Guide to collectors Edition

- If an element is Marked as "Expensive" make sure to have someone demonstrte the proper sizing before starting.
- If an element is marked as "Hazmat"(Enclosure) do not prepare these samples. They will be completed by someone in the hazmat enclosure with proper PPE.
- If an element is not listed then it is not included in the collectors edition periodic table.
- Use CTR-F to find Element the element you are looking for.

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- Notes to self

- pladium, plateninum, Gold
Need to fill these out
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Elements

1. Hydrogen

Create hydrogen gas

- Fill up an Erlenmayer flask (glass beaker that gets smaller at top) with water.
- Get a ballon ready
- drop about 10 Calcium pellets into the water-filled flack and immediately stretch the opening of the ballon over the opening of the flask.
- The calcium will react with the water and the ballon will inflate with hydrogen gas. Make sure that the ballon does not come fo the flask. the bottom of the flask may become hot from the reaction. This is normal.
- When the reaction has finished or the ballon is becoming too full, twist the ballon to trap in the air. then carefully remove the ballon and tie is closed. If you had to remove the ballon before then reaction is complete due to and excess amount of calcium being added to the water, then yoj can add another ballon to get more gas.
- The water and byproducts of the reaction in the flask can safely be pouted down the drain with running water.
- using a 60cc syringe with a needle on the end, stab into the ballon close to where it is tied in a knot. Fill up the syringe with the gas. You can twist the balloon below the hole that you made and then clamp it off the kelly forceps until you are ready to fill the syringe again.

Put the Gas into glass ampules

- fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand and the torch in the other.
- Put a tiny puff of the gas into each ampule then immediately seal it with the torch. Be careful that you do not point the torch at the syringe or needle.

2. Helium

Ampule

- Get a Helium balloon. Using a 60cc syringe with a needle on the end, stab into the ballon close to where it is tied in a knot.
- fill up the syringe with the gas. You can twist the balloon below the hole that you made and then clamp it off with kelly forceps until you are ready to fill the syringe again.

Put the Gas into the glass ampules

- Fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand the torch in the other.
- Put a tiny puff of the gas into each ampule then immediately seal it with the torch.
- be careful you do not point the torch at the syringe or needle.

3. Lithium

Ampule

Prepare the lithium

- hammer a piece of lithium flat. it should be about as thin as 8 pieces of paper. Put the piece of lithium in mineral oil until you are ready to cut it up.
- take the hammered piece of lithium out of the oio and wipe off the majority of the oil.

- On a piece of aluminum cut the lithium into thin strips using a blade. these strips should be thin enough that they can fit into the opening of an ampule.
- Once you have about 10 strips. line them all up and get them even with each other.
- cut the strip int eh other directions into pieces about 4mm long.
- Put a drop of oil on the pieces to prevent them from oxidizing.

fill the ampules

- fill up the aluminum block with ampules.
- Using kelly forceps(Or tweezers), grab a cut piece of lithium and slide it all the way into the ampule. It helps if you grab the pieces near the top so that there is enough of the piece exposed under the forceps to stick it in the top of the ampule.
  After you place a piece in all the ampules, push the pieces all the way to the bottom of each tube using a needle.
- Seal the tops of all the ampules with the torch.make sure to wear safety glasses. Sometimes the oil in the ampules can catch on fire and shoot out. If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been help on the tube longer. If you hear a tiny pop while you are sealing tan ampule, then that most likely means that the torch was held a little too long on the end and there is now a tiny hole in it. Try to keep you seals from ballooning.
- To fix any of these issues mentioned in above paragraph, just go over the end of the ampule again to reseal it. Sometimes holes in the end of the ampule will not seal up, they will catch on fire, or they will become black and brittle. In these cases just throw away the ampule.
- Make more ampules than are needed because some of them will oxidize and go bad. For Lithium, make about 50% more than is needed.
- After you have made enough ampules wash them with warm soapy water.
  rinse them with water until there isn't any soap left.
- dry them off with a paper towel or lay them out on a paper towel to air dry.

Check for oxidized ampules

- It takes lithium about two weeks to fully oxidize.
- Sort through the ampules to double-check that they are all good. throw out any that are too large , too small, empty, or have oxidized. When the lithium ampules oxidize, they turn white and powdery

4. Beryllium Hazmat

Beryllium beads

5. Boron

Boron Carbide

6. Carbon

Graphite or Charcoal
The atmosphere is 78% nitrogen. Fill up the aluminum block with ampules and then simply seal

7. ** **Nitrogen

Ampule

- Seal them without adding anything else O them.

