Parity Measurements in $^{79}$Sr and $^{80}$Y


$^1$Case Western Reserve University, $^2$Ohio Wesleyan University, $^3$Florida State University, $^4$GSI, $^5$Purdue University Calumet, $^6$Ursinus College

Introduction

Experimental Technique

Analysis Method

Strontium Level Schemes

Yttrium Level Schemes

Analysis Method

Results for $^{79}$Sr

Results for $^{80}$Y

Summary and Acknowledgments

• Linear polarizations were measured for 33 γ-ray transitions in $^{79}$Sr and $^{80}$Y

• $^{79}$Sr: Parity of $[422] 5/2^+$ and $[301] 3/2^-$ bands confirmed, but results for $[431] 1/2^+$ band inconclusive

• $^{80}$Y: Negative parity confirmed for band 1, positive parity firmly established for band 3

This research was supported in part by the National Science Foundation through the Research Experience for Undergraduates (REU) Program.

I would like to thank Ohio Wesleyan University and Dr. Kaye for making this research possible.

• Linear polarizations were measured for 33 γ-ray transitions in $^{79}$Sr and $^{80}$Y


References:


