



## CURRICULUM VITAE

**Slavov Dimitar Georgiev**

(Family name, First Name, Second name)

**Currently:** *Assoc. prof. at the Institute of Electronics, Bulgarian Academy of Sciences(IE-BAS)*

**Nationality:** Bulgarian

**Office address:**

Institute of Electronics,  
 Bulgarian Academy of Sciences,  
 boul. Tzarigradsko shosse 72,  
 1784, Sofia, Bulgaria

**Phone:**

+359 878 13 71 81

**Fax:**

+359 2 975 32 01

**E-mail:**

*dimitar\_slavov@ie.bas.bg*

**Research Experience** (Years, Title and Position, Organization, laboratory):

2010 - now	Assoc. professor	(IE-BAS)	Coherent Spectroscopy Group of Laser Syatems laboratory; BF (Biophotonix lab. register);
2004 - 2010	research scientist I degree	(IE-BAS)	LCS (Laser Coherent Spectroscopy lab.);
2002 - 2004	research scientist II degree	(IE-BAS)	LCS (Laser Coherent Spectroscopy lab.);
1999 - 2002	research scientist III degree	(IE-BAS)	CML (Condensed Matter Lasers lab.);
1997 - 2001	PhD degree achievement	(IE-BAS)	"Physics of wave processes" (CML lab.)
1995 - 1999	Junior researcher	(IE-BAS)	CML (Condensed Matter Lasers lab.);
1994 - 1995	Technical assistant	(IE-BAS)	CML (Condensed Matter Lasers lab.);

**International Experience** (Country, Institution, Year, Duration):

- India,	University of Calcutta,	2013	- 2 months
	<i>(Theoretical modelling of specific representation of Velocity Selective Optical Pumping (VSOP) and Electromagnetically Induced Transparency (EIT) resonances in the fluorescence spectra from 6 μm-thick Cs vapor cells);</i>		
- Belgium,	KU Leuven, Leuven,	2011	- 2 weeks
	<i>(Investigation of the metal clusters formed at the inner surface of Rb vapor cell);</i>		
- India,	University of Calcutta,	2011	- 1 month
	<i>(Theoretical modelling of the absorption and fluorescence spectra in μm-thick Cs vapor cells);</i>		
- Belgium,	KU Leuven, Leuven,	2010	- 2 weeks
	<i>(Localised Surface Plasmon Resonances in nano-size gold nanostructures );</i>		
- Italy,	Istituto per i processi chimico-fisici (IPCF), Pisa,	2009	- 2 weeks
	<i>(Contrast optimization of magnetically sencitive EIT resonances in Potassium );</i>		
- India,	University of Calcutta,	2009	- 1 month
	<i>(Theoretical modelling of the absorption and fluorescence spectra in μm-thick Cs vapor cells);</i>		
- Serbia,	Institute of Physics, Belgrade,	2008	- 3 weeks
	<i>(Magnetic shielding system instalation and degaussing system design and test; coherent spectroscopy of Rb atoms in the μMetal shield );</i>		
- Italy,	Istituto per i processi chimico-fisici (IPCF), Pisa,	2008	- 2 weeks
	<i>(Coherent spectroscopy experiments in Potassium vapor cell );</i>		
- Italy,	Istituto per i processi chimico-fisici (IPCF), Pisa,	2007	- 2 weeks
	<i>(Coherent spectroscopy experiments in Potassium vapor cell );</i>		
- Switzerland,	Observatoire Cantonal de Neuchâtel,	2004	- 2.5 months
	<i>(Test of a novel line Laser Diodes for Rb cell spectroscopy and atomic clocks);</i>		

- Switzerland, Observatoire Cantonal de Neuchâtel, 2003 - 3 months  
(*Diode laser frequency stabilization - DFB, Fabry-Perot - using Rb cell*);
- France, Univercité Paris 13, SNRS, 1998 - 1 month  
(*Diode laser system for Rb Magneto-Optical Trap*);
- France, Univercité Paris 13, SNRS, 1997 - 1 month  
(*Ti:S laser frequency doubling for Rb Magneto-Optical Trap*);

