

Originally Processed With FOIA(s):
2005-0336-F

FOIA Number:
2005-0336-F

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Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files

OA/ID Number: 62000
Folder ID Number: 62000-006

Folder Title:
D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Stack:	Row:	Section:	Shelf:	Position:
	0	0	0	0

THE WHITE HOUSE
WASHINGTON

August 2, 1991


Dear Dr. Knight:

Thank you for your July 21 invitation asking me to speak at a technology colloquium next year. I would very much like to accept, but my schedule, even for next year, has already become so crowded that I must decline.

Thank you for the kind offer. Perhaps I will be able to accept in some future year.

Sincerely yours,


D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Anne Knight
Office for Information Technology
Harvard University
1730 Cambridge Street
Cambridge, Massachusetts 02138

THE WHITE HOUSE
WASHINGTON

August 2, 1991

Dear Dr. Kondo:

Thank you for your letter of June 24 inviting me to participate in the IEA Conference on Technology Responses to Global Environmental Challenges scheduled for November 6-8, 1991, in Kyoto. I apologize for the belated response.

As much as I would like to join you, I have a scheduling conflict at that time and must regretfully decline your kind invitation.

Thank you for thinking of me, and may I offer my best wishes for a successful conference.

With all best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Jiro Kondo
President
Science Council of Japan
and
Director General
Research Institute of Innovative
Technology for the Earth
Shin-kyoto Center Building, Karasumanishi-iru
Shiokouji-dori, Shimogyo-ku
Kyoto 600 Japan

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-CONFERENCE

DOCUMENT NUMBER: 9121927

SPEECH: YES NO

FROM: KONDO, Jiro: SCIENCE COUNCIL OF JAPAN AND R.I.T.E.

DATE OF EVENT: 11/06/91

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: INVITATION TO PARTICIPATE IN THE IEA CONFERENCE ON
TECHNOLOGY RESPONSES TO GLOBAL ENVIRONMENTAL
CHALLENGES, AS A MEMBER OF THE SPONSORING COMMITTEE.

RSVP: 07/19/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: INTERNATIONAL/POL
ENVIRONMENT

REMARKS:

DATE OF LETTER: 06/24/91

DATE RECEIVED: 06/28/91

FILE: INVITATION

THE WHITE HOUSE
WASHINGTON

September 19, 1991

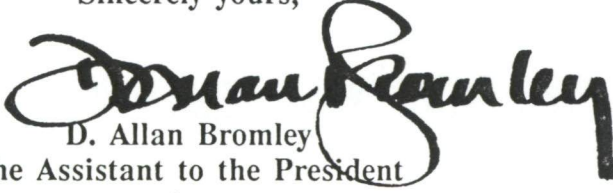
Dear Dr. Kanpp:

I was delighted to get your note from Tsukauba and to learn that the Summer Institute program this year has been a successful one. Feedback from people like yourself is enormously helpful but unfortunately rare.

If your travels bring you to Washington, please do let me know. I would look forward to a more personal report concerning your time in Japan.

With warmest best wishes,

Sincerely yours,


D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Kasarjian Knapp
11404 June Drive
Austin, Texas 78753-2950

Dear Dr. Browley:

I would like to thank you and everyone at the Office of Science and Technology Policy who contributed to the success of the Summer Institute in Japan Program 1991. The friends I made, the sights I saw, and the insights I gained are too numerous to mention. But let me say that I am confident that this Summer

Institute was but a first step for me and many other participants towards a positive and long lasting relationship with Japan.

Sincerely

Walter Dugg

Tsukuba, August 1991

THE WHITE HOUSE

WASHINGTON

September 20, 1991

Dear Rex:

I was delighted to get your letter but unfortunately, what with vacation and some extensive travel, I must apologize for the long delay in responding to it.

From the sound of things, you and Ilmary have had a fascinating year and I deeply appreciate your thoughtful words of sympathy concerning Pat's death. She will always be very much missed.

I had heard from Don Mingay that you had taken on the leadership of the Department of Medical Physics and, as you will recall, this is something that I urged on you during some of your visits to Yale. I know that you will do an outstanding job and will, at last, begin to get something approaching adequate credit for all that you have contributed to Wits.

John Hubbell called me as soon as he returned from Dubrovnik to tell me how much he and Jean had enjoyed getting to know you and Ilmary and how impressed he had been by the work you had reported.

I suppose that by now all three of your daughters will have completed their studies and will be off on their own. Please give them my warmest regards. It was a great pleasure having them in New Haven, albeit briefly, and then seeing them again when I was in Johannesburg for award of the honorary degree.

I have just come back from San Francisco where I had a chance to visit David and his wife and their two daughters, one now six and the other about to be two. They are confirmed Californians and have just put a major extension on their home up on the mountains overlooking the Pacific and Palo Alto, so I suspect that the probability of them ever returning to the east is vanishingly small.

Lynn, on the other hand, in January of this year, married a physician who is currently working at the National Institutes of Health here in Washington, so she has sold her apartment in New York and has moved to a home about five miles from mine. This is wonderful and she is now becoming heavily involved in consulting activities here in the Washington area.

Life here at the White House remains hectic but never dull. I keep in touch with the laboratory through Mary Ann and the publications that are now beginning to flow from the ESTU-1, which is operating beautifully as originally advertised to the consternation of a great many people who were convinced that it would never work at all!

With warmest best wishes to you and Ilmary; I only wish that it was possible for our paths to cross more frequently.

Sincerely yours,



D. Allan Bromley
The Assistant to the President
for
Science and Technology

Professor Rex J. Keddy
Head, Department of Medical Physics
University of Witwatersrand
1 Jan Smuts Avenue
Johannesburg
Wits 2050, South Africa



UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

DEPARTMENT OF MEDICAL PHYSICS

1 Jan Smuts Avenue, Johannesburg
Private Bag 3
Wits 2050, South Africa

Telephone (011) 720-1121 Ext 3600 (Hillbrow Hospital)
(011) 488-3348 (Johannesburg Hospital)

Telegrams 'UniwiTs'
Telex 4-27125 SA
Fax (011) 339-2144

6/8/91

Prof. Dr. D Allan Bromley
Assistant to the President for
Science and Technology
The White House
1600 Pennsylvania Ave., NW
Washington, DC 20500
UNITED STATES OF AMERICA

Dear Allan

Ilmary and I have just this last weekend returned from an extended trip overseas visiting Europe and Asia. We had the great pleasure of meeting John and Jean Hubbell in Dubrovnik, Yugoslavia in early June at a conference. He informed us of the death of Pat last year and despite the time that has elapsed since her passing, Ilmary and I would like to extend our deepest condolences to you and your family. Pat was a lovely person and made our stay in the United States feel as if it were home. One of the reasons why I so enjoyed visiting at the Wright Nuclear Structure Lab was a complete acceptance of ourselves as part of the family rather than just as visitors. This was initiated of course by yourself and Pat and we will always be in your debt for this. I am sure, judging you, you will be using the opportunity to work even harder than you always have.

My position has changed at the University and I have been appointed as Professor and Head of Department of Medical Physics. As you know my research interest over the past years have been very much in the line of dosimetry and dosimeters. The department has been in poor condition and I have been asked to put it back on track. So far things are turning out well.

Our overseas trip was a very extended one starting off in Yugoslavia and then moving to Austria to listen to some Mozart. I had business in Germany with the Siemens Company and from there we flew to Japan where the International Conference on Medical Physics and Bioengineering took place in Kyoto. We then moved to Beijing, China as the guests of the Laboratory of the Industrial Hygiene with whom I have established a collaborative project. We enjoy China very much as they are very hospitable people and I am very enthusiastic about the collaborative project with them and it seems to me they were equally excited about the project. We took a week off to visit Tibet and do some touring in that country. It is extremely beautiful with most of it above 4 000m above sea level but the standards of hygiene left us rather uneasy.

Again our deepest sympathy to you and the family.

Yours sincerely

Nov. 4, 1991

Dear Dan:

Many thanks for your kind note
and the copy of your really excellent
piece for Physics Today. There is a
Chinese proverb, "Prophecy is a
difficult art, particularly when
applied to the future."

You might be amused to see my
last efforts in this area in the
Nov-Dec. 1988 issue of American
Scientist.

Warmest regards

Sincerely

Allan

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9124623

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: KLEPPNER, Daniel: MIT

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/26/91

SUBJECT: HE IS PROVIDING DR. BROMLEY WITH AN ARTICLE WHICH IS
SCHEDULED FOR PUBLICATION IN PHYSICS TODAY.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES
Steve Olson

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 11/01/91
FILE: P-DAB-PERSONAL

DEPT RECEIVED:

CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

October 21, 1991

Dear Paul:

Thank you for your letter of September 30, inviting me to give an evening lecture on July 28 and a short address on July 27 at the opening ceremony of the INPC92 Conference scheduled to be held in Wiesbaden. My apologies for the much belated response.

With the understanding that it is always possible that Presidential scheduling may force a change in my plans, I would be delighted to accept your invitation. As I am sure you are aware, Presidential requests require that I have a great deal of flexibility in my scheduling, particularly so close to an election.

