

Professor Dr. Alida Timar-Gabor-narrative CV

Pushing research frontiers in geochronology through innovative laboratories and integrated experimental techniques: A journey of dedication and teamwork in earth and environmental sciences

Alida Timar-Gabor is a professor of environmental radioactivity at the Faculty of Environmental Science and Engineering and the director of the Environmental Radioactivity and Nuclear Dating Centre at Babeş-Bolyai University (BBU) in Cluj-Napoca, Romania. She defended her Ph.D. in physics in 2010 and later achieved Habilitation in environmental science in 2015. Alida Timar-Gabor has been at the forefront of pioneering the applications of absolute dating methods for establishing sediment chronologies in Romania. Her contributions led to the establishment and current leadership of the Luminescence and Electron Spin Resonance Dating Laboratories at her home institution. These facilities will be enhanced in the following months with the addition of electron microscopy.

Despite starting her journey in a laboratory that had not yet fully established itself, even during her time as a Ph.D. student, Alida Timar-Gabor demonstrated determination in challenging prevailing notions within the field of luminescence dating. In the realm of optically stimulated luminescence dating of quartz, Alida Timar-Gabor is recognized as the pioneering researcher worldwide who reported a systematic deviation in the ages obtained from fine sands and fine silts for deposits over approximately 40 thousand years old, challenging the validity of numerous prior investigations, with significant implications for the luminescence dating community. Additionally, Alida Timar-Gabor established a strong network of collaborations in the paleoclimate community, successfully applied the method to other Quaternary environments and topics such as: eolian sands, paleosoils, lake sediments, eolianites, cave sediments and volcanic and engaged in dosimetry and materials studies.

Alida Timar-Gabor was the PI of INTERTRAP (678106, Horizon 2020, 2016-2021, “Integrated dating approach for terrestrial records of past climate using trapped charge methods”), a European Research Council Starting Grant, that held the distinction of being one of the first three ERC grants implemented in Romania, the first in her host institution, and the first in Romania in the field of Physical Science and Engineering. INTERTRAP allowed her to purchase research equipment worth over 1 million Euro and establish a state-of-the-art luminescence and electron spin resonance (ESR) dating laboratory at BBU. INTERTRAP project spanned four continents, focusing on dating methods for sediments and paleoclimate studies, addressing both a geological as well as a methodological problem. The paleoclimate approach of INTERTRAP consisted in (i) deriving luminescence ages and paleoclimate proxy records at high-resolution around the Pleistocene/ Holocene climate boundary recorded in loess deposits, (ii) comparing these records across four continents and (iii) comparing these terrestrial records with global key records to test for the synchronicity of change. INTERTRAP

members have shown that the magnetic susceptibility used as a proxy to correlate loess palaeosol sequences reflects a gradual transition from the Last Glacial towards the Holocene and that the onset of the magnetic signal enhancement produced by pedogenesis started around Termination 1 (~17 ka in the North Atlantic), as observed in radiocarbon-dated regional benthic $\delta^{18}\text{O}$ stacks, but before the stratigraphic Pleistocene/ Holocene transition dated at 11.7 ka in ice core records. On key sections previously used to highlight the environmental impact that North Atlantic climatic variability had on the terrestrial environments INTERTRAP members have shown that embryonic soils previously interpreted as reflecting Greenland interstadials are most likely reflecting regional hydroclimate variability, rather than global events. As such, it was proven that the practice of directly correlating rapid climate events identified for different archives should be discarded in the absence of absolute age control. The methodological approach of INTERTRAP aimed at developing more reliable dating methods for sediments older than about 40 ka by using ESR alongside luminescence methods. As such, Professor Timar-Gabor opened once again a new avenue of research in Romania, namely ESR dating of sediments. By performing single grain analysis, it was shown that brighter grains are considered to give more accurate results. As such, by using coarse grains instead of fine ones and by selecting the brighter grains, more accurate chronologies can be achieved.

