

LIST OF PUBLICATIONS AND INVITED TALKS (1978-2017)  
Prof. Ana Proykova, PhD, Doctor of Sciences (Doctor-Habil),  
Faculty of Physics, St. Kliment Ohridski University of Sofia

**I. Published opinions of the SCENIHR (2009-2013) and the SCHEER (2013-2017) –  
the scientific committees of the European Commission:**

EC-1) Health effects of security scanners for passenger screening (based on X-ray technology)  
(2012)

Anssi Auvinen, Thomas Jung, Ana Proykova, Denis Bard, Richard Paynter, Geraldine O'Reilly,  
Christoph Hoeschen, Peter O'Neill

ISSN 1831-4783 ISBN 978-92-79-26316-3 doi:10.2772/87426 ND-AS-12-004-EN-N

EC-2) Health Effects of Artificial Light (2012)

Mats-Olof Mattsson, Thomas Jung, Ana Proykova, Francine Behar-Cohen, Frank de Gruijl,  
James Ferguson, Johnni Hansen, Harry Moseley, Georges Zissis

ISSN 1831-4783 ISBN 978-92-79-26314-9 doi:10.2772/8624 ND-AS-12-002-EN-N

EC-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

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ISSN 1831-4783 ISBN 978-92-79-12757-1 doi:10.2772/39703 ND-AS-09-004-EN-N

EC-4) Opinion on the Environmental and Health Risks Posed by Depleted Uranium (2010)

Wolfgang Dekant, Pim De Voogt, Borut Peterlin, Marco Vighi, Pier Roberto Danesi, Victor  
Meineke, Ana Proykova

ISSN 1831-4775 ISBN 978-92-79-12754-0 doi:10.2772/3253 ND-AR-09-005-EN-N

EC-5) 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

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{cited in Silver Nanoparticles in the Environment, edited by Jingfu Liu, Guibin Jiang  
Springer 9783662460702, April 2015}

EC-6) Addressing the New Challenges for Risk Assessment (2013) (SCCS, SCHER, SCENIHR)

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ISSN 2315-0106 ISBN 978-92-79-31206-9 doi:10.2772/37863 ND-AZ-13-002-EN-N

EC-7) 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

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ISSN 1831-4783 ISBN 978-92-79-30136-0 doi:10.2772/76553 ND-AS-13-006-EN-N

EC-8) 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  
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EC-9) Position Statement on emerging and newly identified health risks to be drawn to the attention of the European Commission (SCENIHR) (2014)

ISSN 1831-4783 ISBN 978-92-79-55011-9 Doi:10.2875/996348 EW-AS-16-001-EN-N  
[http://ec.europa.eu/health/scientific\\_committees/emerging/docs/scenihr\\_s\\_002.pdf](http://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_s_002.pdf)

EC-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  
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EC-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 (64 pages)  
3 December 2015 (ISSN 2315-0106; ISBN 978-92-79-54973-1 doi:10.2875/590512 EW-AZ-16-001-EN-N)

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  
[https://ec.europa.eu/health/sites/health/files/scientific\\_committees/emerging/docs/scenihr\\_o\\_050.pdf](https://ec.europa.eu/health/sites/health/files/scientific_committees/emerging/docs/scenihr_o_050.pdf)

EC-12) Opinion on Biological effects of UV-C radiation relevant to health with particular reference to UV-C lamps (2 February 2017) ISSN 1831- ISBN 978-92-79- doi:10.2772/ ND  
Theodoros Samaras, Ana Proykova, Renate Krätke, Rodica Mariana Ion, Pieter Jan Coenraads, Lesley Rushton, Norbert Leitgeb  
[https://ec.europa.eu/health/sites/health/files/scientific\\_committees/scheer/docs/scheer\\_o\\_002\\_0.pdf](https://ec.europa.eu/health/sites/health/files/scientific_committees/scheer/docs/scheer_o_002_0.pdf)

