LIST OF FIGURES

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Figure 2‑1: Test 7

**Figure 3-2**: A standard non-collinear AOTF experiential set up. The crystal is assumed to infinitely long in the y direction. Figure recreated after *Guenther* (1990) number 14B-1. 12

**Figure 3-3**: General Layout of an Acousto-Optical Tunable Filter. A randomly polarized incoming light source hits the front surface of the birefringent crystal. The black bar below the crystal is the piezo-electric transducer that produces the RF signal and forms the acousto wave represented by the grey arrow. The momentum matching Bragg diffraction occurs and monochromatic polarized light (+1 order) exits the AOTF at a constant angle with the 0th order and -1 order being blocked by an optical stop. 14

**Figure 3-4**: The wave vectors generated by the AOTF experiment set up in Figure 3-1. From the above figure and are the wave vectors of the extraordinary and ordinary axis of the AOTF crystal. The cut angel, , is the cut angle form the optional axis to the piezoelectric transducer. 16