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NEWSLETTER

Volume 4 No. 2
June 2017

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From the Chair

Metastability...the ability of anything to exist in a state that in theory, because of reasoning or calculations or evidence or otherwise, it shouldn't.

I use my own vague and general definition, purposely. We in the minerals field encounter it everyday...Metastability is the reason why diamonds can exist at atmospheric pressure-temperature regimes...it is the reason why metallurgists and chemical engineers can play with rates of change in chemical reactions to ensure desired end products. In a sense, I guess it is a fully justifiable universal cop-out to resist change...until that change is imposed on you after having *exceeded* certain temperature-pressure regimes.

Expanding on my purposely vague and generic definition, metastability suggests to me that in order to change anything, one has to actually input MORE "energy" in any given system than is theoretically required before that change can actually take effect.



Igor Željko
Tonžetić

And to me, this applies as much as it does to chemical or mineral systems as political or sociological or mental ones. From the physical effects of dieting to why that stain just won't come out. That "energy" being as much pressure, temperature and rates of change related, as shear will, determination and perseverance.

This will most likely be the last column I write "from the chair" before there is a change of executive with Desh in charge as the incumbent chairperson. You will all shortly receive a call for

nominations to nominate new members to stand for election into the executive committee.

I implore you to be proactive...to exceed the "eutectic" and to ask around if capable people are willing to stand for election. Nominate them! And then I implore you to vote.

Interrogate...Nominate...Participate...

And I'm sure next year will be as good, if not better than this year for MINSa.

Much love.

Igor

Errata: Editorial correction

Please note that the article in the Volume 4 No. 1 (March 2017) entitled "Touring Melville Koppies" was actually contributed by Musarrat Safi and not by Keshree Pillay, as it was credited. The Editor apologises. And on the subject of error in publishing:

Truth and Error in Scientific Publishing: An invited talk by Dr Rodney Jones:

A timely and topical talk was presented on May 4 (2017) by Dr Rodney Jones (former SAIMM president) on "Truth and Error in Scientific Publishing". The talk attracted a diverse audience (not only mineralogists and geologists but biologists, psychologists, laymen, and publishers) perhaps because of a pervasive "Post-Truth Era" sentiment. The talk was attended by 19 people and was the first in the series to be presented at a slightly later 19H00 for 19h30 timeslot to accommodate traffic congestion in Johannesburg and Pretoria. Touching on the pitfalls of publishing, both open-accessed and otherwise, and what have become the tangled messes of debate regarding nutrition, vaccines, global warming, etc., the talk progressed from Socrates and definitions of knowledge and truth to the current state of affairs in academic publishing. The talk was both a philosophical and scientific

discourse, highlighting the advantages and disadvantages of our current peer review methodology. For those universities where "Philosophy of Science" and "History of Science" modules are not compulsory, I would suggest that Rodney's paper at the very least be a set work and that Rodney, himself be invited to give at least this lecture annually to students in science. Being both comprehensive and anecdotal, the presentation was a delight.

For those interested, the paper (on which the talk was primarily based) can be shared. Please email minsa@gssa.org.za to obtain your free copy.

Contributed by Igor Željko Tonžetić

Third Call for Papers – MINSa Symposium

Introduction

The Mineralogical Association of South Africa is looking for papers to be presented at its Symposium to be held on Wednesday the 23rd August 2017 at the corner of Rustenburg and Carlow Roads, Melville, Johannesburg (new GSSa head offices). The symposium will take place from 09h00 to 17h00 with the MINSa AGM following thereafter. Coffee/Tea break snacks, and lunch (and a finger supper for those staying for the AGM) will be supplied in the fee. This is an ideal opportunity for students to exercise their presentation and publication skills for their future careers. It is also the ideal opportunity for the quick diffusion of data and ideas amongst the more experienced mineralogical community.

Criteria

An abstract concerning mineralogy (applied, straight or otherwise), petrology and/or geochemistry is to be sent through to minsa@gssa.org.za by the 30th June 2017 (*I know this deadline has passed now, but only just; a revised deadline of 31 July is on the cards; Editor*). Any format is acceptable with a maximum of 1000 words. Whilst not compulsory, a full paper may be submitted which the MINSa executive

will attempt to assist in publishing in either the Journal of the Geological Society of South Africa or an IMA related publication (as per its mandate for “promoting the study and application of mineralogy, petrology and geochemistry” – section 1.3 MINSa constitution). Presentations will be between 15 to 25 minutes.

Keynotes

The two winners (Honours and Masters) of the MINSa book prize for 2017 will be the keynote presenters at no cost for the symposium. Half an hour will be allotted for their presentations.

