

Ag-ions play the main role in silver nanoparticles toxicity in the ciliate *Tetrahymena thermophila*

Juganson, Katre; Mortimer, Monika; Ivask, Angela; Pucciarelli, Sandra; Miceli, Cristina; Orupõld, Kaja; Kahru, Anne NanoImpact Conference : program and abstract Book 2017 / p. 67

Ag-ions play the main role in silver nanoparticles toxicity in the ciliate *Tetrahymena thermophila* [Online resource]

Juganson, Katre; Mortimer, Monika; Ivask, Angela Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fmtdk.ut.ee/teesid/>

Analysis of sorption and bioavailability of different species of mercury on model soil components using XAS techniques and sensor bacteria

Bernaus, Anna; Gaona, Xavier; **Ivask, Angela;** **Kahru, Anne;** Valiente, Manuel Analytical and bioanalytical chemistry 2005 / 7, p. 1541-1548 : ill <https://pubmed.ncbi.nlm.nih.gov/15971043/>

Antimicrobial activity of commercial photocatalytic SaniTise™ Window glass

Kisand, Vambola; Visnapuu, Meeri; **Rosenberg, Merilin;** Danilian, Dmytro; Vlassov, Sergei; Kook, Mati; Lange, Sven; Pärna, Rainer; Ivask, Angela Catalysts 2022 / art. 197 <https://doi.org/10.3390/catal12020197> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bacterial polysaccharide levan as stabilizing, non-toxic and functional coating material for microelement-nanoparticles

Bondarenko, Olesja; Ivask, Angela; Kahru, Anne; **Titma, Tiina;** **Pudova, Ksenia;** **Adamberg, Signe** Carbohydrate polymers 2015 / p. 710-720 : ill <https://doi.org/10.1016/j.carbpol.2015.09.093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bioanalysis of heavy metals from soils and sediments using recombinant luminescent bacterial sensors

Ivask, Angela; **Kahru, Anne;** Kunttu, K.; Virta, Marko; Douay, Francis; Dubourguier, Henri-Charles Toxicology letters 2002 / p. S101

Biotests and biosensors in ecotoxicological risk assessment of field soils polluted with zinc, lead, and cadmium

Kahru, Anne; **Ivask, Angela;** **Kasemets, Kaja;** **Pöllumaa, Lee;** Kurvet, Imbi; Francois, Matthieu; Dubourguier, Henri-Charles Environmental toxicology and chemistry 2005 / 11, p. 2973-2982

Comparison of mechanical and antibacterial properties of TiO₂/Ag ceramics and Ti₆Al₄V-TiO₂/Ag composite materials using combined SLM-SPS techniques

Rahmani Ahranjani, Ramin; **Rosenberg, Merilin;** **Ivask, Angela;** **Kollo, Lauri** Metals 2019 / art. 874, 13 p. : ill <https://doi.org/10.3390/met9080874> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Construction and use of specific luminescent recombinant bacterial sensors for the assessment of bioavailable fraction of cadmium, zinc, mercury and chromium in the soil

Ivask, Angela; Virta, Marko; **Kahru, Anne** Soil biology and biochemistry 2002 / p. 1439-1447

Detection of bioavailable heavy metals in EILATox-Oregon samples using whole-cell luminescent bacterial sensors in suspension or immobilized onto fibre-optic tips

Hakkila, K.; Green, T.; Leskinen, P.; **Ivask, Angela;** Marks, R.; Virta, Marko Journal of applied toxicology 2004 / 5, p. 333-342 <https://pubmed.ncbi.nlm.nih.gov/15478176/>

Detection of organomercurials with sensor bacteria

Ivask, Angela; Hakkila, K.; Virta, Marko Analytical chemistry 2001 / p. 5168-5171

Development of bacterial biosensors and human stem cell-based in vitro assays for the toxicological profiling of synthetic nanoparticles = Rekombinantsetel sensorbakteritel ja inimese tüvirakkudel põhinevate in vitro testide väljatöötamine sünteetiliste nanoosakeste toksikoloogiliseks uurimiseks

Bondarenko, Olesja 2012 <https://digi.lib.ttu.ee/i/?794>

Dissolution of silver nanowires and nanospheres dictates their toxicity to escherichia coli