EC-13) Opinion on Biological effects of ultraviolet radiation relevant to health with particular reference to sunbeds for cosmetic purposes ( 17 November 2016)

ISSN 1831- ISBN 978-92-79- doi:10.2772/ ND

Ana Proykova, Theodoros Samaras, Rodica Mariana Ion, Pieter Jan Coenraads  
Claire Beausoleil, Jean-Francois Doré, Rüdiger Greinert, Philippe Hartemann, Norbert Leitgeb  
Lesley Rushton, Greet Schoeters  
[https://ec.europa.eu/health/sites/health/files/scientific\\_committees/scheer/docs/scheer\\_o\\_003.pdf](https://ec.europa.eu/health/sites/health/files/scientific_committees/scheer/docs/scheer_o_003.pdf)

## II. Peer-reviewed publications in English:(1978-2017)

including articles in journals and articles in scientific series

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2. A. Proykova, **Nucl. Instr. Meth.** v.160 (1979),2,p.321:"*Depth Selection by Means of Scattered Electrons: Monte Carlo Calculation of Energy Distribution*".
3. A. Proykova, **Bulg. J. Phys.** VI(1979),1,p.28:"*Electron Scattering in Thin Foils*"
4. A. Proykova, **J.Phys.D**, v.12 (1979) p.87: "*A Monte Carlo Calculation of the angular distribution of muons in lead*"
5. A. Proykova, **Nucl.Instr.Meth.** v.174(1980),p.327:"*Conversion electron penetration through metallic and oxidized thin layers*"
6. A. Proykova, **J.Phys.D**, v.13, pp.291-305 (1980):"*An analysis of scattering processes of conversion electrons in solid layers*"
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9. D.L. Balabanski, A. Proykova, P.S. Kamenov, *The Time-dependence of Resonantly Filtered Recoilless Gamma-radiation – an approach to the Numerical Problem*, **NUCL INSTRUM METH B 16:** (4-5) 434-438 JUN 1986
10. A. Proykova, K. Christova, T.Christov,N.Nenov, D.Kolev , Int. Journal Appl. Rad. Isot v.42, No3.pp. 279-283"*Radiation Field from a Large Cylindrical Source*" (1991).
11. A. Proykova, *Selected Applications of Mossbauer Radiation (invited paper)*, **Rad. Phys. Chem. 41**, No.4/5(1993) 705-724.
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<http://scitation.aip.org/content/aip/journal/jcp/146/19/10.1063/1.4983163>  
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### III. Book Chapters

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eds. Witold Łojkowski, Rasit Turan, Ana Proykova,  
<http://nanoparticles.org/pdf/nanometrology.pdf>
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### IV. Articles in Proceedings

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80. A. Proykova, *Self-Organization of Metallic Nanoparticles: Experimental Observation vs. Computational Models*, THE THIRD INTERNATIONAL BALKAN WORKSHOP ON APPLIED PHYSICS (3<sup>rd</sup> IBWAP 2002) JUNE 26-28, 2002, Targoviste, Romania.  
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84. Ana Proykova, Evgeniya Daykova, Rossen Radev and Alexander Marinov, *Low-temperature transformations of free methane clusters*, Proceedings of the Conference on Applied Physics, Plovdiv, Nov.8, 2002.
85. A. Proykova, *Advanced Methods for Modeling of Nanoscale systems*, Proceedings of the Third Workshop on Nanoscience and nanotechnology, Nov.29-30,2001.
86. A. Proykova, *"Determination of the Detecting System Response Function"* Proceedings of the Sixth Symposium on X- and gamma ray sources and applications, May 21-23, Michigan (USA) (1985)
87. A. Proykova and A. Marinov, *"Transport of fast electrons through radiation sources"* in: Proceedings of the Third International Symposium on Radiation Physics, Sept.30-Oct.4, Ferrara (Italy)(1985)
88. A. Proykova, *"Negative muons slowing down in homogeneous metal-layers"* in: Proceedings of the Workshop on Exotic Atoms in Condensed Matter Erice, Italy, May-1990
89. A. Proykova, "Charge fluctuations of ions", in: Proc. Fifth International Symposium on Radiation Physics, June 10-14, Dubrovnik(Yugoslavia)(1991)