8. Oxygen

Ampule

- Get the gas from the oxygen tank in the oxy-acetylene torch bag
- Turn the knob on the top of the tank.
- Place the end of the torch pointing into a 60cc syringe.
- Follow the oxygen line down opening any knobs along the way.
- Carefully turn the last knob to fill the open syringe with oxygen.
- Insert the syringe plunger into the end of the oxygen-filled syringe.
- When you are done filling the necessary number of syringes close all of the
  were opened.

Put the Gas into glass ampules.

- Fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand and the torch in the other.
- Put a tiny puff of the gas into each ampule then immediately seal it with the torch.
- Be careful that you do not point the torch at the syringe or needle.

9. Fluorine

- Use fluorite rock

10. Neon

Really Expensive! Do not waste!

Get the gas from the tank

- Thread the regulator onto the Neon tank and tighten with a wrench.
- Make sure that the regulator knob is closed (turned counterclockwise).
- Open the tank by turning the knob on top of the tank. The gauge on the right should
- With the regulator hose pointed in an open 60cc syringe, carefully turn the regulator knob clockwise to fill up the syringe with gas. keep filling up syringes until all of the gas that was in the regulator is gone. gas will stop flowing and the regulator gauge on the right will show that there is not any pressure in the regulator anymore.
- Insert the syringe plunger into the end of the gas-filled syringe.

Put the gas into glass ampules.

- Fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand and the torch in the other.

11. Sodium

Ampule

Fill the ampules

- Sodium is very reactive with water. Make sure that you wear a face shield while working with it.
- To prevent it from oxidizing while you work with it try not to breathe on it too much and make sure that it is always covered in mineral oil.
- Sodium can also react with the moisture on your skin and form a base that can irritate your skin.
- If you get sodium Or oil that has come in contact with sodium on your skin, wash with warm soap and water:
- Cut a chunk of sodium so that it is about 5mm thick and lay it on a small block of aluminum.
- Push an ampule down into the piece of sodium to put a core of sodium into the ampule and place it in the aluminum block. Repeat this until you have done about 10 ampules
- Once there are holes over the entire piece of sodium just squish it back together. After doing this a few times you may notice that a high percentage of the ampules will catch
  on fire or fail when you are trying to seal them. When you get to this point discard the piece of sodium in a safe way.
  -Do not put it in the trash because it will catch on fire and
  is dangerous.
- Push the sodium to the bottom of each ampule with a needle

Seal all the ampules with the torch.

- The Sodium will react with the air if the ampules are sitting too long before they are sealed. If you notice that they are oxidizing then quickly seal them up and fill less at a time in your next batch. If you fill the ampules up too much and the sodium is too close to the top of the ampule then the sodium will catch on fire and could send out a little
  fireball. If this happens then throw away the burnt ampules and take out smaller cores next time. What determines if this is an issue is less about how much sodium is in the
  ampule and more about how close the sodium is to the top of the ampule when it is pushed to the bottom. The sodium should be at least 3mm away from the top of the
  ampule when you finish pushing it to the bottom.
- If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while are are sealing an ampule, then that most likely means that the torch ws held a little too long on the end and there is now a tiny hole in it. try to keep your seals from ballooning.
- To fix any of these issues, just go over the end of the ampule again to reseal it.
- Sometimes holes at the end of the ampule will not seal up, they will catch fire, or they will become black and brittle. In these cases just throw away the ampule. Make more ampules then are needed because some of them will oxidize and go bad. For sodium, make about 60% more than is needed.
  After you have made enough ampules wash them with warm soapy water.
- Rinse them with water until there isn't any soap left.
- Dry them off with a paper towel or set them out on a paper towel to dry.

check for oxidized ampules

- It takes sodium about 2 weeks to fully oxidize.
- Sort through the ampules to double-check that they are all good. throw out any that are too large, too small, empty, or have

oxidizes/ When sodium ampules oxidize, the ampule will be empty, have clear liquid in it, or become very bubbly inside.

