WORKSHOP ON COSMOGENIC NUCLIDES -- SECOND CIRCULAR

Sponsored by

Los Alamos National Laboratory
Los Alamos, New Mexico
and
Lunar and Planetary Institute
Houston, Texas

Contact

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You are invited to participate in a two-day Workshop on Cosmogenic Nuclides that will be held on July 26-27, 1984, at the Los Alamos National Laboratory. Los Alamos is 100 miles from Albuquerque in the mountains (7300-feet, 2225-meters, high) of northern New Mexico, one of the prettiest parts of the Land of Enchantment. This LPI Workshop will have presentations and discussions on many topics related to the nuclides made by the cosmic rays. After the meeting, an LPI Technical Report will be prepared that summarizes the Workshop; it will include the contributed abstracts. The co-conveners of the Workshop are Dr. Robert C. Reedy, Los Alamos National Laboratory, and Dr. Peter Englert, University of Cologne, FRG.

TOPICS FOR THE WORKSHOP

In response to the first circular, over 40 colleagues have already replied that they will or might attend the Workshop and replies are still coming in. The topics that were indicated in these replies included solar modulation of the cosmic rays, resonance ionization mass spectroscopy, accelerator mass spectroscopy, nuclides in old lunar breccias or gas-rich meteorites, production rates, simulation experiments, complex irradiation histories, terrestrial studies, extraterrestrial standards, and cosmic-ray variations. Other topics concerning the radioactive or stable nuclides made by the cosmic rays in terrestrial or extraterrestrial matter are welcomed. The final program will be based on the interests of the participants as expressed in the contributed abstracts. A copy of the abstracts and the Workshop program will be distributed at the registration in Los Alamos just prior to the Workshop.

ABSTRACTS

Contributed abstracts may be up to three pages in length and must be received (one original and three copies) at the Publication Office, Lunar and Planetary Institute, 3303 NASA Road 1, Houston, TX 77058, USA, not later than June 15, 1984. To allow ample time for discussion, only one contribution will be allowed per participant. The enclosed forms should be used for the abstract and the information and copyright-release forms must be returned with the abstract. These abstracts will be photocopied for the abstract volume at the meeting and for the Technical Report, so please do not fold the abstract sheets.

PRESENTATIONS

Each presentation will be limited to not more than 10 minutes so that there will be ample time for discussion. The projection equipment will consist of a 35-mm (2" x 2") slide projector and a standard overhead projector. The presentations should avoid merely giving data, but should be oriented towards stimulating discussion.

On the first day of the Workshop, the meeting will be held at the Conference Room of the Isotope and Nuclear Chemistry Division Office (INC-DO) at TA-48. The meeting on the second day will be held at the J. Robert Oppenheimer Study Center (called by its old name of the National Security and Resources Study Center on the enclosed Visitor's Guide.) On both days, a bus will be provided to transport the Workshop participants from the Los Alamos Inn to the meeting area and back. (Parking spaces are scarce near both meeting places.) On Thursday, a bus will also be available to convey people from the meeting area to and from the cafeteria for lunch and to the Otowi Building for the Workshop dinner.

REGISTRATION

The registration form for the Workshop on Cosmogenic Nuclides is enclosed and should be returned to R. Reedy not later than June 15, 1984. A small fee of $15 will be charged to cover minor workshop expenses such as refreshments and the bus transportation. Workshop participants can register at the Los Alamos Inn the evening of July 25, 6:30-8:30 p.m., when a no-host bar will be available, or at the meeting area at the INC-DO Conference Room on the morning of July 26. There are no student or travel grants available for the Workshop.

WORKSHOP DINNER

A dinner for Workshop participants and their guests will be held at the Otowi Building of the Los Alamos National Laboratory on Thursday evening, July 26, 1984. The cost of the dinner, which includes wine, will be $12.50, and is separate from the registration fee. We need to know the exact number of dinner attendees before July 1, so please indicate on the Registration Form whether you and/or your guests will attend this dinner.

ACCOMMODATIONS

A block of rooms has been set aside for the Workshop at the Los Alamos Inn at the rate of $38 per room, plus 7.5% tax. Please return the enclosed postcard to reserve your room. Be sure to return this card by July 6, as the remaining rooms will be released then. Hotel rooms are very hard to find in the Los Alamos area during the summer.

The weather in Los Alamos at the end of July is fairly mild, with highs near 75-80°F (24-27°C) and evenings cooling rapidly after sunset to near 50-55°F (10-13°C). There are often thunderstorms just after noon, but usually it is sunny.

TRANSPORTATION

The only public transportation to Los Alamos is via Ross Aviation from the Albuquerque airport. The one-way fare for the 30-minute flight is $40 (the round trip fare is $80.) Rental cars are available at the Albuquerque airport. There are four rental car companies with offices in Los Alamos - Avis, National, Hertz, and Thrifty. A rental car would give you more freedom to see the area around Los Alamos, and, if shared with other Workshop participants, would be an inexpensive way to get to and from the Workshop. There will be no official tours as part of the Workshop, but there are many things to see in this part of New Mexico, as the pamphlet on the Los Alamos area shows. Additional details on transportation are in the enclosed Visitor's Guide.

