



# International Mineralogical Association

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## IMA2014: THE 21<sup>st</sup> MEETING OF IMA – CALL FOR ABSTRACTS AND REGISTRATION

For the first time in its history, the International Mineralogical Association (IMA) will hold its General Meeting on the African continent, and it has selected South Africa as the host nation. Taking place at the Sandton Convention Centre in Johannesburg on 1–5 September 2014, the prestigious forum will showcase research excellence in the field of mineralogy. Preparations are coming along well, with close to 70 session proposals received. A wide variety of topics and themes has been put forward, making for a comprehensive and stimulating scientific programme of oral and poster sessions, workshops and short courses. The call for abstracts opened on 1 August 2013, and those interested in submitting abstracts are encouraged to respond to the call. A number of exciting field trips have also been proposed, and these alone promise to attract many people. Please visit our website, [www.ima2014.co.za](http://www.ima2014.co.za), to submit an abstract and for updates on the conference, or e-mail us at [info@ima2014.co.za](mailto:info@ima2014.co.za) with any queries.

Registration also opened on 1 August, and early-bird registration will close on 15 January 2014. We look forward to welcoming you to South Africa in 2014.

**Dr Sabine Verryn**, IMA2014 Conference Chair, and **Dr Desh Chetty**, IMA2014 Scientific Committee Chair

## TYPE MINERALS FROM SOUTH AFRICA

South Africa is currently home to 75 type species of minerals. Daltry (1997) published an exhaustive work on the region's type mineralogy, and this was subsequently updated by Gait (2002). This short article serves to bring the listing up to date as of 2012. Of the 75 South African type species approved by the IMA, 42 are named after people and 15 after the locality where the mineral was discovered, and 18 others have derivations of names, most based on chemical composition.

South Africa is world renowned for its rich economic mineral deposits, so it is no coincidence that many of the type species were discovered during the exploitation of the country's commodities, such as platinum, chrome, and manganese. To date, the Kalahari manganese field (KMF), located north of Kuruman in the Northern Cape Province, is the most productive producer of type minerals (TABLE 1), surpassing the Bushveld Complex, which long held the number one spot. There are 13 valid type species known from the Bushveld Complex (and these are mostly platinum-group minerals; TABLE 2), while the Kalahari manganese field has produced 20, with two new species awaiting validation by the IMA. Furthermore, the most prolific single producer in South Africa is the Wessels mine located in the KMF. It is interesting to note that seven of the type species from the KMF contain copper. This metal is extremely rare in these manganese deposits and appears to be partitioned into rare and esoteric species.

**TABLE 1** TYPE MINERALS FROM THE KALAHARI MANGANESE FIELD, SOUTH AFRICA

1980	Braunite II <sup>a, #</sup>	Ca(Mn <sup>3+</sup> , Fe <sup>3+</sup> ) <sub>14</sub> SiO <sub>24</sub>
1983	Sturmanite*	Ca <sub>6</sub> (Fe <sup>3+</sup> , Al, Mn <sup>2+</sup> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub> [B(OH) <sub>4</sub> ](OH) <sub>12</sub> •25H <sub>2</sub> O
1990	Orlymanite <sup>b</sup>	Ca <sub>4</sub> Mn <sup>2+</sup> <sub>3</sub> Si <sub>8</sub> O <sub>20</sub> (OH) <sub>6</sub> •2H <sub>2</sub> O
1992	Vonbezingite <sup>b</sup>	Ca <sub>6</sub> Cu <sub>3</sub> (SO <sub>4</sub> ) <sub>3</sub> (OH) <sub>12</sub> •2H <sub>2</sub> O