**Contribution in scientific research projects** (Years, Project title, Project frame, Project promoters):

- 2012 - 2016 "*Coherent optics sensors for medical applications (COSMA)*"; 7th FP; promoted by Dr. Stefka Cartaleva IE-BAS;
- 2010 – 2012 "*Confinement of Atomic Vapors in Chiral Optical Metamaterials and Plasmonic Structures*"; BAS International Frame for Scientific Collaboration and FWO Grant Number: VS.040.10N; promoters: Dr. Ventsislav Valev, KU-Leuven, Belgium and Dr. Dimitar Slavov - IE-BAS, Sofia, Bulgaria;
- 2008 - 2010 "Coherent population trapping study aimed at miniaturization of photonics sensor"; BAS International Frame for Scientific Collaboration; promoted by Dr. Stefka Cartaleva, IE-BAS and Dr. Brana Yelenkovic, Institute of Physics, Belgrade, Serbia;
- 2008 - 2010 „*All-optical diode laser based magnetometer: miniaturization and parameters optimization*"; Bulgaria-India Intergovernmental frame for collaboration in science and technology; promoted by Dr. Stefka Cartaleva, IE-BAS and Prof. Pradip Narayan Ghosh, University of Calcutta, India;
- 2007 - 2009 "*Study of atomic vapor layers of nanometric thickness and atom-surface interaction*"; EU-INTAS program; promoted by Dr. Stefka Cartaleva, IE-BAS; <http://www.nanowerk.com/news/newsid=16602.php>
- 2007 - 2008 "*Spectroscopy of gas-phase atomic nano-layers: atom-surface interactions and coherent effects*"; "RILA" Sofia University and Ministry of education, with Institut Galilee, Univercité Paris 13, promoted by Prof. Solomon Satiel - Sofia University and Prof. Daniel Bloch - Univercité Paris 13, SNRS, France;
- 2007 - 2009 "Coherent Population Trapping Effect in Potassium" - extinction; BAS International Frame for Scientific Collaboration; promoted by Dr. Stefka Cartaleva, IE-BAS and Dr. Silvia Gozini, CNR, Pisa Italy;
- 2005 - 2007 "Coherent Population Trapping Effect in Potassium"; BAS International Frame for Scientific Collaboration; promoted by Dr. Stefka Cartaleva, IE-BAS and Dr. Silvia Gozini, CNR, Pisa Italy;
- 2005 - 2007 "*High resolution spectroscopy in quantum optics and metrology*"; BAS International Frame for Scientific Collaboration; promoted by Dr. Stefka Cartaleva, IE-BAS and Dr. Brana Yelenkovic, Institute of Physics, Belgrade, Serbia;
- 2004 - 2005 "*Spectroscopy of gas-phase atomic nano-layers: atom-surface interactions and coherent effects*"; "RILA" Sofia University and Ministry of education, with Institut Galilee, Univercité Paris-13; promoted by Prof. Solomon Satiel - Sofia University and Prof. Daniel Bloch - Univercité Paris 13, SNRS, France;
- 2002 - 2004 "*Frequency controlled laser diodes for high-resolution coherent atomic spectroscopy*"; SCOPES 7 - BUPJ062412; promoter: Dr. Pierr Thoman, co-promoter: Dr. Gaetano Mileti, Observatoire de Neuchatel, Neuchatel, Switzerland;
- 2001 - 2004 "*New all-Optical systems and methods for precise magnetic and electromagnetic field measurements*", EU contract № G6RD-CT-2001-00642; promoted by Dr. Luigi Moi, University of Siena, Italy and Dr. Stefka Cartaleva, IE-BAS; <http://www3.unisi.it/fisica/newmagn/people/sofia.htm>

**Teaching Experience** (Years, Title and Position, Organization, laboratory):

1994-1998 Laboratory Exercise Supervisor (Technical University - Sofia, branch Plovdiv)  
"Lasers and laser techniques: Parts 1,2", 4 h/day, 2 days/w;  
Student's projects supervisor (6 students);

