

CHAPTER 8. REFERENCES

- Abderrazak A, Syrovets T, Couchie D, et al. 2015. NLRP3 inflammasome: from a danger signal sensor to a regulatory node of oxidative stress and inflammatory diseases. *Redox Biol* 4:296-307. <http://doi.org/10.1016/j.redox.2015.01.008>.
- Abdul-Wahab SA, Worthing MA, Al-Maamari S. 2005. Mineralogy of atmospheric suspended dust in three indoor and one outdoor location in Oman. *Environ Monit Assess* 107(1-3):313-327. <http://doi.org/10.1007/s10661-005-3112-4>.
- Absher MP, Hemenway DR, Leslie KO, et al. 1992. Intrathoracic distribution and transport of aerosolized silica in the rat. *Exp Lung Res* 18(5):743-757. <http://doi.org/10.3109/01902149209031705>.
- Adler AJ, Berlyne GM. 1986. Silicon metabolism. II. Renal handling in chronic renal failure patients. *Nephron* 44(1):36-39.
- Aggarwal BD. 2014. Lactate dehydrogenase as a biomarker for silica exposure-induced toxicity in agate workers. *Occup Environ Med* 71(8):578-582. <http://doi.org/10.1136/oemed-2014-102190>.
- Akbar-Khanzadeh F, Milz S, Ames A, et al. 2007. Crystalline silica dust and respirable particulate matter during indoor concrete grinding - wet grinding and ventilated grinding compared with uncontrolled conventional grinding. *J Occup Environ Hyg* 4(10):770-779. <http://doi.org/10.1080/15459620701569708>.
- Akbar-Khanzadeh F, Milz SA, Wagner CD, et al. 2010. Effectiveness of dust control methods for crystalline silica and respirable suspended particulate matter exposure during manual concrete surface grinding. *J Occup Environ Hyg* 7(12):700-711. <http://doi.org/10.1080/15459624.2010.527552>.
- Akgun M. 2016. Denim production and silicosis. *Curr Opin Pulm Med* 22(2):165-169. <http://doi.org/10.1097/mcp.0000000000000249>.
- Althouse RB, Bang KM, Castellan RM. 1995. Tuberculosis comortality with silicosis—United States, 1979-1991. *Appl Occup Environ Hyg* 10(12):1037-1041.
- Altindag ZZ, Baydar T, Isimer A, et al. 2003. Neopterin as a new biomarker for the evaluation of occupational exposure to silica. *Int Arch Occup Environ Health* 76(4):318-322. <http://doi.org/10.1007/s00420-003-0434-9>.
- Altree-Williams S, Sprogis I. 1982. Quartz: correlation between crystallinity index and fibrogenicity? *Ann Occup Hyg* 25(4):455-458.
- Amandus H, Costello J. 1991. Silicosis and lung cancer in US metal miners. *Arch Environ Health* 46(2):82-89. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Amandus HE, Shy C, Wing S, et al. 1991. Silicosis and lung cancer in North Carolina dusty trades workers. *Am J Ind Med* 20(1):57-70. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Amandus HE, Shy C, Castellan RM, et al. 1995. Silicosis and lung cancer among workers in North Carolina dusty trades. *Scand J Work Environ Health* 21 Suppl 2:81-83. (As cited in Kurihara and Wada 2004)
- Andersson L, Bryngelsson IL, Ngo Y, et al. 2012. Exposure assessment and modeling of quartz in Swedish iron foundries for a nested case-control study on lung cancer. *J Occup Environ Hyg* 9(2):110-119. <http://doi.org/10.1080/15459624.2011.645397>.
- Archer JD, Cooper GS, Reist PC, et al. 2002. Exposure to respirable crystalline silica in eastern North Carolina farm workers. *AIHA J (Fairfax, Va)* 63(6):750-755.
- Armstrong BK, McNulty JC, Levitt LJ, et al. 1979. Mortality in gold and coal miners in Western Australia with special reference to lung cancer. *Br J Ind Med* 36(3):199-205. (As cited in Erren et al. 2009a, 2009b)

8. REFERENCES

- +Arts JH, Muijsers H, Duistermaat E, et al. 2007. Five-day inhalation toxicity study of three types of synthetic amorphous silicas in Wistar rats and post-exposure evaluations for up to 3 months. *Food Chem Toxicol* 45(10):1856-1867. <http://doi.org/10.1016/j.fct.2007.04.001>.
- +Aschengrau A, Zierler S, Cohen A. 1989. Quality of community drinking water and the occurrence of spontaneous abortion. *Arch Environ Health* 44(5):283-290. <http://doi.org/10.1080/00039896.1989.9935895>.
- ATSDR. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Agency for Toxic Substances and Disease Registry. *Fed Regist* 54(174):37618-37634.
- ATSDR. 2015. Silica. Full SPL data. Substance priority list (SPL) resource page. Agency for Toxic Substances and Disease Registry. <http://www.atsdr.cdc.gov/SPL/resources/index.html>. July 6, 2016.
- Bailey MR, Ansoborlo E, Guilmette RA, et al. 2007. Updating the ICRP human respiratory tract model. *Radiat Prot Dosimetry* 127(1-4):331-334.
- Bakke B, Ulvestad B, Stewart P, et al. 2004. Cumulative exposure to dust and gasses as determinants of lung function in tunnel construction workers. *Occup Environ Med* 61:262-269.
- Bang BE, Suhr H. 1998. Quartz exposure in the slate industry in northern Norway. *Ann Occup Hyg* 42(8):557-563.
- Bang KM, Attfield MD, Wood JM, et al. 2008. National trends in silicosis mortality in the United States, 1981-2004. *Am J Ind Med* 51(9):633-639. <http://doi.org/10.1002/ajim.20607>.
- Bang KM, Mazurek JM, Wood JM, et al. 2015. Silicosis mortality trends and new exposures to respirable crystalline silica - United States, 2001-2010. *MMWR Morb Mortal Wkly Rep* 64(5):117-120.
- Barredo BF, Polo Diez L. 1980. Routine accurate determination of silica in silicate materials by atomic-absorption spectrophotometry and subsequent computation. *Talanta* 27:69-70.
- Bartunkova J, Pelclova D, Fenclova Z, et al. 2006. Exposure to silica and risk of ANCA-associated vasculitis. *Am J Ind Med* 49(7):569-576. <http://doi.org/10.1002/ajim.20327>.
- Basaran N, Shubair M, Undeger U, et al. 2003. Monitoring of DNA damage in foundry and pottery workers exposed to silica by the alkaline comet assay. *Am J Ind Med* 43(6):602-610. <http://doi.org/10.1002/ajim.10222>.
- Beaudreuil S, Lasfargues G, Laueriere L, et al. 2005. Occupational exposure in ANCA-positive patients: a case-control study. *Kidney Int* 67(5):1961-1966. <http://doi.org/10.1111/j.1523-1755.2005.00295.x>.
- Beaudry C, Lavoue J, Sauve JF, et al. 2013. Occupational exposure to silica in construction workers: a literature-based exposure database. *J Occup Environ Hyg* 10(2):71-77. <http://doi.org/10.1080/15459624.2012.747399>.
- Beckett W, Abraham J, Becklake M, et al. 1997. Adverse effects of crystalline silica exposure. *Am J Respir Crit Care Med* 155(2):761-768.
- Begin R, Filion R, Ostiguy G. 1995. Emphysema in silica and asbestos-exposed workers seeking compensation. A CT scan study. *Chest* 108(3):647-655.
- Begin R, Masse S, Sebastien P, et al. 1987. Sustained efficacy of aluminum to reduce quartz toxicity in the lung. *Exp Lung Res* 13(2):205-222.
- Berlyne GM, Adler AJ, Ferran N, et al. 1986. Silicon metabolism. I. Some aspects of renal silicon handling in normal man. *Nephron* 43(1):5-9.
- Berry G, Rogers A, Yeung P. 2004. Silicosis and lung cancer: A mortality study of compensated men with silicosis in New South Wales, Australia. *Occup Med (London)* 54(6):387-394. <http://doi.org/10.1093/occmed/kqh029>.
- Beskow R. 1978. Silicosis in diatomaceous earth factory workers in Sweden. *Scand J Respir Dis* 59(4):216-221.
- Bhagia LJ. 2009. Non-occupational exposure to silica dust in vicinity of slate pencil industry, India. *Environ Monit Assess* 151(1-4):477-482. <http://doi.org/10.1007/s10661-008-0290-x>.

8. REFERENCES

- Bhagia LJ. 2012. Non-occupational exposure to silica dust. *Indian J Occup Environ Med* 16(3):95-100. <http://doi.org/10.4103/0019-5278.111744>.
- Birk T, Mundt KA, Guldner K, et al. 2009. Mortality in the German porcelain industry 1985-2005: first results of an epidemiological cohort study. *J Occup Environ Med* 51(3):373-385. <http://doi.org/10.1097/JOM.0b013e3181973e19>.
- Birk T, Guldner K, Mundt KA, et al. 2010. Quantitative crystalline silica exposure assessment for a historical cohort epidemiologic study in the German porcelain industry. *J Occup Environ Hyg* 7(9):516-528. <http://doi.org/10.1080/15459624.2010.487789>.
- Borm PJ, Tran L. 2002. From quartz hazard to quartz risk: the coal mines revisited. *Ann Occup Hyg* 46(1):25-32.
- Bott J, Stormer A, Franz R. 2015. Investigation into the migration potential of colloidal silica from food packaging plastics into food. Fraunhofer https://www.ivv.fraunhofer.de/content/dam/ivv/en/documents/Forschungsfelder/Produktsicherheit-und-analytik/Migration_potential_of_colloidal_silica_from_food_packaging_plastics_into_food.pdf.
- Boujemaa W, Lauwerys R, Bernard A. 1994. Early indicators of renal dysfunction in silicotic workers. *Scand J Work Environ Health* 20(3):180-183.
- Bovenzi M, Barbone F, Betta A, et al. 1995. Scleroderma and occupational exposure. *Scand J Work Environ Health* 21(4):289-292.
- Bovenzi M, Barbone F, Pisa FE, et al. 2004. A case-control study of occupational exposures and systemic sclerosis. *Int Arch Occup Environ Health* 77(1):10-16. <http://doi.org/10.1007/s00420-003-0462-5>.
- Bratveit M, Moen BE, Mashalla YJ, et al. 2003. Dust exposure during small-scale mining in Tanzania: A pilot study. *Ann Occup Hyg* 47(3):235-240.
- Braz NF, Carneiro AP, Amorim MR, et al. 2014. Association between inflammatory biomarkers in plasma, radiological severity, and duration of exposure in patients with silicosis. *J Occup Environ Med* 56(5):493-497. <http://doi.org/10.1097/jom.000000000000164>.
- Brody AR, Roe MW, Evans JN, et al. 1982. Deposition and translocation of inhaled silica in rats. Quantification of particle distribution, macrophage participation, and function. *Lab Invest* 47(6):533-542.
- Brooks SM, Stockwell HG, Pinkham PA, et al. 1992. Sugarcane exposure and the risk of lung cancer and mesothelioma. *Environ Res* 58:195-203.
- Brown T. 2009. Silica exposure, smoking, silicosis and lung cancer--complex interactions. *Occup Med (London)* 59(2):89-95. <http://doi.org/10.1093/occmed/kqn171>.
- Brown GM, Donaldson K. 1996. Modulation of quartz toxicity by aluminum. In: Castranova V, Vallyathan V, Wallace WE, eds. *Silica and silica-induced lung diseases*. Boca Raton, FL: CRC Press, 299-304.
- Brown TP, Rushton L. 2005a. Mortality in the UK industrial silica sand industry: 1. Assessment of exposure to respirable crystalline silica. *Occup Environ Med* 62(7):442-445. <http://doi.org/10.1136/oem.2004.017715>.
- Brown TP, Rushton L. 2005b. Mortality in the UK industrial silica sand industry: 2. A retrospective cohort study. *Occup Environ Med* 62(7):446-452. <http://doi.org/10.1136/oem.2004.017731>.
- Brown D, Kaplan S, Zumwalde R, et al. 1986. Retrospective cohort mortality study of underground gold mine workers. In: Goldsmith DF, Winn DM, Shy CM, eds. *Silica, silicosis, and cancer: Controversy in occupational medicine*. New York: Praeger, 335-350. (As cited in Mannelte et al. 2002b)
- Brown LM, Gridley G, Olsen JH, et al. 1997. Cancer risk and mortality patterns among silicotic men in Sweden and Denmark. *J Occup Environ Med* 39(7):633-638.
- Bruske I, Thiering E, Heinrich J, et al. 2014. Respirable quartz dust exposure and airway obstruction: a systematic review and meta-analysis. *Occup Environ Med* 71(8):583-589. <http://doi.org/10.1136/oemed-2013-101796>.

8. REFERENCES

- Bruske-Hohlfeld I, Mohner M, Pohlabein H, et al. 2000. Occupational lung cancer risk for men in Germany: Results from a pooled case-control study. *Am J Epidemiol* 151(4):384-395. (As cited in Kurihara and Wada 2004; Lacasse et al. 2009; Pelucci et al. 2006)
- Burns CJ, Laing TJ, Gillespie BW, et al. 1996. The epidemiology of scleroderma among women: Assessment of risk from exposure to silicone and silica. *J Rheumatol* 23(11):1904-1911.
- Cakmak GD, Schins RP, Shi T, et al. 2004. In vitro genotoxicity assessment of commercial quartz flours in comparison to standard DQ12 quartz. *Int J Hyg Environ Health* 207(2):105-113. <http://doi.org/10.1078/1438-4639-00276>.
- Caldwell DM. 1958. The coalescent lesion of diatomaceous earth pneumoconiosis. *Am Rev Tuberc* 77:644-661.
- Calvert GM, Steenland K, Palu S. 1997. End-stage renal disease among silica-exposed gold miners. A new method for assessing incidence among epidemiologic cohorts. *J Am Med Assoc* 277(15):1219-1223.
- Calvert GM, Rice FL, Boiano JM, et al. 2003. Occupational silica exposure and risk of various diseases: An analysis using death certificates from 27 states of the United States. *Occup Environ Med* 60(2):122-129.
- Carta P, Aru G, Manca P. 2001. Mortality from lung cancer among silicotic patients in Sardinia: An update study with 10 more years of follow up. *Occup Environ Med* 58(12):786-793. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005; Pelucci et al. 2006)
- Case BW, Dufresne A, Richardson L, et al. 1995. Lung-retained dose following occupational exposure to silica. *Appl Occup Environ Hyg* 10(12):1031-1036.
- Cassel SL, Eisenbarth SC, Iyer SS, et al. 2008. The Nalp3 inflammasome is essential for the development of silicosis. *Proc Natl Acad Sci USA* 105(26):9035-9040. <http://doi.org/10.1073/pnas.0803933105>.
- Castranova V, Vallyathan V. 2000. Silicosis and coal workers' pneumoconiosis. *Environ Health Perspect* 108 Suppl 4:675-684.
- CDC. 1998a. Silicosis deaths among young adults- United States, 1968-1994. *MMWR Morb Mortal Wkly Rep* 47(16):331-335.
- CDC. 1998b. Silicosis deaths among young adults- United States, 1968-1994. *JAMA* 280(1):13-15.
- Chalupka S. 2012. Occupational silica exposure in hydraulic fracturing. *Workplace Health Saf* 60(10):460. <http://doi.org/10.3928/21650799-20120926-70>.
- Chan CK, Leung CC, Tam CM, et al. 2000. Lung cancer mortality among a cohort of men in a silicotic register. *J Occup Environ Med* 42(1):69-75. (As cited in Kurihara and Wada 2004; Erren et al. 2009a, 2009b; Lacrasse et al. 2005; Pelucci et al. 2006)
- Chan JYW, Tsui JCC, Law PTW, et al. 2017. Profiling of the silica-induced molecular events in lung epithelial cells using the RNA-Seq approach. *J Appl Toxicol* 37(10):1162-1173. <http://doi.org/10.1002/jat.3471>.
- Checkoway H. 2000. Epidemiological evidence on the carcinogenicity of silica: factors in scientific judgement. *Ann Occup Hyg* 44(6):483-484.
- Checkoway H, Franzblau A. 2000. Is silicosis required for silica-associated lung cancer? *Am J Ind Med* 37(3):252-259.
- Checkoway H, Heyer NJ, Demers PA. 1996a. An updated mortality follow-up study of Florida phosphate industry workers. *Am J Ind Med* 30(4):452-460. [http://doi.org/10.1002/\(sici\)1097-0274\(199610\)30:4<452::aid-ajim11>3.0.co;2-3](http://doi.org/10.1002/(sici)1097-0274(199610)30:4<452::aid-ajim11>3.0.co;2-3). (As cited in Pelucci et al. 2006)
- Checkoway H, Heyer NJ, Demers PA, et al. 1993. Mortality among workers in the diatomaceous earth industry. *Br J Ind Med* 50(7):586-597.
- Checkoway H, Heyer NJ, Demers PA, et al. 1996b. Reanalysis of mortality from lung cancer among diatomaceous earth industry workers, with consideration of potential confounding by asbestos exposure. *Occup Environ Med* 53(9):645-647. (As cited in Mannelje et al. 2002b)

