

[14:28] <Doos> so shall we finish corundum this week?  
[14:28] <TNPearl\_> k  
[14:28] <Cattrix> YES..  
[14:28] <Frank> yum  
[14:28] <Doos> the most important things are discussed i think  
[14:29] <Doos> only the dichroscope and spectroscope left  
[14:29] <Doos> will be a quicky this week  
[14:30] <Doos> any questions sofar?  
[14:30] <Doos> :)  
[14:30] <TNPearl\_> no  
[14:30] <Cattrix> yes  
[14:30] <Frank> no  
[14:30] <Frank> good ole cat  
[14:31] <TNPearl\_> lol  
[14:31] <Doos> shoot cat  
[14:31] <Cattrix> if a stone is twinned COULD it have 2 areas that have an interfeance figure?  
[14:32] <Annie> i don't think so cat,  
[14:32] <Doos> you mean with the polariscope?  
[14:32] <Cattrix> Yes..  
[14:33] <Annie> are you asking to find the interfearence figures  
[14:33] <Cattrix> I have a sapphire that shows 2 areas of stain one on each end  
[14:33] <Annie> well interference is only seen when a stone is cut with its table parallel to its optic axiis  
[14:33] <Cattrix> er strain I mean  
[14:34] <Annie> is it rainbow colours on each side  
[14:34] <Doos> well cat, if you see it on opposite ends, that's normal  
[14:34] <Frank> If you see 2 cat maybe the stone is biaxial  
[14:34] <Frank> not corundum  
[14:34] <Annie> its common in corundum  
[14:34] <Doos> good question though Cattrix  
[14:35] <Cattrix> yes 2 bands of rainbow colors with small figures in each band  
[14:35] <Annie> very good indeed  
[14:35] <Doos> another smartypants is just what we need :)  
[14:35] <Cattrix> Huh? I am just reporting what I am seeing :0  
[14:35] <TNPearl\_> lol  
[14:35] <Doos> that usually indicates biaxial as Frank pointed out  
[14:36] <Doos> just making fun Cattrix, very good question  
[14:36] <Cattrix> ok because I only have one stone that does that.  
[14:36] <Annie> did you check for ri and sg  
[14:36] <Cattrix> I tried to get a picture of it but no dice.  
[14:36] <Cattrix> yes it is a sappire  
[14:37] <Cattrix> er no, not SG don't have a scale yet  
[14:37] <Doos> could be an anamoly, I'll look into it Cattrix ..  
intersting  
[14:37] <Annie> hmm that is interesting Cat  
[14:37] <Cattrix> just RI  
[14:37] <Annie> i would have never thought  
[14:38] <Doos> is it facetted?  
[14:38] <Cattrix> maybe it could be a stone with 2 fracture and strain still within each piece?  
[14:38] <Cattrix> Yes facetted  
[14:39] <Frank> can you see any fracure or strain with your lrns?  
[14:39] <Doos> what does the polariscope say .. uniaxial or biaxial  
[14:39] <Cattrix> it is VERY pretty under the polariscope! vivid  
[14:39] <Frank> sorry lens

[14:39] <Cattrix> it has a cross  
[14:39] <Doos> ah a cross  
[14:40] <Cattrix> not a bulls eye one, the other  
[14:40] <Doos> then it's uniaxial, what are the bands you mentioned earlier  
[14:41] <Cattrix> Well I thought they might indicate a twin lines> but don't know  
[14:41] <Doos> dunno either, I'll look into it  
[14:42] <Cattrix> cool.. any way that is all from me  
[14:42] <Cattrix> :)  
[14:42] <Doos> okay  
[14:42] <Doos> the dichroscope first?  
[14:42] <Frank> k  
[14:42] <Cattrix> yes  
[14:42] <TNPearl\_> k  
[14:43] <Doos> both natural and synthetic corundum is dichroic  
[14:43] <Doos> and most synth. on the market is verneuil  
[14:43] <Doos> nat. ruby (f.i.) shows its best colour down the c-axis  
[14:44] <Doos> so the cutters in general cut the ruby with the table perpendicular to the c-axis .. or a slight tilt to that  
[14:44] <Doos> in general that is  
[14:45] <Doos> so that means you see pleochroism when holding the stone facing the girdle to the dichroscope  
[14:46] <Doos> that wasn't a good sentence, but did you get that?  
[14:46] <Frank> so no pleochroism through the table can be an indicator of a natural stone?  
[14:46] <Doos> yes  
[14:46] <Cattrix> I think so  
[14:46] <Frank> k  
[14:47] <Annie> especially with rubies if you see through the table, sure sign of syn and verneuil  
[14:47] <Doos> or better if you DO see pleochroism in the table .. it smells fishy  
[14:47] <Doos> stop that Annie, spooky  
[14:47] <Annie> lol  
[14:47] <Cattrix> giggle  
[14:48] <Frank> what of the orientation of cut for the other synths?  
[14:48] <Doos> does everyone know why the verneuil show dichroism through the table?  
[14:48] <Cattrix> no  
[14:48] <Frank> they are cut with the table parallel to the c-axis  
[14:48] <Doos> indeed  
[14:48] <Annie> good frank,  
[14:48] <TNPearl\_> no  
[14:49] <Annie> because the boule needs to split in the middle to free it from stains  
[14:49] <Annie> then the table is placed parallel to its axis.  
[14:49] <Doos> the boule of a verneuil has a lot of stress and need to be cleaved lengthwise  
[14:49] <Doos> LOL  
[14:49] <Annie> ok, i means strains not "stains" as above  
[14:50] <Doos> this is getting spooky  
[14:50] <Annie> please continue  
[14:50] <Annie> i am getting stuck on some letters  
[14:50] <Doos> Frank, to your question .. dunno, I think they behave like naturals  
[14:50] <Doos> do you know Annie?  
[14:51] <Annie> Frank, the others will be cut as the naturals,

