



Yahya Rasoulzadeh

Personal Information

Professor of Occupational Health,
Department of Occupational Health and Safety Engineering,
Faculty of Health,
Tabriz University of Medical Sciences, Tabriz, Iran

Birth Date: ۰۹/۲۲/۱۹۷۵

Marital Status: Married

Work Tel: +۹۸۴۱۳۳۵۷۵۸۱

Postal Address: Department of Occupational Health, Tabriz University of Medical Sciences, P. O. Box. ۵۱۶۶۶۱۴۷۱۱, Tabriz, Iran

Fax: +۹۸۴۱۳۳۷۶۲۲۸

E. Mail Address: rasoulzadehy@tbzmed.ac.ir, rasoulzadehy@gmail.com

Education

BSc of Occupational Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran, ۱۹۹۸

MSc of Occupational Health, Tarbiat Modares University, Tehran, Iran, ۲۰۰۱

PhD of Occupational Health, Tarbiat Modares University, Tehran, Iran, ۲۰۱۰

Awards

Ranking ۱ to ۳ in all Degrees

Professional Experiences

- Professor of Occupational Health Engineering, Academic member of Department of Occupational Health. From ۰۱/Aug/۲۰۱۰ - Present, Tabriz University of Medical Sciences
- Head of Department of Occupational Health from ۱۴/Oct/۲۰۱۳ - Present.

Teaching Experiences

I have been involved in teaching of the following subjects:

۱. Dynamics of gases and aerosols, **B.Sc.** Students
۲. Principles of air sampling, **B.Sc.** Students
۳. Analyzing Air pollutants, **B.Sc.** Students
۴. Principles of indoor air pollution control, **B.Sc.** Students
۵. Industrial ventilation design, **B.Sc.** Students
۶. Evaluation of air pollutants, **M.Sc.** Students

- ۷. Designing air pollution control systems, **M.Sc.** Students
- ۸. Cognitive ergonomics, **M.Sc.** Students
- ۹. Psychosocial work factors, **M.Sc.** Students
- ۱۰. Environmental ergonomics, **M.Sc.** Students
- ۱۱. Human error, **M.Sc.** Students
- ۱۲. Evaluation methods in ergonomics, **M.Sc.** Students
- ۱۳. Cognitive ergonomics, **Ph.D.** Students
- ۱۴. Psychosocial work factors, **Ph.D.** Students
- ۱۵. Human error, **Ph.D.** Students

Reviewer in the following Journals

- ۱. Health Promotion Perspectives
- ۲. Journal of Iranian Occupational Health
- ۳. Iranian Journal of Ergonomics
- ۴. Iranian Journal of Occupational Health
- ۵. Cognition Technology and work
- ۶. Environmental Science and Pollution Research

Research Interest Keywords

- ۱. Cognitive Ergonomics
- ۲. Human error and traffic safety
- ۳. Ergonomics risk assessment
- ۴. Indoor air quality Control
- ۵. Occupational exposure risk assessment

Publications

Full papers published in journals

- ۱. Abouee-Mehrzi A, Saed-Moucheshi S, Rasoulzadeh Y, Mehdipour A, Mohammadoghli-Reyhan F, Iraj Z, Alihemmati A, Shokoohi M. Toxicological Effects of Simultaneous Exposure to Toluene and Noise on some Sexual and Stress Parameters in New Zealand White Rabbits. *Pollution*. ۲۰۲۳ Jan ۱;۹(۱):۱۲۶-۳۸.
- ۲. Hadi A, Niaei A, Seifi A, Rasoulzadeh Y. The impact of operational factors on degradation of formaldehyde as a human carcinogen using Ag⁺ PO₄/TiO₂ photocatalyst. *Health Promotion Perspectives*. ۲۰۲۳;۱۳(۱):۴۷.
- ۳. Abdollahpour N, Helali F, Rasoulzadeh Y, Hassankhani H. Barriers and Challenges to Human Factors/Ergonomics Knowledge Transfer to Small Business Enterprises in an Industrially Developing Country. *IISE Transactions on Occupational Ergonomics and Human Factors*. ۲۰۲۳ Feb ۱۳:۱-۸.