8. REFERENCES

- Checkoway H, Heyer NJ, Seixas NS, et al. 1997. Dose-response associations of silica with nonmalignant respiratory disease and lung cancer mortality in the diatomaceous earth industry. *Am J Epidemiol* 145(8):680-688.
- Checkoway H, Hughes JM, Weill H, et al. 1999. Crystalline silica exposure, radiological silicosis, and lung cancer mortality in diatomaceous earth industry workers. *Thorax* 54(1):56-59. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005; Pelucci et al. 2006)
- ChemID. 2019. Silica compounds (7631-86-9, 14464-46-1, 14808-60-7, 15468-32-3, 60676-86-0, 61790-53-2, 63231-67-4, 68855-54-9, 69012-64-2, 91053-39-3, 112926-00-8, colloidal silica). U.S. National Library of Medicine. <https://chem.nlm.nih.gov/chemidplus/>. March 14, 2019.
- Chen W, Chen J. 2002. Nested case-control study of lung cancer in four Chinese tin mines. *Occup Environ Med* 59(2):113-118. (As cited in Pelucci et al. 2006)
- Chen F, Shi X. 2002. NF- κ B, a pivotal transcription factor in silica-induced diseases. *Mol Cell Biochem* 234-235(1):169-176.
- Chen M, Tse LA. 2012. Laryngeal cancer and silica dust exposure: a systematic review and meta-analysis. *Am J Ind Med* 55(8):669-676. <http://doi.org/10.1002/ajim.22037>.
- Chen W, Bochmann F, Sun Y. 2007. Effects of work related confounders on the association between silica exposure and lung cancer: a nested case-control study among Chinese miners and pottery workers. *Int Arch Occup Environ Health* 80(4):320-326. <http://doi.org/10.1007/s00420-006-0137-0>.
- Chen SY, Hayes RB, Liang SR, et al. 1990. Mortality experience of haematite mine workers in China. *Br J Ind Med* 47(3):175-181. (As cited in Lacrasse et al. 2005)
- Chen J, McLaughlin JK, Zhang JY, et al. 1992. Mortality among dust-exposed Chinese mine and pottery workers. *J Occup Med* 34(3):311-316.
- Chen W, Zhuang Z, Attfield MD, et al. 2001. Exposure to silica and silicosis among tin miners in China: Exposure-response analyses and risk assessment. *Occup Environ Med* 58(1):31-37.
- Chen W, Yang J, Chen J, et al. 2006. Exposures to silica mixed dust and cohort mortality study in tin mines: exposure-response analysis and risk assessment of lung cancer. *Am J Ind Med* 49(2):67-76. <http://doi.org/10.1002/ajim.20248>. (As cited in Poinen-Rughooputh et al. 2016)
- Chen W, Liu Y, Wang H, et al. 2012. Long-term exposure to silica dust and risk of total and cause-specific mortality in Chinese workers: A cohort study. *PLoS Med* 9(4):e1001206. <http://doi.org/10.1371/journal.pmed.1001206>.
- Cherry NM, Burgess GL, Turner S, et al. 1998. Crystalline silica and risk of lung cancer in the potteries. *Occup Environ Med* 55(11):779-785. (As cited in Kurihara and Wada 2004; Pelucci et al. 2006)
- Cherry N, Harris J, McDonald C, et al. 2013. Mortality in a cohort of Staffordshire pottery workers: follow-up to December 2008. *Occup Environ Med* 70(3):149-155. <http://doi.org/10.1136/oemed-2012-100782>.
- Chia KS, Ng TP, Jeyaratnam J. 1992. Small airways function of silica-exposed workers. *Am J Ind Med* 22(2):155-162.
- Chia SE, Chia KS, Phoon WH, et al. 1991. Silicosis and lung cancer among Chinese granite workers. *Scand J Work Environ Health* 17(3):170-174. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Chiazze L, Watkins DK, Fryar C. 1997. Historical cohort mortality study of a continuous filament fiberglass manufacturing plant. I. White men. *J Occup Environ Med* 39(5):432-441. (As cited in Pelucci et al. 2006)
- Chiyotani K, Saito K, Okubo T, et al. 1990. Lung cancer risk among pneumoconiosis patients in Japan, with special reference to silicotics. *IARC Sci Publ* (97):95-104.
- Choudat D, Frisch C, Barrat G, et al. 1990. Occupational exposure to amorphous silica dust and pulmonary function. *Br J Ind Med* 47(11):763-766.
- Churchyard GJ, Ehrlich R, teWaterNaude JM, et al. 2004. Silicosis prevalence and exposure-response relations in South African goldminers. *Occup Environ Med* 61(10):811-816. <http://doi.org/10.1136/oem.2003.010967>.

8. REFERENCES

- Clark BH, Peacor DR. 1992. Pyrometamorphism and partial melting of shales during combustion metamorphism: Mineralogical, textural, and chemical effects. *Contrib Mineral Petrol* 112:558-568.
- Clewell HJ, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1(4):111-131.
- Cocco PL, Carta P, Bario P, et al. 1990. Case-controlled study on silicosis and lung cancer. In: Sakurai H, Okazaki I, Omae K, eds. *Occupational medicine: Proceedings of the 7th international symposium on epidemiology in occupational health*. Amsterdam: Excerpta Medica. (As cited in Erren et al. 2009a, 2009b)
- Cocco PL, Carta P, Belli S, et al. 1994. Mortality of Sardinian lead and zinc miners: 1960-88. *Occup Environ Med* 51(10):674-682.
- Cocco P, Rice CH, Chen JQ, et al. 2001. Lung cancer risk, silica exposure, and silicosis in Chinese mines and pottery factories: The modifying role of other workplace lung carcinogens. *Am J Ind Med* 40(6):674-682. (As cited in Erren et al. 2009a, 2009b; Lacasse et al. 2009; Pelucci et al. 2006)
- Coggiola M, Bosio D, Pira E, et al. 2003. An update of a mortality study of talc miners and millers in Italy. *Am J Ind Med* 44(1):63-69. <http://doi.org/10.1002/ajim.10240>. (As cited in Pelucci et al. 2006)
- Collins JF, Salmon AG, Brown JP, et al. 2005. Development of a chronic inhalation reference level for respirable crystalline silica. *Regul Toxicol Pharmacol* 43(3):292-300. <http://doi.org/10.1016/j.yrtph.2005.08.003>.
- Conrad K, Mehlhorn J, Luthke K, et al. 1996. Systemic lupus erythematosus after heavy exposure to quartz dust in uranium mines: Clinical and serological characteristics. *Lupus* 5(1):62-69.
- Cooper WC, Jacobson G. 1977. A 21-year radiographic follow-up of workers in the diatomite industry. *J Occup Med* 19(8):563-566.
- Cooper WC, Sargent EN. 1984. A 26-year radiographic follow-up of workers in a diatomite mine and mill. *J Occup Med* 26(6):456-460.
- Cooper GS, Wither J, Bernatsky S, et al. 2010. Occupational and environmental exposures and risk of systemic lupus erythematosus: silica, sunlight, solvents. *Rheumatology (Oxford)* 49(11):2172-2180. <http://doi.org/10.1093/rheumatology/keq214>.
- Costa D, Fubini B, Giamello E, et al. 1991. A novel type of active site at the surface of crystalline silicon dioxide (alpha-quartz) and its possible impact on pathogenicity. *Can J Chem* 69(9):1427-1434.
- Costello J, Graham WGB. 1988. Vermont granite workers' mortality study. *Am J Ind Med* 13(4):483-497.
- Costello J, Castellan RM, Swecker GS, et al. 1995. Mortality of a cohort of U.S. workers employed in the crushed stone industry, 1940-1980. *Am J Ind Med* 27(5):625-640.
- Cowie RL. 1987. Silica-dust-exposed mine workers with scleroderma (systemic sclerosis). *Chest* 92(2):260-262.
- Cowie RL. 1994. The epidemiology of tuberculosis in gold miners with silicosis. *Am J Respir Crit Care Med* 150(5 Pt 1):1460-1462. <http://doi.org/10.1164/ajrccm.150.5.7952577>.
- Cowie RL, Hay M, Thomas RG. 1993. Association of silicosis, lung dysfunction, and emphysema in gold miners. *Thorax* 48(7):746-749.
- Cox LA, Jr. 2011. An exposure-response threshold for lung diseases and lung cancer caused by crystalline silica. *Risk Anal* 31(10):1543-1560. <http://doi.org/10.1111/j.1539-6924.2011.01610.x>.
- Daniel LN, Mao Y, Saffiotti U. 1993. Oxidative DNA damage by crystalline silica. *Free Radic Biol Med* 14(5):463-472.
- Daniel LN, Mao Y, Wang TC, et al. 1995. DNA strand breakage, thymine glycol production, and hydroxyl radical generation induced by different samples of crystalline silica in vitro. *Environ Res* 71(1):60-73.
- Das PB, Fletcher AG, Dordhare SG. 1976. Mesothelioma in an agricultural community of India: A clinicopathological study. *Aust N Z J Med* 46:218-226.
- Davis GS. 1986. Pathogenesis of silicosis: Current concepts and hypotheses. *Lung* 164(3):139-154.

8. REFERENCES

- Davis LK, Wegman DH, Monson RR, et al. 1983. Mortality experience of Vermont granite workers. *Am J Ind Med* 4(6):705-723. (As cited in Mannetje et al. 2002b)
- Davis BL, Johnson LR, Stevens RK, et al. 1984. The quartz content and elemental composition of aerosols from selected sites of the EPA inhalable particulate network. *Atmos Environ* 18(4):771-782.
- De Berardis B, Incocciati E, Massera S, et al. 2007. Airborne silica levels in an urban area. *Sci Total Environ* 382(2-3):251-258. <http://doi.org/10.1016/j.scitotenv.2007.04.044>.
- De Klerk NH, Musk AW. 1998. Silica, compensated silicosis, and lung cancer in Western Australian goldminers. *Occup Environ Med* 55(4):243-248.
- De Stefani E, Kogevinas M, Boffetta P, et al. 1996. Occupation and the risk of lung cancer in Uruguay. *Scand J Work Environ Health* 22(5):346-352. (As cited in Kurihara and Wada 2004; Pelucci et al. 2006)
- Deane KD, El-Gabalawy H. 2014. Pathogenesis and prevention of rheumatic disease: Focus on preclinical RA and SLE. *Nat Rev Rheumatol* 10(4):212-228.
- Deb U, Lomash V, Raghuvanshi S, et al. 2012. Effects of 28 days silicon dioxide aerosol exposure on respiratory parameters, blood biochemical variables and lung histopathology in rats. *Environ Toxicol Pharmacol* 34(3):977-984. <http://doi.org/10.1016/j.etap.2012.07.009>.
- Demircigil GC, Coskun E, Vidinli N, et al. 2010. Increased micronucleus frequencies in surrogate and target cells from workers exposed to crystalline silica-containing dust. *Mutagenesis* 25(2):163-169. <http://doi.org/10.1093/mutage/gep057>.
- Demoruelle MK, Deane KD, Holers VM. 2014. When and where does inflammation begin in rheumatoid arthritis? *Curr Opin Rheumatol* 26(1):64-71.
- Ding M, Chen F, Shi X, et al. 2002. Diseases caused by silica: Mechanisms of injury and disease development. *Int Immunopharmacol* 2(2-3):173-182.
- Dion C, Dufresne A, Jacob M, et al. 2005. Assessment of exposure to quartz, cristobalite and silicon carbide fibres (whiskers) in a silicon carbide plant. *Ann Occup Hyg* 49(4):335-343. <http://doi.org/10.1093/annhyg/meh099>.
- Diot E, Lesire V, Guilmot JL, et al. 2002. Systemic sclerosis and occupational risk factors: A case-control study. *Occup Environ Med* 59(8):545-549.
- +Dobbie JW, Smith MJ. 1982. Silicate nephrotoxicity in the experimental animal: the missing factor in analgesic nephropathy. *Scott Med J* 27(1):10-16.
- Dobrev M, Burilkov T, Kolev K, et al. 1975. Characteristics of lung dusts and their relation to dust exposure and pathological findings in the lungs. In: *Inhaled particles IV. Proceedings of an international symposium organized by The British Occupational Hygiene Society, Edinburgh, 22-26 September 1975. Vol. 4 Pt 2. Oxford: Pergamon Press, 717-725.*
- DOE. 2018a. Protective Action Criteria (PAC) with AEGLs, ERPGs, & TEELs: Rev. 29A, June 2018. Oak Ridge, TN: U.S. Department of Energy. <https://sp.eota.energy.gov/pac/>. July 26, 2018.
- DOE. 2018b. Table 3: Protective Action Criteria (PAC) Rev. 29a based on applicable 60-minute AEGLs, ERPGs, or TEELs. The chemicals are listed by CASRN. June 2018. Oak Ridge, TN: U.S. Department of Energy. https://sp.eota.energy.gov/pac/docs/Revision_29A_Table3.pdf. July 26, 2018.
- Donaldson K, Borm PJ. 1998. The quartz hazard: a variable entity. *Ann Occup Hyg* 42(5):287-294.
- Dong D, Xu G, Sun Y, et al. 1995. Lung cancer among workers exposed to silica dust in Chinese refractory plants. *Scand J Work Environ Health* 21 Suppl 2:69-72 (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Dosemeci M, Chen JQ, Hearl F, et al. 1993. Estimating historical exposure to silica among mine and pottery workers in the People's Republic of China. *Am J Ind Med* 24(1):55-66. (As cited in Mannetje et al. 2002b)
- Driscoll KE, Deyo LC, Carter JM, et al. 1997. Effects of particle exposure and particle-elicited inflammatory cells on mutation in rat alveolar epithelial cells. *Carcinogenesis* 18(2):423-430.

8. REFERENCES

- Driscoll T, Nelson DI, Steenland K, et al. 2005. The global burden of non-malignant respiratory disease due to occupational airborne exposures. *Am J Ind Med* 48(6):432-445.
- Dufresne A, Begin R, Dion C, et al. 1998. Angular and fibrous particles in lung in relation to silica-induced diseases. *Int Arch Occup Environ Health* 71(4):263-269
- Dutra FR. 1965. Diatomaceous earth pneumoconiosis. *Arch Environ Health* 11:613-619.
- Ebihara I, Kawami M. 1998. Lung cancer and immunopathologic diseases among copper miners in a small copper mine, stone masons and pneumoconiotic patients in Japan. In: Chiyotani K, Honda Y, Aizawa Y, eds. *Advances in the prevention of occupational respiratory disease*. Amsterdam: Elsevier Science, 225-236. (As cited in Kurihara and Wada 2004)
- Ebihara I, Shinokawa E, Kawami M, et al. 1990. A retrospective cohort mortality study of pneumoconiotics. *J Sci Labour* 66(9):399-407. (As cited in Kurihara and Wada 2004; Lacrasse et al. 2005)
- ECETOC. 2006. Synthetic amorphous silica. Brussels: European Centre for Ecotoxicology and Toxicology of Chemicals. JACC No. 51. <http://www.ecetoc.org/wp-content/uploads/2014/08/JACC-051.pdf>. March 14, 2019.
- ECHA. 2019. Registration dossier: Silicon dioxide; synthetic amorphous silicon dioxide (nano). European Chemicals Agency. <https://echa.europa.eu/de/registration-dossier/-/registered-dossier/15556/1>. March 8, 2019.
- Ehrlich RI, Myers JE, te Water Naude JM, et al. 2011. Lung function loss in relation to silica dust exposure in South African gold miners. *Occup Environ Med* 68(2):96-101. <http://doi.org/10.1136/oem.2009.048827>.
- Eisen EA, Smith TJ, Wegman DH, et al. 1984. Estimation of long term dust exposures in the Vermont granite sheds. *Am Ind Hyg Assoc J* 45(2):89-94. <http://doi.org/10.1080/15298668491399424>. (As cited in Mannetje et al. 2002b)
- Eisen EA, Wegman DH, Louis TA, et al. 1995. Healthy worker effect in a longitudinal study of one-second forced expiratory volume (FEV1) and chronic exposure to granite dust. *Int J Epidemiol* 24(6):1154-1161.
- Elias Z, Poirot O, Daniere MC, et al. 2000. Cytotoxic and transforming effects of silica particles with different surface properties in Syrian hamster embryo (SHE) cells. *Toxicol in Vitro* 14(5):409-422.
- Elias Z, Poirot O, Fenoglio I, et al. 2006. Surface reactivity, cytotoxic, and morphological transforming effects of diatomaceous earth products in Syrian hamster embryo cells. *Toxicol Sci* 91(2):510-520. <http://doi.org/10.1093/toxsci/kfj177>.
- El-Safty IAM, Gadallah M, Shouman AE, et al. 2003. Subclinical nephrotoxicity caused by smoking and occupational silica exposure among Egyptian industrial workers. *Arch Med Res* 34(5):415-421. [http://doi.org/10.1016/s0188-4409\(03\)00077-8](http://doi.org/10.1016/s0188-4409(03)00077-8).
- Englert H, Small-McMahon J, Davis K, et al. 2000. Male systemic sclerosis and occupational silica exposure-a population-based study. *Aust N Z J Med* 30(2):215-220.
- Environment Canada. 2013. Screening assessment for the challenge. Quartz chemical abstracts service registry number 14808-60-7 cristobalite chemical abstracts service registry number 14464-46-1. Environment Canada, Health Canada. https://www.ec.gc.ca/ese-ees/1EB4F4EF-88EE-4679-9A6C-008F0CBC191C/FSAR_B12%20-%2014464-46-1%20%26%2014808-60-7%20%28QC%29_EN.pdf. October 6, 2015.
- EPA. 1974. Development of emission factors for fugitive dust sources. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA450374037. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockkey=2000MC6B.txt>. March 14, 2019.
- EPA. 1991. R.E.D. facts. Silicon dioxide and silica gel. U.S. Environmental Protection Agency. 738F91107. http://www.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_G-74_1-Sep-91.pdf. October 6, 2015.

