TRENČIANSKA UNIVERZITA ALEXANDRA DUBČEKA V TRENČÍNE

PODKLADY K ŽIADOSTI O ZAČATIE HABILITAČNÉHO KONANIA V ODBORE HABILITAČNÉHO KONANIA: ANORG ANICKÁTECHNOLÓGIA A MATERIÁLY

DOCUMENTS TO THE APPLICATION FOR INITIATING THE HABILITATION PROCEDURE IN THE FIELD OF HABILITATION PROCEDURE: INORGANIC TECHNOLOGY AND MATERIALS

Ali Talimian, Ph.D.

Trenčín 2026

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I. ADMINISTRATIVE REQUIREMENTS

Životopis

Curriculum Vitae

Meno a priezvisko, rodné priezvisko, akademický titul, vedecko-pedagogický titul alebo umelecko-pedagogický titul a vedecká hodnosť *(Name and surname, title)*	Ali Talimian, Ph.D.
Dátum a miesto narodenia *(Date and place of birth)*	--.--.1988, Hamedan- Iran
Vysokoškolské vzdelanie a ďalší akademický rast *(Higher Education and academic growth)*	PhD, 2017, University of Trento, Trento, Italy. MSc; 2013, Iran University of Science and Technology, Tehran, Iran.
Ďalšie vzdelávanie *(additional education)* Priebeh zamestnaní *(employment history)*	**Tenured Researcher** Vitrum Laugaricio (VILA), FunGlass Center, Alexander Dubček University of Trenčín. Slovakia. 2019 – Cont. **Researcher** Vitrum Laugaricio (VILA), FunGlass Center, Alexander Dubček University of Trenčín. Slovakia. 2017 – 2019
Priebeh pedagogickej činnosti (pracovisko/predmety) *(Course of Pedagogical activities: place of employment/ subjects)*	**2023 –** cont. FunGlass Center, Alexander Dubček University of Trenčín, Slovakia
Odborné alebo umelecké zameranie *(professional, scientific focus)*	- Sintering of Ceramics - Damage-tolerant materials. - Computational and AI-assisted materials discovery and design
Publikačná činnosť vrátane rozsahu (autorské hárky) a kategórie evidencie podľa vyhlášky č. 456/2012 Z. z. 1. monografia 2. učebnica 3. skriptá *(Publication activities, scope – pages: categories: 1. monograph, 2. textbook, 3. instructional texts)*	Cont. **Book Chapters:** **----** **Instructional texts:** **1. Talimian, A. (2026).** Transparent ceramics. In J. J. V. Velázquez García (Ed.), *Inorganic technology and non-metallic materials* (pp. 109–134). Alexander Dubček University of Trenčín. ISBN: 978-80-8295-070-3; (AH=1.30)

	2. Talimian, A. (2026). Mechanical properties of Materials: Brittle fracture. In J. J. V. Velázquez García (Ed.), *Inorganic technology and non-metallic materials* (pp. 311-347). Alexander Dubček University of Trenčín. ISBN: 978-80-8295-072-7; (AH=1.67)
Ohlasy na vedeckú/umeleckú prácu *(citations)*	Web of Science: 355 (with self-citation) Web of Science: 331 (without self-citation) Scopus: 417 (with self-citation) Scopus: 335 (without self-citation)
Počet doktorandov: školených ukončených (neplatí pre habilitačné konanie) Počet doktorandov: školených ukončených (neplatí pre habilitačné konanie) *(Number of PhD students: ongoing/ defended, it doesn´t concern habilitation process)*	**2 PhD students (ongoing):** [1] Kubra Cetin- PhD title: "Developing Rare-Earth-Free Functional High-Entropy Oxide Ceramics for Energy Storage via Machine Learning-Assisted CALPHAD." 2026. [2] Mohammad Ishaq, PhD title: "AI-Assisted Surface Engineering of Oxide Glasses to Optimize Bonding and Chemical Release"2026.
Kontaktná adresa *(address)*	FunGlass–Centre for Functional and Surface Functionalized Glass, Alexander Dubček University of Trenčín Študentská 2, 911 50 Trenčín, Slovakia Tel: +421951835445 email: ali.talimian@tnuni.sk

City	**Date**	**Name and Title**
Trenčín	14.10.2026	Ali Talimian, Ph.D.

VKS IIA Certificate

SLOVENSKÁ AKADÉMIA VIED

Komisia SAV pre posudzovanie vedeckej kvalifikácie zamestnancov

doc. Ing. Jozef Habánik, PhD.
rektor
Trenčianska univerzita Alexandra Dubčeka v Trenčíne
Študentská 2
911 50 Trenčín

Bratislava, 15. 12. 2021
Č. j.: 07146/2021

R o z h o d n u t i e

Komisia SAV pre posudzovanie vedeckej kvalifikácie zamestnancov ako orgán príslušný na konanie podľa § 38 ods. 2 zákona č. 39/1977 Zb. o výchove nových vedeckých pracovníkov a o ďalšom zvyšovaní kvalifikácie vedeckých pracovníkov v znení neskorších predpisov v spojení s § 4 ods. 2 písm. c) zákona č. 133/2002 Z. z. o Slovenskej akadémii vied prerokovala podľa § 6 a § 7 vyhl. č . 55/1977 Zb. na svojom 100. zasadnutí dňa 7. 12. 2021 návrh Trenčianskej univerzity Alexandra Dubčeka v Trenčíne na priznanie vedeckého kvalifikačného stupňa IIa Dr. Aline Talimian a rozhodla takto:

Komisia SAV pre posudzovanie vedeckej kvalifikácie zamestnancov podľa § 39 ods. 1 zákona č. 39/1977 Zb. o výchove nových vedeckých pracovníkov a o ďalšom zvyšovaní kvalifikácie vedeckých pracovníkov v znení neskorších predpisov a § 6 vyhl. č. 55/1977 Zb. p r i z n á v a

Dr. Aline Talimian

vedecký kvalifikačný stupeň IIa

Poučenie:
Podľa ustanovenia § 39 ods. 2 zákona č. 39/1977 Zb. o výchove nových vedeckých pracovníkov a o ďalšom zvyšovaní kvalifikácie vedeckých pracovníkov v znení neskorších predpisov môže navrhovateľ podať rozklad iba proti zamietavému rozhodnutiu Komisia SAV pre posudzovanie vedeckej kvalifikácie zamestnancov.