## V. Text book

90. Ana Proykova, *Lecture Notes on Atomic and Nuclear Physics* (1988), Sofia University Publishing House

## VI. Lectures published in books

91. I. Dragieva, A. Proykova, *The Art of Chemical Bond Creation for Synthesis and Application of Nanoscale Materials*, pp.21- 33, lecture 2 in **Introduction to Nanotechnology**, eds. J. Dusza and I. Dragieva (Heron Press Science Series 2006) (ISBN-13: 978-954-580-265-2)
92. A. Proykova, *Modeling of Nanoclusters at Finite Temperatures*, pp.113-140, lecture 6 in **Introduction to Nanotechnology**, eds. J. Dusza and I. Dragieva (Heron Press Science Series 2006) (ISBN-13: 978-954-580-265-2)
93. A. Proykova, *Simulation Techniques for Nanosized systems: Monte Carlo, Molecular Dynamics, Density Functional Theory*, pp. 165-181, lecture 8 in **Introduction to Nanotechnology**, eds. J. Dusza and I. Dragieva (Heron Press Science Series 2006) ( ISBN-13: 978-954-580-265-2)

## VII. Annual Reports

### 94. The Catholic University of Louvain, Belgium

Th. Delbar, J.-S. Graulich, P. Leleux, X. Morelle, A. Proykova, *Measurements of stopping powers and charge state distribution*, p.42  
<http://www.fynu.ucl.ac.be/librairie/rapports/cyclone/1997/cyclone97.pdf>

### 95. Paul Scherrer Institute (Switzerland)

R.Abela, K. Bodek, P.Boeni, F.Foroughi, L.Grenacs, L.Jarczyk, St.Kystrin, J.Lang, R.Muller, S.Navert, O.Naviliat-Cuncic, A.Proykova, J.Smyrski, J.Sromicki, E.Stephan, A.Strzalkowski, J.Zajma, W.Zipper, *Optimization*



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96. **Paul Scherrer Institute (Switzerland)**

K. Bodek, P.Boeni, F.Foroughi, L.Grenacs, L.Jarczyk, St.Kystrin, J.Lang, R.Muller, S.Navert, O.Naviliat-Cuncic, A.Proykova, J.Smyrski, J.Sromicki, E.Stephan, A.Strzalkowski, J.Zajma, W.Zipper, *Measurements of Time-Even Correlations in Muon Capture on Nuclei*, **R-95-08**, Zurich-PSI-Louvain-Cracow-Katowice-Sofia

**VIII. Invited lectures and talks (published on the web)**

97. Ana Proykova, [Mechanical properties of Single Wall Carbon Nanotubes](#), (invited talk, the National University of Singapore, February, 6,2004) <http://cluster.phys.uni-sofia.bg/anap/talks.php>
98. A. Proykova “National Centre on Nanotechnology (NCNT)”, (plenary talk at the 1st NanoForum Workshop: Nanomaterials and Applications, Sinaia, Romania, October 5-7th, 2003 <http://www.nanoforum.org/events/workshop>
99. Ana Proykova, Gas adsorption on/in carbon tubes, <http://www.fundp.ac.be/~vpopov/nato-asi-2005.htm> (under Presentations)
100. Ana Proykova, Time-scales in Molecular Dynamics. Ab-initio (quantum) Molecular Dynamics and coarse graining techniques <http://www.fundp.ac.be/~vpopov/nato-asi-2005.htm> (under Presentations)
101. Ana Proykova, Diffusion of the adsorbed gases <http://www.fundp.ac.be/~vpopov/nato-asi-2005.htm> (under Presentations)
102. A. Proykova, *Dynamics of Temperature Driven Phase Transitions*, (**invited talk**)
103. Ana Proykova (ソフィア大物理) Dynamics of Temperature Driven Phase Transitions  
柳尾朋洋 (東大総合文化) クラスタ構造転移における集団運動とカオス  
Workshop on " Dynamical Problems on Rugged Potential Energy Surfaces: Scrutiny of the Middle Regime between Mechanical Determinism and Stochastic Processes", Nara, Japan, 13-14 Nov., 2000. <http://www2.kobe-u.ac.jp/~tamiki/seminar/Nara-report2000.htm>
104. A. Proykova, *The Role of Metastable States in the Temperature Driven Phase Transformations of Molecular Nanoclusters*, (**invited talk**) Nineteenth Bulgarian-Greek Symposium on Physics of Semiconductors, December 15,2000.
105. Ana Proykova, “*Thermodynamics of systems with few degrees of freedom*” (**invited talk**) at the UNESCO-ROSTE funded conference on Fundamental Problems and New Perspectives in Thermodynamics February 17 - 21 2002.

