



# Dr Sanja Sakan

Naučni saradnik

Profesionalno iskustvo    Oblasti interesovanja    Projekti    Izabrane publikacije

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**Obrazovanje:** 2010 Dr hemijskih nauka, Hemijski fakultet, Univerzitet u Beogradu

**Zvanje:** 2011 Naučni saradnik

**Članstva u društvima:** Član Srpskog hemijskog društva

**Profesionalno iskustvo:** 2001 IHTM – Centar za hemiju

**Nagrade i priznanja:** 2001 2<sup>nd</sup> prize "YOUNG SCIENTIST AWARDS OF B.EN.A.", from Alexander von Humboldt in Edirne, Turkey

**Oblasti interesovanja:** Problematika hemije životne sredine, prvenstveno problemi vezani za zagađivanja voda, sedimenta i zemljišta teškim metalima, kroz proučavanje njihove mobilnosti, biodostupnosti, procenu antropogenog udela, procenu rizika od zagađenja i mogućih toksikoloških efekata ovih elemenata na živi svet.  
Primena različitih statističkih metoda u analiziranju velikih baza podataka.

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**Znanje jezika:** Engleski, ruski

**Najznačajniji projekti:** **Međunarodni:**

**2007–2008** "Continuous water quality monitoring in surface waters at Montenegro and Serbia", SEE-ERA NET Pilot Joint Call Research Project, Contact number: 401-00-282/2007-01-7

**2015–** COST akcija ES1306: "Connecting European Connectivity Research"

**Osnovna istraživanja:**

**2002–2005** "Hemodinamika zagađujućih supstanci u vodenim resursima (površinske i podzemne vode i sedimenti)" br. 1727

**2006–2010** "Geohemijska ispitivanja u funkciji pronalazanja novih ležišta fosilnih goriva I zaštite životne sredine" br. 146008

**2011–** "Proučavanje fizičko-hemijskih i biohemijskih procesa u životnoj sredini koji utiču na zagađenje i istraživanje mogućnosti za minimiziranje posledica", br. 172001

**Integrisana i interdisciplinarna istraživanja:**

**2011–** "Istraživanje klimatskih promena i njihovih uticaja na životnu sredinu: praćenje uticaja, adaptacija i ublažavanje", br. 43007

**Izabrane publikacije:** **Poglavlja u knjigama:**

- Sakan, S.**, Sakan, N., Đorđević, D. (2015). Pollution characteristics and potential ecological risk assessment of heavy metals in river sediments based on calculation of pollution indices, in *Advances in Environmental Research*, 63-84, Nova Science Publishers, New York, ISBN: 978-1-63482-885-7
- Sakan, S.**, Sakan, N., Đorđević, D. (2015). Evaluation of the possibility of using normalization with cobalt in detection of anthropogenic heavy metals in sediments, in *Advances in Chemistry Research*, 167-183, Nova Science Publishers, New York, ISBN: 978-1-63463-630-8
- Sakan, S** and Đorđević, D. (2012). Distinguishing between natural and anthropogenic sources of trace elements in the sediments using the methods of geochemical normalization and statistical analysis, in *Trace Elements: Environmental Sources, Geochemistry and Human Health*, Nova Science Publishers, New York, ISBN: 978-1-62981-401-7
- Sakan, S** and Đorđević, D. (2012). Assessment of trace element contamination in the river and alluvial sediments using a sequential extraction technique and statistical analysis, in *Metal Contamination: Sources, Detection and Environmental Impact*, 119-156, Nova Science Publishers, New York, ISBN: 978-1-61942-116-5

**Publikovani radovi:**

- Dević, G., Đorđević, D., **Sakan, S.** (2016). Assessment of the environmental significance of nutrients and

