

Curriculum Vitae

Personal data

Birth date: 27 August 1946.

Birth place: Yerevan, Armenia

1988 Dr. Sci. degree (Professor in Chemical Physics)

Karpov Institute of Physical Chemistry, Moscow, Russia

Thesis title: "Two-quantum photochemistry of nucleic acids"

1977 Ph.D. degree (in Quantum Radiophysics)

M.V. Lomonosov Moscow State University, Moscow, Russia

Thesis title: "Up-conversion of IR radiation to the visible range"

1969 B.Sc. degree (Physics) and M.Sc. degree (Elementary Particles)

Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia

Thesis title: "The search of quarks using resonance electrometers"

Brief biography

I was born in Yerevan, Armenia, on 27 August, 1946. In 1963-1969, I studied at the Physics Department of Moscow State University, Russia. I received both my B.Sc. diploma in physics (1969) and Ph.D. degree in quantum electronics (1977) from Lomonosov Moscow State University. In 1969–1996, I worked in the Institute of Spectroscopy, Russian Academy of Sciences, Troitzk, Moscow Region. In 1988 I obtained a D.Sc. degree in chemical physics in the Karpov Institute of Physical Chemistry, Moscow. In 1997 I joined the Department of Physics of University College Cork, Ireland. My research interests included a number of fields of modern optics, including nonlinear optics, fibre optics, femtosecond lasers, femtosecond spectroscopy, multi-photon absorption, multi-quantum photoprocesses in biomolecules. I have retired from UCC on 27th August, 2011.

Employment

1969 – 1996, Institute of Spectroscopy, Russian Academy of Sciences, Troitzk, Moscow Region, Russia

1997 – 2011, Physics Department, University College Cork, Cork, Ireland.

I have also spent about three years in different European scientific institutions: Max-Planck-Institute for Radiation Chemistry, Mülheim an der Ruhr, Germany; Institute of Molecular Spectroscopy CNR, Bologna, Italy; Physics Department, Bayreuth University, Bayreuth, Germany; Laboratory of Molecular Photophysics CNRS, Université Paris-Sud, Orsay, France; Physics Department, Munich Technical University, Munich, Germany; and Department of Electronic Engineering, Aston University, Birmingham, United Kingdom.

Scientific publications

I am the author of 171 *peer-reviewed* scientific publications in different journals, including 12 reviews, and of 10 books. I made more than 100 conference reports. My h-index is 35 (December 2022).

International recognition and diffusion (December 2022)

My 10 most cited articles got **1619 citations** or **mean 162 citations per article**. The most cited article got **317 citations**. My best book got **3253 citations** in total for two consequent editions. All the mentioned data are given **without self-citation**. In 1987 my review “Crystals for nonlinear optics.” was selected by SPIE as a **MILESTONE publication**.

In 2004 I was elected a Fellow Member of the Optical Society of America.

In 2006 I won a Leverhulme Trust Visiting Professorship Award.

In 2011 I won a Distinguished Visiting Fellowship Award from the Royal Academy of Engineering, UK.

Professional society memberships

Fellow Member of the Optical Society of America (since 2004)

My top 10 most cited publications (Google Scholar, December 2022)