I appreciate your thinking of me and look forward to hearing from you later next year.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Professor Doctor P. Kienle
Gesellschaft für Schwerionenforschung MBH
D-6100 Darmstadt
Germany

1992 International Nuclear Physics Conference
July 26 – August 1, 1992
Wiesbaden, Germany

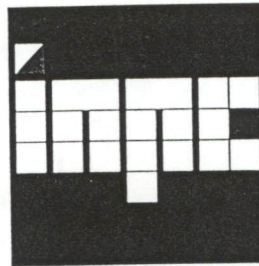
RECEIVED

91 OCT 8 P 2: 59

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
The White House

Washington
USA



c/o GSI, Postfach 11 05 52, D-6100 Darmstadt
Phone 49.6151.359-888 and 889
Fax 49.6151.359-989
Telex 04 19593 gsi d

Darmstadt, September 30, 1991

Dear Allan,

As you may recall from the first circular, GSI is organizing the next International Conference on Nuclear Physics (INPC92) which will be held at the Kurhaus of Wiesbaden from July 26 to August 1, 1992.

In order to enrich the program with a special high-light we like to invite you to give an evening-lecture (on Tuesday, July 28, 8.00 p.m.) at the conference. Of course the topic is up to your choice and taste. I heard from Walter Greiner that the audience was delighted by your lecture on "Science and Modern Society" recently given at the University of Frankfurt. In my opinion this or a similar topic would be great for the INPC92.

In addition we like to ask you for a short address during the opening ceremony (on Monday, July 27, 9.00 a.m.). For the opening speech and further addresses we have invited Dr. Heinz Riesenhuber, the Federal Minister for Science and Technology, Professor Dr. Evelies Mayer, the Hessian Minister for Science and Art, and Achim Exner, the Lord Mayor of the City of Wiesbaden.

We would be very pleased if you accepted our invitation.

Sincerely yours,

P. Kienle

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9124344

ORIGINATOR: 02

SPEECH: YES NO

FROM: KIENLE, P.: INPC

DATE OF EVENT: 07/26/92 THRU: 08/01/92
TENTATIVE DATES:

LOCATION OF EVENT: KURHAUS OF WIESBADEN

TIME OF EVENT:

SUBJECT: INVITATION TO SPEAK AT THE INTERNATIONAL NUCLEAR
PHYSICS CONFERENCE TO BE HELD NEXT YEAR IN
WIESBADEN, GERMANY.

RSVP: 10/22/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

COPIES TO: D. Allan Bromley
INTERNATIONAL/POL
PHYSICAL SCIENCES

REMARKS:

DATE OF LETTER: 09/30/91

DATE RECEIVED: 10/08/91

FILE: P-INVITATION-SPEECH

THE WHITE HOUSE
WASHINGTON

December 18, 1991

Dear Ms. Kenny:

Thank you for sending me your announcement of the 1991 President's Annual Points of Light Award. The call for nominations has been announced at one of my staff meetings, and when suggestions and nominations arrive from my staff I will give them the information they need to contact the staff of the Annual Points of Light Award.

Sincerely,

A handwritten signature in black ink, reading "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and the last name "Bromley" clearly distinguishable.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Jane Kenny
Action
1100 Vermont Ave., N.W.
Washington, D.C. 20525

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9125006
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: KENNY, Jane A.: FEDERAL DOMESTIC VOLUNTEER AGENCY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/27/91

SUBJECT: A LETTER INVITING DR. BROMLEY TO SUBMIT NOMINEES FOR
THE PRESIDENT'S ANNUAL POINTS OF LIGHT AWARD.

DIRECTORATE STAFF
ASSIGNED: DIRECTOR'S OFFICE ASSIGNED:

ACTION STAFF
REQUIRED: AS NECESSARY ACTION:

SENDER'S DUE DATE: 01/17/92
OSTP DUE DATE: 12/17/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO:

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: PHONE: EXT:

OSTP RECEIVED: 12/04/91 DEPT RECEIVED:
FILE: DAB-REFERAL
CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

September 20, 1991


Dear Secretary Kemp:

Thank you for your letter regarding Dr. J. Marvin Herndon's correspondence with President Bush.

Although Dr. Herndon's material was not forwarded to my office, my staff has taken the liberty of contacting Presidential Correspondence in order to verify the material's whereabouts. It appears that the letter and report in question were forwarded to the National Aeronautics and Space Administration (NASA). Apparently, Dr. Herndon has communicated with NASA for some time, and I have enclosed a copy of his file for your information.

Sincerely,


D. Allan Bromley
The Assistant to the President
for
Science and Technology

Enclosure

The Honorable Jack Kemp
Secretary of Housing
and Urban Development
Washington, D.C. 20410-0001

FACSIMILE COVER SHEET

NASA HEADQUARTERS
OFFICE OF THE ADMINISTRATOR

(Use of the NASA Seal authorized for the Administrator's Office Only)

DATE:

9/13/91

TO:

LISA Caldwell

Location:

OSTP

FAX No:

202/395-3261

Phone No:

456-6272

FROM:

Rosemarie V. TAGLIANO

Phone No:

453-8555

FAX

755-3413

Total Number of Pages
Including Cover Sheet:

15

Probably more than you need to know about Herndon, but more is better.

If a line is added to your ltr about the proposal & ltr to the President, please give NASA a copy. Since NASA has been working with him on the proposal, it was considered appropriate and timely communication. Unfortunately, ~~the~~ his ltr to the President did not receive any focus.

letter to GB 8-11-91

recommended no response -
prolific writer

J. Marvin Herndon, Ph.D.
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego CA 92131
619-271-4030

B-245505-1

General Counsel
General Accounting Office
441 G Street, NW.
Washington, D. C. 20548

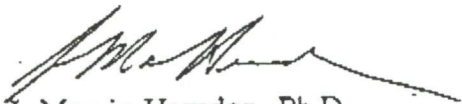
Attention: Procurement Law Control Group

Enclosed is the following:

- (1) Bid Protest
- (2) Exhibits A-D
- (3) Request for Relevant Documents
- (4) Additional Copy of Documents in (1)-(3) above
- (5) Stapled of Bid Protest to be DATE/TIME stamped

Please DATE/TIME stamp the stapled copy of the Bid Protest and return it to Herndon Science & Software, Inc. at the above address.

Respectfully Submitted,


J. Marvin Herndon, Ph.D.
Vice President

Copy to:

Contracting Officer
National Aeronautics and Space Administration
Washington, DC 20546

91 SEP - 17 10:11:50
GAB - [illegible]
[illegible]

J. Marvin Herndon, Ph.D.
Herndon Science & Software, Inc.
 11044 Red Rock Drive
 San Diego CA 92131
 619-271-4030

General Counsel
General Accounting Office
441 G Street, NW.
Washington, D. C. 20548

Attention: Procurement Law Control Group

Pursuant to Title 4 of the Code of Federal Regulations § 21.3(e), Herndon Science & Software, Inc. requests the following documents that it considers relevant to its Bid Protest (Re: Solicitation NRA 91-OSSA-1):

- (1) Copies of all documents submitted by NASA to the General Accounting Office in the matter of the present Protest;
- (2) Copies of all communications relating to the proposal submitted by Herndon Science & Software, Inc. including, but not limited to, memos, letters, notes and records of conversations and telephone calls;
- (3) Copies of all instructions provided to reviewers and evaluators of proposals submitted in response to NRA 91-OSSA-1;
- (4) Copies of all review and evaluation documents relating to the proposal submitted by Herndon Science & Software, Inc. including, for each document, the identification of the individual who made the document, his/her organizational affiliation and, a listing of all NASA support to that individual's organization (including all present, pending and proposed contracts and/or grants and including the identification of the relevant NASA programs);
- (5) Copies of all certifications and/or representations made by each individual participant, including panel members, involved in the review and evaluation of the proposal submitted by Herndon Science & Software, Inc. including, for each individual, the identification of the individual who made the certifications and/or representations, his/her organizational affiliation and, a listing of all NASA support to that individual's organization (including all present, pending and proposed contracts and/or grants and including the identification of the relevant NASA programs);

(6) Copies of all review and evaluation documents relating to each proposal submitted in response to NRA 91-OSSA-1 including, for each document, the identification of the individual who made the document, his/her organizational affiliation and, a listing of all NASA support to that individual's organization (including all present, pending and proposed contracts and/or grants and including the identification of the relevant NASA programs).

(7) Copies of all proposal reviews (past, present, and pending) made for NASA by those individuals who were engaged in the review and evaluation of Herndon Science & Software, Inc.'s proposal which was submitted in response to NRA 91-OSSA-1.

Herndon Science & Software, Inc. understands that its request for documents relevant to its Protest action may involve documents that are commercial or financial and confidential or privileged. Herndon Science & Software, Inc. hereby certifies that neither Herndon Science & Software, Inc. nor Dr. J. Marvin Herndon are involved in competitive decision making in connection with Federal procurements. It is further certified that access to documents provided in response to the present request will be limited to Dr. J. Marvin Herndon and counsel.