SANTA FE OPERA

One of the best summer operas in the world is the Santa Fe Opera, which performs in a beautiful theater only 30 miles from Los Alamos. Operas the week of the Workshop are Richard Strauss's comedy Intermezzo (sung in English) on Wednesday night and the "opera buffa" Il Matrimonio Segreto by Domenico Cimarosa (sung in Italian) on Friday night. A few seats for both nights have been set aside for meeting participants, but please contact R. Reedy before May 31 if you want a ticket (at about $25 per seat). Most Santa Fe Opera performances are sold out many weeks ahead.

DEADLINES

June 15: Registration form to Los Alamos.

June 15: Abstract, information, and copyright-release forms to the Lunar and Planetary Institute, Houston.

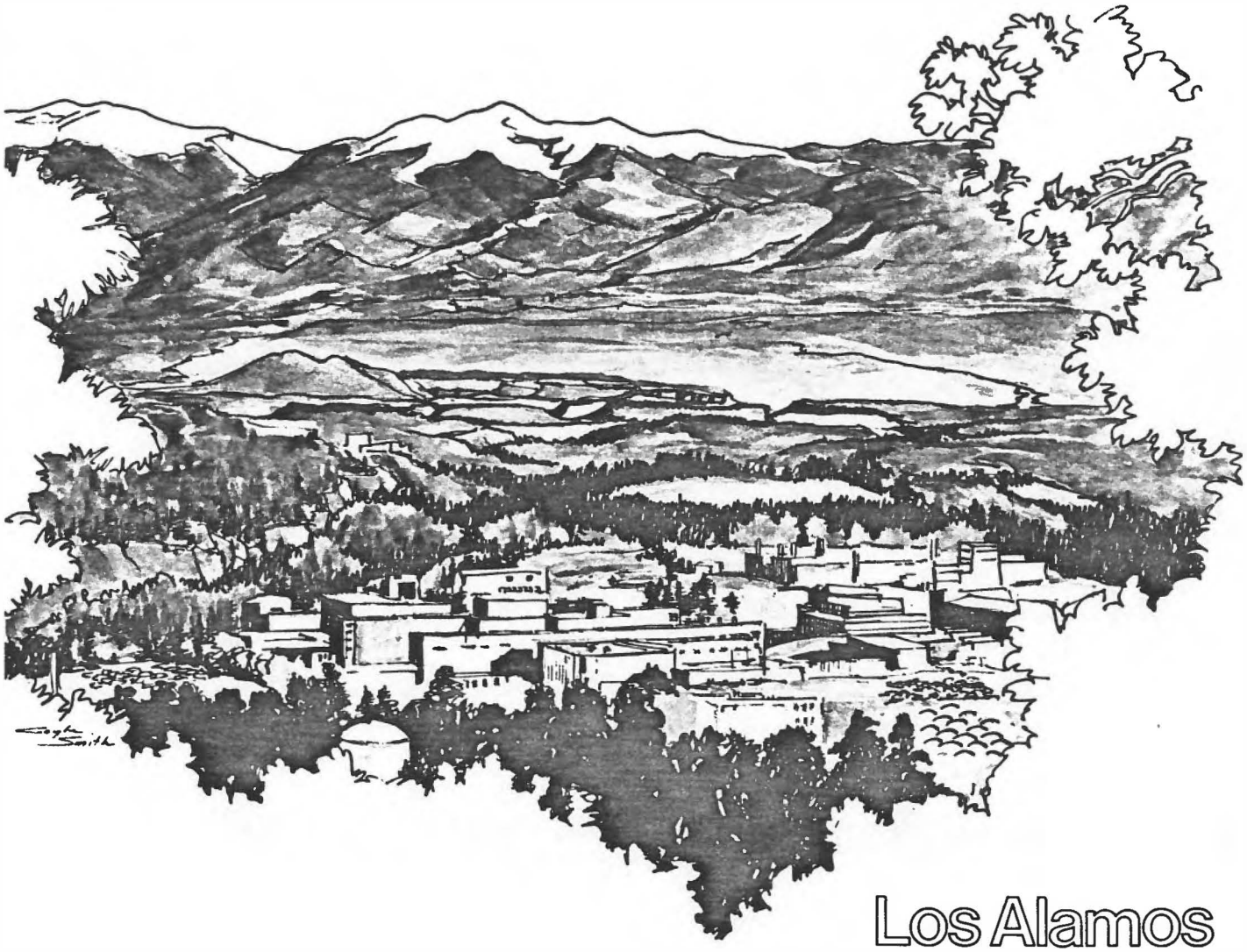
July 6: Hotel reservation postcards received in Los Alamos.