[14:52] <Annie> one needs to look for the inclusions for those ones  
[14:52] <Annie> the cololours can look fake - not so natural  
[14:52] <Frank> ok..ty  
[14:53] <Doos> that sums up the dichroscope pretty much  
[14:53] <Doos> just one last comment, I said "in general"  
[14:53] <Doos> so don't go by it alone  
[14:54] <Doos> questions before we go on to the spectroscope?  
[14:54] <Cattrix> not me  
[14:55] <Frank> are there specific times when the calcite / london  
dichroscope is better than the other for some things?  
[14:56] <Doos> the london is better for weak pleochoic stones i think  
[14:57] <Annie> normally the UV is more distinctive aid rather than the  
london/chelsea  
[14:57] <Frank> do you wave it up and down to see if there is a colour  
change / shift  
[14:58] <Doos> I think that is always good practise when you don't know  
if you trust your eyes  
[14:58] <Frank> lol...k thanks  
[14:59] <Doos> the spectroscope is a very handy tool to distinguish  
nat./synth. blue sapphire  
[15:00] <Doos> nat. usually shows 3 absorption bands in the blue, while  
synth. only shows 1  
[15:01] <Annie> thats the worst part people hate to look in the blue  
though, but needs practice on ce again  
[15:01] <Frank> yes the blue can be a bitch to see lines in....it wants  
so much light  
[15:01] <TNPearl\_> is this only on sapphire?  
[15:01] <Doos> play with the stone  
[15:01] <Annie> if you see the 3 bands you can get excited  
[15:02] <Doos> yes TNPearl\_  
[15:02] <TNPearl\_> k  
[15:03] <Annie> yes the rtuby hass those too  
[15:03] <Doos> you want to orientate the stone to get maximum absorption  
.. so the light should hit the blue zoning areas  
[15:03] <TNPearl\_> k  
[15:03] <Frank> I find the iron lines easier to see in a ruby than in a  
sapphire  
[15:03] <Doos> ruby can have it aswell, but seeing 3 bands in a sapphire  
is usually proof of natural  
[15:04] <Annie> yes, the lines will tend to be more intense on  
sydnthetics  
[15:04] <Frank> so none of the synths show 3 bands (In general)  
[15:04] <Annie> no  
[15:04] <Doos> indeed  
[15:04] <Frank> k...that's a nice one to know  
[15:05] <Doos> but the reverse should also be considered  
[15:06] <Annie> because they contain more chormium for the given depth of  
colour for rubies  
[15:06] <Doos> if you see only 1 band, it could mean you didn't spot the  
other two  
[15:06] <Annie> yes, tere is the odd ones  
[15:06] <Frank> Are emmission lines more likely in the synths?  
[15:06] <Doos> in the red?  
[15:06] <Frank> yes ...sorry in the rubies  
[15:06] <TNPearl\_> so it is harder to see the lines  
[15:07] <TNPearl\_> in ruby  
[15:07] <Doos> can be in both I think, they are fluoresece lines caused  
by chromium