8. REFERENCES

- EPA. 1996. Ambient levels and noncancer health effects of inhaled crystalline and amorphous silica: Health issue assessment. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA600R95115. http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=4608. October 6, 2015.
- EPA. 2003. Method 200.5. Determination of trace elements in drinking water by axially viewed inductively coupled plasma-atomic emission spectrometry. U.S. Environmental Protection Agency. EPA600R06115. <http://water.epa.gov/scitech/methods/cwa/upload/Determination-of-Trace-Elements-in-Drinking-Water-by-Axially-Viewed-Inductively-Coupled-Plasma-Atomic-Emission-Spectrometry.pdf>. October 6, 2015.
- EPA. 2005. Toxic chemical release inventory reporting forms and instructions: Revised 2004 version. Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986). U.S. Environmental Protection Agency. EPA260B05001.
- EPA. 2009. National primary drinking water regulations. Washington, DC: U.S. Environmental Protection Agency. EPA816F090004. https://www.epa.gov/sites/production/files/2016-06/documents/npwdr_complete_table.pdf. September 7, 2017.
- EPA. 2011. Exposure factors handbook. U.S. Environmental Protection Agency. <http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236252>. September 22, 2015.
- EPA. 2014. 2012 Chemical data reporting results: Silica, amorphous, fumed, cryst.-free. U.S. Environmental Protection Agency. <https://www.epa.gov/chemical-data-reporting/chemical-data-reporting-previously-collected-data>. February 20, 2019.
- EPA. 2016. Acute Exposure Guideline Levels (AEGLs) values. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2016-03/documents/compiled_aegl_update_.pdf. September 8, 2017.
- EPA. 2017. 2016 Chemical data reporting results: Silica compounds (7631-86-9, 14464-46-1, 14808-60-7, 15468-32-3, 60676-86-0, 61790-53-2, 63231-67-4, 68855-54-9, 69012-64-2, 91053-39-3, 112926-00-8). U.S. Environmental Protection Agency. <https://www.epa.gov/chemical-data-reporting>. February 20, 2019.
- EPA. 2018a. 2018 Edition of the drinking water standards and health advisories. Washington, DC: U.S. Environmental Protection Agency. EPA822S12001. <https://www.epa.gov/sites/production/files/2018-03/documents/dwtable2018.pdf>. July 25, 2018.
- EPA. 2018b. Tolerances and exemptions for pesticide chemical residues in food. Subpart D - exemptions from tolerances. Tolerance exemptions for minimal risk active and inert ingredients. Specific chemical substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.950(e). <https://www.govinfo.gov/content/pkg/CFR-2018-title40-vol26/pdf/CFR-2018-title40-vol26-sec180-950.pdf>. December 17, 2018.
- Erdogdu G, Hasirci V. 1998. An overview of the role of mineral solubility in silicosis and asbestosis. *Environ Res* 78(1):38-42. <http://doi.org/10.1006/enrs.1998.3842>.
- Erren TC, Glende CB, Morfeld P, et al. 2009a. Is exposure to silica associated with lung cancer in the absence of silicosis? A meta-analytical approach to an important public health question. *Int Arch Occup Environ Health* 82(8):997-1004. <http://doi.org/10.1007/s00420-008-0387-0>.
- Erren TC, Glende CB, Morfeld P, et al. 2009b. Electronic supplemental materials. Is exposure to silica associated with lung cancer in the absence of silicosis? A meta-analytical approach to an important public health question. *Int Arch Occup Environ Health* <http://doi.org/10.1007/s00420-008-0387-0>.
- Esswein EJ, Breitenstein M, Snawder J, et al. 2013. Occupational exposures to respirable crystalline silica during hydraulic fracturing. *J Occup Environ Hyg* 10(7):347-356. <http://doi.org/10.1080/15459624.2013.788352>.
- Fairfax R, Oberbeck B. 2008. OSHA compliance issues. Exposure to crystalline silica in a countertop manufacturing operation. *J Occup Environ Hyg* 5(8):D81-85. <http://doi.org/10.1080/15459620802161934>.

8. REFERENCES

- Fanizza C, Ursini CL, Paba E, et al. 2007. Cytotoxicity and DNA-damage in human lung epithelial cells exposed to respirable alpha-quartz. *Toxicol in Vitro* 21(4):586-594. <http://doi.org/10.1016/j.tiv.2006.12.002>.
- FDA. 2013. Everything added to food in the United States (EAFUS). Washington, DC: U.S. Food and Drug Administration. <http://www.accessdata.fda.gov/scripts/fcn/fcnavigation.cfm?rpt=eafuslisting>. January 8, 2014.
- FDA. 2015a. Silica aerogel. Subpart B-multiple purpose GRAS food substances. Food and Drug Administration. Code of Federal Regulations. 21 CFR 182.1711. <http://www.gpo.gov/fdsys/pkg/CFR-2015-title21-vol3/pdf/CFR-2015-title21-vol3-sec182-1711.pdf>. September 23, 2015.
- FDA. 2015b. Substances migrating to food from paper and paperboard products. Subpart A. Food and Drug Administration. Code of Federal Regulations 21 CFR 18290 <http://www.gpo.gov/fdsys/pkg/CFR-2015-title21-vol3/pdf/CFR-2015-title21-vol3-sec182-90.pdf>. September 23, 2015.
- FDA. 2018a. Diatomaceous earth. Substances added to food. Washington, DC: U.S. Food and Drug Administration. <https://www.accessdata.fda.gov/scripts/fdcc/?set=FoodSubstances&id=DIATOMACEOUSEARTH>. December 16, 2018.
- FDA. 2018b. Silicon dioxide. Substances added to food. Washington, DC: U.S. Food and Drug Administration. <https://www.accessdata.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=SILICONDIOXIDE>. December 16, 2018.
- Fenoglio I, Croce A, DiRenzo F, et al. 2000. Pure silica zeolites (porosils) as model solids for the evaluation of the physiochemical features determining silica toxicity to macrophages. *Chem Res Toxicol* 13:489-500
- Fenwick S, Main J. 2000. Increased prevalence of renal disease in silica-exposed workers. *Lancet* 356(9233):913-914. [http://doi.org/10.1016/s0140-6736\(00\)02686-6](http://doi.org/10.1016/s0140-6736(00)02686-6).
- Filios MS, Mazurek JM, Schleiff PL, et al. 2015. Surveillance for silicosis- Michigan and New Jersey 2003-2010. *MMWR Morb Mortal Wkly Rep* 62(54):81-85.
- Finckh A, Cooper GS, Chibnik LB, et al. 2006. Occupational silica and solvent exposures and risk of systemic lupus erythematosus in urban women. *Arthritis Rheum* 54(11):3648-3654. <http://doi.org/10.1002/art.22210>.
- Finkelstein MM. 1995. Radiographic abnormalities and the risk of lung cancer among workers exposed to silica dust in Ontario. *Can Med Assoc J* 152(1):37-43. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Finkelstein MM. 1998. Radiographic silicosis and lung cancer risk among workers in Ontario. *Am J Ind Med* 34(3):244-251. (As cited in Erren et al. 2009a, 2009b; Pelucci et al. 2006)
- Finkelstein MM. 2000. Silica, silicosis, and lung cancer: A risk assessment. *Am J Ind Med* 38(1):8-18.
- Finkelstein MM, Verma DK. 2005. Mortality among Ontario members of the International Union of Bricklayers and Allied Craftworkers. *Am J Ind Med* 47(1):4-9. <http://doi.org/10.1002/ajim.20116>. (As cited in Pelucci et al. 2006)
- Finkelstein M, Kusiak R, Suranyi G. 1982. Mortality among miners receiving workmen's compensation for silicosis in Ontario: 1940-1975. *J Occup Med* 24(9):663-667. (As cited in Poinen-Rughooputh et al. 2016)
- Finkelstein M, Liss GM, Krammer F, et al. 1987. Mortality among workers receiving compensation awards for silicosis in Ontario 1940-85. *Br J Ind Med* 44(9):588-594. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Flanagan ME, Seixas N, Becker P, et al. 2006. Silica exposure on construction sites: results of an exposure monitoring data compilation project. *J Occup Environ Hyg* 3(3):144-152. <http://doi.org/10.1080/15459620500526552>.

8. REFERENCES

- Florke OW, Graetsch HA, Brunk F, et al. 2008. Silica. In: Ullmann's encyclopedia of industrial chemistry. John Wiley & Sons, Inc.
- Forastiere F, Lagorio S, Michelozzi P, et al. 1986. Silica, silicosis and lung cancer among ceramic workers: A case-referent study. *Am J Ind Med* 10(4):363-370. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Forastiere F, Lagorio S, Michelozzi P, et al. 1989. Mortality pattern of silicotic subjects in the Latium region, Italy. *Br J Ind Med* 46(12):877-880. (As cited in Erren et al. 2009a, 2009b)
- Foreland S, Bye E, Bakke B, et al. 2008. Exposure to fibres, crystalline silica, silicon carbide and sulphur dioxide in the Norwegian silicon carbide industry. *Ann Occup Hyg* 52(5):317-336. <http://doi.org/10.1093/annhyg/men029>.
- Franklin BS, Mangan MS, Latz E. 2016. Crystal formation in inflammation. *Annu Rev Immunol* 34:173-202. <http://doi.org/10.1146/annurev-immunol-041015-055539>.
- Freeman CS, Grossman EA. 1995. Silica exposures in workplaces in the United States between 1980 and 1992. *Scand J Work Environ Health* 21(Suppl 2):47-49.
- Freund A, Zuckerman N, Luo H, et al. 2014. Diesel and silica monitoring at two sites following hurricane sandy. *J Occup Environ Hyg* 11(9):D131-143. <http://doi.org/10.1080/15459624.2014.904518>.
- Fruijtier-Polloth C. 2012. The toxicological mode of action and safety of synthetic amorphous silica - a nanostructured material. *Toxicol Abstr* 294:61-79.
- Fruijtier-Polloth C. 2016. The safety of nanostructured synthetic amorphous silica (SAS) as a food additive (E 551). *Arch Toxicol* 90:2885-2916.
- Fu H, Gu X, Jin X, et al. 1994. Lung cancer among tin miners in southeast China: Silica exposure, silicosis, and cigarette smoking. *Am J Ind Med* 26(3):373-381. (As cited in Lacrasse et al. 2005)
- Fubini B, Bolis V, Cavenago A, et al. 1995. Physicochemical properties of crystalline silica dusts and their possible implication in various biological responses. *Scand J Work Environ Health* 21(Suppl 2):9-14.
- Fujimura N. 2000. Pathology and pathophysiology of pneumoconiosis. *Curr Opin Pulm Med* 6(2):140-144.
- Fulekar MH. 1999. Occupational exposure to dust in quartz manufacturing industry. *Ann Occup Hyg* 43(4):269-273.
- Fulekar MH, Khan MMA. 1995. Occupational exposure to dust in slate pencil manufacture. *Ann Occup Hyg* 39(1):107-114.
- Gamble JF. 2011. Crystalline silica and lung cancer: a critical review of the occupational epidemiology literature of exposure-response studies testing this hypothesis. *Crit Rev Toxicol* 41(5):404-465. <http://doi.org/10.3109/10408444.2010.541223>.
- Gamsky TE, McCurdy SA, Samuels SJ, et al. 1992. Reduced FVC among California grape workers. *Am Rev Respir Dis* 145(2):257-262.
- GBD. 2015. Global, regional, and national age-sex specific all-cause and cause-specific mortality of 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *Lancet (North American Edition)* 385:117-171.
- George S, Steinberg SM, Hodge V. 2000. The concentration, apparent molecular weight and chemical reactivity of silica from groundwater in southern Nevada. *Chemosphere* 40:57-63.
- Ghahramani N. 2010. Silica nephropathy. *Int J Occup Environ Health* 1(3):108-115.
- Gibelin A, Maldini C, Mahr A. 2011. Epidemiology and etiology of Wegener granulomatosis, microscopic polyangiitis, Churg-Strauss syndrome and Goodpasture syndrome: Vasculitides with frequent lung involvement. *Semin Respir Crit Care Med* 32(3):264-273.
- Giles RD, Sturgill BC, Suratt PM, et al. 1978. Massive proteinuria and acute renal failure in a patient with acute silicoproteinosis. *Am J Ind Med* 64(2):336-342
- +Gillette-Guyonnet S, Andrieu S, Nourhashemi F, et al. 2005. Cognitive impairment and composition of drinking water in women: findings of the EPIDOS Study. *Am J Clin Nutr* 81(4):897-902.

8. REFERENCES

- Gold LS, Ward MH, Dosemeci M, et al. 2007. Systemic autoimmune disease mortality and occupational exposures. *Arthritis Rheum* 56(10):3189-3201. <http://doi.org/10.1002/art.22880>.
- Goldsmith JR, Goldsmith DF. 1993. Fiberglass or silica exposure and increased nephritis or ESRD (end-stage renal disease). *Am J Ind Med* 23(6):873-881.
- Goldsmith DF, Beaumont JJ, Morrin LA, et al. 1995. Respiratory cancer and other chronic disease mortality among silicotics in California. *Am J Ind Med* 28(4):459-467.
- Gomez-Puerta JA, Gedmintas L, Costenbader KH. 2013. The association between silica exposure and development of ANCA-associated vasculitis: Systematic review and meta-analysis. *Autoimmun Rev* 12(12):1129-1135. <http://doi.org/10.1016/j.autrev.2013.06.016>.
- Gonzalez Huergo D, Rojo Ortega D. 1991. [Experimental study of silica absorption through the digestive tract as a cause of extrapulmonary silicosis]. *Rev Esp Enferm Dig* 80(2):95-98. (Spanish)
- Graham WG, Costello J, Vacek PM. 2004. Vermont granite mortality study: An update with an emphasis on lung cancer. *J Occup Environ Med* 46(5):459-466. (As cited in Pelucci et al. 2006)
- Greaves IA. 2000. Not-so-simple silicosis: a case for public health action. *Am J Ind Med* 37(3):245-251.
- Green FHY, Yoshida K, Fick G, et al. 1990. Characterization of airborne mineral dusts associated with farming activities in rural Alberta, Canada. *Int Arch Occup Environ Health* 62(6):423-430
- Greenberg MI, Waksman J, Curtis J. 2007. Silicosis: a review. *Dis Mon* 53(8):394-416. <http://doi.org/10.1016/j.disamonth.2007.09.020>.
- Gregorini G, Ferioli A, Donato F, et al. 1993. Association between silica exposure and necrotizing crescentic glomerulonephritis with p-ANCA and anti-MPO antibodies: A hospital-based case-control study. *Adv Exp Med Biol* 336:435-440.
- +Groth DH, Moorman WJ, Lynch DW, et al. 1981. Chronic effects of inhaled amorphous silicas in animals. In: Dunnom DD, ed. *Health effects of synthetic silica particulates*. (ASTM STP 732). Philadelphia, PA: American Society for Testing and Materials, 118-143.
- Guenel P, Hojberg G, Lynge E. 1989. Cancer incidence among Danish stone workers. *Scand J Work Environ Health* 15(4):265-270. (As cited in Kurihara and Wada 2004)
- Guidi P, Nigro M, Bernardeschi M, et al. 2013. Genotoxicity of amorphous silica particles with different structure and dimension in human and murine cell lines. *Mutagenesis* 28(2):171-180. <http://doi.org/10.1093/mutage/ges068>.
- Guthrie GD, Jr. 1995. Mineralogical factors affect the biological activity of crystalline silica. *Appl Occup Environ Hyg* 10(12):1126-1131.
- Hall RM, Achutan C, Sollberger R, et al. 2013. Exposure assessment for roofers exposed to silica during installation of roof tiles. *J Occup Environ Hyg* 10(1):D6-10. <http://doi.org/10.1080/15459624.2012.739439>.
- Hamilton RF, Jr., Thakur SA, Holian A. 2008. Silica binding and toxicity in alveolar macrophages. *Free Radic Biol Med* 44(7):1246-1258. <http://doi.org/10.1016/j.freeradbiomed.2007.12.027>.
- Harber P, Dahlgren J, Bunn W, et al. 1998. Radiographic and spirometric findings in diatomaceous earth workers. *J Occup Environ Med* 40(1):22-28.
- Hart GA, Hesterberg TW. 1998. In vitro toxicity of respirable-size particles of diatomaceous earth and crystalline silica compared with asbestos and titanium dioxide. *J Occup Environ Med* 40(1):29-42.
- Hauglustaine D, Van Damme B, Daenens P, et al. 1980. Silicon nephropathy: a possible occupational hazard. *Nephron* 26(5):219-224.
- Haynes WM, Lide DR, Bruno TJ, et al. 2014. In: *CRC handbook of chemistry and physics*. 95th ed. Boca Raton, FL: CRC Press, 4-88.
- Hayumbu P, Robins TG, Key-Schwartz R. 2008. Cross-sectional silica exposure measurements at two Zambian copper mines of Nkana and Mufulira. *Int J Environ Res Public Health* 5(2):86-90.
- Hedlund U, Jonsson H, Eriksson K, et al. 2008. Exposure-response of silicosis mortality in Swedish iron ore miners. *Ann Occup Hyg* 52(1):3-7. <http://doi.org/10.1093/annhyg/mem057>.
- Hemenway DR, Absher MP, Trombley L, et al. 1990. Comparative clearance of quartz and cristobalite from the lung. *Am Ind Hyg Assoc J* 51(7):363-369. <http://doi.org/10.1080/15298669091369790>.