Respectfully Submitted,



J. Marvin Herndon, Ph.D.
Vice President

Copy to:

Contracting Officer
National Aeronautics and Space Administration
Washington, DC 20546

BID PROTEST

Filed in accordance with Part 21 of Title 4 of the Code of Federal Regulations

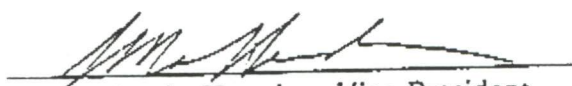
Submitted to:

General Counsel
General Accounting Office
441 G Street, NW.
Washington, DC 20548
Attention: Procurement Law Control Group

Name of Protester:

Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131
Telephone: 619-271-4030

Authorized Institution
Official:


Dr. J. Marvin Herndon, Vice President

Contracting Activity:

National Aeronautics and Space Administration

Solicitation Number:

NRA 91-OSSA-1

Copy of Protest filed with: Contracting Officer

(filed simultaneously
with Protest filing)

National Aeronautics and Space Administration
Washington, DC 20546

Attachments: Copies of Relevant Documents:

Exhibit A is a copy of the PROPOSAL.

Exhibit B is a copy of NASA's Lunar and Planetary Geosciences
Review Panel Summary Statement and NASA's cover letter.

Exhibit C is a copy of the SOLICITATION.

Exhibit D is a copy of NASA's notice of rejection of the PROPOSAL.

Proprietary Information Notice: Exhibit A contains information that constitutes a trade secret and/or information that is commercial or financial and confidential or privileged and should be withheld.



National Aeronautics and
Space Administration

Washington, D.C.
20546

Reply to Attn of:

SL

August 20, 1991

Dr. J. Marvin Herndon
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131

RE: Nuclear Fission Reactors as Energy Sources for the Giant
Planets

Dear Dr. Herndon:

Detailed technical peer review of your proposal has been completed. Unfortunately, it was not assigned sufficiently high priority to permit inclusion in our program. Support of your proposed research will therefore not be possible.

We appreciate your interest in the Planetary Geology and Geophysics program, and thank you for making this proposal available for our consideration.

Sincerely,

A handwritten signature in cursive script, reading "Joseph M. Boyce".

Joseph M. Boyce
Discipline Scientist
Planetary Geosciences
Solar System Exploration Division
Office of Space Science and Applications

REVISED 2/91

LUNAR AND PLANETARY GEOSCIENCES REVIEW PANEL SUMMARY STATEMENT

DATE: 06/02/91

PRINCIPAL INVESTIGATOR: Herndon, J. Marvin
INSTITUTION: Herndon SCI & Software Inc.

PROPOSAL NUMBER (INCLUDE CODES): GNF92-012

SHORT TITLE: Nuclear Fission in Giant Planets

(1) SUMMARY OF RESEARCH OBJECTIVES:

Herndon and co-workers propose to examine the hypothesis that ^{235}U -H breeder reactors can operate within the interiors of the major planets and produce the excess thermal emission (over that reflected from the sun) exhibited by the major planets. The OKLA locality (in Africa) where the $^{235}\text{U}/^{238}\text{U}$ ratio was, earlier in the history of earth, sufficiently high, to induce this type of reaction probably with a water neutron moderator is proffered as a natural terrestrial example of this type reactor.

(2) SUMMARY OF EVALUATIONS:

Several of the reviewers pointed out some problems with the energetics of ^{235}U breeder mechanism: (1) The natural abundance of ^{235}U , when well mixed, with cosmic elemental abundance is too low to produce the excess radiation observed. (2) If somehow the ^{235}U and H was concentrated, reaction times would be too short-lived to still provide excess giant planet heating today, some 4.6 Ga after the reactor was assembled. Others believe that Herndon's simple attempt to calculate the U- UO_2 and UH_3 phase diagram based on Thomas-Fermi theory was much too crude and did not take into account the recent experimental work on metal hydrides, U, and UO_2 phase diagrams and related thermodynamic data.

(3) OTHER COMMENTS AND SUGGESTIONS BY REVIEWERS FOR USE BY PROPOSER:
(TECHNIQUES, STYLE OF EMPHASIS, WORK BY OTHERS, OTHER SOURCES OF SUPPORT, ETC.)



National Aeronautics and
Space Administration

Washington, D.C.
20546

Exhibit B

SL

July 1, 1991

Dear Proposer:

Enclosed is the statement summarizing the reviews of your proposal by the Lunar and Planetary Geosciences Review-Panel that met last month. These summary statements are generated after consideration of external reviews as well as discussions of each proposal within the panel.

As you may realize, the Planetary Geology and Geophysics Program does not have a firm budget at this time, and if past years are any indication, the planning process may well go into the fall. Dr. Steve Baloga will be assuming the duties as Discipline Scientist of the PGG Program this month, and he and I will be reviewing all proposals and reviews over the next several weeks to make an initial evaluation of the best science that can be supported under various budget levels for the Program. He will be in touch with you around mid-August concerning your proposal.

Sincerely,

Ted A. Maxwell
Ted A. Maxwell
Discipline Scientist
Planetary Geology and Geophysics
Solar System Exploration Division

92-012

J. Marvin Herndon, Ph.D.
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego CA 92131
619-271-4030

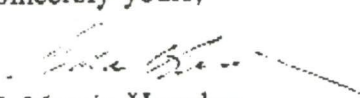
April 1, 1991

Ms. Jennifer Arbet
Lunar and Planetary Geoscience Review Panel
(NRA 91-OSSA-1)
The Lunar and Planetary Institute
3303 NASA Road 1
Houston, TX 77058

Dear Ms. Arbet:

As we discussed by telephone this morning, I am enclosing twelve copies of a page to be added to Appendix I of my proposal entitled "Nuclear Fission Reactors as Energy Sources for the Giant Planets". I regret that this page was left out and I appreciate your offer to correct the situation. Thank you.

Sincerely yours,


J. Marvin Herndon

92-012

Removal of Fission Product Poisons

Nuclear fission reactors produce a variety of fission products. Some, for example ^{149}Sm , have high neutron capture cross-sections and are referred to as reactor poisons because accumulations of these can adversely affect reactor operation. In the interiors of the giant planets such reactor poisons might be removed from the reactor zone by the same mechanism suggested for the accumulation of actinide elements, namely, gravitational layering. In the interiors of the giant planets, the pressures are sufficiently great that the density of matter becomes a function almost entirely of atomic mass and atomic number. Reactor poisons, being fission products, have atomic masses and atomic numbers that are roughly half those of their parent actinides. The poisons therefore would have considerably lower densities than the reactor fuel and would tend to layer above the more dense fuel. That upper layer may be further removed or diluted by convection. Industrial experience, for example, observations of multi-kilogram gold-plus-glass liquids, shows that, in systems where heat is introduced from below by a considerably more dense material, the convection produced will generally be constrained to the upper, less dense layer. In the interiors of the giant planets, the actinide fuels may tend to layer gravitationally whereas the less dense reactor poisons may tend to be removed by convection.

Mary Anne Herndon, Ph.D.
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego CA 92131
619-271-4030

92-012

MAR 26 1991

March 25, 1991

Lunar and Planetary Geoscience Review Panel
(NRA 91-OSSA-1)
The Lunar and Planetary Institute
3303 NASA Road 1
Houston, TX 77058

Herndon Science & Software, Inc. welcomes the opportunity to invite NASA's participation in a research program that has already yielded an entirely new concept suggesting that planetary nuclear fission reactors may account for significant internal energy production in the giant outer planets. We believe that further investigation of this concept is important because virtually all planetary physical phenomena are affected to a greater or lesser degree by such major internal energy production and because this concept may impact NASA's planning for future planetary missions.

Accordingly, we are pleased to respond to NRA 91-OSSA-1 and hereby submit twelve copies of a new proposal entitled "Nuclear Fission Reactors as Energy Sources for the Giant Planets" to the Planetary Geology and Geophysics Program.

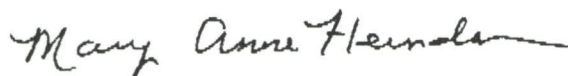
Herndon Science & Software, Inc. is a women owned and controlled, for profit, small business entity.

The Principal Investigator is Dr. J. Marvin Herndon. As a Vice President of Herndon Science & Software, Inc., Dr. J. Marvin Herndon is authorized to conduct all business relative to the proposal including contractual negotiations and commitments. He can be reached by telephone at (619)-271-4030.

There are no other organizations currently evaluating a proposal for the same efforts.

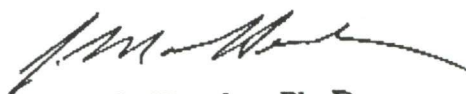
The desired starting date is October 1, 1991 and the duration of the project is three years. The dollar amount requested of NASA is \$ 299,992 for the entire project, with the first year funding of \$ 94,857.

Sincerely,
Herndon Science & Software, Inc.



Mary Anne Herndon, Ph.D., President

Signature of official authorized to
legally bind Herndon Science & Software, Inc.