[15:07] <Doos> Annie, do you know of a diagnostic spectrum for ruby?  
[15:08] <Annie> yes, the fluorescent line or emission lines are about very close like 692 and 694.2  
[15:09] <Frank> I love to move the stone and turn these lines on and off  
[15:09] <Annie> then expect a broad absorption of green yellow between 520 to 610  
[15:10] <Annie> and generally the ion lines are 468, 475 and 478  
[15:11] <Annie> with sapphires expect the iron lines of 450 and 460 and 475 to be in blue as we said before  
[15:11] <Annie> but the 450 and 460 are so close that they will merge  
[15:11] <Frank> so the iron lines are different places in ruby and sapphire?  
[15:11] <Annie> yes  
[15:12] <Frank> k ty  
[15:12] <Annie> Frank, let me tell you not everyone follows this, you can only learn these if you have your spectroscope with a scale and therefore these are distinguished  
[15:13] <Frank> So I wouldn't notice the difference without a scale on the spectroscope?  
[15:13] <Annie> also it is always common that the Australian stones will always have the 3 lines due to being iron rich  
[15:14] <Annie> no you would not Frank, if you don't have the scale, they will look almost the same  
[15:14] <Annie> and bear in mind that stones like from Sri Lanka will have more or less the "only 450 nm line  
[15:15] <Annie> and not the other two because of less iron and due to their geological environment  
[15:15] <Frank> This is great stuff Annie....I'm typing it into my corundum page as we go along  
[15:15] <Annie> that's great Frank  
[15:16] <Doos> the lines will still be there, but very hard or almost impossible to spot  
[15:16] <Doos> lol  
[15:16] <Annie> therefore as we said, they are faint - but stronger in the synthetics  
[15:16] <Annie> because of added stuff  
[15:17] <Frank> It's funny but the different properties from the various localities for corundum mean that even with normal gem tools you have a good chance of calling the locality from inclusions spectra etc  
[15:18] <Annie> yes, the corundum is pretty intriguing and common for its inclusions and UV from different localities  
[15:18] <Annie> and I bet you one gem would need to refer to text or notes when looking at inclusions to distinguish its source  
[15:19] <Frank> Did we cover UV for corundum?  
[15:19] <Doos> no  
[15:19] <Annie> I don't think we did, Doos, did we  
[15:19] <Doos> no we didn't  
[15:19] <Frank> :) shall we  
[15:20] <Annie> you know, do you have gem reference guide  
[15:22] <Doos> corundum can act pretty good to UV  
[15:23] <Doos> even show fluorescence with a cold light source  
[15:23] <Catrix> what is a cold light source?  
[15:23] <Frank> not UV  
[15:24] <Doos> a nice trick is with a cheap UV keyring light and a red filter (Chelsea f.i.)  
[15:24] <Doos> Catrix, the thingies with the flexible fibre arms  
[15:24] <Doos> fibre optics in short  
[15:24] <Catrix> oh those dealys

[15:25] <Cattrix> ok  
[15:25] <Doos> buy a cheap keyring uv light (\$10 orso)  
[15:25] <Doos> shine it on a ruby and look through it with a chelsea  
[15:26] <Doos> they will glow  
[15:26] <Doos> that is what's called the crossed filter technique  
[15:26] <Doos> or selenium glass, even better  
[15:27] <Doos> red selenium that is  
[15:27] <Frank> I have a facettted selenium glass gem  
[15:27] <Doos> red one?  
[15:27] <Frank> it's got a very distinct spectrum as well  
[15:27] <Annie> oh have you looked through the spectroscope for that  
[15:27] <Frank> yes red  
[15:28] <Annie> yes,  
[15:28] <Annie> that is one hell of a spectrum  
[15:28] <Frank> :)  
[15:28] <Frank> yes...I love the spectrums  
[15:28] <Frank> all of them :)  
[15:29] <Annie> frank i can see you gonna be 100% fo spectra  
[15:29] <Doos> lol, daddy has a new hobby  
[15:29] <Frank> yes I fear I'm smitten Annie  
[15:29] <Cattrix> grrrrrrrr  
[15:29] <Annie> lol  
[15:29] <Frank> give it time cat  
[15:29] <Frank> it'll come  
[15:29] <Cattrix> all I get is a headache, within a few min.  
[15:29] <Frank> do you wear specs?  
[15:29] <Doos> carry it with you always and you'll be great, just remember that we want the first copies  
[15:29] <Cattrix> yes  
[15:30] <Frank> keep them on...it's a bit more fiddly but at least you can see  
[15:30] <Cattrix> I can't see with or with out,, I have werid eyes  
[15:31] <Frank> mmm...  
[15:31] <Doos> Cattrix, it's like riding a bike .. all of a sudden you get it  
[15:31] <Frank> do you keep them on when you use your loupe  
[15:31] <Cattrix> No,  
[15:31] <Annie> oh good,  
[15:31] <Frank> try practising that first  
[15:32] <Annie> because you would have double double aberations  
[15:32] <Frank> why good Annie?  
[15:32] <Cattrix> I have bifocals well trifocals really  
[15:32] <Annie> well the hand lens is corrected  
[15:32] <Frank> lol...are you trying to complicate this cat?  
[15:32] <Cattrix> no.. sorry giggle  
[15:32] <Frank> do scecs allow that much abberretion?  
[15:33] <Annie> and using it on top of your specs is a double double vision  
[15:33] <Frank> specs sorry  
[15:33] <Annie> yes  
[15:33] <Doos> I was taught to get rid of them aswell  
[15:33] <Doos> but if it works for you ..  
[15:33] <Frank> I have tried with and without my specs but don't really see that much difference  
[15:33] <Cattrix> it is more comfortable without my glasses  
[15:34] <TNPearl\_> what about contacts  
[15:34] <Frank> Pearl....your so posh