8. REFERENCES

- Hemlick CG, Felson DT, Lawrence RC, et al. 2008. Estimates of the prevalence of arthritis and other rheumatic conditions in the United States. *Arthritis Rheum* 58(1):15-25.
- Hertzberg VS, Rosenman KD, Reilly MJ, et al. 2002. Effect of occupational silica exposure on pulmonary function. *Chest* 122(2):721-728.
- Hessel PA, Gamble JF, Gee JB, et al. 2000. Silica, silicosis, and lung cancer: a response to a recent working group report. *J Occup Environ Med* 42(7):704-720.
- Hesterberg TW, Barrett JC. 1984. Dependence of asbestos- and mineral dust-induced transformation of mammalian cells in culture on fiber dimension. *Cancer Res* 44(5):2170-2180.
- Hewson GS. 1993. Estimates of silica exposure among metalliferous miners in Western Australia (1925-1993). Perth: Department of Minerals and Energy Western Australia. (As cited in Marnett et al. 2002b)
- Hinchcliff M, Varga J. 2008. Systemic sclerosis/scleroderma: A treatable multisystem disease. *Am Fam Physician* 78(8):961-968.
- Hnizdo E. 1990. Combined effect of silica dust and tobacco smoking on mortality from chronic obstructive lung disease in gold miners. *Br J Ind Med* 47(10):656-664.
- Hnizdo E, Sluis-Cremer GK. 1991. Silica exposure, silicosis, and lung cancer: A mortality study of South African gold miners. *Br J Ind Med* 48(1):53-60. (As cited in Finkelstein 2000; Marnett et al. 2002b)
- Hnizdo E, Sluis-Cremer GK. 1993. Risk of silicosis in a cohort of white South African gold miners. *Am J Ind Med* 24(4):447-457.
- Hnizdo E, Murray J. 1998. Risk of pulmonary tuberculosis relative to silicosis and exposure to silica dust in South African gold miners. *Occup Environ Med* 55(7):496-502. (As cited in Marnett et al. 2002b)
- Hnizdo E, Vallyathan V. 2003. Chronic obstructive pulmonary disease due to occupational exposure to silica dust: a review of epidemiological and pathological evidence. *Occup Environ Med* 60(4):237-243.
- Hnizdo E, Murray J, Klempman S. 1997. Lung cancer in relation to exposure to silica dust, silicosis and uranium production in South African gold miners. *Thorax* 52(3):271-275. (As cited in Erren et al. 2009a, 2009b; Finkelstein 2000; Kurihara and Wada 2004; Marnett et al. 2002b; Pelucci et al. 2006; Steenland et al. 2001a)
- Hnizdo E, Murray J, Sluis-Cremer GK, et al. 1993. Correlation between radiological and pathological diagnosis of silicosis: an autopsy population based study. *Am J Ind Med* 24(4):427-445.
- Hogan SL, Satterly KK, Dooley MA, et al. 2001. Silica exposure in anti-neutrophil cytoplasmic autoantibody-associated glomerulonephritis and lupus nephritis. *J Am Soc Nephrol* 12(1):134-142.
- Hogan SL, Cooper GS, Savitz DA, et al. 2007. Association of silica exposure with anti-neutrophil cytoplasmic autoantibody small-vessel vasculitis: A population-based, case-control study. *Clin J Am Soc Nephrol* 2(2):290-299. <http://doi.org/10.2215/cjn.03501006>.
- Holloway MD, Rudd O. 2014. Fracking operations. In: Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons. <http://doi.org/10.1002/0471238961.fracholl.a01>.
- Hornung V, Bauernfeind F, Halle A, et al. 2008. Silica crystals and aluminum salts activate the NALP3 inflammasome through phagosomal destabilization. *Nat Immunol* 9(8):847-856 <http://doi.org/10.1038/ni.1631>.
- Horwell CJ, Le Blond JS, Michnowicz SAK, et al. 2010. Cristobalite in a rhyolitic lava dome: evolution of ash hazard. *Bull Volcanol* 72:249-253. <http://doi.org/10.1007/s00445-009-0327-1>.
- Horwell CJ, Williamson BJ, Donaldson K, et al. 2012. The structure of volcanic cristobalite in relation to its toxicity; relevance for the variable crystalline silica hazard. Part I. *Fibre Toxicol* 9:44. <http://doi.org/10.1186/1743-8977-9-44>.
- Horwell CJ, Baxter PJ, Hillman SE, et al. 2013. Physicochemical and toxicological profiling of ash from the 2010 and 2011 eruptions of Eyjafjallajökull and Grimsvotn volcanoes, Iceland using a rapid respiratory hazard assessment protocol. *Environ Res* 127:63-73. <http://doi.org/10.1016/j.envres.2013.08.011>.

8. REFERENCES

- Hotz P, Gonzalez-Lorenzo J, Siles E, et al. 1995. Subclinical signs of kidney dysfunction following short exposure to silica in the absence of silicosis. *Nephron* 70(4):438-442.
- HSDB. 2009. Amorphous silica. CASRN: No CAS RN. Hazardous Substances Data Bank. National Library of Medicine. <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>. September 23, 2015.
- HSDB. 2012. Crystalline silica. CASRN: No CAS RN. Hazardous Substances Data Bank. National Library of Medicine. <http://toxnet.nlm.nih.gov>. September 23, 2015.
- Huax F. 2007. New developments in the understanding of immunology in silicosis. *Curr Opin Allergy Clin Immunol* 7(2):168-173. <http://doi.org/10.1097/ACI.0b013e32802bf8a5>.
- Hughes JM, Weill H, Checkoway H, et al. 1998. Radiographic evidence of silicosis risk in the diatomaceous earth industry. *Am J Respir Crit Care Med* 158(3):807-814. <http://doi.org/10.1164/ajrccm.158.3.9709103>.
- Hughes JM, Weill H, Rando RJ, et al. 2001. Cohort mortality study of North American industrial sand workers. II. Case-referent analysis of lung cancer and silicosis deaths. *Ann Occup Hyg* 45(3):201-207.
- Iannello S, Camuto M, Cantarella S, et al. 2002. Rheumatoid syndrome associated with lung interstitial disorder in a dental technician exposed to ceramic silica dust. A case report and critical literature review. *Clin Rheumatol* 21(1):76-81.
- IARC. 1987. Silica and some silicates. In: IARC monographs of the evaluation of the carcinogenic risk of chemicals to humans. Vol. 42. Lyon, France: International Agency for Research on Cancer.
- IARC. 1997. Silica. IARC Monographs on the evaluation of carcinogenic risks to humans. Volume 68. Silica, some silicates, coal dust and para-aramid fibrils. Lyon, France: International Agency for Research on Cancer. <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono68-6.pdf>. December 12, 2018.
- IARC. 2012. Silica dust, crystalline, in the form of quartz or cristobalite. IARC Monographs on the evaluation of carcinogenic risks to humans. Volume 100C. Arsenic, metals, fibres and dusts. Lyon, France: International Agency for Research on Cancer. <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono100C-14.pdf>. December 12, 2018.
- Ibrahim KS, Ahmed SB, Amer NM. 2011. Study of kidney dysfunction in non-silicotic Egyptian workers. *Int J Hyg Environ Health* 214(1):53-58. <http://doi.org/10.1016/j.ijheh.2010.08.012>.
- ICRP. 1994. Annex D. Deposition of inhaled particles, Annex E. Clearance of particles from the respiratory tract. In: Human respiratory tract model for radiological protection. ICRP Publication 66. Tarrytown, NY: International Commission on Radiological Protection. Elsevier Science, Inc., 231-413.
- Infante-Rivard C, Armstrong B, Petitclerc M, et al. 1989. Lung cancer mortality and silicosis in Quebec, 1938-85. *Lancet* 2(8678-8679):1504-1507. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Iocopini GA, Brantley SL, Heaney PJ. 2005. Kinetics of silica oligomerization and nanocolloid formation as a function of pH and ionic strength at 25 degrees C. *Geochim Cosmochim Acta* 69(2):293-303.
- IRIS. 2018. List of final IRIS assessments. Washington, DC: Integrated Risk Information System. U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris_drafts/simple_list.cfm. July 25, 2018.
- Jacobsen NR, Saber AT, White P, et al. 2007. Increased mutant frequency by carbon black, but not quartz, in the lacZ and cII transgenes of mutaTM mouse lung epithelial cells. *Environ Mol Mutagen* 48(6):451-461. <http://doi.org/10.1002/em.20300>.
- +Jacqmin-Gadda H, Commenges D, Letenneur L, et al. 1996. Silica and aluminum in drinking water and cognitive impairment in the elderly. *Epidemiology* 7(3):281-285.
- Jensen M, Keding R, Hoche T, et al. 2009. Biologically formed mesoporous amorphous silica. *J Am Chem Soc* 131(7):2717-2721. <http://doi.org/10.1021/ja808847y>.
- Jiang PR, Cao Z, Qiu ZL, et al. 2015. Plasma levels of TNF-alpha and MMP-9 in patients with silicosis. *Eur Rev Med Pharmacol Sci* 19:1716-1720.

8. REFERENCES

- +Johnston CJ, Driscoll KE, Finkelstein JN, et al. 2000. Pulmonary chemokine and mutagenic responses in rats after subchronic inhalation of amorphous and crystalline silica. *Toxicol Sci* 56(2):405-413.
- Jorna T, Borm PJA, Koiter KD, et al. 1994. Respiratory effects and serum type III procollagen in potato sorters exposed to diatomaceous earth. *Int Arch Occup Environ Health* 66(4):217-222.
- Joy GJ. 2012. Evaluation of the approach to respirable quartz exposure control in U.S. coal mines. *J Occup Environ Hyg* 9(2):65-68. <http://doi.org/10.1080/15459624.2011.639232>.
- Kada T, Hirano K, Shirasu Y. 1980. Screening of environmental chemical mutagens by the Rec-assay system with *Bacillus subtilis*. *Chem Mutagen* 6:149-173.
- Kambouchner M, Bernaudin JF. 2015. The pathologist's view of silicosis in 1930 and in 2015. The Johannesburg Conference legacy. *Am J Ind Med* 58 Suppl 1:S48-58. <http://doi.org/10.1002/ajim.22506>.
- Kanematsu N, Hara M, Kada T. 1980. Rec assay and mutagenicity studies on metal compounds. *Mutat Res* 77:109-116.
- Katsnelson BA, Konysheva LK, Privalova LI, et al. 1992. Development of a multicompartamental model of the kinetics of quartz dust in the pulmonary region of the lung during chronic inhalation exposure of rats. *Br J Ind Med* 49(3):172-181
- Kauppinen T, Heikkilä P, Partanen T, et al. 2003. Mortality and cancer incidence of workers in Finnish road paving companies. *Am J Ind Med* 43:49-57. (As cited in Pelucci et al. 2006)
- Kawasaki H. 2015. A mechanistic review of silica-induced inhalation toxicity. *Inhal Toxicol* 27(8):363-377. <http://doi.org/10.3109/08958378.2015.1066905>.
- Kelly DP, Lee KP. 1990. Pulmonary response to Ludox colloidal silica inhalation exposure in rats. *Toxicologist* 90:202.
- Keshava C, Keshava N, Zhou G, et al. 1999. Genomic instability in silica- and cadmium chloride-transformed BALB/c-3T3 and tumor cell lines by random amplified polymorphic DNA analysis. *Mutat Res* 425(1):117-123.
- Klockars M, Koskela RS, Jarvinen E, et al. 1987. Silica exposure and rheumatoid arthritis: A follow up study of granite workers 1940-81. *Br Med J* 294(6578):997-1000.
- Knaapen AM, Albrecht C, Becker A, et al. 2002. DNA damage in lung epithelial cells isolated from rats exposed to quartz: Role of surface reactivity and neutrophilic inflammation. *Carcinogenesis* 23(7):1111-1120.
- Koskela RS. 1995. Association of silica dust exposure with lung cancer and other diseases. *Acta Universitatis Tampereensis, Ser A Vol 460 Academic dissertation, University of Tampere, Finland* (As cited in Mannetje et al. 2002b)
- Koskela RS, Klockars M, Jarvinen E, et al. 1987a. Cancer mortality of granite workers. *Scand J Work Environ Health* 13(1):26-31. (As cited in Mannetje et al. 2002b)
- Koskela RS, Klockars M, Jarvinen E, et al. 1987b. Mortality and disability among granite workers. *Scandinavian Journal of Work, Environment & Health* 13(1):18-25.
- Koskela RS, Klockars M, Laurent H, et al. 1994. Silica dust exposure and lung cancer. *Scand J Work Environ Health* 20(6):407-416.
- Kramer MR, Blanc PD, Fireman E, et al. 2012. Artificial stone silicosis: Disease resurgence among artificial stone workers. *Chest* 142(2):419-424. <http://doi.org/10.1378/chest.11-1321>.
- Kreiss K, Zhen B. 1996. Risk of silicosis in a Colorado mining community. *Am J Ind Med* 30(5):529-539. [http://doi.org/10.1002/\(sici\)1097-0274\(199611\)30:5<529::aid-ajim2>3.0.co;2-o](http://doi.org/10.1002/(sici)1097-0274(199611)30:5<529::aid-ajim2>3.0.co;2-o).
- Kreyling WG. 1990. Interspecies comparison of lung clearance of "insoluble" particles. *J Aerosol Med* 3(Supplement 1):S-93 S-110.
- Krishnan K, Anderson ME, Clewell HJ, et al. 1994. Physiologically based pharmacokinetic modeling of chemical mixtures. In: Yang RSH, ed. *Toxicology of chemical mixtures. Case studies, mechanisms, and novel approaches*. San Diego, CA: Academic Press, 399-437.
- Kullman GJ, Greife AL, Costello J, et al. 1995. Occupational exposures to fibers and quartz at 19 crushed stone mining and milling operations. *Am J Ind Med* 27(5):641-660.

8. REFERENCES

- Kurihara N, Wada O. 2004. Silicosis and smoking strongly increase lung cancer risk in silica-exposed workers. *Ind Health* 42(3):303-314.
- Lacasse Y, Martin S, Gagne D, et al. 2009. Dose-response meta-analysis of silica and lung cancer. *Cancer Causes Control* 20(6):925-933. <http://doi.org/10.1007/s10552-009-9296-0>.
- Lacey JV, Laing TJ, Gillespie BW, et al. 1997. Mr. Lacey, et al reply. [Reply to "Epidemiology of scleroderma among women: assessment of risk from exposure to silicone and silica"]. *J Rheumatol* 24(9):1853-1855.
- Lagorio S, Forastiere F, Michelozzi P, et al. 1990. A case-referent study on lung cancer mortality among ceramic workers. *IARC Sci Publ* (97):21-28 (As cited in Erren et al. 2009a, 2009b)
- Lane SE, Watts RA, Bentham G, et al. 2003. Are environmental factors important in primary systemic vasculitis? *Arthritis Rheum* 48(3):8114-8823.
- Large DJ, Kelly S, Spiro B, et al. 2009. Silica-volatile interaction and the geological cause of the Xuan Wei lung cancer epidemic. *Environ Sci Technol* 43(23):9016-9021. <http://doi.org/10.1021/es902033j>.
- Latz E. 2010. The inflammasomes: mechanisms of activation and function. *Curr Opin Immunol* 22(1):28-33. <http://doi.org/10.1016/j.coi.2009.12.004>.
- Lawson RJ, Schenker MB, McCurdy SA, et al. 1995. Exposure to amorphous silica fibers and other particulate matter during rice farming operations. *Appl Occup Environ Hyg* 10(8):677-684.
- Le Blond JS, Horwell CJ, Williamson BJ, et al. 2010. Generation of crystalline silica from sugarcane burning. *J Environ Monit* 12(7):1459-1470. <http://doi.org/10.1039/c0em00020e>.
- Lee K. 2009. OSHA compliance issues benzene and crystalline silica exposures in a grey iron foundry. *J Occup Environ Hyg* 6(5):D15-17. <http://doi.org/10.1080/15459620902754380>.
- +Lee KP, Kelly DP. 1992. The pulmonary response and clearance of Ludox colloidal silica after a 4-week inhalation exposure in rats. *Fundam Appl Toxicol* 19(3):399-410.
- Lee S, Hayashi H, Maeda M, et al. 2012. Environmental factors producing autoimmune dysregulation--chronic activation of T cells caused by silica exposure. *Immunobiology* 217(7):743-748. <http://doi.org/10.1016/j.imbio.2011.12.009>.
- Lee S, Matsuzaki H, Kumagai-Takei N, et al. 2014. Silica exposure and altered regulation of autoimmunity. *Environ Health Prev Med* 19(5):322-329. <http://doi.org/10.1007/s12199-014-0403-9>.
- Lee S, Hayashi H, Mastuzaki H, et al. 2017. Silicosis and autoimmunity. *Curr Opin Allergy Clin Immunol* 17(2):78-84. <http://doi.org/10.1097/aci.0000000000000350>.
- Legge RT, Rosencrantz E. 1932. Observations and studies on silicosis by diatomaceous silica. *Arch Environ Health* 1:125-128.
- Leung CC, Yu IT, Chen W. 2012. Silicosis. *Lancet* 379(9830):2008-2018. [http://doi.org/10.1016/s0140-6736\(12\)60235-9](http://doi.org/10.1016/s0140-6736(12)60235-9).
- +Lewinson J, Mayr W, Wagner H. 1994. Characterization and toxicological behavior of synthetic amorphous hydrophobic silica. *Regul Toxicol Pharmacol* 20(1):37-57. <http://doi.org/10.1006/rtph.1994.1035>.
- Li H, Haberzettl P, Albrecht C, et al. 2007. Inhibition of the mitochondrial respiratory chain function abrogates quartz induced DNA damage in lung epithelial cells. *Mutat Res* 617(1-2):46-57. <http://doi.org/10.1016/j.mrfmmm.2006.12.001>.
- Lickiss PD. 2006. Silicon: Inorganic chemistry. In: *Encyclopedia of inorganic chemistry*. John Wiley & Sons, Ltd. <http://doi.org/10.1002/0470862106.ia219>. September 22, 2015.
- Linch KD, Miller WE, Althouse RB, et al. 1998. Surveillance of respirable crystalline silica dust using OSHA compliance data (1979-1995). *Am J Ind Med* 34(6):547-558.
- Lippmann M, Timbrell V. 1990. Particle loading in the human lung—human experience and implications for exposure limits. *J Aerosol Med* 3:155-168
- Liu S, Liu N, Li J. 1996a. Silicosis caused by rice husk ashes. *J Occup Health* 38(2):57-62.
- Liu X, Keane MJ, Zhong BZ, et al. 1996b. Micronucleus formation in V79 cells treated with respirable silica dispersed in medium and in simulated pulmonary surfactant. *Mutat Res* 2(3):89-94.