Summary

What: MINSa Symposium

When: Wednesday, 23rd August 2017

Time: 09h00 – 17h00 (followed by the AGM)

Price: R50 (MINSa members, speakers & students); R200 (non-members)

Where: Corner of Rustenburg and Carlow Roads, Melville, Johannesburg (new GSSa head offices).

Contributed by Igor Željko Tonžetić

NOMINATIONS FOR MINSa EXECUTIVE COMMITTEE: 2017-2018

Nominations are hereby invited for the MINSa executive committee to hold office for 2017-2018. A nomination form is attached. All nominations must be sent to: deshc@mintek.co.za.

The closing date for nominations is **21 July 2017**. Each nominee must have a proposer. The proposer must be a MINSa member. The proposer must ensure that the nominee is willing to serve and is a MINSa and GSSa member.

MINSa additionally requires the services of a secretary. As part of the nomination process, please indicate the willingness of the nominee to serve as secretary to the Association. Please list as many nominees as you wish, bearing the nominee

criteria in mind. Outgoing members of the executive and the co-opted committees are listed below for your information.

Outgoing members of the Executive Committee are:

- Mr Igor Tonžetić (Chair)
- Dr Desh Chetty (Vice Chair)
- Dr Robert Schouwstra
- Dr Bertus Smith

As Vice Chair for 2016 – 2017, Desh Chetty automatically becomes the MINSa Chair for 2017-2018.

MINSa CO-OPTED COMMITTEE FOR 2016-2017

Name	Affiliation
Keshree Pillay	Anglo American
Darren Tiddy	Anglo American
Leahn Pieterse	Council for Geosciences
Musarrat Safi	Council for Geosciences
Craig Smith	GSSa
Theo Davies	Mangosuthu Univ. of Tech.
Katherine James	Museum Africa (Geology)
Frikkie De Beer	NECSa
Kobus Hoffman	NECSa
Mike Lee	NMMU/MSSa
Danel van Tonder	North West University
Jill Richards	Retiree
Lesley Andrews	Retiree
Steve Prevec	Rhodes University
Esme Spicer	Richards Bay Minerals
David Long	Sci-Ba
Phil Harris	Terracore Africa
Megan Becker	University of Cape Town
Dee Bradshaw	University of Cape Town
Kakaba (Eric) Madi	University of Fort Hare
Tanja Reinhardt	University of KwaZulu-Natal
John Dunlevey	University of Limpopo
Roger Dixon	University of Pretoria
Wiebke Grote	University of Pretoria
Raimund Rentel	University of the Free State
Dirk Frei	Univ. of the Western Cape
Jürgen Reinhardt	Univ. of the Western Cape
Grant Bybee	Univ. of the Witwatersrand
Sabine Verryn	XRD Analytical and Consulting



MINERALOGICAL ASSOCIATION OF SOUTH AFRICA

NOMINATIONS FOR THE EXECUTIVE COMMITTEE 2017-2018

Nominee	Willing to act as secretary? (Y/N)	Proposer

Please complete the form and email to Desh Chetty at

deshc@mintek.co.za

by 21st July, 2017

Naming the MINSAs newsletter

After my appeal to the readership in the March issue, I received some suggestions from Dr Rose Prevec and from Roger Dixon, all of which are reproduced (the suggestions, not the people) below.

Dr Rose Prevec suggested these:

- Geode
- The Gem
- The Garnet Paper
- Moh's News
- The Brilliant Cut
- Apatite for News
- Facets
- The Concretion (where news on minerals gathers; could also be used for a pub that sells very stodgy food and caters to geologists)

And from Roger Dixon:

After reading through this newsletter - compliments to the editor and contributors - I think that a good name could be "Shards";

Various definitions of Shard could be applicable and relevant:

From Middle English shard, scherd, scheard, schord, from Old English sceard ("a broken piece; shard"), from Proto-Germanic *skardą ("notch; nick"), from *skardaz ("damaged; nicked; scarred"), from Proto-Indo-European *(s)ker- ("to cut"). Akin to Scots schaird ("shard"), French écharde ("splinter"), Dutch schaarde ("tear; notch; fragment"), German Scharte ("notch"), Old Norse skarð ("notch, hack") (> Danish skår).· sherd

shard (*plural shards*): Noun

1. A piece of broken glass or pottery, especially one found in an archaeological dig.
2. A piece of material, especially rock and similar materials, reminding of a broken piece of glass or pottery.
3. A tough scale, sheath, or shell; especially an elytron of a beetle.
4. (online role-playing) An instance of an MMORPG that is one of several independent and structurally identical virtual worlds, none of which has so many players as to exhaust a system's resources.
5. (databases) A component of a sharded distributed database. A database shard is a horizontal partition of data in a database or search engine. Each individual partition is referred to as a shard or database shard. Each shard is held on a separate database server instance, to spread load. A shard contains a subset of sharded data for a sharded cluster. Together, the cluster's shards hold the entire data set for the cluster
6. (singular or plural) crystal methamphetamine
A piece of crystal meth, a psychedelic stimulant, named for the shard-like crystals and finally
- The **Shards of Adonalsium**, or **Shards** for short, are pieces of the power of creation itself!

