

## VERTIKALNA DISTRIBUCIJA ČVRSTIH POLUTANATA U SARAJEVU

### **Muriz Spahić**

Univerzitet u Sarajevu, Prirodno-matematički fakultet, Odsjek za geografiju,  
Zmaja od Bosne 33-35, Sarajevo, Bosna i Hercegovina  
[murizspahic@gmail.com](mailto:murizspahic@gmail.com)

### **Semir Ahmetbegović**

Univerzitet u Tuzli, Prirodno-matematički fakultet, Odsjek za geografiju  
Univerzitetska 4, Tuzla, Bosna i Hercegovina  
[semir.ahmetbegovic@untz.ba](mailto:semir.ahmetbegovic@untz.ba)

*Koncentracija polutanata u zraku Sarajevske kotline određena je, osim polucije iz emisionih zona, još i meteorološkim stanjima atmosfere posebno tokom hladnijeg perioda godine. Sarajevska kotlina, kao i sve druge morfološke unutar gorske depresije oblika zavalu su slabije provjetrene u odnosu na otvorene morfoforme, posebno visoravni. Pored toga, kotline u hladnijem periodu godine odlikuju termičke inverzije, od kojih su najznačajnije one koje nastaju spuštanjem hladnih zračnih masa niz gorske padine u dno Sarajevskog polja. One se kombinuju sa radijacijskim inverzijama, praćene istoimenim maglama i mogu trajati po nekoliko dana i sedmica u Sarajevskom polju.*

*Za vrijeme temperaturnih inverzija zrak se bogati polutantima čija koncentracija često prevazilazi dozvoljene granice. U njima se nalaze i čvrsti polutanti koji padaju iz zraka na površinu, koja tokom hladnijeg perioda godine može biti pokrivena snijegom koji polutanti prljaju. Snijeg polutante zadržava in situ, na mjestu nagomilavanja i bez otpuhivanja. To je dovoljan razlog da se njihova količina može odrediti skidanjem povlatnog sloja snijega sa jedinične površine, potom ga u vodenom stanju profiltrirati i talog izmjeriti.*

**Ključne riječi:** *polutanti, morfološke depresije, temperaturne inverzije, radijacione inverzije, inverzije spuštanja zračnih masa, snijeg, povlatni sloj snijega, talog.*

## VERTICAL DISTRIBUTION OF SOLID POLLUTANTS IN SARAJEVO

### **Muriz Spahic**

University of Sarajevo, Faculty of Mathematics and Science, Department for Geography  
Zmaja od Bosne 33-35, Sarajevo, Bosnia and Herzegovina  
[murizspahic@gmail.com](mailto:murizspahic@gmail.com)

### **Semir Ahmetbegović**

University of Tuzla, Faculty of Sciences and Mathematics, Department of Geography  
Univerzitetska 4, Tuzla, Bosnia and Herzegovina  
[semir.ahmetbegovic@untz.ba](mailto:semir.ahmetbegovic@untz.ba)

*The concentration of air pollutants in Sarajevo basin is determined by the pollution from emission zones, and also by the meteorological conditions of the atmosphere, especially during the colder period of the year. Sarajevo basin, as well as all the other morphological depression forms that are basins, are poorly aerated when compared to open morph forms, especially plateaus. In addition, the basins are characterized by thermal*

*inversions during the colder period of the year, of which the most important ones are those that occur from the descending of cold air masses down the mountain slopes into the bottom of the Sarajevo basin. They are combined with radiation inversions, accompanied by the fogs of the same name and can last for several days and weeks in the Sarajevo basin.*

*During temperature inversions the air is getting richer with pollutants whose concentration often exceeds the allowable limits. These pollutants contain solid pollutants that fall from the air on the surface, which can be covered by the snow that pollutants dirty during the colder period of the year. Snow retains pollutants in situ, at the site of accumulation and without blowing it away. This is reason enough to determine their amount by removing the roof seam layer of snow from a surface unit, filter it in its liquidity and then measure the precipitate.*

**Keywords:** *pollutants, morphological depression, temperature inversions, radiation inversions, inversion of descending air masses, snow, roof seam layer of snow, precipitate.*