12. Magnesium

- metal curls

13. Aluminum

- Sheet metal or wire

14. Silicon

- Computer chips

15. Phosphorus

Ampule

- Put phosphorus powder into a small dish.
  Push an empty ampule into the dust open side down until most of the tube is filled
- Place the ampules into the aluminum block and then seal as normal.

16. **Sulfur****

- Sulfur crystals

17. Chlorine

Ampule

- Fill a small syringe with bleach and put the smallest possible needle on the end. Bleach will decompose into chlorine gas. Make sure that there is not any air in the syringe
- Fill up the aluminum block with empty ampules
  Barely push down the plunger of the syringe so that you can just barely see a drop of liquid forming. It may help to just twist the end of the plunger to prevent a full drop of bleach from forming on the end of the needle
- Stick the end of the needle into the ampule to just get a small coating of bleach on the inside of
  the ampules.
- Seal the ampules within the torch. It may
  help to go over the ampules quickly with the torch at
  high heat to get all of the extra bleach and bubbles out.

18. Argon

Ampule

Get the gas from the tank

- Thread the regulator onto the Argon tank and tighten with a
  wrench
- Make sure that the regulator knob is closed (turned counterclockwise).
  _Open the tank by turning the knob on top of the tank. The gauge on the right should indicate that there is air pressure in the regulator.
- With the regulator hose pointed in an open 60cc syringe, carefully turn the regulator knob clockwise to fill up the syringe with gas. Insert the syringe plunger into the end of the gas-filled syringe
- When you are done filling the necessary number of syringes, close all of the valves on the tank and regulator.
- You do not need to remove the regulator from the tank.

Put the Gas into glass ampules

- Fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand and the torch in the other.
- Put a tiny puff of the gas into each ampule then immediately seal it with the torch.
- Be careful that you do not point the torch at the syringe or needle.

19. Potassium

Ampule

Fill the ampules

- Potassium is very reactive with water. Make sure that you wear a face shield while working with it. To prevent it from oxidizing while you work with it, try not to breathe on it

too much.
- Ensure that it is always covered in mineral oil.
  Cut a chunk of potassium so that it is about 5mm thick and lay it on a small block of aluminum.
- Push an ampule down into the piece of potassium to put a core of potassium into the ampule then place it in the aluminum block. - Repeat this until you have done about 10
  ampules. Once there are holes over the entire piece of potassium, just squish it back together.
- After doing this a few times you may notice that a high percentage of the ampules will catch on fire or fail when you are trying to seal them.
- When you get to this
  point discard the piece of potassium in a safe way. Do not put it in the trash because it will catch on fire and is dangerous.
- Push the sodium to the bottom of each ampule with a needle
  Seal all the ampules with the torch.
- The potassium will react with the air if the ampules are sitting too long before they are sealed. If you notice that they are oxidizing then quickly seai them up and fill less at a time in your next batch.
- If you fill the ampules up too much and the potassium is too
  close to the top of the ampule then the potassium will catch on fire and could send out a little fireball.
- If this happens then throw away the burnt ampules and take out smaller cores next time.
- What determines if this will be an issue is less about how much potassium is in the ampule and more about how close the potassium is to the top of the ampule.
- The potassium should be at least 3mm away from the top of the ampule when you finish pushing it to the bottom
- If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while you are sealing an ampule, then that most likely means that the torch was held a little too long on the end and there is now a tiny hole in it. Try to keep your seals from ballooning.
- To fix any of these issues, just go
  over the end of the ampule again to reseal it. Sometimes holes in the end of the ampule wil not seal up, they will catch on fire, or they will become black and brittle. In these cases just throw away the ampule.
- Make more ampules than are needed because some of them will oxidize and go bad. For potassium, make about 60% more than is needed.
- After you have made enough ampules, wash them with warm soapy water.
- Rinse them with water until there isn't any soap left.
  Dry them off with a paper towel or lay them out on a paper towel to air dry.

Check for oxidized ampules

- It takes potassium about 2 weeks to fully oxidize
- Sort through the ampules to double-check that they are all good. Throw out any that are too large, too small, empty, or have oxidized. When potassium ampules oxidize, the ampule will be empty, have clear liquid in it, or become very bubbly inside.

20. Calcium

- Calcium Beads (Sealed bottle to prevent oxidation.)

