SPECTROSCOPY OF AND WITH LASER POINTERS

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The most common laser in everyday life is probably the ubiquitous laser pointer. Yet surprisingly, little specific information about the spectral properties of laser pointers seems to be available in the published literature. That lack will be addressed in this largely pedagogical presentation. By way of illustration, the relatively high spectral purity of the output from a green laser pointer facilitates a "flashy" demonstration of laser-induced fluorescence when the beam is directed through a cell containing I_2 vapor. In a novel experiment, the same properties permit a precise measurement of the continuous $C \leftarrow X$ absorption underlying the stronger $B \leftarrow X$ absorption near 532 nm in the spectrum of I_2.