[http://www.cism.it/cgi/course\\_info\\_main.cgi?title=Fundamental+Problems+and+New+Perspectives+in+Thermodynamics&year=2002](http://www.cism.it/cgi/course_info_main.cgi?title=Fundamental+Problems+and+New+Perspectives+in+Thermodynamics&year=2002)

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106. A. Proykova, TEMPUS project (1997) ( lecture course on Statistical methods in Nuclear Physics - Part I, and Simulations in Nuclear and Statistical Physics Part II)
107. Ana Proykova, *Self- and Induced Organization of Nanoparticles* (**keynote lecture**) The 1st NanoForum Workshop: Nanomaterials and Applications, Sinaia, Romania, October 5-7th, (2003). <http://www.nanoforum.org/events/workshop/Proykova.pdf>
108. Ana Proykova, pp.3; 5-9; 12-18 <http://www.euspen.eu/page1418/Resources/Modelling-Simulation-Proceedings> (2011) (ISBN:978-0-9566809-6-9)

109. A. Proykova in European Nanometrology Strategy Paper, pp.127-139 “Modeling and simulations for nanometrology” (09.06.2011)

<http://www.nano.org.uk/files/home/european-nanometrology.pdf>

110. Conference Paper: [Modeling and Simulation: Nanometrology Status and Future Needs Within Europe](#) Publication Date: January 2011 Author(s): Ana Proykova, Markus Baer, Jorgen Garnaes, Carl Frase, Ludger Koenders

DOI: 10.13140/2.1.3331.5840

111. Conference presentation: Potential Health Risks Linked to Artificial Lights, Co-authors: Mats-Olof Mattsson, Thomas Jung, Ana Proykova, Francine Behar-Cohen, Frank de Gruijl, James Ferguson, Johnni Hansen, Harry Moseley, Georges Zissis

DOI: 10.13140/RG.2.1.1515.0807

112. Ana Proykova (key speech), TIMMED 2016, Timisoara, Romania

[http://www.umft.ro/data\\_files/documente-atasate-evenimente/2727/timmed\\_202016\\_20\\_20conference\\_20program.pdf](http://www.umft.ro/data_files/documente-atasate-evenimente/2727/timmed_202016_20_20conference_20program.pdf)

113. MODERATOR: Prof. Ana Proykova, Faculty of Physics, University of Sofia

<http://events.idg.bg/en/2016/3D/agenda> organizer ICT media, 9 June 2016: 3D printing – synergy between theory and practice Session 1: Theory, trends and analyses

114. Ana Proykova (invited talk), Nanomaterials in medical devices – a challenge in transferring the knowledge of new materials

<http://e-university.tu-sofia.bg/e-conf/index.php?r=180> 18th International Workshop on Nanoscience and Nanotechnology, NANO 2016, 18 - 19 November 2016,

115. Ana Proykova (chair and invited talk on Artificial Light in connection with the UNESCO Year of the Light 2015)

<http://e-university.tu-sofia.bg/e-conf/?konf=57&kliuch=arhivNANO2015> 17th International Workshop on Nanoscience and Nanotechnology, NANO 2015, 27 - 28 November 2015)

