

Abstract Submitted
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Determining the effect of magnetic fields on the relative biological effectiveness of gamma rays BEVERLY LAU, Reed College, FREDERICK BECCHETTI, YU CHEN, University of Michigan - Ann Arbor — Experiments at the Phoenix Memorial Labs were done to compare the effect of an 8.9 kCurie Cobalt-60 source on *Saccharomyces cerevisiae* (baker's yeast) with and without a 0.78 Tesla magnetic field. At a distance of 30 centimeters from the source, the yeast cells were irradiated with a dose rate of 56 kRad per hour, and doses of 20 and 30 kRad were sufficient to produce a survival rate of 50 percent or less. It was discovered that the magnetic field causes the relative biological effectiveness of incident gamma rays to change slightly. Successive trials of this experiment have shown reproducible effects.

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