Prospective supervisor's form

Name of the supervisor: Nowak Andrzej Paweł

Academic title: PhD. DSc. Eng.

Orcid ID number: https://orcid.org/0000- 0002-7177-2214

Faculty of Chemistry

Gdańsk University of Technology **Department of** Chemistry and Technology of Functional Materials

Phone: **+48** 58 348 64 34

E-mail: andnowak@pg.edu.pl

Personal web page: https://pg.edu.pl/ https://mostwiedzy.pl/pl/andrzej-nowak,24213-1

Discipline[i] chemical sciences [NCh] none

Optional

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

energy storage

anode material

lithium ion batteries

electrochemistry

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 24/28
2. Citations excluding self-citations WoS 276 Scopus 280
3. Hirsch index WoS 10 Scopus 10

1. The number of PhD students who have graduated under your supervision: 1
2. The number of PhD students currently supervised:
   a. within the current doctoral school 0
   b. within doctoral studies (previous system 0
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]

The main research interests are synthesis and characterization of new electrode materials for energy storage and energy conversion systems. It includes lithium- ion and sodium-ion batteries, supercapacitors, conducting polymers for different applications but beyond next generation batteries.
Currently, I am focused on a basic research regarding chemical energy storage providing fundamental insight into novel negative electrode materials for batteries through electrochemical and solid-state physics techniques applied.

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

1. Is funding available for experimental work: *Yes/No/not needed* — Yes
2. Is the equipment needed to complete a PhD project available in your lab/department: *Yes/No/not needed* — Yes

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.	Andrzej P Nowak, K Trzciński, Mariusz Szkoda, Grzegorz Trykowski, Maria Gazda, Jakub Karczewski, M Łapiński, Dominik Maskowicz, Mirosław Sawczak, Anna Lisowska-Oleksiak, Nano Tin/Tin Oxide Attached onto Graphene Oxide Skeleton as a Fluorine Free Anode Material for Lithium-Ion Batteries, Inorganic Chemistry	140	2020
2.	Andrzej P Nowak, Myroslav Sprynskyy, Izabela Wojtczak, Konrad Trzciński, Joanna Wysocka, Mariusz Szkoda, Bogusław Buszewski, Anna Lisowska-Oleksiak, Diatoms Biomass as a Joint Source of Biosilica and Carbon for Lithium-Ion Battery Anodes, Materials	140	2020

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3.	Andrzej P Nowak, Johan Hagberg, Simon Leijonmarck, Hannah Schweinebarth, Darren Baker, Anders Uhlin, Per Tomani, Göran Lindbergh, Lignin-based carbon fibers for renewable and multifunctional lithium-ion battery electrodes, Holzforschung	100	2018
4.	Andrzej P Nowak, Myroslav Sprynskyy, Weronika Brzozowska, Anna Lisowska-Oleksiak, Electrochemical behavior of a composite material containing 3D-structured diatom biosilica, Algal Research	100	2019
5.	Andrzej P Nowak, Composites of tin oxide and different carbonaceous materials as negative electrodes in lithium-ion batteries, Journal of Solid State Electrochemistry	70	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 [iv]
1.	Więcej niż baterie Li-jonowe: nowatorskie i wydajne materiały elektrodowe do magazynowania jonów sodu (Beyond Li-ion Batteries: Novel, Efficient Electrode Materials for Sodium Ion Storage) PI - Dr hab. inż. Monika Wilamowska-Zawłocka, Politechnika Gdańska	2020-	Co-I
2.	Ageing and Li-ion battery cell testing – in relation to materials properties. Göran Lindbergh, KTH Stockholm	2015-2017	R
3.	Anode materials prepared by means of preceramic polymer pyrolysis and preceramic polymer/natural polymer mixtures, Andrzej P. Nowak, Politechnika Gdańska	2011-2014	PI

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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)