In 2022 Alida Timar-Gabor has set a benchmark in Eastern and Central Europe, a region with traditionally low success rates in obtaining ERC funding, by securing a second grant of this kind, PROGRESS (101043356, Horizon Europe, 2023-2027, “Reading provenance from ubiquitous quartz: understanding the changes occurring in its lattice defects in its journey in time and space by physical methods”). The main objective of PROGRESS is the development of quartz-based provenance methods, by understanding the changes occurring at atomic level in quartz over geological time, by complex investigations samples of different types with ages spanning over a Ga scale. This project will enable expanding our laboratories by coupling luminescence and paramagnetic electron resonance dating techniques with spectrally resolved cathodoluminescence based on scanning electron microscopy and other spectroscopic techniques on state-of-the-art equipment worth over 1.5 million Euro. The previous coupling with the paramagnetic electron resonance dating laboratory has added a unique dimension, because, although these techniques are popular for other applications, there are only a few, probably less than ten laboratories in the world that combine these experimental methods for dating purposes. The implementation in this laboratory of microscopic and cathodoluminescence techniques designed towards the same end will provide the BBU laboratory with a distinct competitive advantage in the luminescence and paramagnetic electron resonance dating community. Due to PROGRESS, our laboratory will not only be a major player in the field, but one of the laboratories that will bring about major qualitative leaps in this community.

Although Alida Timar-Gabor spent her whole career based in Romania, she has always maintained close ties with the international academic community. Alida Timar-Gabor's publication record includes over 100 scientific articles, published in indexed journals, out of which half are already in the top 25% most cited documents worldwide according to Scopus. More than half of her publications are internationally collaborative, with over 200 scientific collaborations with eminent researchers and institutions worldwide and close collaborations with some esteemed researchers in luminescence dating such as Professor Ann Wintle or Professor Andrew Murray. The average field weight citation impact factor for the articles she has published as first author is over 3 according to Scopus. Her expertise is acknowledged as she referees for esteemed entities such as the European Research Council (ERC) and the Swiss National Science Foundation. Her role as a distinguished referee extends to multiple reputable journals and she holds an editorial position for the Global and Planetary Change Journal. She stands on the scientific committee of the most reputable conference in her field, the international conference on luminescence and electron spin resonance dating. Her accolades encompass a wide range of honors, including Premiul "Grigore Cobălcescu" al Academiei Române, Premiul Ad Astra Excelență în cercetare, L'Oréal UNESCO For Women in Science Award. Other notable awards include the International Danubius Young Scientist Award, The Woman Innovation Award, and the Universitaria Award "Gândit în România." Additionally, she was featured by Elsevier as one of the women with remarkable achievements in physics.

Professor Timar-Gabor advocates for open, transparent, and merit-based selection criteria in her projects, while promoting inclusivity. Her mentorship extends to postdoctoral researchers from diverse continents, reflecting a global perspective and dedication to diversity in scientific research. She is a member of ERC grantee's association and currently she represents researchers from Central and Eastern Europe in the Equality, Diversity, and Inclusion Committee of European Geosciences Union. She acted as main convener of Union Symposia "Challenges and solutions to increasing accessibility, representation, recognition and diversity of European countries in the European geosciences community" at the European Geosciences union in 2023. Additionally, she was the representative of Romanian researchers at the Forum Future Europe held at Leopoldina in 2019. Her completion of the Massachusetts Institute of Technology Professional Education Certificate program on "Women in Leadership: Becoming an Agent of Change" reflects her dedication to further developing her leadership skills, which she uses to inspire and lead her research teams.

A distinguishing facet of Alida Timar-Gabor's career is her dedication to mentoring young researchers. Her impact as a mentor and role model has nurtured the careers of aspiring scientists, as she has supervised five postdoctoral students, over ten doctoral students and over thirty master's and bachelor's students in her 15-year career so far. The CV's of her team members presented below stand as testament to her unwavering dedication not only to science but also to her team.

Annex- Career timeline and listed achievements

Personal Information

Family name, First name: **Gabor (born Timar) Alida Iulia**

Date of birth: 17 September 1983

Researcher unique identifier(s) ORCID 0000-0003-4799-3866, Scopus ID 15019887000,

Google Scholar: <https://scholar.google.ro/citations?user=StsjnjsAAAAJ&hl=ro>

H=32 (whole career)/ H=24 (since 2019)

Education

2015: Habilitation in Environmental Science Babeş-Bolyai University (BBU), Cluj-Napoca, Romania.