116. Ana Proykova (Invited talk): Order-disorder transitions in finite-size clusters of objects

<http://www.brijuni-conference.irb.hr/program14.html> The Brijuni Conference Self organizing matter and emergence, 25-30 August, 2014

## **IX. Translations into Bulgarian**

117. R.S. Berry (tr. A. Proykova) , *How Good is the Bohr Model*, Physics World, No.4 p.1(1995)

118. Leo Kadanoff (tr. A. Proykova), Physics World, No. p.(1996)

119. Williams, *Nuclear and Particle Physics* ,Oxford University Press (1991) (textbook tr. by A. Proykova, R. Tsenov and S. Gabrakov), University of Sofia Press (2000)

## **X. Publications on science policy (in Bulgarian)**

120. Ana Proykova, *Visions of Aliens*, SuperM, May (1999)

121. Ana Proykova, *Desire to create (Желанието да създаваш е по-силно от това да потребяваш)*, AZBUKI (Национален седмичник за образование и наука, брой 46 (636), стр.1 и стр.3, 12-18 Ноември 2003.

122. Ana Proykova, European Week of Science (*Европейска седмица на науката, 3-9 Ноември 2003*), НАУКА (Science) (Union of the Bulgarian Scientists) p.56, No.6 (2003) [http://www.usb-bg.org/Bg/Nauka\\_En\\_6%6003.htm](http://www.usb-bg.org/Bg/Nauka_En_6%6003.htm) (ISSN 0861 3362)

123. Ana Proykova, *"Women in Physics" International Conference*, NAUKA (Science) (Union of the Bulgarian Scientists), No..2, p.34 (2002)

124. Ana Proykova, New Books (review), NAUKA(Science) (Union of the Bulgarian Scientists), No.4, p. 66 (2000)

125. Ana Proykova, *The Challenges of Bachelor Education in Bulgarian Universities – Sad Thoughts and Little Hope*, NAUKA( Science) (Union of the Bulgarian Scientists), N.3, p. 31 (2000)
126. Ana **Proykova**, Penka Lazarova – Кариера във физиката – ‘да’ или ‘не’ за жените в България (Career in Physics – „yes” or „no” for the Bulgarian women) in Сборник от доклади на конференция с международно участие “The researcher as a factor for the development of the knowledge society”, 28-29.11.2005, Sofia, Bulgaria, pp.72-77 [www-it.fmi.uni-sofia.bg/REKS/pub/ProceedingsREKS.pdf](http://www-it.fmi.uni-sofia.bg/REKS/pub/ProceedingsREKS.pdf)

