

<@Spauwe> when talking garnets in a short amount of time we ghave to pick certain family members

<@Spauwe> we can't discuss the whole family

[22:37] <@Spauwe> there is MANT relatives in that family

[22:37] <@Spauwe> MANY i mean

[22:37] <@Spauwe> and have no real distictions between them

[22:38] <@Spauwe> everybody does it with everybody

[22:38] <@Spauwe> sort off

[22:38] <@Spauwe> for today I picked alamdine, pyrope and spessartine

[22:38] <Devin> menage a trois

[22:39] <@Spauwe> now why would I pick these three instead of almandine, demantoid and tsavorite?

[22:39] <Devin> cause they like to hang out together alot

[22:39] <DragonStek> they belong to the series

[22:39] <doos> like configuration?

[22:39] <@Spauwe> yes they share a basic chemical configuration

[22:39] <Beth2> in the reds and pinks

[22:39] <DragonStek> pyraspite series

[22:40] <@Spauwe> now what is the chemical composition of almandine?

[22:40] <doos> Fe Al silicate

[22:40] <@Spauwe> yesh

[22:40] <@Spauwe> and pyrope?

22:40] <DragonStek> $FE_3AL_2(SIO)_4$

[22:41] <doos> Mg Al silicate

[22:41] <@Spauwe> kewl

[22:41] <@Spauwe> and spessartite/tine

[22:41] <doos> Mn Al silicate

[22:41] <@Spauwe> rightyo

[22:41] <DragonStek> $Mg_3Al_2(Si_4)_3$

[22:42] <@Spauwe> so they have the aluminium silicate components in common

[22:42] <@Spauwe> aluminum

[22:42] <@Spauwe> or how do you native english speakers spell it?

[22:42] <DragonStek> aluminum

[22:42] <doos> aluminum

[22:42] <doos> heh

[22:43] <@Spauwe> ok

[22:43] <doos> al-joe-min-uhm

[22:43] <@Spauwe> the english spell it aluminium and since that's where I studied I'll stick to that

[22:43] <@Spauwe> ok

[22:43] <doos> yes we see how that is different

[22:44] <@Spauwe> so pyrope is a magnesium aluminium silicate

[22:44] <@Spauwe> what colour would that have when pure?

[22:44] <doos> colorless?

[22:45] <@Spauwe> exactly

[22:45] <@Spauwe> and almandine is a Iron Aluminium Silicate

[22:45] <@Spauwe> what colour does that have when pure?

[22:46] * doos shushes

[22:46] <Crystal2> when any of them are pure they should be colorless, no?

[22:46] <@Spauwe> nope

[22:46] <@Spauwe> what causes the color in almandine?

[22:47] <@Spauwe> what do we call the almandine spectrum?

[22:47] <doos> an iron spectrum

[22:47] <@Spauwe> yups

[22:47] <@Spauwe> and since that is a basic component of almandine...

[22:47] <DragonStek> iron

[22:47] <@Spauwe> pure almandine is red

[22:47] <doos> it is idiochromatic

[22:48] <@Spauwe> which makes one of those idiochromatic and the other allochromatic

[22:48] <@Spauwe> which one is which?

[22:48] <doos> the presence of transition elements in the core chemical make up?

[22:48] <@Spauwe> or if those terms are new to you, ask: what do you mean with that?

[22:49] <Crystal2> if there are transition elements, is it pure?

[22:49] <DragonStek> idiots need no help with color and also need help

[22:50] <doos> very good DragonStek .. Annie at work

[22:50] <DragonStek> lol yes

[22:50] <Keirkof> heh, a nice way to remember ^^

[22:50] <@Spauwe> haha

[22:50] <@Spauwe> yep a very nice way to remember

[22:50] <@Spauwe> so what is pyrope? an idiot or not?

[22:51] <doos> actually Annie said something like, the idiots think they can do it on their own

[22:51] <DragonStek> idiots , yes i was trying to remember

[22:51] <doos> no Spauwe

[22:52] <@Spauwe> 10 points and a cookie for the right answer

[22:52] <@Spauwe> doos gets a cookie

[22:52] <@Spauwe> pyrope is not idiochromatic

[22:52] <@Spauwe> it's allochromatic

[22:52] <@Spauwe> it derives its color from foreign elements

[22:52] <DragonStek> so i mixed up the meaning ?

[22:52] <doos> no DragonStek

[22:53] <@Spauwe> I don't think so

[22:53] <Devin> why have I never seen a clear pyrope garnet?

[22:53] <DragonStek> ok sorry being interrupted by son

[22:53] <Devin> or, where can i buy one?

[22:53] <@Spauwe> there's a lot of iron around on this world Devin

[22:53] <doos> you can't Devin

[22:53] <DragonStek> they are too small

[22:54] <DragonStek> and hardly ever

[22:54] <Crystal2> how can it be pure if transition elements are there?