۴. Soltanpour Z, Rasoulzadeh Y, Mohammadian Y. Occupational exposure to metal fumes among Iranian welders: systematic review and simulation-based health risk assessment. *Biological Trace Element Research*. ۲۰۲۳ Mar;۲۰۱(۳):۱۰۹۰-۱۰۰.
۵. Hadi A, Haghghatnia H, Hesami A, Rasoulzadeh Y. Validity and Reliability of the Persian Version of the Computer Vision Syndrome Questionnaire. *Journal of Health & Safety at Work*. ۲۰۲۳ Mar ۱;۱۳(۱).
۶. HN. Micronucleus assay of DNA damage among welders: effects of welding processes. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*. ۲۰۲۳ Apr ۱;۸۸۷:۵۰۳-۵۱۸.
۷. Abouee-Mehrizi A, Rasoulzadeh Y, Solali S, Esmaeilzadeh H, Irajli Z, Mesgari-Abbasi M. Hematotoxicity induced by simultaneous exposure to noise and toluene in New Zealand white rabbits: Synergistic and antagonistic effects. *Toxicology and Industrial Health*. ۲۰۲۳ Jun ۱۱:۰۷۴۸۲۳۳۷۲۳۱۱۸۰۴۰۴.
۸. Soltanpour Z, Rasoulzadeh Y, Ansarin K, Seyedrezazadeh E, Mohammadian Y. Carcinogenic and non-carcinogenic risk of exposure to metal fume in different types of welding processes. *Environmental Science and Pollution Research*. ۲۰۲۳ Jun ۲۲:۱-۷.
۹. Ghanbari Z, Abouee-Mehrizi A, Rasoulzadeh Y, Hokmabadi R. Psychometric properties of the Persian version of the Fleishman Job Analysis Survey (FJAS). *Work*. ۲۰۲۳ Jul ۱۸(Preprint):۱-۹.
۱۰. Sarkari NM, Rasoulzadeh Y, Musavi S, Moradi G, Habibi P. Electrospun Polyurethane/ β -Cyclodextrin Composite Membranes for Aerosol Filtration and Adsorption of Volatile Organic Compounds from the Air. *Journal of Environmental Health and Sustainable Development*. ۲۰۲۲ Jun ۲۰.
۱۱. Nasirzadeh N, Rasoulzadeh Y, Mahmoudi D, Marioryad H, Abdollahi MH, Najafian H, Khalili M. Evaluating the airborne asbestos dispersion in enclosed parking lots in Iran. *Archives of Environmental & Occupational Health*. ۲۰۲۲ Jun ۲;۷۷(۶):۴۳۷-۴۵۰.
۱۲. Laybidi MI, Rasoulzadeh Y, Dianat I, Samavati M, Jafarabadi MA, Nazari MA. Cognitive performance and electroencephalographic variations in air traffic controllers under various mental workload and time of day. *Physiology & Behavior*. ۲۰۲۲ Aug ۱;۲۵۲:۱۱۳۸-۴۲.
۱۳. Hadi A, Niaei A, Seifi A, Rasoulzadeh Y. Synthesis, Characterization, and Efficiency Testing of Ag^۰/TiO_۲ Heterogeneous Nano-Photocatalyst in Removing Gaseous Formaldehyde as an Occupational Carcinogen. *Journal of Health & Safety at Work*. ۲۰۲۲ Sep ۱;۱۲(۳).