#### **XI. Publications on science policy (in English)**

127. A. Proykova, Women-physicists in Bulgaria in Another Transition Period, **American Institute of Physics Conference Proceedings**, v. 795, p. 101 (2005 ) (ISBN 0-7354-0278-7; ISSN 0094-243-X)
128. A. Proykova, Knowledge production and certification, [http://europa.eu.int/comm/research/conferences/2004/univ/pdf/speech\\_ana\\_projkova\\_en.pdf](http://europa.eu.int/comm/research/conferences/2004/univ/pdf/speech_ana_projkova_en.pdf)
129. A. Proykova, The National Program on Nanoscience and Nanotechnologies (2005-2007) a part of the EU-FP6-Theme 3 & FP7-Theme 4 “Nanoscience, Nanotechnologies, Materials and New Production Technologies – NMP”, **Advances in Bulgarian Science**, issue 4 (2007) pp.31-33, NACID (ISSN 1312-6164)
130. A. Proykova, The Monte Carlo Group Research and International Activities in Nanoscience, **Advances in Bulgarian Science**, issue 4 (2007) pp.21-25, NACID (ISSN 1312-6164)
131. A. Proykova and Angela di Virgillio, Report on the Third Conference “Women in Physics” held in Seoul, Korea, Oct. 2008, Europhysics News, v.40 p. 8 (2009)
132. A.Proykova, Globalization, Education, and Science in Globalization and Cultural Differences, Proceedings of the Fourth Fulbright Conference, Sofia, May 19-21, (Bulgarian-American Fulbright Commission Press) p. 57-61 (2000).
133. A. Proykova, INTERNATIONALIZATION OF EDUCATION in: EDUCATION AND CIVIL SOCIETY IN THE POST-TOTALITARIAN WORLD, Third Fulbright Conference Dedicated to the 5th Anniversary of the Bulgarian Fulbright Commission, Sofia, May 14-17, (1998).
134. A. Proykova, A Link in the Long Chain of the World Cultures in: UNDERSTANDING DIFFERENCES AND BUILDING BRIDGES, The Second Fulbright Conference Dedicated to the 50<sup>th</sup> Anniversary of the Fulbright Program, Sofia, May 16-19, 1996
135. A. Proykova “National Centre on Nanotechnology (NCNT)”, (oral presentation at the 1st NanoForum Workshop: Nanomaterials and Applications, Sinaia, Romania, October 5-7th, 2003 <http://www.nanoforum.org/events/workshop>
136. A. Proykova, Women in Physics in Bulgaria – Statistics and Challenges, **American Institute of Physics Conference Proceedings**, v. 1119, pp.89-90 (2009)
137. A. Proykova, “Two-in-one” could be beneficial for the European research infrastructures, *Il Nuovo Saggiatore*, Vol. 27, anno 2011, no. 1-2 , p.71 <http://www.sif.it/SIF/en/portal/attivita/saggiatore/econtents> <http://prometeo.sif.it/papers/online/sag/027/01-02/pdf/01-indice.pdf>
138. 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).
139. A. Proykova, Il Nuovo Saggiatore, vol. 28, No.6, November-December 2012, p. 66. <http://prometeo.sif.it/papers/online/sag/028/05-06/pdf/01-indice.pdf>

140. A. Proykova, *The second European gender summit 2012 – agenda for excellence*, e-EPS, <http://www.epsnews.eu/2012/12/2nd-gender-summit-2012/>
141. A. Proykova, *National, Regional, and European Physical Societies*, Scientific and Human Legacy of Julius Wess, August 27-28, **2011**, Hotel “Lepenski Vir”, Donji Milanovac, Serbia <http://www.slideshare.net/seenet/a-proykova-national-regional-and-european-physical-societies>
142. A. Proykova, EPS Emmy Noether Distinction for Women in Physics <http://www.epsnews.eu/2013/02/eps-noether-distinction/>
143. Rumiana Dimova (RD) is winner of the Spring 2014 EPS Emmy Noether distinction for Women in Physics. This interview was taken in June **2014** by Ana Proykova (AP), member of the Equal Opportunity Committee of the EPS. [http://www.mpikg.mpg.de/th/people/dimova/other\\_files/eprn2014-45-4%20RD%20interview.pdf](http://www.mpikg.mpg.de/th/people/dimova/other_files/eprn2014-45-4%20RD%20interview.pdf)
144. A. Proykova, *The Status of Women in Physics in Bulgaria*, American Institute of Physics Conference Proceedings, v.628, p.137 (2002) (ISBN 0-7354-0074-1)

## **XII. Publications in Bulgarian Journals (in Bulgarian)**

145. Ana Proykova and Iwao Ohmine, *Water - ordinary and enigmatic*, Physics, No.1 (2001) p.9
146. Ana Proykova, *Nanosized materials and their properties*, Physics, No.5, p.2 (1999)
147. Ana Proykova, *Parallel computing vs. Clusters of Computers*, Computer for You, (1997)
148. Ana Proykova and Iwao Ohmine, *From the Big Bang to the Water molecule*, NAUKA (Science) (Union of the Bulgarian Scientists) **кн. 5/2002 г.**

