

Prospective supervisor's form

Name of the supervisor: Krzysztof Czerwionka

Academic title: Ph.D.D.Sc

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Department of Water and Wastewater Technology

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Personal web page: <https://pg.edu.pl/katedra-technologie-wody-i-sciekow/main-page>

Discipline: environmental engineering, mining and pow none

Optional

Key words (obligatory four key words describing research interests / expertise):

wastewater treatment

nutrient removal and recovery

biogas production

industrial wastewater

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 26/27

2. Citations excluding self-citations WoS 211 Scopus 265

3. Hirsch index WoS 10 Scopus 10

1. The number of PhD students who have graduated under your supervision: 0

2. The number of PhD students currently supervised:

a. within the current doctoral school 1

b. within doctoral studies (previous system) 1

3. Are you currently accepting new PhD students:

a. Polish Yes/No Yes

b. Foreign Yes/No Yes

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Research interests or topics offered for PhD research (no more than 2000 characters)ⁱⁱ

Research topics will be related to:

- ammonium nitrogen recovery in an advanced stripping process
- methods for rainwater treatment, with particular emphasis on nitrogen and phosphorus
- industrial wastewater treatment
- improving the energy balance of sewage treatment plants and biogas plants
- methods for removing dissolved and colloidal organic nitrogen

Funding or special equipment needed to carry out a PhD projectⁱⁱⁱ:

1. Is funding available for experimental work: *Yes/No/not needed*

2. Is the equipment needed to complete a PhD project available in your lab/department: *Yes/No/not needed*

Most important publications – no more than 5 published after 1.01.2018

| No | Authors/title/journal | Number of points according to the current list of the Ministry of Science and Higher Education | Publication year |
|----|---|--|------------------|
| 1. | Ciesielski S., Czerwionka K., Sobotka D., Dulski T., Mąkinia J./The metagenomic approach to characterization of the microbial community shift during the long-term cultivation of anammoxenriched granular sludge/JOURNAL OF APPLIED GENETICS | 100 | 2018 |
| 2. | Xiang H., Sobotka D., Czerwionka K., Zhou Q., Xie L., Mąkinia J./ Effects of different external carbon sources and electron acceptors on interactions between denitrification and phosphorus removal in BNR processes/Journal of Zhejiang University-SCIENCE B. | 70 | 2018 |

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|----|--|--|--|
| 3. | | | |
| 4. | | | |
| 5. | | | |

Most recent externally funded projects you were involved in – no more than 3

| No | Project title, the name of the Principal Investigator (PI) and the institution the project was carried out | Years | Role in the project ^{iv} |
|----|--|------------|-----------------------------------|
| 1. | Development of technology for substrate preparation used in methane co-fermentation using disintegration methods / K. Czerwionka / Gdańsk University of Technology | 2018-2021 | PI |
| 2. | Integrated technology for improved energy balance and reduced greenhouse gas emissions at municipal wastewater treatment plants / J. Mąkinia / Gdańsk University of Technology | 2013-2017 | Co-I |
| 3. | CARBon BALAncing for nutrient control in wastewater treatment / J. Mąkinia / UNIVERSITA DEGLI STUDI DI FIRENZE (Italy) | 2012- 2016 | Co-I |

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Additional relevant information (no more than 1600 characters)^v

The project regarding the recovery of ammonium nitrogen in an advanced stripping process will be implemented under the SIREN project in cooperation with Norwegian partners

ⁱ You may select up to two disciplines out of 12 disciplines represented in the Doctoral School

ⁱⁱ Observe the limit of not more than 2000 characters

ⁱⁱⁱ Leave only one answer

^{iv} Select the role in the project: PI stands for principal investigator (refers to the holder of an independent grant and the lead researcher for the grant project), Co-I for co-investigator (Co-I assists the principal investigator in the management and leadership of the research project), R for researcher

^v Add any other relevant information e.g. awards for PhD students whom you supervised (no more than 1600 characters)