

[00:17] <Doos> we will be starting?  
[00:17] <Dav> ok  
[00:17] <Doos> so chrysoberyl is the topic  
[00:18] <Frank> yes  
[00:18] <Doos> not a very large subject  
[00:18] <Doos> any have questions before we begin?  
[00:18] <MoDo> Is this going to be about alexandrite or the "other" chrysoberyl :-)  
[00:19] <Dav> better:)  
[00:19] <Doos> both MoDo  
[00:19] <Frank> lol...I think we covered most of the big subjects already  
[00:19] <MoDo> k  
[00:19] <Annie> chrysoberyl is the common name and occurs in 3 gem varieties, MoDo  
[00:19] <Frank> How much is left of the original syllabus to cover doos?  
[00:20] <Doos> a whole year and more Frank  
[00:20] <Dav> !!  
[00:20] <Doos> so chrysoberyl  
[00:20] <MoDo> Annie...most people only think of alexandrite and cat's-eye...that's why I call it the "other" chrysoberyl :-D  
[00:20] <Doos> as Annie said, we have 3 varieties in chrysoberyl  
[00:20] <Annie> its ok, MoDo, I know what you meant  
[00:21] <Sara> chromium and vanadium color alex, or one or the other?  
[00:21] <Doos> 1. chrysoberyl - colors are yellow, yellowish-green and brown (can be colorless)  
[00:21] <Sara> (I got water instead)  
[00:21] <Doos> 2. Alexandrite - the colorchange friend  
[00:22] <Doos> 3. cat's eye (or cymphane) - all kinds of colors  
[00:22] <Doos> mostly yellow - greensh though  
[00:22] <Doos> cymophane .. sorry for the typo  
[00:23] <Doos> you will see the cat's eye and alexandrite more than the chrysoberyl  
[00:23] <Annie> cymophane is the marketed name,  
[00:23] <Annie> for the cats eye ones,  
[00:24] <Doos> chrysoberyl is orthorhombic and allochromatic  
[00:24] <Doos> alexandrite is colored by chromium and the others by Iron  
[00:24] <Doos> so they will show nice spectra  
[00:25] <Doos> you can see examples of thos on geminterest.com or in your books  
[00:25] <Annie> nice colour change too under lighting conditions, due to the chromium content  
[00:26] <Sara> I recall barbra bringing up vanadium, too, though  
[00:27] <Doos> yes most colorchange stones are to be believed to be caused by titanium, but we believe chromium to be the cause in alexandrite  
[00:27] <Doos> I'm not sure myself what causes it  
[00:27] Frank (~Frank@172.206.79.149) left irc: Read error: Connection reset by peer  
[00:28] <Annie> vanadium is used in conjunction to chromium for the synthetic corundum - alexandrite  
[00:29] <Doos> did I say titanium?  
[00:29] Frank (~Frank@172.206.79.149) joined #go.  
[00:29] <Dav> yes  
[00:29] <Doos> I meant vanadium, sorry  
[00:29] <Annie> yes you  
[00:30] <Doos> the values are:  
[00:30] <Doos> RI: 1.74-1.75 , DR: 0.009, biaxial +

[00:31] <Doos> the beta reading is close to the alpha, so watch out  
[00:31] <Doos> other stones in this range are Idiocrase and Corundum  
[00:31] <Doos> idiocrase has lower RI and DR though and is uniaxial  
[00:32] <Doos> corundum has slightly higher readings on RI, but is also uniaxial  
[00:33] <Doos> although brown chrysoberyls can have RI readings up to 1.77  
[00:33] <Doos> not that you will come along a lot of brown corundum though  
[00:33] <Doos> and then you can test for SG  
[00:34] <Doos> again Idiocrase is lower and corundum higher  
[00:34] <Doos> any questions?  
[00:34] <Dav> no  
[00:35] <Sara> are you free on Saturday night?  
[00:35] <Doos> no, then I'm chatting  
[00:35] Frank (~Frank@172.206.79.149) left irc: Ping Timeout  
[00:35] <MoDo> This is Saturday night!  
[00:35] <Doos> nice going fr  
[00:35] <Sara> well hey  
[00:35] <Sara> You people didn't even get my joke  
[00:35] <Doos> heh  
[00:35] <Sara> Ok, keep going  
[00:36] <Annie> yes we got you  
[00:36] <Annie> you want a date with Doos, so he can show you the different stones  
[00:36] <Annie> :-)  
[00:36] <Doos> usually the pleochroism is moderate in chrysoberyl, but very strong in alexandrite  
[00:36] <Sara> :)  
[00:36] <Doos> lol  
[00:37] <Annie> i gotta go and wet myself - its too hot  
[00:37] <Doos> it has a 3 color pleochroism, anyone know what that is called?  
[00:37] <Doos> ok Annie, will you be back?  
[00:37] <Dav> trichroism  
[00:37] <Sara> Yes  
[00:37] <Doos> good Dav  
[00:37] <Dav> :)  
[00:37] <Sara> Dave deserves a gold star  
[00:38] <Dav> only 1?  
[00:38] Frank (~Frank@172.211.153.13) joined #go.  
[00:38] <Sara> three  
[00:38] <MoDo> ☐08\*  
[00:38] <Dav> that's better:)  
[00:38] <Doos> the crystals in which they are found are usually flattened or tabular prisms  
[00:38] <Doos> going well Frank?  
[00:38] <Sara> wb Frank  
[00:38] <Frank> Hi again...sorry...shit connection :(  
[00:39] <Sara> It's relentless  
[00:39] <Doos> a very nice twinning occurs in chrysoberyl, named trilling  
[00:39] <Sara> I miss Frank\_\_\_\_  
[00:39] <Annie> ok back  
[00:39] <Sara> trilling?  
[00:39] <Frank> how common is trilling....nice crystal forms...me want one  
[00:39] <Doos> 3 crystals grown in one with a hexagonal shape  
[00:40] <Doos> very common in chrysoberyl Frank  
[00:40] <Sara> within, or from?  
[00:40] <Dav> pseudo-hexagonal

