

### **CURRICULUM VITAE**

## Olikh Oleg Yaroslavovych

date of birth\*5 June 1974 citizenship\* Ukraine

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olikh/ https://scholar.google.com.ua/citations?user=9M07 CQoAAAAJ&hl=ua	
Taras Shevchenko Kyiv University, Faculty of Physics, 1991-1996, Solid State Physics, ЛТ BE№001760	
doctor of physical and mathematical sciences, solid state physics, 18.12.2018, Taras Shevchenko National University of Kyiv, ДД №008094	
professor of the General Physics Department, 23.12.2022, A∏ №004651	
01.07.2021 – present, professor at the general physics department, physics faculty, Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)	
25.11.2002 – 30.06.2021, associate professor at the general physics department, physics faculty, Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)	

### Main research activity

Management of collective research projects (which received funding on a competitive basis from outside the main place of work)

(no more than 5 positions in the last 10 years)

Development of physical principles of acoustically controlled modification and machine-oriented characterization of silicon solar cells", Taras Shevchenko Kyiv National University, 2020-2021, 4, grant of the National Research Foundation of Ukraine (registration number 2020.02/0036)

## Participation in collective research projects

(no more than 5 positions in the last 10 years)

Individual research projects (which received funding on a competitive basis from a third party)

(no more than 5 positions in the last 10 years)

### Main scientific achievements

## Published scientific works\*

(no more than 10 positions in the last 10 years)

Olikh O., Lozitsky O., Zavhorodnii O. «Estimation for iron contamination in Si solar cell by ideality factor: Deep neural network approach», Progress in Photovoltaics: Research and Applications, 2022, vol.30, is.6, p. 648-660; https://doi.org/10.1002/pip.3539 Q1

Olikh O., Lytvyn P. «Defect engineering using microwave processing in SiC and GaAs», Semiconductor Science and Technology, 2022, vol.37, is.7, 075006,

https://doi.org/10.1088/1361-6641/ac6f17 Q2

Olikh O., Kostylyov V., Vlasiuk V., Korkishko R., Chupryna R. «Intensification of iron—boron complex association in silicon solar cells under acoustic wave action», Journal of Materials Science: Materials in Electronics, 2022, vol.33, is.13, P. 13133-13142,

https://doi.org/10.1007/s10854-022-08252-3

Olikh O., Kostylyov V., Vlasiuk V., Korkishko R., Olikh Ya., Chupryna R. «Features of FeB pair light-induced dissociation and repair in silicon n+-p-p+ structures under ultrasound loading», Journal of Applied Physics, 2021, vol.130, is.23, 235703;

https://doi.org/10.1063/5.0073135 Q2

Gorb A.M., Korotchenkov O.A., Olikh O.Ya., Podolian A.O., Chupryna R.G. «Influence of  $\gamma$ -irradiation and ultrasound treatment on current mechanism in Au-SiO2-Si structure», Solid State Electronics, 2020, vol.165, 107712; https://doi.org/10.1016/j.sse.2019.107712 Q2

Olikh O.Ya. «Relationship between the ideality factor and the iron concentration in silicon solar cells», Superlattices and Microstructures, 2019, vol.136, 106309; https://doi.org/10.1016/j.spmi.2019.106309 Q2

Olikh O.Ya. «Acoustically driven degradation in single crystalline silicon solar cell», Superlattices and Microstructures, 2018, vol.117, p. 173-188; https://doi.org/10.1016/j.spmi.2018.03.027 Q2

Olikh O.Ya., Voytenko K.V. «On the mechanism of ultrasonic loading effect in silicon-based Schottky diodes», Ultrasonics, 2016, vol.66, p. 1-3; https://doi.org/10.1016/j.ultras.2015.12.001

Olikh O.Ya. «Review and test of methods for determination of the Schottky diode parameters», Journal of Applied Physics, 2015, vol.118, is.2, 024502; https://doi.org/10.1063/1.4926420 Q2

Olikh O.Ya. «Reversible influence of ultrasound on γirradiated Mo/n-Si Schottky barrier structure», Ultrasonics, 2015, vol.56, p. 545-550; https://doi.org/10.1016/j.ultras.2014.10.008

 $Q_1$ 

## Other significant scientific achievements

(no more than 5 positions in the last 10 years)

### **Teaching activity**

The main author's educational courses at Higher Education Institutions (developed on the basis of own research)

(no more than 5 positions in the last 10 years)

The main author's methodical developments (textbooks, manuals, methodical materials, educational programs for higher education)

(no more than 5 positions in the last 10 years)

Olikh O.Ya. "Defect research methods", Vinnytsia: "Nilan-LTD" LLC, 2020, 60 p. ISBN 978-966-924-841-1 https://gen.phys.univ.kiev.ua/wp-content/uploads/2022/09/Metodi-doslidzhennya-defektiv-A5.pdf

Olikh O.Ya. "Defects in semiconductor and dielectric crystals", Vinnytsia: FOP Korzun D.Yu., 2015, 152 p. https://gen.phys.univ.kiev.ua/wp-content/uploads/2022/09/Olih-Defekti-A5.pdf

Olikh O.Ya. "Modern computer technologies. Principles of building computer networks", Kyiv: VOC "Kyiv University", 2015, 479 p. ISBN 978-966-439-740-4 https://gen.phys.univ.kiev.ua/wpcontent/uploads/2022/09/Fz5\_Olikh\_s-ISBN-190815.pdf

Borovy M.O., Olikh O.Ya., Tsaregradska T.L., Ovsienko I.V., Podolyan A.O., Kozachenko V.V. "General physics for chemists. Tasks collection. Part 3. Optics, elements of quantum mechanics, atomic and nuclear physics", Vinnytsia: "TVORY", 2022, 188 p. ISBN 978-617-552-055-0 https://gen.phys.univ.kiev.ua/wp-content/uploads/2022/10/Opt\_Qm\_At\_Yad\_2022\_02\_\_\_\_22.pdf

