

# Lawrence Berkeley National Laboratory

## LBL Publications

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Lawrence Berkeley Laboratory  
Berkeley, CA 94720

**For Reference**

**Not to be taken from this room**

Vol 4, No. 9 November 1979

Associate Director: Joseph Cerny

Editor: Jeannette Mahoney

### Report from Joseph Cerny

As most of you know, a major change in LBL overhead and support practices is being considered. This policy change would absorb divisional overhead into the overall laboratory overhead and simultaneously eliminate support burden, with the effect that LBL overhead would rise from the present 40.5% to something like 55.5%. It now appears that such a change will not occur in FY'80 but is quite likely to be implemented for FY'81. This delay will give our various groups a chance to plan properly for FY'81 after evaluating the individual impacts of the new policy.

Dr Robert Stokstad will join the Nuclear Science Division as a Senior Scientist in early February as a replacement for David Scott. Stokstad has been a Group Leader in the Physics Division at Oak Ridge National Laboratory. He will arrive in early February and be housed at Building 88.

Dr John Erskine has been representing heavy ion research interests in the Nuclear Physics Division of DOE but will be returning to Argonne National Laboratory in December. His replacement will be Dr. Clarence Richardson who is transferring from the Program Planning Division. Dr. Richardson visited LBL on November 29 and 30 to make some initial contacts with us.

### Bernard Harvey Honored at Grenoble

On October 26 Bernard Harvey received an honorary degree from the University of Science and Medicine at Grenoble. There were 6 degrees awarded to outstanding scientists and researchers in the fields of science and medicine. Among the recipients were two other Americans - W. C. Koehler of Oak Ridge and W. H. Sweet, a neurosurgeon from Harvard - one Pole, one German, and one Norwegian. Each was praised for his professional achievements in a speech given by a representative of the scientific or medical community.

The ceremony took place in the afternoon in the Louis Weil Amphitheater of the University of Grenoble and was followed by a banquet that evening.

### New Staff Member

Howell Pugh has joined the NSD staff as the Bevalac Scientific Director. Howell has been head of the Nuclear Science Section of NSF for the last two years. He originally came to LBL in 1962 after receiving his degree at Cambridge, then working at Harwell as first a Junior, then a Senior, Fellow. He worked at the 88-Inch Cyclotron for 3 years before going to the University of Maryland, where he became a professor in 1970. In 1975 he became Program Director for Intermediate Energy Physics at NSF.

### Seaborg Receives Two Awards

Glenn Seaborg has been awarded the 1979 Distinguished Lectureship in Materials and Society of the American Society for Metals and the Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers. He has also been named to the special Chair, Visiting Green Scholar, at the Marine Biomedical Institute for Distinguished Scholars at the University of Texas Medical Branch.

### Supplementary Telephone List

The last two pages of the NEWSLETTER contain new listings for several Nuclear Science Division personnel. Please save them for reference.

### NSD Maintains Safety Record

In the latest report on Injuries and Lost Time at the lab, our division has again shown the lowest number of reportable incidents. The Nuclear Science Division has had only two recordable accidents in the last seven years, and none in the last two and a half years, a record unmatched by any other division.

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## ARRIVALS AND DEPARTURES

### ARRIVALS

New additions to the Harvey group at the 88-Inch Cyclotron are William Rae, here for two years from the University of Pennsylvania, and before that, Oxford; and Martin Murphy from Argonne.

With the Lee Schroeder group are Paul Kirk, who is on sabbatical from Louisiana State University, and his student Jon Engelage. They will be working on both HISS and TASS.

Victor Perez-Mendez has a new staff member, Terry Mulera, who is working on multiplicity counters for the HISS project. Asher Schorr is here for two years to do heavy ion experiments with Victor and George Igo.

The Seaborg group has a new student, Robert Welch; a volunteer worker, Linda England; and a lab assistant, Martin Schulman, who is working in the Lab Coop program.

Tony Warwick joined the Poskanzer/Gutbrod group in September for two years.

VISITORS

Arturo Menchaca-Rocha, Maria-Ester Brandan, Angel Dacal and Alfredo Galindo-Uribarri from the University of Mexico are visiting the 88-Inch Cyclotron for the next couple of months.

Isadore Perlman is back for one year with the Seaborg group on a leave from the Archaeology Institute of Hebrew University in Jerusalem.

V. Manko and Karen Karadjev from Kurtchatov Institute in Moscow are visiting the Poskanzer/Gutbrod group from September to December for Experiment 489H at the Bevalac.

DEPARTURES

Dennis Moltz has left the Cerny group for Oak Ridge, where he will be working on the UNISOR mass separator, and Dieter Stahel has returned to Europe via Hawaii and the Far East.

From the Seaborg group, Kjell Aleklett has returned to Lund and Ken Thomas has gone to Los Alamos.

TRANSFERS

Dave Morrissey has transferred from the Seaborg to the Moretto group.

SEMINARS

NSD Monday seminars, 4:00 p.m., 70A-3377

- Dec. 10 Correlated Gamma Rays from High Spin States  
Frank Stephens, LBL
- Dec. 17 Survey on Pion-Nucleus Physics  
Rubin Landau, Oregon State
- Jan. 7 Geometry and Dynamics of Heavy Ion Collisions  
Shoji Nagamiya, LBL
- Jan. 14 The Core Excitation Model  
H. Bolotin, Melbourne

REPORTS

Copies of these reports can be obtained from Idola Davis in the NSD office. In addition, a copy of each can be found in the Bldg. 88 Library.