۱۴. Hesari RZ, Rasoulzadeh Y, Mohammadian Y, Nasirzadeh N. Cancer risk assessment of exposure to asbestos during old building demolition. *Work*. ۲۰۲۲ Dec ۱۳(Preprint):۱-۸.
۱۵. Abouee-Mehrizi A, Rasoulzadeh Y, Kazemi T, Mehdipour A, Mesgari-Abbasi M. Toxicopathological changes induced by combined exposure to noise and toluene in New Zealand White rabbits. *Arhiv za higijenu rada i toksikologiju*. ۲۰۲۲ Mar ۳۰;۷۳(۱):۳۱-۴۲.
۱۶. Nasirzadeh N, Mohammadian Y, Rasoulzadeh Y, Azari MR, Khodagholi F. Toxicity of Carbon-Based Nanomaterials in the Human Lung: A Comparative In-Vitro Study. *Tanaffos*. ۲۰۲۲ Mar;۲۱(۳):۳۹۱.
۱۷. Abouee-Mehrizi A, Rasoulzadeh Y, Kazemi T, Mesgari-Abbasi M. Inflammatory and immunological changes caused by noise exposure: A systematic review. *Journal of Environmental Science and Health, Part C*. ۲۰۲۲ Feb ۱۳;۳۸(۱):۶۱-۹۰.
۱۸. Abouee-Mehrizi A, Rasoulzadeh Y, Mehdipour A, Nasirzadeh N, Shatouei-Gharenjeh O, Ebrahimi-Kalan A. Co-Exposure to Toluene and Noise Made Synergistic and Antagonistic Effects on Some Neurotoxic Parameters in New Zealand White Rabbits. *Basic and Clinical Neuroscience*. ۲۰۲۱ Oct ۵:۰-۰.
۱۹. Mehnati P, Sabri H, Zargar RM, Rasoulzadeh Y, Mahmoudi D, Malekzadeh R. Assessment of solar ultraviolet radiation in Tabriz city, Iran. *International Journal of Radiation Research*. ۲۰۲۱ Apr ۱;۱۹(۲):۴۳۷-۴۱.
۲۰. Mehrizi AA, Rasoulzadeh Y, Moucheshi SS, Mehdipour A. Histopathological changes caused by noise exposure in lung, heart, kidney, and liver tissues in New Zealand white rabbits. *Journal of Air Pollution and Health*. ۲۰۲۱.
۲۱. Abouee-Mehrizi A, Rasoulzadeh Y, Mehdipour A, Alihemmati A, Rahimi E. Hepatotoxic effects caused by simultaneous exposure to noise and toluene in New Zealand white rabbits: a biochemical and histopathological study. *Ecotoxicology*. ۲۰۲۱ Jan;۳۰:۱۰۴-۶۳.
۲۲. Omran Ahmadi, Pouya Sheikh Damenab, Asghar Abbaspour, Yahya Rasoulzadeh. Musculoskeletal Disorders Risk Assessment in Serviceman Workers of a Petrochemical Company. *International Journal of Musculoskeletal Pain Prevention*. ۲۰۲۰; ۵(۳): ۳۶۰-۳۶۶.
۲۳. Amirreza Abouee-Mehrizia, Yahya Rasoulzadehb, Mehran Mesgari-Abbasic, Ahmad Mehdipourd, Abbas Ebrahimi-Kalane. Nephrotoxic effects caused by co-exposure to noise and toluene in New Zealand white rabbits: A biochemical and histopathological study. *Life Sciences* ۲۰۹ (۲۰۲۰) ۱۱۸۲-۵.

