

## PhD Candidate Profile

**Name:**

Dmitri Nikitin

**Research Group:**

N/A

**Research Centre:**

N/A

**Department/School(s):**

Department of Material and Environmental Technology

**College:**

Tallinn University of Technology, Tallinn

**Supervisor(s):**

Prof. Sergei Preis

Dr. Niina Dulova

**Funding body:**

N/A

**Area (field) of study:**

Advanced oxidation processes

**Thesis Title:**

Development of combined pulsed corona discharge plasma with peroxocompounds oxidation technology for efficient application in different aqueous media matrices

**Abstract:**

The doctoral study aims to reveal chemical reaction kinetics, reaction products and, thus, reaction paths in respect of contaminants of emerging concern (CECs) in various matrices, such as water and waste activated sludge, treated with gas-phase pulsed corona discharge plasma combined with peroxocompounds oxidation processes. Accordingly, oxidation reaction pathways of the selected CECs to be established and characterized from the kinetic, stoichiometry and product safety standpoints in application of plasma-peroxocompounds oxidation systems. The novelty of study is based on the use of the most energetically advanced oxidation technology in a very promising combination with hydrogen peroxide and persulfate.

**Collaborations:**

N/A

**Publications:**

N/A





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### **Presentations:**

N/A