1. D.N. Nikogosyan: Crystals for nonlinear optics. Uniaxial crystals. *Sov. J. Quant. Electron.*, 7(1), 1–13 (1977), **97 citations**. In 1987 this publication was selected as a **MILESTONE publication** (see *Selected Papers on Optical Parametric Oscillations and Amplifiers and Their Applications, SPIE Milestone Series, Vol. MS140*, ed. by J.H. Hunt (SPIE Optical Engineering Press, Bellingham, Washington 1997) pp.191–203.
2. D.N. Nikogosyan, A.A. Oraevsky, V.I. Rupasov: Two-photon ionization and dissociation of liquid water by powerful laser UV irradiation. *Chem. Phys.*, 77(1), 131–143 (1983). **310 citations**.
3. D.N. Nikogosyan: Two-quantum UV photochemistry of nucleic acids: comparison with conventional low-intensity UV photochemistry and radiation chemistry. *Int. J. Radiat. Biol.*, 57(2), 233–299 (1990). **187 citations**.
4. D.N. Nikogosyan: Beta barium borate (BBO). A review of its properties and applications. *Appl. Phys. A*, 52(6), 359–368 (1991). **317 citations**.
5. D.N. Nikogosyan: Lithium triborate (LBO). A review of its properties and applications. *Appl. Phys. A*, 58(3), 181–190 (1994). **121 citations**.
6. A. Reuther, A. Laubereau, D.N. Nikogosyan: Primary photochemical processes in water. *J. Phys. Chem.*, 100(42), 16794–16800 (1996). **115 citations**.
7. A. Dragomir, J.G. McInerney, D.N. Nikogosyan: Femtosecond measurements of two-photon absorption coefficients at $\lambda = 264$ nm in glasses, crystals, and liquids. *Appl. Opt.*, 41(21), 4365–4376 (2002). **129 citations**.
8. A. Dragomir, D.N. Nikogosyan, K.A. Zagorulko, P.G. Kryukov, E.M. Dianov: Inscription of fiber Bragg gratings by ultraviolet femtosecond radiation, *Opt. Lett.*, 28(22), 2171–2173 (2003). **113 citations**.
9. S.A. Slattery, D.N. Nikogosyan, G. Brambilla: Fiber Bragg grating inscription by high-intensity femtosecond UV laser light: comparison with other existing methods of fabrication. *J. Opt. Soc. Am. B*, 22(2), 354–361 (2005); Erratum. *J. Opt. Soc. Am. B*, 22(5), 1143 (2005). **116 citations**.
10. D.N. Nikogosyan: Multi-photon high-excitation-energy approach to fibre grating inscription. *Meas. Sci. Technol.*, **18(1)**, R1–R29 (2007). **114 citations**.

My books since 1991.

1. V.G. Dmitriev, G.G. Gurzadyan, D.N. Nikogosyan: *Handbook of Nonlinear Optical Crystals*. Springer Series in Optical Sciences, Vol.64, ed. by A.E. Siegman (Springer, Berlin 1991) pp.1–221.
2. D.N. Nikogosyan: *Properties of Optical and Laser-Related Materials. A Handbook*. (Wiley, Chichester 1997) pp.1–594. **430 citations.**
3. V.G. Dmitriev, G.G. Gurzadyan, D.N. Nikogosyan: *Handbook of Nonlinear Optical Crystals. Second, Revised and Updated Edition*. Springer Series in Optical Sciences, vol.64, ed. by A.E. Siegman (Springer, Berlin 1997) pp.1–413.
4. V.G. Dmitriev, G.G. Gurzadyan, D.N. Nikogosyan: *Handbook of Nonlinear Optical Crystals. Third Revised Edition*. Springer Series in Optical Sciences, vol.64, ed. by A.E. Siegman (Springer, Berlin 1999) pp.1–413.

Books 3 and 4 have in total 3259 citations (Google Scholar, December 2022).

5. D.N. Nikogosyan: *Nonlinear Optical Crystals: A Complete Survey*. (Springer, New York 2005) pp.1–427. **1438 citations (Google Scholar, December 2022).**
6. V.G. Dmitriev, G.G. Gurzadyan, D.N. Nikogosyan: *Handbook of Nonlinear Optical Crystals. Third Revised Edition*. Springer Series in Optical Sciences, vol.64, ed. by A.E. Siegman (Higher Education Press: Beijing 2009), pp.1–439.
7. D.N. Nikogosyan: *Nonlinear Optical Crystals: A Complete Survey*. (Higher Education Press: Beijing 2009), pp.1–500.

Books 6 and 7 were translated and published in China.

Hobby

I am collecting European Art Nouveau and Art Deco silver-plated objects and studying their marks. Until now, I have published **60 papers on this topic.**