2010: PhD in Physics, Babeş-Bolyai University, Cluj-Napoca, Romania, supervised by Prof. Dr. Constantin Cosma; PhD thesis title: „*Retrospective luminescence dosimetry: applications in archaeology, geology and environmental studies.*”

2005 - 2006: Master “Atomic and nuclear methods in environmental research”, Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania. Master thesis: “*Comparing Quartz OSL and Polymineral IRSL Ages for Chinese Loess: A case study*” Promoters: Prof. Dr. Constantin Cosma –Faculty of Environmental Science, Babeş-Bolyai University, Cluj-Napoca, Romania; Prof. Dr. Peter Van den haute and Dr. Dimitri Vandenberghe, Department of Mineralogy and Petrology, Gent University, Gent, Belgium.

2001 - 2005: Bachelor’s degree in physics, BBU.

Current positions

2019-present: Professor, Department of Environmental Analysis and Engineering, Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania.

Previous positions: 2015-2019 associate professor, 2012-2015 lecturer, 2008-2012 teaching assistant at Department of Environmental Analysis and Engineering, Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania.

Fellowships and awards

Fellowships: 2005- 2006: Erasmus fellow in Gent University, Gent, Belgium. 2007 -2008: Visiting junior researcher, Department of Mineralogy and Petrology, Gent University, Gent, Belgium.

International awards:

2018- Elsevier Virtual Special Issue on Women in Physics

2015- Danubius Young Scientist International Award

2008- International Award „Vagn Mejdahl Prize” for Outstanding Poster Presentation - „ 12th International Conference on Luminescence and Electron Spin Resonance Dating”, 18th- 22nd September 2008, Beijing, China.

National awards:

2023- Grigore Moisil award for exact sciences Virtus Excelsior Gala, under the patronage of Romanian Academy, first edition, 2023

2022- Universitaria Award “Gândit în România”, 1st edition 2022

2018- Young Researchers in Science and Engineering, Romania. **2016-** The Woman Innovation

Award, Romania. **2015-** L'Oréal “Women in Science” Romania award in the field of physical sciences. **2014-** „Grigore Cobălcescu” Award of the Romanian Academy, in the field of Geology.

2014- Ad Astra Award for Excellence in Research, Earth and Space Sciences, Romania. **2014** and

2016- „Excellentia” award, in recognition of outstanding teaching activities, at the nomination of the council of students of Babeş-Bolyai University of Cluj Napoca. **2010-** Distinction „The story of my PhD”, in the field of Environmental Science awarded by the Romanian Council of Research.

Supervision of graduate students and postdoctoral fellows

2010-present: 4 postdoctoral fellows, 12 doctoral students, 33 master and bachelor students enrolled at Babeş-Bolyai University, Cluj-Napoca, Romania.

Post-doctoral students supervised in the framework of the grants lead by the PI: Dr. Daniela Constantin (2016 present), Dr. Aditi Dave (2022-present), Dr. Zuzanna Amelia Kabacińska (2020-2023), Dr. Khalif Benzid (2018-2020).

Doctoral students (year of graduation given in brackets): Daniela Constantin (2015), Monica Zeciu-Dolha (2016), Oana Trandafir-Antohei (2018), Hedvig Simon (2018), Valentina Anechitei-Deacu (2018), Andrada Pascu (2019), Viorica Tecsă (2020), Madalina Stefana Groza (2020), Anca Avram (2021), Laura del valle Villalonga (2021), Szabolcs Kelemen (2023). Current PhD students: Şerban Constantin Grecu.

Foreign students that performed research stages in the laboratories lead by the PI: Dr. Janina Bosken (RWTH Aachen), DAAD fellowship, February-May 2019, PhD student Aditi Dave (Max Plank Institute for Chemistry Mainz), May-July 2019 and August-December 2020, *Laura del Valle Villalonga*, Departament de Ciències de la Terra, Universitat de les Illes Balears, Spain, July 2013, April-May 2014, November 2017-April 2018.

Teaching activities

2006-present: Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania. Courses and practical exercises in: Environmental Radioactivity, Environmental Physics, Nuclear Geochronology.

Organisation of meetings

Main convener of Union Symposia “Challenges and solutions to increasing accessibility, representation, recognition and diversity of European countries in the European geosciences community”, EGU General Assembly, 2023, 23-28 Aprilie, Viena, Austria.