8. REFERENCES

- Liu B, Guan R, Zhou P, et al. 2000. A distinct mutational spectrum of p53 and K-ras genes in lung cancer of workers with silicosis. *J Environ Pathol Toxicol Oncol* 19(1-2):1-7.
- Liu Y, Steenland K, Rong Y, et al. 2013. Exposure-response analysis and risk assessment for lung cancer in relationship to silica exposure: a 44-year cohort study of 34,018 workers. *Am J Epidemiol* 178(9):1424-1433. <http://doi.org/10.1093/aje/kwt139>.
- Liu H, Patel DJ, Welch AM, et al. 2016. Association between occupational exposures and sarcoidosis. *Chest Surg Clin N Am* 150(2):289-298.
- Loosereewanich P, Ritchie AC, Armstrong B, et al. 1995. Pulmonary dust retention in silicotics with and without lung cancer. *Appl Occup Environ Hyg* 10(12):1104-1106.
- Love RG, Waclawski ER, Maclaren WM, et al. 1999. Risks of respiratory disease in the heavy clay industry. *Occup Environ Med* 56(2):124-133.
- Madl AK, Donovan EP, Gaffney SH, et al. 2008. State-of-the-science review of the occupational health hazards of crystalline silica in abrasive blasting operations and related requirements for respiratory protection. *J Toxicol Environ Health B Crit Rev* 11(7):548-608. <http://doi.org/10.1080/10937400801909135>.
- Maeda M, Nishimura Y, Kumagai N, et al. 2010. Dysregulation of the immune system caused by silica and asbestos. *J Immunotoxicol* 7(4):268-278. <http://doi.org/10.3109/1547691x.2010.512579>.
- Maitre A, Hours M, Bonnetterre V, et al. 2004. Systemic sclerosis and occupational risk factors: Role of solvents and cleaning products. *J Rheumatol* 31:2395-2401.
- Makol A, Reilly MJ, Rosenman KD. 2011. Prevalence of connective tissue disease in silicosis (1985-2006)-a report from the state of Michigan surveillance system for silicosis. *Am J Ind Med* 54(4):255-262. <http://doi.org/10.1002/ajim.20917>.
- Malmberg P, Hedenstrom H, Sundblad BM. 1993. Changes in lung function of granite crushers exposed to moderately high silica concentrations: A 12 year follow up. *Br J Ind Med* 50(8):726-731.
- Mancuso JD, McCoy J, Pelka B, et al. 2008. The challenge of controlling lead and silica exposures from firing ranges in a special operations force. *Mil Med* 173(2):182-186.
- Mannetje A, Steenland K, Attfield M, et al. 2002a. Exposure-response analysis and risk assessment for silica and silicosis mortality in a pooled analysis of six cohorts. *Occup Environ Med* 59(11):723-728.
- Mannetje A, Steenland K, Checkoway H, et al. 2002b. Development of quantitative exposure data for a pooled exposure-response analysis of 10 silica cohorts. *Am J Ind Med* 42(2):73-86. <http://doi.org/10.1002/ajim.10097>.
- Manson JJ, Rahman A. 2006. Systemic lupus erythematosus. *Orphanet J Rare Dis* 1:6. <http://doi.org/10.1186/1750-1172-1-6>.
- Mao Y, Daniel LN, Whittaker N, et al. 1994. DNA binding to crystalline silica characterized by Fourier-transform infrared spectroscopy. *Environ Health Perspect* 102 Suppl 10:165-171.
- Marie I, Gehanno JF, Bubenheim M, et al. 2014. Prospective study to evaluate the association between systemic sclerosis and occupational exposure and review of the literature. *Autoimmun Rev* 13(2):151-156. <http://doi.org/10.1016/j.autrev.2013.10.002>.
- Marinaccio A, Scarselli A, Gorini G, et al. 2006. Retrospective mortality cohort study of Italian workers compensated for silicosis. *Occup Environ Med* 63(11):762-765. <http://doi.org/10.1136/oem.2006.027854>.
- Martin JC, Imbernon E, Goldberg M, et al. 2000. Occupational risk factors for lung cancer in the French electricity and gas industry: A case-control survey nested in a cohort of active employees. *Am J Epidemiol* 151(9):902-912. (As cited in Kurihara and Wada 2004; Pelucci et al. 2006)
- Mastrangelo G, Zambon P, Simonato L, et al. 1988. A case-referent study investigating the relationship between exposure to silica dust and lung cancer. *Int Arch Occup Environ Health* 60(4):299-302. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Mauderly JL, Cheng YS, Snipes MB. 1990. Particle overload in toxicology studies: Friend or foe? *J Aerosol Med* 3(Suppl 1):S169-S187

8. REFERENCES

- Maxim DL, Venturin D, Allshouse JN. 1999. Respirable crystalline silica exposure associated with the installation and removal of RCF and conventional silica-containing refractories in industrial furnaces. *Regul Toxicol Pharmacol* 29(1):44-63. <http://doi.org/10.1006/rtp.1998.1268>.
- Mazurek JM, Attfield MD. 2008. Silicosis mortality among young adults in the United States, 1968-2004. *Am J Ind Med* 51(8):568-578. <http://doi.org/10.1002/ajim.20597>.
- McClellan RO. 1990. Particle overload in the lung: Approaches to improving our knowledge. *J Aerosol Med* 3:197-207.
- McCormic ZD, Khuder SS, Aryal BK, et al. 2010. Occupational silica exposure as a risk factor for scleroderma: A meta-analysis. *Int Arch Occup Environ Health* 83(7):763-769. <http://doi.org/10.1007/s00420-009-0505-7>.
- McDonald JC, Cherry N, McNamee R, et al. 1995. Preliminary analysis of proportional mortality in a cohort of British pottery workers exposed to crystalline silica. *Scand J Work Environ Health* 21 Suppl 2:63-65.
- McDonald AD, McDonald JC, Rando RJ, et al. 2001. Cohort mortality study of North American industrial sand workers. I. Mortality from lung cancer, silicosis and other causes. *Ann Occup Hyg* 45(3):193-199.
- McDonald JC, McDonald AD, Hughes JM, et al. 2005. Mortality from lung and kidney disease in a cohort of North American industrial sand workers: An update. *Ann Occup Hyg* 49(5):367-373. <http://doi.org/10.1093/annhyg/mei001>.
- McLaughlin JK, Chow WH, Levy LS. 1997. Amorphous silica: a review of health effects from inhalation exposure with particular reference to cancer. *J Toxicol Environ Health* 50(6):553-566. <http://doi.org/10.1080/15287399709532054>.
- McLaughlin JK, Chen JQ, Dosemeci M, et al. 1992. A nested case-control study of lung cancer among silica exposed workers in China. *Br J Ind Med* 49(3):167-171. (As cited in Kurihara and Wada 2004; Mannelje et al. 2002b)
- Meeker JD, Susi P, Pellegrino A. 2005. Exposure to silica and metals among painters using specular hematite abrasive. *J Occup Environ Hyg* 2(8):D60-64.
- Mehlhorn J, Enderlein G, Conrad K, et al. 1999. [Analysis for the association between progressive systemic scleroderma, exposure to quartz dust, and silicosis in East Germany uranium mining]. *Zbl Arbeitsmed* 49:134-147. (As cited in McCormic et al. 2010 - German)
- Mehnert WH, Staneczek W, Mohner M, et al. 1990. A mortality study of a cohort of slate quarry workers in the German Democratic Republic. *IARC Sci Publ* 97:55-64. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Meijer E, Kromhout H, Heederik D. 2001. Respiratory effects of exposure to low levels of concrete dust containing crystalline silica. *Am J Ind Med* 40(2):133-140.
- Meijers JM, Swaen GM, Slangen JJ. 1996. Mortality and lung cancer in ceramic workers in The Netherlands: Preliminary results. *Am J Ind Med* 30(1):26-30. [http://doi.org/10.1002/\(sici\)1097-0274\(199607\)30:1<26::aid-ajim4>3.0.co;2-q](http://doi.org/10.1002/(sici)1097-0274(199607)30:1<26::aid-ajim4>3.0.co;2-q). (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- Menvielle G, Luce D, Fevotte J, et al. 2003. Occupational exposures and lung cancer in New Caledonia. *Occup Environ Med* 60(8):584-589. (As cited in Pelucci et al. 2006)
- Merget R, Bauer T, Kupper HU, et al. 2002. Health hazards due to the inhalation of amorphous silica. *Arch Toxicol* 75(11-12):625-634.
- Merlo F, Costantini M, Reggiardo G, et al. 1991. Lung cancer risk among refractory brick workers exposed to crystalline silica: A retrospective cohort study. *Epidemiology* 2(4):299-305. (As cited in Kurihara and Wada 2004)
- Merlo F, Fontana L, Reggiardo G, et al. 1995. Mortality among silicotics in Genoa, Italy, from 1961 to 1987. *Scand J Work Environ Health* 21 Suppl 2:77-80. (As cited in Lacrasse et al. 2005)
- Merlo DF, Garattini S, Gelatti U, et al. 2004. A mortality cohort study among workers in a graphite electrode production plant in Italy. *Occup Environ Med* 61(2):e9. (As cited in Pelucci et al. 2006)

8. REFERENCES

- Millerick-May ML, Schrauben S, Reilly MJ, et al. 2015. Silicosis and chronic renal disease. *Am J Ind Med* 58:730-736. <http://doi.org/10.1002/ajim.22465>.
- MMWR. 1989. Exposure trends in silica flour plants--United States, 1975-1986. *MMWR Morb Mortal Wkly Rep* 38(21):380-383.
- Mohner M, Kersten N, Gellissen J. 2013a. Chronic obstructive pulmonary disease and longitudinal changes in pulmonary function due to occupational exposure to respirable quartz. *Occup Environ Med* 70(1):9-14. <http://doi.org/10.1136/oemed-2012-100775>.
- Mohner M, Kersten N, Gellissen J. 2013b. Re: Clinically significant lung function impairment due to current levels of respirable quartz? (Authors' response). *Occup Environ Med* 70(12):893-894. <http://doi.org/10.1136/oemed-2013-101808>.
- Mohner M, Pohrt A, Gellissen J. 2017. Occupational exposure to respirable crystalline silica and chronic non-malignant renal disease: systematic review and meta-analysis. *Int Arch Occup Environ Health* 90(7):555-574. <http://doi.org/10.1007/s00420-017-1219-x>.
- Molocznik A. 2002. Qualitative and quantitative analysis of agricultural dust in working environment. *Ann Agric Environ Med* 9(1):71-78.
- Moore M. 1999. Crystalline silica: Occurrence and use. *Indoor Built Environ* 8:82-88.
- Morfeld P, Mundt KA, Taeger D, et al. 2013. Threshold value estimation for respirable quartz dust exposure and silicosis incidence among workers in the German porcelain industry. *J Occup Environ Med* 55(9):1027-1034. <http://doi.org/10.1097/JOM.0b013e318297327a>.
- Morfeld P, Taeger D, Mitura H, et al. 2014. Cross-sectional study on respiratory morbidity in workers after exposure to synthetic amorphous silica at five German production plants: exposure assessment and exposure estimates. *J Occup Environ Med* 56(1):72-78. <http://doi.org/10.1097/jom.000000000000055>.
- Morita T, Asano N, Awogi T, et al. 1997. Evaluation of the rodent micronucleus assay in the screening of IARC carcinogens (groups 1, 2A and 2B) the summary report of the 6th collaborative study by CSGMT/JEMS MMS. [published erratum appears in *Mutat Res* 391(3):259-267]. *Mutat Res* 389(1):3-122.
- Morrow PE. 1992. Dust overloading of the lungs: Update and appraisal. *Toxicol Appl Pharmacol* 113:1-12
- Moshhammer H, Neuberger M. 2004. Lung cancer and dust exposure: Results of a prospective cohort study following 3260 workers for 50 years. *Occup Environ Med* 61(2):157-162. (As cited in Pelucci et al. 2006)
- Mossman BT, Churg A. 1998. Mechanisms in the pathogenesis of asbestosis and silicosis. *Am J Respir Crit Care Med* 157(5 Pt 1):1666-1680. <http://doi.org/10.1164/ajrccm.157.5.9707141>.
- Mossman BT, Glenn RE. 2013. Bioreactivity of the crystalline silica polymorphs, quartz and cristobalite, and implications for occupational exposure limits (OELs). *Crit Rev Toxicol* 43(8):632-660. <http://doi.org/10.3109/10408444.2013.818617>.
- Motley HL. 1960. Pulmonary function studies in diatomaceous earth workers. 2. A cross section survey of 98 workers on the job. *Ind Med Surg* 29:370-378.
- Motley HL, Smart RH, Valero A. 1956. Pulmonary function studies in diatomaceous earth workers. I. Ventilatory and blood gas exchange disturbances. *AMA Arch Ind Health* 13(3):265-274.
- Moulin JJ, Clavel T, Roy D, et al. 2000. Risk of lung cancer in workers producing stainless steel and metallic alloys. *Int Arch Occup Environ Health* 73(3):171-180. (As cited in Pelucci et al. 2006)
- MPCA. 2015a. Shakopee Sand (previously Great Plains Sand) ambient air monitoring Jordan, Minnesota July 2012 – June 2015. Saint Paul, MN: Minnesota Pollution Control Agency. G-70-03. <https://www.pca.state.mn.us/sites/default/files/g-70-03.pdf>. January 18, 2017.
- MPCA. 2015b. Titan Lansing Transload ambient air monitoring data report North Branch, Minnesota November 2012 – September 2015. Saint Paul, MN: Minnesota Pollution Control Agency. G-13-03. <https://www.pca.state.mn.us/sites/default/files/g-13-03.pdf>. January 17, 2017.

8. REFERENCES

- MPCA. 2015c. Winona - Community ambient air monitoring Winona, Minnesota January 2014 – December 2014. Saint Paul, MN: Minnesota Pollution Control Agency. G-85-03. <https://www.pca.state.mn.us/sites/default/files/g-85-03.pdf>. January 17, 2017.
- Msiska Z, Pacurari M, Mishra A, et al. 2010. DNA double-strand breaks by asbestos, silica, and titanium dioxide: Possible biomarker of carcinogenic potential? *Am J Respir Cell Mol Biol* 43(2):210-219. <http://doi.org/10.1165/rcmb.2009-0062OC>.
- Muir DC, Shannon HS, Julian JA, et al. 1989a. Silica exposure and silicosis among Ontario hardrock miners: I. Methodology. *Am J Ind Med* 16(1):5-11.
- Muir DC, Julian JA, Shannon HS, et al. 1989b. Silica exposure and silicosis among Ontario hardrock miners: III. Analysis and risk estimates. *Am J Ind Med* 16(1):29-43.
- Mukhopadhyay K, Ramalingam A, Ramani R, et al. 2011. Exposure to respirable particulates and silica in and around the stone crushing units in central India. *Ind Health* 49(2):221-227.
- Mundt KA, Birk T, Parsons W, et al. 2011. Respirable crystalline silica exposure-response evaluation of silicosis morbidity and lung cancer mortality in the German porcelain industry cohort. *J Occup Environ Med* 53(3):282-289. <http://doi.org/10.1097/JOM.0b013e31820c2bff>.
- Murashov V, Harper M, Demchuk E. 2006. Impact of silanol surface density on the toxicity of silica aerosols measured by erythrocyte haemolysis. *J Occup Environ Hyg* 3(12):718-723.
- Nagalakshmi R, Nath J, Ong T, et al. 1995. Silica-induced micronuclei and chromosomal aberrations in Chinese hamster lung (V79) and human lung (Hel 299) cells. *Mutat Res* 335(1):27-33.
- Naghizadeh A, Mahvi AH, Jabbari H, et al. 2011. Exposure assessment to dust and free silica for workers of Sangan iron ore mine in Khaf, Iran. *Bull Environ Contam Toxicol* 87(5):531-538. <http://doi.org/10.1007/s00128-011-0375-z>.
- NAS/NRC. 1989. Report of the oversight committee. Biologic markers in reproductive toxicology. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press. 15-35.
- Neuberger M, Westphal G, Bauer P. 1988. Long-term effect of occupational dust exposure. *Sangyo Igaku* 30(5):362-370. (As cited in Poinen-Rughooputh et al. 2016)
- Neuberger M, Kundi M, Westphal G, et al. 1986. The Viennese dusty worker study. In: Goldsmith DF, Winn DM, Shy CM, eds. *Silica, silicosis, and cancer: Controversy in occupational medicine*. New York: Praeger, 415-422. (As cited in Erren et al. 2009, 2009b)
- +Newberne PM, Wilson RB. 1970. Renal damage associated with silicon compounds in dogs. *Proc Nat Acad Sci U S A* 65(4):872-875.
- Ng T, Chan S. 1994. Quantitative relations between silica exposure and development of radiological small opacities in granite workers. *Ann Occup Hyg* 38(inhaled particles VII):857-863.
- Ng TP, Chan SL, Lee J. 1990. Mortality of a cohort of men in a silicosis register: Further evidence of an association with lung cancer. *Am J Ind Med* 17(2):163-171.
- Ng TP, Lee HS, Phoon WH. 1993. Further evidence of human silica nephrotoxicity in occupationally exposed workers. *Br J Ind Med* 50(10):907-912.
- Ng TP, Ng YL, Lee HS, et al. 1992. A study of silica nephrotoxicity in exposed silicotic and non-silicotic workers. *Br J Ind Med* 49(1):35-37.
- Nieuwenhuijsen MJ, Noderer KS, Schenker MB, et al. 1999. Personal exposure to dust, endotoxin and crystalline silica in California agriculture. *Ann Occup Hyg* 43(1):35-42.
- Ning RY. 2002. Discussion of silica speciation, fouling, control and maximum reduction. *Desalination* 151:67-73.
- NIOSH. 1981. Silica flour: Silicosis (crystalline silica). National Institute for Occupational Safety and Health. 81-137. <http://www.cdc.gov/niosh/docs/81-137/>. September 23, 2015.
- NIOSH. 1986. Occupational respiratory diseases. National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/docs/86-102/86-102.pdf>. March 12, 2019.
- NIOSH. 1994a. Silica, amorphous. Immediately Dangerous to Life or Health Concentrations (IDLH). Atlanta, GA: National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/idlh/7631869.html>. December 13, 2018.