21. Scandium

expensive

- Scandium shavings

22. Titanium

- Rod

23. Vanadium

- Crystalline vanadium

24. Chromium

- Metal

25. Manganese

- Brittle metal

26. Iron

- Iron Meteorite

27. Cobalt

- Thin Metal Strips

28. Nickel

Sheet metal

29. Copper

- Wire

30. Zinc

- Wire

31. Gallium

- Gallium Bismuth alloy

32. Germanium

Metal

**33. Arsenic **

Hazmat

- Ore

34. Selenium

Hazmat

- Beads

35. Bromine

Ampule

- Mix powder pellets with mineral oil. Compare to previously made ampules or ask someone to check for you. The ampule needs to be dark enough.
- Wear a respirator

36. Krypton

pre-made

Ampule

Get gas from Light bulbs

Fill the sink with water 8 inches deep.
8
Flip a Tupperware upside down while it is completely submerged underwater. It should
a
not have any bubbles in it.
It
Break Krypton light bulbs under the Tupperware using channel locks so that the bubbles
float into Tupperware
Using a 60cc syringe, carefully suck the gas of the Tupperware without letting any
escape.
Put the Gas into glass ampules
Fill up the aluminum block with ampules and light the torch. Put the syringe with a
needle on it in one hand and the torch in the other,
Put a tiny puff of the gas into each ampule then immediately seal it with the torch.
Be careful that you do not point the torch at the syringe or needle

37. Rubidium

pre-ordered

Ampule

38. Strontium

Ampule

- Prepare the strontium
- Hammer a small piece of strontium flat. It should be about as thin as 8 pieces of paper.
- Put the piece of lithium in mineral oil until you are ready to cut it up.
- If you are using
  dendritic strontium it can be hard to get a larger Piece flat. Sometimes it helps to crosscut it on the shear to help mush some of the pieces together.
- It can also help to
  hammer smaller pieces flat rather than a big piece
- Take the hammered piece OF strontium out of the oil and wipe off the majority of the oil.
- On a piece of aluminum cut the strontium into thin strips using a blade.
- These strips
  should be thin enough that they can fit into the opening of an ampule.
- Once you have about 10 strips, line them all up and get them even with each other.
- Cut the strips in the other direction into pieces that are about 4mm long
- Put a drop of oil on the pieces to prevent them from oxidizing.

Fill the ampules

- Fill up the aluminum block with ampules.
- Using kelly forceps, grab a cut place of strontium and slide it all the way into the ampule
- It helps if you grab the pieces near the top so that there is enough of the piece exposed under the forceps to stick it in the top of the ampule
- After you place a piece in all the ampules, push the pieces all the way to the bottom of each tube using a needle.
- Seal the tops of all of the ampules with the torch. Make sure to wear safety glasses
- Sometimes the oil in the ampules can catch on fire and shoot out. If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while you are sealing an ampule, then that most likely means that the torch was held a little too long on the end and there Is now a tiny hole it. Try to keep your seals from ballooning.
- To fix any of these issues, just go over the end
  of the ampule again to reseal it. Sometimes holes at the end of the ampule will not seal up, they will catch on fire, or they will become black and brittle.
- In these cases just throw
  away the ampule. Make more ampules than are needed because some of them will oxidize and go bad. For strontium, make about 60% more than is needed.
- After you have made enough ampules, wash them with warm soapy water.
- Rinse them with water until there isn't any soap left
- Dry them off with a paper towel or lay them out on a paper towel to air dry.

Check for oxidized ampules

- Takes strontium about 10 days to fully oxidize
  Sort through the ampules to double-check that they are all good. Throw out any that are too large, too small, empty, or have oxidized. When strontium ampules oxidize, they turn white and powdery

39. Yttrium

- Metal shavings on mill
  40. Zirconium
- Collector's Expanded metal grate
  OR Metal shavings on mill

41. Niobium

Niobium Crystals or sheet metal

42. Molybdenum

- Sheet metal

44. Ruthenium

- Metal Expensive

45. Rhodium

- Rhodium-plated silver.

