



# CURRICULUM vitae

## Dawid JANAS

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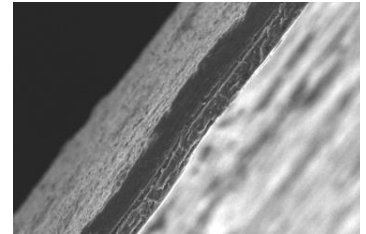
<b>Education</b>	▪ University of Cambridge, Cambridge, UK Department of Materials Science and Metallurgy PhD course, dissertation title: – Electrical and electrothermal properties of carbon nanotube films	01.2011 - 01.2014
	▪ The Institute of Chemical Technology, Prague, Czech Republic LLP Erasmus internship	09.2007 - 06.2008
	▪ Silesian University of Technology, Gliwice, Poland MEng course: Industrial and Engineering Chemistry Specialty: Fine Chemicals and Specialty Materials Conducted in English, according to individual curriculum	10.2005 - 10.2010
<b>R&amp;D experience</b>	▪ Silesian University of Technology, Gliwice, Poland Department of Chemistry Post-doctoral fellow, principal investigator: – Fundamentals of electrical properties of chirality-defined carbon nanotube macroassemblies ( <i>Nanofilms.eu</i> )	10.2016 - date
	▪ Visiting Scientist at Kyushu University, Fukuoka, Japan Project – Optical properties of carbon nanostructures	01.2018
	▪ Energytec Ltd, Cambridge, UK Co-founder, Chief Technology Officer Consultancy company focused on application of nanocarbon (carbon nanotubes and graphene)	06.2016 - date
	▪ University of Cambridge, Cambridge, UK Department of Materials Science and Metallurgy Post-doctoral fellow, engaged in the following projects: – Ultra conductive copper-carbon nanotube wire ( <i>UltraWire.eu</i> ) – Carbon nanotube and graphene heaters for de-icing ( <i>Thawing.eu</i> )	01.2014 - 09.2016
	▪ Visiting Scientist at University Teknologi Petronas, Malaysia Consulting project on inorganic catalysts	10.2011
	▪ Visiting Scientist at University of Cambridge, UK Consulting project on chitosan applications	10.2010 - 12.2010
	▪ Internship at University of Cambridge, UK Project – Structural modification of carbon nanotube films	07.2010 - 10.2010
	▪ Internship at Silesian University of Technology, Gliwice, Poland Project – Synthesis of furan-2(5H)one derivatives	07.2008 - 06.2010

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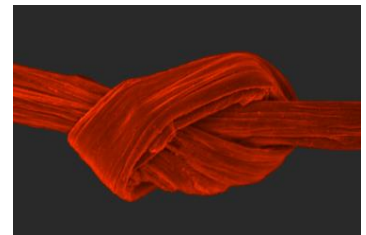
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**Research projects**

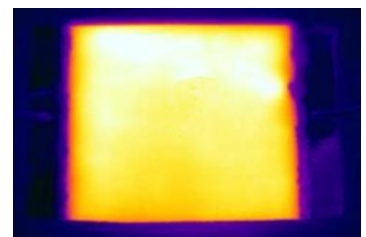
- **Title:** Fundamentals of electrical properties of chirality-defined carbon nanotube macroassemblies (**Principal Investigator**)  
**Website:** [www.Nanofilms.eu](http://www.Nanofilms.eu)  
**Grant call:** POLONEZ1  
**Funding organization:** National Science Center  
**Amount of contribution:** 856,984.00 PLN (ca 200,000.00 EUR)  
**Summary:** Individual carbon nanotubes have impressive electrical properties, but it is very challenging to control their structure to translate these properties onto macroscopic scale. By using an innovative process, which I developed with the team, we can create carbon nanotube macroassemblies of highly-defined nanostructure for the first time. In this project, we focus on characterization of electrical properties of these materials<sup>1</sup>.



- **Title:** Ultra conductive copper-carbon nanotube wire (**Investigator**)  
**Website:** [www.Ultrawire.eu](http://www.Ultrawire.eu)  
**Grant call:** FP7  
**Funding organization:** European Commission  
**Amount of contribution:** 5,011,618.00 EUR  
**Summary:** The goal of this cooperation between 14 industrial and academic partners was to create composite cables made of carbon nanotubes and copper having significantly improved properties. My project focused on the synthesis and structure optimization of carbon nanotubes to give the best integration with copper matrix. The novel materials, which I have produced, were directly employed to create the composites. They are currently undergoing implementation at the leading European facilities of copper production and cable manufacture.



