

## CURRICULUM VITAE

### Adelina Miteva MITEVA

(First, Second and Family names)

**Institution:** Space Research and Technology Institute – Bulgarian Academy of Sciences, Space material science section, Acad. Georgy Bonchev st., bl. 1, 1113 Sofia, Bulgaria, <http://www.space.bas.bg/>

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**Education:** 1983r. – MS in Physics of Metals, Faculty of Physics and Chemistry, Chair of Theoretical Physics, Moscow State Institute of Steel and Alloys, Moscow, Russia, 1983. Diploma work “Electronic structure and stability of alkaline metals and their alloys in solid and in liquid state”

**PhD:** Doctor of Philosophy (PhD), Space Research and Technology Institute - Bulgarian Academy of Sciences, Sofia 2019, “ Constant electric field influence on the semiconductor graded-gap quantum wells with a potential for terrestrial and cosmic device applications”.

**Languages:** English, Russian, German, French.

**Fields of Scientific Research:** semiconductor nanostructures, quantum confined Stark effect, tight binding method, electronic structure calculation, electronic and optical properties of semiconductors and low-dimensional structures, metal alloys; composites; crystal growth; defects in crystal structure; functionally graded materials, electrostatic interactions in proteins, zeolites.

#### **Employment:**

2021 – now – Associate Professor, Space Research and Technology Institute – BAS  
2010 – 2021 - Chief Assistant, Space Research and Technology Institute – BAS  
2005 – 2010 – Research Fellow I rank, Space Research Institute – BAS  
2000 – 2005 - Research Fellow II rank, Space Research Institute – BAS  
1988 – 2000 - Research Fellow III rank, Space Research Institute – BAS  
1986 - 1988 - physicist, Space Research Institute – Bulgarian Academy of Sciences  
1984 – 1986 – physicist, Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia  
1983 – 1984 – physicist, Institute of Polymers - Bulgarian Academy of Sciences (BAS)

**Scientific publications:** total number ~ 107.

**Citations:** total number – 160 (no autocitation).

**Reports on scientific forums:** about 130 in total.

#### **Participation in scientific projects:**

Participation in four bilateral agreements on scientific cooperation at the BAN.

Participation in five projects, funded by the National Science Fund of the Ministry of Science and Education of Bulgaria.

Participation in the Agreement under the 6th Framework Program № 515 762-2 (2005 - 2009).

**Membership in scientific organizations:** Union of the Physicists in Bulgaria and Union of Scientists in Bulgaria.

**Publications (some of the last 5 years):**

1. Petrova A., Stefanov G., Yaneva S., Avdeev G., **Miteva A.**, Petrov R., “Influence of inert particles additives on properties of nano-microcrystalline alloys based on Al–Fe–V–Si”, Translated from Metallurg, Metallurgist, **64**(3-4), 253-262, 2020, doi 10.1007/s11015-020-00990-1.
2. **A. Miteva**, “Functionally Graded Materials in Optoelectronics”, Сборник доклади от годишна университетска научна конференция 28-29 май 2020, В. Търново, 2062-2071, 2020; ISSN 2367-7481.
3. **Ад. Митева**, В. Стоянова, “Лабораторна апаратура за пречистване на вода под вакуум с приложение към растежа на ледени кристали”, Сборник доклади от годишна университетска научна конференция 28-29 май 2020, В. Търново, ISSN 2367-7481, 2072-2082, 2020.
4. A. Petrova, **A. Miteva**, “Influence of additives on structural and physicomechanical properties of nano-microcrystal aluminium alloys”, Journal of the Balkan Tribological Association, **26**(2), 314–318, 2020; ISSN 1310-4772.
5. **A. Miteva**, V. Stoyanova, “Zeolites application in terrestrial and space industry – a review”, Aerospace Research in Bulgaria, **32**, 209-223, 2020; ISSN 1313 – 0927.
6. A. Petrova, G. Stefanov, **A. Miteva**, “Some properties of the nanozone in nanomicrocrystalline ribbons of aluminium alloys”, Comptes rendus de l'Académie bulgare des Sciences, **73**(10), 1434-1442, 2020; doi: 10.1007/s11015-020-00990-1.
7. **A. Miteva**, “Nanotechnology in Military Applications”, Proceedings SES 2020; 362-366, 2020.
8. В. Стоянова, **Ад. Митева**, “Аерозолни частици и механизми на замръзване на облачните капки”, Proceedings SES 2020,; 367-373, 2020.
9. **A. Miteva**, A. Bouzekova-Penkova, “Some aerospace applications of functionally graded materials”, Aerospace Research in Bulgaria, 33, 2021, 195-209; <https://doi.org/10.3897/arb.v33.e14>
10. **A. Miteva**, “Classification of aluminium and aluminium alloys”, Сборник доклади от годишна университетска научна конференция 27-28 май 2021, В. Търново, Издателски комплекс на НБУ „Васил Левски”, Научно направление „Технически науки”, 2551-2559, 2021; ISSN 2367-7481.
11. **A. Miteva**, “Nanotechnology in sport and security”, Strategies for Policy in Science and Education (Стратегии на образователната и научната политика, 29 (4s), 2021, 46-53; <https://doi.org/10.53656/str2021-4s-5-nano>
12. **A. Miteva**, A. Petrova, G. Stefanov, “Surface oxidation of Al-Si alloys at elevated temperatures”, Applied Engineering Letters: Journal of Engineering and Applied Sciences, Vol.6, No.3, 105-110, (2021); e-ISSN: 2466-4847; Issued by Faculty of Philology, University of Belgrade; <https://doi.org/10.18485/aeletters.2021.6.3.3>
13. **A. Miteva**, “Safety in Aerospace Engineering”, (Безопасност в аерокосмическото инженерство), SES 2021, Proceedings, 2021, 345-349; e-ISSN 2603 – 3321
14. A. Bouzekova-Penkova, **A. Miteva**, “Some aerospace applications of 7075 (B95) aluminium alloy”, Aerospace Research in Bulgaria, 34, 2022, pp. 165-179; p-ISSN 1313–0927; e-ISSN 2367–9522; <https://doi.org/10.3897/arb.v34.e15>
15. A. Petrova, S. Yaneva, **A. Miteva**, G. Stefanov, B. Barbov, “Study of oxidation kinetics of Al-Si alloys with high concentration of impurities (Fe, Zr, V)”, Advanced Engineering Letters, 1(1), 2022, 1-7; ISSN (Online): 2812-9709; <https://doi.org/10.46793/adeletters.2022.1.1.1>
16. **A. Miteva**, Material science and near space, Proceedings of the Scientific conference "Near Space - common goal'2022", Vasil Levski National Military University, 10 and 11.05.2022,