[22:54] <@Spauwe> or other mixes of impurities

[22:54] <Keirkof> you have it right dragon, allochromatic materials get their colour from an element that is not a part of its 'regular' crystal structure

[22:54] <doos> only synthetics will be pure pyrope (or any other end member)

[22:54] <Devin> if beryl can do it (goshenite) shouldn't pyrope be able to?

[22:54] <@Spauwe> technically yes

[22:54] <@Spauwe> and somewhere someday somebody will unearth one as well

[22:55] <@Spauwe> nature will provide

[22:55] <Keirkof> he'll be looking for oil, and throw it away

[22:55] <@Spauwe> very possible

[22:55] <@Spauwe> but on the other hand

[22:56] <@Spauwe> what would you do if you find a colourless cubic crystal?

[22:56] <DragonStek> but closest to pure was 83% pyrope and 15% almandine

[22:56] <Devin> put it in my pocket of course

[22:56] <Devin> like all the other rocks i find

[22:56] <Beth2> think it was a diamond?

[22:56] <@Spauwe> it's a diamond!!!1

[22:56] <@Spauwe> exactly

[22:57] <doos> I heard people found colourless CZ's

[22:57] <@Spauwe> ghehehe

[22:57] <@Spauwe> already cut mate

[22:57] <@Spauwe> already cut

[22:57] <doos> :)

[22:57] <DragonStek> you throwing things out your window again

[22:57] <@Spauwe> found a few cut stones so far

[22:57] <@Spauwe> half a ct blue sapphire

[22:57] <@Spauwe> 1.6 ct yellow sapphire

22:58] <@Spauwe> you just need to be in the right places

[22:58] <@Spauwe> no for real, picked them up in australia

[22:58] <doos> we dont go to discos anymore

[22:58] <DragonStek> but not cut

[22:58] <@Spauwe> I'll write a stiry about those somewhere soon

[22:58] <@Spauwe> nice topic

[22:59] <@Spauwe> but back to garnets

[22:59] <@Spauwe> so we figured out that pyrope is a allochromtic gemstone

[22:59] <@Spauwe> what elements usually give it the red colour

[22:59] <@Spauwe> ?

[23:00] <DragonStek> iron

[23:00] <doos> diffusion

[23:00] <@Spauwe> yep

[23:00] <Devin> lol

[23:00] <@Spauwe> ghe

[23:00] <@Spauwe> let's go with iron

[23:00] <@Spauwe> but here a problem starts

[23:01] <@Spauwe> if there is iron there... why don't we call it almandine?

[23:01] <@Spauwe> an almandine with magnesium impurities?

[23:02] <@Spauwe> lots of 'm...

[23:02] <doos> yes, with a lot of Mg impurities

[23:02] <@Spauwe> right

[23:02] <Devin> so magnesium instead of iron mostly

[23:02] <@Spauwe> it's the percentage of magnesium vs iron that does the trick

[23:03] <@Spauwe> pyrope is one end member, almandine another

[23:03] <@Spauwe> but there is very few pure end members on this planet

[23:04] <Devin> wouldn't there be three ends? for spessartite?

[23:04] <@Spauwe> oh yes Devin

[23:04] <@Spauwe> it gets worse

[23:04] <Devin> which also takes us back to the breeding analogy more precisely

[23:05] <@Spauwe> spessartine has what chemical composition?

[23:05] <doos> Fe Al silicate

[23:05] <Devin> manganese instead of mg or fe

[23:05] <doos> oops

[23:05] <@Spauwe> devin is right

[23:05] <doos> Mn Al silicate

[23:05] <doos> indeed

[23:05] <@Spauwe> and is this one allochromatic or an idiot?

[23:06] <doos> allo

[23:06] <Beth2> allo

<@Spauwe> spessartine has a very distinct spectrum

[23:08] <@Spauwe> or better: can have

[23:08] <@Spauwe> and it's due to...

[23:08] <@Spauwe> manganese

[23:09] <@Spauwe> two bands in the violet that may be accompanied by four more bands in the blue to blue green area

[23:09] <@Spauwe> a big thick one at 485nm

[23:09] <@Spauwe> that stands out quite clearly

[23:09] <@Spauwe> dragon will be able to spot those ones soon

[23:10] <DragonStek> ok cool

[23:10] <@Spauwe> sow... since manganese is an essential component I call spessertite an idiot

[23:11] <@Spauwe> open for debate btw...

[23:11] <@Spauwe> no objections...?

[23:11] <doos> no

[23:11] <Devin> bet it takes a nice spectroscope to see it

[23:12] <DragonStek> that makes sense

[23:12] <@Spauwe> or is everybody frantically going through their notes?

[23:12] <@Spauwe> nah not at all mate

[23:12] <@Spauwe> you are selling some spess I saw

[23:12] <@Spauwe> pull one out and have a look

[23:13] <DragonStek> OPL spectroscope i can see

[23:13] <Devin> gia gem reference guide agrees with you, cause of color, mn and some iron

[23:13] <Devin> nice bands in the violet, to blue one green, faint yellow

[23:13] <@Spauwe> well they agree with the gemmological association of GB

[23:13] <Devin> are they in bed together too?