J. Marvin Herndon, Ph. D.

PROPOSAL SUMMARY

PRINCIPAL INVESTIGATOR: Dr. J. Marvin Herndon
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131 (619)-271-4030

CO-INVESTIGATOR: Dr. Paul K. Kuroda

PROPOSAL TITLE: Nuclear Fission Reactors as Energy
Sources for the Giant Planets

ABSTRACT

(a) Justification: Jupiter, Saturn, and Neptune radiate into space about twice as much energy as they absorb from the Sun and, therefore, contain powerful energy sources. According to Stevenson (1978), *"The implied energy source...is apparently gravitational in origin, since all other proposed sources (e.g. radio-activity, accretion, thermonuclear fusion) fall short by at least two orders of magnitude ..."*. Herndon Science & Software, Inc. invites NASA's participation in a research program that has already yielded an entirely new concept suggesting that planetary nuclear fission reactors may account for significant internal energy production in the giant planets. Further investigation of this concept is important because virtually all planetary physical phenomena are affected to a greater or lesser degree by such major internal energy production and because this concept may impact NASA's planning for future planetary missions. Objectives: To investigate in detail: (1) The dynamics of planetary nuclear fission reactors; (2) Planetary accumulation processes relevant to actinide elements and relevant to the subject of planetary nuclear reactors; (3) The feasibility of detecting planetary nuclear reactors; and, (4) Related geophysical and astrophysical implications.

(b) New proposal.

(c) During the first year, Herndon Science & Software, Inc. (HSSI) will place major emphasis on Objectives (1) and (2) above. HSSI will gather and analyze published nuclear data, particularly, high temperature nuclear reactor generated data, to integrate with theoretical approaches to develop semi-empirical expressions for nuclear parameters at planetary interior temperatures. HSSI will develop preliminary computational nuclear reactor models and test them with some of that data. Also, HSSI will review published model development relevant or applicable to actinide element accumulation and will investigate several theoretical approaches to determine the most promising approach upon which to base an initial theoretical or model development.

(d) J. M. Herndon (1991) Planetary Nuclear Fission Reactors as Heat Sources for the Giant Gaseous Planets. In press. Preprint included as Appendix I.

CO-INVESTIGATOR:

Dr. Paul K. Kuroda
4191 Del Rosa Court
Las Vegas, NV 89121

**SCIENTIFIC
COLLABORATORS:**

None

**BUSINESS
REPRESENTATIVE:**

Dr. J. Marvin Herndon
Vice President
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131
(619)-271-4030

92-012

LOG NO.

MAR 26 1991

Date Received

Planetary Geology and Geophysics
Full Proposal
New Proposal

Title: Nuclear Fission Reactors as Energy Sources for the Giant Planets

Date Submitted: March 25, 1991

Principal Investigator:


Dr. J. Marvin Herndon
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131
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Authorizing Institutional
Official:


Dr. J. Marvin Herndon
Vice President
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The information contained on each and every page of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of Herndon Science & Software, Inc., be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract is awarded on the basis of this proposal the Government shall have the right to use and disclose this information to the extent provided in the contract. This restriction does not limit the Government's right to use or disclose this information if obtained from another source without restriction.

OMB Approval No. 2700-0042

Research in Planetary Geology, Geophysics,
Cartography, and Geologic Mapping

NASA Research Announcement
Soliciting
Proposals for Basic Research
For the Period Ending
April 1, 1991

NRA-91-OSSA-1
Issued: January 1, 1991

Office of Space Science and Applications
National Aeronautics and Space Administration
Washington, DC 20546

September 5, 1991

MEMORANDUM TO PRESIDENTIAL CORRESPONDENCE
ATTN: SHARON LEWIS

FROM LISA COLDWELL, DIRECTOR'S OFFICE

SUBJECT HERNDON LETTER

Secretary Kemp forwarded the attached letter to the President from Dr. J. Marvin Herndon. We have no record of the Herndon letter, nor does Central Files. Before Dr. Bromley responds to the Herndon letter, we would like to find out where it may have initially been forwarded. If a response has been given by another agency, I would like to let Secretary Kemp know that.

Please call me at extension 6272 when you have a chance to look into this. Thank you very much.

9-9 called NASA (453-8555) Nothing
in their files —

9-9 called Sharon Lewis^(mail Analysis) - confirmed 8/11
to NASA.

9-9

Rosemarie R. Vitagliano 453-8555

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9123587

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: KEMP, Jack: DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 08/21/91

SUBJECT: REQUEST TO ACKNOWLEDGE AND COMMENT AS APPROPRIATE TO
THE ENCLOSED MATERIAL BY DR. J. MARVIN HERNDON ON
THE ELEMENTS OF THE EARTH.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION
REQUIRED: FOR DAB'S SIGNATURE

STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/30/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
Ken Yale

WHITE H
REMARKS

EXT:
Correspondence,
(M. Suit)

OSTP RE
DEPT RE

ABINET

9/3
Shingay sounds like a fatal nut!
Should we really respond? Was his paper actually published in Proc. Roy Soc.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
THE SECRETARY
WASHINGTON, D.C. 20410-0001

RECEIVED

91 AUG 23 P 1: 52

August 21, 1991

CHIEF OF THE
DIRECTOR

D. Allan Bromley, Ph.D.
Assistant to the President
for Science and Technology
358 Old Executive Office Building
Washington, DC 20506

Dear Dr. Bromley:

I am taking the liberty of sending you a letter and manuscript by Dr. J. Marvin Herndon for acknowledgment and appropriate further comment.

Dr. Herndon sent this material to the White House by Federal Express last April but has never received a reply or acknowledgment. He has clearly put substantial effort into the research and writing of this article, and I am sure he is entitled to a proper response and recognition of his concerns.

Perhaps you could also provide me with a copy of correspondence sent to him from your office. Thank you for your attention to this matter.

Very sincerely yours,


Jack Kemp

Enclosures

J. Marvin Herndon, Ph.D.
11044 Red Rock Drive
San Diego CA 92131
619-271-4030

RECEIVED

91 AUG 23 P 1: 53

April 8, 1991
OFFICE OF THE
DIRECTOR

President George Bush
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Mr. President:

One of the brightest points of light in the night sky is the planet Jupiter. Unlike the inner planets of the Solar System that only reflect or re-radiate sunlight, Jupiter glows from within.

For twenty years scientists worldwide have sought an energy source of sufficient magnitude to power the planet Jupiter. Lacking a viable explanation, many scientists have assumed that the heat is a relic, left over from the planets formation.

Recently, I conceived of the entirely new idea that Jupiter is powered by naturally occurring nuclear fission "breeder" reactors. I am pleased to present to you a copy of my manuscript entitled "Nuclear Fission Reactors as Energy Sources for the Giant Outer Planets" in which I disclose the concept and the theoretical basis that supports it. This is my own work, undertaken at my own expense, which, I hope, will lead to new scientific and technological developments and, perhaps, to a renewed appreciation of nuclear power.

Scientific creativity is not dead in the United States of America; but it is truly being suffocated. I believe that as President you can, without cost, correct one ubiquitous and stifling problem.

Scientific proposals and papers are almost universally submitted to the "peer review process". Almost without exception, reviewers are automatically given anonymity. Under aegis of secrecy and with the understanding of no accountability or liability, a reviewer is free to make negative or pejorative assertions that may be unwarranted, without basis, or totally incorrect. Occasionally, a reviewer is both knowledgeable and honest. Usually, especially in the case of a new and creative work, reviewers will misinterpret and misrepresent the work. Why? There are probably many reasons. Reviewers are not paid and may do a superficial job. They may be weak intellectually and may not even realize the limits to their own lack of understanding. They may be jealous, or mean, or trying to protect their "turf"; they may be acting as Machiavelli teaches in The Prince.

Mediocrity and deceitfulness are stifling scientific creativity because of the almost universal application of anonymity to the peer review process. It is absurd to think that anyone, except a candidate for sainthood, would honestly, diligently, and fairly evaluate and recommend his competitor, especially given a cloak of anonymity. The idea runs counter to human nature. In the American judicial system, a person has the right to face his accuser; not so, however, in the anonymity-protected peer review system.

I am a serious and creative scientist. About twelve years ago I conceived of an entirely new idea of the chemical composition of the inner core of the Earth. Nobel Laureate Harold Urey was sufficiently impressed that he communicated my paper to the Proceedings of the Royal Society. I have enclosed a reprint of that work for your inspection. The idea has not been refuted in the literature, although it is not very popular with those whose work is based upon assumptions. Recently, I completed a manuscript entitled "The Elements of the Earth" that has no assumptions as a basis and that connects in fundamental ways the parts of the Earth and the meteorites and from which follows global ramifications related to the movement of continents and the powering of the Earth's magnetic field. I am pleased to present to you with a copy.

I hope that you appreciate my perception of one of the truly major problems of modern science; a problem that you could to a large extent obviate with a single Executive Order. The practice of anonymity-protected reviews is so widespread that I do not believe that the system will correct itself without your direct leadership. Fairness and accountability should not be too much to expect.

There are, of course, other problems with American science and there are solutions for them. There is no reason that American science should be less than the very best possible.

Thank you for considering this matter.

Sincerely yours.



