

Curriculum Vitae



Personal information

First name(s) / Surname(s) **GEORGINA PETKOVA KOSTURKOVA**
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Nationality Bulgarian

Work experience

Dates	Since July 2010
Occupation or position held	Associate professor
Main activities and responsibilities	Leader of a Research group "Biotechnology of Crops and Valuable Species", Leader of international and national research projects, Head of Department Deputy, Consultancy; Advisor of Ph.D. and MS students
Name and address of employer	Institute of Plant Physiology and Genetics, Bulgarian Academy of Sciences
Type of business or sector	Department of Plant Biotechnology, research
Dates	07.10.2007 – 31.06.2010
Occupation or position held	Senior Researcher
Name and address of employer	Institute of Genetics, Bulgarian Academy of Sciences
Main activities and responsibilities	Leader of a Research group "Biotechnology of Crops", Leader of international and national research projects; Head of Department Deputy; Consultancy; Advisor of Ph.D. and MS students
Type of business or sector	Department of Plant Biotechnology, research
Dates	20.10.1993 – 07.10.2007
Occupation or position held	Experienced Researcher,
Main activities and responsibilities	Leader of a Research group "Biotechnology of Grain Legumes", Leader of and participant in international and national research projects; Head of Department Deputy; Consultancy; Advisor of Ph.D. and MS students
Name and address of employer	Institute of Genetics, Bulgarian Academy of Sciences
Type of business or sector	Department of Cell Cultures, research
Dates	10.01.1992 - 20.10.1992
Occupation or position held	Visiting scientist
Name and address of employer	Biotechnology Department, ENEA, CRE, Rome, Italy
Main activities and responsibilities	Participation in EC research project; Consultancy
Type of business or sector	research
Dates	19.07.1989 - 20.05.1990
Occupation or position held	Post Doctor of IAEA/FAO
Main activities and responsibilities	"Genetic Manipulations of Alfalfa Protoplasts"
Name and address of employer	Botany Department, Nottingham University, UK
Type of business or sector	Plant Genetic Manipulation Group (PGMG), Head prof. Cocking

Dates 01.11.1983 - 10.01.1993
 Occupation or position held Researcher (grade III, II, I),
 Main activities and responsibilities Leader of and participation in international and national research projects
 Name and address of employer Institute of Genetics, Bulgarian Academy of Sciences
 Type of business or sector Department of *In Vitro* Cultures

Dates 30.03.1978 - 01.01.1980
 Occupation or position held Biologist
 Main activities and responsibilities Participation in research projects
 Name and address of employer Institute of Genetics, Bulgarian Academy of Sciences
 Type of business or sector Laboratory of *In Vitro* Cultures

Education and training

Dates 01.01.1980-30.06.1983
 Title of qualification awarded Ph.D. degree on Biology - Plant physiology, *In vitro* cultures
 Principal subjects/occupational skills covered Thesis on "Protoplast cultures of alfalfa and *in vitro* selection for antibiotic resistance"
 Name of organisation Institute of Plant Physiology, USSR Academy of Sciences, Moscow
 Level in international classification Doctor

Dates 15.09.1973 - 28.01.1978
 Title of qualification awarded M.Sc., (honour degree)
 Principal subjects Molecular Biology
 Name and type of organisation providing education and training University of Sofia "Kliment Ohridski", Sofia, Bulgaria
 Level in international classification Master of Sciences

Dates 1968-1973
 Name of organisation Higher English Language School, Sofia

Personal skills & competences

Mother tongue Bulgarian

Other languages

English Language

Russian Language

Italian Language

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
fluent	fluent	fluent	fluent	fluent	fluent
fluent	fluent	fluent	fluent	fluent	fluent
good	average	good	average	average	average

Social skills and competences Leading projects, coaching teams, recruit personnel; working in international research media; collaboration with scientists with various research interests

Organisational skills & competences Leader of projects and research groups; member management and scientific committees

Technical skills and competences All spheres of *in vitro* cultures and genetic manipulations

Computer skills and competences Microsoft office (Word, Excel, PowerPoint), Internet, others