Regards
Roger Dixon

After due consideration, I have decided to go with “the Geode”, based on the motivation that “it is an “Ode to things geo”, but also something potentially dull on the outside, but sparkly and fascinating once you open it up”. It also lends itself to some artistic embellishment, as demonstrated here. One of these designs, or something like it, will therefore likely festoon the next issue. I’m leaning towards the bottom one, at right. Thanks to Roger and Rosie for their efforts.

the Geode
the Geode
the Geode
the Geode

Forthcoming Events & Attractions

- 15th – 17th August: LabAfrica 2017
- 17th August: MINSА Symposium
- 18th – 22nd September: International Kimberlite Conference, Gaborone, Botswana
- September 2017: Barberton Excursion
- Excursion to RBM: TBD
- Excursion to Koeberg: TBD

Other gems

Finally, I have decided to try my hand at a mineralogical crossword puzzle. I had considered this sort of thing for the Geobulletin back in the “noughties” when I was its editor, but never got around to it. This is my first effort, and it has been

field tested by an electron probe scientist, who found it satisfactory. It is provided on the final page here.

Contributed by Steve Prevec

Would you like to place an advertisement in the MINSА newsletter?

Our advertising rates for 2017 are:

- 1/8 Page: R 100
- 1/4 Page: R 200
- 1/2 page: R 400

Please write to minsa@gssa.org.za for payment details.

If you have any news that would be of interest to the MINSА community, contributions can be sent to Steve Prevec (s.prevec@ru.ac.za).

The deadline for submissions for the next issue of the MINSА Newsletter (the Geode!?) is August 31, 2017.

MINSA Crossword: June 2017

1	1				2		3				4
	2				3			5			
							4				
5			6						6	7	
										7	
	8										
						9		8			
10	9										
	11										

Down:

1. Surname of the chemist who first identified lithium, whose name adorns the sodium-iron amphibole end member.
2. On a related theme, the chain silicate mineral that features lithium as an ore element; crystals of this in excess of 14 m have famously been found in the Black Hills of North Dakota (USA).
3. A titaniferous accessory mineral common in amphibolites, and a sometime uranium-lead geochronometer.
4. The South African company which donated its name to the phosphate ore mineral mined at Phalaborwa.
5. Abbreviation for the most common variety of double-chain silicate mineral.
6. Surname of the Russian nobleman and mineralogist for whom the common form of calcium titanium oxide found in the Earth's mantle is named.
7. The ultra-high-pressure polymorph of the completely polymerised variant of the SiO₄ tetrahedron.
8. The common abbreviation for the geochemical group that includes Erbium.
9. Abbreviation for the element which, when accompanying the ingredients of 1 across or 9 across, is commonly associated with hydrothermal gold ore.

Across:

1. Low-temperature polymorph of FeS₂, found in hydrothermal and sedimentary settings.
2. Abbreviation for an iron-rich nesosilicate mineral end member, found in metamorphosed dolomitic calc-silicates and crystallising in the late stages of crystallisation of mafic magmas.
3. The suffix meaning "straight", or "right", applied to chain silicates characterised by parallel optical extinction in crossed-nicols, for example.
4. Abbreviation for the sodic end-member of a tectosilicate mineral group, associated with hydrothermal alteration assemblages and low grade metamorphism.
5. Abbreviation for the igneous feldspathoid, prominent in syenitic igneous rocks, accompanying alkali feldspars.
6. Abbreviation for the country from which one of whose western islands gives its name to the very high temperature, low pressure variant after the Al₂SiO₅ polymorphs, occurring in xenoliths of metasediment within igneous host rocks.
7. The abbreviation for this potassic end-member of this tectosilicate mineral, which comprises the gem known as moonstone, in its more elegant habits.
8. The sheet silicate mineral subgroup forming in altered ultramafic rocks, sought after as "false jade" for carving.
9. 'Fool's Gold', the most common sulphide mineral, prominent as a hydrothermal product, a low-temperature magmatic ore accessory, and with anoxic black shales.
10. Chemical symbol for the main occupant of the 'A' crystallographic site in albite.
11. A hydrated calcium or sodium aluminium-silicate tectosilicate mineral, found in amygdales.

*Crossword solution can be found on the
MINSA webpage, at
www.qssa.org.za/minsa.*