

There are 4 people in the room.
Doos: and there she is
Michael_Oneill: hello annie
Doos: hi annie
Annie: Hello everyone
Annie: Hi Doos, Frank and Michael, so good to see you
Annie: how is it all going?
Frank has left the room.
Doos: bye frank
Michael_Oneill: trouble again?
Doos: a bit anxious annie
Annie: trouble
Doos: I just saw a murder
Annie: huh
Michael_Oneill: what?
Annie: really????\
Doos: does any of you have a phone number of the lapd?
ars entered the room.
Michael_Oneill: sorry
Michael_Oneill: hi ars
Doos: hi ars
Annie: Hi Ars
ars: hey
Annie: Doos, who is Lapd
Doos: los angeles police department
Annie: oh sorry... you mean lapd
Annie: no, i am in aussie land - i don't
Doos: some guy butchered a horse and laid its head in the bed of the owner
Doos: I need to report that I think
Annie: yes, ohh how cruel
Michael_Oneill: Godfather?
Doos: yeah
Doos: the price goes to michael
Michael_Oneill: thanks
Annie: we had some that did that sort of thingo with a pigs head
Doos: dame edna?
Annie: no wasn't dame
ars: Is today's topic the seedy underbelly of the gem world??
Annie: hey Doos, what ya do with Frank
Doos: I kicked the bugger, was fed up with him
Michael_Oneill: lol
Annie: lol
Doos: we are plotting to take over the world ars
ars: Great, count me in!
Annie: lol
Doos: you gotta know the secret pass first
ars: Is it "Down with GIA?"
Doos: heh
Doos: we are going to wait a bit for frank to return, okay?
ars: I just read in the recent Gem-A periodical that they will no longer be
printing Webster's Gems.
Michael_Oneill: sure
Michael_Oneill: really?
Annie: do you think he may have electro failure again?
ars: They say the latest version is the last.

Doos: he is having troubles after reinstall I think annie
Annie: damm, i receive mine soon really ?? Doos
Doos: ars, that is like the vatican no longer publishing the bible
ars: Sad.
Michael_Oneill: I just bought mine....glad I did.
Annie: Sorry, Ars,
Doos: well, you gotta learn it by heart anyway, so no need to have one on the shelf
Annie: i am yet to receive my gem A journal
ars: It was in the Gem & Jewellery News
Doos: I still need to pay for this year, so I'm expecting a "pay up or loose the title" letter soon
Annie: it should be here soon
Doos: ars, have you read the piece on the e-mail forum?
ars: Yes I did.
Annie: Ars, so sad to hear that... I have had my Webster for 5 years now and I was thinking of buying an update
Doos: I joined that about a year ago, I suggest everyone does
ars: Does it get long-winded?
Frank entered the room.
Michael_Oneill: welcome back!
Doos: long-winded?
Annie: hi Frank
Frank: Hi again....bloody puter
Doos: wb frank, you missed the interesting part
Frank: had to reboot
ars: Lots of people griping about stuff.
Frank: then AOL wouldn't start
Doos: oh no ars
Frank: griping about what stuff
Frank: Hi annie,....Arnold
Doos: lots of high-end people, they dig in deep (mostly jewellery historians)
Annie: Frank, don't think about your puter troubles
ars: Hi Frank
Frank: thought the reformat would fix em
Doos: get linux
Frank: I got enough to study already
Doos: true
Doos: shall we start?
Frank: yes please
Michael_Oneill: indeed
Annie: ok Doos,
Doos: last week we discussed polarization and conoscopy in uniaxial materials
Annie: hey do you know of anyone else coming this morning
Doos: dunno
Annie: ok
Annie: please continue
Doos: that was highly theoretical
Doos: was that spelled right?
Frank: good though...yes
Doos: now we'll do biaxial materials
Annie: shall we go in to our prac lab and get our equipment ready >>??
Doos: as a summary, isogyres are the arms of the cross in an anisotropic material, isochromes are the spectral rings and the melatope is the center of the isogyres

Doos: heh
Frank: heh
Michael_O'Neill: right
Annie: no, I think we will sit here in our theory room with you Doos
Frank: is there a scientific name for the quartz bullseye?
Doos: in uniaxial materials you will see a cross under a conoscope and this cross never changes in a rotation
Frank: quartz
Doos: not that I am aware of
Frank: ty
Annie: bullseyes are fine
Doos: just that the 2 isogyres dont meet
Frank: yes
Doos: biaxial materials have different isogyres, they are parabolic
Doos: if you rotate the gem, the image changes (sometimes even to a cross)
Annie: like the ends of a peanut shell cut in half
Doos: that is typical of a biaxial mineral
Doos: there are pseudo biaxial images (like in beryl) but with some practise that should be no problem
Doos: have you all seen the danburite image on the YG site? (where the polariscope is explained)?
Michael_O'Neill: yes
Frank: yes
ars: yup
Annie: yeh
Doos: that looks like 2 wedges
Doos: that is caused by the fact that the two optic axes of danburite are about 90° to eachother
Doos: so you cant see them in one view
Frank: is the 90 degrees thing typical of all biaxials?
Doos: no
Doos: that is extreme
Doos: usually they are closer (24° etc) so you should be able to view both optic axes in one view
Doos: (biaxial materials have 2 optic axes)
Michael_O'Neill: an optic axis is a direction of single refraction?
Doos: around each axis you will see coloured bands (isochromes)
Frank: would it look like the danburite example? (The interference figure)
Doos: they will look like 2 eyes (from a marsian)
Doos: yes michael
Michael_O'Neill: is it possible to discern optic sign using a anisotropic plate?
Doos: if you find the interference figure and the 2 parabols, rotate it so that the parabols are in the 1st and the 3rd quadrant
Doos: getting there michael
Michael_O'Neill: ok
Doos: can everyone visualize that?
Michael_O'Neill: yes
Frank: this is the top right and bottom left quadrants...same as last week?
Doos: yes frank
Frank: ty
Doos: the bottoms of the parabols (which are the isogyres) are pointing towards eachother
Doos: The starting points of these isogyres are the melatopes (the bottom if you will)

Doos: if you now introduce a 1st order red plate (or gypsum plate or full wave plate) you will see the colour change
Doos: if the space that is enclosed by the isogyres is blue -> positive optic sign
Doos: if yellow -> negative optic sign
Doos: that all folks
Frank: is it always blue and yellow....not necessary the pleochroic colours?
Doos: always
Annie: so, Doos, with biaxials, in the space of enclosure of isogryes to establish its sign we need to see blue
Annie: and yellow for negative sign
Frank: or yellow annie
Doos: same goes for the uniaxial btw (I simplified it last week)
Frank: sorry
Doos: yes annie
Annie: just summarising... great, thanks
Annie: and with uniaxial, as discussed last week,
Frank: blue and yellow for uniaxial....so don't need to see which quadrants change colour?
Annie: can you remember Frank?
Doos: this is all earth science ofcourse and there are no docs on that in gemmology, but I'm going to work on that
Frank: yes but I was going with quadrants 1 and 3 or 2 and 4 as pairs
Doos: frank, last week I said "changing of the quadrants"
Classy entered the room.
Annie: yes, 1 & 3 need to be.....
Annie: hi Classy
Doos: because the blue is the most notable colour change
Classy: Hi..all
ars: hey
Frank has left the room.
Annie: so good to see you
Doos: so blue in the 1st and 3rd quadrants for positive, 2nd and 4th for negative
Doos: hey classy
Classy: Gee...I scare Frank out?..lol
Annie: yes, we will do the reinforcement of this when Frank comes back, Doos
Michael_O'Neill: hello classy
Doos: yes annie
Annie: i just was making sure Frank understood everything
Doos: classy, I searched and searched.. Can't find the answer to your quiz
Annie: Frank's having a lot of trouble today
Classy: It's real...
Classy: maybe more obscure than I thought..
Annie: everybody will dive into their books to find the answer, Classy
Classy: Just say Uncle..
Doos: samminite?
Classy: Nope... closer though
Classy: The crystal will lead to the answer
Doos: the twinning?
Classy: nope
Classy: the system itself...wow..
Doos: lots of monos
Classy: it really must be a toughie
Annie: classy is it staurolite

