

Inquiry into Radioactivity Getting Equipment

Computer interface:

The radiation monitor and interface (LabQuest) are available from:

Vernier Software
Vernier Software & Technology
13979 SW Millikan Way
Beaverton, OR 97005-2886

phone 888.837.6437
fax 503.277.2440
email info@vernier.com

LabQuest2	LABQ2	\$329
or LabPro	LABPRO	\$220
Digital Radiation Monitor	DRM-BTD	\$299.00

<http://www.vernier.com/products/sensors/drm-btd/>

Chart of the Nuclides

Lockheed Martin Distribution Services
1310 Kemper Meadow Drive
Cincinnati OH 45240
FAX: (513) 674-5798
<http://www.chartofthenuclides.com/orderforms.html>
Wall chart \$25

Radiation sources

You can buy weak radiation sources from

Spectrum techniques
182 Midway lane
Oak Ridge TN 37830
865-482-9937
www.spectrumtechniques.com

RSS-3 radioactive source set \$135
Cs/Ba-137IG Isotope Generator Kit. 10uCi. \$215
Polonium source \$45

Note: These are small quantity sources exempt from licensing

Flynn Scientific and Wards scientific also sell the same sources:
http://wardsci.com/product.asp?pn=IG0003504&sid=google&cm_mmc=google-_-cpc-_-ward-_-radioactivesource
14 V 5473 Radioactive Source Set \$169.00

You can sometimes find **radioactive minerals** for sale in various places. If you get these, please keep in mind that they are very long-lived, and you are responsible for their "disposal". You can't dispose of radioactive materials, you can only put them somewhere.

Radioactive Red **Fiestaware** can be found in antique shops, in your mother's china cabinet, and on Ebay. It actually looks orange in color.

The uranium-containing red glaze was used from 1936 to 1943. It was discontinued from 1944 to 1958 due to a shortage of uranium caused by demand from the U.S. Government to build reactors and bombs. It was produced again from 1959 to 1969. The uranium that was used during this last period was supposedly "depleted" by removal of the fissionable isotope, Uranium 235. But the dishes still light up a geiger counter.

Lantern mantles made in China still contain Thorium. Coleman lantern mantles do not. If you have old Coleman mantles, hang on to them for scientific purposes but do not use them.

You can find pieces of **vaseline glass** (containing uranium) in antique stores, along with clocks and watches containing radium paint.

Cloud Chamber

Supersaturated Environments

P.O.Box 55252

Madison, WI 53705

PH608.238.5068

FAX608.238.5080

www.cloudchambers.com

Lecture hall size chamber with attachments is roughly \$2200 and requires 5 lb of dry ice and a quart of ethanol every time you run it.

E-M detectors:

You need a coil of wire and a very sensitive audio amplifier. Use the Smokey Amps available here:
http://www.smokeyamps.com/Smokey_Pages/smokey.html

You also need magnet wire. I used #34 magnet wire:

<http://www.forcefieldmagnets.com/>

Item 0934 1-pound spool of #34AWG enameled magnet wire \$25.00

Cut a 1-foot guitar patch cable in half and solder the ends of a 200-loop coil to the ends of the patch cord.

All three **atom simulators** are available online at

<http://www.camse.org/sims>

You can use the online versions or download the standalone players.

The latest version of the LiR course materials is online at <http://www.camse.org/radiation>