1993	Poldervaartite <sup>b</sup>	Ca(Ca <sub>0.5</sub> Mn <sup>2+</sup> <sub>0.5</sub> )(SiO <sub>3</sub> OH)(OH)
	Hennomartinite <sup>b</sup>	SrMn <sup>3+</sup> <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> (OH) <sub>2</sub> •H <sub>2</sub> O
	Kornite <sup>b</sup>	(K, Na)(Na, Li) <sub>2</sub> (Mg, Mn <sup>3+</sup> , Li, Fe <sup>3+</sup> ) <sub>5</sub> Si <sub>8</sub> O <sub>22</sub> (OH) <sub>2</sub>
1994	Effenbergerite <sup>b</sup>	BaCu(Si <sub>4</sub> O <sub>10</sub> )
1995	Nchwangingite <sup>c</sup>	Mn <sup>2+</sup> <sub>2</sub> SiO <sub>3</sub> (OH) <sub>2</sub> •H <sub>2</sub> O
1996	Wesselsite <sup>b</sup>	SrCu(Si <sub>4</sub> O <sub>10</sub> )
2002	Manganvesuvianite <sup>b</sup>	Ca <sub>19</sub> Mn <sup>3+</sup> (Al, Mn <sup>3+</sup> , Fe <sup>3+</sup> ) <sub>10</sub> (Mg, Mn <sup>2+</sup> ) <sub>2</sub> Si <sub>18</sub> O <sub>69</sub> (OH) <sub>9</sub>
2005	Holtstamite <sup>b</sup>	Ca <sub>3</sub> Al <sub>2</sub> (SiO <sub>4</sub> ) <sub>2</sub> (OH) <sub>4</sub>
2006	Manganpiemontite-(Sr) <sup>b</sup> (formerly tweddillite)	CaSr(Mn <sup>3+</sup> , Fe <sup>3+</sup> ) <sub>2</sub> Al[Si <sub>3</sub> O <sub>12</sub> ](OH)
2007	Olmiite <sup>c</sup>	CaMn[SiO <sub>3</sub> (OH)](OH)
2010	Guidottiite <sup>c</sup>	(Mn <sub>2</sub> Fe <sup>3+</sup> )(SiFe <sup>3+</sup> )O <sub>5</sub> (OH) <sub>4</sub>
2012	Lavinskyite <sup>b</sup>	K(LiCu)Cu <sub>6</sub> (Si <sub>4</sub> O <sub>11</sub> ) <sub>2</sub> (OH) <sub>4</sub>
	Scottyite <sup>b</sup>	BaCu <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>
	Colinowensite <sup>b</sup>	BaCuSi <sub>2</sub> O <sub>6</sub>
2013	Cairncrossite <sup>b</sup>	Sr <sub>2</sub> Ca <sub>7</sub> (Si <sub>4</sub> O <sub>10</sub> ) <sub>4</sub> (OH) <sub>2</sub> •15H <sub>2</sub> O
	Diegogattaite <sup>b</sup>	Na <sub>2</sub> CaCu <sub>2</sub> Si <sub>8</sub> O <sub>20</sub> •H <sub>2</sub> O

Two new type species are pending, one from Wessels mine and one from N'Chwaning II mine.

<sup>a</sup> Black Rock mine; <sup>b</sup> Wessels mine; <sup>c</sup> N'Chwaning II mine

\* Incorrectly attributed to Black Rock mine; most likely from N'Chwaning II mine

# Not approved by the IMA

**TABLE 2** TYPE MINERALS FROM THE BUSHVELD COMPLEX, SOUTH AFRICA (FROM DALTRY 1997)

Atokite <sup>a</sup>	Pd <sub>3</sub> Sn
Braggite <sup>b</sup>	PtS
Cooperite <sup>c</sup>	PtS
Genkinitite <sup>d</sup>	Pt <sub>4</sub> Sb <sub>3</sub>
Geversite <sup>e</sup>	PtSb <sub>2</sub>
Hollingworthite <sup>e</sup>	RhAsS
Irarsite <sup>d</sup>	IrAsS
Merenksyite <sup>b</sup>	PdTe <sub>2</sub>
Platarsite <sup>d</sup>	PtAsS
Rustenburgite <sup>b</sup>	Pt <sub>3</sub> Sn
Stibiopalladinite <sup>f</sup>	Pd <sub>5</sub> Sb <sub>2</sub>
Stumpflite <sup>e</sup>	PtSb
Tetraferroplatinum <sup>g</sup>	PtFe

<sup>a</sup> Atok mine; <sup>b</sup> Rustenburg mine; <sup>c</sup> Rustenburg Layered Suite; <sup>d</sup> Onverwacht dunite pipe; <sup>e</sup> Driekop dunite pipe; <sup>f</sup> Tweefontein; <sup>g</sup> Mooihoek dunite pipe

**Prof. Bruce Cairncross** ([brucec@uj.ac.za](mailto:brucec@uj.ac.za))  
University of Johannesburg, South Africa

## REFERENCES

- Daltry VDC (1997) Mineralogy of South Africa: Type-mineral species and type-mineral names. Handbook 15, Council for Geoscience / Geological Survey of South Africa, Pretoria, South Africa, 114 pages
- Gait RI (2002) African type-minerals: minerals first described from African localities. *Rocks & Minerals* 77: 25-30