Doos: even with that hardness
Classy: nope
Annie: i am thinking of cross twinning
Classy: fairly common with this min
Doos: ars and michael, did it make any sense what I said about the biaxial materials?
ars: sure did
Michael_O'Neill: yes
Classy: I can give one more physical property...it would be a total give away...
Doos: normally this is performed with a petrographic microscope on thin materials, gemmologists aren't aware of this
Frank entered the room.
Doos: wb frank, sit still now
Classy: AND it's not something many gemmos would be able to test for
Frank: hi all
Classy: Hey, Frank
Frank: I'm touching nothing
Annie: please give the other clue
Frank: Hi Classy
Classy: only one left... You sure???
Annie: yep
Classy: it's radioactive
Classy: mild to wild
Doos: uranium?
Classy: nope
Classy: not totally unseen as a gem
Doos: frank till where did you get it?
Classy: I have seen a half dozen
Frank: till the end of the biaxial presentation
Doos: yeah but you travel
Michael_O'Neill: Quick question: in uniaxial minerals the optic axis follows the C crystallographic axis, in biaxial minerals do the optic axes follow crystallographic axes?
Frank: Think I got it all
Doos: no michael
Michael_O'Neill: ty
Doos: you were asking about the colours in uniaxial stones frank..
Doos: frank, last weak I said "changing of the quadrants"
Frank: when looking to cut the stone...how would you orient it (with regard to optic axes)...yes I was
Doos: because the blue is the most notable colour change
Frank: yes
Doos: so blue in the 1st and 3rd quadrants for positive, 2nd and 4th for negative
Frank: and the other quadrants would be yellow?
Doos: yes, but that is hard to see
Frank: even with clear stones...still blue and yellow?
Doos: yes
Doos: it all has to do with retardation (there is that word again)
Frank: ok...well lars....what about orientation with a view to cutting...what do you look for?
ars: I usually go for best colour
Doos: what that mainly is the difference in velocity between the ordinary and the extra ordinary ray

Annie: even though it may be a biaxial stone with two optic axes, you would still look for best colour, Ars
Frank: if I use blue or red light...would that make a difference?
Doos: yes frank
ars: No, sometimes it depends on cleavage, etc.
Doos: all I said is with white light
Doos: good question though
Frank: yes....the red / blue light thing needs some extra looking into me thinks
Frank: maybe another chat subject
Doos: sounds like you been doing some reading frank
Frank: lol....always
Doos: good good
Doos: this really is Earth Science
Frank: interesting how it relates though
Frank: I think it has a definite place in gemmo
Doos: I mailed with a prof. of Brock uni. About it
Michael_Oneill: I think it's fascinating
Doos: they do it slightly different
Doos: they use a Bertrand lens instead of a conoscop
Frank: what's a Bertrand lens?
Doos: the Bertrand lens is placed above the analyzer, the conoscop beneath
Frank: ah
Doos: it's a convex lens
Doos: the conoscop is a sphere (concave)
Frank has left the room.
Michael_Oneill: I'm afraid I have to run.....thank you all.....until next time.....
Doos: something I said?
Doos: bye Micheal
Michael_Oneill: lol
Classy: adios
Annie: oh, Michael it was good to have you
ars: Cheralite
Michael_Oneill has left the room.
Doos: uncle cher?
ars: Hey, you never know
Doos: lol
Classy: can someone tell me how to up the font here??? I'm going blind
Doos: I have my glasses on to read it, no way to change it
Annie: Classy, I don't think it can be changed
Annie: get your loupe to read the screen
Classy: wow
Annie: pretty small hey
Classy: no kidding
Doos: classy, what is your main business?
Classy: Now... I'mputer engineer... Usta be a geo-chemist..
ars: OK, my only other guess is Monazite
Doos: so you should be familiar with Bertrand lenses etc
Classy: YAH!!!!!!
Classy: you got it, Arnold!!!
ars: Uncle Mona??
Doos: holy crap, I was looking at monazite just today
Classy: LOL!!!
Annie: Monazite, wow
Classy: Thaigem is selling that cut stone now..

