



# DR.-ING. ARTEM OKULOV

## HEAD OF ADDITIVE MANUFACTURING LABORATORY

### AREAS OF EXPERTISE

- Additive Manufacturing
- Liquid Metal Dealloying
- Powder Metallurgy
- Materials Design
- Porous Materials
- Shape Memory Alloys
- High-Entropy Alloys
- Biomedical Materials
- Composite Materials
- Polymers

### ANALYTICAL METHODS

- Light and Electron Microscopy
- X-Ray Diffraction Analysis
- Phase Diagram Analysis
- Dynamic Differential Calorimetry
- Destructive and Non-Destructive Material Testing
- Damage Analysis

### LANGUAGES AND COMPUTER SKILLS

- Language | English (Fluency), Russian (Native)
- Programs | MS Office, Origin, ImageJ, Adobe Photoshop

### CONTACTS

- Address | Shchorsa Street 30-64, 620142 Ekaterinburg
- Phone | +7(950)198-45-47
- E-mail | okulovartem@imp.uran.ru

### ABOUT

"I have been doing research in materials science over 10 years. My scientific interests are additive manufacturing and porous biomedical Ti-based materials, including high-entropy alloys, synthesized by liquid metal dealloying."

### WORK EXPERIENCE

#### HEAD OF LABORATORY

Additive Manufacturing Laboratory, Institute of Metal Physics, Russian Academy of Sciences, Ekaterinburg (Russian Federation) | Since Oct 2021

- Laboratory research management
- Planning and conducting experiments
- Coordination of the third-party co-executors work
- Academic personnel training
- Preparation of scientific reports
- Reading lectures and conducting seminars
- Writing scientific papers and monographs

#### SENIOR RESEARCHER

Additive Manufacturing Laboratory, Institute of Metal Physics, Russian Academy of Sciences, Ekaterinburg (Russian Federation) | Since Apr 2022

- Planning and conducting experiments
- Rationale of the research relevance and novelty
- Formulation of the main research hypotheses
- Decomposition of the research goal into separate tasks
- Coordination of solving research tasks
- Generalization of scientific results
- Writing scientific papers and monographs

#### RESEARCHER

Laboratory of Laser and Plasma Processing, Institute of Metal Physics, Russian Academy of Sciences, Ekaterinburg (Russian Federation) | Dec 2018 to Apr 2022

- Planning and conducting experiments
- Performance of individual scientific tasks
- Development of research methods
- Generalization of scientific results
- Analysis of scientific information
- Writing scientific reports and giving oral talks

## PUBLICATIONS

1. N.V. Gokhfeld, **A.V. Okulov**, M.A. Philippov, S.Kh. Estemirova, Yu.S. Korobov and S.O. Morozov, *Phys. Solid State*, 64, 356–361 (2022)
2. **A.V. Okulov**, S.-H. Joo, H.S. Kim, H. Kato and I.V. Okulov, *Metals*, 1396, 10(10), 1–7 (2020)
3. I.V. Okulov, S.-H. Joo, **A.V. Okulov**, A.S. Volegov, B. Luthringer, R. Willumeit-Römer, L. Zhang, L. Mädler, J. Eckert and H. Kato, *Nanomaterials*, 1479, 10(8), 1–12 (2020)
4. **A.V. Okulov**, E.S. Belosludtseva, N.N. Kuranova, E.B. Marchenkova, A.V. Pushin, V.G. Pushin, *J. Phys. Conf. Ser.*, 1389(1), 1–7 (2019)
5. I.V. Okulov, M. Bönisch, **A.V. Okulov**, A.S. Volegov, H. Attar, S. Ehtemam-Haghighi, M. Calin, Z. Wang, A. Hohenwarter, I. Kaban, K.G. Prashanth, J. Eckert, *Mater. Sci. Eng. A*, 733, 80–86 (2018)
6. I.V. Okulov, **A.V. Okulov**, A.S. Volegov, J. Markmann, *Scr. Mater.*, 154, 68–72 (2018)
7. **A.V. Okulov**, A.S. Volegov, J. Weissmüller, J. Markmann, I.V. Okulov, *Scr. Mater.*, 146, 290–294 (2018)
8. I.V. Okulov, **A.V. Okulov**, I.V. Soldatov, B. Luthringer, R. Willumeit-Römer, T. Wada, H. Kato, J. Weissmüller, J. Markmann, *Mater. Sci. Eng. C*, 88, 95–103 (2018)
9. I.V. Okulov, M.F. Sarmanova, A.S. Volegov, **A. Okulov**, U. Kühn, W. Skrotzki, J. Eckert, *Mater. Lett.*, 158, 111–114 (2015)

## GUEST SCIENTIST

Helmholtz-Zentrum Geesthacht, Institute of Materials Research, Division of Materials Mechanics, Geesthacht (Germany) | Sep 2016 to Nov 2016

- Synthesis and characterization of dealloyed open porous materials and metal-polymer composites for biomedical applications

## JUNIOR RESEARCHER

Laboratory of Non-Ferrous Alloys, Institute of Metal Physics, Russian Academy of Sciences, Ekaterinburg (Russian Federation) | Apr 2013 to Dec 2018

- Planning and conducting experiments
- Performance of individual scientific tasks
- Development of research methods
- Generalization of scientific results
- Analysis of scientific information
- Writing scientific reports and giving oral talks

## EDUCATION

### MASTER DEGREE IN BIOMEDICAL ENGINEERING

Ural Federal University, Ekaterinburg (Russian Federation) | Sep 2011 to Jun 2013

### ENGINEER DEGREE IN MECHANICAL ENGINEERING

Ural State Agrarian University, Ekaterinburg (Russian Federation) | Sep 2005 to Jun 2010

### HIGH SCHOOL DIPLOMA

Gymnasium №155, Ekaterinburg (Russian Federation) | Sep 2003 to Jun 2005

## ADVANCED TRAINING

### THE OPERATOR'S CERTIFICATE (TEM)

International School of Microscopy, National University of Science and Technology "MISIS", Moscow (Russian Federation) | Feb 2022 to Mar 2022