

Air quality analysis on a frequently congested road section

D. M. Mustață, R. M. Popa, I. Ionel, R. M. Balogh,
D. Bisorca, D R Streinu

<https://doi.org/10.1088/1757-899x/1220/1/012058>

Abstract

This paper will focus on analysing the air quality on a frequently congested road section in the vicinity of Timisoara, Romania. The placement of the measurement equipment will be made next to a public transport station measuring the extent of different pollutants which affect the well-being of passengers waiting in these stations. The traffic congestion is present due to the unloading from the highway, reduced capacity of only a one lane road and because of the high amount of industrial area workplaces. The results presented will be part of the PhD thesis of the main author.

Keywords: air quality, pollutants, traffic congestions

References

1. Giavazzi F, Buttini P and Perego C 2007 Encyclopedia of hydrocarbons **III** 717
[Go to reference in article](#)
[Google Scholar](#)
2. <https://www.eea.europa.eu/ro/themes/air/intro>, accessed on 6th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
3. Guerreiro C, Gonzalez Ortiz A and de Leeuw F 2017 Air quality in Europe — 2017 report European Environmental Agency 11-12
[Go to reference in article](#)
[Google Scholar](#)
4. Metcalfe S and Derwent D 2005 Atmospheric Pollution and Environmental Change Hodder 84-85 Headline Group
[Go to reference in article](#)
[Google Scholar](#)
5. Dong J, Liu Y and Bao H 2021 Revalue associations of short-term exposure to air pollution with respiratory hospital admissions in Lanzhou, China after the control and treatment of current pollution International Journal of Hygiene and Environmental Health **231**
<https://doi.org/10.1016/j.ijheh.2020.113658>, accessed on 10th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)

**The XXXI-st SIAR International Congress of Automotive and Transport
Engineering
"Automotive and Integrated Transport Systems" (AITS 2021),
28th-30th October 2021, Chisinau, Republic of Moldova
Conference Series: Materials Science and Engineering, 2022, Vol. 1220, Nr. 1**

6. Brumberg H L and Karr C J 2021 Ambient Air Pollution: Health Hazards to Children *Pediatrics* **147** 5 <https://doi.org/10.1542/peds.2021-051484>, accessed on 10th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
7. Cheng J, Xu Z, Zhang Z, Zhao H and Hu 2019 WEstimating cardiovascular hospitalizations and associated expenses attributable to ambient carbon monoxide in Lanzhou, China: Scientific evidence for policy making *Science of The Total Environment* **682**
<https://doi.org/10.1016/j.scitotenv.2019.05.110>, accessed on 10th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
8. <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>, accessed on 6th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
9. Morino Y, Li Y, Sato K, Inomata S, Tanabe K, Jathar S, Kondo Y, Nakayama T, Fushimi A, Takami A and Kobayashi S 2021 Secondary Organic Aerosol Formation from Gasoline and Diesel Vehicle Exhaust under Light and Dark Conditions **5**
[Go to reference in article](#)
[Google Scholar](#)
10. <https://ec.europa.eu/environment/air/quality/standards.htm>, accessed on 7th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
11. <https://www3.epa.gov/region1/airquality/pm-aq-standards.html>, accessed on 7th Oct. 2021
[Go to reference in article](#)
[Google Scholar](#)
12. Rozante J R, Rozante V, Alvim D S, Manzi A O, Chiquetto J B, D'Amelio M T S and Moreira D S 2017 Variations of Carbon Monoxide Concentrations in the Megacity of São Paulo from 2000 to 2015 in Different Time Scales **11**
[Go to reference in article](#)
[Google Scholar](#)
13. Law. 104-15.06.2011, <http://legislatie.just.ro/Public/DetaliiDocument/129642>
[Go to reference in article](#)
[Google Scholar](#)