

13. Použitá literatura

- Air Resources Laboratory. HYSPLIT - Nova [online]. 2020 [cit. 2020-05-02]. Dostupné z: <https://www.arl.noaa.gov/hysplit/hysplit/>
- Almeida, S.M., J. Lage, B. Fernández, S. Garcia, M.A. Reis, P.C. Chaves. Chemical characterization of atmospheric particles and source apportionment in the vicinity of a steelmaking industry. *Science of The Total Environment*. **2015**, 521-522, 411-420. DOI: 10.1016/j.scitotenv.2015.03.112. ISSN 00489697.
- Baraldo, E., L. Zagolin, A. De Bortoli, A. Benassi. PM₁₀ chemical characterization and seasonal variations in a high density urban area nearby Venice, Italy. Osservatorio Regionale Aria, Venice, Italy, **2009**, 1-8.
- Bitta, J., Pavlíková, I., Svozilík, V., Jančík, P., Air Pollution Dispersion Modelling Using Spatial Analyses, *ISPRS Int. J. Geo-Inf.*, **2018**, 7, 12, 489.
- Björkman, E., Strömberg, B., Release of Chlorine from Biomass at Pyrolysis and Gasification Conditions. *Energy & Fuels*. **1997**, 11, 1026-1032.
- Butler, T., F. Vermeylen, C.M. Lehmann, G.E. Likens, M. Puchalski. Increasing ammonia concentration trends in large regions of the USA derived from the NADP/AMoN network. *Atmospheric Environment*. **2016**, 146, 132-140. DOI: 10.1016/j.atmosenv.2016.06.033. ISSN 13522310.
- Cardoso, João, Susana M. Almeida, Teresa Nunes, et al. Source apportionment of atmospheric aerosol in a marine dusty environment by ionic/composition mass balance (IMB). *Atmospheric Chemistry and Physics*. **2018**, 18, 17, 13215-13230. DOI: 10.5194/acp-18-13215-2018. ISSN 1680-7324.
- Cena, B., M. Aliu, T. Musliu. Measurements of Emission of Gases SO₂, NO_x, CO and CO₂ from the Burning Process in the Furnaces of Power Plant "Kosova B". **2010**, 5, 2, 172-174.
- Čačković, M., Vadić, V., Šega, K., Bešlić, I. Acidic Anions in PM₁₀ Particle Fraction in Zagreb Air, Croatia. *Bulletin of Environmental Contamination and Toxicology*. **2009**, 83, 188-192.
- Černíkovský, L., Krejčí, B., Blažek, Z., Volná, V. Transboundary air-pollution transport in the Czech-Polish border region between the cities of Ostrava and Katowice. *Cent. Eur. J. Public Health*. **2016**, 45-50.
- Dall'osto, M., M. J. Booth, W. Smith, R. Fisher, Roy M. Harrison. A Study of the Size Distributions and the Chemical Characterization of Airborne Particles in the Vicinity of a Large Integrated

- Steelworks. *Aerosol Science and Technology*. **2008**, 42, 12, 981-991. DOI: 10.1080/02786820802339587. ISSN 0278-6826.
- Deshmukh, D.K., Deb, M.K., Tsai, Y.I., Mkoma, S.L., Water soluble ions in PM_{2.5} and PM₁₀ aerosols in Durg City, Chhattisgarh, India, *Aerosol Air Qual. Res.* **2011**, 11, 696-708.
 - Ding, X.X., L.D. Kong, C.T. Du, et al. Characteristics of size-resolved atmospheric inorganic and carbonaceous aerosols in urban Shanghai. *Atmospheric Environment*. **2017**, 167, 625-641. DOI: 10.1016/j.atmosenv.2017.08.043. ISSN 13522310.
 - Dufour, A., Migon, Ch. Mineralisation of atmospheric aerosol particles and further analysis of trace elements by inductively coupled plasma-optical emission spectrometry. *MethodsX*. **2017**, 4, 191-198.