Visnapuu, Meeri; Joost, Urmas; **Juganson, Katre;** Künnis-Beres, Kai; Kahru, Anne; Kisand, Vambola; Ivask, Angela BioMed Research International 2013 / art. 819252 <https://doi.org/10.1155/2013/819252> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ecotoxicological impacts of industrially relevant engineered nanomaterials : effects on *Tetrahymena thermophila* = Tööstuslike nanomaterjalide keskkonnatoksilisuse hindamine : nanoosakeste mõju algloomale *Tetrahymena thermophila*

Juganson, Katre 2018 <https://digi.lib.ttu.ee/search/> https://www.ester.ee/record=b5056136*est

Efficient defect-driven cation exchange beyond the nanoscale semiconductors toward antibacterial functionalization

Polivtseva, Svetlana; **Volobujeva, Olga;** **Kuznietsov, Ivan;** **Kaupmees, Reelika;** **Danilson, Mati;** **Krustok, Jüri;** Molaiyan, Palanivel; Hu, Tao; Lassi, Ulla; **Klopov, Mihhail;** van Gog, Heleen; van Huis, Marijn A.; Kaur, Harleen; Ivask, Angela; Rosenberg,

Merilin; Gathergood, Nicholas; Ni, Chaoying; **Grossberg-Kuusk, Maarja** ACS applied materials & interfaces 2024 / p. 62871-62882
<https://doi.org/10.1021/acsami.4c11425> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Extracellular conversion of silver ions into silver nanoparticles by protozoan *Tetrahymena thermophila*

Juganson, Katre; Mortimer, Monika; Ivask, Angela; Kasemets, Kaja; Kahru, Anne Environmental Sciences: Processes and Impacts 2013 / p. 244 - 250 <https://doi.org/10.1039/c2em30731f> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid nanocomposites and ultrastable metal nanoparticles studied for the development of applications in nanomedicine, water purification and energy harvesting

Rauwel, Erwan; Rauwel, Protima; Küüna, Siim; Volobujeva, Olga; Ivask, Angela; Galeckas, Augustinas; Duqroquet, F.; Wragg, David EMN Meeting on Nanoparticles 2017 : May 9th to 13th, 2017 in San Sebastian, Spain 2017 / [1] p

Keskkonnaseisundi kompleksne hindamine keemiliste, toksikoloogiliste ja mikrobioloogiliste parameetrite alusel

Kahru, Anne; Põllumaa, Lee; **Maloverjan, Alla**; **Ivask, Angela**; Trapido, Marina XXVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 26th Estonian Chemistry Days : abstracts of scientific conference 2000 / lk. 45-46

Lead and Cu in contaminated urban soils : extraction with chemical reagents and bioluminescent bacteria and yeast

Peltola, Pasi; **Ivask, Angela**; Aström, Mats; Virta, Marko Science of the total environment 2005 / 1/3, p. 193-203 : ill <https://www.sciencedirect.com/science/article/pii/S0048969705000707>

Luminescent recombinant sensor bacteria for the analysis of bioavailable heavy metals

Ivask, Angela 2006 https://www.ester.ee/record=b2158067*est

Luminestseeruvad bakteriaalsed biosensorid raskemetallide määramiseks

Ivask, Angela; Karp, M.; **Kahru, Anne**; Virta, Marko Eesti Mikrobioloogide Ühenduse konverents : 12.05.2000, Tartu = Conference of the Estonian Society for Microbiology : 12.05.2000, Tartu 2000 / l. 16

Mechanisms of toxic action of Ag, ZnO and CuO nanoparticles to selected ecotoxicological test organisms and mammalian cells in vitro: A comparative review

Ivask, Angela; **Juganson, Katre**; Bondarenko, Olesja; Mortimer, Monika; Aruoja, Villem; Kasemets, Kaja; Blinova, Irina; Heinlaan, Margit; Slaveykova, Vera; Kahru, Anne Nanotoxicology 2014 / p. 57-71 : ill <https://doi.org/10.3109/17435390.2013.855831> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mechanisms of toxic action of silver nanoparticles in the protozoan *Tetrahymena thermophila* : from gene expression to phenotypic events