[23:13] <@Spauwe> I don't make stuff up

[23:13] <Devin> lots of inbreeding going on

[23:13] <@Spauwe> ghehe

[23:14] <doos> the compete, but work together

[23:14] <@Spauwe> if the gems do why not the gemological organisations?

[23:14] <Devin> true, true

[23:14] <Beth2> cool, even i can see it and spectroscopes are not usually my friend

[23:14] <@Spauwe> the thicker band at 485nm beth?

[23:15] <Devin> qq, what is the optical characteristic idiochromatic and allochromatic called?

[23:15] <@Spauwe> now, an almandine spectrum is possible as well in spessartite

[23:15] <Devin> chromatism?

[23:16] <@Spauwe> no understanding question

[23:16] <doos> Devin, chroma just means "color"

[23:16] <Devin> right

[23:16] <@Spauwe> idio = from within

[23:16] <Devin> for example, we have conchoidal, splintery, and granular

[23:16] <@Spauwe> allo = from outside

[23:16] <Devin> they are types of breakage

[23:17] <doos> there is no general header for "idio" or "allo"

[23:17] <Devin> which is classified as "fracture"

[23:17] <Devin> so if we have idio and allo chromatic then there is usually a name for that classification type

[23:17] <@Spauwe> ah ok..

[23:17] <@Spauwe> I see

[23:17] <@Spauwe> ehm...

[23:18] <@Spauwe> now I'm frantically going through notes

[23:18] <@Spauwe> dunno

[23:18] <@Spauwe> color cause?

[23:18] <DragonStek> causes of color

[23:18] <doos> Devin, the topic is generally discussed under the "causes of colour" chapters

[23:18] <doos> heh

[23:18] <Devin> k, so there is no one fancy word for it

[23:18] <doos> no

[23:18] <DragonStek> you teached me well Doos

[23:18] <Devin> anyone know the latin for cause?

[23:18] <@Spauwe> not that I'm aware of

[23:18] <@Spauwe> it's latin

[23:18] <doos> casus

[23:18] <@Spauwe> causa

[23:18] <Devin> chromacaus!

[23:19] <doos> heh

[23:19] <Devin> <--- invents new word

[23:19] <@Spauwe> something like it

[23:19] <@Spauwe> heck I'll use it

[23:19] <DragonStek> tehehe write that on a test

[23:19] <Devin> lol

[23:20] <@Spauwe> so we've determined the chromacasi of the three garnets we discuss today

[23:20] <doos> casus is more "case" though

[23:20] <Devin> even in the books "cause of color" is the type classification

[23:20] <doos> colorcases

[23:20] <@Spauwe> but with the pyrope there can be more going on than just iron

[23:21] <@Spauwe> those ant hill pyropes are chromacasi by what

[23:21] <@Spauwe> ?

[23:21] <Crystal2> ant poop?

[23:21] <DragonStek> chromium

[23:21] <doos> very good

[23:21] <@Spauwe> a cookie for dragon

[23:22] <Crystal2> and one for the ants

[23:22] <DragonStek> tehehe

[23:22] <@Spauwe> and how would we determine that?

[23:22] <DragonStek> spectrum

[23:22] <@Spauwe> rightyo

[23:22] <@Spauwe> what does that look like?

[23:22] <DragonStek> fluorescent lines

[23:22] <DragonStek> in red

[23:23] <@Spauwe> nah not really

[23:23] <DragonStek> ok

[23:23] <@Spauwe> a weak doublet in the far red

[23:23] <@Spauwe> broad absorption in the centre

[23:23] <doos> (which I can not see)

[23:23] <@Spauwe> and medium absorption in the violet to strong in the far violet

[23:24] <DragonStek> ok i cant see that either

[23:24] <@Spauwe> basically a strong resemblance to the ruby spectrum

[23:24] <doos> lots of people cant see the 650-700 range

[23:24] <@Spauwe> without emission lines

[23:24] <@Spauwe> no, you are a freak, doos, we all see 'm

[23:25] <doos> heh

[23:25] <DragonStek> yeah i thought it did thats why i said fluorescent lines

[23:25] <@Spauwe> yep

[23:25] <@Spauwe> now, one more spectrum to describe

[23:25] <@Spauwe> that of almandine]\

[23:26] <@Spauwe> thickest thinner thick, at 585, 530 and 510

[23:27] <@Spauwe> accompanied by absorption of the area doos can't see and the violet

[23:27] <@Spauwe> quite a distinctive one as well

[23:27] <@Spauwe> but

[23:28] <@Spauwe> when you spot an almandine spectrum it's not safe to start stating it actually is an almandine

[23:28] <@Spauwe> cause both spessartites/tines and pyropes may show 'm as well

[23:28] <@Spauwe> it just means that they are floating somewhere in the middle

[23:29] <@Spauwe> chemically speaking

[23:32] <@Spauwe> so we know that the garnets interbreed like certain people do

[23:32] <doos> texans>

[23:32] <@Spauwe> there is almandine-pyropes

[23:32] <@Spauwe> almandine-spessartines

[23:33] <@Spauwe> pyrope-spessartines

[23:33] <@Spauwe> and almandine-pyrope-spessartines

[23:33] <@Spauwe> yep they do threesomes as well

[23:34] <@Spauwe> so...