 - European Environment Agency: Air pollution [online]. **2020** [cit. 2020-04-28]. Dostupné z: <https://www.eea.europa.eu/themes/air>
 - Fang, G.Ch., Lin, S.Ch., Chang, S.Y., Lin, Ch.Y., Chou, Ch.C.K., Wu, Y.J., Chen, Y.Ch., Chen, W.T., Wu, T.L. Characteristics of major secondary ions in typical polluted atmospheric aerosols during autumn in central Taiwan, *J. Environ. Manage.* **2011**, 92, 1520-1527.
 - Galon-Negru, Alina Giorgiana, Romeo Iulian Olariu, Cecilia Arsene. Chemical characteristics of size-resolved atmospheric aerosols in Iasi, north-eastern Romania: nitrogen-containing inorganic compounds control aerosol chemistry in the area. *Atmospheric Chemistry and Physics*. **2018**, 18, 8, 5879-5904. DOI: 10.5194/acp-18-5879-2018.
 - Hůnová, I. Ambient Air Quality in the Czech Republic: Past and Present. *Atmosphere*. **2020**, 11, 214.
 - Chang, F., S. Wu, F. Zhang, H. Lu, K. Du. Characterization of sintering dust, blast furnace dust and carbon steel electric arc furnace dust. *Characterization of Minerals, Metals, and Materials 2015*. Springer, Cham. **2015**, 83-90. ISBN 978-3-319-48191-3.
 - Chmielarz, Lucjan a Magdalena Jabłońska. Advances in selective catalytic oxidation of ammonia to dinitrogen: a review. *RSC Advances*. **2015**, 5, 54, 43408-43431. DOI: 10.1039/C5RA03218K. ISSN 2046-2069.
 - *Informace o kvalitě ovzduší v ČR: Předběžný přehled překročení imisních limitů počítáno jak z operativních dat (zatím neverifikovaných), tak i verifikovaných* [online]. Český hydrometeorologický ústav, 2020 [cit. 2020-05-02]. Dostupné z: http://portal.chmi.cz/files/portal/docs/uoco/web_generator/exceed/index_CZ.html

- Jovanovic, V. A Komatina, M. NO_x and SO₂ emission factors for Serbian lignite Kolubara. *Thermal Science*. **2012**, 16, 1213-1228.
- Karthikeyan, S., Balasubramanian R. Rapid extraction of water soluble organic compounds from airborne particulate matter. *Anal Sci*. **2005**, 21, 1505-1508.
- Kubelová L., Vodička P., Schwarz J., Cusack M., Makeš O., Ondráček J., Ždímal V. A study of summer and winter highly time-resolved submicron aerosol composition measured at a suburban site in Prague. *Atmospheric Environment*. **2015**, 118, 45-57.
- Lin, Yu-Chi, Yan-Lin Zhang, Mei-Yi Fan, Mengying Bao. Heterogeneous Formation of Particulate Nitrate under Ammonium - rich Regime during the high PM_{2.5} events in Nanjing, Chin. *Atmospheric chemistry and physics*. **2019**, 1-37. DOI: 10.5194/acp-2019-752.
- Liu, H., Zheng, J., Qu, CH., Zhang, J., Wang, Y., Zhan, CH., Yao, R., Cao, J. Characteristics and Source Analysis of Water-Soluble Inorganic Ions in PM₁₀ in a Typical Mining City, Central China. *Atmos*. **2017**, 8, 4, 74.
- Liu, S., Hu, M., Slanina, S., He, L.Y., Niu, Y., Bruegemann, E., Gnauk, T., Herrmann, H. Size distribution and source analysis of ionic compositions of aerosols in polluted periods at Xinken in Pearl River Delta (PRD) of China. *Atmos. Environ*. **2008**, 42, 6284-6295.
- Majewski, G., Rogula-Kozłowska, W., Rozbicka, K., Rogula-Kopiec, P., Mathews, B., Brandyk, A. Concentration, Chemical Composition and Origin of PM₁: Results from the First Long-term Measurement Campaign in Warsaw (Poland). *Aerosol and Air Quality Research*. **2018**, 18, 636-654.
- Matýsek, D., Kucbel, M., Raclavská, H., Sýkorová, B., Raclavský, K. Mineralogical Composition of the Total Suspended Particles as a Tool for Emissions Sources Identification. *Inz. Mineral*. **2015**, 16, 2, 17-22.