Juganson, Katre; Mortimer, Monika; Ivask, Angela; Pucciarelli, Sandra; Miceli, Cristina; Orupöld, Kaja; Kahru, Anne Environmental pollution 2017 / p. 481-489 : ill <https://doi.org/10.1016/j.envpol.2017.03.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microbial interactions with inanimate solid surfaces : a methodological approach = Mikroobide interaktsioonid tahkete eluta pindadega : metoodiline käsitus

Rosenberg, Merlin 2022 <https://doi.org/10.23658/taltech.6/2022> <https://digikogu.taltech.ee/et/Item/ae0fc64d-c7bf-46e9-bc65-85342787a8cb>
https://www.ester.ee/record=b5491623*est

Nano(eco)toxicology : science at the interfaces

Kahru, Anne; **Ivask, Angela**; **Blinova, Irina**; **Kasemets, Kaja**; Bondarenko, Olesja; Mortimer, Monika; **Heinlaan, Margit**; Käkinen, Aleksandr; **Aruoja, Villem** SustainChem2011 : International Conference on Materials and Technologies for Green Chemistry jointly with Workshop of COST Action CM0903 (UBIOCHEM-II) : September 5-9, 2011, Tallinn, Estonia : abstract book and program 2011 / p. 22

NanoE-Tox: new and in-depth database concerning ecotoxicity of nanomaterials

Juganson, Katre; Ivask, Angela; Blinova, Irina; Mortimer, Monika; Kahru, Anne Beilstein Journal of Nanotechnology 2015 / p. 1788 - 1804 <https://doi.org/10.3762/bjnano.6.183> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Narva elektrihaamade tuhaheitmete keskkonnamõjud : kombineeritud geokeemiline ja ökotoksikoloogiline uuring

Käkinen, Aleksandr; Blinova, Irina; Ivask, Angela; Kasemets, K.; **Bitjukova, Liidia**; Aruoja, V.; Kurvet, Imbi; Mortimer, Monika; Bondarenko, Olesja; Sihtmäe, Mariliis; Kahru, Anne XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 53

A novel method for comparison of biocidal properties of nanomaterials to bacteria, yeasts and algae

Suppi, Sandra; Kasemets, Kaja; Ivask, Angela; Künnis-Beres, Kai; Sihtmäe, Mariliis; Kurvet, Imbi; Aruoja, Villem; Kahru, Anne Journal of Hazardous Materials 2015 / p. 75 - 84 <https://doi.org/10.1016/j.jhazmat.2014.12.027> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optical fiber biosensor for the detection of mercury

Green, T.; **Ivask, Angela**; Polyak, B.; Virta, Marko; Marks, R. Toxicology letters 2002 / p. S58-S59

Particle-cell contact enhances antibacterial activity of silver nanoparticles

Bondarenko, Olesja; Ivask, Angela; **Käkinen, Aleksandr**; Kurvet, Imbi; Kahru, Anne PLoS ONE 2013 / art. e64060
<https://doi.org/10.1371/journal.pone.0064060> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photocatalytic and antibacterial activity of nano zinc oxide/silver composite nanoparticle covered surfaces [Online resource]

Visnapuu, Meeri; **Rosenberg, Merilin**; **Truska, Egle**; Kisand, Vambola; Ivask, Angela International Conference "Functional Materials and Nanotechnologies 2017" : Tartu, Estonia in April, 24-27, 2017 : book of abstracts 2017 / p. 143
http://www.ester.ee/record=b4668793*est

Photocatalytic antibacterial activity of nano-TiO₂ (anatase)-based thin films : effects on Escherichia coli cells and fatty acids

Joost, Urmas; **Juganson, Katre**; Visnapuu, Meeri; Mortimer, Monika; Kahru, Anne; Nõmmiste, Ergo; Joost, Urmeli; Kisand, Vambola; Ivask, Angela Journal of photochemistry and photobiology B : biology 2015 / p. 178-185 : ill
<https://doi.org/10.1016/j.jphotobiol.2014.12.010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Potential ecotoxicological effects of antimicrobial surface coatings : a literature survey backed up by analysis of market reports

Rosenberg, Merilin; Ilic, Krunoslav; Juganson, Katre; Ivask, Angela; Ahonen, Merja; Vrcek, Ivana; Kahru, Anne PeerJ 2019 / art. e6315 ; 34 p <https://doi.org/10.7717/peerj.6315> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preparation and characterization of photocatalytically active antibacterial surfaces covered with acrylic matrix embedded nano-ZnO and nano-ZnO/Ag