23:34] <@Spauwe> imagine having this red SRB stone in front of you

[23:35] <@Spauwe> it shows a weak almandine iron spectrum

[23:36] <@Spauwe> now

[23:36] <@Spauwe> is there ways to determine that it is indeed more almandine than pyrope?

[23:36] <@Spauwe> with just the basic gemmo tool kit

[23:36] <Devin> xfr?

[23:36] <Devin> shucks

[23:36] <DragonStek> ri

[23:37] <Devin> spectro / sg? one of those?

[23:37] <doos> ri indeed, but that is arbitarily

[23:37] <@Spauwe> microscope, RI, SG, etc

[23:37] <DragonStek> color

[23:37] <@Spauwe> just by color alone is not really diagnostic dragon

[23:37] <@Spauwe> doos is heading the right way

[23:38] <DragonStek> gemsociety does ri , hue and spectrum

[23:38] <doos> she said ri first

[23:38] <@Spauwe> she did too

23:38] <@Spauwe> sorry

[23:38] <@Spauwe> cookie?

[23:38] <Devin> gotta be spectroscope

[23:38] <Devin> SG isn't precise enough

[23:38] <@Spauwe> No I was heading for the RI and SG

[23:38] <Devin> really?

[23:38] <@Spauwe> we'll presume you have a nice Mettler set up

[23:38] <doos> sg is dismissed by most schools indeed

[23:39] <@Spauwe> (or a hanneman scale)

[23:39] <DragonStek> sg ?

[23:39] <@Spauwe> I don't like dismissing SG

[23:39] <Devin> specific gravity

[23:39] <@Spauwe> it's a very easy and quick way

[23:39] <Devin> nor I , but i wasn't sure it would be definitive

[23:39] <Devin> maybe MN and MG way the same

[23:39] <Devin> way=weigh

[23:39] <doos> as a means to distinguish between garnets Spauwe

[23:39] <@Spauwe> not with a \$10 dollar pocket scale it isn't

[23:40] <Beth2> rough folks usually like sg :)

[23:40] <@Spauwe> but with the right gear and reasonably sizes stones it can be

[23:40] <DragonStek> rosetta stone

[23:40] <Devin> calling me rough? you did the whacking

[23:40] <doos> for the garnets that poses many problems Spauwe

[23:40] <doos> even with the best of scales

[23:40] <@Spauwe> with rough SG usually is the only value that you can get

[23:40] <Devin> i can get spectroscope no problem

[23:41] <Devin> and dichro and polariscope

[23:41] <DragonStek> lol

[23:41] <Beth2> i was getting the garnet spec on rough

[23:41] <Devin> only RI is hard to find

[23:41] <doos> the SG's overlap too much

[23:41] <@Spauwe> you and your aversion against SG Doos.... don't get it

[23:41] <doos> for garnet they overlap too much

[23:41] <Devin> but that is due to impurities right?

[23:41] <@Spauwe> they can be

[23:41] <Devin> so it gives clues

[23:41] <@Spauwe> but Devin just hit the nail on the head

[23:42] <Devin> what is the density differential between fe, mn, and mg?

[23:42] <doos> even Hanneman agrees with it, sg is out

[23:42] <Devin> assuming no other impurities are giving add'l noise

[23:42] <@Spauwe> when using a refractometer the difference between a red spessartite and an almandine is becoming very probelemtic

[23:42] <DragonStek> the RI

[23:43] <@Spauwe> yes but can we measure it?

[23:43] <DragonStek> no but roseta stone

[23:43] <doos> the ri boundaries are indeed very vague

[23:43] <@Spauwe> that's not what I mean doos

[23:43] <doos> in some cases we can

[23:43] <@Spauwe> they are off the limit

[23:43] <Devin> i don't think our basic instruments can be diagnostic for these intermixed species

[23:43] <doos> some are ot!

[23:43] <@Spauwe> in most cases

[23:43] <doos> HEH

[23:43] <doos> oops

[23:44] <@Spauwe> yesh

[23:44] <@Spauwe> so in garnet determination refractometers have their limits

[23:44] <@Spauwe> they can be usefull though

[23:44] <@Spauwe> pyrope: 1.73-1.76

[23:45] <@Spauwe> almandine 1.78 - 1.81

[23:45] <@Spauwe> and that's where it ends...

[23:45] <doos> question

[23:45] <Devin> imagine a 33%/33%/33% pyrope-almandine-spessartite stone. it isn't dominant in any specie. how to classify?

[23:45] <@Spauwe> spessartine: 1.795 - 1.815

[23:46] <@Spauwe> basically that is the big question Devin

[23:46] <@Spauwe> how would you?