SLOVENSKÁ AKADÉMIA VIED - BRATISLAVA

RNDr. Dagmar Gregušová, DrSc.
predsedníčka komisie

Na vedomie:
Ministerstvo školstva, vedy, výskumu a športu SR

Štefánikova 49, 814 38 Bratislava, Slovenská republika, Tel.: +421 2 57510135, Fax: +421 2 57510604, e-mail: danekova@up.upsav.sk

Ph.D. Certificate

- preklad z talianskeho jazyka do slovenského jazyka -
Latinský emblém

UNIVERZITA V TRIDENTE

Talianska republika
V mene zákona

My, Profesor Paolo Collini, Rektor Univerzity v Tridente
na základe listín o ukončení štúdia a výsledku záverečnej skúšky vykonanej dňa 26. apríla 2017
v Doktorandskom programe v odbore Materiály, Mechatronika a Systémové inžinierstvo

udeľujeme

ALIMU TALIMIANOVI

narodenému v Hamedane (Irán) 1988

DOKTORANDSKÝ TITUL

v odbore

MATERIÁLY, MECHATRONIKA A SYSTÉMOVÉ INŽINIERSTVO

Tento diplom sa vystavuje so všetkými zákonnými účinkami

Rektor
nečitateľný podpis

KOLOK UHRADENÝ ELEKTRONICKY
POVOLENIE č. 106668 VYHL. 23.12.2014 Vydané Daňovým úradom v Tridente
TLAČIAREŇ UNIVERZITY V TRIDENTE
TRIDENT 14. MARCA 2017

Master’s Certificate

Úradný preklad *[znak]*

942 687-5 *[text v treťom jazyku]*

MARYAM AGHILI
ÚRADNÁ PREKLADATEĽKA ANGLICKÉHO JAZYKA
PRE JUSTÍCIU IRÁNSKEJ ISLAMSKEJ REPUBLIKY
Unit 11, 4th floor, č. 688, Next to Sarsabz Cross, Resalat Highway, TEHERÁN-IRÁN
Tel./Fax: 77493888 – 77 20 33 23

V mene Všemohúceho Boha

IRÁNSKA ISLAMSKÁ REPUBLIKA
Ministerstvo vedy, výskumu a technológií
IRAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (IUST)
(Iránska univerzita vedy a technológie)

Č. 378/91/24/T
Dátum: 24. november 2013

ZAPEČATENÁ FOTOGRAFIA DRŽITEĽA

DIPLOM

Na základe štatútu schváleného Ústrednou radou univerzít a vzhľadom na to, že:

pán ALI TALIMIAN,

meno otca **MOHAMMADREZA**, držiteľ občianskeho preukazu č. vydaného v **Hamadáne – Irán**, narodený v roku **1988**, úspešne absolvoval akademický program stanovený „**Fakultou materiálového inžinierstva**“ v **marci 2013**, udeľuje sa mu tento diplom o získaní **magisterského titulu** v odbore:

„MATERIÁLOVÉ INŽINIERSTVO – KERAMIKA“

Členovia akademického zboru želajú vyššie uvedenému absolventovi veľa úspechov pri uplatňovaní nadobudnutých vedomostí v praxi, pri zachovávaní bázne Božej a pri získavaní Božieho požehnania službou ľudstvu.

SH. MIRDAMADI
dekan fakulty
podpísané

M. S. JEBEL AMELI
rektor univerzity
podpísané a opatrené pečaťou

Zadná strana diplomu:

Pravosť pečate a podpisu predstaviteľov univerzity sa týmto osvedčuje.
Za M. H. YOUSEFI: generálny riaditeľ pre záležitosti domácich študentov
F. MOHAMMAD: odborný pracovník oddelenia akademických služieb
Ministerstvo vedy, výskumu a technológií
08. december 2013 / Podpísané a opatrené pečaťou

Vernosť prekladu z perzštiny sa týmto osvedčuje.
Úradný prekladateľ pre justíciu Iránskej islamskej republiky
***pani Maryam Aghili**, Teherán, 19. október 2015*

[okrúhla pečiatka: text v treťom jazyku, Maryam Aghili, úradná prekladateľka anglického jazyka pre justíciu, č. 675, Teherán]
[nečitateľný podpis]

[nečitateľný podpis]
[pečiatka: text v treťom jazyku, H. SADEGHI, PRACOVNÍK ODDELENIA OVEROVANIA DOKLADOV]

[hranatá pečiatka: znak, Oddelenie úradných prekladateľov pre justíciu Islamskej iránskej republiky. Osvedčuje sa výlučne pravosť pečate a podpisu úradného prekladateľa. Osvedčenie nezahŕňa potvrdenie o správnosti prekladu a pravosti prekladaného dokumentu. Oddelenie úradných prekladateľov pre justíciu Islamskej iránskej republiky.

[pečiatka: IRÁNSKA ISLAMSKÁ REPUBLIKA, MINISTERSTVO ZAHRANIČNÝCH VECÍ, ODDELENIE REGISTRÁCIE A OSOBNÉHO STAVU, Osvedčuje sa pravosť pečate a podpisu označených písmenom (x), pričom obsah listiny sa neposudzuje.]