۲۴. Nafiseh Nasirzadeh, Yahya Rasoulzadeh, Mansour Rezazadeh Azari, Yousef Mohammadian. Cellular Toxicity of Multi-walled Carbon Nanotubes on Human Lung Cells. *Journal of Chemical Health Risks*. ۲۰۲۰; ۱۰(۲): ۱۳۰-۱۴۴.
۲۵. Mehran Nazarpour-Noshadi, Jafar Ezzati Nazhad Dolatabadi, Yahya Rasoulzadeh, Yousef Mohammadian, Dariush Shanehbandi. Apoptosis and DNA damage induced by silica nanoparticles and formaldehyde in human lung epithelial cells. *Environmental Science and Pollution Research*. ۲۰۲۰; ۱-۱۰.
۲۶. Ahmad Bazazan, Yahya Rasoulzadeh, Iman Dianat, Abdolrasoul Safaiyan, Zohreh Mombeini. Occupational fatigue and mental health complaints among ۸-hour shift workers of petrochemical industries in Iran. *WORK: A Journal of Prevention, Assessment, and Rehabilitation*. ۲۰۱۹; ۶۲(۲): ۳۰۹-۳۱۷.
۲۷. Omran Ahmadi, Seyed Ehsan Samaei, Maryam Farokhzad, Yahya Rasoulzadeh. Identifying Hazardous Points in Foundry Industry Using a Hybrid Safety Approach, *Archives of Occupational Health*. ۲۰۱۹.
۲۸. Sahar Rahimian Aghdam, Seyed Shamseddin Alizadeh, Yahya Rasoulzadeh, Abdolrasoul Safaiyan. Fatigue Assessment Scales: A comprehensive literature review. *Archives of Hygiene Sciences*. ۲۰۱۹; ۸(۳): ۱۴۰-۱۵۳.
۲۹. Davoud Mahmoudi, Seyyed Shamsaddin Alizadeh, Yahya Rasoulzadeh, Mohammad Asghari Jafarabadi. The validity and reliability of organizational resilience questionnaire (ORQ) in dealing with major accidents; *Health and Safety at Work*, ۲۰۱۹; ۸(۴): ۳۸۳-۳۹۶.
۳۰. Nafiseh Nasirzadeh, Mansour Rezazadeh Azari, Yahya Rasoulzadeh, Yousef Mohammadian . An assessment of the cytotoxic effects of graphene nanoparticles on the epithelial cells of the human lung. *Toxicology and industrial health*. ۲۰۱۹; ۳۵(۱): ۷۹-۸۷.
۳۱. Leila Tohid, Zahra Sabeti, Parvin Sarbakhsh, Khaled Zoroufchi Benis, Mohammad Shakerkhatibi, Yahya Rasoulzadeh, Raana Rahimian, Siamak Darvishali. Spatiotemporal variation, ozone formation potential and health risk assessment of ambient air VOCs in an industrialized city in Iran. *Atmospheric Pollution Research*. ۲۰۱۹; ۱۰(۲): ۵۵۶-۵۶۳.
۳۲. Mohammad Ebrahim Ramazani, Mohammad Mosafery, Yahya Rasoulzadeh*, Mojtaba Pourakbar, Mohammad Asghari Jafarabadi, Heresh Amini. Temporal and Spatial Evaluation of Environmental Noise in Urban Area: A Case Study in Iran. *International Journal of Environmental Science and Technology*, (۲۰۱۸) ۱۵:۱۱۷۹-۱۱۹۲.
۳۳. S NOJOMI, A ZARRANEJAD, S VARMAZYAR, M ABBASI. A comprehensive review of studies of occupational accidents since the beginning of ۱۳۸۰ to the end of ۱۳۹۳ in Iran: A systematic review. *Iran Occupational Health*, ۲۰۱۷; ۱۴ (۱), ۹۳-۱۱۳(In Persian).
۳۴. Y Rasoulzadeh, I Shirinzadeh. Psychometric properties of the Persian version of the just culture questionnaire (JCQ). *Iran Occupational Health*, ۲۰۱۷; ۱۴ (۱), ۱۱۴-۱۲۲ (In Persian).
۳۵. B Moloudpourfard, Y Rasoulzadeh, SS Alizadeh. Risk assessment of Cephalexin Crystals production unit in one of the pharmaceutical companies using LOPA technique. *Iran Occupational Health*, ۲۰۱۷; ۱۳ (۶), ۸۷-۹۷(In Persian).
۳۶. H Khodabandelou, Y Rasoulzadeh, R Mirzaeei, M Ahangarzade Rezaeei. Bio-Aerosols Variety and Concentration In different Hospital Wards of Miandoab City in winter. *Med J Tabriz Uni Med Sciences Health Services*, ۲۰۱۶; ۳۸ (۳), ۵۸-۶۵(In Persian).
۳۷. Y Rasoulzadeh, M Asghari Jafarabadi, I Dianat. The variety and rate of human error in reception staff of clinical laboratories in Tehran and Tabriz, ۲۰۱۴. *Iran Occupational Health*, ۲۰۱۶; ۱۲ (۶), ۲۸-۳۸(In Persian).

