

## 5.1.2: Lecture Demonstrations

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### 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](http://www.holidayspecs.com)

Rainbow Symphony, Inc., 6860 Canby Ave. Suite 120 • Reseda • CA • 91335; (818) 708-8400 (818) 708-8400 • (818) 708-8470 (818) 708-8470 Fax

[Rainbow Symphony](http://www.rainbowsymphony.com) [[www.rainbowsymphony.com](http://www.rainbowsymphony.com)]

#### 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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