[pečiatka: 21. OKTÓBER 2015, -72079]

[nečitateľný podpis]
[okrúhla pečiatka: Ministerstvo zahraničných vecí, Teherán, Irán, 2110 5]
[pečiatka: 0030000]

II. TEACHING AND PEDAGOGICAL ACTIVITIES

A. Overview of teaching and list of lectures

- *Mechanical Properties of Materials*, FunGlass Center, Alexander Dubček University of Trenčín, Slovakia (32 hrs/year), 2023 – Cont.

- *Engineering ceramics*: classification and properties, FunGlass Center, Alexander Dubček University of Trenčín, Slovakia (32 hrs/year), 2025 – Cont.

- *Functional properties of materials and methods of their measurement*, FunGlass Center, Alexander Dubček University of Trenčín, Slovakia (24 hrs/year), 2023 – Cont.

- *Sintering*, FunGlass Center, Alexander Dubček University of Trenčín, Slovakia (48 hrs/year), 2023 – Cont.

B. Instructional texts

1. Talimian, A. (2026). *Transparent ceramics*. In J. J. V. Velázquez García (Ed.), *Inorganic technology and non-metallic materials* (pp. 109–134). Alexander Dubček University of Trenčín. ISBN: 978-80-8295-070-3; AH=1.30

2. Talimian, A. (2026). *Mechanical properties of Materials: Brittle fracture*. In J. J. V. Velázquez García (Ed.), *Inorganic technology and non-metallic materials* (pp. 311-347). Alexander Dubček University of Trenčín. ISBN: 978-80-8295-072-7; AH=1.67

C. Bachelor's and master's theses

1. Master's thesis: Norbert Ocsko, Thesis title: TEMPRA CHIMICA DI VETRO FLOAT: DISATTIVAZIONE DEL PROCESSO IN PRESENZA DI IONI CALCIO (in English: Chemical tempering of float glass: deactivation of the process in presence of calcium ions), 2015-2016, Supervisor: Prof. Vincenzo M. Sglavo. Co-supervisor: Dr. A. Talimian. Department of Industrial Engineering, University of Trento, Italy. (https://webapps.unitn.it/Biblioteca/en/Web/TesiDocente/193864)

D. List of PhD theses (co-supervised)

1. Dissertation topic: "Developing Rare-Earth-Free Functional High-Entropy Oxide Ceramics for Energy Storage via Machine Learning-Assisted CALPHAD". Type of thesis: Ph.D., Supervisor: Prof. Dusan Galusek. Co-supervisor: Dr. **A. Talimian**. Place: FunGlass, Slovakia. Student Name: Kubra Cetin, MSc. Starting date: Sep-2026. **State: Ongoing.**

2. Dissertation topic: "AI-Assisted Surface Engineering of Oxide Glasses to Optimize Bonding and Chemical Release". Type of thesis: Ph.D., Supervisor : Prof. Dusan Galusek. Co-supervisor: Dr. **A. Talimian**. Place: FunGlass, Slovakia. Student Name: Mohammad Ishaq, MSc. Starting date: Oct-2026. **State: Ongoing.**

III. HABILITATION THESIS

The applicant for the habilitation procedure submits the habilitation thesis:

“Densification by Design: Defect Chemistry, Sintering Kinetics, and Microstructural Architecture in Oxide Ceramics”

in the form of a set of published scientific papers supplemented by a commentary.

IV. SCIENTIFIC RESEARCH AND PUBLICATION ACTIVITIES

KRITÉRIÁ NA ZÍSKANIE TITULU DOCENT A PROFESOR

Criteria for obtaining the title "docent" and "professor"

Minimal obligatory requirements	Minimum requirements for starting		Actual Status
	Associate Professor Appointment Procedure	**Professor appointment procedure**	
EVALUATION OF PEDAGOGICAL ACTIVITIES			
I. Pedagogical activities and preparation of teaching texts			
1. *Pedagogical experiences in a particular field at a university*	3 years after PhD	years after associated professor award	**Yes**
2. *Textbooks* *or* *Instructional texts and materials, electronic instructional texts*	- 1	1 2	**---** **1**
EVALUATION OF SCIENTIFIC AND RESEARCH ACTIVITIES			
II. Scientific and Research activities			
Scientific and research papers of the category A+. A, A- or B *out of which* Scientific and research papers of the category A+. A,	20 (5) 8 (3)	60 (10)[2] 20 (5)[2]	**28 (12)** **27 (12)**
Patents (National (SK) and European)	---	---	**1 SK + 1 EU**
III. Citations and Responses			
Citations (SCI, WOS, SCOPUS, book and others) total[1] *out of which* *Citations registered in WOS and SCOPUS*	60 60	250 240	**≥330** **335 (WOS)/430(Scopus)**
IV. Scientific school and international recognition			
1. *Number of supervised doctoral (awarded with a PhD title/after midterm dissertation exam)*	-	2/0	**-**
2. *Investigator/Principal investigator of a grant project*	3/0	6/1	**8/2**
3. *International recognition by the scientific community from other countries than SR (written references from experts in the field)*	-	3	**-**

[*)] V zátvorke uviesť počty za posledných 5 rokov *(in parenthesis, declare the numbers over the last 5 years)*

[**)] Citácie s vylúčením autocitácií všetkých spoluautorov *(Citations with the exclusion of the autocitations of all co-authors)*

Vysvetlivky *(Explanations)*:

[1] Počet vedeckých prác je bez prepočítania na počet autorov. Rovnako sa neprepočítavajú na počet autorov citácie, patenty a monografie/kapitoly v monografii.
(The number of scientific works is without recalculation to the number of authors. They are also not recalculated for the number of authors of citations, patents and monographs / chapters in the monograph.)

[2] Zohľadnenie výstupov vo forme monografií/kapitol v monografiách a patentoch:
(*Consideration of scientific outputs in the form of monographs / chapters in monographs and patents:)*

- Monografia/ kapitola vo vedeckej monografii môže nahradiť najviac tri/jednu vedeckú prácu, podľa rozsahu a vydavateľstva.
  (A monograph / chapter in a scientific monograph may replace a maximum of three / one scientific papers, depending on the scope and publishing house.)