Borovy M.O., Olikh O.Ya., Ovsienko I.V., Tsaregradska T.L., Kozachenko V.V., Podolyan A.O., Isaev M.V., Dubyk K.V. "General physics for chemists. Tasks collection. Part 2. Electricity and magnetism", Vinnytsia: LLC "CREATIONS", 2019, 164 p. ISBN 978-966-949-195-4 https://gen.phys.univ.kiev.ua/wpcontent/uploads/2020/11/ElecMagFinal.pdf

Supervision of scientific works (scientific supervision or consulting of dissertation studies that have been successfully defended)

(no more than 5 positions in the last 10 years)  Expert activity	
Membership in specialized academic councils for dissertation defense (no more than 5 positions in the last 10 years)	D 26.001.23 01.04.05 "Optics, laser physics", 01.04.07 "Solid State Physics" Shevchenko National University of Kyiv 06/20/2023 - 06/20/2026 https://scc.knu.ua/storinka-spetsializovanoivchenoi-rady?id=3887
Participation in expert councils (supervisory, advisory, expert or other councils of scientific, educational or research institutions, enterprises, cultural institutions, scientific publishing houses outside the main place of work)  (no more than 5 positions in the last 10 years)	
Participation in calls commissions (jury) (all-Ukrainian or international calls, Olympiads, tournaments of research projects, scientific papers, etc.) (no more than 5 positions in the last 10 years)	
Scientific and expert activities for authorities (scientific and expert conclusions, comments, conclusions, etc. made at the request or order of authorities and self-	

government bodies, state structures. institutions, etc.) (no more than 5 positions in the last 10 years) Scientific review of scientific paper review: publications and modeling of semiconductor systems (Physica B: projects\* (number of Condensed Matter, 2023); influence of defects on the electrophysical properties of silicon structures anonymous reviews of (Radiation Physics and Chemistry, 2018; Jacobs manuscripts of scientific Journal of Materials Science, 2017): works submitted for characterization of semiconductor barrier publication in structures by current-voltage characteristics international scientific (Journal of Applied Physics, 2017; Solid-State iournals over the past 5 Electronics, 2017; Physica B: Condensed Matter, 2016, 2023 Ukrainian Journal of Physics 2023), vears: author reviews of ultrasonic non-destructive testing (Ultrasonics, scientific publications 2017); published in specialized reviewing the report on the implementation of periodicals) completed scientific and technical work on the (no more than 5 positions in development of functional electronics devices (2019) the last 5 years) Honors and awards Honorary titles and statuses (honored worker of science and technology, academician, doctor honoris causa, etc.) I. Puluj Prize of the National Academy of Sciences of Laureate of a prize Ukraine for the implementation of controlled (awards, honors) of the acoustic field influence on processes of defect international or national reordering in semiconductors and surface barrier level, awarded on a structures competitive basis (no more than 5 positions in the last 10 years) Awards or honors for scientific achievements (from institutions. departments. authorities and local self-government bodies. etc.)

(no more than 5 positions in the last 10 years)	
Improvement of scientific	qualification
Membership in independent scientific organizations (non-institutional professional academic associations, societies, unions, unions of researchers, except trade unions) (no more than 5 positions in the last 10 years)	member of the Ukrainian Physical Society
Additional information on other important scientific achievements, qualifications, competences, or types of scientific activity that are significant for the implementation of the submitted research/development project (no more than 5 positions in	
the last 10 years)  Foreign languages skills*	English, B2, the presence of more than 10 articles published in English in periodicals that are included in the Scopus scientometric database and are not



KOHKYPC

## CEPTIODIKAT Nº 02/087

Цей сертифікат засвідчує, що проєкт

## 2020.02/0036

Розробка фізичних засад акусто-керованої модифікації та машинно-орієнтованої характеризації кремнієвих сонячних елементів

## Науковий керівник: ОЛІХ ОЛЕГ ЯРОСЛАВОВИЧ

**Установа:** Київський національний університет імені Тараса Шевченка

є переможцем конкурсу із виконання наукових досліджень і розробок «Підтримка досліджень провідних та молодих учених» у 2020 році

леонід яценко

Голова Фонду

ОЛЬГА ПОЛОЦЬКА

Виконавча директорка Фонду





Physica B: Condensed Matter

# Certificate of Reviewing

Awarded for 8 reviews between May 2016 and November 2023 presented to

## OLEG OLIKH

in recognition of the review contributed to the journal







Radiation Physics and Chemistry

# Certificate of Reviewing

Awarded for 1 review in July 2018 presented to

## OLEG OLIKH

in recognition of the review contributed to the journal



The Editors of Radiation Physics and Chemistry





## Ultrasonics

# Certificate of Reviewing

Awarded for 2 reviews between May 2017 and July 2017 presented to

## OLEG OLIKH

in recognition of the review contributed to the journal





## ПРЕЗИДІЯ НАЦІОНАЛЬНОЇ АКАДЕМІЇ НАУК УКРАЇНИ

На своєму засіданні 3 лютого 2021 року присудила

## премію імені І.П. Пулюя

доктору фізико-математичних наук

## Оліху Ярославу Михайловичу

доктору фізико-математичних наук

### Оліху Олегу Ярославовичу

за реалізацію керованого впливу акустичного поля на процеси перебудови дефектів у напівпровідниках та поверхнево-бар'єрних структурах

Президент Національної академії наук України академік НАН України

А.Г. Загородній

Головний учений секретар Національної академії наук України академік НАН України

В.Л. Богданов