

SECTION III

**EXPERIMENTS APPROVED AT
PROGRAM ADVISORY COMMITTEE MEETINGS**

PAC9 and the Experimental Program

The ninth meeting of the NSCL Program Advisory Committee (PAC9) was held September 18-20, 1988. The Committee consisted of:

1. Walter Benenson, NSCL-MSU
2. Joseph Natowitz, Texas A&M
3. Philip Siemens, Oregon State University
4. Frank Stephens, LBL
5. James Vary, Iowa State
6. Glenn Young, ORNL

Approved Experiments -- NSCL PAC9

Experiment Number	Title and Authors (Spokesperson <i>Italicized</i>)	Hours Approved
88003	Energetic L.I. Production Near $O=O^\circ$ from H.I. Collisions $E/A=30/-100$ MeV/u. <i>F. Becchetti</i> , D. Roberts, S. Shaheen, J. Janecke, A. Nadasen, Z. Yin, S. Dingzhong, Univ. Michigan, SIC/Shanghai (PRC).	36
88004	Study of Non-Equilibrium Fission and Heavy Residue Production in the 30 MeV/A $^{129}\text{Xe} + ^{165}\text{Ho}$, ^{197}Au Reactions. <i>W. Loveland</i> , K. Aleklett, L. Sihver, J. Liljenzin, G. Seaborg, Oregon State Univ., Studsvik Neutron Research Lab (Sweden), Univ. of Oslo (Norway), Lawrence Berkeley Laboratory.	24
88005	States at High Excitation in Light Nuclei with High Spin and Isospin. <i>J. Brown</i> , R. Sherr, R. Kouzes, J. Winfield, C. Ogilvie, S. Aziz. Princeton Univ., NSCL, Indiana Univ. Cyclotron Facility.	96
88006	Track Effects in Water Radiolysis with High-Energy Carbon Ions. <i>J. LaVerne</i> , R. Schuler. Univ. of Notre Dame.	24
88007	Search for Coherent Dipole Bremsstrahlung. <i>T. Murakami</i> , J. Stevenson, W. Benenson, J. Clayton, K. Joh, E. Kashy, D. Krofcheck, D. Morrissey, R. Radtke. NSCL.	100
88008	High-Energy Gamma Ray Production Above the Fermi Energy. <i>J. Stevenson</i> , W. Benenson, J. Clayton, K. Joh, E. Kashy, D. Krofcheck, D. Morrissey, T.K. Murakami, R. Radtke. NSCL.	54
88009	Study of Highly Excited Nuclear Systems with an Exclusive Impact Parameter Trigger. <i>D. Horn</i> , C. Pruneau, G. Ball, W. Davies, E. Hagberg, D. Cebra, S. Howden, J. Karn, C. Ogilvie, S. Vandermolen, G. Westfall, K. Wilson, L. Potvin, C. Rioux, R. Roy, C. St-Pierre, T.E. Drake, A. Galindo-Uribarri, G. Zwartz, J. Barrette. AECL-Chalk River, NSCL, U. Laval, U. Toronto, McGill University.	
88010	Lifetime of the $2^2S_{1/2}$ State of Hydrogen-Like Kr^{35+} . <i>R. Dunford</i> , M. Hass. Argonne Natl Lab, NSRL-Univ of Rochester.	72
88011	Elastic Scattering of 50 MeV/A ^6Li Ions. <i>A. Nadasen</i> , P. Schwandt, J. Winfield, F. Becchetti, J. Janecke, R. Warner. NSCL, Univ. of Michigan, Indiana Cyclotron Facility, Oberlin College.	108
88012	Collective Flow Effects at Intermediate Energies. <i>C. Ogilvie</i> , G. Westfall, D. Cebra, S. Howden, J. Karn, A. Vandermolen, W. Wilson.	96