- heavy metal pollution in the river network of Serbia. *Environmental Science and Pollution Research*, 23, 282-297
2. Pavlović, P., Mitrović, M., Đorđević, D., **Sakan, S.**, Slobnik, J., Liška, I., Csanyi, B., Jarić, S., Kostić, O., Pavlović, D., Marinković, N., Tubić, B., Paunović, M. (2016). Assessment of the contamination of riparian soil and vegetation by trace metals – a Danube River case study. *Science of the Total Environment*, 540, 396-409
  3. **Sakan, S.**, Popović, A., Anđelković, I., Đorđević, D. (2015). Aquatic sediments pollution estimate using the metal fractionation, secondary phase enrichment factor calculation, and used statistical methods. *Environmental Geochemistry and Health*, article in press, DOI 10.1007/s10653-015-9766-0
  4. **Sakan, S.**, Dević, G., Relić, D., Anđelković, I., Sakan N., Đorđević, D. (2015). Environmental assessment of heavy metal pollution in freshwater sediment, Serbia. *CLEAN - Soil Air Water*, 43 (6), 838-845.
  5. **Sakan, S.**, Dević, G., Relić, D., Anđelković, I., Sakan N., Đorđević, D. (2015). Evaluation of sediment contamination with heavy metals: the importance of determining appropriate background content and suitable element for normalization. *Environmental Geochemistry and Health*, 37, 97-113.
  6. **Sakan, S.**, Dević, G., Relić, D., Anđelković, I., Sakan N., Đorđević, D. (2015). Risk assessment of trace element contamination in river sediments in Serbia using pollution indices and statistical methods: a pilot study. *Environmental Earth Sciences*, 73, 6625-6638.
  7. Dević, G., Đorđević, D., **Sakan, S.** (2014). Natural and anthropogenic factors affecting the groundwater quality in Serbia. *Science of the Total Environment*, 468-469,109–116.
  8. Dević, G., Đorđević, D., **Sakan S.**, Đorđević, D. (2014). Freshwater environmental quality parameters of man-made lakes of Serbia. *Environmental Monitoring and Assessment* 186, 5221-5234.
  9. **Sakan, S.**, Sakan, N., Đorđević D. (2013) Trace element study in Tisa River and Danube alluvial sediment in Serbia. *International Journal of Sediment Research*, 28, 234-245.
  10. Relić, D., Đorđević, D., **Sakan, S.**, Anđelković, I., Pantelić, A., Stanković, R., Popović, A. (2013). Conventional, microwave, and ultrasound sequential extractions for the fractionation of metals in sediments within the Petrochemical Industry, Serbia. *Environmental Monitoring and Assessment*, 185, 7627-7645.
  11. **Sakan, S.**, Đorđević, D., Lazić, M., Tadić, M. (2012). Assessment of arsenic and mercury contamination in the Tisa river sediments and industrial canal sediments (Danube alluvial formation), Serbia. *Journal of Environmental Science and Health - Part A* , 47, 109-116.
  12. **Sakan, S.**, Đorđević, D., Dević, G., Relić, D., Anđelković, I., Đuričić, J. (2011). A study of trace element contamination in river sediments in Serbia using microwave–assisted aqua regia digestion and multivariate statistical analysis, *Microchemical Journal*, 99, 492–502.
  13. Relić, D., Dorđević, D., **Sakan, S.**, Anđelković, I., Miletić, S., Đuričić, J. (2011). Aqua regia extracted metals in sediments from the industrial area and surroundings of Pančevo, Serbia. *Journal of Hazardous Materials*, 186, 1893–1901.
  14. **Sakan, S.**, Đorđević, D. and Trifunović, S. (2011). Geochemical and statistical methods in the evaluation of trace element contamination: an application on canal sediments, *Polish Journal of Environmental Studies*, 20, 187-199.
  15. **Sakan, S.**, Đorđević, D. (2010). Evaluation of heavy metal contamination in sediments using the method of total digestion and determination of the binding forms-Tisa River Basin, Serbia, *Journal of Environmental Science and Health - Part A*, 45, 783-794.
  16. **Sakan, S.**, Đorđević, D., Manojlović, D. (2010). Trace elements as tracers of environmental pollution in the canal sediments (alluvial formation of the Danube River, Serbia), *Environmental Monitoring and Assessment*, 167, 219-233.
  17. **Sakan, S.**, Đorđević, D., Manojlović, D., Polić, P. (2009). Assessment of heavy metal pollutants accumulation in the Tisza river sediment. *Journal of Environmental Management*, 90, 3382-3390.
  18. **Sakan, S.**, Gržetić, I., Đorđević, D. (2007). Distribution and fractionation of heavy metals in the Tisza (Tisa) river sediments. *Environmental Science and Pollution Research*, 14, 229-236.