J. Marvin Herndon, Ph.D.

THE ELEMENTS OF THE EARTH

by

J. Marvin Herndon, Ph.D.
Herndon Science & Software, Inc.
11044 Red Rock Drive
San Diego, CA 92131 USA

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Abstract

Fundamental quantitative relationships, based upon ratios of mass, connect the elements of the Earth and the meteorites. In a chondritic meteorite, the ensemble of elements chemically combined with oxygen is termed "slag"; the ensemble of elements not chemically combined with oxygen is termed "alloy", by analogy to steel on a steel hearth. Similarly, in the Earth the core is identified as alloy, the mantle as the slag. Fundamental ratios relating the alloy and slag components of 147 chondrites are presented for comparison with corresponding ratios relating the core and mantle of the Earth. The core and lower mantle of the Earth are shown by fundamental ratios of mass to be virtually identical to the alloy and slag of the Abee enstatite chondrite. By this identity, the core of the Earth, like the Abee alloy, is highly reduced chemically and contains a large proportion of the uranium and thorium. As much as one-half of the Earth's uranium and thorium is estimated to reside in the core. Geophysical ramifications include rendering as untenable: (1) the assumption of whole-mantle convection as a means for heat transfer and for moving the continents; (2) the assumption that the geomagnetic field is powered by gravitational and thermal energy released by the assumed freezing of an inner core assumed to consist of iron metal; and, (3) geophysical estimates of temperatures near the center of the Earth based on the assumption that the inner core consists of partially frozen iron metal.

Introduction

Advances in knowledge of the chemical elements of the Earth as a whole result from revealing logical, fundamental, quantitative relationships derived from observations of meteorites. By means of this approach, understanding is attained, causal relationships become evident, and knowledge is created that transcends models based on postulates and assumptions. The present paper emphasizes three fundamental quantitative relationships based upon ratios of mass. The first relationship connects the isotopic compositions of the elements of meteorites with corresponding isotopic compositions of the elements of the Earth. The second relationship connects the abundances of the elements in meteorites with corresponding abundances in the photosphere of the Sun. The third relationship, first derived by the author [1,2], connects the components of meteorites (determined mineralogically and chemically) with corresponding components of the Earth (determined seismologically).

Relationship Connecting Meteorite and Terrestrial Isotopes

Isotopes of a specific element differ from one another in their respective numbers of neutrons. The relative abundances of the isotopes of an element, expressed as mass ratios, are birthmarks of the element's thermonuclear origin. Prior to the discovery of isotopes, precise determinations showed the atomic weight of iron from the Earth and from an iron meteorite to be the same [3]. Subsequent measurements proved that most of the mass ratios of isotopes in meteorites are virtually identical to corresponding mass ratios of terrestrial isotopes derived from surface and near-surface rocks.

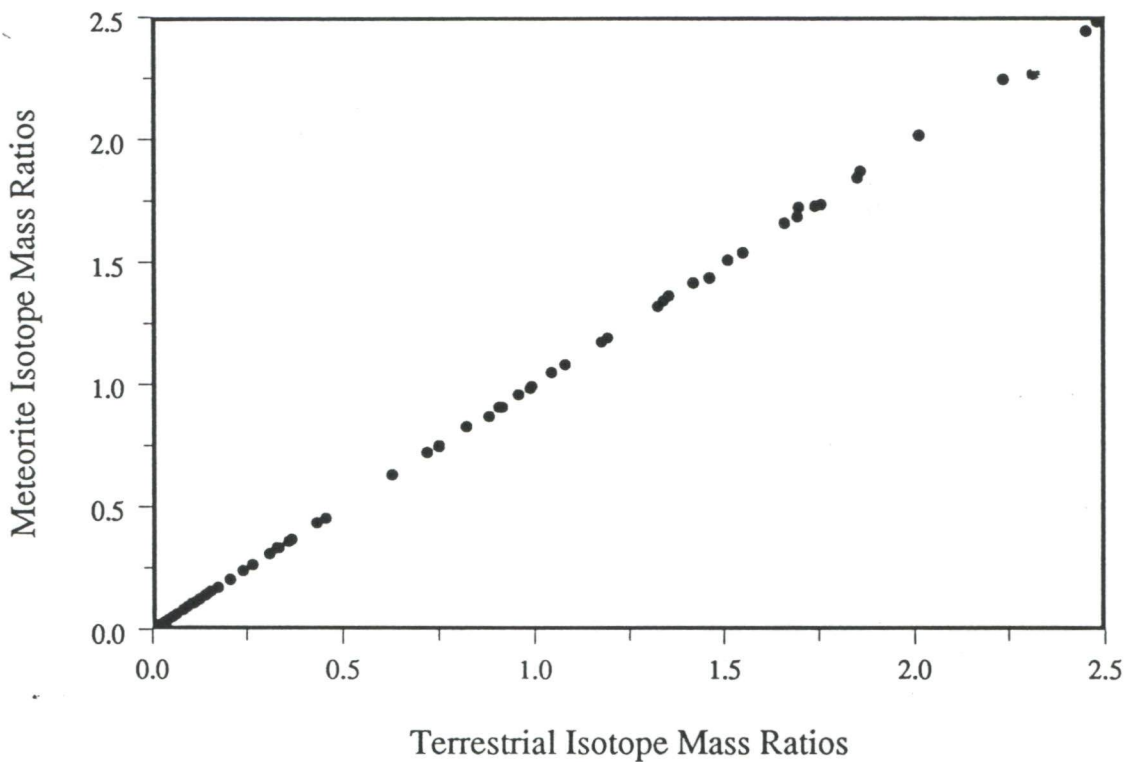


Figure 1 Comparison showing seventy-five meteorite and terrestrial near-surface isotope mass ratios [4-12] to be identical. Exceptions do occur, for example, caused by radioactive decay, cosmic ray irradiation, mass fractionation, etc. The data in this figure show that the Earth and meteorites formed from matter of common origin.

Figure 1 compares the mass ratios of seventy-five meteorite and terrestrial isotopes [4-12]. The fundamental relationship depicted in Fig. 1, based on ratios of mass, shows that both the meteorites and the Earth formed from primordial matter of common origin.

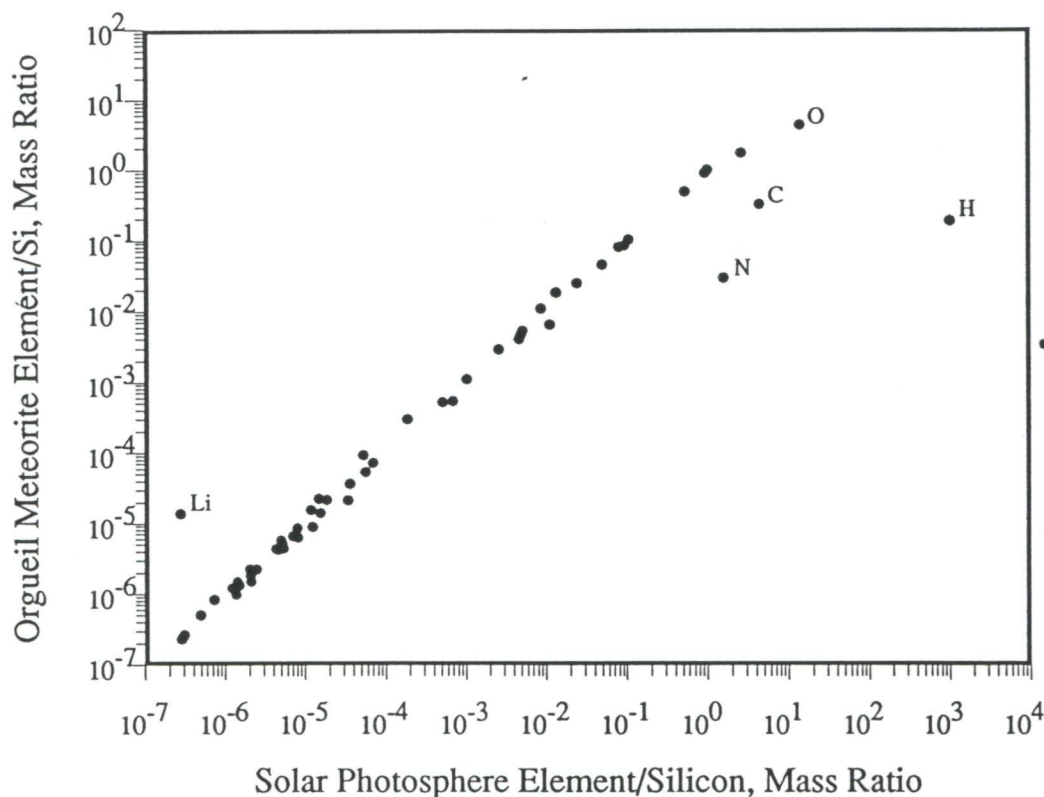


Figure 2 Comparison showing fifty-two solar photosphere and Orgueil elemental abundance mass ratios [22] to be virtually identical. The exceptions are elements which are volatile or form volatile compounds (e.g. H,C,N,O) and the element, lithium, which is thought to be depleted by nuclear reactions in the Sun.

Relationship Connecting Meteorite and Solar Elemental Abundances

The chemical composition of the primordial matter from which the Earth and the meteorites formed is manifest in certain meteorites and is presently determinable in the photosphere of the Sun. Since the initial determinations by Russell [13], considerable efforts have been expended to relate the relative abundances of the elements in the Sun (determined by spectroscopically analyzing sunlight) to corresponding relative elemental abundances in meteorites (determined by chemical analyses) [14-22]. The relative abundances of fifty-seven elements in the photosphere of the Sun [22], expressed as mass ratios, are plotted in Fig. 2 against corresponding abundances in the Orgueil meteorite, a carbonaceous (type I, C1, CI) chondrite that fell in France in 1864

[23]. Fifty-two of the elemental abundance ratios in the Orgueil meteorite, as shown in Fig. 2, are almost identical to those in the photosphere of the Sun. The exceptions are elements that are volatile or form volatile compounds (e.g. H,C,N,O) and the element, lithium, which is thought to be reduced in abundance in the Sun due to solar nuclear reactions.