Organizing an Information Event on the European Research Council Program, October 2023

<https://news.ubbcluj.ro/programul-consiliului-european-pentru-cercetare-erc-prezentat-la-ubb/>

2013- INTIMATE Workshop on Terrestrial Records from Eastern Europe", March 7-9, Cluj-Napoca, Romania. 2012 -First East European radon symposium, FERAS, September 2-5, Cluj-Napoca, Romania.

Member in the scientific committee conferences

17th International Conference on Luminescence and Electron Spin resonance Dating, 26-30 June 2023, Copenhagen, Danemarca. <https://led2023.com/>

14th Conference on the Methods of Absolute Chronology (<https://mach2023.polsl.pl/>) in Gliwice, Poland 17-19 May 2023.

International Conference on Materials - Properties, Measurements and Applications, ICMPMA 2022, <https://icmpma.fmnc.ac.in/>, 9 -13 May 2022.

Eurasian Environmental dynamics and humans’ interactions over different time scales, Belgrade, 27-29 June 2019

International Symposium on Eolian deposits in Earth History, Beijing, 12-15 October 2015.

Editorial Activity

Global And Planetary Change-member in the editorial board.

<https://www.sciencedirect.com/journal/global-and-planetary-change/about/editorial-board>

Invited editor - Proceedings of International Conference on Materials - Properties, Measurements, and Applications (ICMPMA 2022), IOP publishing. [Preface - IOPscience](#)

Reviewing activities

Reviewers board of the following journals: Radiation Measurements, Quaternary Geochronology,

Quaternary Science Reviews, Quaternary Research, Quaternary International, Boreas, Journal of Asian Earth Sciences, Applied Radiation and Isotopes, Geochronometria, Radiation Physics and Chemistry, Climate of the Past, Radiation and Environmental Biophysics, Geomorphology, Methods and Protocols, Tectonics, GChron, Journal of Archaeological Science, Physics and Chemistry of Minerals.

Funding agencies: National Science Centre Poland, National Research Development and Innovation Office, Hungary, Research Grants Council Hong Kong, European Research Council.

Jury member for L'Oréal for "Women in Science" Romania. Member in panels for best student awards at various luminescence and electron spin resonance international meetings.

Evaluator for PhD thesis at foreign universities:

Ghent University (ARWU top 100), Belgium, 2023, Technical University of Denmark, 2018 and 2024 (ARWU 100-200), Universitat de les Illes Balears, Spain, 2016.

Invited talks

Loess and Archeology Workshop, RWTH Aachen University (ARWU 200-300), 27-29 November **2019**, "Dating and provenance of loess by luminescence and ESR".

2016 LOESSFEST, University of Wisconsin, 22-25 September **2016**, "Results and challenges from optically stimulated luminescence dating of loess using single aliquot regeneration protocol on quartz"

CRC- Our way to Europe Workshop, RWTH Aachen University, 3-4 July **2015**, "Optical dating of (Last Glacial) loess in Romania"

European workshop on the luminescence behaviour and processes in quartz, University of Bern, 22-23 April **2013**, "Natural and laboratory generated dose response curves from quartz of different grain sizes: results and challenges from luminescence dating of Romanian loess".

Solicited talks: EGU General Assembly, Vienna, Austria, 7-12 April **2019**, "From atoms and radiation towards reconstructing past climate change" (TM7 ECS Frontier research in the geosciences: hot topics and advancements) and EGU General Assembly, Vienna, Austria, 23-18 April **2017**, "How to write a successful ERC Grant proposal" (SC5 ECS)

Chairman at prestigious conferences:

17th International Conference on Luminescence and Electron Spin resonance Dating, 26-30 June 2023, Copenhagen, Denmark.

UKLED 2019, 26-28 August, 2019 Roskilde, Denmark.

15th International Conference on Luminescence and Electron Spin resonance Dating, 11-15 Septembrie 2017, Cape Town, Africa de Sud.

14th International Conference on Luminescence and Electron Spin resonance Dating, 7-11 Iulie 2014, Montreal, Canada.