WORKSHOP ON COSMOGENIC NUCLIDES

Los Alamos National Laboratory
and
Lunar and Planetary Institute

26-27 July 1984

PROGRAM



Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

WORKSHOP ON COSMOGENIC NUCLIDES, Thursday, 26 July 1984

Los Alamos National Laboratory, Los Alamos, New Mexico

INC-DO Conference Room, Tech Area 48, Building RC-29

8:15 a.m. Bus from Los Alamos Inn to TA-48

8:30 a.m. Registration at TA-48

8:45 a.m. Opening Activities

R. C. Reedy, General Comments about the Workshop

D. C. Hoffman, INC-DO, Welcome

J. R. Arnold, A review of the history of cosmogenic nuclides.

BREAK

9:30 a.m. New Techniques for Measuring Cosmogenic Nuclides

D. Rokop, "Measuring a Small Number of Atoms - The Pitfall of Isobaric Impurities."

C. M. Miller, "Resonance Ionization Mass Spectrometry for Isotopic Abundance Measurements."

U. Fehn, D. Elmore, H. E. Gove, P. Kubik, R. Teng, and L. Tubbs, "Determination of Ca-41, I-129 and Os-187 in the Rochester Tandem Accelerator and Some Applications of These Isotopes."

A. J. T. Jull, D. J. Donahue, and T. H. Zabel, "Radionuclide Measurements by Accelerator Mass Spectrometry at Arizona."

11:30 a.m. Bus leaves for cafeteria in Otowi Building

12:45 p.m. Bus leaves cafeteria for TA-48

1:00 p.m. Solar Modulation

M. A. Forman (to be presented by R. Zwickl), "Solar Modulation of Galactic Cosmic Rays: Contemporary Observations and Theories."

1:45 p.m. Terrestrial Studies

K. O'Brien, "Calculations of Cosmogenic Nuclide Production Rates in the Earth's Atmosphere and their Inventories."

D. Lal (to be presented by J. Goswami), "Cosmic Ray Interactions in the Ground: Temporal Variations in Cosmic Ray Intensities and Geophysical Studies."

BREAK

3:00 p.m. Simulations and Cross Sections

J. Brückner, P. Englert, R. C. Reedy, and H. Wänke, "Simulation Experiments for Gamma-Ray Mapping of Planetary Surfaces: Scattering of High-Energy Neutrons."

S. Theis, P. Englert, R. C. Reedy, and J. R. Arnold, "Simulation of Cosmic Irradiation Conditions in Thick Target Arrangements."

R. Michel, P. Dragovitsch, P. Englert, and U. Herpers, "Production of Radionuclides in Artifical Meteorites Irradiated Isotropically with 600 MeV Protons."

D. A. Leich, R. J. Borg, and V. B. Lanier, "Production Rates of Neon and Xenon Isotopes by Energetic Neutrons."

5:15 p.m. Bus leaves for Dinner in Otowi Building

5:30 p.m. Hors d'oeuvres and wine on Otowi Building patio

6:15 p.m. Workshop Dinner in Otowi Building

8:00 p.m. Bus goes to Los Alamos Inn

Friday, 27 July 1984

J. Robert Oppenheimer Study Center, TA-3, Upper Floor

8:15 a.m. Bus leaves Los Alamos Inn for Study Center

8:30 a.m. Calculations for Extraterrestrial Matter

M. S. Spergel, R. C. Reedy, O. W. Lazareth, and P. W. Levy, "Neutron Capture Production Rates of Cosmogenic Co-60, Ni-59 and Cl-36 in Stony Meteorites."

L. E. Nyquist and A. F. McDowell, "Redetermination of Parameters for Semi-Empirical Model for Spallogenic He and Ne in Chondrites."

BREAK

9:45 p.m. Meteorites

M. W. Caffee, J. N. Goswami, C. M. Hohenberg, and T. D. Swindle, "Precompaction Irradiaton Effects: Particles from an Early Active Sun?"

J. N. Goswami, "Evolution of Gas-Rich Meteorites: Clues from Cosmogenic Nuclides."

J. R. Arnold and K. Nishiizumi, "Nuclide Production in (Very) Small Meteorites."

R. Sarafin, U. Herpers, P. Englert, R. Wieler, P. Signer, G. Bonani, M. Nessi, M. Suter, and W. Wölfli, "Studies on Cosmogenic Nuclides in Meteorites with Regard to an Application as Potential Depth Indicators."

11:45 a.m. Lunch in Otowi cafeteria (side rooms reserved for Workshop)

1:00 p.m. Meteorites (continued)

R. Wieler, P. Signer, U. Herpers, R. Sarafin, G. Bonani, H. J. Hofmann, E. Morenzoni, M. Nessi, M. Suter, and W. Wölfli, "Spallogenic Nuclides in a Cross Section of Knyahinya."

G. Heusser, "The Exposure History of Jilin and Production Rates of Cosmogenic Nuclides."

L. Schultz and M. Freundel, "The Production Rate of Cosmogenic 21-Ne in Chondrites Deduced from 81-Kr Measurements."

BREAK

D. K. Pal, C. Tuniz, R. K. Moniot, W. Savin, S. Vajda, T. Kruse, and G. F. Herzog, "Be-10 Contents of SNC Meteorites."

K. Nishiizumi, "Compilation of Cosmogenic Radionuclides in Meteorites."

5:00 p.m. Bus goes to Los Alamos Inn