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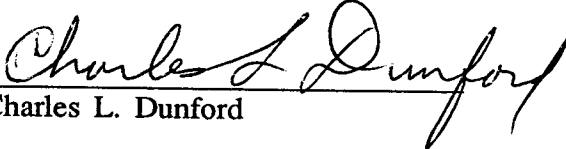
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DATE: May 23, 1991
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Enclosed is a copy of the index to the abstracts from the Capture Gamma-ray Spectroscopy Conference, Asilomar, October 1990. The proceedings are not yet published.


Charles L. Dunford

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Seventh International Symposium
on

CAPTURE GAMMA-RAY SPECTROSCOPY and related topics



ABSTRACT BOOKLET



ASILOMAR, PACIFIC GROVE, CALIFORNIA
14-19 OCTOBER 1990

Sponsored by
the American Physical Society, the Lawrence Livermore National Laboratory,
and the U.S. Department of Energy

Seventh International Symposium on
CAPTURE GAMMA-RAY SPECTROSCOPY AND RELATED TOPICS
Asilomar, Pacific Grove, California

October 14-19, 1990

Schedule

Sunday afternoon and evening, October 14

Conference registration and room check-in 3:00 – 11:00 p.m.
Administration Building

Dinner, Crocker Dining Hall 6:00 – 7:00 p.m.
(Symposium participants will take all of their meals in Crocker
Dining Hall beginning with this dinner on Sunday and ending with
lunch on Friday.)

Reception, Firelight Forum 8:00 – 10:00 p.m.

Invited Talks

Monday morning, October 15

8:45 a.m. – 12 noon

Plenary Session, Merrill Hall

K. Heyde (Institute for Theoretical Physics and Institute for Nuclear Physics, Gent, Belgium) *Microscopic Self-Consistent and Collective Model Description of Nuclear Structure* (p. 1)

V.G. Soloviev (Joint Institute for Nuclear Research, Dubna, USSR) *Structure of Non-Rotational States and Distribution of $E\lambda$ Strength in Deformed Nuclei* (p. 3)

P. Quentin (Centre de Spectrometrie Nucleaire et de Spectrometrie de Masse, Orsay, France) *Collective Excitation Spectra of Transitional Even Nuclei* (p. 5)

✓ R.F. Casten (Brookhaven National Laboratory, USA) *The Proton-Neutron Interaction: Nuclear Structure and Traditional Collective Models* (p. 7)

X J.P. Draayer (Louisiana State University, Baton Rouge, USA) *Pseudospin Symmetry and Nuclear Structure* (p. 9)

Monday afternoon, October 15

1:30 – 5:00 p.m.

Session A, Merrill Hall

✓ D.D. Warner (Daresbury Laboratory, UK) *The Role of Pseudo-Spin Symmetry in Nuclear Structure* (p. 11)

S.W. Yates (University of Kentucky, USA) *Probing Collective Excitations with the $(n,n'\gamma)$ Reaction* (p. 13)

P.D. Cottle (Florida State University, USA) *Systematic Behavior of Low Energy Octupole States* (p. 15)

✓ J. Ginocchio (Los Alamos National Laboratory, USA) *Is Collective Motion Symmetric in the Neutron-Proton Degrees of Freedom?* (p. 17)

C. De Coster (Institute for Theoretical Physics and Institute for Nuclear Physics, Gent, Belgium) *M1-Strength and Scissors Strength in Light fp -Shell and Rare-Earth Nuclei* (p. 19)

Tuesday morning, October 16

8:45 a.m. – 12:00 noon

Plenary Session, Merrill Hall

- R.R. Chasman (Argonne National Laboratory, USA) *Superdeformation in the Mercury Region* (p. 45)
- E.A. Henry (Lawrence Livermore National Laboratory, USA) *Superdeformation in the Hg-Tl-Pb Region* (p. 47)
- H.G. Börner (Institut Laue-Langevin, Grenoble, France) *Determination of Short Lifetimes of Excited Nuclear States Using Gamma-Ray Induced Doppler Broadening (GRID)* (p. 49)
- J. Jolie (Institut Laue-Langevin, Grenoble, France) *Analysis of Recoil Doppler Profiles Obtained with Ultra High Resolution (n, γ) Spectroscopy* (p. 51)
- E. Kessler (National Institute of Standards and Technology, Gaithersburg, USA) *Precise Absolute Gamma-Ray Wavelength Measurements* (p. 53)

Tuesday afternoon, October 16

1:30 – 5:00 p.m.

