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The S A Gem and Mineral Club

Associated Member of **FOSAGAMS**
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November 2014 NEWSLETTER

LAST CLUB MEETING : Was Thursday 30th October 2014 in the Conference Room at St Saviour's Church Hall, Cnr Villiers Road and 1st Avenue Walmer at 7:30pm. There was a total of 13 members at the meeting. We watched a video on Lightning ridge opal mining after which Derek Scotney was going to show us a slide show presentation about his personal experience opal hunting in Australia, unfortunately we had a bit of technical difficulty and so we were unable to show it however Derek was still able to describe what he saw there in depth and it all added to creating a picture of Australian Opal. Thanks for your contribution Derek it's much appreciated next time we will have it sorted ;) . There was a lovely selection of opals cut by Colin Towers and Heimo Reuter and some stunning rough samples from Derek Scotney, Some of the ladies showed off fancy opal jewellery. We all had a good time with lots of Conversation, tea, coffee and cake.



WORKSHOP : The workshop is open EVERY Saturday between 02:00 and 05:00 and we welcome members to come and enjoy our facilities, perhaps prepare something for the next meeting or even just pop in to say HI to those that are working, it's always good to meet up will fellow club members so please feel welcome.

SA GEM CUTTING CHALLENGE : Wow has this crept up to us, Collin will be sending all the competition stones in on Wednesday 18th November so far we have a stone/s from Angie, Donae', Yours Truly and Collin. BIG thanks to everyone that managed enter a stone and good luck.

NEXT MEETING : 27th of November 2014, at the Conference Room, St Saviour's Church Hall, Cnr Villiers Road and 1st Avenue, Walmer, at 7.30pm. It will be the last meeting for the year it will be an informal meeting. Members are asked to bring a small "Christmas" gift to the value of roughly R30-R50. A draw will take place to pick the order in which each person can then choose which one of the parcels they would like to have. The birthstone for the month is topaz and citrine and just to put a spin on things we may as well include "scotch topaz" (smoky quartz) to the list of stones to bring for display.

THE CLUB'S 60TH ANNIVERSARY : On the 29th November 1954 the Club was founded. We will be combining this celebration together with our year end Christmas function on Sunday the 30th November 2014 with a bring and braai at Eline Capell's home at 2 Clive Ave, Bluewater Bay, if anyone needs a map just give me a shout. Please bring your own eats, drinks, cutlery, crockery as well as a chair and/or table should you need one.

quartz var citrine

Citrine is one of the most affordable gemstones, thanks to the durability and availability of this golden quartz. Named from the French name for lemon, "citron," many citrines have a juicy lemon colour. Citrine includes yellow to gold to orange brown shades of transparent quartz. Sunny and affordable, citrine can brighten almost any jewellery style, blending especially well with the yellow gleam of polished gold. In ancient times, citrine was carried as a protection against snake venom and evil thoughts.

Although the darker, orange colours of citrine, sometimes called Madeira citrine after the colour of the wine, has generally been the most valued colour, in modern times, many people prefer the bright lemony shades which mix better with pastel colours. Citrine is generally more inexpensive than amethyst and is also available in a wide range of calibrated sizes and shapes, including very large sizes. Most citrine is mined in Brazil. Supply of citrine is good from the Brazilian state of Rio Grande do Sul, particularly from the Serra mine, which is producing 300 kilos a month. The Iraã mine produces an additional 100 kilos a month.

The cause of the colour is still under debate. At least some citrine is coloured by aluminum-based and irradiation-induced colour centres related to those found in smoky quartz (Lehmann, 1972; Maschmeyer et al., 1980). Accordingly, transitions to smoky quartz exist, many citrines show smoky phantoms. Like smoky quartz, these types of citrines pale when heated above 200-500°C and turn yellow again when irradiated.

There appear to be at least two types of yellow Al-based colour centres with different thermal stability. Since the yellow colour centres are often more stable than the smoky colour centres, some smoky quartz can be turned into citrine by careful heating. Natural citrine as well as citrine produced by heating smoky quartz is weakly dichroic in polarized light. It has also been suggested that iron is the cause of colour, as artificial crystals grown in a iron-bearing solution turn out yellow. However, the dichroic behaviour of the lab-grown crystals differs from that in natural citrine.

Natural citrine is very rare. Large quantities of amethyst, usually of lesser quality, are heated to turn it yellow or orange and sold as "citrine." Because the colour is now caused by finely distributed iron minerals (mostly hematite and goethite), heated amethyst is not citrine in the strict sense, and also shows no dichroism in polarized light. Thin coatings of iron oxides on colourless quartz, as well as inclusions of yellow iron oxides ("limonite"), may simulate citrine.



Smoky quartz, heated amethyst and citrine.