



Name: **DAVOUD** Surname: **DORRANIAN**
 Sex: **Male** Date of birth: **15/10/1962**
 Place of birth: **Tehran, Iran** Nationality: **Iranian**

RESUME

Present Status: **Ph.D., Professor**
 Major subject: **Laser-Plasma Physics**
 Affiliation: **Plasma Physics Research Center (PPRC), Science and Research Branch, I. Azad University, Tehran (14736), Iran, at www.srbiau.ac.ir.**
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Academic Records:

B.Sc. in Applied Physics	UrmiaUniversity (Urmia-Iran)	1988-1992
M.Sc. in Atomic Physics(Plasma)	I. AzadUniversity (Tehran-Iran)	1992-1995
Ph.D. in Plasma Physics	UtsunomiyaUniversity(Utsunomiya, Japan)	2000-2003

Positions:

Professional Researcher	Tokamak Team	PlasmaPhysicsResearchCenter (I.AzadUniversity, Tehran, Iran)	1994 to 2000
Faculty Staff Member	Physics Department	I. AzadUniversity (South of Tehran Branch, Tehran, Iran)	1995 to 2000
Assistant Professor	Laser- plasma lab.	PlasmaPhysicsResearchCenter (I.AzadUniversity, Tehran, Iran)	2003 to 2008
Associate Professor	Laser- plasma lab.	PlasmaPhysicsResearchCenter (I.AzadUniversity, Tehran, Iran)	2008 to 2015
Research Director	PPRC	PlasmaPhysicsResearchCenter (I.AzadUniversity, Tehran, Iran)	2004 to 2014
Chief Editor	JTAP	Journal of Theoretical and Applied Physics (www.jtaphys.com)	2004 to now
Full Professor	Laser- plasma lab.	PlasmaPhysicsResearchCenter (I.AzadUniversity, Tehran, Iran)	2015 to now

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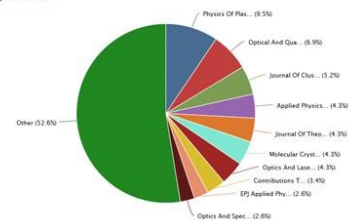
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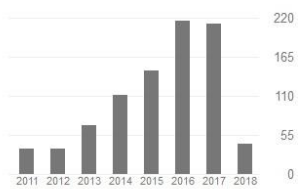
Davoud Dorrnian

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Study Experience:**Master:**

- Basic Plasma Phenomena.
- Magnetically Confined Fusion Plasma (On IR-T1 Tokamak).
Master Thesis: Measuring Electrons Temperature from Electron Cyclotron Emission in IR-T1 Tokamak.(Experimental in Persian)
Supervisor: Professor Mahmood Ghoranneviss

Ph.D.:

- CPA Lasers.
- Laser Plasma (magnetized and unmagnetized) interaction phenomena.
- Plasma Based Accelerators.
Ph.D. Thesis: On the Radiation Phenomena from the Ultra-Short laser pulse and Magnetized Gas Jet Plasma Interaction.(Experimental in English)
Supervisor: Professor Yasushi Nishida

Scientific Societies Membership:

- Iran Physics Society.
- American Physics Society (APS). Division of Plasma Physics and Laser.

Experimental and design skills:

- Working with Electron Cyclotron Emission receiver for IR-T1 Tokamak.
 - Working with Electromagnetic wave guiders and receivers.
 - Working with different kind of laser sources. Familiar with: He-Ne, Nd-YAG, Ti-Sapphire, CO₂, N₂.
 - Working on different experiment for focusing laser beam on gas jet flows and do synchronizing in femto-second range.
 - Familiar with turbo molecular and rotary vacuum pumps and Pirani, Penning and ionization high pressure vacuum gages. Designing vacuum interface, flanges, coupling and so on.
 - Familiar with all kinds of digital and analogous oscilloscopes, boxcar average systems, RF sources, delay generators, high voltage power supplies.
 - Comfortable to work with different types of machine tools like lathe, vertical lathe, brazing *etc.*
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General Skills:

- Computer Programs: Matlab, Maple, Designer, Microsoft Office (Word, Power Point, Excel, Front Page), Acrobat (Adobe, Illustrator), Latex and Revtex,
 - Simulating Physical problems using Monte Carlo simulation method.
 - Languages: Persian (Mother language), English (speaking, reading and writing), Japanese (speaking).
-

Current Lectures:

- Physics of Laser & Plasma Interaction (For Ph. D. students).
 - Photonics (For Ph. D. students).
 - Nonlinear Optics (For Ph. D. students).
 - Physics of Advanced Plasma Based Accelerators (For Ph. D. students).
 - Electrodynamics (For M. Sc. students).
 - Numerical Physics (For M. Sc. & undergraduate students).
 - Laser (For M. Sc. & undergraduate students).
 - Mathematical Methods for Physicists (For undergraduate & M. Sc. students).
 - Electromagnetism (For under graduate students).
-

Other important activities:

- Designing and establishment the cold and industrial plasma lab. in PPRC.
- Designing and establishment the biotechnology Lab. in PPRC.
- Designing and establishment the high power lasers Lab. in PPRC.
- Designing and establishment the handmade lasers Lab. in PPRC.
- Founding the Journal of Theoretical and Applied Physics which is now a member of Springer at www.jtaphys.com.
- Founding the Plasma Fanavaran Co. for establishment of plasma based waste treatment power plant in Iran.

-

Presentations

- P. Khorshid, D. Dorrnanian, M. Ghoranneviss; *Study of RHF on MHD behavior by local electron temperature of plasma*, Iranian Annual Physics Conf., Mashad Uni., Mashad, Iran (27-30 Aug. 1996).
- M. Masnavi, D. Dorrnanian, M. Ghoranneviss; *β Limiting in the IranTokamak 1*, 24th IEEE Int.Conf.on Plasma Sci., San Diego Uni., San Diego, USA (19-22 May 1997).*
- M. Masnavi, D. Dorrnanian, M. Ghoranneviss; *Plasma light impurity source of radiation in the IranTokamak 1*, 23rd Int. Conf. In Phenomena of Ionized Gases, Toulouse, France (17-22 July 1997).*
- M. Masnavi, D. Dorrnanian, M. Ghoranneviss; *Interpretation of harddisruption instability in the Iran Tokamak 1*, Iranian Annual Physics Conf., Guilan Uni., Guilan, Iran (25-28 Aug. 1997).
- D. Dorrnanian, R. Zakeri, M. Ghoranneviss; *Design and construction of double Langmuir probes power supply circuit and its application in IranTokamak 1*, Iranian Annual Physics Conf., Guilan Uni., Guilan, Iran (25-28 Aug. 1997).
- D. Dorrnanian, M. Ghoranneviss; *Controlled nuclear fusion in Tokamaks*, The first Iran & Azerbaijan gathering on applied Physics, Tabriz Uni., Tabriz, Iran (13-14 Sept., 1997).
- M. Masnavi, D. Dorrnanian, M. Ghoranneviss; *Plasma impurity source of radiation in the IranTokamak 1*, 12th International Conf. On V.U.R., San Francisco, USA (3-7 Aug. 1998).*
- D. Dorrnanian, M. Ghoranneviss; *Design and fabrication of magneto hydrodynamic electrical power generator model*, Iranian Annual Physics Conf., Bahonar Uni., Kerman, Iran (29-31 Aug. 1998).
- D. Dorrnanian, M. Bakhtiari, M. Ghoranneviss; *Electron temperature profile in IranTokamak 1*, Iranian Annual Physics Conf., Mazandaran Uni., Babolsar, Iran (29-31 Aug. 1999).
- T. Higashiguchi, N. Yugami, H. Gao, D. Dorrnanian, S. Sakai, K. Takahashi, H. Kawakami, M. Hosaka, H. Ito and Y. Nishida; *Generation of radiation from Cherenkov wakes by laser-magnetized plasma interaction experiments*, 21st Beam Dynamic Workshop on Laser Beam Interactions, Stony Brook Uni., NY, USA (18-21 June 2001).
- D. Dorrnanian, T. Higashiguchi, N. Yugami, S. Sakai, K. Takahashi, H. Kawakami, M. Hosaka, H. Ito and Y. Nishida; *Observation of short pulse radiation from interaction between laser pulse and magnetized plasma*, Inertial Fusion Sciences and Applications Conf., Kyoto, Japan (9-14 Sept. 2001).
- T. Higashiguchi, N. Yugami, H. Gao, D. Dorrnanian, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito and Y. Nishida; *Short microwave pulse generation via laser produced ionization front*, Inertial Fusion Sciences and Applications Conf., Kyoto, Japan (9-14 Sept. 2001).
- D. Dorrnanian, T. Higashiguchi, N. Yugami, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito and Y. Nishida; *Radiation from Cherenkov wakes excited by interaction of laser and magnetized plasma*, 26th Int. Conf. on Infrared and Millimeter-Waves (IRMMW 2001), Toulouse, France (9-14 Sept. 2001).