LEADERSHIP AND PARTICIPATION IN INTERNATIONAL PROJECTS

2011	EC COST ACTION FA0903 "Harnessing plant reproduction for crop improvement", MC member
2006 - 2009	Indo-Bulgarian Program, "Improvement of drought and salinity resistance in soybean applying <i>in vitro</i> and DNA technologies" (Leader)
2004-2005	EC COST ACTION 843 on Application of <i>in vitro</i> cultures for plant performance improvement, MC member
1997 - 2000	INCO-COPERNICUS-Project-IC15-CT96-1007, "CABINET" Biotechnology of Carbohydrates of Grain Legumes
1992	Biotech Project, supported by EC, Italian MA, ENEA, Rome, on Regulation of Carotenoid Biosynthesis
1995 - 1996	IAEA/FAO RTD Project. BUL 5-010 on Application of Induced Mutations for Crop Improvement
1985 - 1989	IAEA/FAO, Project for Technical Co-operation BUL/008. on Use of Nuclear Techniques in Agriculture
1990 - 1993	PGMG, Nottingham University, UK, on <i>Medicago</i> protoplast cultures. (Leader)
1987 -1990	National Chemical Laboratory, Puna, India, on Plant <i>in vitro</i> cultures. (Leader)
1987 -1990	Institute of Plant Physiology, Moscow, on Somatic embryogenesis. (Leader)
1986 - 1989	Institute of Experimental Botany, Olomouc, Czechoslovakia, on Selection for disease resistance at protoplast and cell level

LEADERSHIP AND PARTICIPATION IN NATIONAL PROJECTS

More than 15 Projects, 10 of them funded by Bulgarian Ministry of Sciences:

2010 -present	Development of resistance to biotic and abiotic stress and innovative methods for environment protection. (Leader)
2003–2006	<i>In vitro</i> modeling of biotic and abiotic stress in grain legumes. CC-1201 (Leader)
1998-2002	Development of alternative techniques for pea improvement B 813/98 (Leader)
1988-1991	Protoplast cultures and somatic hybridization. DKNT- 457. (Leader).
2007-2009	Study of biotic and abiotic stress <i>in vitro</i> and <i>in vivo</i> , BAS
1998-2002	New biological substances with growth regulation and pesticide activity. CC 816/98
1995-1999	Genetics and breeding for pea productivity and eco-adaptability. CC 540/95
1995-1998	Study on <i>in vitro</i> androgenesis in <i>Rubus</i> and <i>Aronia</i> . B 513/95
1994-1998	Genetic improvement of soybean by induced mutagenesis and selection. CC 412/94
1994-1998	Effect of some thio-carbamide derivatives on plant development. CC 434/94
1994-1998	Mechanisms of induced androgenesis in <i>Lycopersicon</i> . CC 431/94
1987-1990	<i>In vitro</i> cell selection, mutagenesis, somaclonal variation. DKNT-460
1986-1989	Micro-propagation of valuable and endangered species. DKNT-446

PARTICIPATION in SHORT COURSES

2006 May	How to Raise Capital with Realistic and Viable Biotech Business Plan, EuroBioBiz, Bulgaria
2004 December	Analysis of Stress Responsive Plant Genes, ICGEB, India
2000 May	Plant responses to biotic and abiotic stress, NATO/FEBS, France
1998 June, 1999 Jan	Management and Marketing Courses, "Aqua Source Int.", UK
1994 July	Management of research projects, "Swan Consultants Int.", UK
1988 May	<i>In vitro</i> manipulations of plant cells, ICRO, Bulgaria
1987 Sept-Oct	Mutagenesis <i>in vivo</i> and <i>in vitro</i> IAEA/FAO, Austria

RESEARCH EXPERIENCE

Since 1978 working on the establishment and development of *in vitro* techniques and their use in theoretical and applied studies for plant improvement, environmental protection and valuable substances production.