8. REFERENCES

- NIOSH. 1994b. Silica, crystalline. Immediately Dangerous to Life or Health Concentrations (IDLH). Atlanta, GA: National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/idlh/14808607.html>. December 13, 2018.
- NIOSH. 1994c. Work-related lung disease surveillance report. National Institute for Occupational Safety and Health. NIOSH Publ 94-120.
- NIOSH. 2002. NIOSH hazard review. Health effects of occupational exposure to respirable crystalline silica. National Institute for Occupational Safety and Health. DHHS (NIOSH) publication number 2002-129. <http://www.cdc.gov/niosh/docs/2002-129/pdfs/2002-129.pdf>. October 6, 2015.
- NIOSH. 2003a. Silica, crystalline, by XRD (filter redeposition). Method 7500, Issue 4. NIOSH Manual of Analytical Methods (NMAM). National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/docs/2003-154/pdfs/7500.pdf>. October 6, 2015.
- NIOSH. 2003b. Silica, crystalline, by VIS. Method 7601, issue 3. NIOSH Manual of Analytical Methods (NMAM). National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/docs/2003-154/pdfs/7601.pdf>. October 6, 2015.
- NIOSH. 2003c. Silica, amorphous. Method 7501, Issue 3. NIOSH Manual of Analytical Methods (NMAM). National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/docs/2003-154/pdfs/7501.pdf>. October 6, 2015.
- NIOSH. 2003d. Silica, crystalline by IR (KBr pellet) Method 7602. NIOSH Manual of Analytical Methods (NMAM). National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/docs/2003-154/pdfs/7602.pdf>. October 6, 2015.
- NIOSH. 2011. 1988 OSHA PEL project documentation. Silica, crystal. National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/pel88/1317-95.html>. August 06, 2015.
- NIOSH. 2015a. Silica, amorphous. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/npgd0552.html>. July 30, 2015.
- NIOSH. 2015b. Silica, crystalline (as respirable dust). NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/npgd0684.html>. July 30, 2015.
- NIOSH. 2016a. Silica, amorphous. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/npg/npgd0552.html>. December 13, 2018.
- NIOSH. 2016b. Silica, crystalline. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/npg/npgd0684.html>. December 13, 2018.
- Norboo T, Angchuk PT, Yahya M, et al. 1991a. Silicosis in a Himalayan village population: Role of environmental dust. *Thorax* 46:341-343.
- Norboo T, Angchuk PT, Yahya M, et al. 1991b. Correction: Silicosis in a Himalayan village population: Role of environmental dust. (*Thorax* 46:341-343). *Thorax* 46:544.
- NTP. 2009. Chemical information review document for silica flour (micronized alpha-quartz). Research Triangle Park, NC: National Toxicology Program. https://ntp.niehs.nih.gov/ntp/noms/support_docs/silica%20flour_oct2009.pdf. October 6, 2015.
- NTP. 2014. Silica, crystalline (respirable size). Report on carcinogens. Thirteenth edition. Research Triangle Park, NC: National Toxicology Program. <http://ntp.niehs.nih.gov/ntp/roc/content/profiles/silica.pdf>. July 30, 2015.
- NTP. 2016. Silica, crystalline (respirable size). Report on carcinogens, Fourteenth edition. Research Triangle Park, NC: National Toxicology Program. <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/silica.pdf>. December 12, 2018.
- Nuyts GD, Van Vlem E, De Vos A, et al. 1995. Wegener granulomatosis is associated to exposure to silicon compounds: A case-control study. *Nephrol Dial Transplant* 10(7):1162-1165.
- Oberdorster G. 2010. Safety assessment for nanotechnology and nanomedicine: concepts of nanotoxicology. *J Intern Med* 267(1):89-105. <http://doi.org/10.1111/j.1365-2796.2009.02187.x>.

8. REFERENCES

- OECD. 2016. Silicon dioxide: Summary of the dossier. Series on the safety of manufactured nanomaterials No. 71. Organisation for Economic Co-operation and Development. JT03397644. ENV/JM/MONO(2016)23. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=env/jm%20/mono\(2016\)23&doclanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=env/jm%20/mono(2016)23&doclanguage=en). March 8, 2019.
- Ogawa S, Imai H, Ikeda M. 2003. Mortality due to silico-tuberculosis and lung cancer among 200 whetstone cutters. *Ind Health* 41(3):231-235. (As cited in Pelucci et al. 2006)
- Oksa P, Pukkala E, Karjalainen A, et al. 1997. Cancer incidence and mortality among Finnish asbestos sprayers and in asbestosis and silicosis patients. *Am J Ind Med* 31(6):693-698. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004; Lacrasse et al. 2005)
- +Oner G, Cirrik S, Bakan O. 2005. Effects of silica on mitochondrial functions of the proximal tubule cells in rats. *Kidney Blood Press Res* 28(4):203-210. <http://doi.org/10.1159/000086006>.
- +Oner G, Cirrik S, Bulbul M, et al. 2006. Dietary silica modifies the characteristics of endothelial dilation in rat aorta. *Endothelium* 13(1):17-23. <http://doi.org/10.1080/10623320600660045>.
- OSHA. 1997. Occupational exposure to methylene chloride. Occupational Safety and Health Administration. *Fed Regist* 62(7):1494-1619. <https://www.federalregister.gov/articles/1997/01/10/97-198/occupational-exposure-to-methylene-chloride>. June 28, 2016.
- OSHA. 2009. Controlling silica exposures in construction. Occupational Safety and Health Administration. <https://www.osha.gov/Publications/3362silica-exposures.pdf>. October 24, 2016.
- OSHA. 2013. Occupational exposure to respirable crystalline silica. Occupational Safety and Health Administration. *Fed Regist* 78(177):56274-56504. <http://www.gpo.gov/fdsys/pkg/FR-2013-09-12/pdf/2013-20997.pdf>. October 6, 2015.
- OSHA. 2018a. Occupational safety and health standards for shipyard employment. Subpart Z - Toxic and hazardous substances. Respirable crystalline silica. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1053. <https://www.gpo.gov/fdsys/pkg/CFR-2018-title29-vol7/pdf/CFR-2018-title29-vol7-sec1915-1053.pdf>. December 12, 2018.
- OSHA. 2018b. Occupational safety and health standards. Subpart Z - Toxic and hazardous substances. Air contaminants. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. <https://www.gpo.gov/fdsys/pkg/CFR-2018-title29-vol6/pdf/CFR-2018-title29-vol6-sec1910-1000.pdf>. December 13, 2018.
- OSHA. 2018c. Occupational safety and health standards. Subpart Z - Toxic and hazardous substances. Respirable crystalline silica. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1053. <https://www.gpo.gov/fdsys/pkg/CFR-2018-title29-vol6/pdf/CFR-2018-title29-vol6-sec1910-1053.pdf>. December 12, 2018.
- OSHA. 2018d. Safety and health regulations for construction. Subpart Z - Toxic and hazardous substances. Respirable crystalline silica. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.1153. <https://www.gpo.gov/fdsys/pkg/CFR-2018-title29-vol8/pdf/CFR-2018-title29-vol8-sec1926-1153.pdf>. December 13, 2018.
- Oshimura M, Hesterberg TW, Tsutsui T, et al. 1984. Correlation of asbestos-induced cytogenetic effects with cell transformation of Syrian hamster embryo cells in culture. *Cancer Res* 44(11):5017-5022.
- Otsuki T, Maeda M, Murakami S, et al. 2007. Immunological effects of silica and asbestos. *Cell Mol Immunol* 4(4):261-268.
- Page-Shipp RJ, Harris E. 1972. A study of the dust exposure of South African white gold miners *J South Afri Instit Mining Metal* August:10-22. (As cited in Mannetje et al. 2002b)
- Pairon JC, Jaurand MC, Kheuang L, et al. 1990. Sister chromatid exchanges in human lymphocytes treated with silica. *Br J Ind Med* 47(2):110-115.
- Park R, Rice F, Stayner L, et al. 2002. Exposure to crystalline silica, silicosis, and lung disease other than cancer in diatomaceous earth industry workers: a quantitative risk assessment. *Occup Environ Med* 59(1):36-43.

8. REFERENCES

- Parks CG, Conrad K, Cooper GS. 1999. Occupational exposure to crystalline silica and autoimmune disease. *Environ Health Perspect* 107(Suppl 5):793-802.
- Partanen T, Pukkala E, Vainio H, et al. 1994. Increased incidence of lung and skin cancer in Finnish silicotic patients. *J Occup Med* 36(6):616-622. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Pelucchi C, Pira E, Piolatto G, et al. 2006. Occupational silica exposure and lung cancer risk: A review of epidemiological studies 1996-2005. *Ann Oncol* 17(7):1039-1050. <http://doi.org/10.1093/annonc/mdj125>.
- Peluso ME, Munnia A, Giese RW, et al. 2015. Oxidatively damaged DNA in the nasal epithelium of workers occupationally exposed to silica dust in Tuscany region, Italy. *Mutagenesis* 30(4):519-525. <http://doi.org/10.1093/mutage/gev014>.
- Piacitelli GM, Amandus HE, Diefenbach A. 1990. Respirable dust exposures in USA surface coal mines (1982-1986). *Arch Environ Health* 45(4):202-209.
- Plunkett ER, Dewitt BJ. 1962. Occupational exposure to Hi-Sil and Silene. Report of an 18-year study. *Arch Environ Health* 5:469-472.
- Poinen-Rughooputh S, Rughooputh MS, Guo Y, et al. 2016. Occupational exposure to silica dust and risk of lung cancer: an updated meta-analysis of epidemiological studies. *BMC Public Health* 16(1):1137. <http://doi.org/10.1186/s12889-016-3791-5>.
- Pollard KM. 2016. Silica, silicosis, and autoimmunity. *Front Immunol* 7:97. <http://doi.org/10.3389/fimmu.2016.00097>.
- Pratt PC. 1983. Lung dust content and response in guinea pigs inhaling three forms of silica. *Arch Environ Health* 38(4):197-204.
- Price-Jones MJ, Gubbings G, Chamberlain M. 1980. The genetic effects of crocidolite asbestos: Comparison of chromosome abnormalities and sister-chromatid exchanges. *Mutat Res* 79(4):331-336.
- Pukkala E, Guo J, Kyyronen P, et al. 2005. National job-exposure matrix in analyses of census-based estimates of occupational cancer risk. *Scand J Work Environ Health* 31:97-107. (As cited in Lacasse et al. 2009; Pelucci et al. 2006)
- Puntoni R, Goldsmith DF, Valerio F, et al. 1988. A cohort study of workers employed in a refractory brick plant. *Tumori* 74(1):27-34. (As cited in LaCasse et al. 2005; Poinen-Rughooputh et al. 2016)
- Qaseem A, Wilt TJ, Weinberger SE, et al. 2011. Diagnosis and management of stable chronic obstructive pulmonary disease: a clinical practice guideline update from the American College of Physicians, American College of Chest Physicians, American Thoracic Society, and European Respiratory Society. *Ann Intern Med* 155(3):179-191. <http://doi.org/10.7326/0003-4819-155-3-201108020-00008>.
- Rabovsky J. 1995. Biogenic amorphous silica. *Scand J Work Environ Health* 21 Suppl 2(2):108-110. <http://www.ncbi.nlm.nih.gov/pubmed/8929705>.
- Radnoff D, Todor MS, Beach J. 2014. Occupational exposure to crystalline silica at Alberta work sites. *J Occup Environ Hyg* 11(9):557-570. <http://doi.org/10.1080/15459624.2014.887205>.
- Radovanovic Z, Markovic-Denic L, Marinkovic J, et al. 1991. Well water characteristics and the Balkan nephropathy. *Nephron* 57(1):52-54.
- Rafnsson V, Gunnarsdottir H. 1997. Lung cancer incidence among an Icelandic cohort exposed to diatomaceous earth and cristobalite. *Scand J Work Environ Health* 23(3):187-192. (As cited in Kurihara and Wada 2004; Pelucci et al. 2006)
- Rafnsson V, Ingimarsson O, Hjalmarsson I, et al. 1998. Association between exposure to crystalline silica and risk of sarcoidosis. *Occup Environ Med* 55(10):657-660.
- Ranavaya MI, Reger RB, Battigelli MC. 1992. Non-occupational pneumoconiosis at high altitude villages in central Ladakh. *Br J Ind Med* 49(6):452-453.
- Rando RJ, Shi R, Hughes JM, et al. 2001. Cohort mortality study of North American industrial sand workers. III. Estimation of past and present exposures to respirable crystalline silica. *Ann Occup Hyg* 45(3):209-216.

8. REFERENCES

- Rapiti E, Sperati A, Miceli M, et al. 1999. End stage renal disease among ceramic workers exposed to silica. *Occup Environ Med* 56(8):559-561.
- Rappaport SM, Goldberg M, Susi P, et al. 2003. Excessive exposure to silica in the US construction industry. *Ann Occup Hyg* 47(2):111-122.
- Rasch EK, Hirsch R, Paulose-Ram R, et al. 2003. Prevalence of rheumatoid arthritis in persons 60 years of age and older in the United States: Effects of different methods of case classification. *Arthritis Rheum* 48(4):917-926.
- Rees D, Murray J. 2007. Silica, silicosis and tuberculosis. *Int J Tuberc Lung Dis* 11(5):474-484.
- Reid PJ, Sluis-Cremer GK. 1996. Mortality of white South African gold miners. *Occup Environ Med* 53(1):11-16. (As cited in Mannetje et al. 2002b)
- RePORTER. 2015. Silica compounds. National Institutes of Health, Research Portfolio Online Reporting Tools. <http://projectreporter.nih.gov/reporter.cfm>. September 18, 2015.
- RePORTER. 2019. Silica compounds. National Institutes of Health, Research Portfolio Online Reporting Tools. March 14, 2019. <http://projectreporter.nih.gov/reporter.cfm>.
- +Reuzel PG, Bruijntjes JP, Feron VJ, et al. 1991. Subchronic inhalation toxicity of amorphous silicas and quartz dust in rats. *Food Chem Toxicol* 29(5):341-354.
- Richards JR, Brozell TT, Rea C, et al. 2009. PM4 crystalline silica emission factors and ambient concentrations at aggregate-producing sources in California. *J Air Waste Manage Assoc* 59:1287-1295. <http://doi.org/10.3155/1047-3289.59.11.1287>.
- Rihova Z, Maixnerova D, Jancova E, et al. 2005. Silica and asbestos exposure in ANCA-associated vasculitis with pulmonary involvement. *Ren Fail* 27(5):605-608.
- Rimal B, Greenberg AK, Rom WN. 2005. Basic pathogenetic mechanisms in silicosis: Current understanding. *Curr Opin Pulm Med* 11(2):169-173.
- Rimola A, Costa D, Sodupe M, et al. 2013. Silica surface features and their role in the adsorption of biomolecules: Computational modeling and experiments. *Chem Rev* 113(6):4216-4313. <http://doi.org/10.1021/cr3003054>.
- Robalo-Cordeiro AJ, Baganha MF, Azevedo-Bernarda R, et al. 1985. Biological effects of fume silica amorphous type. In: Beck EG, Bignon J, eds. *In vitro effects of mineral dusts*. New York, NY: Springer-Verlag, 489-496.
- Rocha-Parise M, Santos LM, Damoiseaux JG, et al. 2014. Lymphocyte activation in silica-exposed workers. *Int J Hyg Environ Health* 217(4-5):586-591. <http://doi.org/10.1016/j.ijheh.2013.11.002>.
- Rodnan GP, Benedek TG, Medsger TA, Jr., et al. 1967. The association of progressive systemic sclerosis (scleroderma) with coal miners' pneumoconiosis and other forms of silicosis. *Ann Intern Med* 66(2):323-334.
- Rodriguez V, Tardon A, Kogevinas M, et al. 2000. Lung cancer risk in iron and steel foundry workers: A nested case-control study in Asturias, Spain. *Am J Ind Med* 38(6):644-650. (As cited in Pelucci et al. 2006)
- Rong Y, Zhou M, Cui X, et al. 2018. MiRNA-regulated changes in extracellular matrix protein levels associated with a severe decline in lung function induced by silica dust. *J Occup Environ Med* 60(4):326-321. <http://doi.org/10.1097/JOM.0000000000001268>.
- +Rosenbruch M. 1992. Inhalation of amorphous silica: morphological and morphometric evaluation of lung associated lymph nodes in rats. *Exp Toxicol Pathol* 44(1):10-14. [http://doi.org/10.1016/s0940-2993\(11\)80130-2](http://doi.org/10.1016/s0940-2993(11)80130-2).
- Rosenman KD, Zhu Z. 1995. Pneumoconiosis and associated medical conditions. *Am J Ind Med* 27(1):107-113.
- Rosenman KD, Moore-Fuller M, Reilly MJ. 1999. Connective tissue disease and silicosis. *Am J Ind Med* 35(4):375-381.
- Rosenman KD, Moore-Fuller M, Reilly MJ. 2000. Kidney disease and silicosis. *Nephron* 85(1):14-19.
- Rosenman KD, Reilly MJ, Henneberger PK. 2003. Estimating the total number of newly-recognized silicosis cases in the United States. *Am J Ind Med* 44(2):141-147. <http://doi.org/10.1002/ajim.10243>.

