Curriculum Vitae

Last name, First name: **PROYKOVA, Ana** **Gender**: **female**

Nationality: **Bulgarian**

Overall Scientific Expertise (especially your health and environmental risk assessment expertise)**:**
SCENIHR member (2009-2013): member of working groups on risk assessment of depleted uranium; artificial light; scanners; nanomaterials/ nanosilver
SCENIHR vice-chair (2013-2016)
- >What about experience in risk assessment?
chair of the WG on 'Memorandum on weight of evidence and uncertainties"
chair of the WG on "Guidance on the structure and content of SCHEER opinions"
co-chair of the WG on "Determination of Potential Health Effects of Nanomaterials Used in Medical Devices";
co-rapporteur of the WG on "BIOLOGICAL EFFECTS OF ULTRAVIOLET RADIATION"
member of the WGs on "Opinion on Synthetic Biology I: definition"; "Opinion on Synthetic Biology II: Risk assessment methodologies and safety aspects"; "Opinion on Synthetic Biology III: Risks to the environment and biodiversity related to synthetic biology and research priorities in the field of synthetic biology "

Professional Experience

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation♠
2010-at present	Full Professor in Physics	Sofia University	Nanometrology; radiation protection; medical physics ionising and non-ionising radiation interaction
2010 – at present	President National Centre on Nanotechnolgy	Bulgarian Academy of Sciences	Nanoscience and processes at the nanoscale; exposure assessment; ethics
1993-2009 incl. sabbatical periods	Associated Professor in Nuclear	Sofia University	nanoscience, atomic and nuclear physics; statistical analysis; econo- physics; computational physics, chemistry, biology
2007 (FP6 Grant) & 2003 (short visit)	Visiting Scientists	BIDR-Jacob **B**laustein **I**nstitute for **D**esert **R**esearch, Israel	carbon materials, inorganic fullerence, optical fibres
1993 (spring), 1997 (autumn)	Invited Professor	LLN-Catholic University of **L**ouvain, **L**ouvain-la-**N**euve, Belgium	Transport of ions in matter; nuclear physics; radiation medical technologies
1992,1994,1997 (experiments)	Senior Researcher	PSI- the **P**aul **S**cherrer **I**nstitute, Switzerland	Radiation/ medical engineering
1995	Fulbright Senior Scholar	The University of Chicago, USA	molecular and atomic nanoclusters; nanoscience
1998 (summer semester)	Visiting Professor	The University of Washington, Seattle, USA	mesoscopic physics; thermodynamics
2000 (2 m)	JSPS Fellow	University of Nagoya, Japan	methane;water;clathrates; purification via freezing; environmental protection
1999 & 2001 & 2002 & 2005 2011 & 2012	Visiting Scientist	The University of Chicago, USA	simulations and modelling; phase transitions; memory;data mining metastability at the nanoscale;
2004,2003,2002 (2 m)	Visiting Professor	The University of Cologne, Germany	Applications of statistical physics in medicine; genetic algorithms – computer aided design

Educational Background

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation*
2008	Doctor Habil	High Attestation Commission	Physics (theoretical and mathematical)
1989,1991	Post-doc	ICTP-Trieste	Physics (thermodynamics)
1981	PhD	Sofia University & JINR-Dubna	Physics (nuclear)
1977	Postgraduate	Joint institute of nuclear research JINR	Physics (nuclear)
1974	Master	Sofia University	Physics (solid state)

Memberships in Scientific Advisory Bodies/Committees/Panels :

• High Level Group Nanotechnologies and Advanced Materials, EU (2016 – at present)
• Program Committee on Nanomaterials, Biotechnology and Production, EU – Horizon 2020 (2014 – at present)
• National delegate to the European strategy forum on research infrastructures, ESFRI (2007 – at present); Working Group on Site Sitting (2008-2010); Working group on e-Infrastructure investments (2016- at present)
• FET Advisory Group (2014-2015), Horizon2020, DG CONNECT
• SWAFS Advisory group (2014-2015), Horizon2020, DG RTD
• International Cooperation Advisory Group (2014-2015), Horizon2020, DG RTD
• Member of the Program Committee of the NanoMatPro, EU-FP7 (2007- 2013)
• Bulgarian representative in the Member States Council on the international dialogue on responsible research and development of nanotechnologies (2008- 2010)
• Member of the Program Committee of the NanoMatPro, EU-FP6 (2004- 2006)
• Member, National Scientific Commissions on: Physics (2002-2004), Nanotechnology (2003 – 2010), Research infrastructures (2013 - at present), Ministry of Education and Science
• Member, Council Board for the Research at the Universities (Ministry of Education and Science) (2003- 2009)
• Member, Advisory Board for International Education and Cultural Exchange Programs, Ministry of Education and Science: (2001-2004)

Memberships in Learned Societies:

• European Physical Society (EPS) - Executive Council, European Physical Society (2008 – 2012); Board Member of the Equal opportunity committee (2012 – at present)
http://www.eps.org/members/group.aspx?id=84913
• Union of Bulgarian Physicists (UBP) – member of the Executive Board (2001-2004)
• Chair of the chapters ”Clusters and Nanoparticles” (2000-2004) & ”Theory, Modelling, Simulation” (2005 -2010) & Theory and Modelling of Processes at the Nanoscale (2011 – at present), National Centre on Nanotechnology
• Team leader IUPAP Working Group on Women in Physics (2002 – at present)
• Founder and Board Member of the Bulgarian Centre of Women in Technologies, BCWT (2012 – at present) http://www.bgwomeninict.org/about/1/MlW-gRWHIlSHI9OrI1KHchSrcNKncJafI9OjIRePUxKP
• Member of the Board of Administration of the European Platform of Women Scientists (2005 – 2009) http://epws.org/our-history/
• Society of Nuclear Physicists in Bulgaria (1986-1999)

Memberships in Editorial Boards:

• Editor, Open Physics, De Gruyter http://www.openphysics.com/
• Editor, Int.J.Mol.Sci. http://www.ijms.org
• Guest-editor for the special issue of IJMS devoted to the 70’th anniversary of RS Berry

http://www.mdpi.org/ijms/papers/i3010001.pdf

- Founder and Editor of the annual proceedings "Meetings in Physics @ University of Sofia"

List of Publications:

[Please indicate the type and total number of your publications. In addition, provide the bibliographic details for the 7 most representative, peer-reviewed articles, which highlight the main areas of your scientific expertise.]

Total number:	152
Peer-reviewed papers in international scientific journals	74
Chapters in books, including graduate lectures	8 + 1 textbook for bachelors in BG
Full-text papers in conference proceedings	29
Technical reports (PSI, LLN, BIRD)	3
Scientific opinions (SCENIHR, SHER - WGs)	12
Publications on science policy	25

7 Scientific publications in different areas of expertise:

1. *From topographies to dynamics on multidimensional potential energy surfaces of atomic clusters*
   KD Ball, RS Berry, RE Kunz, FY Li, A Proykova, DJ Wales
   SCIENCE (1996), 963-965
2. *Order-disorder transitions in finite-size clusters of objects*, Ana Proykova, Brijuni conference on"Self-organizing matter and emergence" August 25-30, (**2014**)
   Challenges of Computations at the Nanoscale
   A Proykova
   J. of Computational and Theoretical Nanoscience, vol.7, No.9, 1806-1813 (**2010**)
3. *Magnetic properties of Graphene with Vacancies – Open Questions*,
   S Pisov, V Antonov, A Proykova, **Nanoscience &Nanotechnology** ISSN:1313-8995 (**2014**)
4. *Nanosilver: Safety, health and environmental effects and role in antimicrobial resistance*
   Philippe Hartemann, Peter Hoet, Ana Proykova, Teresa Fernandes, Anders Baun, Wim De Jong, Juliane Filser, Arne Hensten, Carsten Kneuer, Jean-Yves Maillard, Hannu Norppa, Martin Scheringer, Susan Wijnhoven - **Materials Today**, volume 18, Number 3, pp.122-123 (**2015**)
5. *Hydrogen sulfide adsorption on a defective graphene*
   D Borisova, V Antonov, A Proykova
   Int. J. of Quantum Chemistry 113 (6), 786-791 (**2013**)
6. *Modulation of band-structure of defective single-wall carbon nanotubes under a transverse electric field*, H.S. Iliev, F.Y. Li, H.F. Lu, A. Proykova, **CP899, American Institute of Physics**, p.718 (2007)
7. *Cellular automata simulation of medication-induced autoimmune diseases*
   D Stauffer, A Proykova - **Physica A:** Stat. Mech, and its Appl. Elsevier, v.331, p.545-551(2004).

7 recent publications in science policy

1. A. Proykova, Women in Physics in Bulgaria–Enhancing Research**,** WOMEN IN PHYSICS: 4th IUPAP International Conference on Women in Physics. **AIP Conference Proceedings**, Volume 1517, pp. 80-81 (**2013**).
2. **Ana Proykova:** *What can academics contribute to a data and code repository,* Kick-off meeting of the European Materials Modeling Council (EMMC), Brussels, 5 November **2014**
3. **Ana Proykova:** *Potential Health Risks Linked to Artificial Lights***,** VII conference organized by the Technical University – Sofia, Sozopol, 20 September, **2015**
4. Ana Proykova, *Widespread use of nanoparticles – effects on human health and environment*, Nanoforum, Sep 18-20, **2013**, Rome http://www.nanofutures.info/event/nanoforum-2013
5. **Ana Proykova:** *Opportunities for funding of Nanoscience and Nanotechnology in H2020,* 16th International workshop on Nanoscience and Nanotechnology, 6-8 November, **2014**
6. **Ana Proykova:** *What is a smart specialization,* Towards the integration of the physics community in CEI countries into the ERA**,** November, 23-25, **2014**
7. **Ana Proykova:** *SofiaTechPark HPC lab: current offer to SMEs,* Technology Commercialization and Technology Transfer – How it is Done in Bulgaria and Republic of Korea, October 30, **2015**