Experience and knowledge in all spheres of *in vitro* cultures and manipulations:

- establishment of morphogenic systems in callus, suspension and protoplast cultures;
- micropropagation of valuable plants, medicinal plants and endangered species;
- somaclonal variation in callus and protoplast cultures;
- *in vitro* mutagenesis using γ -rays irradiation of isolated protoplasts and meristem tissues;
- cell selection for biotic and abiotic stress in callus, suspension and protoplast cultures;
- modeling of plant stress *in vitro* using pathotoxins, pathogen fungal filtrate, herbicides, antibiotics, PEG.
- genetic manipulations using *Agrobacterium* mediated transformation,
- direct DNA transfer into protoplasts by electroporation;
- somatic fusion by PEG and electric field;
- application of bioinformatics and nanotechnology methods and approaches;
- methods in genetics, cytology, molecular biology (PCR, DNA isolation and recombination, gel electrophoresis etc) and others

accomplishing genetic manipulations.

Main objects of research: *Pisum*, *Glycine*, *Medicago*, *Nicotiana*, *Lycopersicon* and *Rhodiola* sps.

OTHER ACTIVITIES:

- FAO consultant on biotechnology and biosafety since 2001
- Expert on biosafety and biodiversity, Cartagena Protocol since 2006
- Member of the External Evaluation Board of the University of Mysore, India
- Member of the National Evaluation Jury
- Member of the Consulting Committee of the Bulgarian Academy of Sciences
- Member of the Managing Committee of COST Actions 843 and FA0903
- Member of the Editorial Board of the Journal of Genetics and Plant Physiology
- Reviewer of international and national journals
- Lecturer on biotechnology and genetics, Biotechnology College, Sofia; 1988, 1989
- Ph.D. and MS students' advisor, training of specialists, currently
- Secretary of the UNESCO Seminar on "Plant Cell Biotechnology", Sofia, 1992
- Member of Organizing and Scientific Committees,
- Consultant on algotherapy and healthy nutrition since 1997
- Consultants on network marketing, since 1997

PUBLICATIONS – 80

CITATIONS – 200

OUTCOMES OF THE RESEARCH

- Systems for pea, soybean and alfalfa efficient regeneration *in vitro* from callus and protoplast cultures.
- Genetic manipulations *in vitro* and *in vivo*, mutants, transformants, markers for selection.
- Modeling of biotic and abiotic stress, quick tests and screening for resistance.

In vitro systems for pea and soybean efficient plant regeneration were established allowing *in vitro* genetic manipulations for improvement of genetics, productivity, nutritional quality, environment safety.

In vitro cultures and micropropagation of the endangered medicinal plant *Rhodiola rosea* were achieved for conservation and restoration of the species and production of biologically active substances.

Highly efficient procedures for large scale isolation of *Medicago* protoplasts, induction of somatic embryogenesis, sustainable organogenesis and regeneration were developed. The protocols are essential for *in vitro* manipulations, genetic and physiological studies.

The effect of γ -rays irradiation, electrotreatment, antibiotics and pathotoxins on protoplast development was studied. Protocols for efficient induced mutagenesis and of DNA transfer by electroporation were elaborated. Applying induced mutagenesis and genetic transformation plant regenerants and protoplast clones resistant to antibiotics were selected serving as markers in genetic studies.

Transgenic tobacco and tomato plants were selected after *Agrobacterium tumefaciens* mediated transformation with genes for carotenoid biosynthesis. Molecular and genetic analysis of transgenic plants gave information for carotenoid pathways biosynthesis and its regulation.

Higher mutation frequency bringing to higher genetic variability in pea was achieved using combined (compared to single one) treatment with physical and chemical mutagens. A large number of mutant lines with useful breeding traits were selected.

The effect of novel thio-carbamide derivatives on pea development *in vitro* and *in vivo* was studied and radioprotective effect of these new substances was observed. The results are important for induced mutagenesis, anti-mutagenesis, and environmental protection.

Models for comparative *in vivo* and *in vitro* assessment of the tolerance of different genotypes and *in vitro* selection for disease, herbicide and drought resistance were established. Regenerants with higher stress resistance were selected. Electrophoresis profiling of stress related enzymes complemented the studies. These systems can be applied to other recalcitrant species and stress factors for shortening the breeding processes.