**Organized scientific events:**

2010 - 16<sup>th</sup> International School on Quantum Electronics, "Laser physics and applications",  
September 2010 Nessebar, Bulgaria

**Membership in professional societies:**

Member of SPIE, the international society for optics and photonics;

**List of publications** (Authors, Title, Journal, DOI, SJR, ISI IF):

- Dey, S., Ray B., Ghosh, P.N., Cartaleva S., Slavov, D.,  
**Investigation of high-contrast velocity selective optical pumping resonance at the cycling transition of Cs using fluorescence technique.**  
[Optics Communications](#), Elsevier, 356,1 December (2015), pp. 378 - 388  
DOI:10.1016/j.optcom.2015.08.013. SJR:0.694, IF:1.449
- Krasteva, A., Ray, B., Slavov, D., Todorov, P., Ghosh, P. N., Mitra, S., Cartaleva, S.,  
**Observation and theoretical simulation of electromagnetically induced transparency and enhanced velocity selective optical pumping in cesium vapour in a micrometric thickness optical cell.**  
[Journal of Physics B Atomic Molecular and Optical Physics](#), 47, 175004, (2014), pp. 1 - 12.  
DOI:10.1088/0953-4075/47/17/175004, SJR:0.964, IF:1.98
- Slavov, D., Sargsyan, A., Sarkisyan, D., Mirzoyan, R., Krasteva, A., Wilson-Gordon, A. D., Cartaleva, S.,  
**Sub-natural width N-type resonance in cesium atomic vapour: Splitting in magnetic fields.**  
[Journal of Physics B Atomic Molecular and Optical Physics](#), 47, 3, (2014), pp.1 - 8  
DOI:10.1088/0953-4075/47/3/035001. SJR:0.964, IF:1.98
- Cartaleva S., Krasteva A., Moi L., Sargsyan A., Sarkisyan D., Slavov D., Todorov P., Vaseva K.,  
**Laser spectroscopy of sub-micrometre-and micrometre-thick caesium-vapour layers.**  
[Quantum Electronics](#), IOP Publishing, 43, 9, 2013, pp. 875 - 884  
DOI:10.1070/QE2013v043n09ABEH014772. SJR:0.509, IF: 0.897.
- Sargsyan, A., Leroy, C., Pashayan-Leroy, Y., Sarkisyan, D., Slavov, D., Cartaleva, S.,  
**Electromagnetically Induced Transparency and optical pumping processes formed in Cs sub-micron thin cell.**  
[Optics Communications](#), Elsevier, 285, 8, (2012), pp. 2090 - 2095.  
DOI:10.1016/j.optcom.2012.01.002, IF:1.438
- Todorov, P., Slavov, D., Vaseva, K., Taslakov, M., Cartaleva, S., Saltiel, S.,  
**High-resolution spectroscopy of a cesium-vapor layer with micrometric thickness for the development of frequency reference.**  
[Physica Scripta](#), IOP Publishing, T149, (2012), pp. 1 - 3.  
DOI:10.1088/0031-8949/2012/T149/014014, IF:1.032
- S. Mitra, M.M. Hossain, B. Ray a, P.N. Ghosh, S. Cartaleva, D. Slavov,  
**On line shape of electromagnetically induced transparency in a multilevel system.**  
[Optics Communications](#), 283, (2010), pp. 1500–1509  
DOI:10.1016/j.optcom.2009.11.088, IF:1.517

Slavov, D.G., Cartaleva, S.S., Sarkisyan, D., Ghosh, P.N., Ray, B., Mitra, S.,  
**Rubidium vapor cell miniaturization-influence on the optical pumping process.**  
[Indian Journal of Physics](#), 84, 8, Springer, (2010), pp. 1083 - 1093.  
ISSN:09731458, IF:0.291

Steflekova, V., Slavov, D., Zhechev, D., Todorov, G.,  
**Two Self-Sustained Unstable Modes for Operation of a Hollow Cathode Discharge.**  
[Spectroscopy Letters](#), Taylor & Francis Group, 43, 3, (2010), pp. 167 - 171.  
DOI:10.1080/00387010903284315, SJR:0.25, IF:0.612

