage in mice following exposure to the pyrolysis products of polytetrafluoroethylene. *J. Combustion Toxicol.* **5**, 270-277.

Sebata K., Magill J. and Alarie Y. (1978) Thermal stability and toxicity of polymers: polyphosphazenes. *J. Fire and Flammability* **9**, 50-70.

Alarie Y. and Anderson R. C. (1979) Toxicologic and acute lethality hazard evaluation of thermal decomposition products of synthetic and natural polymers. *Toxicol. Appl. Pharmacol.* **51**, 341-362.

Anderson R. C., Stock M. F., Sawin R. and Alarie Y. (1979) Toxicity of thermal decomposition products of urea formaldehyde and phenol formaldehyde foams. *Toxicol. Appl. Pharmacol.* **51**, 9-17.

Barrow C. S., Lucia H. and Alarie Y. (1979) A comparison of the acute inhalation toxicity of hydrogen chloride versus the thermal decomposition products of polyvinylchloride. *J. Combustion Toxicol.* **6**, 3-12.

Barrow C. S., Lucia H., Stock M. F. and Alarie Y. (1979) Development of methodologies to assess the relative hazards from thermal decomposition products of polymeric materials. *Am. Ind. Hyg. Assoc. J.* **40**, 408-423.

Conner M. K., Alarie Y. and Dombroske R. L. (1979) Sister chromatid exchange in murine alveolar macrophages, regenerating liver and bone marrow cells - A simultaneous multicellular in vivo assay. *Chromosoma, (Berl.)* **74**, 51-55.

Conner M. K., Alarie Y. and Dombroske R. L. (1979) Analysis of sister chromatid exchange frequencies in murine bone marrow and regenerating liver cells induced by inhaled styrene. *Toxicol. Appl. Pharmacol.* **50**, 365-367.

Kane L. E. and Alarie Y. (1979) Interactions of sulfur dioxide and acrolein as sensory irritants. *Toxicol. Appl. Pharmacol.* **48**, 305-311.

Kane L. E., Barrow C. S. and Alarie Y. (1979) A short-term test to predict acceptable levels of exposure to airborne sensory irritants. *Am. Ind. Hyg. Assoc. J.* **40**, 207-229.

Karol M. H., Sandberg T., Riley E. J. and Alarie Y. (1979) Longitudinal study of tolyl-reactive IgE antibodies in three workers hypersensitive to toluene diisocyanate (TDI). *J. Occ. Med.* **21**, 354-358.

Karol M. H., Riley E. J. and Alarie Y. (1979) Presence of tolyl-specific IgE and absence of IgG antibodies in workers exposed to toluene diisocyanates. *J. Env. Sci. Health Part C*, 221-232.

Karol M. H., Hauth B. A. and Alarie Y. (1979) Pulmonary hypersensitivity to hexyl isocyanate-ovalbumin in guinea pigs. *Toxicol. Appl. Pharmacol.* **51**, 73-80.

Karol M. H., Ioset H. H. and Alarie Y. (1979) Effect of coal dust inhalation on pulmonary immunologic responses. *Am. Ind. Hyg. Assoc. J.* **40**, 283-290.

Sangha G. K. and Alarie Y. (1979) Sensory irritation by toluene diisocyanate in single and repeated exposures. *Toxicol. Appl. Pharmacol.* **50**, 533-547.

Conner M. K., Alarie Y. and Dombroske R. L. (1980) Sister chromatid exchange in murine alveolar macrophages, bone marrow and regenerating liver cells induced by styrene inhalation. *Toxicol. Appl. Pharmacol.* **55**, 37-42.

Kane L. E., Dombroske R. and Alarie Y. (1980) Evaluation of sensory irritation from some common industrial solvents. *Am. Ind. Hyg. Assoc. J.* **41**, 451-455.

Karol M. H. and Alarie Y. (1980) Antigens which detect IgE antibodies in workers sensitive to toluene diisocyanate. *Clin. Allergy* **10**, 101-109.

Karol M. H., Dixon C., Brady M. and Alarie Y. (1980) Immunologic sensitization and pulmonary hypersensitivity by repeated inhalation of aromatic isocyanates. *Toxicol. Appl. Pharmacol.* **53**, 260-270.

Lieu P. J., Magill J. H. and Alarie Y. C. (1980) Toxicity and thermal properties of polyphosphazenes. *J. Fire and Flammability* **11**, 168-183.

Alarie Y., Anderson R. C., Stock M. F., Dombroske R. L., Keller L. W., Hayduk L. W. and Park R. E. (1981) Toxicity of thermal decomposition products; an attempt to correlate results obtained in small scale and large scale tests. *J. Combustion Toxicol.* **8**, 58-68.