[00:40] <Doos> very goos Dav  
[00:40] <Doos> good  
[00:41] <Doos> Annie, you want to handle inclusions .. or are your fingers sweating of the keyboard?  
[00:41] <Annie> no its fine.. yeah we'll do incusions  
[00:41] <Doos> go ahead  
[00:41] <Annie> are you done  
[00:42] <Doos> yah  
[00:43] <Annie> just want to clarify the trace elements with you Doos,  
[00:43] <Doos> ok  
[00:43] <Annie> and oneone is welcome to check it up - from the notes or books you have  
[00:44] <Annie> Frank, Dave, you have your books handy  
[00:44] <Doos> Cr3+ and Fe3+  
[00:44] <Dav> no  
[00:44] <Frank> yes...sort of  
[00:44] <Annie> we started off saying that crysolbery contains traces of iron, titanium and chromium  
[00:44] <Dav> but I hope it is everything in my mind  
[00:44] <Annie> good,  
[00:44] <Doos> vanadium Annie, I put the titanium in your head  
[00:45] <Annie> some gallium is believed to be seen in brazilian stones - alexes, i mean  
[00:45] <Annie> the vanadium elements is more common with the synthesis  
[00:46] <Annie> which the colour of alex under lighting conditions is red - green , yes  
[00:46] <Doos> yes  
[00:46] <Dav> V3+ ?  
[00:46] <Annie> the presence of the chromium is what makes these colours  
[00:48] <Annie> synthetic corundum imitating alex is the verneuil synthetic sapphire is doped with high content of vanadium  
[00:48] <Doos> I'm not sure about the vanadium, Webster names Chromium in natural  
[00:48] <Annie> to produce the colour change effect  
[00:48] <Annie> and the colour change is different - it is more purple in artificial light  
[00:48] <Frank> I thought that vanadium was just for the corundum synthetics?  
[00:48] <Annie> and somewhat dirty blue in natural light  
[00:49] <Doos> teal-blue  
[00:49] <Sara> It was just something I remember Barbra mentioning...  
[00:49] <Doos> I recall that  
[00:49] <Doos> but it wasn't clarified  
[00:49] <Annie> yes, ok you believe Barbra - thats upto you  
[00:50] <Annie> thats how i learned it and there is very little vanadium or none in natural alex  
[00:50] <Annie> because only the chrome content is what makes the in-balance from natural to artificial light  
[00:50] <Annie> the change from red to greed  
[00:50] <Annie> green  
[00:50] <Doos> we could ofcourse e-mail Chatham and ask  
[00:51] <Frank> of topic question?  
[00:51] <Annie> yeah sure, they are the experts  
[00:51] <Dav> let us keep it simple and remember V for synth.  
[00:51] <Doos> sure Frank

[00:51] <Frank> what is the colouring element in CC garnets that causes the colour change effect?

[00:51] <Doos> vanadium I believe

[00:51] <Frank> ty

[00:52] <Annie> THE synthetic has been successfully done since 1973

[00:52] <Annie> by flux method

[00:52] <Frank> does the real synth have a better red / green colour?

