

[14:27] <Doos> so, shall we start on garnets?  
[14:28] <Cattrix> yes! please :)  
[14:28] <Doos> ok  
[14:28] <Doos> we all read the page on isomorphous replacement at the ISG  
[14:28] <Frank> yes  
[14:28] <Doos> (except lazy Annie)  
[14:28] <Cattrix> yup  
[14:28] <Annie> lol  
[14:28] <Annie> yes  
[14:28] <Frank> Annie knows it anyway  
[14:29] <Doos> yah  
[14:29] <Cattrix> nod  
[14:29] <Annie> blushing  
[14:29] <Doos> when we think of isomorphous repl., we think garnet  
[14:29] <Frank> your soo cute when you blush Annie  
[14:29] <Annie> lol  
[14:29] <Doos> also Tourmaline and to a small extent Topaz, but primary Garnet  
[14:30] <Doos> in Garnet it isn't as difficult as it seems  
[14:31] <Doos> (tourmaline is harder, topaz is easier)  
[14:31] <Doos> we can divide the garnets into two general groups  
[14:31] <Doos> 1. pyrospite  
[14:31] <Doos> 2. ugrandite  
[14:32] <Frank> did you make those words up?  
[14:32] <Doos> we'll go over the theory of them today and in the next sessions we'll look at the individual members .. is that a good plan?  
[14:32] <Doos> nope  
[14:32] <Frank> yes good plan  
[14:32] <Cattrix> yep  
[14:33] <Doos> okay, those strange two words are actually there to make it easier for you  
[14:33] <Annie> pyro - spite = pyrope to spessartines  
[14:33] <Cattrix> ahhhh  
[14:33] <Doos> yes  
[14:33] <Annie> ugrandite - grossular to andradite  
[14:34] <Cattrix> cool  
[14:34] <Annie> easy  
[14:34] <Frank> Ok thanks...I never heard them before  
[14:34] <Annie> go on please  
[14:34] <Doos> so 1. pyrospite = Pyrope-Almandine-Spessartite  
[14:34] <Annie> note the p a s  
[14:35] <Doos> and no. 2. ugrandite = Uvarovite-Grossular-Andradite  
[14:35] <Doos> did that make sense?  
[14:35] <Annie> note the uga  
[14:36] <Cattrix> yes!  
[14:36] <Frank> yes nice one  
[14:36] <Doos> the pyrospites are all Aluminium ones  
[14:37] <Doos> the ugrandites are the calcium garnet  
[14:37] <Doos> s  
[14:37] <Doos> so if you remember those two words, you can always deduct which members are in which group  
[14:38] <Cattrix> very nifty.  
[14:38] <Doos> the general formula for garnet is  $L_3M_2(Si)_4O_{12}$   
[14:39] <Doos> the L3 and M2 stand for changeable metals  
[14:39] <Doos> like Calcium, Aluminium etc  
[14:40] <Doos> in the first group, the pyrospites, the first changes (the L)

[14:40] <Doos> in the second group, the ugrandites, the second changes (the M)

[14:41] <Doos> you will see other formulas like  $A_3B_2(SiO_4)_3$  aswell

[14:41] <Doos> but I think  $D_3T_2(sio_4)_3$  is better

[14:42] <Doos> because the first element is divalent (D) and the second element is trivalent (the T)

[14:42] <Doos> is this make sense?

[14:43] <Catrix> kind of

[14:43] <Frank> almost but I'm on trillion and whatever you typed after the word divalent has come up as an emoticon

[14:43] <Doos> oops

[14:43] <Annie> yes, as L or the D as Doos describes can be iron, managense, magnesium and calcium are divalents in subsitutes

[14:43] <Doos> because the first element is divalent "(D)" and the second element is trivalent (the T)

[14:44] <Frank> divalents have two electrons spare and trivalent have three...is this correct?

[14:44] <Doos> yah

[14:44] <Doos> we'll do a whole chat on that one day, so just keep that in mind .. but don't get headaches over it

[14:45] <Catrix> thank you!