Alarie Y. (1981) A bioassay to evaluate the potency of airborne sensory irritants and predict acceptable levels of exposure in man. *Fd. Cosmet. Toxicol.* **19**, 623-626.

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Cheng M., Conner M. K. and Alarie Y. (1981) Multicellular in vivo sister chromatid exchanges induced by urethane. *Mut. Res.* **88**, 223-231.

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Karol M. H., Stadler J., Underhill D. and Alarie Y. (1981) Monitoring delayed-onset pulmonary hypersensitivity in guinea pigs. *Toxicol. Appl. Pharmacol.* **61**, 277-285.

Lieu P. J., Magill J. H. and Alarie Y. (1981) Flammability-toxic ratings of some polyphosphazene and polyurethane foams. *J. Combustion Toxicol.* **8**, 242-259.

Sangha G. K., Matijak M. and Alarie Y. (1981) Comparison of some mono and diisocyanates as sensory irritants. *Toxicol. Appl. Pharmacol.* **57**, 241-246.

Sangha G. K., Matijak M. and Alarie Y. (1981) Toxicologic evaluation of thermoplastic resins at and above processing temperatures. *Am. Ind. Hyg. Assoc. J.* **42**, 481-485.

Brown W. E., Green A. H., Karol M. H. and Alarie Y. (1982) Inhibition of cholinesterase activity by isocyanates. *Toxicol. Appl. Pharmacol.* **63**, 45-52.

Lieu P. J., Magill J. H. and Alarie Y. (1982) An evaluation of some polyphosphazenes and commercial fire retardants for wood. *J. Combustion Toxicol.* **9**, 65-75.

Matijak-Schaper M. and Alarie Y. (1982) Toxicity of carbon monoxide, hydrogen cyanide and low oxygen. *J. Combustion Toxicol.* **9**, 21-61.

Nielsen G. D. and Alarie Y. (1982) Sensory irritation, pulmonary irritation and respiratory stimulation by airborne benzene and alkylbenzenes. Prediction of safe industrial exposure levels and correlation with their thermodynamic properties. *Toxicol. Appl. Pharmacol.* **65**, 459-477.

Weyel D. A., Rodney B. S. and Alarie Y. (1982) Sensory irritation, pulmonary irritation and acute lethality of a polymeric isocyanate and sensory irritation of 2,6 toluene diisocyanate. *Toxicol. Appl. Pharmacol.* **64**, 423-430.

Wong K. L. and Alarie Y. (1982) A method for repeated evaluation of pulmonary performance in unanesthetized, unrestrained guinea pigs and its application to detect effects of sulfuric acid mist. *Toxicol. Appl. Pharmacol.* **63**, 72-90.

Zelenak J. P., Alarie Y. and Weyel D. A. (1982) Assessment of the cough reflex caused by inhalation of sodium lauryl sulfate and citric acid aerosols. *Fundam. Appl. Toxicol.* **2**, 177-180.

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Matijak-Schaper M., Wong K. L. and Alarie Y. (1983) A method to rapidly evaluate the acute pulmonary effects of aerosols in unanesthetized guinea pigs. *Toxicol. Appl. Pharmacol.* **69**, 451-460.

Valentini J. E., Wong K. L. and Alarie Y. (1983) Single tracer techniques to evaluate pulmonary edema and its application to detect the effect of hexamethylene diisocyanate trimer aerosol exposures. *Toxicol. Appl. Pharmacol.* **69**, 461-470.

Wong K. L., Stock M. F. and Alarie Y. (1983) Evaluation of the pulmonary toxicity of plasticized polyvinylchloride thermal decomposition products in guinea pigs by repeated CO₂ challenges. *Toxicol. Appl. Pharmacol.* **70**, 236-248.

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Weyel D. A., Ellakkani M., Alarie Y. and Karol M. (1984) An aerosol generator for the resuspension of cotton dust. *Toxicol. Appl. Pharmacol.* **76**, 544-547.