[23:46] <doos> use the ternary diagram in Hanneman's book

[23:46] <DragonStek> yes that too

[23:46] <DragonStek> rosettq stone

[23:46] <doos> but I have a question

[23:47] <Devin> now who is gonna want a piece of jewelry made with pyralspit? not good marketing.

[23:47] <@Spauwe> marketing

[23:47] <@Spauwe> good you bring that up

23:47] <@Spauwe> ket's start with that after doos' question

23:47] * doos looks at DragonStek .. why is he ignoring me?

[23:47] <doos> oh there we go

[23:47] <DragonStek> what

[23:47] <@Spauwe> bring it on bro

[23:48] <@Spauwe> 3

[23:48] <@Spauwe> 2

[23:48] <@Spauwe> 1

[23:48] <@Spauwe> long question

[23:48] <doos> is there a general term to describe all this inbreeding?

[23:48] <@Spauwe> off course there is

[23:48] <@Spauwe> we call it

[23:48] <@Spauwe> isomorphism

[23:48] <@Spauwe> lot's of minerals do it

[23:49] <@Spauwe> feldspars

[23:49] -doos- isomorphous replacement

[23:49] <@Spauwe> garnets

[23:50] <@Spauwe> any other minerals that are part of a isomorphous series?

[23:50] <Crystal2> tourmaline?

[23:50] <doos> spinel

[23:50] <DragonStek> spinel

[23:50] <doos> tourmaline idd

[23:50] <@Spauwe> spodumene

[23:51] <@Spauwe> tourmaline definetly

[23:51] <@Spauwe> any others

[23:51] <@Spauwe> it's late here

[23:51] <DragonStek> topas

[23:51] <@Spauwe> you yankies should be all fresh so just after lunch

[23:51] <Crystal2> how about topaz?

[23:52] <DragonStek> lol its 5:51pm here

[23:52] <doos> topaz not really .. some F OH replacements

[23:52] <Crystal2> thanks doos

[23:52] <DragonStek> ok thanks

[23:52] <@Spauwe> but ok...

[23:52] <doos> beryl

[23:52] <@Spauwe> we still have that red rock in front of us

[23:53] <@Spauwe> and we get an OTL reading on the refractometer

[23:53] <@Spauwe> but I want to know what it is

[23:53] <@Spauwe> beryl!!!

23:53] <@Spauwe> off course

[23:53] <DragonStek> pyrope/almandine = rhodolite

[23:53] <@Spauwe> didn't think of that

[23:53] <@Spauwe> wait dragon

[23:54] <@Spauwe> we will get to that in a bit

[23:54] <@Spauwe> so red rock

[23:54] <@Spauwe> nicely cut

[23:54] <@Spauwe> weak almandine spectrum

23:54] <@Spauwe> OTL RI

[23:54] <@Spauwe> what do we do?

23:54] <doos> polariscope

[23:55] <@Spauwe> SG is not reliable enough for these people here so what's next?

[23:55] <DragonStek> micro

[23:55] <@Spauwe> cookie for dragon

[23:55] <doos> I hate you

[23:55] <@Spauwe> \what are you gonna do with the polariscope doos?

[23:55] <DragonStek> you love me

[23:55] <DragonStek> find out its got ADR

[23:56] <@Spauwe> what may we see Dragon when peering through our beloved microscopes?

[23:56] <@Spauwe> will ADR tell us anything about any end member?

[23:56] <@Spauwe> nah

[23:56] <doos> inclusions

[23:56] <DragonStek> NEEDLELIKE INCLUSIONS

[23:56] <@Spauwe> yes we'll see inclusions when we are lucky

[23:56] <DragonStek> sorry

[23:56] <@Spauwe> needles...

[23:56] <@Spauwe> another cookie

[23:57] <@Spauwe> you sick of 'm yet?

[23:57] <@Spauwe> must be putting on weight

[23:57] <@Spauwe> with all them cookies

[23:57] <DragonStek> irregular or rounded crystals

[23:57] <doos> I like my women big

[23:57] <DragonStek> some halos usually very dark

[23:57] <@Spauwe> they are chocolate chip ones you know

[23:57] <DragonStek> lol love em

[23:57] <@Spauwe> one at a time draon

[23:57] <DragonStek> sorry

[23:57] <@Spauwe> needles first

[23:58] <DragonStek> was tpying

[23:58] <@Spauwe> those needles are in fact what?

[23:58] <@Spauwe> typing, my ass, you want more cookies

[23:58] <DragonStek> course rutlie?

[23:58] <@Spauwe> rutlie yes

[23:58] <doos> must be me, but I only buy the good ones .. so the microscope is useless

[23:59] <@Spauwe> and for which end member is rutile pretty diagnostic?

<Beth2> almandine?

[00:00] <@Spauwe> cookie to beth

00:00] <Beth2> *woot*

[00:00] <doos> I was thinking the same?

[00:00] <@Spauwe> now dragon

[00:01] <doos> should she share?