Internal Structure of the Earth

More than a century ago, Meunier [24] envisioned meteorites as debris of a disrupted planet that had at its center a core of meteoritic iron surrounded by stone shells. Subsequently, in 1896, Wiechert [25] attempted to account quantitatively for the density of the Earth by assuming the presence of an iron core surrounded by a silicate shell. A decade later, Oldham [26] proved the existence of the core of the Earth from investigations of the travel times of earthquake waves. The evolution of ideas bearing on the internal composition of the Earth [1,2,26-36] is represented schematically in Fig. 3.

The principal components of the Earth exist as concentric shells surrounding a more or less spherical inner core. The physical states and densities are deduced from the travel times of earthquake waves, from the moment of inertia of the Earth, and from the fundamental periods of free oscillations of the whole Earth [37,38]. The principal divisions and physical states of the interior parts of the Earth are indicated in Fig. 4 by the velocities of compressional and transverse earthquake waves. The physical divisions and densities of the deep interior parts of the Earth are better known than their chemical compositions. Chemical models of the

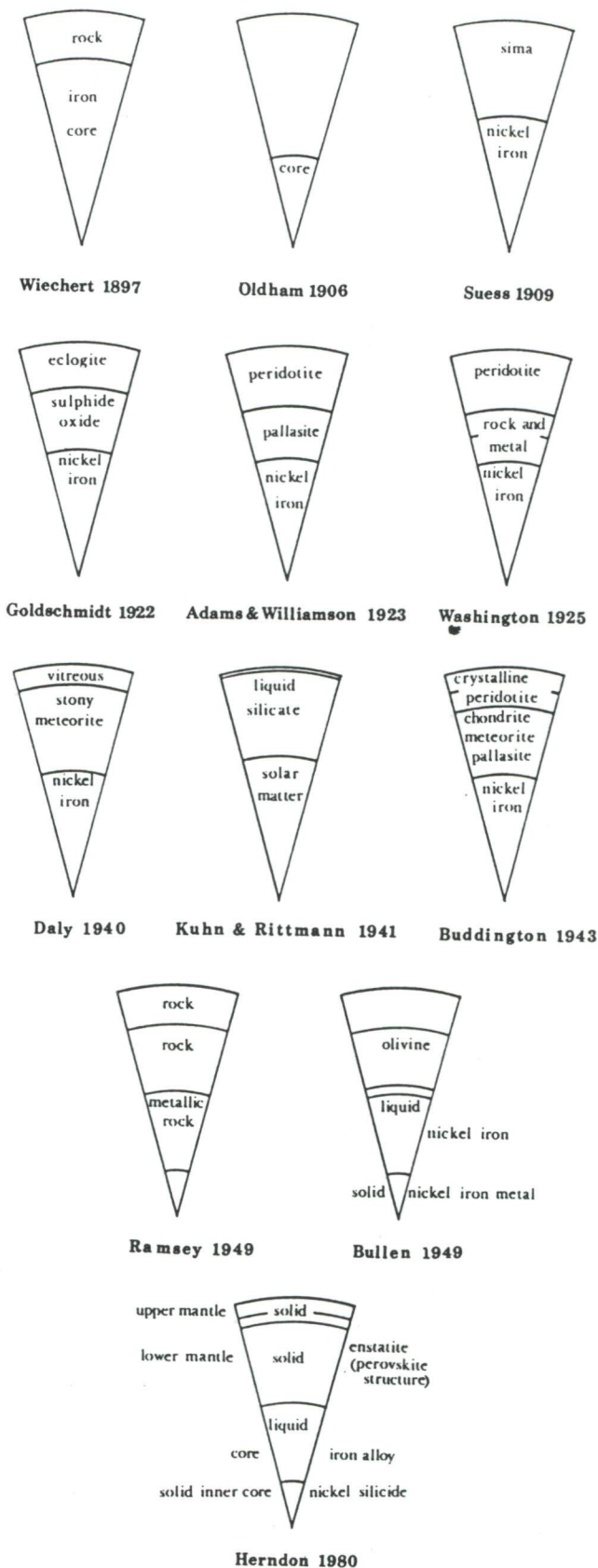


Figure 3 Schematic representation of the evolution of ideas bearing on the composition of the interior of the Earth [1,2,26-36].

Earth, as discussed by Palme [39], are disparate, generally being based upon assumptions, relying upon arguments, and impeded by limited knowledge. The abundances of the elements in chondritic meteorites are remarkably similar to the abundances of corresponding elements in the photosphere of the Sun. Major element abundances, however, vary among chondritic meteorites by as much as a factor of two. Moreover, chondritic meteorites differ mineralogically. For example, carbonaceous chondrites possess relatively oxidized mineral assemblages; whereas, enstatite chondrites possess the most highly reduced naturally occurring mineral assemblages known [40].

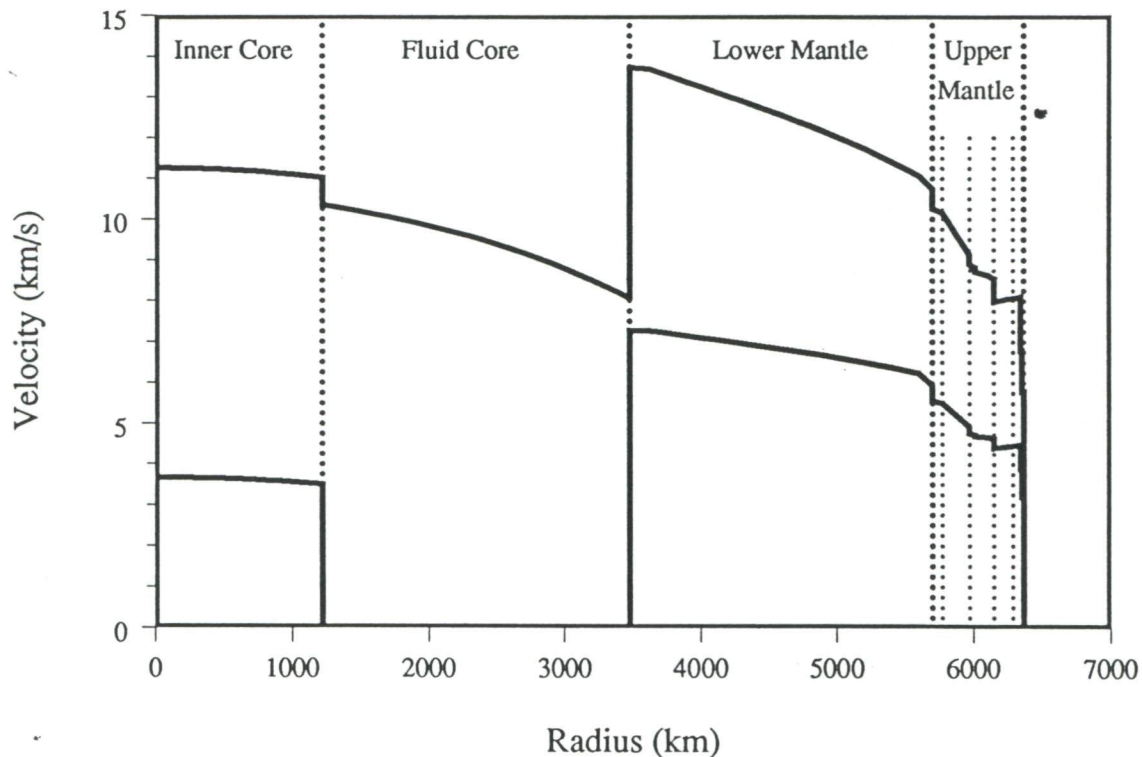


Figure 4 The principal divisions and physical states of the interior parts of the Earth as indicated by the velocities of earthquake waves [38]. The dotted vertical lines indicate seismic discontinuities, regions in which velocities abruptly change. The dashed curve represents compressional wave velocity, and the solid curve represents transverse (shear) wave velocity.

Most chondritic meteorites, with the exception of some of the more oxidized carbonaceous chondrites, contain iron metal and iron sulfide as well as silicate minerals and oxides. If melted in a gravitational field, the iron metal and iron sulfide components of chondrites will form a dense, immiscible, liquid alloy that settles beneath the silicate-oxide slag in a manner analogous

to steel on a steel hearth. Subsequently, the alloy and slag components may further differentiate. The Earth is likewise analogous to a spherical steel hearth, the core being the alloy and the mantle being the slag.

Relationship Connecting the Components of Meteorites and the Components of the Earth

The present paper presents fundamental quantitative relationships based on ratios of mass between the alloy and slag components of the Earth (from seismological investigations) and the alloy and slag components of 147 chondritic meteorites (from chemical and mineralogical data). The results have profound implications on the chemical compositions of the internal regions of the Earth, on the locations of radioactive heat sources, and, consequently, on current ideas relating to certain global phenomena, such as separation of the continents and production of the geomagnetic field.

