Mineralogical Society of Great Britain and Ireland

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EQUALITY, DIVERSITY, AND INCLUSIVITY

Throughout 2021, the Mineralogical Society of Great Britain and Ireland (MinSoc) has been gathering responses to a survey on equality, diversity and inclusivity. If you were one of the >500 people who completed that survey – Thank you! Our results will be published by the year's end.

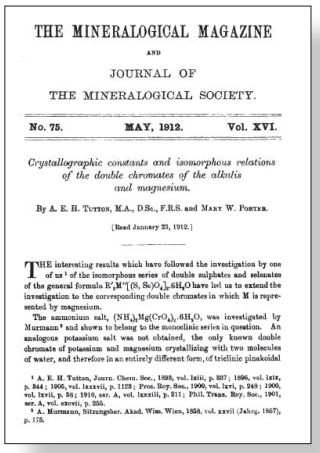
As often happens in this job, a story has been brought to my attention about an item from our history which brings focus to a narrative which continues today (and which is to be addressed by actions taken following our survey).

The piece below was brought to my attention by a former president of the MinSoc, David Morgan. It talks about the pioneering crystallographer Dr Mary Winearls "Polly" Porter (1886–1980), and it appeared first in the Royal Society of Chemistry publication *Chemistry World* (https://www.chemistryworld.com/culture/polly-porter-crystallography-pioneer/4013486.article?adredir=1).

Dr Polly Porter

"Porter was a leading expert on the morphology of inorganic crystals. When Nobel Laureate, Dorothy Hodgkin needed to report crystallographic measurements in the 1950s, it was Porter who provided them. Solely on the basis of her research work, Porter was awarded BSc and DSc degrees by Oxford University. Yet she had never attended school, nor completed any university courses. So, who was this Dr Polly Porter who mentored Hodgkin and why is she barely known today?"

Porter's repeated visits to the Corsi Marble Collection in Oxford was noted by Sir Henry Miers (1858–1962), a Professor of Mineralogy at the university (1908–1915) and also a former President of the Mineralogical Society. He asked Porter if she would be interested in working on the collection (cleaning and re-identifying the samples). She agreed.



THE MINERALOGICAL MAGAZINE
AND
JOURNAL OF
THE MINERALOGICAL SOCIETY.

No. 75. MAY, 1912. Vol. XVI.

Crystallographic constants and isomorphous relations of the double chromates of the alkalis and magnesium.

By A. E. H. Tutton, M.A., D.Sc., F.R.S. and Mary W. Porter.

[Read January 23, 1912.]

THE interesting results which have followed the investigation by one of us[1] of the isomorphous series of double sulphates and selenates of the general formula $R'_2M''(SO_4)_2.6H_2O$ have led us to extend the investigation to the corresponding double chromates in which M is represented by magnesium.

The ammonium salt, $(NH_4)_2Mg(CrO_4)_2.6H_2O$, was investigated by Murmann[2] and shown to belong to the monoclinic series in question. An analogous potassium salt was not obtained, the only known double chromate of potassium and magnesium crystallizing with two molecules of water, and therefore in an entirely different form, of triclinic pinakoidal

[1] A. E. H. Tutton, Journ. Chem. Soc., 1895, vol. lxiii, p. 337; 1896, vol. lxix, p. 344; 1905, vol. lxxxvii, p. 1138; Proc. Roy. Soc., 1900, vol. lxvi, p. 248; 1905, vol. lxxii, p. 88; 1910, ser. A, vol. lxxxiii, p. 211; Phil. Trans. Roy. Soc., 1901, ser. A, vol. cxcvii, p. 255.
[2] A. Murmann, Sitzungsber. Akad. Wiss. Wien, 1858, vol. xxvii (Jahrg. 1857), p. 178.

Miers later introduced Polly to Prof. Alfred Tutton (1864–1938), who invited her to work in his lab in London. There she worked on the synthesis of crystals of new ionic compounds containing two different cations (now known as Tutton's salts) and studying the effect of changes in the cation identities on the crystal form. The work was published in the *Mineralogical Magazine* in 1912 with Porter as co-author.

