Studies on negative refractive index without absorption RENUKA RAJAPAKSE, SUSANNE YELIN, University of Connecticut — We study suitable systems for negative refractive index with minimal absorption. We suggest a modified level scheme of atoms, excitons or polar molecules to study negative refractive index without absorption. Quantum interference effects to suppress absorption and introduce chirality are discussed, and we attempt to find optimal densities of media that will give us negative refractive index without absorption.

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