

Prospective supervisor's form

Name of the supervisor: Grażyna Jarosz

Academic title: PhD

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Gdańsk University of Technology Faculty of Applied Physics and Mathematics

Department of Physics of Electronic Phenomena

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Discipline: physical sciences [NF] none

Optional

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

organic and hybrid devices

charge transport in organic devices

organic photodiodes

energy conversion in organic photovolt

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 37/36

2. Citations excluding self-citations WoS 136 Scopus 136

3. Hirsch index WoS 8 Scopus 8

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 0

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

PhD research will focus on transport of charge carriers in organic thin film systems. Particular attention will be devoted to hybrid organic devices for photodetections and indoor photovoltaics. The aim of the analysis will be both processes related to photogeneration of charge carriers, as well as processes related to electrical barriers at internal interfaces. The measurements will include, among others, direct current characteristics and spectra of small signal impedance in the 100 Hz-1 MHz range. The main achievement of the work should be the analysis of the effect of exciton parameters and barrier parameters on properties of the photodiodes studied.

Funding or special equipment needed to carry out a PhD project ⁱⁱⁱ:

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.	1. G. Jarosz, R. Marczyński, R. Signerski, "EFFECT OF BAND GAP ON POWER CONVERSION EFFICIENCY OF SINGLE-JUNCTION SEMICONDUCTOR PHOTOVOLTAIC CELLS UNDER WHITE LIGHT PHOSPHOR-BASED LED ILLUMINATION", <i>Materials Science in Semiconductor Processing</i> 107 (2020) 104812.	70	2020
2.	2. R. Marczyński, J. Szostak, R. Signerski, G. Jarosz, "PHOTOVOLTAIC EFFECT IN THE SINGLE-JUNCTION DBP/PTCBI ORGANIC SYSTEM UNDER LOW INTENSITY OF MONOCHROMATIC LIGHT", <i>Current Applied Physics</i> 19 (2019) 1271.	70	2019

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3.	3. R. Marczyński, J. Szostak, R. Signerski, G. Jarosz, " ELECTRIC TRANSPORT IN ORGANIC SYSTEM WITH PLANAR DBP/F16ZNPC JUNCTION ON THE BASIS OF DIRECT CURRENT AND SMALL SIGNAL ADMITTANCE SPECTRA ANALYSIS", Sythetic Metals 245 (2018) 245.	70	2018
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.	Photovoltaic structure made of selected semiconcuntors II-VI and molecular semiconductors, Project NCN No. N515499040 (18.04.2011-17.12.2014).	2011-2014	R
2.	Hybrid structure for photovoltaics with organic heterojunction., Project MNiSW No. 3T11B06530 (30.05.2006-29.05.2009).	2006-2009	R
3.	Organic Molecular Beam Deposition, Project EU "Marie-Curie Host Fellowships" No. HPMD-CT-2001-00083 (1.10.2002-30.09.2004).	2002-2004	R

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



- 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)