- **Title:** Next-generation of high performance, ultra-light carbon nanotube and graphene based heaters (**Main Investigator**)  
**Website:** [www.Thawing.eu](http://www.Thawing.eu)  
**Grant call:** Proof of Concept  
**Funding organization:** European Research Council  
**Amount of contribution:** 149,995.00 EUR  
**Summary:** During my doctorate I stumbled upon intriguing properties of nanocarbon materials, which turned out to have excellent electrothermal properties. They are very light, durable and offer unprecedented performance in terms of conversion of electrical energy into heat. The encouraging results enabled getting funding to develop and test prototypes of resistive heaters based on carbon nanotubes and graphene. They have been evaluated as novel devices to deice aircraft wings and other critical components in wintry conditions.  
My work in this respect has recently been recognized by the prestigious The Economist<sup>2</sup> and main-stream Polish media<sup>3-6</sup>.  
Because of this success, a dedicated company (Cnergytec Ltd, [www.cnergytec.com](http://www.cnergytec.com)) was founded to implement this invention. I am its co-founder and serve there as Chief Technology Officer.



- **Title:** High performance and ultra-light carbon nanotube wires for power transmission (**Investigator**)  
**Grant call:** Starting Grant  
**Funding organization:** European Research Council  
**Amount of contribution:** 1,470,114.00 EUR  
**Summary:** Because of their encouraging electrical properties, carbon nanostructures are often envisioned as the future of energy management. I was involved in production and testing of meters long cables made entirely of carbon nanotubes of high electrical conductivity. In this project, I have also created and made first evaluation of the nanocarbon-based USB cable.



Key awards and distinctions		
▪ Rector's Award for notable scientific activity		12.2017
▪ Stipend for excellence in science from the Ministry of Science and Higher Education		12.1017 - date
▪ Habilitation (DSc) grant (habilitation application submitted)		10.2017 – 02.2017
▪ START award to 1 of the 100 most talented young Polish scientists from Foundation for Polish Science		05.2017 - date
▪ Editor of Journal of Mechanical Engineering, Science and Technology		02.2017 - date
▪ Vice-President of the International Society of Nanoscience		07.2016 - date
▪ Nanoscience & Technology Doctoral Training Center Associateship		01.2013 - 09.2016
▪ Outstanding student scholarship of the Faculty of Chemistry at the Silesian University of Technology		10.2006 - 10.2010
▪ J. Binkiewicz Foundation scholarship for the distinctive student		04.2010
▪ Dean's Award for the best second-, third- and fourth-year student		11.2007 – 10.2010

#### Research portfolio:

**37** JCR publications (**27** as the 1<sup>st</sup> author) in high-profile academic journals. Most notable:

Janas, D.; Koziol, K. <i>Nanoscale</i> <b>2014</b> , <i>6</i> , 3037-3045	<b>62</b> citations
Janas, D.; Koziol, K. <i>Carbon</i> <b>2013</b> , <i>59</i> , 457-463	<b>62</b> citations
Janas, D.; Herman, A.P.; Boncel, S.; Koziol, K. <i>Carbon</i> <b>2014</b> , <i>73</i> , 225-233	<b>29</b> citations
Janas, D.; Vilatela, A.C.; Koziol, K. <i>Carbon</i> <b>2013</b> , <i>62</i> , 438-446	<b>25</b> citations
Janas, D.; Vilatela, A.C.; Bulmer, J.; Kurzepa, L., Koziol, K. <i>Carbon</i> <b>2013</b> , <i>64</i> , 305-314	<b>19</b> citations
Hannula, P.; Peltonen, A.; Aromaa, J.; Janas, D.; et al. <i>Carbon</i> <b>2016</b> , <i>107</i> , 281-287	<b>19</b> citations
Janas, D.; Koziol, K. <i>Nanoscale</i> <b>2016</b> , <i>8</i> , 19475-19490	<b>15</b> citations
Janas, D.; Czechowski, N.; Krajnik, B.; Maćkowski, S.; Koziol, K. <i>Appl. Phys. Lett.</i> <b>2013</b> , <i>102</i> , 181104	<b>12</b> citations

**2** international patent applications

**403** citations

**12** h-index

More: [www.djanas.eu](http://www.djanas.eu)

<sup>1</sup> <http://naukawpolsce.pap.pl/aktualnosci/news,413289,nowe-szansy-dla-nanorurek-polski-przepis-na-plachty-z-nanomaterialu.html> (Topic of the day, 09/03/2017)

<sup>2</sup> <http://www.economist.com/blogs/babbage/2013/07/de-icing-aeroplanes>

<sup>3</sup> <http://www.pb.pl/3253695,80479,polski-wynalazek-moze-pomoc-lotnictwu>

<sup>4</sup> <http://tvp.info/informacje/technologie/nadchodzi-nowa-era-odladzania-samolotow/11936806>

<sup>5</sup> <http://www.pasazer.com/in-14362-koniec-odladzania,polski,pomysl.php>

<sup>6</sup> <http://technologie.gazeta.pl/internet/1,104530,14373315>,

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