- Mira-Salama, D., Gruning, C., Jensen, N.R., Cavalli, P., Putaud, J.-P., Larsen, B.R., Raes, F., Coe, H. Source attribution of urban smog episodes caused by coal combustion. *Atmos. Res*. **2008**, 88, 294-304.
- Muzio, L., Bogseth, S., Himes, R., Chien-Chien, Yu., Dunn-Rankin, D. Ammonium bisulfate formation and reduced load SCR operation. *Fuel*. **2017**, 206, 180-189.
- Nihalani, S A, Y Mishra, J Juremalani. Emission Control Technologies for Thermal Power Plants. *IOP Conference Series: Materials Science and Engineering*. **2018**, 330, 012122-. DOI: 10.1088/1757-899X/330/1/012122. ISSN 1757-8981.

- Nowak J. B., Neuman J. A., Bahreini R., Middlebrook A. M., Holloway J. S., McKeen S. A., Parrish D. D., Ryerson T. B., M. Trainer. Ammonia sources in the California South Coast Air Basin and their impact on ammonium nitrate formation. *Geophysical research letters*. **2012**, 39, L07804, DOI:10.1029/2012GL051197,
- Pachauri T. Chemical characterization and source identification of PM_{2.5} and PM₁₀ at a rural, sub-urban and traffic dominated site in Agra, India, Thesis, Department of chemistry, Faculty of science, Deemed university, **2012**.
- Pan, Y., Tian, S., Liu, D., Fang, Y., Zhu, X., Gao, M., Gao, J., Michalski, G., Wang, Y. Isotopic evidence for enhanced fossil fuel sources of aerosol ammonium in the urban atmosphere. *Environ. Pollut.* **2018**, 238, 942-947.
- Park S.-M., Seo B.-K., Lee G., Kahng S.-H. and Jang Y. Chemical Composition of Water Soluble Inorganic Species in Precipitation at Shihwa Basin, Korea. *Atmosphere*. **2015**, 6, 6, 732-750.
- Park, S. S., S. B. Hong, Y. G. Jung, J. H Lee. Measurements of PM₁₀ aerosol and gas-phase nitrous acid during fall season in a semi-urban atmosphere. *Atmospheric Environment*. **2004**, 38, 2, 293-304. DOI: 10.1016/j.atmosenv.2003.09.041. ISSN 13522310.
- Pathak, R.K., Wu, W.S., Wang, T. Summertime PM_{2.5} ionic species in four major cities of China: nitrate formation in an ammonia-deficient atmosphere. *Atmospheric Chemistry and Physics*. **2009**, 9, 5, 1711-1722.
- Pecorari, E., S. Squizzato, A. Longo, F. Visin, G. Rampazzo. Secondary inorganic aerosol evaluation: Application of a transport chemical model in the eastern part of the Po Valley. *Atmospheric Environment*. **2014**, 98, 202-213. DOI: 10.1016/j.atmosenv.2014.08.045. ISSN 13522310.
- Peng, C., Z. Guo, F. Zhang. Discovery of Potassium Chloride in the Sintering Dust by Chemical and Physical Characterization. *ISIJ International*. **2008**, 48, 10, 1398-1403. DOI: 10.2355/isijinternational.48.1398. ISSN 0915-1559.
- Plaza, J., Pujadas, M., Gómez-Moreno, F.J., Sánchez, M., Artíñano, B. Mass size distribution of soluble sulfate, nitrate and ammonium in the Madrid urban aerosol. *Atmos. Environ.* **2011**, 45, 4966-4976.
- Qadir, R.M., Schnelle-Kreis, J., Abbaszade, G., Arteaga-Salas, J.M., Diemer, J., Zimmermann, R. Spatial and temporal variability of source contributions to ambient PM₁₀ during Winter in Augsburg, Germany using organic and inorganic tracers. *Chemosphere*. **2014**, 103, 263-273.

- Raclavská, H., Matýsek, D. Determination of leachability of dust from iron and steel production (In Czech). Report. VSB-TU Ostrava. 1-43. **2016**.
- Remus, R., M. A. Aguado-Monsonet, S. Roudier, L. Delgado Sancho. Best Available Techniques (BAT) Reference Document for Iron and Steel Production: Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control). IEA Clean Coal Centre. JRC reference report, **2012**.