- Každý prijatý európsky alebo svetový patent je ekvivalentný 10% odporúčaného počtu vedeckých prác vo vedeckých časopisoch evidovaných v WOS alebo SCOPUS kategórie A alebo A+.
  (Each European or world patent received is equivalent to 10% of the recommended number of scientific papers in scientific journals indexed in WOS or SCOPUS databases in the category A or A+.)

- Každý preukázateľne realizovaný patent je ekvivalentný 20% odporúčaného počtu vedeckých prác vo vedeckých časopisoch evidovaných v WOS alebo SCOPUS kategórie A alebo A+.
  (Each demonstrably realized patent is equivalent to 20% of the recommended number of scientific in scientific journals indexed in WOS or SCOPUS databases in the category A or A+.)

- miere náhrady sa explicitne vyjadrí inauguračná komisia vo svojom stanovisku k začatiu inauguračného konania.
  (The extent of substitution will be explicitly considered by the inauguration commission in its statement to the starting inauguration procedure.)

[3] Písomné referencie od popredných zahraničných odborníkov z aspoň troch rozličných štátov mimo Slovenskej republiky, pričom v referenciách bude potvrdené, že uchádzač spĺňa požiadavky na pôsobenie vo funkcii profesora v medzinárodnom kontexte.
(The written references from recognized scientist in the field, form at least three different countries out of Slovak republic. In the references should be stated that an applicant fullfil requirements for the position of university professor at the international level.)

A. PUBLICATION ACTIVITIES

Ph.D. thesis

1. Strengthening of Soda-Borosilicate Glasses by Ion Exchange Processes, 2017, **Supervisor:** Prof. Vincenzo M. Sglavo, (*https://dx.doi.org/10.15168/11572_368740*)

Patents (National and European)

1. M. Vakhshouri, A. Najafzadehkhoee, **A. Talimian**, D. Galusek, A method for producing Al_2O_3 based eutectic ceramic composites, European Patent Office, Application number: EP25155121.4, Filed date: 30.01.2025. (pending)

2. M. Vakhshouri, A. Najafzadehkhoee, **A. Talimian**, D. Galusek, Spôsob výroby eutektických keramických kompozitov na základe pseudo ternárneho systému Al_2O_3–$Al_3Y_5O_{12}$–ZrO_2, Industrial Property Office of the Slovak Republic, Application number: PP50007-2024, Filed date: 30.01.2024. (pending)

3. J. Zhao, **A. Talimian**, D. Galusek, V.M. , Sglavo, Method for achieving transparency in cold sintering of glass powder, Pending, Filed date: 01.02.2025 (patent application under review)

Book chapter:

A+ & A (scientific paper published in a scientific journal registered in WOS or SCOPUS): 27

1. H. Tripathi, A. Najafzadehkhoee, **A. Talimian**, D. Galusek, Formulation Effects on the Processing of Aqueous Tape-Cast Alumina, Spinel, and Zirconia, Ceramics International, 2026, ISSN 0272-8842, https://doi.org/10.1016/j.ceramint.2026.07.525. IF=6.0

2. A. Najafzadehkhoee, **A. Talimian**, A. Gallardo-Lopez, R. Poyato, F. Gutierrez-Mora, Z. Hajovska, M. Nosko, D. Galusek, Influence of Small Amounts of Transition Metal Oxides on Spark Plasma Sintering of Nano-Y2O3, Open Ceramics, 2026, ISSN 2666-5395, https://doi.org/10.1016/j.oceram.2026.100992. IF=3.4.

3. M. Vakhshouri, **A. Talimian**, A. Najafzadehkhoee, Á. Gallardo-López, R. Poyato, F. Gutiérrez-Mora, D. Galusek, Fabrication of Al2O3-Y3Al5O12-ZrO2 Composites by Single-Step Spark Plasma Sintering, Journal of the European Ceramic Society, 2025, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2025.117358 . IF=6.3.

4. A. Najafzadehkhoee, A. Jabr, **A. Talimian**, R. Papšík, D. Drdlík, K. Maca, D. Galusek, R. Bermejo, Improving Contact Damage Resistance of Spinel Translucent Ceramics Through a Multi-Layer Design, Journal of the European Ceramic Society, 2025, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2024.117071. IF=6.3.

5. M. Vakhshouri, A. Najafzadehkhoee, **A. Talimian**, C. López Pernia, R. Poyato, Á. Gallardo-López, F. Gutiérrez-Mora, A. Prnova, D. Galusek, Al2O3/Y3Al5O12 (YAG)/ZrO2 Composites by Single-Step Powder Synthesis and Spark Plasma Sintering, Journal of the European Ceramic Society, 2024, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2024.05.004. IF=6.2.

6. **A. Talimian**, R. Limbach, D. Galusek, L. Wondraczek, Hardness and Scratch Resistance of Chemically Strengthened Alkali-Borosilicate Thin Glass, Journal of the American Ceramic Society, 2024, ISSN 0002-7820, https://doi.org/10.1111/jace.19804. IF=3.8.

7. S. Chen, M. Michálek, E.I.G. Castillo, B. Hruška, **A. Talimian**, J. Šurka, H. Kaňková, A. Prnová, A. Dasan, M. Mahmoud, J. Kraxner, D. Galusek, The Effect of Alkali Activation on the Textural Properties of Flame-Synthesized 45S5-Derived Micron-Porous Bioactive Glass Microspheres, Materialia, 2024, ISSN 2589-1529, https://doi.org/10.1016/j.mtla.2024.102023. IF=2.5.

8. A. Najafzadehkhoee, **A. Talimian**, V. Girman, R. Sedlák, P. Hvizdoš, K. Maca, D. Galusek, Liquid Phase Sintering of Yttrium Oxide: The Effect of Al2O3 and SiO2 Additives, Journal of the European Ceramic Society, 2024, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2023.08.055. IF=6.2.