## **XIII. Abstracts - International Conferences and Meetings (1995-2017)**

- A-1. R. Stephen Berry, Ralph E. Kunz, David J. Wales, Keith Ball, Ana Proykova, and Feng-Yin Li, *"Topographies and Dynamics of Multidimensional Potential Surfaces of Atomic Clusters"*, The University of Chicago, The Technical University of Berlin, Cambridge University, USA. IV International Conference on Advanced Materials, Cancun, Mexico, August 27<sup>th</sup> - September 1<sup>st</sup>, 1995.
- A-2. Feng-Yin Li, R.S. Berry, A. Proykova, in *Book of Abstracts of MWTCC*, May 12-16, Evanston, USA(1995).
- A-3. A. Proykova and R.S.Berry , *Analogues in Clusters of Second-Order Phase Transitions?* in *Book of Abstracts of ISSPIC-8*, Jun 29-Jul 6,Copenhagen, Denmark (1996).
- A-4. Rossen A. Radev, Ana Proykova, Feng-Yin Li and R. Stephen Berry, *A Method for Projecting the Spatial Distribution of Highly Symmetrical Molecules onto a Two Dimensional Surface*, in *Book of Abstracts of TAMC2*, September 15-20, Lake Geneva, Wisconsin(1996)
- A-5. Ana Proykova, *Fractal Trajectories of Charged Particles Passing through Matter*, in *Book of Abstracts of Symposium on Radiation Measurements and Applications* (Ninth in Series), May 11-14, The University of Michigan, Ann-Arbor, Michigan, USA (1998 Contact: Symposium Secretary, 3034 Phoenix Memorial Laboratory, Ann Arbor, Michigan, 48109-2100.
- A-6. Ana Proykova and R. Stephen Berry, *Finite-Size Scaling Analysis of Simulated Structural Phase Transitions in Plastic Molecular Clusters*, in *Book of Abstracts of ISSPIC-9*, September 1-5, Lausanne, Switzerland (1998)
- A-7. Ana Proykova and R. Stephen Berry, *Surface Effects in Order-Disorder Transformation in Molecular Clusters*, in *Book of Abstracts of ISSPIC-9*, September 1-5, Lausanne, Switzerland (1998)
- A-8. Ana Proykova, Ivan Daykov, Feng Yin Li, and R.Stephen Berry, *Constant*