Session A, Merrill Hall

- F. Becvár (Charles University, Prague, Czech and Slovak Federal Republic) *Distribution of Photon Strength in Nuclei by a Method of Two-Step Cascades* (p. 55)
- Yu. Popov (Joint Institute for Nuclear Research, Dubna, USSR) *Excitation Modes and Decay Channels in Compound States* (p. 57)
- G. Rohr (CBNM-Euratom, Geel, Belgium) *Gaussian Distribution for Spacings of Simple Neutron Resonances* (p. 59)
- (λ) H.R. Weller (Duke University and TUNL, USA) *Studies of Light Nuclei Using Tensor Polarized Deuteron Capture Reactions* (p. 61)
- G. Feldman (Duke University and TUNL, USA) *Isovector Giant Quadrupole Resonance in (p, γ)* (p. 63)
- R.D. Lawson (Argonne National Laboratory, USA) *The Real Optical and Shell Model Potentials* (p. 65)
- B. Krusche (Institut Laue-Langevin, Grenoble, France) *Experiments with (n, γ) - e⁺ Converters* (p. 67)
- E.K. Warburton (Brookhaven National Laboratory, USA) *Mesonic Effects in Nuclei Near ²⁰⁸Pb Deduced from β Decay* (p. 69)
- K.S. Toth (Oak Ridge National Laboratory, USA) *Spectroscopy Studies Near the Proton Drip Line* (p. 71)

Session B, Firelight Forum

- P. Bonche (SPHT-CEN Saclay, Gif-sur-Yvette, France) *Shape Isomers: Mean Field Description and Beyond* (p. 73)
- R.K. Sheline (Florida State University, USA) *Global Systematics of Superdeformation* (p. 75)
- J. Cizewski (Rutgers University, USA) *Non-Yrast Spectroscopy of Tellurium Nuclei* (p. 77)

Thursday morning, October 18

8:45 a.m. – 12:00 noon

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C.R. Gould (Los Alamos National Laboratory, USA) *Parity and Time Reversal Symmetry Violation in Epithermal Neutron Transmission Measurements* (p. 99)

K. Abrahams (Netherlands Energy Research Center, Petten, Netherlands) *Radiative Capture in Few-Nucleon Systems and Exchange Currents* (p. 101)

G.J. Mathews (Lawrence Livermore National Laboratory, USA) *Nuclear and Astronomical Constraints on the Site for R-Process Nucleosynthesis* (p. 103)

F. Käppeler (Kernforschungszentrum, Karlsruhe, Germany) ^{176}Lu — *An s-Process Thermometer* (p. 105)

H.V. Klapdor-Kleingrothaus (Max-Planck-Institut, Heidelberg, Germany) *Second Generation New Theoretical Data of Beta Decay Far from Stability and of Double Beta Decay, and Implications for Astrophysics* (p. 107)

Thursday afternoon, October 18

1:30 – 5:00 p.m.

Session A, Merrill Hall

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G. Molnar (Institute of Isotopes, Budapest, Hungary) *The First Sub-Magic Nucleus: ^{96}Zr* (p. 111)

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W.R. Phillips (University of Manchester, UK) *Nuclear Structure of Neutron-Rich Fission Fragments* (p. 115)

K. Sistemich (Institute for Nuclear Physics, Jülich, Germany) *Level Lifetimes in the ps Region: Shell Model Configurations and Deformed Structures at $A=100$* (p. 117)

R. Gill (Brookhaven National Laboratory, USA) *A New Method for Picosecond Lifetime Measurements Using Electronic Timing: Nuclear Structure Applications* (p. 119)

J. Keinonen (University of Helsinki, Finland) *Reliability of Short Lifetimes Measured by the Doppler-Shift Attenuation Method* (p. 121)

S. Robinson (Institut Laue-Langevin, Grenoble, France) *Mixed Symmetry States in Nuclei Near Closed Shell* (p. 123)

M. Harder (Brighton Polytechnic, UK) *Obtaining Delta Values for Decays from Mixed Symmetry States in ^{158}Gd* (p. 125)

Session B, Firelight Forum

M.S. Dewey (National Institute of Standards and Technology, Gaithersburg, USA) *Current Results and Future Prospects for a Neutron Lifetime Determination Using Trapped Protons* (p. 127)

Seventh International Symposium on
CAPTURE GAMMA-RAY SPECTROSCOPY AND RELATED TOPICS

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7:30 – 9:30 p.m.