- Rogula-Kozłowska, W., Sówka, I., Mathews, B., Klejnowski, K., Zwoździak, A., Kwiecińska, K. Size-Resolved Water-Soluble Ionic Composition of Ambient Particles in an Urban Area in Southern Poland. *Journal of Environmental Protection*. **2013**, 04, 371-379.
- Ruční spektrometr a ruční analyzátor kovů DELTA. [online]. [cit. 2020-05-19]. Dostupné z: http://www.bas.cz/innov-x-systems/rucni_analyzator_kovu_delta_premium.php
- Salam, A., MD. Assaduzzaman, M.N. Hossain, A A.K.M. Nur Alam Siddiki. Water Soluble Ionic Species in the Atmospheric Fine Particulate Matters (PM_{2.5}) in a Southeast Asian Mega City (Dhaka, Bangladesh). *O. J. Air Pollut.* **2015**, 4, 99-108.
- Schaap, M., van Loon, M., Ten Brink, H. M., Dentener, F. J., Builtjes, P. J. H. Secondary inorganic aerosol simulations for Europe with special attention to nitrate. *Atmos. Chem. Phys.* **2004**, 4, 857-874.
- Schwarz, J., Cusack, M., Karban, J., Chalupníčková, E., Havránek, V., Smolík, J., Ždímal, V. PM_{2.5} chemical composition at a rural background site in Central Europe, including correlation and air mass back trajectory analysis. *Atmos. Res.* **2016**, 176-177, 108-120.
- Spindler, G., Brüggemann, E., Gnauk, T., Grüner, A., Müller, K., Herrmann, H. A four-year size-segregated characterization study of particles PM₁₀, PM_{2.5} and PM₁ depending on air mass origin at Melpitz. *Atmospheric Environment*. **2010**, 44, 164-173.
- Tsai, J, K Lin, C Chen, J Ding, C Choa, H Chiang. Chemical constituents in particulate emissions from an integrated iron and steel facility. *Journal of Hazardous Materials*. **2007**, 147, 1-2, 111-119. DOI: 10.1016/j.jhazmat.2006.12.054. ISSN 03043894.
- Tsai, J.-H., Lin, J.-H., Yao, Y.-CH., Chiang, H.-L. Size mass distribution of water-soluble ionic species and gas conversion to sulfate and nitrate in particulate matter in Southern Taiwan. *Aerosol Air Qual. Res.* **2012**, 12, 263-274.

- Tsyro S., Aas W., Soares J., Sofiev M., Berge H., Spindler G. Modelling of sea salt concentrations over Europe: key uncertainties and comparison with observations. *Atmospheric Chemistry and Physics*. **2011**, 11, 20, 10367-10388.
- Úsek kvality ovzduší: Smogový varovný a regulační systém [online]. Český hydrometeorologický ústav, 2012 [cit. 2020-05-01]. Dostupné z: <http://portal.chmi.cz/files/portal/docs/uoco/smog/index.html>
- Vejvoda J., Machač P., Buryan. Technologie ochrany ovzduší a čištění odpadních plynů., 1. vydání, Vysoká škola chemicko – technologická v Praze, Praha **2003**.
- Vicente, A.B., Juan, P., Meseguer, S., Díaz-Avalos, C., Serra, L. Variability of PM₁₀ in industrialized-urban areas. New coefficients to establish significant differences between sampling points. *Environ. Pollut.* **2018**, 234, 969-978.
- Wang, L., D. Ji, Y.Li, et al. The impact of relative humidity on the size distribution and chemical processes of major water-soluble inorganic ions in the megacity of Chongqing, China. *Atmospheric Research*. **2017**, 192, 19-29. DOI: 10.1016/j.atmosres.2017.03.016. ISSN 01698095.
- Wang, S., Yin, S., Zhang, R., et al., Insight into the formation of secondary inorganic aerosol based on high-time-resolution data during haze episodes and snowfall periods in Zhengzhou, China. *Sci. Total Environ.* **2019**, 660, 47-56.