46. Palladium

- metal foil
  47. Silver
- Metal Beads only

48. Cadmium Hazmat

- Metal

49. Indium

- Very soft metal
  50. Tin
- Metal Wire

51. Antimony

Hazmat

- Metal beads
  52. Tellurium

Hazmat

- Brittle metal

53. iodine

- mix pellets
- respirator ppe
- syringe

Ampule

54. Xenon

Ampule

Get gas from Light bulbs

- Fill the sink with water 8 inches deep
  Flip a Tupperware upside down while it is completely submerged underwater. It should not have any bubbles in it.
- Break Xenon light bulbs under the Tupperware using channel locks so that the bubbles float into the Tupperware.
- Using a 60cc syringe, carefully suck the gas out of the Tupperware without letting any escape.

Put the Gas into glass ampules

- Fill up the aluminum block with ampules and light the torch. Put the syringe with a needle on it in one hand and the torch in the other.
- Put a tiny puff of the gas into each ampule then immediately seal it with the torch
  Be careful that you do not point the torch at the syringe or needle

55. Cesium

Pre-ordered

- Ampule From Russia

56. Barium

Ampule

Prepare the barium

- Hammer a piece of barium flat. It should be about as thin as 8 pieces of paper. Put the piece of barium in mineral oil until you are ready to cut it up.
- Take the hammered piece of barium out of the oil and wipe off the majority of the oil.
- On a piece of aluminum cut the barium into thin strips using a blade. These strips should be thin enough that they can fit into the opening of an ampule
  Once you have about 10 strips, line them all up and get them even with each other.
- Cut the strips in the other direction into pieces that are about 4mm long
- Put a drop of oil on the pieces to prevent them from oxidizing
- Fill the ampules
- Fill up the aluminum block with ampules
  Using kelly forceps, grab a cut piece of barium and slide it all the way into the ampule IE helps if you grab the pieces near the top so that there is enough of the piece exposed under the forceps to stick it in the top of the ampule
  After you place a piece in all the ampules, push the pieces all the way to the bottom of each tube using a needle
- Seal the tops of all of the ampules with the torch. Make sure to wear safety glasses.
- Sometimes the oil in the ampules can catch on fire and shoot out. If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while you are sealing an ampule, then that most likely means that the torch was held a little too long on the end and there is now a tiny hole in it. Try to keep your seals from ballooning.

To fix any of these issues, just go over the end
of the ampule again to reseal it. Sometimes holes at the end of the ampule will not seal up, they will catch on fire, or they will become black and brittle. In these cases just throw away the ampule.

- Make more ampules than are needed because some of them will oxidize and go bad. For barium, make about 50% more than is needed
  After you have made enough ampules, wash them with warm soapy water.
- Rinse them with water until there isn't any soap left
- Dry them off with a paper towel or lay them out on a paper towel to air dry.

- Check for oxidized ampules
  It takes barium about 2 weeks to fully oxidize
- Sort through the ampules to double-check that they are all good. Throw out any that are too large, too small, empty, or have oxidized. When barium ampules oxidize, they turn white and powdery.

57. lanthanum

- Ferrocerium Rods Firestarters

58. Cerium

- Ferrocerium Rods Firestarters

59. Praseodymium

- Ferrocerium Rods Firestarters or
  Ampules

Prepare the praseodymium

- Hammer a piece of praseodymium flat, It should be about as thin as 8 pieces of paper.
- Praseodymium can be very hard. Hammering it thinner will make it easier to cut up later.
- Put the piece of praseodymium in mineral oil until you are ready to cut it up
- Take the hammered piece of praseodymium out of the oil and wipe off the majority of the oil
- Cut the praseodymium into strips on a piece of aluminum cut the praseodymium into thin strips using a blade, These strips should be thin enough that they can fit into the opening of an ampule.
- Once you have about 10 strips, line them all up and get them even with each other.
- Cut the strips in the other direction into pieces that are about 4mm long.

- Fill the Put ampules a drop of oil on the pieces to prevent them from oxidizing.
- Fill up the aluminum block with ampules.
  Using kelly forceps, grab a cut piece of praseodymium and slide it all the way into the ampule. It helps if you grab the pieces near the top so that there is enough of the piece exposed under the forceps to stick it in the top of the ampule.
  After you place a piece in all the ampules, push the pieces all the way to the bottom of each tube using a needle
- Seal the tops of all of the ampules with the torch. Make sure to wear safety glasses.
- Sometimes the oil in the ampules can catch on fire and shoot out. If there is a tiny pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while you are sealing an ampule, then that most likely means that the torch was held a little too long on the end and there is now a tiny hole in it. Try to keep your seals from ballooning.
- To fix any of these issues, just go over the end
  of the ampule again to reseal it
  Sometimes holes at the end of the ampule will not seal
  up, they will catch on fire, or they Will become black and brittle. In these cases just throw away the ampule. Make more ampules than are needed because some of them will oxidize and go bad. For praseodymium, make about 35% more than is needed
- After you have made enough ampules, wash them with warm soapy water.
- Rinse them with water until there isn't any soap left.
- Dry them off with a paper towel or lay them out on a paper towel to air dry.