Using published mineralogical and chemical data [40-46], I calculated the mean atomic mass and mean atomic number of the alloy portion of 147 chondrites. I also calculated the mass ratio of the alloy to the silicate-oxide slag. These data are shown plotted in Figs. 5 and 6 together with corresponding data for the Earth, deduced from seismological investigations [38,47]. The Earth core to lower mantle mass ratio is shown in Fig. 5 and 6 as well as the mass ratio of the core to total (upper plus lower) mantle. Many of the data points of the 131 ordinary chondrites and the 6 metal-bearing carbonaceous chondrites overlap. The data points of the 10 highly reduced enstatite chondrites are quite distinct from the other chondrites and are strikingly similar to the Earth core to mantle ratios shown in Figs. 5 and 6.

The Abee meteorite [48], as it is known from metallurgical investigations [49,50], cooled quickly from an elevated temperature; therefore, limited subsequent differentiation of the alloy and slag components occurred. Observations of mineral occurrences in other enstatite chondrites and in enstatite achondrites provide additional information as to the minerals that may form during subsequent differentiation of highly reduced chondritic matter.

Nickel silicide is an important precipitate from a molten enstatite chondrite alloy. Meteoritic nickel silicide, Ni_2Si , occurs as a lamellar exsolution from silicon-bearing iron metal [51-55] and as a more massive form intimately associated with iron metal and iron sulfide in some enstatite chondrites [56,57]. Using published data for the same 147 chondrites shown in Figs. 5 and 6, I calculated their theoretical maximum nickel silicide content, based on the limitations imposed by the respective amounts of silicon and nickel present in their alloy components. These results are plotted as theoretical nickel silicide to alloy mass ratios in Figs. 7 and 8 together with the Earth's inner core to core mass ratio. Of the various chondrites, only the silicon-bearing alloys of enstatite chondrites are capable of precipitating nickel silicide. The 137 data points representing the more oxidized ordinary chondrites and carbonaceous chondrites are all coincident with the abscissas of Figs. 7 and 8.

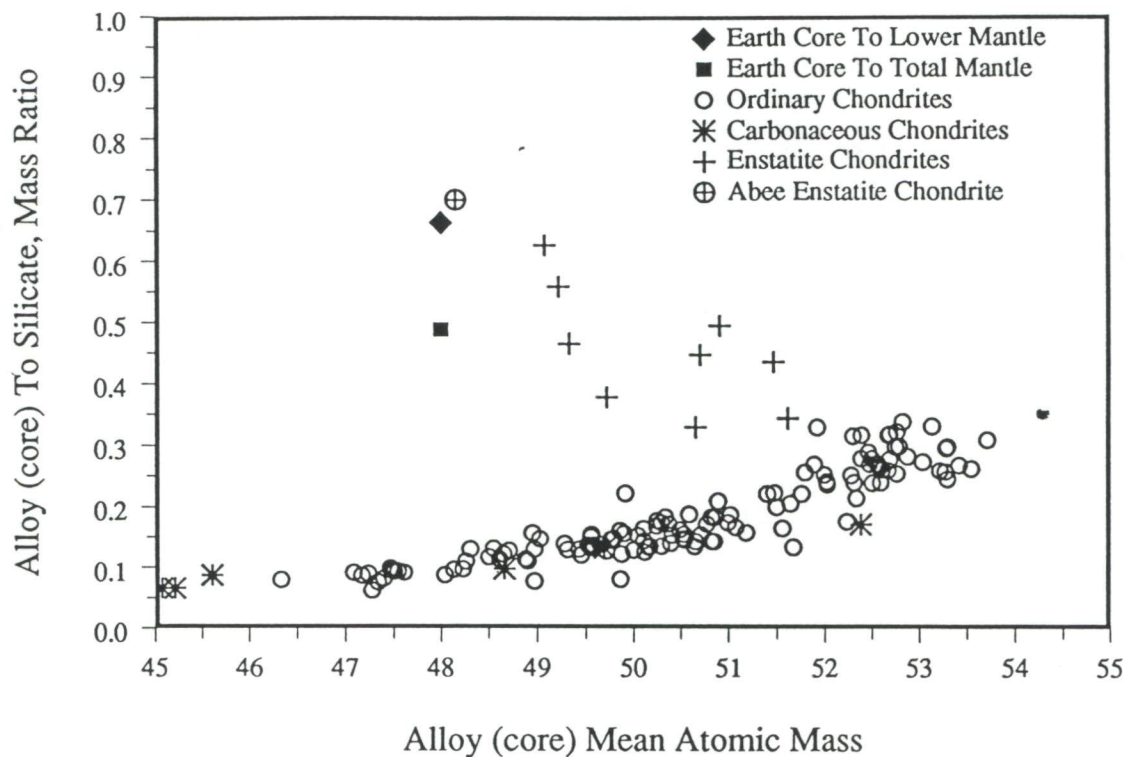


Figure 5 The alloy to slag mass ratio of 147 meteorites as a function of their alloy mean atomic mass. The Earth's core to lower mantle mass ratio, plotted against the mean atomic mass of the core, is almost identical to the Abee enstatite chondrite in this figure. Even the whole-Earth alloy to slag mass ratio is similar to ten enstatite chondrites and is unlike the 137 other chondrites shown.

I was first to suggest that the inner core of the Earth is composed of nickel silicide [58], rather than partially crystallized nickel-iron metal, as previously assumed. The data shown in Figs. 7 and 8 support that suggestion and the above described identification of the lower mantle and core of the Earth with the slag and alloy components of the Abee enstatite chondrite.

Figures 5-8 present fundamental quantitative relationships between the components of the interior of the Earth and corresponding components of 147 chondrites. In each figure, the components of the Abee enstatite chondrite appear virtually identical to corresponding components of the Earth. Figure 9 compares fundamental ratios of the Earth, abstracted from Figs. 5-8, with corresponding ratios of the Abee meteorite. To facilitate comparison, a line of perfect correlation is also shown. The data presented in Fig. 9 show, by fundamental ratio relationships, that the

components of the lower mantle and core of the Earth are virtually identical to the slag and alloy of the Abee enstatite chondrite.

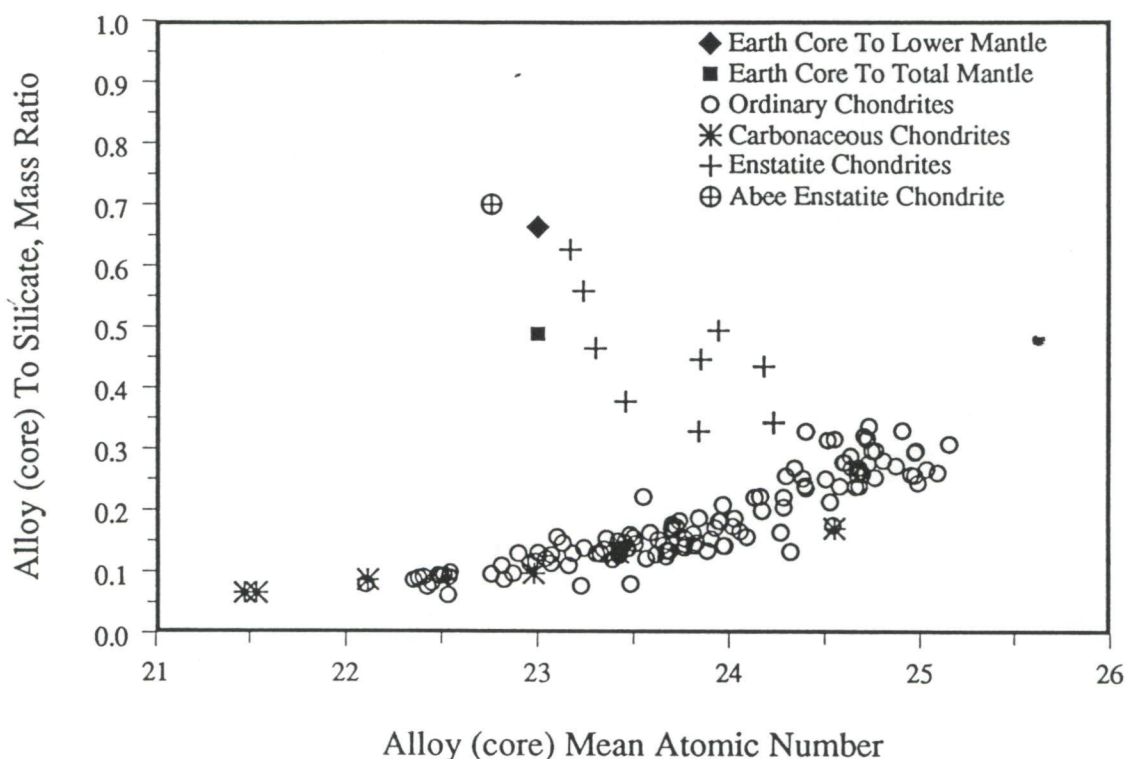


Figure 6 The alloy to slag mass ratio of 147 meteorites as a function of their alloy mean atomic number. The Earth's core to lower mantle mass ratio, plotted against the mean atomic number of the core, is almost identical to the Abee enstatite chondrite in this figure and is unlike ordinary chondrites and carbonaceous chondrites. Even the whole-Earth alloy to slag mass ratio is similar to ten enstatite chondrites and is unlike the 137 other chondrites shown.