Nanotechnology approach is under development to study the effect substances in nano (and lower) concentrations using *in vivo* and *in vitro* plant systems.

LIST OF MAJOR PUBLICATIONS

Book chapters

1. Kostukova G., K. Tasheva. 2010. Women's Leadership in Plant Biotechnology and Related Sciences. Chapter 7. in "Feminism and Women in Leadership. Ed. V. Nardi, Nova Science Publishers, Inc. New York, 127-146.
2. **Kosturkova G. P.** 2008. Contribution of Bulgarian Women to Plant Biotechnology – the Institute of Genetics Case. In "Women in Biotechnology. Creating interfaces", Eds. F. Molfino and F. Zucco, SPRINGER Publ., 107-117
3. Griga M, **G. Kosturkova**, N. Kuchuk, M Ilieva-Stoilova. 2001. Biothechnology. Chapter 6 in "Carbohydrates in Grain Legume Seeds: Improving Nutritional Quality and Agronomic Characteristics" ed. C. Hedley, CABI Publishing, 145-207

Studies

4. **Kosturkova G. P.** 2006. Plant Breeding and Biotechnology Survey in Bulgaria. FAO ed, <http://apps3.fao.org/wiews/wiews.jsp>:
5. Robinson J., E. Zimnoch- Guzowska, **G. Kosturkova**. 2003. Status of Agricultural Biotechnology and Biosafety in Selected Countries of the Balkans, the Caucasus and Moldova. FAO ed, www.fao.org/sd/2003/KN07033_en.htm

Ph.D. Thesis

6. **Antonova G.P.** 1983. Selection of tetracycline and ampicillin resistant clones in protoplast cultures of alfalfa. Ph.D. Thesis. Moscow 1983.

Papers in Journals

1. Tasheva K, **G. Kostukova**. 2010. Bulgarian Golden root *in vitro* cultures, micropropagation, reintroduction. Central European Journal of Biology, 853-863
2. Tasheva K, **G. Kostukova**. 2010. *Rhodiola rosea in vitro* cultures peculiarities. Biotechnology, Bucharest, 103-111.
3. Sakthivelu G., Akita Devi M.K., Giridhar P., Rajasekaran T., Ravishankar G., Nikolova. M.T., Angelov G., Todorova, R, **Kosturkova G.** 2008. Isoflavone composition, phenol content, and antioxidant activity of soybean seeds from India and Bulgaria. Journal of Agricultural and Food Chemistry, 56, 6, 2090-2095. (IF 2.5).
4. Kosturkova G., R. Todorova, G. Sakthivelu. M. K. Akitha Devi, P. Giridhar, T. Rajasekaran, G. A. Ravishankar. 2008. Response of Bulgarian and Indian soybean genotypes to drought and water deficiency in field and laboratory conditions. Journal of General and Applied Plant Physiology, 34, 3-4, 239-250
5. Sakthivelu G., M. K. Akitha Devi, P. Giridhar, T. Rajasekaran, G. A. Ravishankar, T. Nedev, G. Kosturkova. 2008. Drought induced alterations in growth, osmotic potential and *in vitro* regeneration of soybean cultivars. Journal of General and Applied Plant Physiology, 34, 1-2, 103-112
6. Kosturkova G., A. Delinick. 2007. Development of Plant Model to Study Biological Effects of Nanodilutions. International Electronic Journal BIOAUTOMATION, Vol. 8, S1, 184-192. http://www.clbme.bas.bg/bioautomation/S1_4.6.pdf
7. Nedev T., R. Todorova, G. Kosturkova, M.K Akita Devi, G. Sakthivelu, P. Giridhar, T. Rajasekaran, G.A. Ravishankar. 2007. Variation in *in vitro* Morphogenic Response to Growth Regulators in Soybean Genotypes from India and Bulgaria. International Electronic Journal BIOAUTOMATION, Vol. 8, S1, 193-200. http://www.clbme.bas.bg/bioautomation/S1_4.7.pdf
8. Kosturkova G. T. Nedev, M. Dimitrova. 2006. Application of callus cultures of soybean (*Glycine max*) to study abiotic stress factors. Field Crops Studies (Bg), 3, 2, 245-249
9. Noveva S., N. Lazarova, G. Kosturkova, A. Mehandjiev. 2006. Study of toxicity of heavy metals in pea (*Pisum sativum* L.) using different methods. Field Crops Studies (Bg), 3, 3, 405-413.
10. Mehandjiev A., M. Mihov, S. Noveva, R. Rodeva, G. Kosturkova. 2006. Some results from the investigations in genetic improvement of pea (*Pisum sativum* L.). Field Crops Studies (Bg), 3, 3, 397-403.
11. Kosturkova G., M. Dimitrova, A. Mehandjiev. 2005. In vitro organogenic potential of new mutant lines of pea (*Pisum sativum*). Plant Science, 42, 3, 222-225
12. Rodeva R., G. Kosturkova, A. Mehandjiev. 2005. Searching for resistance to ascochyta blight in pea (*Pisum sativum*) by conventional and biotechnological methods and approaches. Plant Science, 42, 3, 226-230
13. Kosturkova G. 2003. Plant biotechnologies of XXI century – rescue of people. Ecological Engineering and Environmental Protection, 3, 60-65.
14. Mehandjiev A., G. Kosturkova, G. Vasilev, S. Noveva. 2002. Radioprotective effect of novel disubstituted thioureas on pea (*Pisum sativum*) development. Radiation Biology and Radioecology, 42, (6), 649-658.

