

5.1.2: Lecture Demonstrations

The Electronic Structure of Atoms Lecture Demonstrations

"Spectrum Glasses"

Observe aquarium lights (long, thin, vertically mounted tungsten bulbs) and similar shaped socket mounted fluorescent lamps through "Rainbow Glasses" or "Spectrum Glasses" to see the difference between *continuous* and *line spectra*. Typical "Spectrum Tubes" available from scientific suppliers, and a variety of colored lamps may also be used.

Sources: American Paper Optics, Inc. Bartlett, TN 901.381.1515; 800.767.8427 ; www.holidayspecs.com

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Light Energy

Show that atoms are the transducers of energy from all forms to light energy;

1. heat energy in, light out: Flame Tests
2. UV in, light out: phosphorescence
3. chemical energy in, light out: chemiluminescence (glow sticks, luminol, etc.)
4. electrical energy in: neon signs, lights (as above)

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