[14:45] <Annie> M or T to be trivalent, to be either Iron, aluminium, cromium, and titanium

[14:45] <Doos> thanks Annie, saves me a lot of typing :)

[14:46] <Doos> so lets go over each group

[14:46] <Doos> the pyralspites consist of: pyrope, almandine an spessartite

[14:47] <Doos> pyrope is a  $Mg_3Al_2$  silicate

[14:47] <Annie> magnesium aluminium silicate

[14:47] <Doos> almandine is a  $Fe_3Al_2$  silicate

[14:47] <Annie> do you guys wana have a go at saying in words

[14:48] <Doos> and spessartite is a  $Mn_3Al_2$  silicate

[14:48] <Annie> after doos writes it

[14:48] <Doos> yah do

[14:48] <Annie> by looking at the forumal ?

[14:48] <Catrix> sure

[14:48] <Doos> Annie gave the first, each of you do the other

[14:48] <Annie> Cat can you do almandine

[14:49] <Catrix> Iron Aluminum Silicate

[14:49] <Catrix> ?

[14:49] <Annie> yes

[14:49] <Doos> good

[14:49] <Annie> :-)

[14:49] <Annie> frank , you do spessartine

[14:50] <Frank> I'm ok with the formula

[14:50] <Doos> lol

[14:50] <Doos> lazy basted, you gotta know both for the FGA

[14:50] <Catrix> snicker

[14:50] <Annie> ok, so its manganese aluminium silitate

[14:50] <Frank>  $M_3Al_2(sio_3)_4$

[14:51] <Annie> very typical exam questions

[14:51] <Annie> they love to give you garnets,

[14:51] <Doos> so the formula for the whole group stays the same .. only the first metal element changes, the divalent one

[14:52] <Annie> yes the substitution between the elemants

[14:52] <Annie> is interactive but nothing happens to the crystal structure

[14:52] <Doos> any of these elements can replace each other because they are of almost similar size in ions  
[14:52] <Cattrix> ahhhhhhh!  
[14:53] <Doos> rarely if never they will exist in a pure form  
[14:53] <Annie> iso same morph changing  
[14:53] <Frank> would these be classed as idiochromatic?  
[14:53] <Doos> not all Frank  
[14:53] <Annie> isomorphism - changing chemically in the formula  
[14:53] <Doos> pyrope is allochromatic  
[14:53] <Doos> almandine and spessartite are idiochromatic  
[14:53] <Annie> \* formula  
[14:54] <Doos> Mg is not a colouring element  
[14:54] <Frank> with iron as the colouring element?  
[14:54] <Doos> Fe and Mn are  
[14:54] <Frank> ok ty  
[14:54] <Doos> pyrope never occurs pure in nature  
[14:54] <Cattrix> mg= manganese?  
[14:54] <Frank> Is it possible to have a colourless pyrope then?  
[14:55] <Frank> sorry already answered  
[14:55] <Annie> no never  
[14:55] <Doos> it always forms a series with almandine or spessartite, so it will be coloured by Fe or Mn (and some additional Chromium)  
[14:55] <Frank> ok thank  
[14:55] <Doos> you can only have a colourless pyrope when it's made in a lab  
[14:56] <Cattrix> so no natural garnets will be colorless? correct?  
[14:56] <Doos> correct  
[14:56] <Annie> correct  
[14:56] <Cattrix> tooo bad:(  
[14:57] <Doos> questions so far .. while I potty  
[14:57] <Frank> and pyrope is the only allochromatic one?  
[14:58] <Cattrix> allochromatic meaning colored by an impurity rather than??  
[14:58] <Doos> in this series it is the only one Frank  
[14:58] <Frank> rather than a chemical which is part of the chemical formula  
[14:59] <Cattrix> which is idiochromatic ?  
[14:59] <Frank> yes...self coloured  
[14:59] <Cattrix> ok,,, :)  
[14:59] <Doos> the idiots as Annie names them  
[15:00] <Frank> lol...I was typing that  
[15:00] <Annie> glad you all remembered me  
[15:00] <Doos> heh  
[15:00] <Cattrix> lol  
[15:00] <Doos> okay, you all remember the timescales from history lessons right?  
[15:00] <Frank> yes  
[15:00] <Cattrix> no  
[15:01] <Doos> where you draw a horizontal line from year 0 to now  
[15:01] <Cattrix> oh ok yes  
[15:01] <Cattrix> silly me  
[15:01] <Doos> first vertical bar (year 0) is the start  
[15:01] <Doos> and end bar is now (2005)  
[15:01] <Doos> you can do that with garnets as well  
[15:01] <Doos> draw a horizontal line  
[15:02] <Doos> start bar is pyrope and end bar is almandine  
[15:02] <Doos> pyrope (not the pure form) starts with a RI of 1.73  
[15:03] <Doos> and almandine is 1.83