[00:53] <Doos> the naturals have better colour

[00:53] <Annie> Frank, the synthetic I described above

[00:53] <Doos> that is subjective ofcourse

[00:53] <Annie> its very different from the natural

[00:53] <Annie> and it is only a synethetic corundum that changes colour

[00:54] <Annie> with corundum values

[00:54] <Annie> because the two are so close to one another

[00:54] <Annie> SG - 3.73 or 3.80 versus 4.00

[00:54] <Frank> the flux melt alex? I thought the chemistry and structure had to be near the same to be classed as synthetic?...I understand about the corundum verneuil synthetics

[00:55] <Annie> RI values are close, but you will get uni reading with the synthetic - and biaxial read with the natural alex

[00:55] <Doos> there are synth. alexandrites aswell

[00:55] <Annie> I have seen many clients that thought their syn alex/corundum is the real thing and paid some high prices

[00:55] <Annie> for it

[00:56] <Frank> yes....do these show alex RI and SG etc?....the synth alex I mean not the corundum?

[00:56] <Doos> yes Frank

[00:56] <Frank> ty

[00:56] <Doos> but most on the market is synth. corundum

[00:57] <Frank> yes I understand that the synth alex is very expensive for a synthetic

[00:58] <Doos> go on Annie

[01:00] <Annie> crysoberyl and cats eye - would have

[01:00] <Annie> short needles or tube like arranged parallel to its axes

[01:01] <Annie> to cause the silk and the chatoyoncy

[01:01] <Dav> in the Natural?

[01:01] <Annie> there are also 2 phase

[01:01] <Annie> yes

[01:01] <Annie> some has fingerprint , just like corundum, with healing fissures

[01:02] <Annie> mineral inclusions you can expect like the actinolites, some feldspars, mica and quartz

[01:02] <Annie> the alexandrite

[01:02] <Annie> is somewhat light differnet but similar with partially healed feathers,

[01:02] <Annie> colour zones

[01:02] <Annie> 2 or 3 phase

[01:03] <Annie> the mineral inclusions of apatitle, diopside, fluorite or quartz

[01:04] MoDo (~MoDo@71.226.56.238) left irc: Read error: Connection reset by peer

[01:04] MoDo (~MoDo@71.226.56.238) joined #go.

[01:05] <Annie> i dont want to go into geological environment because there are specific countries that will have them and the identification will be diverse

[01:05] <Annie> the main sources i should say would be sri lanka, russia, bahia, zimbabwe or zambia

[01:05] <Annie> for alex, thatis

[01:05] <Dav> brazil?  
[01:06] <Annie> and of course the crysoberyl is more in brazil  
[01:06] <Annie> Minas Gerais and Bahia, best one to have  
[01:07] <Annie> the russian one is from ural mountains and its originated from  
the there thanks a king  
[01:08] <Annie> ok  
[01:09] <Doos> I think that sums it up  
[01:09] <Frank> ok  
[01:09] <Dav> ok  
[01:10] <Doos> does anyone have any questions  
[01:10] <Sara> it's not a big green apple looking thingie?  
[01:10] <Dav> ??  
[01:11] <Sara> nevermind  
[01:11] <Annie> no its not... the crystal may look like a big apply  
[01:11] <Annie> with a lot of bites (such as  
[01:11] <Sara> My humor is lacking today  
[01:11] <Annie> re-entry twinning  
[01:11] <Sara> It wasn't serious, annie  
[01:12] <Annie> i know,  
[01:12] <Sara> About the trilling, though  
[01:12] <Sara> how does that appear?  
[01:12] <Doos> oh there are also doubles pated together with some colorchange  
material  
[01:12] <Annie> its actually sizling twin  
[01:12] <Sara> I didn't get a good visual in my head  
[01:12] <Annie> or cyclic twin  
[01:12] <Dav> to separate synth (flux or crystal pulling) alex from natural?  
[01:12] <Doos> yes they are to believed to be contact twins, not penetrated ones  
[01:12] <Doos> Dav, inclusions  
[01:13] <Annie> Dave, the flux grown synthetic alex  
[01:13] <Annie> you may explext the usual with flux grown ones  
[01:13] <Annie> like wisp like bubbes in some form of pattern  
[01:13] <Annie> coarse flux remanents  
[01:13] <Annie> platinum inclusions can be triangular  
[01:14] <Annie> for colour zone effect -= they can look like phantoms  
[01:14] <Dav> phantoms?  
[01:15] <Frank> crystals grown within another of the same type  
[01:15] <Dav> twinning?  
[01:15] <Frank> more common in quartz I think  
[01:15] <Annie> it may or may not be observeable, but in the form of colour  
zoning  
[01:15] <Frank> two crystals grown together from a common base  
[01:16] <Doos> there is also the stepped twin plane inclusions in natural that  
is hard to spot  
[01:16] <Dav> hence phantoms => twinning?  
[01:16] <Annie> yes, Dave, how far advanced are you  
[01:17] <Annie> have you had any to see and observe ?  
[01:17] <Dav> no  
[01:17] <Annie> ok, I can see you ar preety smart like our Frank  
[01:17] <Sara> let me get a picture of phantom for you  
[01:17] <Annie> he has come a long way -  
[01:17] <Annie> you will too  
[01:17] <Dav> sorry people, I have to quit: I will see the log 2morrow.  
[01:18] <Frank> thank you Annie...all praise to you and doos  
[01:18] <Dav> the room is closing here.