- Weijers E. P., Schaap M., Nguyen L., Matthijsen J., Denier Van Der Gon H. A. C., Ten Brink H. M., Hoogerbrugge R., Anthropogenic and natural constituents in particulate matter in the Netherlands. *Atmospheric Chemistry and Physics*. **2011**, 11, 5, 2281-2294.
- Weijers E.P., Sahan E., Ten Brink H.M., Schaap M., Matthijsen J., Otjes R.P., Van Arkel F. Contribution of secondary inorganic aerosols to PM₁₀ and PM_{2.5} in the Netherlands, Measurement and modelling results, **2010**.
- Werner M., Kryza M., Dore A. J., Blaś M., Hallsworth S., Vieno M., Tang Y. S., Smith R. I. Modelling of marine base cation emissions, concentrations and deposition in the UK. *Atmospheric Chemistry and Physics*. **2011**, 11, 3, 1023-1037.
- Werner, M., Kryza, M., Dore, A.J. Differences in the Spatial Distribution and Chemical Composition of PM₁₀ Between the UK and Poland. *Environmental Modeling & Assessment*. **2014**, 19, 179-192.
- Wu, J., Xu, CH., Wang, Q. a Cheng, W. Potential Sources and Formations of the PM_{2.5} Pollution in Urban Hangzhou. *Atmosphere*. **2016**, 7, 8, 100.

- Xiu, G., D. Zhang, J. Chen, X. Huang, Z. Chen, H. Guo aj. Pan. Characterization of major water-soluble inorganic ions in size-fractionated particulate matters in Shanghai campus ambient air. *Atmospheric Environment*. **2004**, 38, 2, 227-236.
- Yang, X., Wang, T., Xia, M., Gao, X., Li, Q., Zhang, N., Gao, Y., Lee, S., Wang, X., Xue, L., Yang, L., Wang, W. Abundance and origin of fine particulate chloride in continental China. *Sci. Total Environ*. **2018**, 624, 1041-1051.
 - Yao X., Fang M., Chan CH. K., The size dependence of chloride depletion in fine and coarse sea-salt particles. *Atmospheric Environment*. **2003**, 37, 743-751.
 - Yin, S., Huang, Z., Zheng, J., Huang, X., Chen, D., Tan, H. Characteristics of inorganic aerosol formation over ammonia-poor and ammonia-rich areas in the Pearl River Delta region, China, *Atmos. Environ*. **2018**, 177, 120-131.
 - Zhan, G., Z. Guo. Basic properties of sintering dust from iron and steel plant and potassium recovery. *Journal of Environmental Sciences*. **2013**, 25, 6, 1226-1234. DOI: 10.1016/S1001-0742(12)60168-5. ISSN 10010742.
 - Zhang, X. Emission standards and control of PM_{2.5} from coal-fired power plants. © IEA Clean Coal Centre. EEA, **2016**. ISBN 978-92-9029-590-7.
 - Zhao, J., F. Zhang, Y. Xu, J. Chen. Characterization of water-soluble inorganic ions in size-segregated aerosols in coastal city, Xiamen. *Atmospheric Research*. **2011**, 99, 3-4, 546-562.
 - Zhao, S., Duan, Y., Li, Y., Liu, M., Lu, J., Ding, Y., Gu, C., Tao, J., Du, M. Emission characteristic and transformation mechanism of hazardous trace elements in a coal-fired power plant. *Fuel*. **2018**, 214, 597-606.
 - Zhou, Y., Cheng, S., Lang, J., Chen, D., Zhao, B., Liu, Ch., Xu, R., Li, T. A comprehensive ammonia emission inventory with high-resolution and its evaluation in the Beijing-Tianjin-Hebei (BTH) region. China. *Atmos. Environ*. **2015**, 106, 305-317.
 - Zotter, P., Ciobanu, V. G., Zhang, Y. L., et al. Radiocarbon analysis of elemental and organic carbon in Switzerland during winter-smog episodes from 2008 to 2012 – Part 1: Source apportionment and spatial variability. *Atmos. Chem. Phys*. **2014**, 14, 13551-13570.
 - ZUOva. Identifikace podílů původců znečišťování na kvalitě ovzduší za různých rozptylových podmínek. Zdravotní ústav se sídlem v Ostravě, **2018**, 1-180.