9. V. Pouchlý, **A. Talimian**, J. Kaštyl, M. Chvíla, E. Ščasnovič, A.M. Beltrán, J.G. Lozano, D. Galusek, Transparent LiOH-Doped Magnesium Aluminate Spinel Produced by Spark Plasma Sintering: Effects of Heating Rate and Dopant Concentration, Journal of the European Ceramic Society, 2023, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2023.01.059. IF=5.8.

10. N.P. Govindan, A. Najafzadehkhoee, **A. Talimian**, V. Pouchlý, M. Michálková, P. Švančárek, R. Klement, D. Galusek, Sintering of Ce3+-Doped Yttria Nanoparticles Prepared by Precipitation Method, Open Ceramics, 2023, ISSN 2666-5395, https://doi.org/10.1016/j.oceram.2023.100315. IF=NA (3.4 in 2026)

11. A. Najafzadehkhoee, **A. Talimian**, J. Sedláček, M. Lisnichuk, P. Hvizdoš, D. Galusek, Translucent Yttrium Oxide Ceramics from Low-Density Green Bodies Shaped by Uniaxial Pressing, Journal of the European Ceramic Society, 2022, ISSN 0955-2219, https://doi.org/10.1016/j.jeurceramsoc.2022.04.036. IF=5.7.

12. N. Afsharimani, **A. Talimian**, E. Merino, A. Durán, Y. Castro, D. Galusek, Improving Corrosion Protection of Mg Alloys (AZ31B) Using Graphene-Based Hybrid Coatings, International Journal of Applied Glass Science, 2022, ISSN 2041-1286, https://doi.org/10.1111/ijag.16539. IF=2.1.

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B (other publications registered in WOS or SCOPUS, other reviewed publications in journals): 1

1. **A. Talimian** and V.M. Sglavo, V. M., Glass: Chemical and thermal strengthening. In Encyclopedia of Materials: Technical Ceramics and Glasses (Vol. 2, pp. 632–646). Elsevier (2021). https://doi.org/10.1016/B978-0-12-818542-1.00075-8

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B. PROFESSIONAL ACTIVITIES

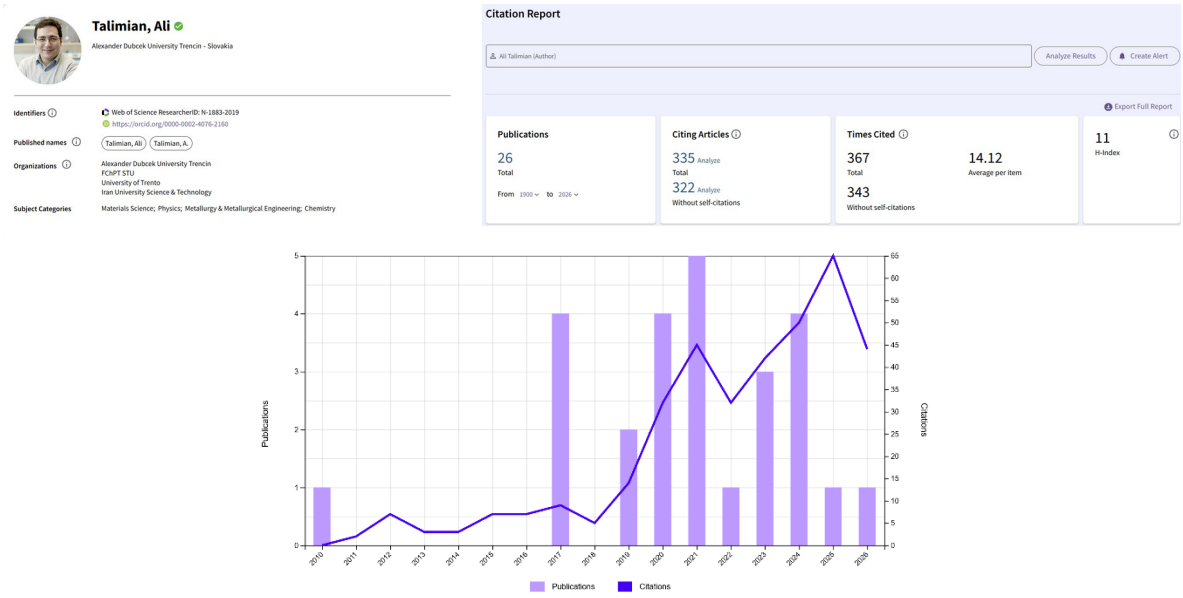
- **Citations and responses**

Table 1. Summary of citation metrics from the Web of Science for Ali Talimian (ResearcherID: N-1883-2019), as of October 2026.

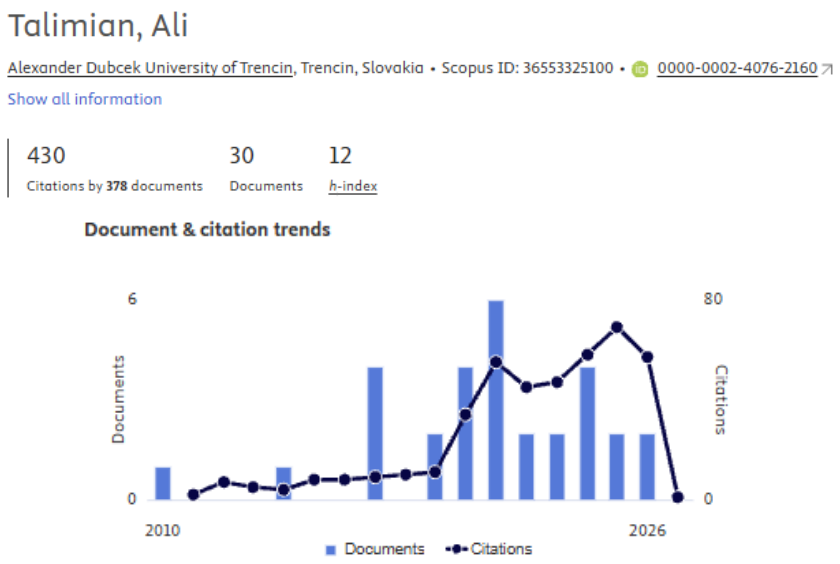
Citations in WOS	335	322 (without self-citation of all authors)
H index	11	-
Citations in Scopus	430	343 (without self-citation of all authors)
H index	12	10