- T. Higashiguchi, N. Yugami, D. Dorrnanian, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito and Y. Nishida; *Short microwave pulse generation from periodic electrostatic field via laser-produced ionization front*, 26th Int. Conf. on Infrared and Millimeter-Waves (IRMMW 2001), Toulouse, France (9-14 Sept. 2001).
- D. Dorrnanian, N. Yugami, T. Higashiguchi, S. Sakai, K. Takahashi, H. Kawakami, M. Hosaka, H. Ito and Y. Nishida; *Short pulse radiation excited by the short laser pulse and magnetized plasma interaction*, 29th IEEE Int. Conf. on Plasma Science, Banff, Canada (26-30 May 2002).
- N. Yugami, T. Higashiguchi, D. Dorrnanian, H. Ito and Y. Nishida; *Experimental observation of radiation from Cherenkov wakes in a magnetized plasma*, 10th Workshop on Advanced Accelerator Concepts, Mandalay Beach, Ca., USA (22-28 June 2002).
- D. Dorrnanian, M. Starodubtsev, N. Yugami, T. Higashiguchi, H. Kawakami, H. Ito and Y. Nishida; *THz Range sources from the ultra-short laser and plasma interaction*, Invited Lecture of the Plenary Talk of 5th Int. Workshop on Strong Microwaves in Plasma, Nizhny Novgorod, Russia (Aug. 1-9, 2002).
- D. Dorrnanian, M. Starodubtsev, N. Yugami, H. Kawakami, M. Hosaka, C. Rajyaguru, H. Ito Y. Nishida and T. Katsouleas; *Radiation through sharp plasma boundary, generated by the ultra-short laser pulse and gas jet plasma interaction*, 44th annual meeting Int. Conf. of Plasma Physics Div. of American Physics Society (APS), Orlando, Florida, USA, (Nov. 11 –15, 2002).
- N. Yugami, H. Kawakami, D. Dorrnanian, C. Rajyaguru, M. Starodubtsev, H. Ito, Y. Nishida and T. Katsouleas; *Experimental observation of radiation from Cherenkov wakes in a magnetized plasma*, 44th annual meeting Int. Conf. of Plasma Physics Div. of American Physics Society (APS), Orlando, Florida, USA, (Nov. 11 –15).
- D. Dorrnanian, M. Starodubtsev, H. Kawakami, H. Parchami, H. Ito, N. Yugami and Y. Nishida; *Radiation from magnetized wakes in ultra-short high intensity laser pulse and gas jet plasma interaction*, 30th IEEE Int. Conf. on Plasma Science, Jeju, Korea (2-5 June 2003).
- D. Dorrnanian, M. Starodubtsev, H. Kawakami, H. Parchami, H. Ito, N. Yugami, Y. Nishida; *Generation of short pulse radiation from magnetized wakes in gas jet plasma - laser interaction*, 3rd Int. Conf. On Inertial Fusion Science and Application, Monterey, California, USA (7-12 Sept.2003).
- M. I. Bakunov, S. B. Bordov, D. Dorrnanian, N. Yugami, Y. Nishida; *Terahertz radiation from magnetized wakes induced by short laser pulses*, International Symposium on “ Topical Problems of Nonlinear wave Physics, NizhnyNovgorod, Russia (6-12 Sept. 2003)
- M. I.Bakunov, S. B. Bordov, D. Dorrnanian, N. Yugami and Y. Nishida; *2D Theory of THz Radiation from Magnetized Plasma Wakes*, 26th Int. Conf. on Infrared and Millimeter-Waves (IRMMW 2003), Otsu, Japan (29th Sept.-2nd Oct.. 2003).
- D. Dorrnanian, M. Starodubtsev, H. Ito, N. Yugami, Y. Nishida, M. Ghorannevis; *Radiation from Magnetized Wakes in Ultra-Short High Intensity Laser Pulse and Gas-Jet Magnetized Plasma Interaction*, 32nd annual Conf. of European Physics Society (EPS), Plasma Physics Div., Imperial college, London, Uk (28 June-4 July 2004).