[15:03] <Annie> the middle bar is rhodolite can be 80/20 from each end member  
[15:03] <Doos> so rhodolite is a pyrope-almandine  
[15:04] <Annie> or 20/80  
[15:04] <Frank> So if it's so inbetween an almandine and a pyrope then we can call it as a rhodolite?  
[15:05] <Annie> yes, the proof will be in its absorption spectrum  
[15:05] <Frank> with both almandine and pyrope lines?  
[15:05] <Annie> yes  
[15:05] <Frank> will the lines for whichever end of the scale it is nearest have the most intense lines?  
[15:06] <Doos> the turning point is at RI 1.75  
[15:06] <Annie> yes,  
[15:06] <Frank> ty :)  
[15:06] <Cattrix> that is where you can difinitly say this is now a Rhodolite?  
[15:07] <Doos> yes cat, till about 1.78 I believe .. after that it will be an almandine  
[15:07] <Doos> did I say that right Annie?  
[15:07] <Cattrix> oh cool!!!  
[15:07] <Annie> yes, cool  
[15:08] <Doos> you can do the same with spessartite  
[15:08] <Doos> in between pyrope and spessartite you'll find Malaya  
[15:08] <Doos> around n=1.76  
[15:09] <Doos> maybe this is a good time to stop using RI  
[15:09] <Doos> but n  
[15:09] <Frank> what is n?  
[15:09] <Doos> RI  
[15:09] <Doos> the scientific notation  
[15:09] <Frank> but what does it stand for..doesn't it have a word? or is it like ohm or pi  
[15:10] <Doos> dunno, do you know Annie?  
[15:10] <Annie> dunno n = ri a notation for formula  
[15:11] <Cattrix> maybe it is like a marker  
[15:11] <Doos> must have something todo with the indicatrix  
[15:11] <Doos> yah I think so to Cattrix  
[15:11] <Doos> nice question for the forum  
[15:12] <Cattrix> yse  
[15:12] <Cattrix> er,, yes  
[15:12] <Doos> so you see that the n increases in the series between two end members  
[15:12] <Frank> when you say malaya is between pyrope and spessertine do you mean that the magnesium is being replaced by manganese instead of iron?  
[15:12] <Doos> same goes for the SG of D (for density)  
[15:12] <Doos> or\*  
[15:13] <Doos> yes Frank  
[15:13] <Annie> yes  
[15:13] <Doos> all 3 members can form series, so:  
[15:13] <Doos> pyrope - almandine  
[15:13] <Cattrix> so these are what are called transition garnet?  
[15:13] <Doos> pyrope - spessartite  
[15:13] bad (~bad@68.72.148.185) joined #yg.  
[15:13] <Doos> almandine - spessartite  
[15:13] <Frank> hey bad  
[15:13] <Cattrix> Hicbad  
[15:13] <Doos> hi bad  
[15:14] <bad> :)