Gozzini, S., Cartaleva, S., Lucchesini, A., Marinelli, C., Marmugi, L., Slavov, D., Karaulanov, T.,  
**Coherent population trapping and strong electromagnetically induced transparency resonances on the D1 line of potassium.**  
[European Physical Journal D](#), Springer, 53, 2, (2009), pp. 153 - 161.  
DOI:10.1140/epjd/e2009-00126-5, SJR:0.521, IF:1.42

Steflekova, V., Slavov, D., Zhechev, D., Dimova, E., Todorov, G.,  
**Magneto-Galvanic resonances in hollow cathode discharge lamps.**  
[Spectroscopy Letters](#), Taylor & Francis Group, 42, 8, (2009), pp. 513 - 518.  
DOI:10.1080/00387010903022426, SJR:0.25, IF:0.585

Zhechev, D., Todorov, G., Steflekova, V., Slavov, D., Polischuk, V., Gorbenko, A.,  
**Self-alignment and conductivity of a glow discharge.**  
[Journal of Physics B: Atomic, Molecular and Optical Physics](#), 42, 3, (2009), pp. 1 - 4.  
DOI:10.1088/0953-4075/42/3/035701, SJR:0.964, IF:1.91

Affolderbach, C., Andreeva, C., Cartaleva, S., Karaulanov, T., Mileti, G., Slavov, D.,  
**Light-shift suppression in laser optically pumped vapour-cell atomic frequency standards.**  
[Applied Physics B: Lasers and Optics](#), Springer, 80, 7, (2005), pp. 841 - 848.  
DOI:10.1007/s00340-005-1804-7, SJR:0.999, IF:2.167

Delev, A., Deneva, M., Nenchev, M., Stoykova, E., Slavov, D.,  
**Tunable subnanosecond pulse generation in a dye laser using overlapped pump pulses.**  
[Review of Scientific Instruments](#), AIP Publishing, 72, 3, (2001), pp. 1640 - 1648.  
DOI:10.1063/1.133132, SJR:0.784, IF:1.61

Slavov, D.,  
**Controlled two-pulse generation in Q-switch mode from a single laser using Q-modulator with frustrated total internal reflection.**  
[Applied Physics B: Lasers and Optics](#), Springer, 73, 7, (2001), pp. 677 - 685.  
DOI:10.1007/s003400100682, SJR:0.694, IF:1.86

Slavov, D.G., Nenchev, M.N.,  
**A comparative study of approaches for spectral control of Ti:sapphire pulsed lasers.**  
[Optics Communications](#), Elsevier, 200, 1-6, (2001), pp. 283 - 301.  
DOI:10.1016/S0030-4018(01)01468-, SJR:0.694, IF:1.45

Delev, A., Deneva, M., Nenchev, M., Stoykova, E., Slavov, D.,  
**Tunable subnanosecond pulse generation in a dye laser using overlapped pump pulses.**  
[Review of Scientific Instruments](#), AIP Publishing, 72, 3, (2001), pp. 1640 - 1648.  
DOI:10.1063/1.133132, SJR:0.784, IF:1.61

Slavov, D., Deneva, M., Stoykova, E., Nenchev, M., Barbé, R., Keller, J.-C.,  
**Output control of a ring laser using bi-directional injection: A new approach for unidirectional pulse generation at a reference atomic absorption line.**  
[Optics Communications](#), Elsevier, 151, 1-6, (1998), pp. 343 - 351.  
DOI:10.1016/S0030-4018(98)00483-0, SJR:0.694, IF:1.45

Deneva, M., Slavov, D., Stoykova, E., Nenchev, M.,  
**Improved passive self-injection locking method for spectral control of dye and Ti:Al<sub>2</sub>O<sub>3</sub> lasers using two-step pulse pumping.**  
Optics Communications, Elsevier, 139, 4-6, (1997), pp. 287 - 298.  
DOI:10.1016/S0030-4018(97)00022-9, SJR:0.694, IF:1.45