15. Rodeva R., G. Kosturkova, I. Georgieva, A. Mehandjiev. 2001. Evaluation of pea genotypes for ascochyta blight resistance *in vivo* and *in vitro*. Beitrage zur Zuchtungsforschung. 7, 1, 47-51
16. Mehandjiev A., G. Kosturkova, M. Mihov. 2001. Enrichment of *Pisum sativum* gene resources through combined use of physical and chemical mutagens. Israel J. Plant Science, 49, 279-284
17. Kosturkova G. 2000. Development of *in vitro* regeneration systems of soybean tissue cultures. Plant Science, 37, 7-12
18. Rodeva R., G. Kosturkova, A. Mehandjiev. 2000. Comparative investigation of soybean reaction to *Sclerotium bataticola*. Plant Science, 37, 1-7
19. Vasilev G.N., A. Mehandjiev, P. Noveva, G. Kosturkova. 2000. Investigation of radioprotective effect of some new N,N'-disubstituted thioureas in *in vivo* and *in vitro* systems of *Pisum sativum* L. Comptes rendus de l'Academie bulgare des Sciences. 53, 4, 111-114
20. Mehandjiev, P. Noveva, G. Kosturkova. 1999. Induced mutations and their application in genetic improvement of pea. Pisum Genetics. 31, 24-27
21. Kosturkova G.P. 1998. Scheme for *in vitro* regeneration for *Lycopersicon esculentum* convenient for genetic transformation with *Agrobacterium tumefaciens*. Annuaire de l'Universite de Sofia "St. Kliment Ohridski" 88, 4, 282-285
22. Kosturkova G.P. 1998. Induced somatic embryogenesis in protoplast cultures of *Medicago* species and some factors influencing it. Annuaire de l'Universite de Sofia "St. Kliment Ohridski" 88, 4, 286-290
23. Kosturkova G.P., A.D. Mehandjiev, I. Dobreva, V. Tsvetkova 1997. Regeneration systems from immature embryos of Bulgarian pea genotypes. Plant Cell, Tissue and Organ Cultures 48: 139-142
24. Corona V., B. Aracri, G. Kosturkova, G.E. Bartley, L. Pitto, L. Giorgetti, P.A. Scolnik, G.Giuliano. 1996. Regulation of carotenoid biosynthesis gene promoter during plant development. The Plant Journal, 9, 4, 505-512
25. Kosturkova G.P. 1993. Protoplast cultures of alfalfa and their application in genetic manipulations *in vitro*. Biotechnology & BioE, 2, 40-42.
26. Kosturkova G.P. 1993. Foreign gene expression following electroporation of *Medicago* protoplasts. Biotechnology & BioE, 2, 43-46.
27. Jones B., Antonova-Kosturkova G., Vieira M.L.C., Rech E.L., Power J.B., Davey M.R.1993. High transient gene expression, with conserved viability, in electroporated protoplasts of *Glycine*, *Medicago* and *Stylosanthes* species. Plant Tissue Culture, 3, 2, 59-65.
28. Antonova-Kosturkova G.P. 1987. Morphogenesis in calli clones derived from alfalfa protoplasts. Genetics and Breeding, 20, 2, 171-175
29. Antonova-Kosturkova G.P. 1986. Isolation and cultivation of alfalfa protoplasts for cell selection purposes. Genetics and Breeding, 19, 15, 474-476.
30. Antonova G.P., Butenko R. 1983. Effect of γ -irradiation on alfalfa protoplast development. Radiobiology, v 23, 5, 700-703.
31. Bohorova N., Atanasov A., Antonova G.P. 1980. *In vitro* isolation of anthers from interspecific hybrids in the *Helianthus* genus. Compt. Rend. l'Academie Bulgare des Sciences. v. 33, 11, 1545-1548.