[15:14] <Doos> yes Cattrix  
[15:14] Nick change: bad -> gemma  
[15:14] <Cattrix> lol  
[15:14] <Doos> bad gemma  
[15:14] <Frank> hi gemma  
[15:14] <Annie> hi gemma  
[15:14] <Cattrix> morning gemma  
[15:14] <Frank> did you apparate to get here?  
[15:14] <gemma> hello. where are we?  
[15:14] <Frank> Garnets  
[15:14] <gemma> no frank, i drove my honda  
[15:14] <gemma> yes, replacement?  
[15:15] <Frank> lol. Is there a word to describe the almandine  
spessartine mix (like rodonite or malaya  
[15:16] <Doos> so in the first group, the pyralspites, the 3 elements Mg,  
Fe and Mn can replace eachother at will  
[15:16] <Doos> none that I know Frank  
[15:16] <Frank> k  
[15:16] <Frank> and these are all in a divalent state?  
[15:17] <Doos> they can also form alliences with the ugrandites .. but  
only to a restricted extend  
[15:17] <Doos> yes  
[15:17] <Frank> and are always written as the first chemical to be  
mentioned?  
[15:17] <Frank> in the formula  
[15:17] <Doos> I don't know what you mean by that  
[15:18] <Annie> yes, frank  
[15:18] <Frank>  $\text{FeAl}(\text{SiO}_4)_4$   
[15:18] <Annie> you start with the changing element first  
[15:18] <Annie> iron aluminate  
[15:18] <Annie> or mangesium aluminate  
[15:19] <Frank> Ok the changing element is always written first...for  
this group  
[15:19] <Doos> uh yes  
[15:19] <Annie> yes, as the rest is aluminium silicate and oxygen  
[15:19] <Doos> now, what was the name of the second group again .. quick!  
[15:19] <Cattrix> and the second for the Ugrandites  
[15:19] <Doos> lol  
[15:20] <Frank> got im cat  
[15:20] <Doos> yah  
[15:20] <Cattrix> heheh  
[15:20] <Doos> the same thing happens to the ugrandites  
[15:21] <Frank> when we say silicate is it always  $\text{SiO}_4$   
[15:21] <Annie> yes  
[15:21] <Frank> ty  
[15:21] <Doos> the members of ugrandite are Uvarovite, Grossular and  
Andradite  
[15:21] <Annie> urganites are trivalents, therefore  
[15:22] <Doos> they all have Calcium in common  
[15:22] <Annie> it always starts with Ca - calcium  
[15:22] <Doos> lol  
[15:22] <Annie> the change s either to chrome or iron to aluminium  
[15:22] <Doos> grossular also has Al, but not as a starter  
[15:23] <Frank> is Calsium always trivalent?  
[15:23] <Doos> divalent  
[15:23] <Annie> grossular is  $\text{Ca}_3\text{Al}_2\text{Si}_2\text{O}_{12}$   
[15:23] <Annie> abdradute us  $\text{Ca}_3\text{Fe}_2\text{Si}_2\text{O}_{12}$   
[15:24] <Annie> sorry about my spelling