**Conferences: publications in refereed proceedings** (Authors, Title, Journal, DOI, SJR, ISI IF):

**2015:**

Daskalova, A., Nathalab, C., Bliznakova, I., Slavov, D., Husinsky W.,  
**Estimation of ultrashort laser irradiation effect over thin transparent biopolymer films morphology.**

Proceedings of SPIE, 9447, 94470I, 2015, pp. 1 - 7

DOI:10.1117/12.2177662. SJR:0.212

Ghosh, P.N., Mitra, S, Ray, B., Krasteva, A., Slavov, D., Todorov, P., Cartaleva, S.,  
**Velocity anisotropy effect in pump-probe spectra of cesium in a micrometric thickness optical cell.**

Proceedings of SPIE, 9447, 944703, 2015, pp. 1 - 10.

DOI:10.1117/12.2178819, SJR:0.212

Krasteva, A., Slavov, D., Sargsyan, A., Sarkisyan, D., Wilson-Gordon, A. D., Cartaleva, S.,  
**Two-photon resonance on the D2 line of Cs enhanced by optical pumping.**

Journal of physics conference series, IOP Publishing, 594, 012009, 2015, pp. 1 - 10

DOI:10.1088/1742-6596/594/1/012009. SJR:0.217

**2013:**

Krasteva, A., Slavov, D., Todorov, G., Cartalev, S..

**Velocity selective optical pumping resonance sign reversal.**

Proceedings of SPIE, 8770, 2013, pp. 1 - 11

DOI:10.1117/12.2013506, SJR:0.212

Slavov, D., Krastev, A., Cartalev, S.,

**Bi-chromatic spectroscopy in micrometric optical cells.**

Proceedings of SPIE, 8770, 87700L, 2013, pp. 1 - 8.

DOI:10.1117/12.2013432, SJR:0.212

**2012:**

Cartaleva, S., Krasteva, A., Sargsyan, A., Sarkisyan, D., Slavov, D., Vartanyan, T.,

**High resolution spectroscopy of Cs vapor confined in optical cells of few-micron thicknesses.**

Journal of Physics: Conference Series, IOP Publishing, 397, 1, 2012, pp. 1 - 6.

DOI:10.1088/1742-6596/397/1/012062, SJR:0.217

**2011:**

Krasteva, A, Slavov, D, Cartaleva, S.

**Coherent Population Trapping Resonances in Cs atomic Vapor Layers of Micrometric Thickness.**

International Journal of Optics, Hindawi Publishing Corporation, 2011, 683415, 2011, pp. 1 - 11.

DOI:doi:10.1155/2011/683415, SJR:0.305

Cartaleva, S., Sargsyan, A., Sarkisyan, D., Slavov, D., Vaseva, K.,

**New narrow resonance in the fluorescence of closed optical transition observed in nanometric Cs - vapor layers.**

Proceedings of SPIE, 7747, 2011, pp. 1 - 6.



DOI:10.1117/12.885689, SJR:0.212

Baranov, A., Cherevko, S., Polischuk, V., Slavov, D., Petrov, L., Todorov, G.,  
**Fluorescence from Pb<sub>1-x</sub>Cd<sub>x</sub>Se polycrystalline films excited by non-monochromatic light at  $\lambda_{\max} \approx 0.9 \mu\text{m}$ .**

Proceedings of SPIE, 7747, 2011, pp. 1 - 6.

DOI:10.1117/12.882786, SJR:0.212

Gozzini, S., Marmugi, L., Slavov, D., Lucchesini, A., Cartaleva, S.,  
**Coherent Population Trapping resonances in potassium with amplitude-modulated light.**

Proceedings of SPIE, 7747, 2011, pp. 1 - 8.

DOI:10.1117/12.885314, SJR:0.212

## 2009:

Biancalana, V., Cartaleva, S., Dancheva, Y., Gosh, P.N., Mariotti, E., Mitra, S., Moi, L., Petrov, N., Ray, B., Sarkisyan, D., Slavov, D.,

**Population loss in closed optical transitions of Rb and Cs atoms confined in micrometric thin cells.**

Acta Physica Polonica A, 116, 4, Polish Academy of Sciences Publishing House, 2009, pp. 495 - 497.