۳۸. Omran Ahmadi , Yahya Rasoulzadeh * , Asghar Abbaspour , Pouya Sheikh Damanab , Mitra Rahimzadeh , Fatemeh Keshizadeh and Sepideh Dalili. Personality and Its Relationship with Prevalence of Musculoskeletal Disorders. Jundishapur J Helath Res. ۲۰۱۶; ۷(۶):e۳۷۹۳۶.
۳۹. Yahya Rasoulzadeh, Seyed Shamseddin Alizadeh, Saber Valizadeh, Hamidreza Fakharian and Sakineh Varmazyar. Health, Safety and Ergonomically Risk Assessment of Mechanicians using Job Safety Analysis (JSA). Indian Journal of Science and Technology. ۲۰۱۵, ۸ (۲۸). Technique in an Iran City.
۴۰. Y. Rasoulzadeh, S.Sh. Alizadeh, S.Valizadeh, P. Moshashaei. Safety and health work-instruction in mechanics provided using job safety analysis technique. Scientific Journal of Pure and applied Sciences (۲۰۱۵) ۴(۲۰: ۴۴-۴۸.
۴۱. Yahya Rasoulzadeh, Ahmad Bazazan, Abdorasoul Safaiyan, Iman Dianat. Fatigue and psychological distress: A case study among an Iranian petrochemical plant shift workers in Bushehr, ۲۰۱۳. Iranian Red Crescent medical Journal. ۲۰۱۵; ۱۷(۱۰).
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۴۲. Ahmadi Omran, Gholamnia Reza, Alizadeh Seyed Shamsedin, Rasoulzadeh Yahya and Sheikh Damenab Pouria. Prevalence of Musculoskeletal Disorders among Farmers in Eastern Azerbaijan, Iran. Indian Journal of Science and Technology. ۲۰۱۵, ۸ (۲۸).
۴۳. P. Sheikh Damanab, S.S. Alizadeh, Y. Rasoulzadeh, Moshashaie P, S. Varmazyar. Failure modes and effects analysis (FMEA) technique: a literature review. Scientific Journal of Review (۲۰۱۵) ۴(۱) ۱-۶.
۴۴. Maryam Abbasi, Reza Gholamnia, Seyed Shamseddin Alizadeh and Yahya Rasoulzadeh. Evaluation of Workers Unsafe Behaviors using Safety Sampling Method in an Industrial Company. Indian Journal of Science and Technology. ۲۰۱۵, ۸(۲۸).
۴۵. Ahmad Bazazan, yahya rasoulzadeh*, Iman dianat, Abdorasoul safaiyan, Zohreh Mombeini, Ehsan Shirvand. Demographic characteristics on fatigue and mental disorders among ۱۲-hour petrochemical shift workers. . Health Promotion Perspectives. ۲۰۱۴; ۴ (۲): ۱۶۵-۱۷۲.
۴۶. Z Ghanbari, Y Rasoulzadeh, T Allahyari. Cognitive work analysis via CTA and quantifying with FJAS in control rooms of a petrochemical industry. Iran Occupational Health, ۲۰۱۴; ۱۱ (۴), ۲۰-۳۰ (In Persian).
۴۷. Vajih Lotfi, Yahya Rasoulzadeh, Faramarz Moattar, Reza Gholamnia, Mohammed Shaker Khatibi. Survey of airborne asbestos concentrations in high traffic areas of Tabriz. Med J Tabriz Univ Med Sci, ۲۰۱۳; ۳۵ (۲), ۷۸-۸۳ (In Persian).
۴۸. Rasoulzadeh, Y. Gholamnia R. Effectiveness of an Ergonomics Training Program on Decreasing Work-Related Musculoskeletal Disorders Risk among Video Display Terminals. Health Promotion Perspectives, Vol. ۲, No. ۱, ۲۰۱۲; P: ۸۹-۹۵.
۴۹. Y.rasoulzadeh, S.B. Mortazavi, A.A. Yousefi and A. Khavanin. Decreasing Polycyclic Aromatic Hydrocarbons Emission from Bitumen Using Alternative Bitumen Production Process. Journal of Hazardous materials, ۱۸۵ (۲۰۱۱), ۱۱۵۶-۱۱۶۱.
۵۰. Y.rasoulzadeh, S.B. Mortazavi, A.A. Yousefi, A. Khavanin, and A. Kazemnejad. Effect of Recycled Waste polymers, Natural Bitumen and HVS Cut on the Properties of Vacuum Bottom. Iranian Journal of Polymer Science and Technology, ۲۰۱۰; ۲۳(۱): ۸۵-۹۵ (In Persian).