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- A-9. Ana Proykova and Rossen Radev, *How to Improve a Random Number Generator*, in *Book of Abstracts of CCP-98* (Conference on Computational Physics) September 2-5, Granada, Spain (1998) `Modelling Collective Phenomena in Complex System", European Physical Society, vol. 22F (1998)
- A-10. Dessislava Nikolova and Ana Proykova, *A SHORT-TIME MEMORY IN SMALL ONE-DIMENSIONAL SYSTEMS*, in *Book of Abstracts of CCP-98* (Conference on Computational Physics), September 2-5, Granada, Spain (1998) `Modelling Collective Phenomena in Complex System", European Physical Society, vol. 22F (1998)
- A-11. Ana Proykova, *Finite-Size Scaling Analysis of Simulated Phase Transitions in Small Systems*, in *Book of Abstracts of the Eighteenth International Workshop on Nuclear Theory*, Rila Mountains, Bulgaria, June 7-12, 1999
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- A-13. A. Proykova, D. Nikolova, P. Michailov, B. Kolarov , ` *Memory Effects and Phase Transitions in Low-Dimensional Nanosystems*", *Proceedings of the Meeting on Nanotechnology and Science*, p.18, May, 1999, Sofia, Bulgaria
- A-14. A. Proykova, R. Radev, I. Daykov, S. Klenov, *Theoretical Study of Critical Behavior of Nanoclusters*', *Proceedings of the Meeting on Nanotechnology and Science*, p.17, May, 1999, Sofia, Bulgaria
- A-15. R. Stephen Berry and Ana Proykova, *New Insights into Phase Transitions from Cluster Behaviour*, Richmond, USA, October 1999
- A-16. A. Proykova, I. Daykov, and R. S. Berry, *Broken Ergodicity as a Signal of Phase Changes in Small Systems*, Int. Thermo Symposium organized by the American Engineering Society and The University of Ljubljana (Bled, 11-14 June, 2000)
- A-17. A. Proykova and S. Pisov, *DYNAMICAL PHASE COEXISTENCE IN ISOLATED NANOSIZED CLUSTERS*, BPU-4, August 22-24, V. Tarnovo, Bulgaria (2000).
- A-18. A. Proykova and R. Radev, *"Optimized Monte Carlo Simulation of Phase Transition in Rigid-Molecule Clusters"*, in *Book of Abstracts of CCP-2000* (Conference on Computational Physics) September, Granada, Spain (2000)
- A-19. Ana Proykova, *TOPOGRAPHIES AND DYNAMICS OF MULTIDIMENSIONAL POTENTIAL SURFACES OF MOLECULAR CLUSTERS*, BPU-4, August 22-24, V. Tarnovo, Bulgaria (2000)
- A-20. A. Proykova, *Stable Structures in Atomic Clusters*, Nineteenth International Workshop on Nuclear Theory, Rila Mountains, Bulgaria, June 11-19, 2000.
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- A-25. E. Daykova and A. Proykova, *The Influence of Hydrophobic Guest Molecules on the Hydrogen bond Network in Water Clusters*, Seminar of New Material for the Industry", Sofia 31 May, 2001.
- A-26. Ana Proykova, *Memory effects in one-dimensional systems*, *Applied Non-Linear Dynamics* (From Semiconductors to Information Technologies), Thessaloniki, Greece 27-30 Aug., 2001. P-40 in **LOW DIMENSIONAL SYSTEMS** HYPERLINK "<http://skiathos.physics.auth.gr/nld/shed.html>"<http://skiathos.physics.auth.gr/nld/shed.html>
- A-27. B. Karadjov and A. Proykova, *A Model for Random Correlated Deposition*, *Applied Non-Linear Dynamics* (From Semiconductors to Information Technologies), Thessaloniki, Greece 27-30 Aug., 2001. P-41 in **APPLIED CHAOS THEORY** <http://skiathos.physics.auth.gr/nld/shed.html>
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- A-30. A. Proykova, S. Pisov and R. S. Berry, *Symmetry in order-disorder phase changes of molecular clusters*, 222-nd national meeting of the American Chemical Society, Chicago, August 26 - Thursday, August 30, 2001. <http://hackberry.chem.trinity.edu/PHYS/fall2001.html>
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- A-32. A. Proykova and A. Marinov in: Proc. Third International Symposium on Radiation Physics, Sept.30-Oct.4, Ferrara (Italy)(1985) "*Transport of fast electrons through radiation sources*"
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- A-34. A. Proykova, *Optimization Procedures for Generating Isomer Structures of Molecular Nanoclusters*, Joint COST-Action Workgroup Meeting on Individual and Assembled Nanoparticles and Quantum Dots, 25-27 April, 2002, Leuven, Belgium
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- A-36. Ana Proykova, Stoyan Pisov, Iovka Dragieva, *Self-Organization of Nanosized Clusters: a Spontaneous Ordering of Matter*, ISSPIC11, Starsburg (France), Sept. 2002.
- A-37. Iovka Dragieva and Ana Proykova, *Bond Strengths of Diatomic Molecules in Nanoscale Materials*, Workshop COST523: Nanomaterials, Sevilla, 2-7 Oct. 2002. HYPERLINK "<http://www.icmse.cartuja.csic.es/cost/poster.htm>"<http://www.icmse.cartuja.csic.es/cost/poster.htm>
- A-38. Ana Proykova, *Density Functional theory and its applications in nanopowders* (**invited talk**), 4<sup>th</sup> Workshop on Nanomaterials, Sofia, 18-20 Oct. 2002.
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