ISSN:0587-4246, SJR:0.273, IF:0.433

Gozzini, S., Cartaleva, S., Karaulanov, T., Lucchesini, A., Slavov, D.,

**Coherent population trapping on the second resonance line of potassium.**

Acta Physica Polonica A, 116, 4, Polish Academy of Sciences Publishing House, 2009, pp. 492 - 494.

ISSN:0587-4246, SJR:0.273, IF:0.433

Gozzini, S., Slavov, D., Cartaleva, S., Marmugi, L., Lucchesini, A.,

**Analysis of high efficiency electromagnetically induced transparency in potassium vapor.**

Acta Physica Polonica A, 116, 4, Polish Academy of Sciences Publishing House, 2009, pp. 489 - 491.

ISSN:0587-4246, SJR:0.273, IF:0.433

Vaseva, K., Todorov, P., Cartaleva, S., Slavov, D., Saltiel, S.,

**Investigation of the fluorescence spectra of Cs-vapor layers with nanometric thickness.**

Acta Physica Polonica A, 116, 4, 2009, pp. 573 - 575.

ISSN:05874246, SJR:0.273, IF:0.433

Slavov, D., Petrov, L., Balabas, M., Domelunksen, V., Polischuk, V., Todorov, G.,  
**Polarization Analysis of nonlinear magneto-optical resonances in <sup>87</sup>Rb fluorescence.**

Comptes Rendus de L'Academie Bulgare des Sciences, 62, 9, 2009, pp. 1067 - 1072.

ISSN:13101331, SJR:0.21, IF:0.204

## 2008:

Gateva, S., Alipieva, E., Domelunksen, V., Polischuk, V., Taskova, E., Slavov, D., Todorov, G.,  
**Shape of the coherent-population-trapping resonances registered in fluorescence at different experimental geometries.**

Proceedings of SPIE, 7027, 2008, pp. 1 - 12

DOI:10.1117/12.822456, SJR:0.212.

Grujić, Z.D., Mijailović, M.M., Slavov, D.G., Arsenović, D., Jelenković, B.M.,

**Nonlinear magneto-optical rotation narrowing due to Ramsey effect induced by thermal motion of atoms.**

Proceedings of SPIE, 7027, 2008, pp. 1 - 6.

DOI:10.1117/12.822460, SJR:0.212.

Gozzini, S., Cartaleva, S.S., Slavov, D.G., Marmugi, L., Lucchesini, A..  
**Coherent spectroscopy in Potassium vapor with amplitude modulated light.**  
Proceedings of SPIE, 7027, SPIE, 2008, pp. 1 - 8.  
DOI:10.1117/12.822458, SJR:0.212.

Slavov, D., Petrov, L., Arsov, V., Steflekova, V., Gorbenko, A., Polischuk, V., Zhechev, D.,  
Mihailov, N., Todorov, G.,  
**Magneto-galvanic signals and ionization processes in a neon hollow cathode discharge.**  
Journal of physics conference series, , IOP Publishing, 113, 12008, pp. 1 - 4.  
DOI:10.1088/1742-6596/113/1/012009, SJR:0.217

## 2007:

Slavov, D., Bevilacqua, G., Biancalana, V., Cartaleva, S., Dancheva, Y., Karaulanov, T., Moi,  
L., Petrov, N., Yanev, A.,  
**Coherent population trapping for continuous and alternating magnetic fields  
measurements.**  
AIP Conference Proceedings, 899, 2007, 175 - 176.  
DOI:10.1063/1.2733093, SJR:0.152

Vaseva, K., Todorov, P., Slavov, D., Cartaleva, S., Koynov, K., Saltiel, S.,  
**Fluorescence spectra study in extremely thin Cs-vapor layers.**  
Acta Physica Polonica A, 112, 5, Polish Academy of Sciences edition, 2007, 865 - 870.  
ISSN:05874246, SJR:0.273, IF:0.321

