

Urban Environmental Pollution Conference

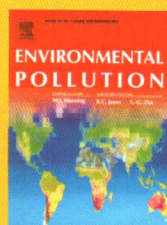
CREATING HEALTHY, LIVEABLE CITIES

17-20 June 2012 • Amsterdam, The Netherlands



Delegate Handbook

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[P2.112]

Modelling of local traffic contributions to particulate air pollution in Belgrade street canyons using WinOSPM model

L. Lazic, M. Anicic*, G. Vukovic, M. Tasic, S. Rajsic, Z. Mijic
Univesity of Belgrade, Serbia

Operational street pollution model WinOSPM is used to predict hourly NO_x, NO, NO₂, O₃, CO, BNZ, PM₁₀ concentrations in Belgrade street canyons with public garages. This model calculates pollutant concentrations inside a street canyon assuming three different contributions: (a) the contribution from the direct flow of pollutants from the source to the receptor, (b) the recirculation component due to the flow of pollutants around the vortex generated within the recirculation zone of the canyon, and (c) the urban background contribution and hourly meteorological data.

The modelling is performed in the very central area of Belgrade in four street canyons with public garages. The frequency of the car near the public garages has increased. Cars are moving slowly with frequent braking and thus, as a result of friction brake on ground (asphalt), the amount of particles emitted in the atmosphere is higher. Model receptors are located on different heights (7 m, 14 m and 21 m) to investigate the vertical distribution patterns of selected trace elements. Verification is defined by comparison with selected trace elements as reflected by their accumulation in moss (*Sphagnum girgensohnii*) exposed in bags on the same locations and heights. Results show reasonable level of correlation.

Keywords: Street pollution model, Street canyons, Trace elements, Accumulation in moss

[P2.102]	Urban drainage treatment sustainability I: Measurements and models J. Sansalone*, G. Ying, S. Raje, <i>University of Florida, USA</i>
[P2.103]	Urban drainage treatment sustainability II: Wastewater reuse J. Sansalone*, S. Raje, C. Berretta, <i>University of Florida, USA</i>
[P2.104]	Numerical simulations of air flows and pollution transport in street canyons using mesh-adaptive LES. E. Aristodemou* ^{1,3} , J. Milner ² , D. Pavlidis ³ , C. Pain ³ , A. Robins ⁴ , ¹ <i>London South Bank University, UK</i> , ² <i>London School of Hygiene & Tropical Medicine, UK</i> , ³ <i>Imperial College London, UK</i> , ⁴ <i>University of Surrey, UK</i>
[P2.105]	Antioxidant defenses signalling in pollutant-induced increased differential gender susceptibility to lung inflammation J. Florenzano*, K.T. Santos, S.A. Teixeira, M.N. Muscará, S.K.P. Costa, <i>University of São Paulo, Brazil</i>
[P2.106]	Mitigating urban heat island through children participation workshop method M.H. Rasidi* ¹ , I. Said ¹ , N. Rusli ¹ , T. Kubota ² , ¹ <i>Universiti Teknologi, Malaysia</i> , ² <i>Hiroshima University, Japan</i>
[P2.107]	Creating healthy, livable cities: Water sources, uses and quality in a developing country O.A.A. Eletta* ^{1,2} , O.T Aladesanmi ^{1,2} , ¹ <i>University of Ilorin, Nigeria</i> , ² <i>Obafemi Awolowo University, Nigeria</i>
[P2.108]	Personal, indoor and outdoor air pollution levels in pregnant women in a high diesel environment A. Schembari, M. Triguero, A. De Nazelle, P. Dadvand, M. Vrijheid, M. Cirach, D. Martinez, M.J. Nieuwenhuijsen*, <i>Centre for Research in Environmental Epidemiology (CREAL), Spain</i>
[P2.109]	Summer atmospheric polybrominated diphenyl ethers in urban and rural areas of Northern China. C. Wang, W. Lei, G.F. Shen*, S. Tao, <i>Peking University, China</i>
[P2.110]	Pilot tests of pump and treat system for removing DNAPL plume at an industrial complex in Wonju city, Korea W.H. Jeon* ¹ , J.Y. Lee ¹ , S.C. Jun ² , H.P. Kwon ² , J.Y. Cheon ² , ¹ <i>Kangwon National University, Republic of Korea</i> , ² <i>GeoGreen21 Co., Ltd, Republic of Korea</i>
[P2.111]	Numerical simulation of turbulent flows and pollutant concentrations in street canyon M. Scungio, <i>University of Cassino and Lazio Meridionale, Italy</i>
[P2.112]	Modelling of local traffic contributions to particulate air pollution in Belgrade street canyons using WinOSPM model L. Lazic, M. Anicic*, G. Vukovic, M. Tasic, S. Rajsic, Z. Mijic, <i>University of Belgrade, Serbia</i>
[P2.113]	Indoor air monitoring in boxes areas along the Carnival circuit in Salvador, BA, Brazil N.A. Vianna ¹ , P.H.N. Saldiva* ¹ , L.A. Andrade ² , ¹ <i>University of Sao Paulo, Brazil</i> , ² <i>Federal University of Rio de Janeiro, Brazil</i>
[P2.114]	Clean water like gold - how can we increase the world's access to clean water? E.M. Galas, <i>Wroclaw University of Technology, Poland</i>

PROGRAMME

Sunday 17th June 2012

18.00 – 20.00	Registration
19.00 – 20.00	Reception

Monday 18th June 2012

07.30 – 08.30	Registration
08.30 – 08.50	Opening Remarks
08.50 – 10.25	Oral Session 1: Urban Human Health
10.25 – 10.55	Refreshment Break
10.55 – 13.05	Oral Session 2: Vegetation and Urban Environment
13.05 – 14.00	Lunch
14.00 – 16.00	Oral Session 3: Urban Air Environment
16.00 – 18.00	Refreshment Break and Poster Session 1
19.00	Conference Dinner

Tuesday 19th June 2012

08.30 – 10.20	Oral Session 4: Urban Human Health
10.20 – 10.50	Refreshment Break
10.50 – 13.00	Oral Session 5: Urban Human Health
13.00 – 13.50	Lunch
13.50 – 16.30	Oral Session 6: Urban Air Environment
16.30 – 18.30	Refreshment Break and Poster Session 2

Wednesday 20th June 2012

08.30 – 10.20	Oral Session 7: Vegetation and Air Quality
10.20 – 10.50	Refreshment Break
10.50 – 12.50	Oral Session 8: Urban Environmental Management
12.50 – 14.00	Lunch
14.00 – 15.30	Oral Session 9: Urban Environment
15.30 – 16.00	Refreshment Break
16.00 – 16.40	Oral Session 9: Urban Environment continued
16.40	Closing Remarks