ars: How radioactive is it?
Classy: .53 cts
Annie: i was just going to ask that
Doos: well, you'll probably end up with a garnet
Classy: mild, usually
Annie: so mild, but not wild
Classy: Monazite is actually a series...It can be very hot
Annie: or mild to moderate wild
ars: Classy, what kind of geiger counter do you use, recommend?
Classy: LOL...I have a "homebuilt" that my father and I built in ancient times
Frank entered the room.
Doos: last chance frank
Annie: hi Frank
Frank: om mani padme om
Classy: I grew up looking for Uranium
Annie: the mystery gem is solved, Frank
Doos: that explains things classy
Frank: what was it?
Annie: also explains your professionalism
Annie: Ars won this one
Classy: Monazite, Frank
ars: Is it sensitive enough to detect everyday radioactive gems or do they need to be dangerous?
Doos: classy, do you have any hands on experience with bertrand lenses and wave plates?
Classy: my unit is fairly sensitive... I don't remember limits just now..
Classy: Sorry... Nope
Frank: you can be a pioneer in this field then doos
Doos: I will, been on the phone all week about it
Frank: lol...living and breathing it eh?
Doos: I was fascinated by it
Doos: still am
Frank: yes I think theres a lot of crossover between earth science and gemmo still to be properly investigated
Classy: I always liked force over payola
ars: Classy, it's too bad you missed the horsehead discussion earlier
Doos: classy that is not such a good plan, ars did that and couldn't keep up with all our questions
Frank: I think the vg thing is fascinating...my kids have been asking all week...daddy why are you putting that stone in your eye
Classy: There are 2 fine specimens on Ebay now from the very place that I spent MANY, MANY hours as a youngster..
Doos: lol frank, they have been calling the assylum huh?
Frank: I've told them not to try itat least without supervision
Classy: or grooved tweezers..
ars: Classy, I just looked at the crystal on the Natural History site that you used in your quiz. Very nice!
Frank: yes with rubber tips
Classy: That specimen is boffo...
Frank: how small a stone can you do the vg thing with?
Doos: I always make sure the cats are gone when I use the tweezers.. Hate to put my eyes out
Classy: very small... 10pt or so
Classy: OUCH...Doos
Classy: Mostly practice, practice, practice...

Classy: Good!!
Annie: yes, and i am still to master it myself with a lot of practice, but i love it so much
Classy: It's sure a handy tool
Frank has left the room.
Doos: there he goes again
Annie: oh dear
Classy: Flighty fellow isn't he?
Annie: he is so keen
Annie: he is also an engineer by trade
Classy: ahhh ... maybe that explains it...
Doos: he is smart enough to make it in one go
Annie: oh yes
Doos: there are special awards for the best "non trade" examinee
Classy: I have more quiz ideas.... if everyone isn't fed up with me...
Annie: i am always surprised how well they do
Annie: no we love it Classy
Annie: please send more
Doos: well you could make it more fun and follow ars' footsteps
Classy: Up to the latest, I was shocked how fast the were gotten
ars: Oh yeah, I mailed your book this week and threw in a few rough stones.
Classy: Yah... I did tell him, I have a ton of goodies around here
Classy: Thank you Sir
ars: Sorry, nothing exotic but interesting anyway
Classy: OOh... that rem me.. I need to get a bunch of \$\$ to RG...
Classy: Interesting is great
Classy: RJ
Doos: classy is the mother of classycarat.com owned by you?
Frank entered the room.
Classy: yup
Frank: hi
Doos: good
Annie: hi
Classy: WB...
Doos: wb
Frank: hope someones got a log of all this
Doos: yeah we were talking about you
Annie: yes i am saving very hard here Frank,
Classy: we were waiting for you
Annie: trying to not to get kicked out myself
Doos: annie, did you prepare for a lecture?
Frank: are you doing circular and convergent polarisation this week Annie...or are we saving it for another time?
Annie: well, i am not so prepared like you Doos,
Frank: sorry doos beat me to it
Annie: had a lot going for me this week
Annie: but i will try
Doos: shoot
Annie: my best
Frank: all ears (well eyes) here
Annie: it won't be long, but in theory i can add a little to the subject
Annie: thanks frank
Doos: convergent should have been elliptic frank, my goof
Frank: ok

Annie: we know that white light is a mixture of all wavelengths each causing different colours
Annie: when we get two white light systems of waves interfering with each other
Annie: we expect some wavelengths or colours to be strengthened or colours are suppressed
Guest1668 entered the room.
Annie: similar ways, when two systems of light waves meet, two things can happen
Doos: hi guest
Annie: they can either assist each other or they destroy each other
Guest1668 has left the room.
Annie:
Annie: Doos what are you doing
Annie: kicking guests out
Doos: dunno, I ate garlick
Annie: lol
Annie: you smell or something??
Doos: guess
Classy: lol
Annie: lol
Annie: anyway i have to stop giggling here and concentrate
Annie: so in a "phase"
Annie: we consider it in a motion of 2 points from a to b
Annie: dam, i got someone on the phone
Annie: won't be long
Doos: ok
Frank: lol...the suspense mounts
Doos: this subject should appeal to you frank
Classy: tap, tap, tap,tap, tap, tap,tap, tap, tap,tap, tap, tap,tap, tap,
tap,tap, tap, tap,tap, tap, tap,tap, tap, tap,
Frank: yes I like waves
Doos: phases and wavelengths
Doos: lol classy
Annie: well i told them i was busy, so i will call back later
Annie: where were we
Doos: tap tap
Doos: there
Annie: i was quick wasn't I
Annie: lol
Frank: motion 2 point a - b
Annie: so at any 2 point such as a and b if separated by one wavelength travelling same direction is "in phase"
Annie: while they differ they are out of phase
Frank: yes
Annie: sorry i can't demonstrate, but you need to visualise this
Annie: i am pretty sure you are good at that
Frank: I got it
Annie: got it
Classy: yup
Annie: that is sort of a introduction
Doos: if one wave is lagging a full length or a n times that, in phase
Annie: where i am heading
Annie: please help anyone if i am wrong
Frank: elliptical and circular?
Doos: you are right
Annie: jump in anytime, i haven't prepared anything