Rosenberg, Merilin; Visnapuu, Meeri; Saal, Kristjan; Danilian, Dmytro; Pärna, Rainer; Ivask, Angela; Kisand, Vambola Nanomaterials 2021 / art. 3384 <https://doi.org/10.3390/nano1123384> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Propidium iodide staining underestimates viability of adherent bacterial cells

Rosenberg, Merilin; Azevedo, Nuno F.; Ivask, Angela Scientific reports 2019 / art. 6483, 12 p. : ill <https://doi.org/10.1038/s41598-019-42906-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Rapid in situ assessment of Cu-ion mediated effects and antibacterial efficacy of copper surfaces

Rosenberg, Merilin; Vilja, Heiki; Kahru, Anne; Keevil, William; Ivask, Angela Scientific reports 2018 / art. 8172, 8 p. : ill <https://doi.org/10.1038/s41598-018-26391-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Recombinant luminescent bacterial sensors for the measurement of bioavailability of cadmium and lead in soils polluted by metal smelters

Ivask, Angela; Francois, Matthieu; **Kahru, Anne**; Dubourguier, Henri-Charles; Virta, Marko; Douay, Francis Chemosphere 2004 / 2, p. 147-156 <https://www.sciencedirect.com/science/article/pii/S0045653503010804>

Synthesis and antibacterial properties of lignin-based quaternary ammonium and phosphonium salts

Mohan, Mahendra Kothottil; Kaur, Harleen; **Duvanova, Ella**; Rosenberg, Merilin; Dahlem, Marcos; Ivask, Angela; Raimundo, Jean-Manuel; **Lukk, Tiit**; **Karpichev, Yevgen** International Conference EcoBalt 2023 "Chemicals&Environment" 2023 / 2 p.
<https://doi.org/10.3390/proceedings2023092058>

Synthesis and antibacterial properties of novel quaternary ammonium lignins

Mohan, Mahendra Kothottil; Kaur, Harleen; Rosenberg, Merilin; **Duvanova, Ella**; **Lukk, Tiit**; Ivask, Angela; **Karpichev, Yevgen** ACS omega 2024 / p. 39134-39145 : ill <https://doi.org/10.1021/acsomega.4c06000> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tetrahymena thermophila : a good model for nanoecotoxicity studies

Juganson, Katre; Mortimer, Monika; Ivask, Angela; **Käkinen, Aleksandr**; Visnapuu, Meeri; Kahru, Anne Ciliates as model systems to study genome evolution, mechanisms of non-Mendelian inheritance and environmental adaptation : Tallinn, Estonia : 12-16 May, 2013 : book of abstracts 2013 / p. 60

The toxicity of brewed coffee according to the ecotoxicological tests

Ivask, Angela; Reiman, Rain; **Rätsep, Anneli**; **Maloverjan, Alla**; **Laht, Mailis**; **Kahru, Anne** Microbiological Safety of Food : joint conference organized by Society for Applied Microbiology (UK), World Health Organization and Estonian Society for Microbiology : 10-11 May 2000, Tartu, Estonia 2000 / I. 54

Toxicity of Ag, CuO and ZnO nanoparticles to selected environmentally relevant test organisms and mammalian cells in vitro : a critical review

Bondarenko, Olesja; **Juganson, Katre**; Ivask, Angela; Kasemets, Kaja; Mortimer, Monika; Kahru, Anne Archives of Toxicology 2013 / p. 1181 - 1200 <https://doi.org/10.1007/s00204-013-1079-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

UVA-induced antimicrobial activity of ZnO/Ag nanocomposite covered surfaces

Visnapuu, Meeri; **Rosenberg, Merilin; Truska, Egle**; Nõmmiste, Ergo; Šutka, Andris; Kahru, Anne; Rähn, Mihkel; Vija, Heiki; Orupõld, Kaja; Kisand, Vambola; Ivask, Angela Colloids and Surfaces B: Biointerfaces 2018 / p. 222-232

<https://doi.org/10.1016/j.colsurfb.2018.05.009> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)