Papers in Conference Proceedings

32. Todorova R., G. Kosturkova 2010. Achievements, problems and perspectives in soybean breeding for drought resistance. Conference Scientific Reports "Breeding and Technological Aspects in Production and Use of Soybean and Other Grain Legumes" Ed. G. Georgiev, 2010, Pavlikeni, 27-36
33. Noveva S., A. Mehandjiev, G. Kosturkova. 2007. Radioprotective effect of humostim in pea - *in vivo* and *in vitro*". Proceedings International Conference "Plant Genefund – Basis of the Modern Agriculture" 13-14 June, 2007, Plovdiv, 2-3, 247-250
34. Kosturkova G. 2005. *In vitro* development of various soybean (*Glycine max*) explants from mature seeds. "Breeding and Technological Aspects in Production and Processing of Soybean and Other Legume Crops". Scientific Reports of the Jubilee Scientific conference (with international participation), 8-9 Sept. 2005 Pavlikeni, 94-99.
35. Kosturkova G., A. Mehandjiev, K. Tasheva, M. Ditrova, R. Rodeva, M. Mihov. 2005. Establishment of long-term organogenic cultures of pea (*Pisum sativum*) for crop improvement programs. Proceedings of the COST Action 843 conference, 29 June-2nd July, Stara Lesna, Slovakia, 66-68.
36. Kosturkova G., Angelov G., Rodeva R., Tchorbadjieva M., Mehandjiev A. 2003. *In Vitro* modelling of biotic stress - higher resistance of pea cultures to *Phoma medicaginis* var. *pinodella* culture filtrates. Proceedings V Int. Symposium "BioProcesses", 186-189
37. Kosturkova G., K. Tasheva, A. Mehandjiev. 2003. *In vitro* callogenesis and organogenesis in pea (*Pisum sativum*). Scientific Publications "TEHNOMAT and INFOTEL 2003" – Proceedings of Vth International Symposium, v. 4, (2), 121-127
38. Kosturkova G., R. Todorova, A. Angelova, A. Mehandjiev. 2003. Development of systems for test of soybean drought resistance in *in vitro* conditions. "Jubileum Scientific Conference – 120 years of Agrarian Science in Sadovo", 21-22 May, Plovdiv, v 3, 276-281.
39. Mehandjiev A., Kosturkova G., M. Mihov. 2003. Possibilities for genetic improvement of pea by *in vivo* and *in vitro* methods. Scientific Publications "TEHNOMAT and INFOTEL 2003" – Proceedings of Vth International Symposium, v. 4, (2), 128-137.