- D. Dorrnian, M. Ghoranneviss, A. H. Sari, M. Starodubtsev, N. Yugami, and Y. Nishida; *Electromagnetic radiation from Laser irradiated gas jet*, 33rd annual Conf. of European Physics Society (EPS), Plasma Physics Div., Tarragona, Spain, (26 June-1 July 2005).
- D. Dorrnian, M. Ghoranneviss, M. K. Salem, M. M. Darian, R. Arvin, A. Talebitaher, A. Abhari; *Recent Results of IR-TI Tokamak*, 16th IAEA Technical Meeting on Research Using Small Fusion Devices, Mexico City, Mexico, (30 Nov.-2 Dec. 2005).
- D. Dorrnian, J. Khodayari, A. H. Sari, F. Torkaman, and M. Ghoranneviss; *Physical effects of oxygen plasma on BOPP thin films*, Workshop on Application of Nanocrystalline Diamond & Diamond Like Carbon Materials, Saha Institute of Nuclear Physics, Kolkata, India, (28 Nov- 1 Dec. 2006).
- D. Dorrnian, F. Torkaman, A. H. Sari, M. Ghoranneviss; *The interaction of CO₂ laser pulses with polymer films*, 18th International Symposium on Plasma Chemistry, Kyoto, Japan, (23-25 Aug. 2007).
- D. Dorrnian, Z. Abedini, A. Hojabri, M. Ghoranneviss; *Characterization of PMMA surface treated in low power nitrogen and oxygen RF plasmas*, 2 international conf. on functional material and devices, Kuala Lumpur, Malaysia, (16-19 June 2008).
- D. Dorrnian, S. M. Ghamkhari, N. Mirghasemzadeh, *Effect of laser pulse energy on the characteristics of gold nanoparticles produced by laser ablation method*, Nanomeeting 2013, Minsk, Belarus (28-31 May 2013).
- D. Dorrnian, S. Tajmir, F. Khazanefar; *Effect of laser pulse energy on the characteristics of silver nanoparticles produced by laser ablation method*, Nanomeeting 2013, Minsk, Belarus (28-31 May 2013).

Publications in Persian

- D. Dorrnian, M. Jalilian and M. Ghoranneviss; *Fusion Step by Step*, Science Journal of I. Azad Uni., **3**, 7 (1993).
- D. Dorrnian; *Simple Prove of $E=mc^2$* , Journal of Iranian Physics Society, Spring and Summer 1994 (Translation from English).
- D. Dorrnian and M. Ghoranneviss; *E.C.E. as a Diagnostic Tool in Tokamaks*, Science Journal of I. Azad Uni., **5**, 15 (1995).
- D. Dorrnian and M. Ghoranneviss, *ABC on Plasma Physics*, Abjad Ink. , Tehran, Iran 1996 (Translation of L. A. Artsimovich's book from English).