8. REFERENCES

- Rothschild H, Mulvey JJ. 1982. An increased risk for lung cancer mortality associated with sugarcane farming. *J Natl Cancer Inst* 68:755-750.
- Saffiotti U, Daniel LH, Mao Y, et al. 1993. Biological studies on the carcinogenic effects of quartz. In: *Reviews in mineralogy. Health effects of mineral dusts. Proceedings of a short course endorsed by the American College of Chest Physicians and the U.S. Geological Survey. Vol. 28.* Washington, DC: Mineralogical Society of America, 523-544.
- Sakai-Kato K, Hidaka M, Un K, et al. 2014. Physicochemical properties and in vitro intestinal permeability properties and intestinal cell toxicity of silica particles, performed in simulated gastrointestinal fluids. *Biochim Biophys Acta* 1840(3):1171-1180. <http://doi.org/10.1016/j.bbagen.2013.12.014>.
- Saldanha LF, Rosen VJ, Gonnick HC. 1975. Silicon nephropathy. *Am J Med* 59:95-103.
- Sanderson WT, Steenland K, Deddens JA. 2000. Historical respirable quartz exposures of industrial sand workers: 1946-1996. *Am J Ind Med* 38(4):389-398.
- Sauni R, Oksa P, Lehtimäki L, et al. 2012. Increased alveolar nitric oxide and systemic inflammation markers in silica-exposed workers. *Occup Environ Med* 69(4):256-260. <http://doi.org/10.1136/oemed-2011-100347>.
- Sayan M, Mossman BT. 2016. The NLRP3 inflammasome in pathogenic particle and fibre-associated lung inflammation and diseases. *Part Fibre Toxicol* 13(1):51. <http://doi.org/10.1186/s12989-016-0162-4>.
- Scarselli A, Binazzi A, Forastiere F, et al. 2011. Industry and job-specific mortality after occupational exposure to silica dust. *Occup Med (Lond)* 61(6):422-429. <http://doi.org/10.1093/occmed/kqr060>. (As cited in Poinen-Rughooputh et al. 2016)
- Scarselli A, Corfiati M, Marzio DD, et al. 2014. Evaluation of workplace exposure to respirable crystalline silica in Italy. *Int J Occup Environ Health* 20(4):301-307. <http://doi.org/10.1179/2049396714y.0000000078>.
- +Schepers GW. 1959. Hypertension due to inhaled submicron amorphous silica. *Toxicol Appl Pharmacol* 1:487-500.
- +Schepers GWH. 1962. Reaction of monkey lung to siliceous dust. *Arch Environ Health* 5:278-299.
- +Schepers GWH. 1981. Biological action of precipitation-process submicron a-silica (HI-SIL 233). In: *Dunnom DD, ed. Health effects of synthetic silica particulates: A symposium sponsored by ASTM Committee E-34 on occupational health and safety and the Industrial Health Foundation. ASTM special technical publication 732.* Philadelphia, PA: American Society for Testing and Materials, 144-171.
- +Schepers GW, Durkan TM, Delahant AB, et al. 1957a. The biological action of Degussa submicron amorphous silica dust (Dow Corning silica). I. Inhalation studies on rats. *AMA Arch Ind Health* 16(2):125-146.
- +Schepers GW, Durkan TM, Delahant AB, et al. 1957b. The biological action of inhaled Degussa submicron amorphous silica dust (Dow Corning silica). II. The pulmonary reaction in uninfected guinea pigs. *AMA Arch Ind Health* 16(3):203-224.
- +Schepers GW, Delahant AB, Schmidt JG, et al. 1957c. The biological action of Degussa submicron amorphous silica dust (Dow Corning silica). III. Inhalation studies on rabbits. *AMA Arch Ind Health* 16(4):280-301.
- Schiller A, Gusbeth-Tatomir P, Pavlovic N, et al. 2008. Balkan endemic nephropathy: A still unsolved puzzle. *J Nephrol* 21:673-680.
- Schins RP. 2002. Mechanisms of genotoxicity of particles and fibers. *Inhal Toxicol* 14(1):57-78. <http://doi.org/10.1080/089583701753338631>.
- Schins RPF, Duffin R, Hohn D, et al. 2002a. Surface modification of quartz inhibits toxicity, particle uptake, and oxidative DNA damage in human lung epithelial cells. *Chem Res Toxicol* 15(9):1166-1173.
- Schins RPF, Knaapen AM, Cakmak GD, et al. 2002b. Oxidant-induced DNA damage by quartz in alveolar epithelial cells. *Mutat Res* 517(1-2):77-86.

8. REFERENCES

- Schuler G, Ruttner JR. 1986. Silicosis and lung cancer in Switzerland. In: Goldsmith DF, Winn DM, Shy CM, eds. *Silica, silicosis, and cancer: Controversy in occupational medicine*. New York: Praeger, 357-366. (As cited in Erren et al. 2009a, 2009b)
- Seiler F, Rehn B, Rehn S, et al. 2001a. Evidence of a no-effect level in silica-induced rat lung mutagenicity but not in fibrogenicity. *Arch Toxicol* 74(11):716-719.
- Seiler F, Rehn B, Rehn S, et al. 2001b. Quartz exposure of the rat lung leads to a linear dose response in inflammation but not in oxidative DNA damage and mutagenicity. *Am J Respir Cell Mol Biol* 24(4):492-498. <http://doi.org/10.1165/ajrcmb.24.4.4181>.
- Seiler F, Rehn B, Rehn S, et al. 2001c. Significant differences in the cellular and molecular reactions of rat and hamster lung after quartz exposure. *Toxicol Lett* 119(1):11-19.
- Seixas NS, Heyer NJ, Welp EAE, et al. 1997. Quantification of historical dust exposures in the diatomaceous earth industry. *Ann Occup Hyg* 41(5):591-604. (As cited in Mannelje et al. 2002b)
- Sellamuthu R, Umbright C, Roberts JR, et al. 2011. Blood gene expression profiling detects silica exposure and toxicity. *Toxicol Sci* 122(2):253-264. <http://doi.org/10.1093/toxsci/kfr125>.
- Simple S, Green DA, McAlpine G, et al. 2008. Exposure to particulate matter on an Indian stone-crushing site. *Occup Environ Med* 65(5):300-305. <http://doi.org/10.1136/oem.2007.032805>.
- Sferratore A, Garnier J, Billen G, et al. 2006. Diffuse and point sources of silica in the Seine River watershed. *Environ Sci Technol* 40(21):6630-6635.
- Sheffield GS. 1994. Quantitative measurement of crystalline silica by thermal analysis. *Anal Chim Acta* 286(1):125-128.
- Sherson D, Svane O, Lyng E. 1991. Cancer incidence among foundry workers in Denmark. *Arch Environ Health* 46(2):75-81. <http://doi.org/10.1080/00039896.1991.9937432>. (As cited in Erren et al. 2009a, 2009b; Kurihara and Wada 2004)
- Shi X, Mao Y, Daniel LN, et al. 1994. Silica radical-induced DNA damage and lipid peroxidation. *Environ Health Perspect* 102 Suppl 10:149-154.
- Shi X, Ding M, Chen F, et al. 2001. Reactive oxygen species and molecular mechanism of silica-induced lung injury. *J Environ Pathol Toxicol Oncol* 20 Suppl 1:85-93.
- Shih TS, Lu PY, Chen CH, et al. 2008. Exposure profiles and source identifications for workers exposed to crystalline silica during a municipal waste incinerator relining period. *J Hazard Mater* 154(1-3):469-475. <http://doi.org/10.1016/j.jhazmat.2007.10.047>.
- Shiraki R, Holmen BA. 2002. Airborne respirable silica near a sand and gravel facility in central California: XRD and elemental analysis to distinguish source and background quartz. *Environ Sci Technol* 36(23):4956-4961.
- Shtraichman O, Blanc PD, Ollech JE, et al. 2015. Outbreak of autoimmune disease in silicosis linked to artificial stone. *Occup Med (Lond)* 65(6):444-450. <http://doi.org/10.1093/occmed/kqv073>.
- Silman AJ, Jones S. 1992. What is the contribution of occupational environmental factors to the occurrence of scleroderma in men? *Ann Rheum Dis* 51(12):1322-1324.
- Singh SV, Das B, Khan MF, et al. 1984. The binding of silica to proteins from plasma and lungs of rat: in vitro. *Chem Biol Interact* 49(1-2):155-164
- Sinks T, Goodman MT, Kolonel LN, et al. 1994. A case-control study of mesothelioma and employment in the Hawaii sugarcane industry. *Epidemiology* 5(4):466-468. <http://www.ncbi.nlm.nih.gov/pubmed/7918819>.
- Sirianni G, Hosgood HD, 3rd, Slade MD, et al. 2008. Particle size distribution and particle size-related crystalline silica content in granite quarry dust. *J Occup Environ Hyg* 5(5):279-285. <http://doi.org/10.1080/15459620801947259>.
- Slavov E, Miteva L, Prakova G, et al. 2010. Correlation between TNF-alpha and IL-12p40-containing cytokines in silicosis. *Toxicol Ind Health* 26(8):479-486. <http://doi.org/10.1177/0748233710373082>.
- Sluis-Cremer GK, Hessel PA, Nizdo EH, et al. 1985. Silica, silicosis, and progressive systemic sclerosis. *Br J Ind Med* 42(12):838-843.

8. REFERENCES

- Sluis-Cremer GK, Hessel PA, Hnizdo E, et al. 1986. Relationship between silicosis and rheumatoid arthritis. *Thorax* 41(8):596-601.
- Smailyte G, Kurtinaitis J, Andersen A. 2004. Mortality and cancer incidence among Lithuanian cement producing workers. *Occup Environ Med* 61(6):529-534. (As cited in Pelucci et al. 2006)
- Smart RH, Andersen WM. 1952. Pneumoconiosis due to diatomaceous earth: Clinical and x-ray aspects. *Ind Med Surg* 21:509-518.
- Smith DK. 1998. Opal, cristobalite, and tridymite: Noncrystallinity versus crystallinity, nomenclature of the silica minerals and bibliography. *Powder Diffr* 13(1):2-19.
<http://doi.org/10.1017/s0885715600009696>.
- Smith CM. 2006. Silica, vitreous. In: Kirk-Othmer encyclopedia of chemical technology. Vol. 22. John Wiley & Sons, Inc.
<http://onlinelibrary.wiley.com/doi/10.1002/0471238961.2209201819051316.a01.pub2/abstract>.
September 22, 2015.
- Smith AH, Lopipero PA, Barroga VR. 1995. Meta-analysis of studies of lung cancer among silicotics. *Epidemiology* 6(6):617-624.
- Snipes MB. 1996. Current information on lung overload in non-rodent mammals: Contrast with rats. In: Mauderly JL, McCunney RJ, eds. Particle overload in the rat lung and lung cancer. Implications for human risk assessment. Proceedings of a conference held at the Massachusetts Institute of Technology on March 29 and 30, 1995. Vol. 8. Taylor & Francis, 91-109.
- Sobti RC, Bhardwaj DK. 1991. Cytogenetic damage and occupational exposure. I. Exposure to stone dust. *Environ Res* 56(1):25-30.
- Soutar CA, Robertson A, Miller BG, et al. 2000. Epidemiological evidence on the carcinogenicity of silica: factors in scientific judgement. *Ann Occup Hyg* 44(1):3-14.
- Starzynski Z, Marek K, Kujawska A, et al. 1996. Mortality among different occupational groups of workers with pneumoconiosis: Results from a register-based cohort study. *Am J Ind Med* 30(6):718-725. [http://doi.org/10.1002/\(sici\)1097-0274\(199612\)30:6<718::aid-ajim8>3.0.co;2-m](http://doi.org/10.1002/(sici)1097-0274(199612)30:6<718::aid-ajim8>3.0.co;2-m). (As cited in Erren et al. 2009a, 2009b; Pelucci et al. 2006)
- Steenland K. 2005. One agent, many diseases: Exposure-response data and comparative risks of different outcomes following silica exposure. *Am J Ind Med* 48(1):16-23.
<http://doi.org/10.1002/ajim.20181>.
- Steenland K, Beaumont J. 1986. A proportionate mortality study of granite cutters. *Am J Ind Med* 9(2):189-202. (As cited in Erren et al. 2009a, 2009b)
- Steenland K, Brown D. 1995a. Silicosis among gold miners: Exposure-response analyses and risk assessment. *Am J Public Health* 85(10):1372-1377.
- Steenland K, Brown D. 1995b. Mortality study of gold miners exposed to silica and nonasbestiform amphibole minerals: An uptake with 14 more years of follow-up. *Am J Ind Med* 27(2):217-229.
- Steenland K, Goldsmith DF. 1995. Silica exposure and autoimmune diseases. *Am J Ind Med* 28(5):603-608.
- Steenland K, Sanderson W. 2001. Lung cancer among industrial sand workers exposed to crystalline silica. *Am J Epidemiol* 153(7):695-703.
- Steenland K, Ward E. 2014. Silica: a lung carcinogen. *CA Cancer J Clin* 64(1):63-69.
<http://doi.org/10.3322/caac.21214>.
- Steenland K, Sanderson W, Calvert GM. 2001b. Kidney disease and arthritis in a cohort study of workers exposed to silica. *Epidemiology* 12(4):405-412.
- Steenland K, Attfield M, Mannejte A. 2002a. Pooled analyses of renal disease mortality and crystalline silica exposure in three cohorts. *Ann Occup Hyg* 46(Suppl 1):4-9.
- Steenland NK, Thun MJ, Ferguson CW, et al. 1990. Occupational and other exposures associated with male end-stage renal disease: a case/control study. *Am J Public Health* 80(2):153-157.
- Steenland K, Nowlin S, Ryan BM, et al. 1992. Use of multiple-cause mortality data in epidemiologic analyses: U.S. rate and proportion files developed by the National Institute for Occupational Safety and Health and the National Cancer Institute. *Am J Epidemiol* 136(7):855-862.

8. REFERENCES

- Steenland K, Mannetje A, Boffetta P, et al. 2001a. Pooled exposure-response analyses and risk assessment for lung cancer in 10 cohorts of silica-exposed workers: An IARC multicentre study. *Cancer Causes Control* 12(9):773-784.
- Steenland K, Rosenman K, Socie E, et al. 2002b. Silicosis and end-stage renal disease. *Scand J Work Environ Health* 28(6):439-442.
- Stober W. 1999. POCK model simulations of pulmonary quartz dust retention data in extended inhalation exposures of rats. *Inhal Toxicol* 11(4):269-292.
- Stolt P, Kallberg H, Lundberg I, et al. 2005. Silica exposure is associated with increased risk of developing rheumatoid arthritis: results from the Swedish EIRA study. *Ann Rheum Dis* 64(4):582-586. <http://doi.org/10.1136/ard.2004.022053>.
- Stolt P, Yahya A, Bengtsson C, et al. 2010. Silica exposure among male current smokers is associated with a high risk of developing ACPA-positive rheumatoid arthritis. *Ann Rheum Dis* 69(6):1072-1076. <http://doi.org/10.1136/ard.2009.114694>.
- Stone RA, Youk AO, Marsh GM, et al. 2004. Historical cohort study of U.S. man-made vitreous fiber production workers IX: Summary of 1992 mortality follow up and analysis of respiratory system cancer among female workers. *J Occup Environ Med* 46(1):55-67. <http://doi.org/10.1097/01.jom.0000105905.60844.e1>. (As cited in Pelucci et al. 2006)
- Stopford W. 1994. Carbonate fusion to determine quartz in respirable and bulk earth samples. *Anal Chim Acta* 286(1):67-73.
- Stopford CM, Stopford W. 1995. Potential for respirable quartz exposure from North Carolina farm soils. *Scand J Work Environ Health* 21 Suppl 2:44-46.
- Stormer A, Bott J, Kemmer D, et al. 2017. Critical review of the migration potential of nanoparticles in food contact plastics. *Trends Food Sci Technol* 63:39-50.
- Stratta P, Canavese C, Messuerotti A, et al. 2001a. Silica and renal diseases: No longer a problem in the 21st century? *J Nephrol* 14(4):228-247.
- Stratta P, Messuerotti A, Canavese C, et al. 2001b. The role of metals in autoimmune vasculitis: Epidemiological and pathogenic study. *Sci Total Environ* 270(1-3):179-190.
- Strelec F. 2010. OSHA compliance issues. Silica exposure in an iron foundry furnace cleaning operation. *J Occup Environ Hyg* 7(5):D23-26. <http://doi.org/10.1080/15459621003640460>.
- Swanepoel AJ, Kromhout H, Jinnah ZA, et al. 2011. Respirable dust and quartz exposure from three South African farms with sandy, sandy loam, and clay soils. *Ann Occup Hyg* 55(6):634-643. <http://doi.org/10.1093/annhyg/mer025>.
- Swensson A, Kvarnstrom K, Bruce T, et al. 1971. Pneumoconiosis in ferrosilicon workers--A follow-up study. *J Occup Med* 13(9):427-432.
- Szadkowska-Stanczyk I, Szymczak W. 2001. Nested case-control study of lung cancer among pulp and paper workers in relation to exposure to dusts. *Am J Ind Med* 39(6):547-556. (As cited in Kurihara and Wada 2004; Pelucci et al. 2006)
- Taeger D, McCunney R, Bailer U, et al. 2016. Cross-sectional study on nonmalignant respiratory morbidity due to exposure to synthetic amorphous silica. *J Occup Environ Med* 58(4):376-384. <http://doi.org/10.1097/jom.0000000000000666>.
- +Takizawa Y, Hirasawa F, Noritomi E, et al. 1988. Oral ingestion of syloid to mice and rats and its chronic toxicity and carcinogenicity. *Acta Med Biol (Niigata)* 36(1):27-56.
- +Tebbens BD, Beard RR. 1957. Experiments on diatomaceous earth pneumoconiosis. *AMA Arch Ind Health* 16:55-63.
- teWaterNaude JM, Ehrlich RI, Churchyard GJ, et al. 2006. Tuberculosis and silica exposure in South African gold miners. *Occup Environ Med* 63(3):187-192. <http://doi.org/10.1136/oem.2004.018614>.
- Therault GP, Peters JM, Johnson WM. 1974. Pulmonary function and roentgenographic changes in granite dust exposure. *Arch Environ Health* 28(1):23-27.
- Thibodeau MS, Giardina C, Knecht DA, et al. 2004. Silica-induced apoptosis in mouse alveolar macrophages is initiated by lysosomal enzyme activity. *Toxicol Sci* 80(1):34-48. <http://doi.org/10.1093/toxsci/kfh121>.