Annie: so i think its important that the phenomena of interference is in which waves are "in phase" are a combination of those in the "out of phase" are destroyed

Annie: so when white light is involved in wavelengths it may be that it cancels it self out while

Annie: others are giving rise to colour effects

Doos: so the interference happens as a play between out of phase and in phase waves?

Annie: With colours of thin plates, this interference is caused by reflection from microscopically thin plates in transparent materials

Annie: like oil on water or in soap bubbles

Classy: or opal?

Annie: which is also seen from cracks on glass or quartz?

Annie: yes opal is through diffraction

Annie: please fill me in Classy

Annie: any time you wana add anything...

Doos: go on

Annie: so in the opals diffraction is the deflection or the break of beam of lights

Annie: this forms a series of colour bands to form spectrum

Annie: this is also so in the phenomena of most spectacular range of colours in some other gems

Annie: like labradorite as in laborescence is the sheen

Annie: in moonstone it is called adualrescence

Annie: and also things like sea shells do exhibit these interference colours

Annie: my spelling is not that great today.. sorry

Annie: so any questions.. so far

Doos: the interference happens as a play between out of phase and in phase waves?

Frank: does it require two light sources?

Frank: or does the double refraction count as two sources

Annie: its the reflection of the break of light beams

Frank: ok

Annie: the double refraction is the break of the two rays of breaking or splitting that ray into two waves

Annie: Frank, was that not clear

Frank: you started talking of two converging sources

Frank: now were using one?..Though I understand what you're saying

Annie: please forgive me i am not prepared

Annie: so i could be a little over the place

Frank: nothing to forgive

Frank: your doing great

Annie: if its not clear, please yell out

Doos: go on

Frank: I will

Annie: or i should say, put your hand up

Annie: hang on gonna get some water

Classy: too much talking...

Doos: sore fingers from talking

Doos: she could be italian

Classy: I yell at the puter a lot....

Doos: heh

Annie: oh i talk too much to myself

Annie: lol

Classy: you need a dog

Frank has left the room.
Annie: oh man
Classy: he's off!!
Doos: sigh
Classy: sounds like he needs a new ISP
Annie: how come he is kicked out so much today
Classy: lousy ISP, I bet...
Doos: maybe he is using firefox
Classy: LOL!!!
Annie: yeah, lol
Classy: I dont think so...
Classy: Actually, I am right now..
Doos: are you on a linux box classy?
Classy: Naw... This ones plain ol 98SE
Classy: Linux is for the servers
Doos: I am on linux
Classy: Good stuff...
Classy: what flavor?
Doos: so you upload everything?
Doos: rh
Classy: ??
Doos: redhat
Classy: No... the 'u
ars: It's been good folks but I have to run. See you in the BB.
Frank entered the room.
Doos: bye ars, till soon
Classy: oh. Sure
Classy: wb
Classy: L8R, ars
Annie: frank you back
Frank: Sorry about this but I have to restart the pute every time
Annie: ok Frank
ars has left the room.
Annie: oh dear now ars is gone
Doos: he had to go
Annie: now for the instrumental part also in the field of gemmo
Frank: what did I miss?
Annie: no we waited for yu
Annie: is the spectroscope
Frank: ty
Annie: which if you remember i answered you once on the forum of two different
types of spectroscopes
Annie: one being the diffraction type and one the prism type
Frank: yes
Annie: good, so the
Annie: in this case the colours are produced also by interference effects
following diffraction of light at uniform spaced slit, lines or particles (this
is the diffraction one which is a small hand held instrument)
Frank: yes
Annie: the other one is prism type in which it has little prisms
Frank: yes
Annie: so the interference is constructive to an increased intensity of certain
wavelengths
Annie: or destructive leading to decreased or cancellation of others
Annie: ok