40. Mehandjiev A., G. Kosturkova, G. Vasilev, S. Noveva. 2002. Radioprotective effect of novel disubstituted thioureas on pea (*Pisum sativum*) development. *Radiation Biology and Radioecology*, 42, (6), 649-658. Also published in Proceedings of Int. Conference "Genetic Consequences of Emergency Radiation Situations", 10-13 June, Moscow, 106-120.
41. Kosturkova G., A. Mehandjiev. 2002 The role of grain legumes in modern diet and ecological farming. Proc. Natl. Conference "Space, Nature, Man – 2002", 8-11 Oct. 2002, Yambol. "Zelio Uchkov" Publ., v 1, 236-243
42. Mehandjiev A, M. Mihov, G. Kosturkova, R. Rodeva. 2002. Problems and achievements of genetic improvement of pea. in "Crop Breeding and Agrotechniques", Proceedings of Jubileum Scientific Conference "50 Years of "Dobrudja" Agrarian Institute" 31 May – 1 June 2001, v 1, 287-299.
43. Kosturkova G., R. Rodeva, A. Mehandjiev. 2001. *In vitro* selection systems for *Ascochyta pisi* and herbicide higher tolerance of pea. in "Towards the sustainable Production of Healthy Food Feed and Novel Products" ed. AEP, Proceedings of 4th European Conference on Grain legumes, 8-12 July. Cracow, Poland, 158-159
44. Kosturkova G.P., Mehandjiev A.D. 1998. In vitro cultures of leguminous species. in "Progress in Botanical Research" Proc. First Balkan Botanical Congress. Thessaloniki, eds I.Tsekos, M. Moustakas, Kluwer AP, Dordrecht, 529-532.
45. Antonova-Kosturkova G., Davey M.R. 1990. Somatic embryogenesis in cotyledon protoplast cultures of alfalfa. Proc. V Int. Conf. Genetics, Varna, Sept, 277-230.
46. Antonova-Kosturkova G.P. 1989. Protoplast cultures of alfalfa. Proc. V Scient. Symp. Plant Biotech. Balatonszeplak, Hungary, Sept., 1989, Abstr. Poster Proc, 2, 84-85
47. Antonova - Kosturkova G.P. 1989. Embryogenesis in mesophyll protoplast cultures of alfalfa. Proc. IV Int. Conf. Genetics, Varna, Sept, 376-380.
48. Antonova-Kosturkova G.P. 1989. Study on the *in vitro* culture response of alfalfa CMS lines and their maintainers. Proc. IX Natl. Conf. on Heterosis of plants, Sofia, Nov., 1988, 176-180.
49. Antonova-Kosturkova G.P.1988. Factors influencing isolation of alfalfa mesophyll protoplasts. Proc. Natl. Conf. Biology, Sept, Varna 1988, 315-318.
50. Antonova-Kosturkova G.P., Butenko R.G. 1987. Tetracycline resistance induced in alfalfa protoplasts, cultivated at different selective conditions. Proc. II Int. Symp. "Experimental Mutagenesis in Plants" Plovdiv, Oct. 1987, 270-274
51. Antonova-Kosturkova G.P., Negruk V., Butenko R.G. 1986. Effect of ampicillin on the development of protoplasts and callus tissue of alfalfa. Proc. III Conf. Genetics, Varna, Sept. 1986. 148-151.
52. Antonova G.P., Butenko R.G. 1983. Selection of tetracycline resistant clones in alfalfa protoplast cultures. Proc. IV Soviet Conf. Tissue Cult, Kishinev, Oct. 1983,167
53. Antonova G.P. 1983. Effect of tetracycline on alfalfa protoplast development. Proc. II Int. Conf. Genetics Varna, Nov.1982. BAS-Sofia 1983. 224-228
54. Antonova G.P. 1981 Protoplast cultures of alfalfa. Proceedings of IIIrd Scientific Conference of Bulgarian Ph.D. Students. Moscow. 200-204
55. Bohorova N., Atanasov A.I., Antonova G.P. 1979. Investigation in the use of *in vitro* techniques for overcoming sterility in remote hybrids in the genus of *Helianthus*. Proceedings of X National Meeting of TNTM. Sofia 1979, 269-272.