- Wong K. L., Stock M. F., Malek D. E. and Alarie Y. (1984) Evaluation of pulmonary effects of wood smoke in guinea pigs by repeated CO₂ challenges. *Toxicol. Appl. Pharmacol.* **75**, 69-80.
- Burleigh-Flayer H., Wong K. L. and Alarie Y. (1985) Evaluation of pulmonary effects of HCl using CO₂ challenges in guinea pigs. *Fund. Appl. Toxicol.* **5**, 978-985.
- Ellakkani M. A., Alarie Y. C., Weyel D. A. and Karol M. H. (1985) Concentration-dependent respiratory response of guinea pigs to a single exposure to cotton dust. *Toxicol. Appl. Pharmacol.* **80**, 357-366.
- Schaper M. and Alarie Y. (1985) The effects of aerosols of carbamylcholine, serotonin and propranolol on the ventilatory response to CO₂ in guinea pigs and comparison with the effects of histamine and sulfuric acid. *Acta Pharmacol. et Toxicol.* **56**, 244-249.
- Schaper M., Thompson R. and Alarie Y. (1985) A method to classify airborne chemicals which alter the normal ventilatory response induced by CO₂. *Toxicol. Appl. Pharmacol.* **79**, 332-341.
- Wong K. L., Karol M. H. and Alarie Y. (1985) Use of repeated CO₂ challenges to evaluate the pulmonary performance of guinea pigs exposed to toluene diisocyanate. *J. Toxicol. Env. Hlth.* **15**, 137-148.
- Ferguson J. S., Schaper M., Stock M. F., Weyel D. A. and Alarie Y. (1986) Sensory and pulmonary irritation with exposure to methyl isocyanate. *Toxicol. Appl. Pharmacol.* **82**, 329-335.
- Alarie Y., Ferguson J. S., Stock M. F., Weyel D. A. and Schaper M. (1987) Sensory and pulmonary irritation of methyl isocyanate in mice and pulmonary irritation and possible cyanide-like effects of methyl isocyanate in guinea pigs. *Environ. Health Perspect.* **72**, 159-167.
- Burleigh-Flayer H. and Alarie Y. (1987) Concentration-dependent respiratory response of guinea pigs to paraquat aerosol. *Arch. Toxicol.* **59**, 391-396.
- Conner M. K., Rubinson H. F., Ferguson J. S., Stock M. F. and Alarie Y. (1987) Evaluation of sister chromatid exchange and cytotoxicity in murine tissue in vivo and lymphocytes in vitro following methyl isocyanate exposure. *Environ. Health Perspect.* **72**, 177-182.
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- Ferguson J. S., Schaper M. and Alarie Y. (1987) Pulmonary effects of a polyisocyanate aerosol: hexamethylene diisocyanate trimer (HDI_t) or Desmodur- N (DES-N). *Toxicol. Appl. Pharmacol.* **89**, 332-346.
- Kennah H. E., Stock M. F. and Alarie Y. (1987) Toxicity of thermal decomposition products from composites. *J. Fire Sciences* **5**, 3-16.

- Malek D. E., Stock M. F. and Alarie Y. (1987) Escape performance under intoxicating atmospheres. *Fund. Appl. Toxicol.* **8**, 335-345.
- Varma D. R., Ferguson J. S. and Alarie Y. (1987) Reproductive toxicity of methyl isocyanate in mice. *J. Toxicol. Environ. Health* **21**, 265-275.
- Alarie Y. and Stock M. F. (1988) Arterial blood gas measurements in guinea pigs and inspired CO₂ concentration for ventilatory performance challenges. *Fund. Appl. Toxicol.* **11**, 268-276.
- Burleigh-Flayer H. and Alarie Y. (1988) Pulmonary effects of repeated exposures to paraquat aerosol in guinea pigs. *Fund. Appl. Toxicol.* **10**, 717-729.
- Esposito F. M. and Alarie Y. (1988) Inhalation toxicity of carbon monoxide and hydrogen cyanide gases released during thermal decomposition of polymers. *J. Fire Sciences* **6**, 195-241.
- Ferguson J. S., Kennedy A. L., Stock M. F., Brown W. E. and Alarie Y. (1988) Uptake and distribution of ¹⁴C during and following exposure to methyl isocyanate (¹⁴CH₃NCO). *Toxicol. Appl. Pharmacol.* **94**, 104-117.
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- Rosato L. M., Weyel D. A. and Alarie Y. (1988) A low airflow aerosol generator for the delivery of respirable aerosols. *J. Aerosol Med.* **1**, 127-132.
- Schaper M. and Alarie Y. (1988) Induction of abnormal ventilatory responses to CO₂ and evaluation of agents to prevent or reverse these responses. *Fund. Appl. Toxicol.* **10**, 506-516.
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- Alarie Y., Iwasaki M., Stock M. F., Pearson R. C., Shane B. S. and Lisk D. (1989) Effects of inhaled municipal refuse incinerator fly ash in the guinea pig. *J. Toxicol. Environ. Health* **28**, 13-25.
- Kennedy A. L., Stock M. F., Alarie Y. and Brown W. E. (1989) Uptake and distribution of ¹⁴C during and following inhalation exposure to radioactive toluene diisocyanate. *Toxicol. Appl. Pharmacol.* **100**, 280-292.

- Malek D. E. and Alarie Y. (1989) Ergometer within a whole body plethysmograph to evaluate performance of guinea pigs under toxic atmospheres. *Toxicol. Appl. Pharmacol.* **101**, 340-355.
- Schaper M., Detwiler K. and Alarie Y. (1989) Alteration of respiratory cycle timing by propranolol. *Toxicol. Appl. Pharmacol.* **97**, 538-547.
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