



<https://geolsoc.ch>

SWISS GEOLOGICAL SOCIETY



It is a pleasure to recognize excellent work by young scientists. This provides a glimpse where the future of research might be going and how young talents tackle a wide range of problems. The “Best Master’s Thesis Award” from the Swiss Geological Society and the “Paul Niggli Medal” are two prizes that are awarded annually during the Swiss Geoscience Meeting. The Swiss Geoscience meeting was held in Mendrisio on

November 17th and 18th, 2023. Since the 100th birthday of Paul Niggli in 1988, the “Paul Niggli Medal” has been awarded by the Paul Niggli Foundation. This medal is Switzerland’s most prestigious “young scientist award” in Earth Sciences; it is open to researchers that are up to 35 years old or have received their doctorate in the last 6 years, and work in the field of mineralogy, geochemistry, petrology, resource geology, or solid-earth geophysics. For further information, see the awards page on the SGS website at <https://geolsoc.ch/en/awards/>.

Below are short citations of the awardees. The committees of the two awards are looking forward to receiving again nominations of outstanding young scientists for these prizes.

With best wishes

Jörg Hermann (President of the Swiss Geological Society)

Cont’d from page 274

belong to the dominant cluster or not, respectively. In sodium silicate glass, about 90% of NaO simplexes belong to the dominant cluster. However, the clusters are divided into subclusters by substituting sodium quarter by potassium. The maximum size cluster becomes less than 10% of simplexes. Thus, potassium ions distribute homogeneously in sodium silicate glass and disconnect the diffusion pathway of sodium ions.

REFERENCES

- Greaves GN (1985) EXAFS and the structure of glass. *Journal of Non-Crystalline Solids* 71: 203-217, doi: 10.1016/0022-3093(85)90289-3
- Ho TH, Ha DT, Duy TH Evert M, Trinh Thuat T (2023) The role of chloride ion in the silicate condensation reaction from ab initio molecular dynamic simulations. *The Journal of Physical Chemistry B* 127: 7748-7757, doi: 10.1021/acs.jpcc.3c04256
- Habasaki J, Okada I, Hiwatori Y (1995) MD study of the mixed alkali effect in a lithium–potassium metasilicate glass. *Journal of Non-Crystalline Solids* 183, 12-21, doi: 10.1016/0022-3093(94)00529-X
- Horbach J, Kob W, Binder K (2001) Structural and dynamical properties of sodium silicate melts: an investigation by molecular dynamics computer simulation. *Chemical Geology* 174: 87-101, doi: 10.1016/S0009-254(00)00309-0
- Matsui Y, Kawamura K (1980) Instantaneous structure of an MgSiO₃ melt simulated by molecular dynamics. *Nature* 285: 648-649, doi: 10.1038/285648a0
- Noritake F (2021) Diffusion mechanism of network-forming elements in silicate liquids. *Journal of Non-Crystalline Solids* 553: 120521, doi: 10.1016/j.jnoncrysol.2020.120512
- Momma K, Izumi F (2011) VESTA 3 for three-dimensional visualization of crystal, volumetric and morphology data. *Journal of Applied Crystallography* 44: 1272-1276, doi: 10.1107/S0021889811038970
- Noritake F, Naito S (2023) Mechanism of mixed alkali effect in silicate glass/liquid: pathway and network analysis. *Journal of Non-Crystalline Solids* 610: 122321, doi: 10.1016/j.jnoncrysol.2023.122321
- Woodcock LV, Angell CA, Cheeseman P (1976) Molecular dynamics studies of the vitreous state: simple ionic systems and silica. *The Journal of Chemical Physics* 65: 1565-1577, doi: 10.1063/1.433212

CHRISTIAN RENGGLI RECEIVES THE 2023 PAUL NIGGLI MEDAL



The Board of the Paul Niggli Foundation decided, in their annual meeting of June 19, 2023, to award the Paul Niggli Medal for the year 2023 to Christian Renggli in recognition of his outstanding research using experimental methods to understand the properties of gas–solid reactions in volcanic systems on Earth, the Moon, and Mercury.

Maria Schönbächler (ETH Zürich)

On behalf of the Foundation Council of the Paul Niggli Stiftung

The Paul Niggli Medal is Switzerland’s most prestigious award for young earth scientists who made outstanding contributions in the research fields of mineralogy, geochemistry, petrology, resource geology, or solid-earth geophysics. The Paul Niggli Medal honours and supports young ambassadors of Swiss geoscience, who are either Swiss citizens or obtained at least two of their academic degrees in the Swiss university system (BSc or MSc and usually their PhD).

The laudatio from Prof. Dr. Stephan Klemme (Universität Münster) and response of Dr. Christian Renggli (Max-Planck Institute for Solar System Research, Göttingen) can be found in the *Swiss Journal of Geosciences* volume 117 (1), and is freely available at <https://doi.org/10.1186/s00015-024-00451-w>.

2023 BEST THESIS AWARD



The winner of the 2023 Best Thesis Award from the Swiss Geological Society is **Jonathan Pople** from the University of Lausanne, Switzerland, for the work: “**Epibionts and trace fossils on stem- and crown-group euarthropod carapaces from the Early Ordovician Fezouata Shale.**” The committee was impressed with the comprehensive and modern approach to this topic, the exceptional graphic display, and the

wider implications for the evolution of life. The following is a citation from the nomination letter of supervisor Professor Allison Daily:

“Jonathan made a comprehensive and coherent assessment of both the paleoecological and taphonomic implications of these important fossils. For example, he develops a logical and convincing argument for the syn-vivo relationship between sessile filterfeeding brachiopods and a giant swimming arthropod, with these attached brachiopods basically getting a free ride on the cephalic carapaces of living radiodonts. This is a highly uncommon symbiosis for brachiopods and is a unique systematic association in the fossil record. He was also able to conclude that the epibiotic behaviour of many Fezouata Shale organisms was likely the result of the seafloor being quite soft and muddy with only rare stable solid substrates, creating an evolutionary pressure for epibiotic and symbiotic behaviour, supported both by his fossil data and sedimentary observations. Jonathan not only identified and quantitatively characterised the trace fossils, but also developed a fascinating model for their unusual preservation, based on his observations and data, and comparison with similar trace fossil assemblages known from other Cambrian lagerstätten.”

Jörg Hermann (SGS president)