Annie: yes
Frank: which is why the prism type has uneven colour spread?
Classy: yup
Doos: in and out of phase, right?
Annie: yes
Annie: so therefore, i just want to clear up that the absorptions are not different but to somewhat spread series between the two
Doos: the prism type has an uneven spread because blue is dispersed more than red .. or am I wrong?
Annie: yes
Doos: yes as in "wrong"?
Classy: right
Doos: lol
Annie: no you are not wrong, that is right
Classy: lol
Annie: so, therefore we do not need much light
Annie: in prism type
Annie: than we do for diffraction one
Doos: would make a good laurel and hardy
Frank: why does the higher frequency have the larger spread?...the waves are shorter
Annie: and one is more spread out than the other is bunches up
Annie: i would much rather be good at this in a prac room than in a theory lecture
Frank: maybe I'll do my holidays in oz
Frank: if you can't come here
Annie: i thought you were going to send us an invitation
Doos: I thought we were going on a cruise
Annie: lol
Frank: you are welcome...the guest cottage is under construction...should be finished this year..(I hope)
Annie: oh great
Frank: it's an old bakehouse with a huge bread oven built in
Doos: sounds good
Doos: letís go on
Frank: yes
Annie: yeah, classy & doos do you have anything to add to that
Doos: depends
Classy: so far, your doing great
Doos: are you going to explain how diffraction grating works?
Annie: yes
Doos: then I'll be quiet
Annie: or shall i do this next
Annie: no please you do if you want
Doos: you are on the floor, I'm on the wine
Frank: lol....doos had his turn
Annie: hang on i am thinking how i can put this
Classy: I wish it was later here....
Frank: why?
Doos: so you could go to bed?
Classy: I could use a glass of wine myself
Frank: lol...it's past noon isn't it....go indulge
Classy: lol
Annie: i don't know how to put this
Classy: go for it...

Annie: i want to explain the constructive and destructive bit between two waves
Annie: wave fronts generation but i am thinking hard
Annie: you know about crests and trough and amplitudes bit
Doos: yes
Annie: i might mess up here - but there are 1st order and 2nd order
Doos: so if one wavelength is lagging a half wavelength to the other, they don't
have the same throughs
Annie: how would you explain that
Annie: Doos
Frank: "in phase" waves add up and make it stronger.....if "out of phase" the
cancel or reduce
Doos: 1st and 2nd order prisms annie?
Doos: I was hoping to learn that from you
Annie: yes well, i haven't done my homework, have I now -
Frank has left the room.
Doos: between the maximum birefringence and the optic axis there are more
directions that cause birefringence
Annie: oh, now frank is mad at me
Classy: lol
Doos: causing 1st, 2nd, 3rd ... prisms
Doos: oh oh
Annie: well, do you think we should wait or continue with this next week
Annie: Frank is having much trouble in and out phasing
Classy: true..
Annie: and i want to be able to explain so he can understand
Doos: next week we have a mystery guest
Annie: oh rightio
Classy has left the room.
Doos: oh oh
Annie: oh dear
Doos: did you fart again?
Annie: no
Doos: now now, you can tell me
Annie: lol
Frank entered the room.
Annie: ah there you are
Frank: this is sooo frustrating
Annie: don;t worry
Doos: what are you using frank, firefox or IE?
Frank: IE

annie: don;t worry
Doos: what are you using frank, firefox or IE?
Frank: IE
Annie: where did classy say he was from
Doos: it's getting late, frank can't even type his own name right
Frank: you want to save this for week after next Annie?
Annie: yeah sure Frank
Frank: thats Frank....lol
Annie: we will talk more of birefringence and stuff
Frank: ok
Doos: shall we try to log now and do some chitchat?
Frank: yes ok
Annie: yeah sure
Classy entered the room.

Frank: hi Classy...you get the wine?
Classy: Wow.... I'm catching Franks bug!!!
Doos: something Annie ate classy?
Annie: lol Classy, what happened?
Classy: my UPS did some weird glitch
Frank: I'm so sick of playing with this puter this week....and it's still not working
Classy: BAM... I was outta here..
Frank: probably a hardware fault then...
Doos: I can't log Annie, so it's up to you again
Annie: i am doing it - one moment
Annie: ok, done
Annie: yippee, got it all this time..
Doos: now for chit chats