- Veliko Turnovo, Bulgaria, pp. 73-80, 2022; ISSN 2815-3510 Print; ISSN 2815-3529 CD; doi: 10.34660/INF.2023.11.45.007
17. **A. Miteva**, Near space and nanotechnologies, Proceedings of the Scientific conference "Near Space - common goal'2022", Vasil Levski National Military University, 10 and 11.05.2022, Veliko Turnovo, Bulgaria, pp. 81-87, 2022; ISSN 2815-3510 Print; ISSN 2815-3529 CD; doi: 10.34660/INF.2023.91.36.008
  18. М. Димитрова, **Ад. Митева**, "Материалознание и космос", Proceedings SES 2022, Sixteenth International Scientific Conference, December 2022, Sofia; p-ISSN 2603 – 3313; e-ISSN 2603 – 3321; стр. 179-184, 2022
  19. **A. Miteva**, "Some aerospace applications of nanotechnology"; Ankara International congress on scientific research-VII, December 02-04, 2022 / Ankara, Türkiye; Editor Prof. Dr. İsmet Çelik, pp. 424-428 (2022); ISBN: 978-625-8254-02-0; Ankara International Congress on Scientific Research-VII
  20. **A. Miteva**, "Effect of radiation on spacecraft materials", научна конференция „Радиационната безопасност в съвременния свят“, посветена на 170 годишнината от рождението на Анри Бекерел, Национален военен университет „Васил Левски“, гр. Велико Търново, 16-18.11.2022 г., doi: 10.34660/INF.2023.25.68.011; 2022, pp. 105-111
  21. **A. Miteva**, "The use of radiation in the food industry and agriculture", научна конференция „Радиационната безопасност в съвременния свят“, посветена на 170 годишнината от рождението на Анри Бекерел, Национален военен университет „Васил Левски“, гр. Велико Търново, 16-18.11.2022 г., DOI: 10.34660/INF.2023.90.50.012; 2022, pp. 112-118
  22. **A. Miteva**, "About the abstracts (summaries) of dissertations", Trakia Journal of Sciences, 21(2), 99-102, 2023; doi:10.15547/tjs.2023.02.004
  23. **A. Miteva**, "Solar energy and its conversion", Сборник доклади от научна конференция „Близкият Космос – обща цел'2023“, гр. Велико Търново, Издателски комплекс на НВУ „Васил Левски“; ISSN 2815-3510 Print; ISSN 2815-3529 CD; стр. 18-28, 2023; doi: 10.34660/INF.2023.64.79.002
  24. **A. Miteva**, "Unresolved mysteries of the universe", Сборник доклади от научна конференция „Близкият Космос – обща цел'2023“, гр. Велико Търново, Издателски комплекс на НВУ „Васил Левски“; CD; стр. 29-37, 2023; doi: 10.34660/INF.2023.86.94.003
  25. **A. Miteva**, "Food irradiation for space applications", Proceedings SES 2023, 24 – 26 October 2023, Sofia, Bulgaria, 2023, pp. 328-333, Eds: G. Mardirossian and P. Getsov.
  26. **A. Miteva**, "Impact of radiation on materials corrosion", Proceedings of the Scientific conference "Radiation safety in the modern world", Vasil Levski National Military University, 15 – 17.11.2023, Veliko Turnovo, Bulgaria, 1, 44-54, 2023; doi: 10.34660/INF.2023.29.42.003
  27. **A. Miteva**, "Application of nanotechnology in cyber security", Proceedings of the Scientific conference "Radiation safety in the modern world", Vasil Levski National Military University, 15 – 17.11.2023, V. Turnovo, Bulgaria, 1, 55-62, 2023; doi: 10.34660/INF.2023.82.42.004