[15:24] <Cattrix> not a prob.  
[15:24] <Frank> s'ok annie we know what you mean..don;t apologise :)  
[15:24] <Annie> take our 0  
[15:24] <Doos> and uvarovite is  $\text{Ca}_3\text{Cr}_2(\text{SiO}_4)_3$   
[15:24] <Annie> great, i take back'  
[15:25] <Doos> there are some varieties in andradite and grossular  
[15:25] <Annie> one that cat likes  
[15:26] <Cattrix> dematoid  
[15:26] <Doos> for andradite they are: melatite (black), demantoite (green) and toazolite (yellow)  
[15:26] <Annie> in grossular series  
[15:26] <Annie> Cat, or Gemma wjll like it  
[15:26] <Annie> anyone wana guess  
[15:26] <Cattrix> tsavorite?  
[15:26] <Frank> tsavorite  
[15:26] <Annie> yes  
[15:27] <gemma> cake  
[15:27] <Cattrix> ARGH!  
[15:27] <Frank> cake?  
[15:27] <Cattrix> she is making fun of me  
[15:27] <Doos> in grossular they are: hessonite (orange), tsavorite(green .. due to chrome), massive grossular and hydro grossular  
[15:27] <Annie> what  
[15:27] <Annie> no cat, i wasn't  
[15:27] <Cattrix> Gemma was, , , .  
[15:27] <Annie> you said before you like tsavorites  
[15:27] <Frank> she means gemma annie  
[15:28] <Annie> uh  
[15:28] <Doos> Uvarovite is usually not found in large enough rough to be cut (atleast to my resources)  
[15:28] <Frank> massive grossular and hydro grossular...explain the difference please  
[15:29] <Doos> something is massive when it consits of small particles pressed together  
[15:29] <Annie> frank,  
[15:30] <Frank> yes  
[15:30] <Annie> you wana know massive  
[15:30] <Annie> and hyro  
[15:31] <Frank> yes...I'm not sure of the difference  
[15:32] <Annie> massive is no structure - its a piece of mass  
[15:32] <Frank> anf hydro?  
[15:34] <Annie> hydro may be grey if zoisite is present of green colour  
[15:34] <Doos> hydro usually indicates OH groups in the formula  
[15:35] <gemma> which means that there is actually some water in the crystal?  
[15:35] <Annie> some chrome which makes them green  
[15:35] <Frank> ah okhydrogen and oxygen...but not neccessaily water?  
[15:35] <Frank> or is thewre...gemma said yes  
[15:35] <gemma> no, gemma asked if  
[15:35] <Frank> lol...me too  
[15:36] <Doos> water is H2O  
[15:36] <Frank> yes  
[15:36] <Frank> not OH  
[15:36] <Annie> its not water associated  
[15:36] <Cattrix> it is called Transvall Jade sometimes correct  
[15:36] <Doos> I'll look into it .. will come up with an answer next week  
[15:36] <Annie> imassive  
[15:37] <Doos> very good Cattrix

[15:37] <Frank> you da gem Cat  
[15:37] <Cattrix> we have it here  
[15:37] <Cattrix> I have a peice in my hand right now  
[15:37] <Frank> drools for to see it  
[15:38] <gemma> ok, so the hydro is misleading and has nothing to do with water?  
[15:38] <Frank> OK can I straighten something else up in my head?  
[15:38] <Annie> its the green variety of garnet, i was going to write, but sometimes it gets confused with jade  
[15:38] <Annie> because it looks so similar to jade colour  
[15:38] <Frank> does it polish well?  
[15:38] <Annie> cabs  
[15:38] <Frank> k  
[15:38] <Cattrix> yes.  
[15:38] <Annie> cat where are you from  
[15:39] <Cattrix> Oregon!  
[15:39] <Annie> oh rightio  
[15:39] <Annie> i was thinging of something there for a minute  
[15:39] <Annie> sorry  
[15:39] <Cattrix> :)  
[15:39] <Frank> Back to the valency question...is it the second chemical in the formula that is trivalent in this group?  
[15:40] <Doos> so is the concept of isomorphous replacement in garnets understood better now?  
[15:40] <Frank> better yes  
[15:40] <Doos> yes Frank  
[15:40] <Cattrix> yes I think so!  
[15:41] <Frank> So the aluminium in spessartite garnet is divalent and the aluminium in grossular is trivalent?  
[15:41] <Doos> Frank, the second element is also trivalent in the first group  
[15:41] <Frank> yes but it remains the same (aluminium)  
[15:41] <Frank> ah ..ok I see it now...doh  
[15:41] <Doos> the difference is that in the first group the divalent element changes and in the second group the trivalent element changes  
[15:42] <gemma> bingo. that pulls it together for me why all this happens. thank you.  
[15:42] <Frank> is there a manganese/calcium replacement from spessartite to grossular which links the two groups?  
[15:43] <Doos> yes, but only minor  
[15:43] <Doos> not more than 10%  
[15:45] <Frank> is this minor mix given a name...or is it recognised  
[15:45] <gemma> lol read my mind  
[15:45] <Doos> yah I believe so, but not in gemmology  
[15:46] <Frank> ok thanks....great chat this week guys...loads of good stuff...thanks  
[15:46] <Doos> there are many more minerals in the garnet group than we covered .. none of them are of interest to us  
[15:46] <Frank> ok  
[15:46] <Doos> we could try to kill that, but that would be overkill :)  
[15:46] <Annie> there are about 20 of them  
[15:47] <Frank> Don't they come in nice colours or aren't they transparent ?  
[15:48] <Annie> they do but rarely are seen even as minerals  
[15:48] <Frank> ah ok  
[15:48] <Doos> or not large enough to be cut  
[15:48] <Annie> like master doos says, none are interest to us  
[15:49] <Frank> ok