Refereed International Publications

1. M. Masnavi, D. Dorrnanian, M. Ghoranneviss, A. Anvari; *Observation of the Hard Disruption Instability in the IR-T1*, J. Sci. I. R. Iran, **10**, 73 (1999).
2. T. Higashiguchi, N. Yugami, H. Gao, D. Dorrnanian, S. Sakai, K. Takahashi, H. Kawakami, M. Hosaka, H. Ito, Y. Nishida; *Generation of Radiation from Cherenkov Wakes by Laser-Magnetized Plasma Interaction Experiments*, The book of 21st Beam Dynamic Workshop on Laser Beam Interactions, Stony Brook Uni., NY, USA (18-21 June 2001).
3. N. Yugami, T. Higashiguchi, D. Dorrnanian, H. Ito, Y. Nishida; *Experimental Observation of Radiation from Cherenkov Wakes in a Magnetized Plasma*, 10th Workshop on Advanced Accelerator Concepts Proceeding, Mandalay Beach, Ca., USA (22-28 June 2002).
4. D. Dorrnanian, T. Higashiguchi, N. Yugami, S. Sakai, K. Takahashi, H. Kawakami, M. Hosaka, H. Ito, Y. Nishida; *Observation of Short Pulse Radiation from Interaction between Laser Pulse and Magnetized Plasma*, IFSA2001 , Elsevier, **1**, 1228 (2002).
5. T. Higashiguchi, N. Yugami, H. Gao, D. Dorrnanian, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito, Y. Nishida; *Short Microwave Pulse Generation via Laser Produced Ionization Front*, IFSA2001 , Elsevier, **1**, 1232 (2002).
6. D. Dorrnanian, T. Higashiguchi, N. Yugami, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito, Y. Nishida; *Radiation from Cherenkov Wakes Excited by Interaction of Laser and Magnetized Plasma*, 26th Int. Conf. Book of the Infrared and Millimeter-Waves (IRMMW 2001), Toulouse, France (9-14 Sept. 2001).
7. T. Higashiguchi, N. Yugami, D. Dorrnanian, K. Takahashi, S. Sakai, M. Hosaka, H. Kawakami, H. Ito, Y. Nishida; *Short Microwave Pulse Generation from Periodic Electrostatic Field via Laser-Produced Ionization Front*, 26th Int. Conf. Book of the Infrared and Millimeter-Waves (IRMMW 2001), Toulouse, France (9-14 Sept. 2001).
8. D. Dorrnanian, M. Starodubtsev, N. Yugami, T. Higashiguchi, H. Kawakami, H. Ito, Y. Nishida; *THz Range Sources from the Ultra-Short Laser and Plasma Interaction*, Invited Lecture of the Plenary Talk of 5th Int. Workshop on Strong Microwaves in Plasma, Nizhny Novgorod, Russia (2002).
9. D. Dorrnanian, M. Starodubtsev, , H. Kawakami, H. Gao, H. Ito N. Yugami, Y. Nishida; *Radiation from High Intensity Ultra-Short Laser Pulse and Gas Jet Magnetized Plasma Interaction*, Physical Review E **68**, 026409 (2003).
10. M. I. Bakunov, S. B. Bordov, D. Dorrnanian, N. Yugami, Y. Nishida; *THz radiation from magnetized waked induced by short laser pulse*, Proceeding of the International Symposium “ Topical problems of Nonlinear Wave Physics”, P 155-6, 6-12 Sept., NizhnyNovgorod, Russia (2003).
11. D. Dorrnanian, M. Ghoranneviss, M. Starodubtsev, N. Yugami, Y. Nishida; *Generation of short pulse radiation from magnetized wake in gas-jet plasma and laser interaction*, Phys. Lett. A **331**, 77-83 (2004).
12. D. Dorrnanian, M. Ghoranneviss, M. Starodubtsev, N. Yugami, Y. Nishida; *Microwave emission from TW-100 fs laser irradiation of gas jet*, Laser & Particle Beam, **23**, 583-596(2005).

