

# Prospective supervisor's form

Name of the supervisor: Ewa Klugmann-Radziemska

Academic title: Professor

Orcid ID number: <https://orcid.org/0000-0002-5159-3913>

Gdańsk University of Technology Faculty of Chemistry

Department of Energy Conversion and Storage

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Discipline: chemical sciences [NCh] none

Optional

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

# photovoltaic

# recycling

# solar energy

# renewable energy sources

## Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 91/64

2. Citations excluding self-citations WoS 994 Scopus 1177

3. Hirsch index WoS 16 Scopus 16

1. The number of PhD students who have graduated under your supervision: 8

2. The number of PhD students currently supervised:

a. within the current doctoral school 0

b. within doctoral studies (previous system) 3

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)<sup>ii</sup>

Research interests:

- resources, possibilities for obtaining, converting, storing and transporting energy from renewable sources, including solar energy and biofuels,
- investigations of the effect of temperature on the power drop in crystalline silicon solar cells,
- possibilities of waste energy recovery in industrial processes and ways of its management,
- investigations of the potential in photovoltaic energy utilization in North Poland,
- monitoring of meteorological conditions - measurement and acquisition of data: intensity and components of solar radiation, air temperature, temperature of the loaded photovoltaic module,
- experimental studies of free convection,
- material recycling: recycling of solar cells and modules,
- energy storage, including the use of phase-change materials.

Funding or special equipment needed to carry out a PhD project <sup>iii</sup>:

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.	Ewa KLUGMANN-RADZIEMSKA, Anna KUCZYŃSKA-ŁAŻEWSKA /The use of recycled semiconductor material in crystalline silicon photovoltaic modules production - A life cycle assessment of environmental impacts/ SOLAR ENERGY MATERIALS AND SOLAR CELLS 205 (2020)	140	2020
2.	Ewa KLUGMANN-RADZIEMSKA/ Shading, Dusting and Incorrect Positioning of Photovoltaic Modules as Important Factors in Performance Reduction/ ENERGIES 2020, 13, 1992; doi:10.3390/en13081992	140	2020

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3.	Anna KUCZYŃSKA-ŁAŻEWSKA, Ewa KLUGMANN-RADZIEMSKA, Influence of Fragment Size on the Time and Temperature of Ethylene Vinyl Acetate Lamination Decomposition in the Photovoltaic Module Recycling Process, MATERIALS 2019, 12, 2857; doi:10.3390/ma12182857	140	2019
4.	Michał RYMS, Ewa KLUGMANN-RADZIEMSKA /Possibilities and benefits of a new method of modifying conventional building materials with phase-change materials (PCMs)/ CONSTRUCTION AND BUILDING MATERIALS 211 (2019) 1013–1024, DOI: /10.1016/j.conbuildmat.2019.03.277	140	2019
5.	Anna KUCZYŃSKA-ŁAŻEWSKA, Ewa KLUGMANN-RADZIEMSKA, Zuzanna SOBCZAK , Tomasz KLIMCZUK / Recovery of silver metallization from damaged silicon cells / SOLAR ENERGY MATERIALS AND SOLAR CELLS 176, pp.190-195, DOI 10.1016/j.solmat.2017.12.004	140	2018

### 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 <sup>iv</sup>
1.	Construction of an energy-balanced floating leisure house; Przedsiębiorstwo Usługowo Handlowe Ekosun Paweł Czupajło, NCBiR POIR.01.01.01-00-0466/17	2017-2019	Co-I
2.	Emission-free method and system for drying agricultural crops and energy biomass using a hybrid system: solar air collector - photovoltaics; Fabryka Lodów Jan Januszewski z siedzibą w Koszalinie; NCBiR POIR.01.01.01-00-1118/15-01	2017-2019	Co-I
3.	Construction and operation of a waste-free processing plant for processing rapeseed into biodiesel with a glycerine phase management, Gdansk University of Technology, Ministry of Science and Higher Education	2008-2012	PI

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Additional relevant information (no more than 1600 characters)<sup>v</sup>



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

<sup>ii</sup> Observe the limit of not more than 2000 characters

<sup>iii</sup> Leave only one answer

<sup>iv</sup> 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

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