Scientific research grants

PI of European research Council (ERC) Consolidator Grant 101043356, HORIZON EUROPE, „PROGRESS- Reading provenance from ubiquitous quartz: understanding the changes occurring in its lattice defects in its journey in time and space by physical methods”, 2023-2027 (2 657 000 Euro)

PI of „INTERTRAP- Integrated dating approach for terrestrial records of past climate using trapped charge methods”, 2016-2021, European Research Council (ERC) Starting Grant 678106, HORIZON 2020. (1 500 000 Euro)

Partner team PI in “CARSTHIVES- Cave deposits as archives of climate and environmental changes. A Center of Excellence in speleological research”, EEA-RO-NO2018-0126, 2019-2023, EEA and Norway grants. (200 000 Euro)

PN-III-P3-3.6-H2020-2016-0016, 7/2006, 2016-2021, “Premierea H2020 Integrated absolute dating approach for terrestrial records of past climate using trapped charge methods (INTERTRAP)” (375 000 Euro).

CNCS-UEFISCDI PN II- RU-TE-2011-3-0062, “Dating the Romanian Part of the European Loess Belt Using Luminescence”-2011-2014 (aprox 200 000 Euro)

TD CNCSIS 395, „Dozimetrie retrospectiva luminescenta cu aplicatii in arheologie, geologie si mediu”- 2008 -2009 (aprox 10 000 Euro)

National services contracts with various partners: Romanian Academy, Cluj-Napoca - Babes-Bolyai University, Cluj-Napoca, **2013-2014**– Dating cave sediments by OSL. Contract value: ~2000 Euro.

National services contract University of Bucharest – Babeş-Bolyai University, Cluj-Napoca, **2012-2013** – Optically stimulated luminescence analysis of cave sediments. Contract value: ~2000 Euro.

National services contract University of Bucharest – Babeş-Bolyai University, Cluj-Napoca, **2011-2012** - Optically Stimulated Luminescence dating of 8 sediment samples collected from coastal barriers Saele, Chituc and Lupilor. Contract value: ~2000 Euro.

Memberships of scientific societies

Association of ERC Grantees

Member of European Geosciences Union (EGU), representative of Eastern European scientists in Equality, Diversity and Inclusion working group of EGU starting 2022.

Institutional responsibilities

2016-present: Director of Environmental Radioactivity and Nuclear Dating Centre at the Institute for Interdisciplinary Research in Bio–Nano–Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania and scientific secretary of the institute. **2021-present:** member of the Faculty Council at Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania. **2012-present:** member of the Council of Research of Babeş-Bolyai University. **2016-2020:** member of the national council of attesting academic titles (CNATDCU), Romania.

Recent media appearances, other (selection)

2020 From atoms and radiation towards reconstructing past climate change, <https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&edid=c2e20a7f-4d97-4ec6-b15e-ea040b9b71d7>

Sinteza

[Sinteza | Istoria unei granule de nisip – de la atomi și radiații spre cuantificarea proceselor geologice \(revistasinteza.ro\)](https://www.revistasinteza.ro/cercetarea-n-pandemie-cum-s-a-navigat-in-apele-necunoscute?fbclid=iwar0udjqcgkzob6jutzpqy8dmbwsjoc2snljql5teupkiiqbmbkety4nmfwu)

<https://www.revistasinteza.ro/cercetarea-n-pandemie-cum-s-a-navigat-in-apele-necunoscute?fbclid=iwar0udjqcgkzob6jutzpqy8dmbwsjoc2snljql5teupkiiqbmbkety4nmfwu>

Știință și tehnica

<https://stiintasitehnica.com/revista-stiinta-tehnica-nr-84-martie-2019-editie-super-speciala-pentru-ele/>

European Researchers night 2020, 2022

https://www.youtube.com/watch?v=c_4WIVMtM0w

List of Publications

Books- Alida Timar-Gabor, Dozimetrie prin termoluminescență (TL) și luminescență stimulată optic (OSL): aplicații în studii de mediu, **Presa Universitară Clujeană 2013**, 400 pag, ISBN: 978-973-595-534-2.

