

Curriculum Vitae

- Full Name:** Arkadi B. Harutyunyan
- Date of Birth:** October, 18, 1952
- Sex:** Male
- Citizenship:** Republic of Armenia
- Present Status:** Head of research group
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E-mail: arkadi@ichph.sci.am;
- Education:** MS, 1969-1974: Chemical Department, Yerevan State University (YSU)
Ph.D., 1985: IChPh NAS RA
- Area of Expertise:** Kinetics and mechanism of solid-state reactions; Combustion processes;
Materials science, Nanochemistry
- Inst. Affiliations:** 2021 to present: Head of Research Group, IChPh NAS RA
2007 to present: Deputy Director of IChPh NAS RA
2002 to present: Lecturer in the Department of Chemistry at YSU
1985-2007: Senior Researcher of IChPh NAS RA
1979-1985: Junior scientist, in the same place
1974-1979: Engineer, in the same place
- Grants.** PI of local (RA) grants
15Ap_1d(2e)002 (2016-2018)
21T-1D227 (2021-2023)
Participant of local (RA) grants
13-1D166 (2013-2015)
Participant of international grants
INTAS # 97-1613 (1999-2001)
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ISTC # A-1523 (2009-2011)
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- Publications:** More than 50 scientific papers, preprints, 1 training-methodical manual, 1 local patent.

Selected publications

1. S.L. Kharatyan, A.B. Harutyunyan, A.G. Merzhanov "Diffusive kinetics of chemical elements interaction in the multiphase binary systems" [in Russian]. *Khimicheskaya Physica*, 1983, No.10, pp.1399–1409.
2. S.L. Kharatyan, K.V. Asatryan and A.B. Harutyunyan "The Formation of Bilayer Structure of Monophase Product in a System Metal-Complex Gas. Experiment and Model". *International Journal of SHS*, 1995, vol.4, No.3, pp. 229-235.

3. S.L. Kharatyan, H.A. Chatilyan and A.B. Harutyunyan. "High-Temperature Silicon Diffusivities in Mo_5Si_3 and W_5Si_3 Phases". *Defect and Diffusion Forum*, 2001, vol.194-199, pp.1557-1562.
4. Y.G. Griroryan, O.M. Niazyan, A.B. Harutyunyan, S.L. Kharatyan. "Non isothermal kinetics of copper oxide reduction by combined reducers" [in Russian], *Izv. Vuzov, Tsv. Metal.*, 2004, No.5, pp.72-76.
5. H.L. Khachatryan, A.B. Harutyunyan, S.L. Kharatyan, Activated combustion of Si-C-N₂ and SHS of composite ceramic powders $\text{Si}_3\text{N}_4/\text{SiC}$ and silicon carbide". *Combustion, Explosion and Shock Waves*, 2006, vol.42, No.5, pp.543-548.
6. A.V. Egishyan, Kh.V. Manukyan, A.B. Harutyunyan, S.L. Kharatyan. "Influence of molybdenum and boron oxides on combustion in the Mo-B gasless system", *Intern. J. of SHS*, 2006, Vol.15, No.1, pp. 33-39.
7. Kh.V. Manukyan, A.V. Egishyan, A.B. Harutyunyan, S.L. Kharatyan. "The mechanism of mass transfer in combustion of the Mo-B system", *Heat Transfer Research*, 2007, Vol.38, pp. 85-93.
8. H.A. Chatilyan, S.L. Kharatyan, A.B. Harutyunyan. "Diffusion annealing of Mo/MoSi₂ couple and silicon diffusivity in Mo_5Si_3 layer". *Materials Science & Engineering A*, 2007, vol.459, pp.227-232.
9. A.A. Hambartsumyan, H.L. Khachatryan, A.B. Harutyunyan, S.L. Kharatyan. "Activated Combustion Features in the Mo-Si-C-Promoter System and Synthesis of MoSi₂-SiC Composite Powders", *Materials Research Bulletin*, 2007, vol.42, iss.12, pp.2082-2089.
10. L.E. Vardumyan, H.L. Khachatryan, A.B. Harutyunyan, and S.L. Kharatyan. "Combustion synthesis of TiSi-based intermetallic foams using complex foaming agents". *J. Alloys and Compounds*, 2008, vol.454, iss.1-2, pp.389-393.
11. B. Shahrokh, G.N. Sargsyan, A.B. Harutyunyan. "Quantum mechanical explanation of mechanisms of unimolecular thermal decay of vinyl ethers and their computer modeling. Decay of vinylpropyl and vinylbutyl ethers". *Russian Journal of Physical Chemistry*, 2013, vol.87, No.10, pp.1715-1720.
12. G.L. Grigoryan, H.A. Beglaryan, A.B. Harutyunyan, A.H. Petrosyan, M.P. Sargsyan, K.M. Grigoryan. "Deposition of CuO nanoparticles on solid carriers by chemical transportation and their antibacterial activity". *Chemical Journal of Armenia*, 2015, vol.68, No.3, pp.376-384.
13. G.N. Sargsyan, A.B. Harutyunyan, "Mechanism of the Decay of the CH_3CO_3 Radical after Energy Exchange with an Excited CH_2O Molecule", *Russian Journal of Physical Chemistry A*, 2018, vol.92, No.8, pp.1467-1472.
14. G.N. Sargsyan and A.B. Harutyunyan, Modeling the Effect of Halogen Ions Adsorbed on the Surface of the Reactor in Complex with Water Molecules on Processes of Chain Oxidation of Propane, *Kinetics and Catalysis*, 2020, vol. 61, No. 4, c. 552-556.