

E-mail: alenka.ristic@ki.si

ORCID: [0000-0001-6627-8097](https://orcid.org/0000-0001-6627-8097)

Education

2005 Ph.D. Chemistry, Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia

Employment

1994 - National Institute of Chemistry Slovenia, Department for Inorganic Chemistry and Technology, Laboratory for adsorbents, Hajdrihova 19, Ljubljana, Slovenia

2010 - 2013 CO NOT (Center of Excellence Low-Carbon Technologies), Hajdrihova 19, Ljubljana, Slovenia, part-time

Current position:

2019 - : Senior research associate

Working experiences abroad

2015-2016 ZAE Bayern Centre for Applied Energy Research, Garching, Germany, visiting research (13 months)

Fields of expertise

Specific scientific experiences in the field of "inorganic green synthesis and characterization of porous adsorbents and catalysts": development of advanced porous materials and composites with optimized sorption properties for **thermal battery** and for catalytic purposes in **air cleaning** with structural studies of catalysts and **TCMs** with X-ray diffraction, UV-Vis spectroscopy, nitrogen and water physisorption methods and cooperation with industrial partners.

Bibliography: author or co-author of 70 scientific papers, *h*-index 21 (Scopus), 1 invited lecture, 2 book chapters, 1 EU patent

1. Krajnc, A., Varlec, J., Mazaj, M., Ristić, A., Logar Z., N., Mali, G. Superior performance of microporous aluminophosphate with LTA topology in solar energy storage and heat reallocation. **Advanced energy materials**, 2017, 7, 11, 1601815-1-1601815-8. doi: [10.1002/aenm.201601815](https://doi.org/10.1002/aenm.201601815)
2. Ristić, A., Logar Z., N., Henninger, S. K., Kaučič, V. The performance of small-pore microporous aluminophosphates in low-temperature solar energy storage : the structure-property relationship. **Advanced functional materials**, 2012, 22, 9, 1952-1957. <http://onlinelibrary.wiley.com/doi/10.1002/adfm.201102734/abstract>.
3. Ristić, A., Fischer, F., Hauer, A., Logar Z., N. Improved performance of binder-free zeolite Y for low-temperature sorption heat storage. **Journal of materials chemistry. A, Materials for energy and sustainability**, 2018, 6 (24), 11521-11530, doi: [10.1039/C8TA00827B](https://doi.org/10.1039/C8TA00827B).
4. Ristić, A., Logar Z., N. New composite water sorbents CaCl₂-PHTS for low temperature sorption heat storage: determination of structural properties. **Nanomaterials**, 2019, 9 (1), 1-16 doi: [10.3390/nano9010027](https://doi.org/10.3390/nano9010027)
5. Ristić, A., Maučec, D., Henninger, S. K., Kaučič, V. New two-component water sorbent CaCl₂-FeKIL2 for solar thermal energy storage. **Microporous and mesoporous materials**, 2012, 164, 266-272, doi: <http://dx.doi.org/10.1016/j.micromeso.2012.06.054>.
6. Djinović, P., Ristić, A., Žumbar, T., D.B.C.D., Venkata, Rangus, M., Dražić, G., Popova, M., Likozar, B., Logar Z., N., Tušar N., N., Synergistic effect of CuO nanocrystals and Cu-oxo-Fe clusters on silica support in promotion of total catalytic oxidation of toluene as a model volatile organic air pollutant, **Applied Catalysis B: Environmental**, 2020, 268, 118749, doi.org/10.1016/j.apcatb.2020.118749.
7. Šuligoj, A., Lavrenčič Štangar, U., Ristić, A., Mazaj, M., Verhovšek, D., Tušar N., N. TiO₂-SiO₂ films from organic-free colloidal TiO₂ anatase nanoparticles as photocatalyst for removal of volatile organic compounds from indoor air. **Applied catalysis. B, Environmental**, 2016, 184, 119-131, doi: [10.1016/j.apcatb.2015.11.007](https://doi.org/10.1016/j.apcatb.2015.11.007).