Book Chapters- Daniel Veres, Alida Timar-Gabor, capitol “Climate Change and Dating”, in SAS Encyclopedia of Archaeological Science, ISBN: 978-0-470-67461-, **Wiley Blackwell, 2019.**

<https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119188230.saseas0097>

Alida Timar-Gabor, Cristian Panaiotu, Daniel Veres, Cristian Necula, Daniela Constantin, capitol “The lower Danube loess, new age constraints from luminescence dating, magnetic proxies and isochronous tephra markers” in volume Landform Dynamics and Evolution in Romania, **Springer 2016**, pag 679-697.

https://link.springer.com/chapter/10.1007/978-3-319-32589-7_29

Articles in indexed journals

1. Del Valle Villalonga, L., **Timar-Gabor, A.**, Fornós, J.J., 2023. Chronology of Pleistocene Sedimentary Cycles in the Western Mediterranean. *Quaternary Science Reviews*, accepted.
2. Lawless, J.L., **Timar-Gabor, A.**, 2023. An analytical form to fit both fine- and coarse-grained quartz OSL SAR dose response curves. *Radiation Measurements*, in press.
<https://www.sciencedirect.com/science/article/pii/S1350448723001464>
3. Kelemen, S., Savin, C., **Timar-Gabor, A.**, Begy, R-C, 2023. A comparative study on digestion methods for ²¹⁰Po determinations by alpha spectrometry on peat bog samples. *Journal of Radioanalytical and Nuclear Chemistry*.
<https://doi.org/10.1007/s10967-023-09157-z>
4. Timar-Gabor, A., Kabacińska, Z., Constantin, D., Dave, A., Buylaert, J.P., 2023. Reconstructing dust provenance from quartz optically stimulated luminescence (OSL) and electron spin resonance (ESR) signals: Preliminary results on loess from around the world. *Radiation Physics and Chemistry*, 111138.
<https://www.sciencedirect.com/science/article/pii/S0969806X23003833>
5. Biernacka, M., Timar-Gabor, A., Kabacińska, Z., Palcewski, P., Chruścińska, A., 2022. Trap Parameters for the Fast OSL Signal Component Obtained through Analytical Separation for Various Quartz Samples. *Materials*, 15(23), 8682.
<https://www.mdpi.com/1996-1944/15/23/8682>
6. Dave, A.K., **Timar-Gabor, A.**, Kabacińska, Z., Scardia, G., Safaraliev, N., Nigmatova, S., Fitzsimmons, K.E., 2022. A novel proxy for tracking the provenance of dust based on paired E'-peroxy paramagnetic defect centres in fine-grained quartz. *Geophysical Research Letters*, GL095007.
<https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2021GL095007?fbclid=IwAR2FdaQKRvpHI7w53mQQrwPYpZwXGgxN1YN3SUXouwHY06UTRt5310aXIMY>
7. Avram, A., Kabacińska, Z., Micallef, A., **Timar-Gabor, A.**, 2022. Testing the potential of using fine quartz for dating loess in South Island, New Zealand. *Radiation Measurements*, 106788
<https://www.sciencedirect.com/science/article/pii/S1350448722000816?v=s5>
8. Dave, A.K., **Timar-Gabor, A.**, Scardia, G., Safaraliev, N., Fitzsimmons, K.E., 2022. Variation in luminescence characteristics and paramagnetic defect centres in fine-grained quartz from a loess-palaeosol sequence in Tajikistan: Implications for provenance studies in aeolian environments. *Frontiers in Earth Sciences*.
<https://www.frontiersin.org/articles/10.3389/feart.2022.835281/full>