13. D. Dorrnian, M. Ghoranneviss, M. K. Salem, M. Mahmoodi, R. Arvin, A. Talebitaher, A. Abhari, P. Khorshid, A. Hojabri; *Recent Results of IRAN-TI Tokamak*, Plasma and Fusion Science, edited by J. J. E. Herrera, American Institute of Physics, **CP875**, 111-114(2006).
14. P. Khorshid, L. Wang, M. Ghoranneviss, R. Arvin, D. Dorrnian, A. Talebitaher, M. K. Salem, A. Abhari; *MHD instabilities and toroidal field effects on plasma column behavior in Tokamak*, Plasma and Fusion Science, edited by J. J. E. Herrera, American Institute of Physics, **CP875**, 135-138(2006).
15. D.Dorrnian, J. Khodayari, A. H. Sari, F. Torkaman, M. Ghoranneviss; *Physical effects of oxygen plasma on BOPP thin films*, Proceeding of workshop on Application of Nanocrystalline Diamond & Diamond Like Carbon Materials, edited by NiharRanjan Ray, Saha Institute of Nuclear Physics, Kolkata, India, **1**, 323-327(2006).
16. M. Ghoranneviss, A. Mahmoodi, M. M. Larijani, S. H. Hajihosseini, A. Shokouhi, D.Dorrnian; *Effect of substrate pretreatment on the growth of carbon nanotubes by thermal chemical vapor deposition*, Proceeding of workshop on Application of Nanocrystalline Diamond & Diamond Like Carbon Materials, edited by NiharRanjan Ray, Saha Institute of Nuclear Physics, Kolkata, India, **1**, 289-293(2006).
17. D. Dorrnian, F. Hajakbari; *Effects of laser pulse characteristics on the form of wakefield generated by the high intensity ultrashort laser pulse-plasma interaction*, JSIAU, **16**, 6 (2006).
18. N. Sabetinejad, M. M. Larijani, M. Ghoranneviss, P. Balashabadi, A. Shokouhi, D. Dorrnian; *Effect of different substrate on the growth of carbon nanotubes by thermal chemical vapor deposition method*, Proceeding of workshop on Application of Nanocrystalline Diamond & Diamond Like Carbon Materials, edited by NiharRanjan Ray, Saha Institute of Nuclear Physics, Kolkata, India, **1**, 295-297(2006).
19. S. Shahidi, M. Ghoranneviss, B. Moazzenchi, A. Rashidi, D. Dorrnian; *Effect of using cold plasma on dyeing properties of polypropylene fabrics*, Fibers and Polymers Journal, **8**, 123-129(2007).
20. D. Dorrnian, P. Azadfar, A.H. Sari, S. Ghorbani, A. Hojabri, M. Ghoranneviss; *Structural and optical properties of silicon nitride film generated on Si substrate by low energy ion implantation*, European Physical Journal (AP), **42**, 103-107(2008).
21. A.H. Sari, S. Ghorbani, D. Dorrnian, P. Azadfar, A.R. Hojabri, M. Ghoranneviss; *Formation of SiC using low energy CO₂ ion implantation in silicon*, Applied Surface Science, **255**, 2180 (2008).
22. D. Dorrnian, F. Heydari, A. H. Sari, S. Dadras, M. J. Torkamany, J. Sabbaghzadeh; *Characterization and comparison of low power Nd:YAG pulsed laser ablated bulk of Cu*, Journal of Theoretical and Applied Physics, **2**, 29 (2009).
23. D. Dorrnian, Y. Golian, F. ShahbazTahmasebi, M. Rashidian; *Investigation of thickness and concentration effects on the nonlinear optical properties of yellow disperse doped PMMA*, Journal of Theoretical and Applied Physics, **3**, 6 (2009).
24. M. Rashidian, D. Dorrnian, S. AhmadiDarani, S. Saghafi, M. Ghoranneviss; *Nonlinear responses and optical limiting behavior of Basic Violet 16 dye under CW laser illumination*, Optik, **120**, 1000(2009).
25. P. Yaghmaei, K. Parivar, D. Dorrnian, M. Hashemi, F. Torkaman; *Study the effect of extremely low frequency electromagnetic fields on some blood serum's lipoproteins, liver*