[15:34] <Annie> because you are lengthing the distance of the field of view also  
[15:34] <Doos> sae thing, but just keep them in  
[15:34] <TNPearl\_> posh?  
[15:34] <Cattrix> ooooo yeah would contacts help me or make it worse  
[15:34] <Frank> lol.....sorry brit humour  
[15:35] <TNPearl\_> k  
[15:35] <Doos> he's british TNPearl\_ , they have fancy words  
[15:35] <TNPearl\_> lol  
[15:35] <Cattrix> Posh = high class  
[15:35] <Doos> posh spice  
[15:35] <TNPearl\_> LOL  
[15:35] <Annie> :"  
[15:35] <TNPearl\_> he dont know me very well do he  
[15:36] <Frank> :)  
[15:36] <TNPearl\_> lol  
[15:36] <Annie> lol  
[15:37] <Cattrix> PEarl that sounded like something tweety bird would say.  
[15:37] <Doos> lol  
[15:37] <TNPearl\_> LOL my fav little bird  
[15:37] <Cattrix> I love cartoons! hehehe  
[15:37] <Frank> lol...just pearl being "not posh"  
[15:37] <TNPearl\_> lol  
[15:38] <Doos> I like tweedy aswell, but more the cheryl Tweedy kind  
[15:38] <TNPearl\_> lol  
[15:38] <Cattrix> whay is a Cheryl Tweedy?  
[15:38] <Cattrix> er What.. heheh can't type  
[15:38] <Doos> from some lousy british new band  
[15:39] <Doos> good looker  
[15:39] <Cattrix> ahhhhh I C  
[15:39] <Frank> I've never heard of em either cat  
[15:39] <Cattrix> lol  
[15:39] <TNPearl\_> lol lousy but who cares  
[15:39] <Doos> she's pretty so i like her songs  
[15:39] <TNPearl\_> LOL  
[15:39] <Frank> yes everyone is entitled to there own path....even the lousies  
[15:40] <Cattrix> Doos you are quite the Hound. giggle  
[15:40] <Frank> fox fit's better cat  
[15:40] <TNPearl\_> at least hes not dead lol  
[15:40] <Frank> lol...true  
[15:40] <Doos> me or "it"?  
[15:40] <TNPearl\_> LOL  
[15:41] <Doos> Annie, still awake love?  
[15:41] <Frank> both ...you and gembot  
[15:41] <Annie> LOL nearly  
[15:41] <TNPearl\_> Frank did it  
[15:41] <Cattrix> Well I seem to recall you are smitten with Meg Ryan also.. lol  
[15:41] <Annie> gembot  
[15:41] <Frank> Give us a quick run down on UV reactions from different places Annie and you can rest peacably  
[15:42] <Doos> meg is a cutie, I could give her .. uh flowers everyday  
[15:42] <Cattrix> hahaha!  
[15:42] <TNPearl\_> lol  
[15:42] <Frank> bah.....cute is ok but it don't last the distance  
[15:42] <Doos> heh

[15:42] <Annie> well anyone wana guess what burma rubies fluoresce  
[15:43] <Frank> red?  
[15:43] <Doos> did all of us order Ruby & Sapphire yet?  
[15:43] <Catrix> pink  
[15:43] <Annie> strong red  
[15:43] <Frank> not yet doos but I'm planning to....do you know any good  
bookshops?  
[15:43] <Doos> lol  
[15:44] <Doos> remember .. less than 100 copies left  
[15:44] <TNPearl\_> I have a Burma Rubie ring it is beautiful  
[15:44] <TNPearl\_> deep red  
[15:44] <Annie> they are the most beautiful red stones ever  
[15:44] <Doos> Burma is low on Fe  
[15:44] <Catrix> Why do some rubys look hot pink?  
[15:44] <Doos> mg  
[15:45] <TNPearl\_> medicgastcar? cant spell  
[15:45] <Frank> magnesium  
[15:45] <Catrix> Magnesium  
[15:45] <TNPearl\_> rubies are lighter  
[15:46] <Frank> I think many are used to glass fill (madagascar stones)  
[15:46] <Doos> lol, where did you read that .. I wonder  
[15:46] <TNPearl\_> really  
[15:46] <Frank> but Vincent says that better qualities have been found  
[15:46] <Frank> so the miners sre on the move  
[15:47] <Frank> thais jogging along behind them  
[15:47] <Doos> lol