9. Kabacińska, **Timar-Gabor, A.**, 2022. Dating sediments by EPR using Al-h centre: a comparison between the properties of fine (4-11 µm) and coarse (> 60 µm) quartz grains. *Molecules*, 27(9), 2683.
<https://www.mdpi.com/1420-3049/27/9/2683>
10. Kabacińska, Z., Buylaert, J.P., Yi, S., **Timar-Gabor, A.**, 2022. Revisiting natural and laboratory electron spin resonance (ESR) dose response curves of quartz from Chinese loess. *Quaternary Geochronology*, 70, 101306.
<https://www.sciencedirect.com/science/article/pii/S1871101422000541>
11. Peric, Z., Marković, S., Avram, A., **Timar-Gabor, A.**, Zeeden, C., Nett, J., Fischer, P., Fitzsimmons, K., Gavrilior, M.B., 2022. Initial quartz OSL and dust mass accumulation rate investigation of the Kisiljevo loess sequence in north-eastern Serbia. *Quaternary International*, 620, 13-23.
<https://www.sciencedirect.com/science/article/abs/pii/S1040618220306650?via%3Dihub>
12. Begy, R.C., Savin, C., **Timar-Gabor, A.**, 2022. Correction of the effects of carbon dioxide and hydrogen sulfide on electrostatic cell monitors measurements of radon in water. *Journal of Environmental Chemical Engineering*, 10, 107040.
<https://www.sciencedirect.com/science/article/abs/pii/S2213343721020170>
13. del Valle Villalonga, L., Timar-Gabor A., Pomar, F., Pons Buades, G.X., Fornos, J.J., 2022. Millennial-scale climate variability recorded in Late Pleistocene coastal deposits of Formentera Island (Balearic Archipelago, Western Mediterranean). *Quaternary International*, 617, 112-128.
<https://www.sciencedirect.com/science/article/pii/S1040618221003797>
14. Avram, A., Constantin, D., Hao, Q., Timar-Gabor, A., 2022. Optically stimulated luminescence dating of loess in South-Eastern China using quartz and polymineral fine grains. *Quaternary Geochronology*, 67, 101226
<https://www.sciencedirect.com/science/article/pii/S1871101421000765>
15. Pawlak, N., **Timar-Gabor, A.**, Chruścińska, A., 2021. Residual hole concentration in recombination centers after bleaching. *Geochronometria*, 48 (1), 415-427.
<https://sciencedirect.com/es/article/10.2478/geochr-2021-0008>
16. del Valle Villalonga, L., Pomar, F., Fornós, J., Gelabert, B., **Timar-Gabor, A.**, 2021. Processes and evolution of the Pleistocene coastal sedimentary succession of Es Codolar (Southern Eivissa, Balearic Islands, Western Mediterranean): insights from soft sediment deformation structures. *Environmental Earth Sciences*, 80:754.
<https://link.springer.com/article/10.1007/s12665-021-09966-z>

17. Constantin, D., Mason, J., Veres, D., Hambach, U., Panaiotu, C., Zeeden, C., Zhou, L., Marković, S., Gerasimenko, N., Avram, A., Tecsa, V., Groza-Sacaciu, S.M., del Valle Villalonga, L., Begy, R.C., **Timar-Gabor, A.**, 2021. OSL-dating of the Pleistocene-Holocene climatic transition in loess from China, Europe and North America, and evidence for accretionary pedogenesis. *Earth-Science Reviews*, 221, 103769.
<https://www.sciencedirect.com/science/article/pii/S0012825221002701>
18. Faur, L., Drăgușin, V., Dimofte, D., Forray, F.L., Ilie M., Marin, C., Mănăilescu, C., Mirea, I.C., Panaiotu, C., Soare, B., Timar-Gabor, A., Tîrlă, L., 2021. Multi-proxy study of a Holocene soil profile from Romania and its importance for speleothem based paleoenvironmental reconstructions. *Minerals*, 11(8), 873.
<https://www.mdpi.com/2075-163X/11/8/873>
19. Brezenu, D., Avram, A., Micallef, A., Cinta Panzaru, S., **Timar-Gabor A.**, 2021. Investigations on the luminescence properties of quartz and feldspars extracted from loess in the Canterbury Plains, New Zealand South Island. *Geochronometria*, 48, 46-60.
<https://sciencedirect.com/article/10.2478/geochr-2021-0005>
20. Benzid, K., **Timar-Gabor, A.**, 2021. On the dose dependence prior and after stimulation with visible light of E' and Al-hole centres in sedimentary quartz: correlation and mechanisms, *Radiation Measurements*, 141, 106522.
<https://www.sciencedirect.com/science/article/pii/S135044872100007X>
21. Mirea, I C, Robu, M., Petculescu, A., Kenesz, M., Faur, L., Arghir, R., Tecsa, V., **Timar-Gabor, A.**, Roban, R-D., Panaiotu, C.G., Sharifi, A., Pourmand, A., Codrea, V., Constantin, S., 2021. Last deglaciation flooding events in the Southern Carpathians as revealed by the study of cave deposits from Muierilor Cave, Romania. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 562, 110084.
<https://www.sciencedirect.com/science/article/pii/S0031018220305320>
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