[00:01] <@Spauwe> second inclusion you spot

[00:01] <Devin> <--- thinking of giving a cookie to doos

[00:01] <DragonStek> irregular or rounded crystals

[00:01] <DragonStek> lol

[00:02] <@Spauwe> you gotta deserve the cookies first

[00:02] <@Spauwe> rounded crystals

[00:02] <@Spauwe> why are they rounded?

[00:02] <doos> we share in mind, in effect bypassing you

[00:02] <@Spauwe> :)

[00:03] <@Spauwe> how do minerals get rounded?

[00:03] <doos> didnt watch their calories?

[00:03] <Devin> overeating?

[00:03] <doos> heh

[00:03] <Devin> aw man

[00:03] <@Spauwe> ghehe

[00:03] <DragonStek> lol

[00:03] <Devin> <--too slow

[00:04] <Devin> water worn?

[00:04] <Beth2> that was scary

[00:04] <@Spauwe> yes sometimes by water

[00:04] <Beth2> heat

[00:04] <@Spauwe> or by pressure

[00:04] <@Spauwe> or by heast

[00:04] <@Spauwe> heat

[00:04] <@Spauwe> exactly

[00:05] <@Spauwe> now if I'm a well shaped (which I am) apatite crystal

[00:05] <doos> protogenetic?

[00:05] <@Spauwe> and some big garnet decide to form around me I receive extra pressure\

[00:05] <doos> pregenetic?

[00:05] <doos> syngenetic?

[00:05] <@Spauwe> pre indeed

[00:06] <@Spauwe> and i give way

[00:06] <DragonStek> cause halos to burst

[00:06] <@Spauwe> those halos are diffrent again

[00:06] <@Spauwe> around what typical inclusion do halos form?

[00:07] <Beth2> zircon

[00:07] <@Spauwe> yesh

[00:07] <doos> uranium

1[00:07] <@Spauwe> not uranium

[00:07] <@Spauwe> zircons

[00:07] <@Spauwe> that carry uranium

[00:07] <@Spauwe> and over time those zircons become metamict

[00:07] <@Spauwe> thet loose their crystal structure

[00:08] <@Spauwe> they become more and more amorphous

[00:08] <@Spauwe> and then something happens that causes that halo...

[00:08] <@Spauwe> what is that something?

00:09] <@Spauwe> clue: it has something to do with the SG of that zircon crystal...

[00:09] <@Spauwe> what is SG?

[00:09] <DragonStek> specific gravity

[00:10] <@Spauwe> a way of describing what?

[00:10] <DragonStek> pressure

[00:10] <DragonStek> weight

[00:10] <@Spauwe> pressure is a factor

[00:10] <@Spauwe> weight related to what?

[00:10] <DragonStek> tenacity

[00:10] <doos> mass

[00:10] <@Spauwe> what?

[00:10] <@Spauwe> tenacity?

[00:10] <DragonStek> cant think of the word

[00:10] <Devin> tenacity?

[00:10] <@Spauwe> me no understand english that well

[00:11] <@Spauwe> specific gravity is a way to describe density

[00:11] <@Spauwe> compared to that of water

[00:11] <Devin> yup

[00:11] <@Spauwe> weight to volume

[00:11] <@Spauwe> volume = tenacity?

[00:12] <DragonStek> the other word for weight

[00:12] <@Spauwe> ok

[00:12] <Crystal2> tenacity is how good the bond is

[00:12] <@Spauwe> I was looking for volume

[00:12] <Crystal2> how tight

[00:12] <Devin> chinese?

[00:12] <DragonStek> ok

[00:12] <doos> tenacity = buigzaamheid in Dutch

[00:12] <DragonStek> ohhhhhh

<doos> so the sg goes down .. go on

[00:17] <@Spauwe> as the sg goes down and the mass stays the same what has to happen?

[00:17] <doos> as sg and volume go hand in hand ..

[00:17] <@Spauwe> the volume has to....

[00:17] <@Spauwe> increase

[00:17] <@Spauwe> very good I get a cookie

[00:17] <Crystal2> and calories!

[00:17] <Devin> which creates inclusions!

[00:17] <Crystal2> lol

[00:17] <@Spauwe> and with that increasing volume what happens to the host crystal?

[00:18] <DragonStek> its stretches it to the limit so it cracks

[00:18] <@Spauwe> yes

[00:18] <@Spauwe> the host crystal cracks

[00:18] <@Spauwe> and there is your halo

[00:18] <Devin> thanks! needed one

[00:19] <Crystal2> heh

[00:19] <@Spauwe> so, if you see a crystal surrounded by a tension crack you kinda start thinking zircon

0:19] <doos> or heat treatment

[00:20] <DragonStek> heat treatment couldnt it natural heat

[00:20] <@Spauwe> both

0:20] <@Spauwe> and the principle is the same

00:20] <DragonStek> ok

[00:20] <@Spauwe> the heat causes expansion

[00:21] <@Spauwe> and the inclusion expands at a greater rate then the host

[00:21] <DragonStek> so could be either natural

[00:21] <@Spauwe> volia: halo

[00:21] <@Spauwe> but

[00:21] <doos> hallo

[00:21] <@Spauwe> nobody heats garnets all that often

[00:21] <DragonStek> yes your right

[00:21] <@Spauwe> so if you see one in a garnet...