- enzymes and P448/P450 cytochrome enzyme system in NMRI female mice*, Journal of Paramedical Sciences, **1**, 74 (2009).
26. A. Hojabri, D. Dorrnian, N. Hadavi; *Investigation of the Effect of Nitrogen Plasma Treatment on the Properties of Red-BS Dye Doped PMMA Film*, Journal of Applied Chemical Research, **10**, 13-19 (2009).
 27. D. Dorrnian, Z. Abedini, A. Hojabri, M. Ghoranneviss; *Structural and optical characterization of PMMA surface treated in low power nitrogen and oxygen RF plasmas*, Journal of Non-Oxide Glasses, **1**, 217 (2009).
 28. D. Dorrnian, L. Dejam, A. H. Sari, A. Hojabri; *Effect of nitrogen content on optical constants of copper nitride thin films prepared by DC magnetron reactive sputtering*, Journal of Theoretical and Applied Physics, **3**, 37 (2009).
 29. D. Dorrnian, F. ShahbazTahmasebi, Y. Golian, M. Alizadeh; *Density and temperature profile of argon plasma in a plasma device*, Journal of Theoretical and Applied Physics, **4**, 27 (2010).
 30. D. Dorrnian, L. Dejam, A. H. Sari, A. Hojabri; *Structural and optical properties of copper nitride thin films in a reactive Ar/N₂ magnetron sputtering system*, European Physical Journal (AP), **50**, 20503 (2010).
 31. D. Dorrnian, F. Shahbaz Tahmasebi, A. H. Sari, Y. Golian; *Calculation of electrical potential and dust particle charge in a double dusty plasma device*, J. Fusion Energy, **30**, 16 (2010).
 32. D. Dorrnian, M. R. Soudi, M. M. Jamshidi, A. H. Sari, S. Nasr, L. Amini; *Sterilization of Esherichia coli and the microorganisms of turmeric samples with corona discharge plasma*, Journal of Theoretical and Applied Physics, **4**, 28 (2010).
 33. H. Mehrvaran, P. Parvin, D. Dorrnian; *Changeover in the molecular and atomic fluorine laser transitions*, Applied Optics, **49**, 2741 (2010).
 34. D. Dorrnian, G. Mosayebian; *Experimental study of the electrical properties of copper nitride thin films prepared by dc magnetron sputtering*, European Physical Journal (AP), **53**, 1051 (2011).
 35. D. Dorrnian, E. Solati, M. Hantezadeh, M. Ghoranneviss, A. H. Sari; *Effects of low temperature on the characteristics of tantalum thin films*, Vacuum, **86**, 51 (2011).
 36. S. H. Ghasemi, M. Hantehzadeh, J. Sabbaghzadeh, D. Dorrnian, M. Lafooti, V. Vatani, R. R. Nasirabad, A. Hemmati, A. A. Amidian, S. A. Alavian; *Beam shaping design for coupling high power diode laser stack to fiber*, Applied Optics, **50**, 2927 (2011).
 37. A. Paknejad, D. Dorrnian; *Nonlinear Backward Raman Scattering in the short laser pulse interaction with a cold underdense transversely magnetized plasma*, Laser and Particle Beams, **29**, 373 (2011).
 38. T. Sharifi, D. Dorrnian, M. J. Torkamani; *Optimisation of GaAs nanocrystals synthesis by laser ablation in water*, Accepted to publish in the Journal of Experimental Nanoscience (2011).
 39. S. Abedi, D. Dorrnian, M. EtehadiAbari, B. Shokri; *Relativistic effects in the interaction of high intensity ultra-short laser pulse with collisional underdense plasma*; Physics of Plasmas **18**, 093108 (2011).
 40. A. Paknejad, D. Dorrnian; *Brillouin back scattering in vertically magnetized plasma*; Acta Technica **56**, T175 (2011).

41. D. Dorrnian, S. Zahedi; *Investigation of pulsed laser effects on the structure of poly methyl methacrylate polymer*; Research-Reviews in Polymer **2**, (2011).
42. S. H. Ghasemi, M. R. Hantehzadeh, J. Sabbaghzadeh, D. Dorrnian, V. Vatani, A. Babazadeh, K. Hejaz, A. Hemmati, M. Lafouti; *Designing a plano-convex aspheric lens for fiber optics collimator*; Optic and Laser in Engineering **50**, 293 (2012).
43. D. Dorrnian, A. Sabetkar; *Dust acoustic solitary waves in a dusty plasma with two kinds of nonthermal ions at different temperatures*; Phys. Plasmas **19**, 013702 (2012).
44. S. Zahedi, D. Dorrnian; *Investigation of Pulsed Laser Effects on the Nonlinear Optical Properties of PMMA Films*; Accepted to publish in Laser Engineering Journal (2012).
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