- LBL 9611 Topics in Relativistic Heavy Ion Collisions  
Shoji Nagamiya
- LBL 9619 Recent Progress in Ion Sources and Preaccelerators  
David J. Clark

- LBL 9706 Nuclear Reactions Producing  $^2\text{He}$  and Excited States of  $^4\text{He}$  as Unbound Outgoing Systems  
Dieter Paul Stahel
- LBL 9745 Spontaneous Fission Properties of the Neutron-Deficient Fm Isotopes, 1.2-s  $^{246}\text{Fm}$  and 38-s  $^{248}\text{Fm}$   
D. C. Hoffman, D. Lee, A. Ghiorso, M. J. Nurmia, and K. Aleklett
- LBL 9876 Studies of Isospin Quintets and Neutron-Deficient Indium Isotopes with the On-Line Mass Analysis System RAMA  
Joseph Cerny, J. Äystö, M. D. Cable, P. E. Haustein, D. M. Moltz, R. D. von Dincklage, R. F. Parry and J. M. Wouters

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RESEARCH

SuperHILAC News

Investigation of Gamma Ray and Out-of-Plane Alpha Emission in the Heavy Ion Reaction  $\text{Ag}+\text{Kr}$  at 664 MeV  
L. G. Sobotka, G. J. Wozniak, C. C. Hsu, G. U. Rattazzi, R. J. McDonald, H. H. Bolotin, A. J. Pacheco, S. K. Blau, and L. G. Moretto

Out-of-plane alpha emission in the reaction  $^{nat}\text{Ag}+\text{Kr}$  was investigated in an experiment employing an array of 4 out-of-plane light particle telescopes. One of the major reaction partners was detected in a solid state  $\Delta E-E$  telescope. In addition, gamma ray multiplicity data was taken with an array of 7 NaI detectors. In the past, our group, as well as others working on the angular momentum dissipation question in deep inelastic collisions, have assumed that E2 gamma emission is the primary mechanism for removing angular momentum from the excited fragments. However, it is still not clear how important light particle emission is in this relaxation process. Analysis of this experiment will yield the relative emission rate and thus give an indication of its importance in this system. In addition, the width of the out-of-plane angular distribution can be related to the spin of the emitting fragment. This determination of the spin is completely independent from that derived from the gamma multiplicity, so a comparison can be made between these two methods of spin determination. Data analysis is presently in progress.

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NSD NEWSLETTER

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Hank Crawford, Ext. 5685  
Rick Gough, Ext. 5088

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<u>Name</u>		<u>Extension</u>	<u>Bldg.</u>	<u>Room</u>
Austria	Olivia	4453	70A	3317A
Baden	Andrew	4139	70	111F
Banks	Margret	4870	50	245
Beleal	Ernestine	4885	50	244
Bieser	Fred	4885	50	246
Boguta	John	5652	70	237
Bronson	Mark	4870	50	241
Bullmore	D.	4885	50	244
Cerny	Joseph	5670	70A	3317B
Chessin	Stephen A.	6983	70	257
Crawford	Hank	4885	50	248
Davis	Idola	4457	70A	3317
Eiland	Eileen	4452	70A	3307B
Engelage	Jon	6983	70	257
Flocard	Hubert	5768	70	241
Flores	Mel	4885	50	246
Frankel	Kenneth	6318	70A	3363E
Friedlander	Erwin	4870	50	239
Ganssaug	Eberhard	4870	50	241
Geaga	Jorge	6983	70	257
Gimpel	Roy	4870	50	329
Glendenning	Norman K.	5420	70	231
Greiner	Douglas	4885	50	248A
Gutbrod	Hans H.	5770	70	119A
Gyulassy	Miklos	5239	70	233
Hashimoto	Osamu	6318	70A	3363B
Heckman	Harry	4870	50	245A
Hendrie	David L.	4052	70	225
Hernandez	E. Susana	4055	70	242
Jones	Dolores	5146	70A	3307
Karadjev	Karen	4139	70	111F
Karant	Yasha	5697	70	247
Kauffmann	Steven	4831	70	236
Kirk	Paul	6983	70	257
Ko	Che-Ming	5323	70	240
Koike	Masahiro	6318	70A	3363F
Leuhrmann	Karl	5466	70	238
Lindstrom	Peter	4885	50	250A
Lumbroso	Albert	5536	70	239
Maier	Michael	4138	70	111D
Manko	Vladislav	5618	70	111C
Mann	Frances	5146	70	3307
Mantzouranis	George	5466	70	238
McParland	Charles	4885	50	250
Meneses	Jesus	5436	70	111E
Miller	Jack	4139	70	111F
Myers	William	5626	70	229
Noack	Cornelius	4053	70	245
Olson	D.	4870	50	241
Péter	Jean	5618	70	111C

<u>Name</u>		<u>Extension</u>	<u>Bldg.</u>	<u>Room</u>
Poskanzer	Arthur	5618	70	111C
Pugh	Howel G.	4119	70	111B
Randrup	Jørgen	6157	70	235
Rasmussen	John O.	6318	70A	3363D
Redlich	Martin	5170	70	243
Ritter	Hans G.	4138	70	111D
Rosenberg	Leslie	6460	70	111A
Ruck	Herbert	4054	70	244
Sandoval	Andres	6460	70	111A
Schroeder	Lee S.	6983	70	257
Smith-Burnett	Wanda	4454	70A	3317
Stelzer	Herbert	5436	70	111E
Sullivan	John	6318	70A	3363B
Swiatecki	Wladyslaw	4471	50A	3115
Treuhart	Robert	6983	70	257
Tuttle	Douglas	4870	50	241
Warwick	Anthony	4135	70	119
Weik	Friedemann	4135	70	119
Westfall	Gary D.	5088,5185	88	227
Wiedenbeck	M.	4885	50	244
Wieman	Howard	5436	70	111E
Yee	Hester	4870	50	241