[00:22] <@Spauwe> zircon

[00:22] <@Spauwe> which also likes to live in almandines

[00:22] <@Spauwe> about pyrope inclusions I don't know much

[00:22] <@Spauwe> but spessartines have very diagnostic ones

[00:23] <@Spauwe> three phase trichites

[00:23] <doos> heh

[00:23] <@Spauwe> healed fractures with a very distict finger print like appearance

[00:23] <doos> you learned well

[00:23] <@Spauwe> yep :)

[00:23] <DragonStek> pyrope inclusion: rounded with low relief n rutlie needles

[00:24] <doos> maybe expand on the trichites Spauwe, quite a good thing to remember

[00:24] <@Spauwe> ok

[00:24] <@Spauwe> we all have seen the typical tourmaline trichites

[00:25] <@Spauwe> in the case of tourmaline it's often used to describe the thin slender liquid inclusions that tourmalines carry a lot

[00:25] <@Spauwe> but in spessartines they often are TRichites

[00:26] <@Spauwe> three-armed liquid inclusions

[00:26] <@Spauwe> with or without a gas and a solid

[00:26] <@Spauwe> making it a three or two phase inclusion

[00:27] <@Spauwe> these trichites occur a lot in spess and if you spot one you can stop looking and write down spessratite on the exam paper

[00:27] <@Spauwe> they ar ediagnostic

[00:27] <DragonStek> ok didnt know that

[00:27] <doos> or for tourmalines

[00:28] <DragonStek> ok good

[00:28] <@Spauwe> yes, you do havce to determine first that you are dealing with a singly refractive material

[00:28] <doos> only in spessratine or tourmaline .. in in nature

[00:28] <DragonStek> yes i know

[00:29] <@Spauwe> so now that we've gone over some typical inclusions

[00:29] <doos> serach the internet for the trichite creature and you'll understand where the name comes from

[00:29] <@Spauwe> let's open the gates to all the trade names

[00:29] <@Spauwe> rhodolite

[00:29] <@Spauwe> malaya

[00:29] <@Spauwe> and what have you more

[00:29] <@Spauwe> hollandine

[00:29] <@Spauwe> any others?

[00:29] <doos> question

[00:30] <@Spauwe> ja?

[00:30] <doos> is garnet diffused with heavy metals and can we detect it?

[00:30] <@Spauwe> another one of them, let's see if he knows this one a swell questions?

[00:30] <@Spauwe> ow just a silly one

[00:31] <@Spauwe> as far as I know no garnet is diffused by heavy metal rock music

[00:31] <@Spauwe> and yes, I can tell heavy metal from a mile away

[00:31] <@Spauwe> love the stuff

[00:31] <doos> culture rapist

[00:32] <@Spauwe> wanna discuss garnet trade names?

[00:32] <DragonStek> the proteus garnet

[00:32] <@Spauwe> keirkof still awake btw?

[00:33] <@Spauwe> nah

[00:33] <@Spauwe> proteus?

[00:33] <DragonStek> Doos , the proteus garnet is treated garnet right

[00:33] <DragonStek> yeah

[00:33] <doos> no clue, sorry

[00:34] <@Spauwe> never heard of it eighter

[00:34] <DragonStek> it says treatment brings thin layer of metals to the surface

[00:34] <@Spauwe> aiaiai

[00:34] <@Spauwe> where what how?

[00:34] <doos> some kind of exsolution?

[00:35] <DragonStek> dark gray metallic luster

[00:35] <DragonStek> like hemitie

[00:35] <DragonStek> i think doos

[00:35] <doos> that msut do wonders to the colour

[00:35] <DragonStek> read it on the gem society page

[00:35] <@Spauwe> link?

[00:36] <DragonStek> a few us garnets do this

[00:36] <@Spauwe> ok...

[00:37] <@Spauwe> well I'm pretty much garnetted out here

[00:37] <DragonStek> oh its members page

[00:37] <DragonStek> ill send you the copy

[00:37] <Devin> qq, which family is blue garnet in?

[00:37] <@Spauwe> anybody any questions regarding this topic?

[00:37] <doos> DragonStek, is the igs guy on the gem online forum?

[00:37] <Crystal2> Ike's rain has started and I must go put critters up but I'm leaving this going - back soon

[00:37] <DragonStek> no

[00:38] <DragonStek> oh i dont think he is

[00:38] <@Spauwe> pyrope spessartines can display a blue-green to purplish red colourchange Devin

[00:38] <doos> bye Crystal2 .. hope all goes well

[00:38] <DragonStek> bye crystal

[00:38] <Devin> k, cause i've heard of the blue garnets from madagascar and only acquired one of them

[00:38] <Devin> very cool

[00:38] <Beth2> night crystal

[00:38] <Devin> nite crystal

[00:38] <@Spauwe> is it colour change?