[15:49] <Annie> we could kill it to death though  
[15:49] <Catrix> so they are very rare and only collectable  
[15:49] <gemma> do they then end up becoming one of the less rare stones?  
[15:49] <Frank> Annie can I ask a question thats a bit off topic  
[15:49] <Annie> yes they end up lesser known  
[15:49] <Frank> I posted this on the forum but no one knew  
[15:49] <Doos> do you have big boobies?  
[15:49] <Doos> oops  
[15:49] <gemma> :nono: doos  
[15:49] <Catrix> catrix rolling her eyes  
[15:49] <Annie> yes, frank, my head is not quite working at moment,  
please shoot  
[15:50] <gemma> (must have been talking to gembot and got confused)  
[15:50] <Frank> I have read several places that inclusions in garnet are  
angled at 70 and 110 degrees to each other....Do you know why?  
[15:50] <Frank> I'd have thought that being cubic they would be at 90  
degrees  
[15:51] <Annie> well yes, the needles follow the structure  
[15:51] <Annie> at 2 directions  
[15:51] <Annie> why that is so, you wana know  
[15:52] <Frank> yes I thought maybe it was the angles of the faces on the  
crystal faces....and is this diagnostic for garnet?  
[15:53] <Annie> well garnets rarely occur as cubes or octahedras  
[15:53] <Annie> there are modifications,  
[15:53] <Frank> yes dodecahedrons  
[15:53] <Annie> such as rhombics dodecahedrons  
[15:53] <Annie> y and the trapazedrons  
[15:54] <Annie> or the combination of them both  
[15:54] <Frank> what are the angles of the rhombus?..  
[15:54] <Doos>  $70 + 110 = 180$ , so a multitude of 90  
[15:54] <gemma> :)  
[15:54] <Annie> 70-110  
[15:54] <Frank> :)....  
[15:54] <Annie> when added and multiplied is all at 9 deg  
[15:54] <Annie> oh wow  
[15:54] <Catrix> oh my gosh you sooooo lost me  
[15:55] <Frank> is it diagnostic for garnets  
[15:55] <Doos> not me best field either Catrix, so don't worry  
[15:55] <Catrix> but never mind my prpbem not yours! hehehe  
[15:55] <Annie> frank, we will discuss at another time, i hate to loose  
people  
[15:55] <Frank> Sorry cat but people keep posting that this or that stone  
can't be corundum cos the inclusions aren't at 60 degrees  
[15:55] <Frank> Ok Annie  
[15:56] <Frank> thanks  
[15:56] <Frank> :)  
[15:56] <Annie> sorry did i miss such a post  
[15:56] <gemma> thanks for that annie. pulled things together for me,  
again :)  
[15:56] <Annie> frank, where is that  
[15:56] <Annie> i really am not up to date lately  
[15:56] <Annie> was that new or somethinf  
[15:56] <Frank> It has been brought up a few times  
[15:56] <Frank> I posted to ask what caused it and was it diagnostic for  
garnet  
[15:57] <Frank> gemca confirmed the angles but didn't know the cause  
[15:57] <Annie> ok i go and check for you

[15:57] <Doos> so what shall we do next week .. go over the pyralspites one by one?