Cartaleva, S., Karaulanov, T., Petrov, N., Slavov, D., Vaseva, K., Yanev, A., Mijailovic, M.,  
Grujic, Z., Jelenkovic, B.M.,  
**All-optical magnetometer based on resonant excitation of rubidium atoms by frequency  
modulated diode laser light.**  
Acta Physica Polonica A, Polish Academy of Sciences edition, 112, 5, 2007, pp. 871 - 876.  
ISSN:05874246, SJR:0.273, IF:0.321

Gorbenko, A., Kuzmin, A., Polischuk, V., Slavov, D., Petrov, L., Borisova, E., Todorov, G.,  
**Peculiarities of the magneto-optical resonances on 2p<sup>5</sup>3s states in a Ne glow discharge.**  
Proceedings of SPIE, 6726, 2007, pp. 1 - 10.  
DOI:10.1117/12.751794, SJR:0.212

Karaulanov, T., Yanev, A., Cartaleva, S., Slavov, D., Petrov, N., Mijailovic, M.M., Grujic, Z.D.,  
Krmopot, A.J.,  
**Coherent population trapping resonances on the D1 line of rubidium.**  
Proceedings of SPIE, 6604, 2007, pp. 1 - 5.  
DOI:10.1117/12.726881, SJR:0.212

Petrov, L., Slavov, D., Arsov, V., Domelunksen, V., Polischuk, V., Todorov, G.,  
**High rank polarization moments in a Doppler broadened 87Rb transition.**  
Proceedings of SPIE, 6604, 2007, pp. 1 - 8.  
DOI:10.1117/12.726888, SJR:0.212

Petrov, L., Slavov, D., Arsov, V., Gorbenko, A., Steflekova, V., Polischuk, V., Zhechev, D.,  
Todorov, G.,  
**Self-induced coherence and conductivity of glow discharge.**  
Proceedings of SPIE, 6604, 2007, pp. 1 - 5.  
DOI:10.1117/12.726890, SJR:0.212

### 2006:

Polischuk, V., Petrov, L., Slavov, D., Domelunksen, V., Todorov, G.,  
**Stray magnetic field influence on coherent population trapping resonances.**  
Proceedings of SPIE, 6257, 2006, pp. 1 - 9.  
DOI:10.1117/12.677961, SJR:0.212

### 2005:

Alipieva, E., Andreeva, C., Avramov, L., Bevilaqua, G., Biancalana, V., Borisova, E., Breschi, E., Cartaleva, S., Dancheva, Y., Gateva, S., Karaulanov, T., Lammegger, R., Moi, L., Petrov, L., Petrov, N., Slavov, D., Taskova, E., Todorov, G., Windholz, L., Yanev, A.,  
**Coherent population trapping for magnetic field measurements.**  
Proceedings of SPIE, 5830, 27, 2005, pp. 170 - 175.  
DOI:10.1117/12.617773, SJR:0.212

Slavov, D., Affolderbach, C., Mileti, G.,  
**Spectral characterisation of tuneable, narrow-band diode lasers for Rb atomic spectroscopy and prec on instruments.**  
Proceedings of SPIE, 5830, 2005, pp. 281 - 285.  
DOI:10.1117/12.618817, SJR:0.212

Varzhapetyan, T., Sarkisyan, D., Petrov, L., Andreeva, C., Slavov, D., Saltiel, S., Markovski, A., Todorov, G., Cartaleva, S.,  
**Sub-Doppler spectroscopy and coherence resonances in submicron Cs vapour layer.**  
Proceedings of SPIE, 5830, SPIE, 2005, pp. 196 - 200.  
DOI:10.1117/12.618447, SJR:0.212

### 2004:

Affolderbach, C., Andreeva, C., Cartaleva, S., Karaulanov, T., Mileti, G., Slavov, D.,  
**Light shift reduction in atomic clocks.**  
Proceedings of SPIE, 5449, 2004, pp. 342 - 349.  
DOI:10.1117/12.563196, SJR:0.212

Affolderbach, C., Andreeva, C., Cartaleva, S., Mileti, G., Slavov, D.,  
**Frequency stability comparison of diode lasers locked to Doppler and sub-Doppler resonances,**  
Proceedings of SPIE, 5449, 2004, pp. 396 - 403.  
DOI:10.1117/12.563212, SJR:0.212