Check for oxidized ampules

- It takes praseodymium about a month to fully oxidize
  Sort through the. ampules to double-check that they are ald good. - Throw out any that are too large, toO small, empty, or have oxidized When praseodymium ampules oxidize,
- they tum dark or white and powdery. YOu do not need to remove them if they tum dark.
- Typically, not very many praseodymium ampules will Oxidize.

60. Neodymium

- Neodymium magnets

62. Samarium

- Metal

63. Europium
Ampule

Prepare the europium

- Hammer a piece of europium flat. It should be about as thin as 8 pieces of paper. Put the piece of europium in mineral oil until you are ready to cut it up
  Take the hammered piece of europium out of the oil and wipe off the majority of the oil

- On a piece of aluminum cut the europium into thin strips using a blade These strips should be thin enough that they can fit into the opening of an ampule
- Once you have about 10 strips,line them all up and get them even with each other.
- Cut the strips in the other direction into pieces that are about 4mm long
- Put a drop of oil on the pieces to prevent them from oxidizing.

Fill the ampules

- Fill up the aluminum block with ampules.
  Using kelly forceps, grab a cut piece of europium and slide it all the way into the ampule

- It helps if you grab the pieces near the top so that there is enough of the piece exposed under the forceps to stick it in the top of the ampule

- After you place a piece in all the ampules, push the pieces all the way to the bottom of each tube using a needle

- Seal the tops of all of the ampules with the torch.

- Make sure to wear safety glasses.
  Sometimes the oil in the ampules can catch on fire
  shoot out.

- If there is a tiny
  pinhole in the ampule after you seal it then the torch needs to have been held on the tube longer. If you hear a tiny pop while you are sealing an ampule, then that most likely means that the torch was held a little too long on the end and there is now a tiny hole in it. Try to keep your seals from ballooning.
- To fix any of these issues, just go over the end
  of the ampule again to reseal it. Sometimes holes at the end of the ampule will not seal up, they will catch on fire, or they will become black and brittle. In these cases just throw ampules than are needed because some of them will
  away the ampule.
- Make more
  oxidize and go bad. For europium, make about 50% more than is needed
- After you have made enough ampules, wash them with warm soapy water.
- Rinse them with water until there isn't any soap left.
- Dry them off with a paper towel or lay them out on a paper towel to air dry.

Check for oxidized ampules

- It takes europium about 2 weeks to fully oxidize.
  Sort through the ampules to double-check that they are all good. - Throw out any that are too large, too small, empty, or have oxidized. When europium ampules oxidize, they turn chartreuse yellow and powdery.

64. Gadolinium

- Metal Chunks on mill

65. Terbium

- Metal Chunks on mill

66. Dysprosium

- Metal Chunks on mill
  67. Holmium
- Metal Chunks on mill

68. Erbium

- Metal Chunks on mill

69. Thulium

- Metal Dendritic form cut up

70. Ytterbium

- Metal Chunks on mill

71. Lutetium

- Metal Chunks on mill

72. Hafnium

- Metal wire Expensive

73. Tantalum

- Sheet metal

74. Tungsten

- Brittle Sheet metal

75 Rhenium Expensive

- metal

76.Osmium Expensive

expensive

- Pure metal

77. Iridium

expensive

- wire only

78. Platinum Expensive

- metal foil

79. Gold

Expensive

- Gold nuggets

80. Mercury

pre-ordered

- Mercury switch

81. Thallium

Hazmat

- Lead thallium alloy

82. Lead

Hazmat

- Sheet metal

83. Bismuth

Brittle metal.

86. Radon

- Granite crushed up

88. Radium

Hazmat

- Radium watch hands

90. Thorium

Hazmat

- Thoriated tungsten rod

92. Uranium

Hazmat

Autolite ore

- **Note:** The above list is not exhaustive and is subject to change.