[01:18] <Doos> bye Dav, we are about finished  
[01:18] <Frank> bye Dav...glad you could join us  
[01:18] <MoDo> Bye, Dav  
[01:18] <Annie> if you have to go dave  
[01:18] <Dav> ok. good night to everybody. maybe see you next week.  
[01:18] <Annie> bye then, thanks for coming  
[01:18] Dav (~Dav@213.120.103.105) left irc: Dav  
[01:19] <Sara> Oh well  
[01:19] <Annie> I think we can call it a night  
[01:19] <MoDo> Well...I've got to go rustle up some food.  
[01:20] <Annie> sara when you find it, please post it  
[01:20] <Doos> yes we have covered most I think  
[01:20] <Sara> I will  
[01:20] <Frank> Can we decide a topic for next week?  
[01:20] <Doos> what shall we do next week?  
[01:20] <MoDo> TTFN, all.  
[01:20] <Doos> lol  
[01:20] <Sara> I saw some interesting rainbow garnet  
[01:20] <Annie> bye modo  
[01:20] <Doos> bye MoDo, till soon  
[01:20] <Sara> It's... interesting  
[01:20] <Frank> I'm running out of stones worthy of a full chat...  
[01:20] <Annie> i think maybe spinel  
[01:20] <Doos> well feldspar is nice  
[01:20] <MoDo> Next week is Tucson  
[01:20] <Sara> See you modo  
[01:20] <Frank> cya modo...hugs  
[01:20] <Doos> have fun there MoDo  
[01:21] <MoDo> Okay...bye!  
[01:21] MoDo (~MoDo@71.226.56.238) left irc: MoDo  
[01:21] <Annie> bye have fun  
[01:21] <Doos> so spinel, feldspar .. you decide  
[01:21] <Frank> spinel and / or feldspar....we are going to arrive eventually at calcite, malachite etc....are these worth a full chat?  
[01:22] <Doos> nah  
[01:22] <Doos> feldspar is a large subject though  
[01:22] <Annie> ornamentals or so  
[01:22] <Frank> yes feldspar, spinel, topaz, what else haven't we done?  
[01:23] <Doos> diamond  
[01:23] <Frank> diamond of course (though I find it hard to get my intetrest up for them  
[01:23] <Doos> heh  
[01:24] <Doos> we can always redo a topic  
[01:24] <Frank> what else do we have left on the syllabus doos....synthetics, immitations...pearls...lapidary cuts  
[01:24] <Doos> or go into charge transfer etc  
[01:24] <Frank> YES...lets do that  
[01:25] <Frank> :)  
[01:25] <Doos> lol  
[01:25] <Doos> is that good for the rest?  
[01:25] <Frank> we cover synthetic and imitation etc as we do the other stones but some more on chemistry, physics and origins would be nice  
[01:26] <Doos> molecules, electrons, isotopes etc stuff next week then  
[01:26] <Doos> ?

[01:26] <Frank> don't think there is any rest doos...gemma-away and sara said she was going to lie down  
[01:27] <Doos> Annie, you still there?  
[01:27] <Annie> sara was here  
[01:27] <Annie> gemma is away,  
[01:27] <Frank> so yes....all of the above over the next however long...:)  
[01:27] <Sara> frank, how long have you been taking your courses?  
[01:27] <Doos> sounds good to me  
[01:27] <Frank> just over a year  
[01:28] <Doos> everyone agrees?  
[01:28] <Sara> with what?  
[01:28] <Doos> oh crap  
[01:28] <Sara> oh  
[01:28] <Frank> about 15 months I think...yes doos you get my vote  
[01:28] <Doos> Annie?  
[01:28] <Doos> Sara?  
[01:28] <Annie> yes  
[01:28] <Sara> Yep  
[01:29] <Doos> ok, I'll get some sleep then  
[01:29] <Frank> me too  
[01:29] <Sara> see you...  
[01:29] <Frank> thanks doos....Annie....you are de best :)  
[01:29] <Doos> night all, have fun in the shower Annie :)  
[01:29] <Sara> yes, thank you  
[01:29] Sara (~MariCinna@172.135.120.154) left #go.  
[01:29] <Doos> bye bye, hugs