Todorov, G., Petrov, L., Slavov, D., Polischuk, V., Chaika, M.P.,  
**Influence of a parasitic magnetic field on the coherence resonances in a strong laser field.**  
Proceedings of SPIE, 5449, 2004, pp. 380 - 387.  
DOI:10.1117/12.563208, SJR:0.212

### 2003:

Polischuk, V.A., Todorov, G.Tz., Chaika, M.P., Slavov, D.G.,  
**Hanle Absorption Resonances with Laser Excitation of the Neon 3s 2-2p 4 Transition.**  
Proceedings of SPIE, 5226, 2003, pp. 144 - 148.  
DOI:10.1117/12.519393, SJR:0.212

Todorov, G., Chaika, M.P., Polischuk, V.A., Petrov, L., Georgiev, S., Slavov, D., Arsov, V.,  
**Magnetic Resonance in a Strong Laser Field.**  
Proceedings of SPIE, 5226, 2003, pp. 139 - 143.  
DOI:10.1117/12.519391, SJR:0.212



Todorov, G., Sabotinov, N., Telbizov, P., Petrov, L., Slavov, D., Arsov, V., Yordanova, Z.. **Laser Induced Galvanic Signals from Se, Ar and Ne ion Transitions in a hollow cathode discharge.**

Proceedings of SPIE, 5226, 2003, pp. 159 - 163.

DOI:10.1117/12.519396, SJR:0.121

Stoykova, E., Slavov, D., Uzunov, T.,

**Reflection of laser light from a human enamel-dentin structure.**

Proceedings of SPIE, 4397, 2001, pp. 420 - 424.

DOI:10.1117/12.425178, SJR:0.212

### 2001:

Bahnev, Bl., Slavov, D., Nenchev, M.,

**On the analytical possibilities of the intracavity laser spectroscopy technique for Hg and Pb pollution detection.**

Proceedings of SPIE, 4397, 2001, pp. 236 - 240.

DOI:10.1117/12.425141, SJR:0.212,

Slavov, D.,

**Dual-pulse pumping of PSIL-controlled Ti: Sapphire lasers: A technique for realization and control of the pumping.**

Proceedings of SPIE, 4397, 2001, pp. 64 - 68.

DOI:10.1117/12.425191, SJR:0.212

### 1999:

Delev Andrey,, Slavov Dimitar,, Deneva Margarita, Stoykova Elena, Nenchev Marin,

**Tunable subnanosecond pulse generation in a ring dye laser bi-directionally pumped by overlapped nanosecond pulses.**

Proceedings of SPIE, 3571, 1999, pp. 117 - 120.

DOI:10.1117/12.347599, SJR:0.212

Slavov Dimitar, Nenchev Marin,

**Study of two-wavelength generation in a Ti:Al<sub>2</sub>O<sub>3</sub> laser controlled by injection from a coupled two-wavelength laser: comparison with a simple amplification.**

Proceedings of SPIE, 3571, 1999, pp. 121 - 125.

DOI:10.1117/12.347600, SJR:0.212

### 1996:

Nenchev, M., ., Deneva, M., Slavov, D., Stoykova, E.

**Qualitative improvement of the passive self-injection locking method for spectral control of dye and Ti:Al<sub>2</sub>O<sub>3</sub> lasers by dual-pulse pumping.**

Lasers and Electro-optics Europe, 1996. CLEO/Europe., Conference on, IEEE, 1996, p. 278

DOI:10.1109/CLEOE.1996.562478., SJR:0.1

Slavov, D., Deneva, M., Stoykova, E., Nenchev, M., Barbe, R., Keller, J.C.,

**Novel technique for dye and Ti:Al<sub>2</sub>O<sub>3</sub> ring lasers frequency locking at atomic absorption lines using bi-directional injection and two-step pumping.**

Lasers and Electro-optics Europe, 1996. CLEO/Europe., Conference on, IEEE, 1996,

DOI:10.1109/CLEOE.1996.562226, 149 - 149. SJR:0.1