[15:57] <Frank> yes good plan doos

[15:57] <Annie> cat, was i too confusing before

[15:58] <Cattrix> no I was just commenting that math is my very weak spot

[15:58] <Frank> These posts were long ago Annie...though I think on the current forum

[15:58] <Annie> Frank, you "off topic" is a good one,

[15:58] <Doos> Frank, I think it has to do with the crystalfaces

[15:58] <Frank> Cat...you more than make up for it with your practical skills and knowledge

[15:58] <Annie> not before the crash

[15:58] star (~star@202.59.82.105) joined #yg.

[15:58] <Annie> is it

[15:59] <Doos> hi star

[15:59] <Frank> sorry if I get carried away with the theory sometimes :)

[15:59] <Annie> you doing well

[15:59] <Annie> kill it mate

[15:59] <Frank> Hi Star

[15:59] <star> hi doos

[15:59] <Cattrix> its good for me to learn these things but scary

[16:00] <star> hi frank

[16:00] <Annie> who is our star

[16:00] <Doos> it's not rocket science Cattrix

[16:00] <gemma> rock science

[16:00] <Cattrix> lol

[16:00] <Doos> lol

[16:00] <Frank> I don't think it's that important to understand every point Cat...it's enough to know these things are there

[16:00] <Cattrix> Doos you don't have a kooky brain

[16:00] <gemma> although doos understands rockette science ;)

[16:00] <Annie> well its the scientific study of rocks indeed

[16:01] <Cattrix> lol gemma!

[16:01] <Annie> Hi Star, how is it going over there

[16:01] <Cattrix> Thanks Frank :) I understand

[16:01] <Cattrix> Hi Star

[16:01] <gemma> faith-based mineralology, cat

[16:01] <star> fine

[16:02] <Doos> aslong as you can fully understand what we discussed today, Annie and I are happy .. if not, you need to say so and we'll go back

[16:02] <Annie> great you could join us

[16:02] <star> ok

[16:02] <Annie> please do not hold back on us, otherwise we are here to help, thats all

[16:02] <Cattrix> Oh it was a wonderful chat! I got alot out of it,, lots of ahhh HA! moments

[16:02] <Frank> I though it was a very good chat...lot's of info to take in and write up

[16:02] <Cattrix> er moments..

[16:02] <star> any body wana talk on gemstones

[16:03] <gemma> which book that most of us probably already have is the best quick reference for the basics on iso replacement?

[16:03] <Frank> were discussing isomorphous replacement star

[16:03] <gemma> yeah, cat, i had two and was only here a half hour. love it.

[16:03] <Cattrix> Ya what Gemma asked any recommendations for reading?

[16:03] <Frank> till I caused a slight diversion with an off topic question

[16:04] <Catrix> hug gemma!

[16:04] <gemma> bad frank. i usually do that

[16:04] <Doos> oh for anyone who has missed to post on the forum (esp. you Annie) the Cos Altobelli chat is delayed for a week, so it will be held September 12th

[16:04] <Annie> huh wat

[16:04] <Frank> what time here?

[16:04] <gemma> good you mentioned it doos.

[16:05] <Doos> 8AM California time .. need to post the international times

[16:05] <gemma> frank, RTFWP

[16:05] <gemma> lol

[16:05] <Catrix> ooo 8 for me also then,.

[16:05] <Annie> oh gemma , what is rtfwp

[16:05] <gemma> i can't say it on the forum

[16:05] <Annie> lol

[16:05] <gemma> :o

[16:05] <Catrix> hehehe bad gemma

[16:05] <Frank>

<http://www.yourgemologist.com/ISGForumsBoard/showthread.php?t=13&highlight=inclusions+angles>

[16:06] <Frank>

<http://www.yourgemologist.com/ISGForumsBoard/showthread.php?t=212&highlight=inclusions+angles>

[16:06] <Annie> oh well, i guess i missed too much,

[16:06] <Annie> i better go to bed

[16:06] <star> y?