- ١. Mortazavi S.B., Rasoulzadeh Y., Yousefi A.A. and Khavanin A., Properties of Modified Bitumen Obtained from Vacuum Bottom by Adding Recycled Waste Polymers and Natural Bitumen. Iran. Polym. J., ١٩, ١٩٧-٢٠٥, ٢٠١٠.
- ٢. J.M. Kanaani, S.B. Mortazavi, A. Khavanin, R. Mirzai, Y. Rasoulzadeh and M. Mansurizadeh. Foot Anthropometry of ١٨-٢٥ Years Old Iranian Male Students. Asian Journal of Scientific Research, ٢٠١٠.
- ٣. M. Kanani Jos, S.B. Mortazavi, A. Khavanin, R. Mirzai, Y. Rasoulzadeh. COMPARISON OF FOOT ANTHROPOMETRIC MEASUREMENTS IN TWO DIGITAL AND MANUAL APPROACHES. Journal of Ilam University of Medical Sciences, ٢٠٠٨; ١٦ (٣), ١-١٠ (In Persian).

Papers Presented in National & International Conferences (from the most recent)

- ١. Rasoulzadeh Y, Gholamnia R, Ghaffari Sotubadi M. Temporary employment and its adverse effect on safety and health programs in developing countries. XIX World Congress on Safety and Health at Work, September, ١١-١٥, ٢٠١١, Istanbul, Turkey.
- ٢. Rasoulzadeh Y, Mortazavi SB, Yousefi AA, Khavanin A. Control Practices for Reducing Exposures to Asphalt Fumes during the Manufacture of Asphalt Roofing Products. ١st International Bitumen Conference. October ١٨-٢٠, ٢٠٠٨, Tehran-Iran.
- ٣. Rasoulzadeh Y, Mortazavi SB, Yousefi AA, Khavanin A. Health effects of occupational exposure to asphalt fumes. ١st International Bitumen Conference. October ١٨-٢٠, ٢٠٠٨, Tehran-Iran.
- ٤. Y Rasoulzadeh, S.B Mortazavi , A Khavanin, H Asilian, and R Gholamnia. To Survey the Effectiveness of an Ergonomic Educational Program on Decreasing the Risk of Musculoskeletal Disorders among VDT Users. INTERNATIONAL CONFERENCE ON ERGONOMICS (ICE) December ٣-٥, ٢٠٠٧, Kuala Lumpur, Malaysia.
- ٥. Reza Gholamnia, Manochehr Omidvari, Yahya Rasoulzadeh. Evaluation of Occupational Exposure to Tobacco Dusts and Survey of Prevalence Respiratory Symptoms among Tobacco Workers. Eleventh International Congress of Toxicology (ICT X). July ١٥- ١٩, ٢٠٠٧ Montréal, Canada.
- ٦. Reza Gholamnia, Manochehr Omidvari, Yahya Rasoulzadeh. Evaluation Occupational Exposure to Asbestos Fiber and its Respiratory Effects on Workers in Production Factory, Eleventh International Congress of Toxicology (ICT XI). July ١٥- ١٩, ٢٠٠٧ Montréal, Canada.
- ٧. Joze Kanaani Masoomeh, Sayyed bagher Mortazavi, Ali Khavanin, Yahya Rasoulzadeh, and Moharram Mansurizadeh. The Comparison between Photography and Manual Method for Anthropometry. INTERNATIONAL CONFERENCE ON ERGONOMICS (ICE) December ٣-٥, ٢٠٠٧, Kuala Lumpur, Malaysia.

۸. Y. Rasoulzadeh, R. Gholamnia To Survey Incidence Rate of musculoskeletal Disorders Among Taxi Drivers in Uremia city. ۱۷th International Symposium on Epidemiology in Occupational Health. Carlton Crest Hotel, Melbourne, ۲۰۰۴.
۹. R. Gholamnia, Y. rasoulzadeh, G. Hosieni, I. Mohebi, S. sanati Monitoring of Occupational Noise Exposure and Assessment Audiometry Ability for Workers in a Cement Factory. ۱۷th International Symposium on Epidemiology in Occupational Health. Carlton Crest Hotel, Melbourne, ۲۰۰۴.
۱۰. R. Gholamnia, Y. rasoulzadeh, E. shirinzadeh, M. Rezaian. Prevalence of Respiratory Diseases and Hearing Loss Among Workers in a Ship Building. ۱۷th International Symposium on Epidemiology in Occupational Health. Carlton Crest Hotel, Melbourne, ۲۰۰۴.
۱۱. R. Gholamnia, S.B. Mortazavi, H. Asilian, A. Khavanin, Y. Rasoulzadeh. Are the Asbestos substitutes Hazardous as Well?. Global Asbestos Congress in Tokyo. ۲۰۰۴