Tuesday evening, October 16

7:30 – 9:30 p.m.

Wednesday afternoon, October 17

1:30 – 5:00 p.m.

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W. Andrejtscheff (Bulgarian Academy of Sciences, Sofia, Bulgaria) *Non-Collective Excitations Identified by Nanosecond Lifetime Studies.* (p. 156)

A. Aprahamian (University of Notre Dame, Notre Dame, IN 46556, USA) *Supersymmetry?* (p. 157)

G. Ardisson (Université de Nice, France) *Search for a Fine Structure in the ^{14}C -decay of ^{222}Ra .* (p. 158)

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M.K. Balodis (Institute of Physics, Latvian Academy of Sciences, SU-229021 Riga-Salaspils, USSR) *Rotational Interpretation of ^{192}Ir .* (p. 160)

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T. Belgya (Institute of Isotopes of the Hungarian Academy of Sciences, Budapest, H-1525, Hungary) *Doppler Shift Lifetime Measurements at Low Recoil Velocities and Mixed-Symmetry States in ^{134}Ba .* (p. 162)

Y. Birenbaum (Nuclear Research Center-Negev, Beer-Sheva, Israel 84190) *Systematics of $^2\text{H}(\gamma,n)$ Data Below 100 MeV.* (p. 163)

M. Bogdanovic (Boris Kidric Institute of Nuclear Sciences, Belgrade, Yugoslavia) *Investigation of Gamma Transitions Populating the 1094 keV Isomeric State in the $^{167}\text{Er}(n,\gamma)$ Reaction.* (p. 164)

P. von Brentano (Institut für Kernphysik der Universität zu Köln, W. Germany) *Complete Spectroscopy for Medium-Spin Levels from $(\alpha,n\gamma)$ and $(^{13}\text{C},3n\gamma)$ Reactions.* (p. 165)

M.J. Brinkman (Rutgers University, New Brunswick, NJ 08903, USA) *Analysis of High Multiplicity Gamma-Ray Events.* (p. 166)

C. Chung (Institute of Nuclear Science, National Tsing Hua University, Hsinchu 30043, Taiwan, ROC) *In Situ Prompt Gamma-Ray Measurement of River Water Salinity at Northern Taiwan Using $\text{HPGe-}^{252}\text{Cf}$ Probe.* (p. 167)

F. Corvi (Commission of the European Communities, Joint Research Centre, Central Bureau for Nuclear Measurements, B-2440 Geel, Belgium) *The 30-keV Averaged Neutron Capture Cross Section of ^{56}Fe and ^{60}Ni .* (p. 168)

P.D. Cottle (Florida State University, Tallahassee, FL 32306 USA) *Tests of Octupole Band Structures.* (p. 169)

- K. Kar (Saha Institute of Nuclear Physics, Calcutta, India) *Beta Decay of some fp Shell Nuclei for Presupernova Stars.* (p. 189)
- H. Kitazawa (Tokyo Institute of Technology, Japan) *Electromagnetic Transitions from Broad s-Wave Neutron Resonance in the sd-Shell Nuclei ^{24}Mg , ^{28}Si and ^{32}S .* (p. 190)
- H.V. Klapdor-Kleingrothaus (Max Planck Institut für Kernphysik, D-6900 Heidelberg, Germany) *The Heidelberg-Moscow Double Decay Experiment Using Enriched ^{76}Ge .* (p. 191)
- J.Klora (Technische Universität München, Garching, Germany) *Nuclear Structure Investigations and Lifetime Measurements in ^{156}Gd .* (p. 192)
- J. Kopecky (Netherlands Energy Research Foundation ECN, Petten, The Netherlands) *Calculations of Capture Cross Sections and Gamma-Ray Spectra with Different Strength Function Models.* (p. 193)
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