- **Analysis of research results from 2010 to 2026**

Web of Science

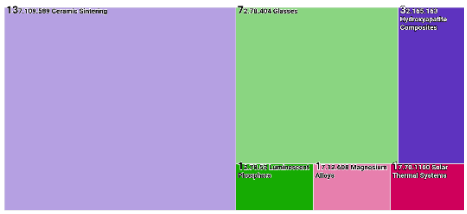


Scopus

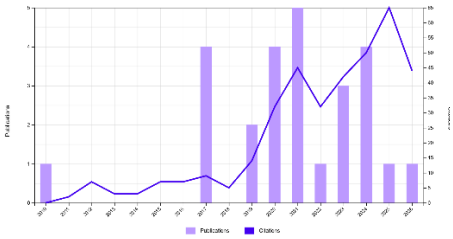


- **Citation overview analysis**

Web of Science (Web of Science ResearcherIDN-1883-2019)

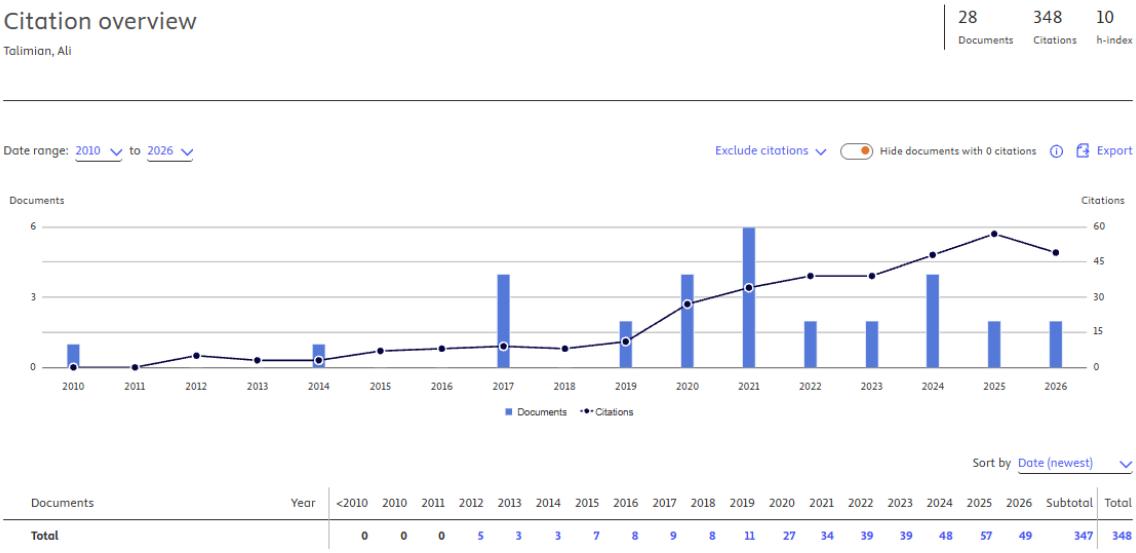


Citation Topics Micro	Record Count	% of 26
Ceramic Sintering	13	50
Glasses	7	26.923
Hydroxyapatite Composites	3	11.538
Luminescent Phosphors	1	3.846
Magnesium Alloys	1	3.846
Solar Thermal Systems	1	3.846





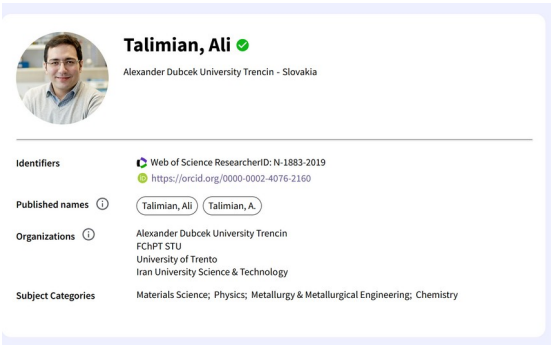
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Documents	Year	<2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Subtotal	Total
Total		0	0	0	5	3	3	7	8	9	8	11	27	34	39	39	48	57	49	347	348