7 recent public lectures:

1. **Ana Proykova:** *From Ada Byron to the Biocomputer*, BCWT, April 19 (**2013**)
2. **Ana Proykova**: *Lab-on-the-chip: unknown known,* February 18 (**2013**), The cultural institute at the University of Sofia
3. **Ana Proykova**: *Science and the quality of life*, International conference on Women entrepreneurship and the challenges of Europe 2020, Aula Magna University of Sofia, 30 Oct. **2012**
4. **Ana Proykova**: *Thermodynamics of clusters*, 240-SYMPOSIUM, The University of Chicago, USA, September 12-16 (**2012**)
5. *Clusters of molecules and people*: **Ana Proykov**a at TEDxMladostWomen **2013** https://www.youtube.com/watch?v=AuM3mo0J9lU
6. **Ana Proykova**: *SofiaTech Park High Performance Computing*, June 19, **2015**
7. **Ana Proykova:** *Atomic and molecular clusters and their applications: nanostructures and light-emitting diodes (LED's),* Fulbright open lectures, October 29, **2015**, Crystal Palace Hotel, Sofia

Opinions:

1. "*Health effects of security scanners for passenger screening (based on X-ray technology*)"
   Anssi Auvinen, Thomas Jung, Ana Proykova, Denis Bard, Richard Paynter, Geraldine O'Reilly, Christoph Hoeschen, Peter O'Neill doi:10.2772/87426
2. "*Opinion on the Environmental and Health Risks Posed by Depleted Uranium*"
   Wolfgang Dekant, Pim De Voogt, Borut Peterlin, Marco Vighi, Pier Roberto Danesi, Victor Meineke, Ana Proykova doi:10.2772/3253
3. "*Scientific Basis for the Definition of the Term "nanomaterial*"
   Jim Bridges, Kenneth Dawson, Wim de Jong, Thomas Jung, Ana Proykova, Qasim Chaudhry, Ruth Duncan, Eric Gaffet, Keld Alstrup Jensen, Wolfgang Kreyling, Bernadette Quinn doi:10.2772/39703
4. "*Nanosilver: safety, health and environmental effects and role in antimicrobial resistance*"
   Philippe Hartemann, Peter Hoet, Ana Proykova, Teresa Fernandes, Anders Baun, Wim De Jong, Juliane Filser, Arne Hensten, Carsten Kneuer, Jean-Yves Maillard, Hannu Norppa, Martin Scheringer, Susan Wijnhoven doi: 10.2772/76851
5. "*Guidance on the Determination of Potential Health Effects of Nanomaterials Used in Medical Devices*",
   Igor Emri, Philippe Hartemann, Ana Proykova, Konrad Rydzynski, Jim Bridges, Lars Bjursten, Wim De Jong, Robert Geertsma, Arne Hensten, Nils Gjerdet doi: 10.2772/41391
6. "*Opinion on Synthetic Biology I: Definition*"
   Theo Vermeire, Michelle Epstein, Philippe Hartemann, Ana Proykova, Luis Martinez Martinez, Teresa Fernandes, Qasim Chaudhry, Suresh Chandra Rastogi, Rainer Breitling, Camille Delebecque, Timothy Gardner, Katia Pauwels, James Philp, Markus Schmidt, Eriko Takano doi:10.2772/76553
7. "*Health Effects of Artificial Light*"
   Mats-Olof Mattsson, Thomas Jung, Ana Proykova, Francine Behar-Cohen, Frank de Gruijl, James Ferguson, Johnni Hansen, Harry Moseley, Georges Zissis doi:10.2772/8624
8. "*Addressing the New Challenges for Risk Assessment*" (SCCS, SCHER, SCENIHR)
   doi:10.2772/37863
9. "*Position Statement on emerging and newly identified health risks*" to be drawn to the attention of the European Commission (SCENIHR) doi:10.2875/996348
10. "*Opinion on Synthetic Biology II: Risk assessment methodologies and safety aspects"*
    Theo Vermeire, Michelle Epstein, Philippe Hartemann, Ana Proykova, Luis Martinez Martinez, Teresa Fernandes, Qasim Chaudhry, Suresh Chandra Rastogi, Rainer Breitling, Camille Delebecque, Timothy Gardner, Katia Pauwels, James Philp, Markus Schmidt, Eriko Takano
    doi:10.2772/63529
11. " *Opinion on Synthetic Biology III: Risks to the environment and biodiversity related to synthetic biology and research priorities in the field of synthetic biology*"
    Theo Vermeire, Michelle Epstein, Philippe Hartemann, Ana Proykova, Luis Martinez Martinez, Teresa Fernandes, Qasim Chaudhry, Suresh Chandra Rastogi, Rainer Breitling, Camille Delebecque, Timothy Gardner, Katia Pauwels, James Philp, Markus Schmidt, Eriko Takano
    http://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_050.pdf

12. PRELIMINARY OPINION ON BIOLOGICAL EFFECTS OF ULTRAVIOLET RADIATION (consultation until 27th of April, 2016)