measured in ^{88}Sr and ^{89}Y using the National Bureau of Standards Linac and electron scattering facility. Incident-electron energies were varied between 45 and 121 MeV, corresponding to a momentum transfer range of 0.4 to 1.0 fm^{-1}. Data were accumulated at two scattering angles, 110.5° and 128.2°. We present elastic-scattering form factors and inelastic-scattering form factors and $B(EL)$↑'s for the 1.84- and 2.74-MeV states in ^{88}Sr, and the 1.51-, 1.74-, 2.21-, 2.52-, 2.86-, and 3.1-MeV states in ^{89}Y. A simple configuration mixing model based on the weak-coupling model has been applied to the octupole states in ^{89}Y. The measured elastic form factors for both nuclei have been fitted with a Fermi charge distribution.

(C, April)

● TWO-PROTON-TRANSFER REACTIONS ^{208}Pb(^{12}C, ^{10}Be)^{210}Po AND ^{208}Po(^{16}O, ^{14}C)^{210}Po. F. D. Becchetti,* D. G. Kovar,† B. G. Harvey, D. L. Hendrie, H. Homeyer,‡ J. Mahoney, W. von Oertzen,‡ and N. K. Glendenning, Lawrence Berkeley Laboratory, University of California, Berkeley, California 94720 (Received 4 September 1973).

Levels in ^{210}Po have been investigated using the two-proton-transfer reactions (^{12}C, ^{10}Be) and (^{16}O, ^{14}C) on ^{208}Pb at incident energies $E(^{12}\text{C}) = 78$ MeV and $E(^{16}\text{O}) = 104$ and 140 MeV. Reaction products were identified and energies measured with a magnetic spectrometer and a focal-plane resistive-wire proportional counter. Many levels in ^{210}Po were observed up to an excitation energy of about 8 MeV. The results have been analyzed using distorted-wave Born approximations, and shell-model wave functions for levels in ^{210}Po have been tested. The $0^+ \rightarrow 0^+$(g.s.) transition is enhanced by a factor ~8 compared with the expected strength for a pure $(\pi h_{9/2})^2$ 0^+ configuration for ^{210}Po(g.s.). The dependence of the cross sections on projectile and target structure is discussed.

*Present address: Cyclotron Laboratory, Physics Department, University of Michigan, Ann Arbor, Mich. 48105.

†Present address: Argonne National Laboratory, Argonne, Ill.

‡Permanent address: Hahn-Meitner Institute, Berlin, Germany.

(C, April)

● RESONANCE FLUORESCENCE FROM THE 7.08-MeV STATE IN ^{208}Pb. W. Scholz and H. Bakhru, Department of Physics, State University of New York at Albany, Albany, New York 12222, and R. Collé* and Angela Li-Scholz,† Department of Chemistry, Rensselaer Polytechnic Institute, Troy, New York 12181 (Received 14 August 1972; revised manuscript received 14 January 1974).

The Doppler-broadened 7.12-MeV transition from the reaction $^{19}\text{F}(p, \alpha\gamma)^{16}\text{O}$ has been used to fluoresce resonantly a level at 7.084 ± 0.002 MeV in ^{208}Pb. A spin value of $J = 1$ has been assigned by measuring the intensity of the scattered radiation at average scattering angles of 90° and 130°. From a study of the intensity growth of the scattered radiation with increasing scatterer thickness (production experiment), the following level parameters were extracted: integrated scattering cross section $\int \sigma_s dE = 2.07 \pm 0.18$ MeV mb, maximum absorption cross section $\sigma_A{}^{\max} = 85^{+36}_{-31}$ b, total level width $\Gamma = 26^{+65}_{-12}$ eV, and partial width for the ground-state transition $\Gamma_0 = 16^{+6}_{-4}$ eV.

*Present address: Department of Chemistry, University of Maryland, College Park, Md. 20742.

†Present address: State University of New York, Empire State College, Albany, N. Y. 12206.

(C, April)

● EXTENSION OF THE VARIABLE-MOMENT-OF-INERTIA MODEL TO LARGE VALUES OF ANGULAR MOMENTUM AND THE EXPLANATION OF THE s-SHAPE OF THE $\mathcal{I}$ vs ω^2 CURVE. Alan L. Goodman,* Lawrence Berkeley Laboratory, Berkeley, California 94720, and Amit Goswami, Department of Physics, University of Oregon, Eugene, Oregon 97403 (Received 21 December 1973).

We postulate a mixing of the states of the ground rotational band with those of an excited one, whose intrinsic excitation energy changes with angular momentum. This is shown to restore agreement with experiment for the variable-moment-of-inertia model up to all observed values of angular momentum.

*Present address: Department of Physics, Carnegie-Mellon University, Pittsburgh, Pa.

(C, April)

● RESONANT SCATTERING OF BREMSSTRAHLUNG BY ^{90}Zr. F. R. Metzger, Bartol Research Foundation of the Franklin Institute, Swarthmore, Pennsylvania 19081 (Received 7 January 1974).

Resonant scattering of bremsstrahlung photons has been observed for the 3.308- (2^+), 3.842- (2^+), 4.580-, and 5.504-MeV ($1^{(-)}$) levels in ^{90}Zr in addition to the previously excited 2.186-MeV $2_1{}^+$ level. The angular distribution of the 4.580-MeV radiation characterizes the spin of this level as 1. From the yield data and reported branching ratios, radiative widths of 4.6 ± 0.8, 28 ± 4, 48 ± 13, and 80 ± 32 meV were obtained for the ground-state transitions. The $E2$ transition strengths measured for the three 2^+ states in this model-independent way are compared with the strengths deduced from the cross sections of (α, α') and other inelastic scattering reactions.

(C, April)

COMMENTS AND COMMUNICATIONS

● ANGULAR-CORRELATION MEASUREMENTS OF SMALL MULTIPOLE ADMIXTURES IN GAMMA-RAY TRANSITIONS IN ^{207}Pb. Morton Kaplan and E. Jane Wilson, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213 (Received 26 December 1973).

Precise angular-correlation measurements have been made on the 1770–570-keV and 1063–570-keV γ-ray