* self-citations excluded

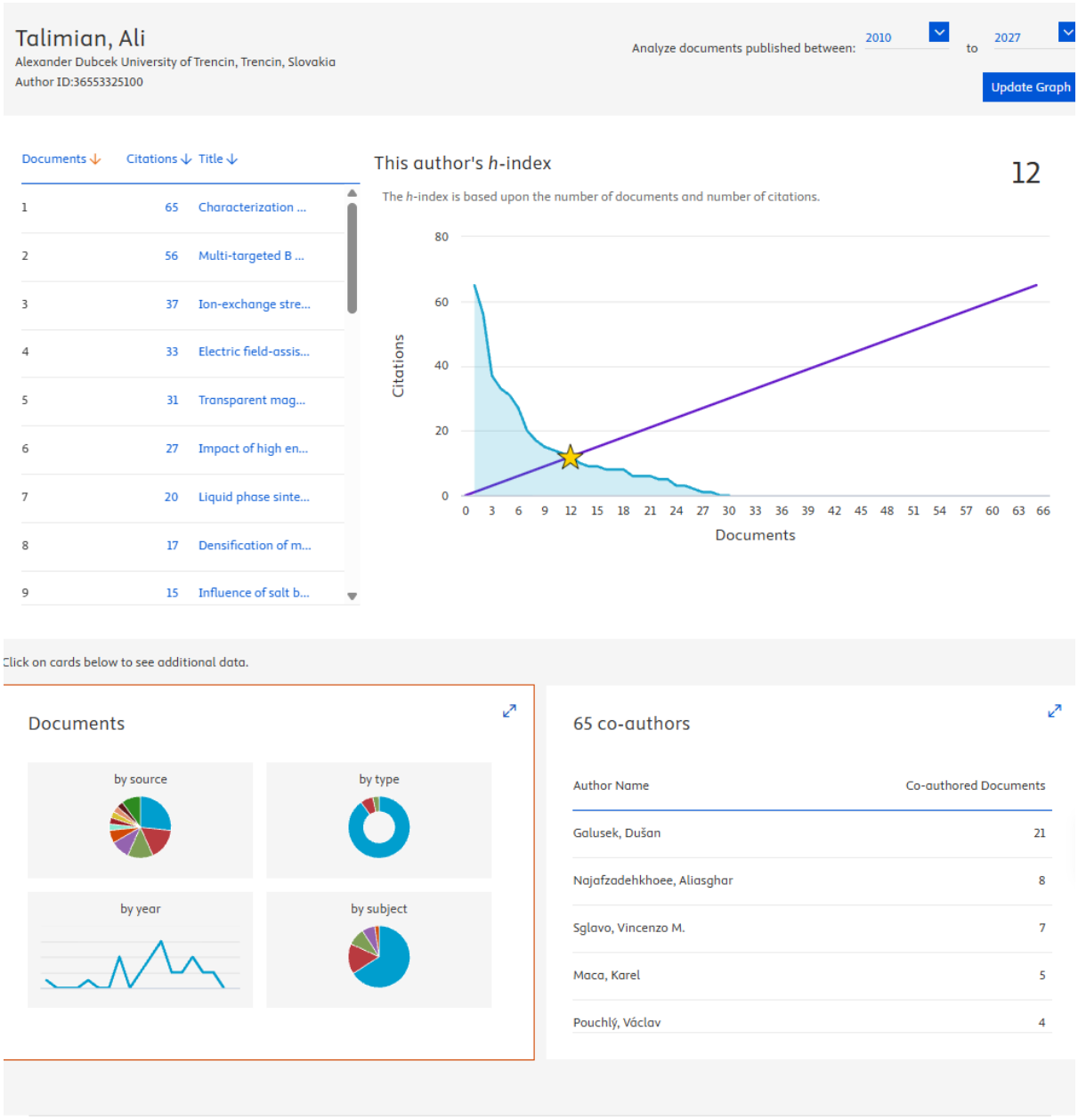
- **Distribution of citations across the world**



Countries/Regions	Record Count	% of 26
SLOVAKIA	20	76.923
CZECH REPUBLIC	7	26.923
ITALY	6	23.077
SPAIN	5	19.231
EGYPT	4	15.385
GERMANY	4	15.385
AUSTRIA	1	3.846
CANADA	1	3.846
IRAN	1	3.846

- **H- index analysis: Ali Talimian**

https://www.scopus.com/hirsch/author.uri?accessor=authorProfile&auidList=36553325100&origin=AuthorProfile&display=hIndex



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City	**Date**	**Name and Title**
Trenčín	14.10.2026	Ali Talimian, Ph.D.

C. PROJECT ACTIVITIES

#	Project title	Funding source	Amount (€)	Period	Role
1	From Non-Ideal Mixing to Predictive Point Defect Chemistry in High Entropy Oxides via Ab Initio–CALPHAD–Mesoscale Integration / APVV-25-0339	Slovak Research and Development Agency (APVV)	256 681	2026–2030	Principal Investigator
2	From microstructure to durability: studying the relationship between microstructure and surface damage of transparent ceramics / VEGA 1/0564/26	VEGA (Scientific Grant Agency)	51 648	2026–2029	Principal Investigator
3	GlaCerHub: Glass-ceramic innovation ecosystem (HORIZON EUROPE project No. 101087154)	European Research Executive Agency	4 994 751	2023–2027	Researcher
4	Development of scratch-resistant oxide glasses using artificial intelligence/machine learning modeling methods (GlaScratch), complementary to GlaCerHub (HORIZON EUROPE No. 101087154)	Úrad vlády SR, Recovery and Resilience Plan (09I01-03-V04), NextGenerationEU	199 999	2023–2026	Researcher
5	Center for Functional and Surface Functionalized Glass (FunGlass), Horizon 2020 No. 739566	European Commission, Horizon 2020	15 000 000	2018–2024	Researcher
6	Ion exchange strengthened aluminosilicate glass/glass-ceramics with additional functionalities / VEGA 2/0028/21	VEGA (Scientific Grant Agency) VEGA 2/0028/21	54 630	2021–2024	Researcher
7	Novel glass and glass-ceramic rare-earth aluminates-based phosphors for energy-saving solid-state lighting sources emitting white light (pc-WLEDs) / APVV-17-0049	Slovak Research and Development Agency (APVV)	180 045	2018–2022	Researcher

#	Project title	Funding source	Amount (€)	Period	Role
8	Long persistent phosphors based on stoichiometric aluminates and silicates for optical and biomedical applications / VEGA 1/0527/18	VEGA (Scientific Grant Agency) VEGA 2/0026/17		2018–2021	Researcher
9	Transparent polycrystalline ceramic materials with submicron microstructure and luminescent properties / VEGA 2/0026/17	VEGA (Scientific Grant Agency) VEGA 2/0026/17		2017–2021	Researcher

City	Date	Name and Title
Trenčín	14.10.2026	Ali Talimian, Ph.D.

V. SCIENTIFIC EDUCATION

Ph.D., thesis (co-supervised)

1. Dissertation topic: “Developing Rare-Earth-Free Functional High-Entropy Oxide Ceramics for Energy Storage via Machine Learning-Assisted CALPHAD”. Type of thesis: Ph.D., Supervisor: Prof. Dusan Galusek. **Co-supervisor: Dr. A. Talimian**. Place: FunGlass, Slovakia. Student Name: Kubra Cetin, MSc. Start date: 1.9.2026. Status: Ongoing.

2. Dissertation topic: “AI-Assisted Surface Engineering of Oxide Glasses to Optimize Bonding and Chemical Release”. Type of thesis: Ph.D., Supervisor: Prof. Dusan Galusek. **Co-supervisor: Dr. A. Talimian**. Place: FunGlass, Slovakia. Student Name: Mohammad Ishaq, MSc. Start date: 1.9.2026. Status: Ongoing.

Bachelor's and master's theses (supervised/co-supervised)

1. Master’s thesis: Norbert Ocsko, Thesis title: TEMPRA CHIMICA DI VETRO FLOAT: DISATTIVAZIONE DEL PROCESSO IN PRESENZA DI IONI CALCIO (in English: Chemical tempering of float glass: deactivation of the process in presence of calcium ions), 2015-2016, Supervisor: Prof. Vincenzo M. Sglavo. **Co-supervisor: Dr. A. Talimian**. Department of Industrial Engineering, University of Trento, Italy. (https://webapps.unitn.it/Biblioteca/en/Web/TesiDocente/193864)

City	**Date**	**Name and Title**
Trenčín	14.10.2026	Ali Talimian, Ph.D.

VI. OTHER PROFESSIONAL ACTIVITIES:

REVIEWER ROLE

Peer review journals:

2017–Present Peer Reviewer, Journal of the European Ceramic Society, Netherlands (IF: 6.3)

2017–Present Peer Reviewer, Journal of the American Ceramic Society, United States (IF:4.2)

2017–Present Peer Reviewer, Ceramics International, Netherlands (IF: 6.0)

2017–Present Peer Reviewer, Journal of Non-Crystalline Solids, Netherlands (IF: 3.6)

2017–Present Peer Reviewer, International Journal of Applied Glass Science, United States (IF: 2.0)

EDITORIAL ACTIVITIES

2025 **Co-editor** (with J. J. V. Velázquez García et al.) of the university textbook Inorganic Technology and Non-Metallic Materials, Alexander Dubček University of Trenčín, 2026: Volume 1 (ISBN 978-80-8295-070-3) and Volume 3 (ISBN 978-80-8295-072-7).

Grant proposal reviewer:

2025-Present Reviewer, Scientific Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Academy of Sciences (VEGA), Committee No. 7

PARTICIPATION IN COMMITTEES

2022-2024 Internal Ph.D. Grant; Centre for Functional and Surface Functionalized Glass (FunGlass), Alexander Dubček University of Trenčín; Role: **Chairperson**

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2025 Member, Slovak Glass Society

2014 Member, American Ceramic Society

2025 Member, European Ceramic Society

2025 Member, Slovak Silicate Society

AWRDS

2020 Award for scientific achievements, Alexander Dubček University of Trenčín, Slovakia

INVITED TALKS

2025 Mitigating Catastrophic Failure: Glasses with Adaptive Structures and Laminar Ceramics with Engineered Stress Profiles, 8th International Conference Fracture Mechanics and Fractography of Advanced Ceramics, Smolenice, Slovakia, Oct 2025

2024 Densification and Grain Growth of Transparent Ceramics: Case Studies of Solid State and Liquid Phase Sintering, 4th POLISH-SLOVAK-CHINESE SEMINAR ON CERAMICS, Krakow, Poland, Sep 2024

RESEARCH STAYS ABROAD

Nov 2024 Visiting scientist, Division 5.6 Glasses, Federal Institute for Materials Research and Testing) in Berlin, Germany.

Jul 2022 Otto Schott Institute of Materials, Friedrich Schiller University of Jena, Jena, Germany

Sep 2019 Visiting scientist, Department of Industrial Engineering, University of Trento, Trento, Italy

Sep 2018- Sep 2019 Visiting Postdoctoral Researcher; Otto Schott Institute of Materials, Friedrich Schiller University of Jena, Jena, Germany

TRAVEL GRANTS

2016 Travel grant: CersJ-GOMD joint symposium 2016 (Kyoto-Japan), Glass and Optical Materials Division (GOMD), American Ceramic Society/ Corning Inc., USA, Budget: 1 k€

2016 Travel grant: GOMD conference 2016, Glass and Optical Materials Division (GOMD), American Ceramic Society, USA, Budget: 0.5 k€

2015 Scholarship: Advanced School on Glasses and Glass-Ceramics, FAPESP (Sao Paulo Research Foundation), Brazil, Budget: 1 k€

INTERNATIONAL AND DOMESTIC COLLABORATION

Prof. Lothar Wondraczek; Otto Schott Institute of Materials, Friedrich Schiller University of Jena, Jena, Germany*; since 2018*

Prof. Vincenzo M. Sglavo; Department of Industrial Engineering, University of Trento, Trento, Italy; *since 2017*

Prof. Karel Maca; Brno University of Technology, Brno, Czech Republic; *since 2018*

Prof. Morten Mattrup Smedskjær; Aalborg University, Aalborg, Denmark; *since 2018*

Dr. Peter Tatarko; Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia; *since 2017*

Dr. Tamás Csanádi; Institute of Materials Research, Slovak Academy of Sciences, Košice, Slovakia, *since 2021*

City	**Date**	**Name and Title**
Trenčín	14.10.2026	Ali Talimian, Ph.D.

DECLARATION

I declare that the information provided in this document is true.

City	Date	Name and Title
Trenčín	14.10.2026	Ali Talimian, Ph.D.