[00:38] <Devin> yes, blue to violetish red

[00:38] <DragonStek> yes

[00:39] <@Spauwe> cool

[00:39] <@Spauwe> never seen one in person

[00:39] <@Spauwe> (yet)

[00:39] <DragonStek> they belong to the pyrope /spess series

[00:39] <Devin> nice to know, thanks!

[00:39] <@Spauwe> ow yeah

[00:39] <@Spauwe> trade names

[00:40] <Devin> grape garnet (tm) is my favorite

[00:40] <@Spauwe> another pyrope-spess is called malaya

[00:40] <Beth2> lol

[00:40] <@Spauwe> doos had them as his signature for a while

[00:40] <@Spauwe> must like 'm

[00:40] <doos> pyrope, grossular, spessartine mixture

[00:40] <@Spauwe> grape garnets

[00:40] <doos> malaya!

[00:40] <Beth2> as long as you remember that (tm)

[00:40] <@Spauwe> pyrope-gross-spess?

[00:41] <@Spauwe> umbalite?

[00:41] <doos> for the blue cc ones

[00:41] <Devin> just a funny aside cause i was told to stop calling my grape-colored garnets from india, grape garnets because someone had trademarked the name. simply absurd

[00:41] <Beth2> hessonite

[00:41] <@Spauwe> hessonite is a true mineralogical name

[00:41] <Devin> what is imperial garnet composed of?

[00:41] <@Spauwe> we'll discuss them next week

[00:41] <@Spauwe> imperial garnet?!

[00:42] <@Spauwe> trade names crack me up ey

[00:42] <Devin> :)

[00:42] <Devin> imperial topaz is accepted right?

[00:42] <Devin> but not imperial garnet?

[00:42] <doos> Devin, you are better off naming things what they are

[00:42] <DragonStek> garnets are named for the prominent elements

[00:42] <@Spauwe> I accept everything as long as it is pretty and cheap

[00:42] <Devin> k doos, what is imperial garnet, really?

[00:43] <Devin> what should i call it

[00:43] <doos> Devin, imperial topaz could be yellow, orange, red or pink

[00:43] <@Spauwe> I'll then sell it as orange this and red that

[00:43] <doos> Devin, I think imperial garnet is just a way to describe a quince jelly color

[00:44] <doos> brownish-orange with yellow undertones

[00:44] <Beth2> not a lot of quince around here

[00:44] <Devin> Quince is used as a food plant by the larvae of some Lepidoptera species including Brown-tail, Bucculatrix bechsteinella, Bucculatrix pomifoliella, Coleophora cerasivorella, Coleophora malivorella, Green Pug and Winter Moth.

[00:44] <DragonStek> imperial is the trade name , confuse the series with variety

[00:44] <doos> smack him Beth2

[00:44] <DragonStek> lol

[00:44] <@Spauwe> ok let's list the real garnet varieties

[00:44] <Beth2> lol he will debate anything anywhere

[00:45] <Devin> shades of pink i presume

[00:45] <DragonStek> tsavorite

[00:45] <@Spauwe> everything besides these are ways of people to make their goods sound interesting and hold no ground scientifically

[00:45] <@Spauwe> pyrope

[00:45] <@Spauwe> almandine

[00:45] <@Spauwe> spessartine

00:45] <@Spauwe> grossular

00:45] <DragonStek> grossular

[00:45] <@Spauwe> heh

[00:45] <@Spauwe> andradite

00:46] <Devin> uvavorite

[00:46] <Devin> uvarovite/

[00:46] <@Spauwe> yes

[00:46] <@Spauwe> the rare one

[00:46] <@Spauwe> then grossular and andradite can be subdivided

[00:47] <Devin> had a customer ask me for a 2ct+ gem of that one time, had to explain that it wasn't available or he couldn't afford it

[00:47] <@Spauwe> grossular in hessonite, tsavorite and hydrogrossular

[00:47] <Devin> so he offered to settle for rough which should be much less expensive *shaking head*

[00:47] <doos> heh

[00:48] <@Spauwe> hahaha

[00:48] <doos> never say someone can't afford it .. they might go to the neighbour and pay double just to spite you

[00:48] <DragonStek> lol synthetic will work, big rough

[00:48] <Devin> he was determined to get rich for \$40 give or take \$5

[00:48] <doos> lol ok

[00:49] <@Spauwe> so...

:49] <@Spauwe> social talk

[00:49] <Beth2> thank you spauwe :)

[00:49] <Devin> many thanks spauwe, great discussion

[00:49] <DragonStek> yes good chat today

[00:49] <@Spauwe> no worries beth, my pleasure

[00:49] <DragonStek> but i came to see doos

[00:50] <doos> yes lets talk about something interesting .. how did you all loose your virginity?

<censored> ☺