8. REFERENCES

- Thomas TL, Stewart PA. 1987. Mortality from lung cancer and respiratory disease among pottery workers exposed to silica and talc. *Am J Epidemiol* 125(1):35-43.
- Thomeer M, Demedts M, Wuyts W. 2005. Epidemiology of sarcoidosis. *Eur Respir Monogr* 32:13-22.
- Tornling G, Hogstedt C, Westerholm P. 1990. Lung cancer incidence among Swedish ceramic workers with silicosis. *IARC Sci Publ* (97):113-119. (As cited in Erren et al. 2009a, 2009b)
- Treguer PJ, De La Rocha CL. 2013. The world ocean silica cycle. *Ann Rev Mar Sci* 5:477-501. <http://doi.org/10.1146/annurev-marine-121211-172346>.
- Treguer P, Nelson DM, Van Bennekom AJ, et al. 1995. The silica balance in the world ocean: a reestimate. *Science* 268(5209):375-379. <http://doi.org/10.1126/science.268.5209.375>.
- Tse LA, Yu ITS, Leung CC, et al. 2007. Mortality from non-malignant respiratory diseases among people with silicosis in Hong Kong: Exposure-response analyses for exposure to silica dust. *Occup Environ Med* 64(2):87-92.
- Tse LA, Yu IT, Qiu H, et al. 2014. Joint effects of smoking and silicosis on diseases to the lungs. *PLoS ONE* 9(8):e104494. <http://doi.org/10.1371/journal.pone.0104494>.
- Tsuda T, Mino Y, Babazono A, et al. 2002. A case-control study of lung cancer in relation to silica exposure and silicosis in a rural area in Japan. *Ann Epidemiol* 12(5):288-294. (As cited in Erren et al. 2009a, 2009b; Pelucci et al. 2006)
- Tsugita M, Morimoto N, Tashiro M, et al. 2017. SR-B1 Is a Silica Receptor that Mediates Canonical Inflammasome Activation. *Cell Reports* 18(5):1298-1311. <http://doi.org/10.1016/j.celrep.2017.01.004>.
- Turci F, Pavan C, Leinardi R, et al. 2016. Revisiting the paradigm of silica pathogenicity with synthetic quartz crystals: the role of crystallinity and surface disorder. *Part Fibre Toxicol* 13(1):32. <http://doi.org/10.1186/s12989-016-0136-6>.
- Turner S, Cherry N. 2000. Rheumatoid arthritis in workers exposed to silica in the pottery industry. *Occup Environ Med* 57(7):443-447.
- Uhrlandt S. 2006. Silica. In: *Kirk-Othmer encyclopedia of chemical technology*. Vol. 22. John Wiley & Sons, Inc., 1-17.
- Ulm K, Waschulzik B, Ehnes H, et al. 1999. Silica dust and lung cancer in the German stone, quarrying, and ceramics industries: Results of a case-control study. *Thorax* 54(4):347-351. (As cited in Kurihara and Wada 2004; Lacasse et al. 2009; Pelucci et al. 2006)
- Ulm K, Gerein P, Eigenthaler J, et al. 2004. Silica, silicosis and lung-cancer: Results from a cohort study in the stone and quarry industry. *Int Arch Occup Environ Health* 77(5):313-318. <http://doi.org/10.1007/s00420-004-0513-6>.
- Ulvestad B, Bakke B, Eduard W, et al. 2001. Cumulative exposure to dust causes accelerated decline in lung function in tunnel workers. *Occup Environ Med* 58(10):663-669.
- USDA. 2018. Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s)). Synthetics allowed. U.S. Department of Agriculture. Code of Federal Regulations 7 CFR 205605(b) https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=9874504b6f1025eb0e6b67cadf9d3b40&rgn=div6&view=text&node=7:3.1.1.9.32.7&idno=7#se7.3.205_1605. December 17, 2018.
- USGS. 1987. Metals, atomic emission spectrometry, inductively coupled plasma (ICP). U.S. Geological Survey. I-1472-87. https://www.nemi.gov/methods/method_summary/8896/. March 14, 2019.
- USGS. 1992. Crystalline silica primer. U.S. Geological Survey. <http://minerals.usgs.gov/minerals/pubs/commodity/silica/780292.pdf>. October 6, 2015.
- USGS. 2014a. 2012 Minerals yearbook. Gemstones [advance release]. U.S. Geological Survey. <http://minerals.usgs.gov/minerals/pubs/commodity/gemstones/myb1-2012-gemst.pdf>. October 7, 2015.
- USGS. 2014b. 2012 Minerals yearbook. Silica [advance release]. U.S. Geological Survey. <http://minerals.usgs.gov/minerals/pubs/commodity/silica/myb1-2012-silic.pdf>. October 7, 2015.

8. REFERENCES

- USGS. 2014c. 2012 Minerals yearbook. Sand and gravel, construction [advance release]. U.S. Geological Survey.
http://minerals.usgs.gov/minerals/pubs/commodity/sand_&_gravel_construction/myb1-2012-sandc.pdf. October 7, 2015.
- USGS. 2015. Mineral commodity summaries 2015. U.S. Geological Survey.
<http://minerals.usgs.gov/minerals/pubs/mcs/2015/mcs2015.pdf>. October 6, 2015.
- Vacek PM, Hemenway DR, Absher MP, et al. 1991. The translocation of inhaled silicon dioxide: an empirically derived compartmental model. *Fundam Appl Toxicol* 17(3):614-626
- Vacek PM, Verma DK, Graham WG, et al. 2011. Mortality in Vermont granite workers and its association with silica exposure. *Occup Environ Med* 68(5):312-318.
<http://doi.org/10.1136/oem.2009.054452>.
- van Deurssen E, Pronk A, Spaan S, et al. 2014. Quartz and respirable dust in the Dutch construction industry: a baseline exposure assessment as part of a multidimensional intervention approach. *Ann Occup Hyg* 58(6):724-738. <http://doi.org/10.1093/annhyg/meu021>.
- Varela SN, Schwerk J, Forero A, et al. 2017. Post-transcriptional elements within NLRP3 mRNA set the activation threshold of the inflammasome. *J Immunol* 198(Suppl 1):67.69.
- Vayias BJ, Athanassiou CG, Korunic Z, et al. 2009. Evaluation of natural diatomaceous earth deposits from south-eastern Europe for stored-grain protection: the effect of particle size. *Pest Manag Sci* 65(10):1118-1123. <http://doi.org/10.1002/ps.1801>.
- Vearrier D, Greenberg MI. 2011. Occupational health of miners at altitude: adverse health effects, toxic exposures, pre-placement screening, acclimatization, and worker surveillance. *Clin Toxicol (Phila)* 49(7):629-640. <http://doi.org/10.3109/15563650.2011.607169>.
- Verma DK, Rajhans GS, Malik OP, et al. 2014. Respirable dust and respirable silica exposure in Ontario gold mines. *J Occup Environ Hyg* 11(2):111-116. <http://doi.org/10.1080/15459624.2013.843784>.
- Vigliani EC, Mottura G. 1948. Diatomaceous earth silicosis. *Br J Ind Med* 5(3):148-160.
- Vihlborg P, Bryngelsson IL, Andersson L, et al. 2017. Risk of sarcoidosis and seropositive rheumatoid arthritis from occupational silica exposure in Swedish iron foundries: a retrospective cohort study. *BMJ Open* 7(7):e016839. <http://doi.org/10.1136/bmjopen-2017-016839>.
- Vitums VC, Edwards MJ, Niles NR, et al. 1977. Pulmonary fibrosis from amorphous silica dust, a product of silica vapor. *Arch Environ Health* 32(2):62-68.
- Voice TC, Long DT, Radovanovic Z, et al. 2006. Critical evaluation of environmental exposure agents suspected in the etiology of Balkan endemic nephropathy. *Int J Occup Environ Health* 12:369-376.
- Volk H. 1960. The health of workers in a plant making highly dispersed silica. *Arch Environ Health* 1:125-128.
- Vupputuri S, Parks CG, Nylander-French LA, et al. 2012. Occupational silica exposure and chronic kidney disease. *Ren Fail* 34(1):40-46. <http://doi.org/10.3109/0886022x.2011.623496>.
- Waddell WH. 2006. Silica, amorphous. In: Kirk-Othmer encyclopedia of chemical technology. Vol. 22. John Wiley & Sons, Inc.
<http://onlinelibrary.wiley.com/doi/10.1002/0471238961.0113151823010404.a01.pub2/abstract>. September 22, 2015.
- Wall GR, Phillips PJ, Riva-Murray K. 1998. Seasonal and spatial patterns of nitrate and silica concentrations in Canajoharie Creek, New York. *J Environ Qual* 27(2):381-389.
- Walsh SJ. 1999. Effects of non-mining occupational silica exposure on proportional mortality from silicosis and systemic sclerosis. *J Rheumatol* 26(10):2179-2185.
- Wang Z, Dong D, Liang X, et al. 1996. Cancer mortality among silicotics in China's metallurgical industry. *Int J Epidemiol* 25(5):913-917. (As cited in Erren et al. 2009a, 2009b; Lacrasse et al. 2005)
- Wang SX, Liu P, Wei MT, et al. 2007. Roles of serum Clara cell protein 16 and surfactant protein-D in the early diagnosis and progression of silicosis. *J Occup Environ Med* 49(8):834-839.
<http://doi.org/10.1097/JOM.0b013e318124a927>.

8. REFERENCES

- Ward MM. 2004. Prevalence of physician-diagnosed systemic lupus erythematosus in the United States: Results from the Third National Health and Nutrition Examination Survey. *Journal of Women's Health* 13(6):713-718.
- +Warheit DB, McHugh TA, Hartsky MA. 1995. Differential pulmonary responses in rats inhaling crystalline, colloidal or amorphous silica dusts. *Scand J Work Environ Health* 21 Suppl 2:19-21.
- +Warheit DB, Carakostas MC, Kelly DP, et al. 1991. Four-week inhalation toxicity study with Ludox colloidal silica in rats: pulmonary cellular responses. *Fundam Appl Toxicol* 16(3):590-601.
- Warheit DB, Webb TR, Colvin VL, et al. 2007. Pulmonary bioassay studies with nanoscale and fine-quartz particles in rats: toxicity is not dependent upon particle size but on surface characteristics. *Toxicol Sci* 95(1):270-280 <http://doi.org/10.1093/toxsci/kfl128>.
- Watkins DK, Chiazze L, Jr., Fryar CD, et al. 2002. A case control study of lung cancer and non-malignant respiratory disease among employees in asphalt roofing manufacturing and asphalt production. *J Occup Environ Med* 44(6):551-558. (As cited in Pelucci et al. 2006)
- Watts WF, Jr., Huynh TB, Ramachandran G. 2012. Quartz concentration trends in metal and nonmetal mining. *J Occup Environ Hyg* 9(12):720-732. <http://doi.org/10.1080/15459624.2012.733566>.
- Weeks JL, Rose C. 2006. Metal and non-metal miners' exposure to crystalline silica, 1998-2002. *Am J Ind Med* 49(7):523-534. <http://doi.org/10.1002/ajim.20323>.
- Weissman DN, Ma JKH, Rojanasakul Y, et al. 1996. Immune dysfunction in silicosis: A Hypothesis. *Appl Occup Environ Hyg* 11(7):962-965.
- Weng S, Wang L, Rong Y, et al. 2015. Effects of the Interactions between dust exposure and genetic polymorphisms in Nalp3, Caspase-1, and IL-1 β on the risk of silicosis: A case-control study. *PLoS ONE* 10(10):e0140952. <http://doi.org/10.1371/journal.pone.0140952>.
- Westberg HB, Bellander T. 2003. Epidemiological adaptation of quartz exposure modeling in Swedish aluminum foundries: Nested case-control study on lung cancer. *Appl Occup Environ Hyg* 18(12):1006-1013. <http://doi.org/10.1080/10473220390244676>. (As cited in Lacasse et al. 2009; Pelucci et al. 2006)
- Westerholm P. 1980. Silicosis. Observations on a case register. *Scand J Work Environ Health* 6 Suppl 2:1-86. (As cited in Erren et al. 2009a, 2009b; Poinen-Rughooputh et al. 2016)
- Westerholm P, Ahlmark A, Maasing R, et al. 1986. Silicosis and risk of lung cancer or lung tuberculosis: a cohort study. *Environ Res* 41(1):339-350.
- WHO. 2010. Guidelines for indoor air quality: Selected pollutants. Geneva, Switzerland: World Health Organization. http://www.euro.who.int/__data/assets/pdf_file/0009/128169/e94535.pdf. April 25, 2012.
- WHO. 2017. Guidelines for drinking-water quality. Fourth edition incorporating the first addendum. Geneva, Switzerland: World Health Organization. <http://apps.who.int/iris/bitstream/10665/254637/1/9789241549950-eng.pdf?ua=1>. February 28, 2017.
- Wickman AR, Middendorf PJ. 2002. An evaluation of compliance with occupational exposure limits for crystalline silica (quartz) in ten Georgia granite sheds. *Appl Occup Environ Hyg* 17(6):424-429. <http://doi.org/10.1080/10473220290035444>.
- Wilson MJ, Jones D, McHardy WJ. 1981. The weathering of serpentinite by *Lecanora atra*. *Lichenologist (Oxf)* 13(2):167-176
- Wilson RK, Stevens PM, Lovejoy HB, et al. 1979. Effects of chronic amorphous silica exposure on sequential pulmonary function. *J Occup Med* 21(6):399-402.
- +Wolterbeek A, Oosterwijk T, Schneider S, et al. 2015. Oral two-generation reproduction toxicity study with NM-200 synthetic amorphous silica in Wistar rats. *Reprod Toxicol* 56:147-154. <http://doi.org/10.1016/j.reprotox.2015.03.006>.
- Woskie SR, Kalil A, Bello D, et al. 2002. Exposures to quartz, diesel, dust, and welding fumes during heavy and highway construction. *AIHA J (Fairfax, Va)* 63(4):447-457.
- Wu JJ, Schiff KR. 2004. Sarcoidosis. *Am Fam Physician* 70:312-322.

8. REFERENCES

- Wyndham CH, Bezuidenhout BN, Greenacre MJ, et al. 1986. Mortality of middle aged white South African gold miners. *Br J Ind Med* 43:677-684.
- Yassin A, Yebesi F, Tingle R. 2005. Occupational exposure to crystalline silica dust in the United States, 1988-2003. *Environ Health Perspect* 113(3):255-260.
- Yingratanasuk T, Seixas N, Barnhart S, et al. 2002. Respiratory health and silica exposure of stone carvers in Thailand. *Int J Occup Environ Health* 8(4):301-308. <http://doi.org/10.1179/107735202800338722>.
- Yu IT, Tse LA, Chi CL, et al. 2008. [A retrospective cohort study on mortality among silicotic workers in Hong Kong with emphasis on lung cancer]. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi* 26(1):29-33. (As cited in Poinen-Rughooputh et al. 2016 - Chinese)
- Yucesoy B, Vallyathan V, Landsittel DP, et al. 2002. Cytokine polymorphisms in silicosis and other pneumoconioses. *Mol Cell Biochem* 234-235(1):219-224.
- Zambon P, Simonato L, Mastrangelo G, et al. 1987. Mortality of workers compensated for silicosis during the period 1959-1963 in the Veneto region of Italy. *Scand J Work Environ Health* 13(2):118-123.
- Zhang Z, Shen HM, Zhang QF, et al. 1999. Critical role of GSH in silica-induced oxidative stress, cytotoxicity, and genotoxicity in alveolar macrophages. *Am J Physiol* 277(4 Pt 1):L743-748.
- Zhang Z, Shen HM, Zhang QF, et al. 2000. Involvement of oxidative stress in crystalline silica-induced cytotoxicity and genotoxicity in rat alveolar macrophages. *Environ Res* 82(3):245-252. <http://doi.org/10.1006/enrs.1999.4025>.
- Zheng H, Hogberg J, Stenius U. 2017. ATM-activated autotaxin (ATX) propagates inflammation and DNA damage in lung epithelial cells: a new mode of action for silica-induced DNA damage? *Carcinogenesis* 38(12):1196-1206. <http://doi.org/10.1093/carcin/bgx100>.
- Zhong BZ, Ong T, Whong WZ. 1997a. Studies on the relationship between treatment condition and micronucleus induction in V79 cells exposed to silica and glass fibers. *Mutat Res* 391(1-2):111-116.
- Zhong BZ, Whong WZ, Ong TM. 1997b. Detection of mineral-dust-induced DNA damage in two mammalian cell lines using the alkaline single cell gel/comet assay. *Mutat Res* 393(3):181-187.
- Zhuravlev LT. 2000. The surface chemistry of amorphous silica. Zhuravlev model. *Colloids Surf A Physicochem Eng Asp* 173(1-3):1-38. [http://doi.org/10.1016/S0927-7757\(00\)00556-2](http://doi.org/10.1016/S0927-7757(00)00556-2).
- Ziegler V, Enderlein G, Mehlorn J, et al. 1997. [Retrospective epidemiological analysis of the relation between progressive systemic scleroderma and the exposure to quartz dust not from uranium ore mining in East Germany]. *Zbl Arbeitsmed* 47:7-13. (As cited in McCormic et al. 2010 - German)
- Zuhl RW, Amjad Z. 2013. Solution chemistry impact on silica polymerization by inhibitors. In: Amjad Z, ed. *Mineral scales in biological and industrial systems*. Boca Raton, FL: CRC Press, 173-200.
- Zumwalde R, Ludwig H, Dement J. 1981. Industrial hygiene report, Homestake Mining Company, Lead, South Dakota [USA]. Industry-wide studies branch, DSHEFS, NIOSH, Cincinnati, Ohio (As cited in Mannelje et al. 2002b)