Porter also worked on the mineral collection at the Smithsonian Institution (Washington DC, USA) and on the Mineralogical State Collection in Munich (Germany). In 1914, Florence Bascom, one of the most prominent female geologists of the time, who had befriended Porter, arranged for the German mineralogist and crystallographer Victor Goldschmidt, then at the University of Heidelberg (Germany), to hire Porter as a research student. Goldschmidt noted that Porter's research work was "outstanding".

Back in the UK in June 1918, Porter received her BSc certificate, though not as a formal degree because these were barred to women until 1920! At the same time, she was elected to the council of the Mineralogical Society. Porter conveyed the news to Bascom: "There was a great row about having a woman on it but the majority agreed in the end." Porter was awarded a DSc degree in 1932 as a result of her crystallographic studies and publications.

Polly became an honorary research fellow at the University of Oxford in 1948.

It has been suggested by Michelle Francl, in a 2014 article on women in crystallography (https://www.nature.com/articles/nchem.2067), that Porter was key to bringing women into British X-ray crystallography.

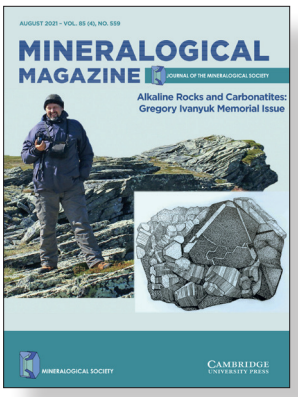
The *Chemistry World* article on which this summary is based was written by Marelene Rayner-Canham and Geoff Rayner-Canham, who are historians of chemistry at the Grenfell campus of Memorial University (Canada).

MINERALOGICAL MAGAZINE – RECENT NEW CONTENT

A special issue of *Mineralogical Magazine* (v85n4) is dedicated to "the memory of Gregory (Grisha) Yu. Ivanyuk (1966–2019), an internationally acclaimed mineralogist, an accomplished artist and photographer, and a tireless explorer of the Kola wilderness (Fig. 1). Grisha passed away suddenly on 7 July 2019 during a field excursion to Mt. Eveslogchorr in the Khibiny (also known as Khibina) alkaline complex, Kola Peninsula (Russia). This was the very place where he started his mineralogical studies of the region back in 1988. At the time of his untimely death, he was bursting with energy, plans, and ideas. None of us who knew him could expect such a sudden and unjust disruption of this singularly dynamic life and research career."

The full version of this tribute is published as the first paper of the special issue: doi: https://doi.org/10.1180/mgm.2021.52.

- Anatoly N. Zaitsev, Anton R. Chakhmouradian, Sergey V. Krivovichev and Victor N. Yakovenchuk: "Mineralogy and petrology of alkaline rocks and carbonatites: Celebrating the life and work of Gregory Yu. Ivanyuk (1966–2019)"
- Ekaterina P. Reguir, Ekaterina B. Salnikova, Panseok Yang, Anton R. Chakhmouradian, Maria V. Stiveeva, Irina T. Rass and Aleksandr B. Kotov: "U–Pb geochronology of calcite carbonatites and jacupirangite from the Guli alkaline complex, Polar Siberia, Russia"
- Roger H. Mitchell and J. Barry Dawson: "Mineralogy of volcanic calciocarbonatites from the Trig Point Hill debris flow, Kerimasi volcano, Tanzania: implications for the altered natrocarbonatite hypothesis"
- Maria A. Sitnikova, Vicky Do Cabo, Frances Wall and Simon Goldamnn: "Burbankite and pseudomorphs from the Main Intrusion calcite carbonatite, Lofdal, Namibia: association, mineral composition, Raman spectroscopy"
- Loic Y. Le Bras, Robert Bolhar, Lunga Bam, Bradley M. Guy, Grant M. Bybee and Paul A.M. Nex: "Three-dimensional textural investigation of sulfi de mineralisation from the Loolekop carbonatite–phoscorite polyphase intrusion in the Phalaborwa Igneous Complex (South Africa), with implications for ore-forming processes"



A full list of contents in this issue is available at: https://www.cambridge.org/core/journals/mineralogical-magazine/issue/F5FA1FCE7621E77A195A9E4160602E33