

Załącznik 4

Sławomir Kret

Institute of Physics Polish Academy of Science

Summary of Professional Accomplishments

Table of Contents:

	page
1. Education and Scientific degrees	3
2. Information on previous employment in scientific institutions	3
3. Information on published research papers and creative professional work	4
4. Indication of the main scientific achievement: publication list under title: Quantitative high resolution transmission electron microscopy in physics and technology of semiconductor heterostructures	5
4.1. A guide to the monothematic cycle of papers..	9
4.1.1. Initial State of Knowledge	9
4.1.2. Defects and their Spatial Configurations in Buffer Layers	10
4.1.3. Chemical nanoanalysis of coherent heterostructures	17
4.1.4. Literature list used in guide	28
5. Other scientific achievements.	30
5.1. Achievements before obtaining a doctoral degree	30
5.1.1. Master's thesis	30
5.1.2. Work in the semiconductor industry	30
5.1.3. PhD Thesis	30
5.2. Scientific achievements in other than habilitation research subjects after obtaining a PhD degree	32
5.2.1. Semiconductor quantum structures	33
5.2.2. Development of the research methods	36
5.2.3. Epitaxial layers	37
5.2.4. Defects	38
5.2.5. Nanowires	38
5.2.6. Other Topics.	41
5.3. Research experience abroad	41
5.4. Referee activity	41
5.5. Participation in research projects	42
5.6. Other achievements	43
5.7. List of presentations at international and national conferences and thematic workshops	46
5.8. List of delivered seminars	47

1. Education and Scientific degrees

- 1998 doctoral Université Pierre et Marie Curie PARIS 6, Paris, in Solid State Physics, France, PhD thesis on: *Analyse quantitative à l'échelle atomique par traitement d'images de microscopie électronique "haute résolution" dans des hétérostructures III-V et II-VI fortement désadaptées¹*
Supervisors: Dr Clode Delamarre and Prof. dr hab. Jacek Kossut
In 1999 the degree was recognized as an equivalent of a degree of doctor of physical sciences by the Scientific Council of the Institute of Physics Polish Academy of Sciences.
- 1989 higher Warsaw University of Technology, Faculty of Materials Engineering
Master's thesis: "The structure of multi-compound metallic coatings obtained by the pulse plasma method based on the example of selected high-temperature alloys", Supervisor: Prof. dr hab. Krzysztof Zdunek
- 1983 secondary Władysław IV High School in Warsaw, Class profile: mathematics and physics

2. Information on previous employment in scientific institutions

- since 1998-present Institute of Physics PAS in the Electron Microscopy Group as: physicist, assistant, assistant professor
- 1993-1998 Parallel doctoral studies at the Institute of Physics PAS and Université Pierre et Marie Curie PARIS 6
- 1989-1992 Scientific-Production Center of Semiconductors in Warsaw, Department of Design and Technology of Discrete Components as Lead Technologist

¹ English translation: *Quantitative analysis of stress relaxations at the atomic scale by image processing of HRTEM images in highly strained quantum III-V and II-VII heterostructures*

3. Information on published research papers and creative professional work

Scientific output includes 93 original works, including 87 after completion of the PhD
According to the ISI Web of Science database (14.05.2012)

Hirsch Index: H=12

Total number of publications: 86

Total number of citations: 553 (456 without auto citations)

Current version of the Web Of Science statistics: <http://www.researcherid.com/rid/D-5585-2012>

Total impact factor: **122.1**

The works have been published in referred physical journals and specialized journals of high international reputation in nanotechnology, microanalysis and electron microscopy:

- | | |
|--|-------------------------------------|
| 1. Applied Physics Letters: 5 | 7. Philosophical Magazine: 2 |
| 2. Journal of Applied Physics: 5 | 8. Nanotechnology: 5 |
| 3. Journal of Physics :Condensed Matter: 2 | 9. Nano Letters: 2 |
| 4. Ultramicroscopy: 1 | 10. Micron: 1 |
| 5. Microscopy and Microanalysis: 2 | 11. Journal of Microscopy Oxford: 2 |
| 6. Japanese Journal of Applied Physics: 1 | 12. Physica Status Solidi A, B: 6 |

The full list of publications and conference presentations in English is in Annex 6.

A total of 134 conference presentations (120 after completion of the PhD):

- 11 invited lectures, 6 delivered in person after PhD completion
- 62 oral presentations, 55 after PhD completion, 17 delivered in person
- 71 poster presentations, 64 after PhD completion
- Total number of delivered seminars: 16