88013	Selectivity of the (${}^6\text{Li}$, ${}^6\text{Li}^*_{3,56}$) Reaction. <i>J. Winfield, S. Austin, N. Anantaraman, D. Morrissey, C. Ogilvie, A. Nadasen, R. Ronningen, M. Mohar, R. Harkewicz.</i> NSCL.	64
88014	The Impact Parameter Dependence of High-Energy Gamma Rays in Heavy-Ion Collisions. <i>J. Clayton, J. Stevenson, W. Bauer, W. Benenson, D. Cebra, S. Howden, J. Kihun, J. Karn, D. Krofcheck, M. Mohar, D. Morrissey, T. Murakami, R. Radtke, A. Vandermolen, G. Westfall, W. Wilson, J. Winfield,</i> NSCL.	175
88015	Studies Along the Proton-Drip Line Between $A = 56$ and $A = 76$. <i>M. Mohar, D. Morrissey, W. Benenson, R. Ronningen, B. Sherrill, J. Stevenson, J. Winfield, J. Yurkon.</i> NSCL.	96
88016	Search for the Liquid-Vapor Phase Transition in Nuclei. <i>G. Westfall, C. Ogilvie, K. Wilson, D. Cebra, J. Karn, S. Howden, A. Vandermolen, J. Winfield, A. Nadasen D. Krofcheck.</i> NSCL.	204
88017	Subthreshold Charged Pion Production. <i>Y. Chen, W. Benenson, E. Kashy, J. Stevenson, D. Morrissey.</i> NSCL.	200
88020	Excited Fragments: The Dependence of Excitation Energy on Kinetic Energy. <i>A. Galonsky, A. Kiss, C.K. Gelbke, F. Deák, Z. Seres, L. Heilbronn, J. Kasagi, D. Krofcheck, W. Lynch, T. Murakami, R. DeSouza, M.B. Tsang, S. Yang.</i> NSCL, Eötvös Univ/Budapest, Central Rs. Inst. for Physics/Budapest, Tokyo Inst. of Technology.	264
88021	Study of Low-Lying States in ${}^{27}\text{P}$ and ${}^{31}\text{Cl}$. <i>M. Wiescher, B. Sherrill, W. Benenson, S. Graff, J. Gorres, M. Mohar, J. Winfield.</i> Univ. of Notre Dame, NSCL.	144
88022	Measurement of the Γ_γ/Γ_p Branching Ratio for the 7.8 MeV $T-3/2; J^\pi = 5/2^+$ State in ${}^{23}\text{Mg}$. <i>J. Gorres, M. Wiescher, B. Sherrill, M. Mohar, D. Morrissey, D. Mikolas, R. Harkewicz, S. Graff, J. Stevenson.</i> Univ. of Notre Dame, NSCL.	24
88025	Search for Doubly-Decoupled Bands in ${}^{174}\text{Re}$ and ${}^{172}\text{Re}$. <i>W. McHarris, W. Olivier, W-T. Chou, A. Rios-Romero, Y. Dardenne, C. Hampton.</i> NSCL.	96
88026	Space-time Characteristics and Full Event Topology for Fermi Energy Collisions. <i>R. DeSouza, N. Carlin, D. Cebra, C.K. Gelbke, S. Howden, J. Karn, W. Lynch, C. Ogilvie, M.B. Tsang, A. Vander Molen, G. Westfall, K. Wilson.</i> NSCL.	216
88027	Excitation Function Search for Multifragmentation. <i>D. Sarantites, L. Sobotka, A. Chbihi, Z. Majka, N. Nicolis, D. Stracener, R. DeSouza, N. Carlin, C.K. Gelbke, Y. Kim, W. Lynch, T. Murakami, R. Ronningen, M.B. Tsang.</i> Washington Univ/St. Louis, NSCL.	148
88028	Survey of Projectile Fragmentation with a 0 Degree Spectrometer. <i>D. Morrissey, B. Sherrill, J. Nolen, R. Harkewicz, D. Mikolas, G. Souliotis.</i> NSCL.	48
88029	Entropy Production in Central Collisions. <i>W. Wilson, G. Westfall, D. Cebra, S. Howden, J. Karn, A. Vander Molen, C. Ogilvie, A. Nadasen.</i> NSCL, Univ. of Mich./Dearborn.	196
88030	Magnetic Thin Lens Test for e^+ / e^- Spectroscopy from Heavy-Ion Collisions. <i>J. Bailey, E. Kashy, S. Austin, G. Holm, M. Maier, D. Mikolas, J. Winfield.</i> NSCL.	24
88031	Precision Measurement of the Energy Splitting of the ${}^{23}\text{P}_0 - {}^{23}\text{S}_1$ Transition in Helium-Like Xenon (Xe^{52+}). <i>D. Dietrich, R. Marrus, A. Simionovici, J. Bixler, J. Nolen, B. Sherrill.</i> Lawrence Livermore Nat'l Lab, Univ. of California/Berkeley, NSCL.	72
88032	Lifetime of the ${}^{23}\text{S}_1$ State of Helium-Like Xe^{52+} . <i>R. Marrus, D. Dietrich, A. Simionovici, P. Indelicato, J-P. Briand, J. Nolen, B. Sherrill.</i> Univ. of California/Berkeley, Lawrence Livermore Nat'l Lab, Univ. of Paris, NSCL.	72
88033	Frictional Heating in Energetic Heavy-Ion Reactions Studied via Particle Multiplicities. <i>W.U. Schröder, D. Pade, S. Baldwin, J. Huizenga, J. Toke, J. Wile.</i> Univ. of Rochester.	60

88034	Incomplete Fusion and Complex Fragment Emission. <i>G. Wozniak, L. Moretto, G. Peaslee, N. Colonna, D. Bowman, D. Delis, K. Hanold, M. Debreczny, M. McMahan, D. Morrissey.</i> Lawrence Berkeley Laboratory.	96
88035	Excitation Functions for IMF Production with $E/A = 60 - 120$ MeV ^{14}N Ions. <i>V. Viola, K. Kwiatkowski, S. Yennello, D. Fields, R. Planeta, C.K. Gelbke, W. Lynch, M.B. Tsang, S. Austin.</i> Indiana University Cyclotron Facility, NSCL.	100
88037	Fragment Production Measurement Using Plastic Track Detectors. <i>K. Subotic, D. Novkovic, M. Stojanovic, B. Stepancic, B. Grabez.</i> Boris Kidrich Institute, Institute of Physics.	8