[16:06] <Frank> This is the thread that got me wondering Annie and the second is the questions I posted

[16:06] <Annie> ok frank, will look

[16:06] <gemma> i can't keep up with the forums anymore either annie. but we do miss you.

[16:06] <Doos> thanks for the chat Annie, have some good naughty dreams

[16:07] <Annie> sorry, i been down a lot

[16:07] <Annie> lucky i make it to here

[16:07] <Frank> At least we can come and see you on Saturdays and cheer ourselves up

[16:07] <Catrix> I second that!

[16:07] <gemma> yeah, frank doesn't need a book with annie around

[16:07] <gemma> none of us do!

[16:07] <gemma> and doos supplies the tea and biscuits

[16:07] <Frank> and hopefully cheer you up as well

[16:07] <Annie> i haven't been much help to cheer you guys up

[16:07] <gemma> :O

[16:08] <Frank> knowledge is fun...you give us so much of it Annie

[16:08] <Catrix> Sure you have Annie :)

[16:08] <gemma> oh yes, annies, talkin borderline mineralogy is a real fix for frank and me

[16:08] <Frank> lol

[16:08] <gemma> we'd go nuts trying to find our own answers

[16:08] <Doos> Annie, you are here to look pretty and act as the encyclopedia .. so I don't need to dive in the books on every question .. in short, I'm abusing you and you love it

[16:08] <Annie> :(

[16:09] <Frank> doos you are bad and mean

[16:09] <gemma> kick doos will you frank?

[16:09] <Annie> yep i love you guys  
[16:09] <Doos> lol  
[16:09] <Frank> and I take back the bit where I said you were funny  
[16:09] <Doos> poor me  
[16:09] <gemma> no frank you said he looked funny. don't take that back  
[16:10] Action: Doos snuggles up to Annie "the kiddies are being mean to me"  
[16:10] <gemma> oh oh , doos has caught gemmaitis . . . poor me  
[16:10] <Catrix> lol  
[16:10] <Catrix> smack him annie  
[16:10] <Annie> no be nice to master doos  
[16:10] <Doos> see  
[16:10] <gemma> imperial master doos to us, annie  
[16:10] <Frank> yes Annie  
[16:11] <Catrix> ok if we HAVE too we will be nice to him..  
[16:11] <Frank> Hey Star...sorry were all talking nonsense but the gem chat lesson thingy started two hours ago and is about to finish  
[16:11] <gemma> repeat question of cat and gemma -- any book we already own that would cover the basics in a bit more detail for the next chat?  
[16:11] <Annie> if you will excuse me, i will sign off  
[16:11] <gemma> good night annie.  
[16:11] <Frank> but we can all stay and chat a bit...did you have questions or something about gems?  
[16:11] <Catrix> Night Annie:)  
[16:11] <Annie> good night all''  
[16:11] <Catrix> Get some rest,,,  
[16:12] <Frank> bye Annie...hugs  
[16:12] <Annie> thanks for coming everybody  
[16:12] <Annie> hugs to all  
[16:12] <gemma> thanks for putting up with us  
[16:12] <Catrix> HUG back... yeah what gemma said!  
[16:12] <star> nice dreams  
[16:12] <Doos> night Annie, big kiss  
[16:12] <gemma> you ask cat, no one loves gemma. no one will answer her question. :(  
[16:12] <Annie> thanks, take care of your selves  
[16:13] <gemma> you take care too annie  
[16:13] <gemma> OX  
[16:13] <Frank> what questions gemma?  
[16:13] <gemma> XO  
[16:13] <Catrix> Any reading recommendaions for us ?  
[16:13] <gemma> arrgggghhh!  
[16:13] Annie (~Annie@203.61.89.76) left #yg.