Chemical Compositions of the Major Components of the Earth

The Earth formed from the same primordial parent matter as the meteorites (Fig. 1). The similarity in elemental composition of the chondritic meteorites and the photosphere of the Sun (Fig. 2) shows that many elements are present in chondrites in nearly primordial proportions. In fact, the Orgueil carbonaceous chondrite is used as a standard for the bulk elemental composition of the Earth [39]. The identification of the interior portions of the Earth, the lower mantle and core, with the slag and alloy components of the Abee enstatite chondrite (Fig. 9) is important.

This identification allows the compositions of the lower mantle and core of the Earth to be determined by analyzing the slag and alloy of the Abee meteorite.

The slag component accounts for about 59 percent of the mass of the Abee meteorite and consists almost entirely of enstatite, MgSiO_3 [41]. That MgSiO_3 component, by the mass ratio relationships shown in Fig. 9, corresponds to the lower mantle of the Earth. Notably, MgSiO_3 , with a perovskite crystal structure, is known from experiment [59,60] to be stable in the pressures ranges that exist in the lower mantle of the Earth. Furthermore, the regolith of the planet Mercury, from reflectance spectrophotometric investigations [61], like the slag of the Abee meteorite, appears to be highly reduced, being virtually devoid of FeO . Mercury's high density indicates that much of the silicate matter for the upper portion of Mercury's mantle was lost at some previous time. The present regolith, therefore, corresponds to Mercury's lower mantle regions and is highly reduced like the lower mantle of the Earth.

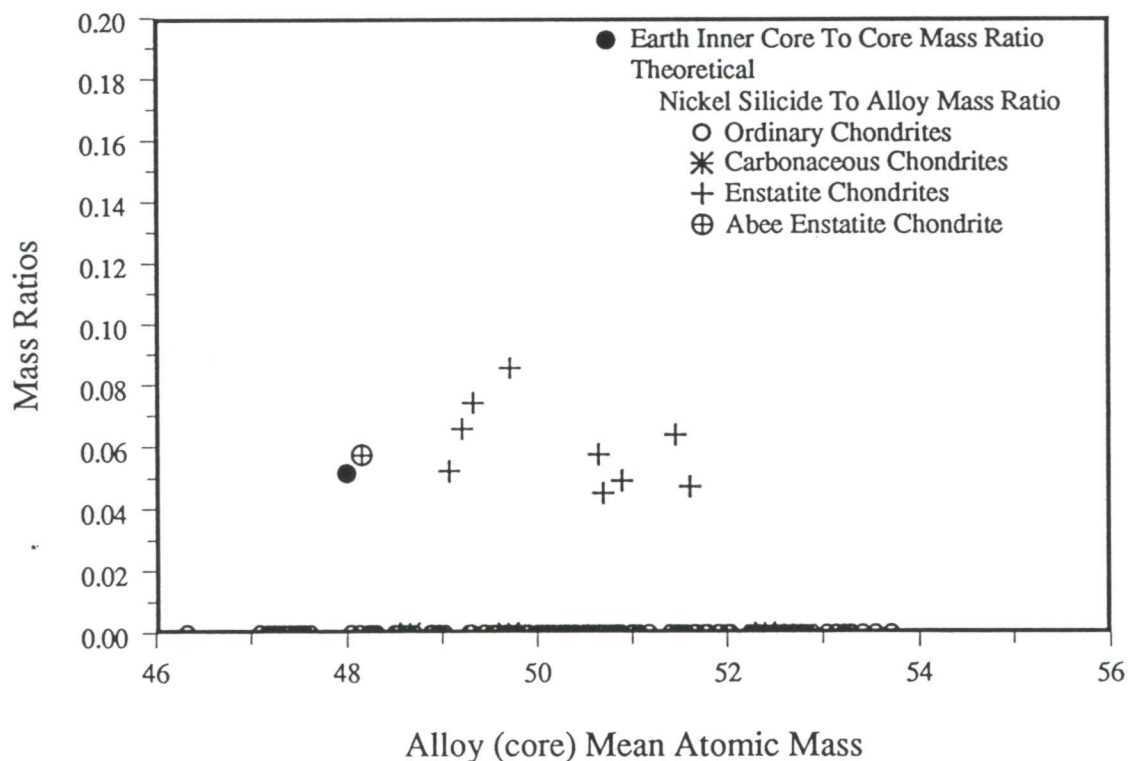


Figure 7 The theoretical nickel silicide to alloy mass ratio of 147 meteorites as a function of their alloy mean atomic mass. The Earth's inner core to core mass ratio, plotted against the mean atomic mass of the core, is almost identical to the Abee enstatite chondrite in this figure, is similar to other enstatite chondrites, and is unlike other chondrites, which plot along the abscissa.

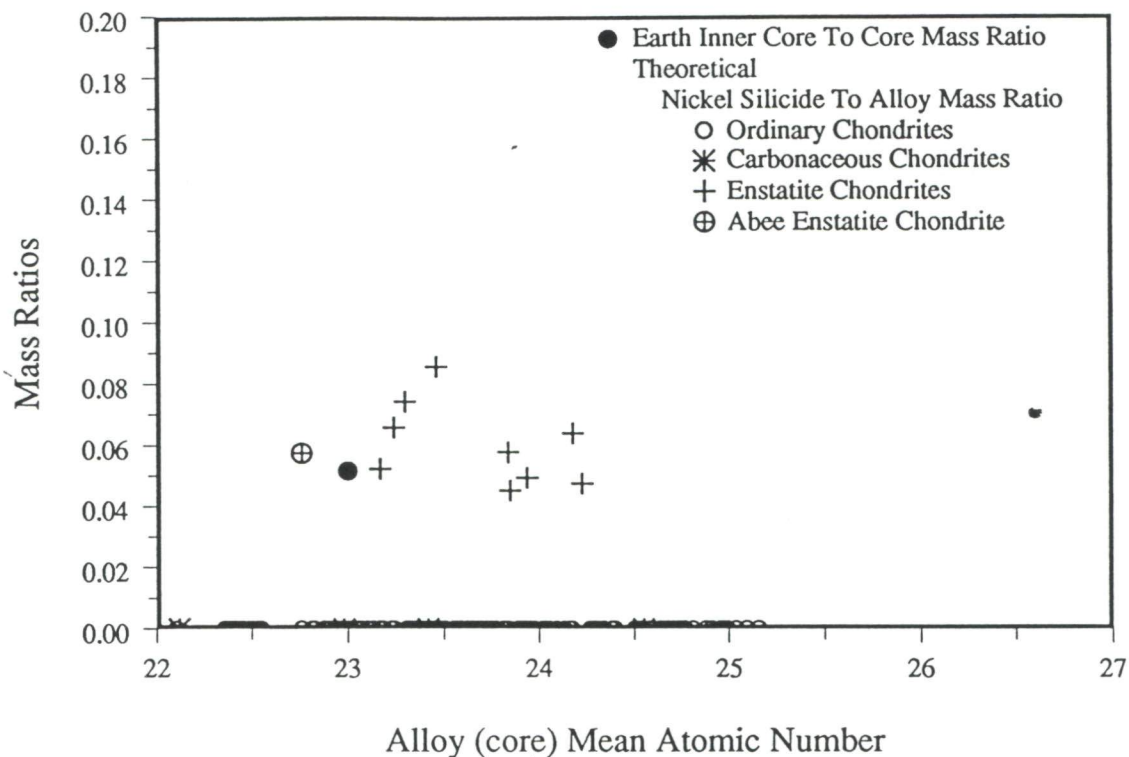


Figure 8 The theoretical nickel silicide to alloy mass ratio of 147 meteorites as a function of their alloy mean atomic number. The Earth's inner core to core mass ratio, plotted against the mean atomic number of the core, is almost identical to the Abec enstatite chondrite in this figure, is similar other enstatite chondrites, and is unlike other chondrites, which plot along the abscissa.

Only nine chemical elements account for approximately ninety eight percent of the mass of the Abec meteorite. The manner in which these nine elements are partitioned between the alloy and slag components of the Abec meteorite is shown in Fig. 10, a plot of elemental mass ratios, E_i/Fe . For comparison, elemental mass ratios of the Orgueil carbonaceous chondrite are also plotted so as to show the corresponding differences. As shown in Fig. 10, essentially all of the iron, nickel and sulfur in the Abec meteorite occur in the alloy. In ordinary chondrites and in carbonaceous chondrites, magnesium, calcium, and silicon are lithophile elements that occur entirely in the slag. By contrast, the alloy of the Abec enstatite chondrite and the alloy that is the Earth's core contain some magnesium, calcium, and silicon, in addition to iron, nickel and, sulfur.

The elemental mass ratio differences between the Abec enstatite chondrite and the Orgueil carbonaceous chondrite, shown in Fig. 10, are particularly revealing. The three rock-forming

elements (Mg,Al,Ca) that are deficient in the Abee meteorite, relative to the Orgueil meteorite, occur in excess in rocks thought to have formed within the Earth's upper mantle [62]. I suggest that in the Earth these three Abee-deficient elements (Mg,Al,Ca), that are likewise deficient in the core and lower mantle, became incorporated as oxides in the upper mantle. I calculate that, as oxides, the Abee-deficient component of magnesium, calcium, and aluminum would comprise, based on present data [41,44], a mass equal to 53 percent of the mass of the upper mantle plus crust.

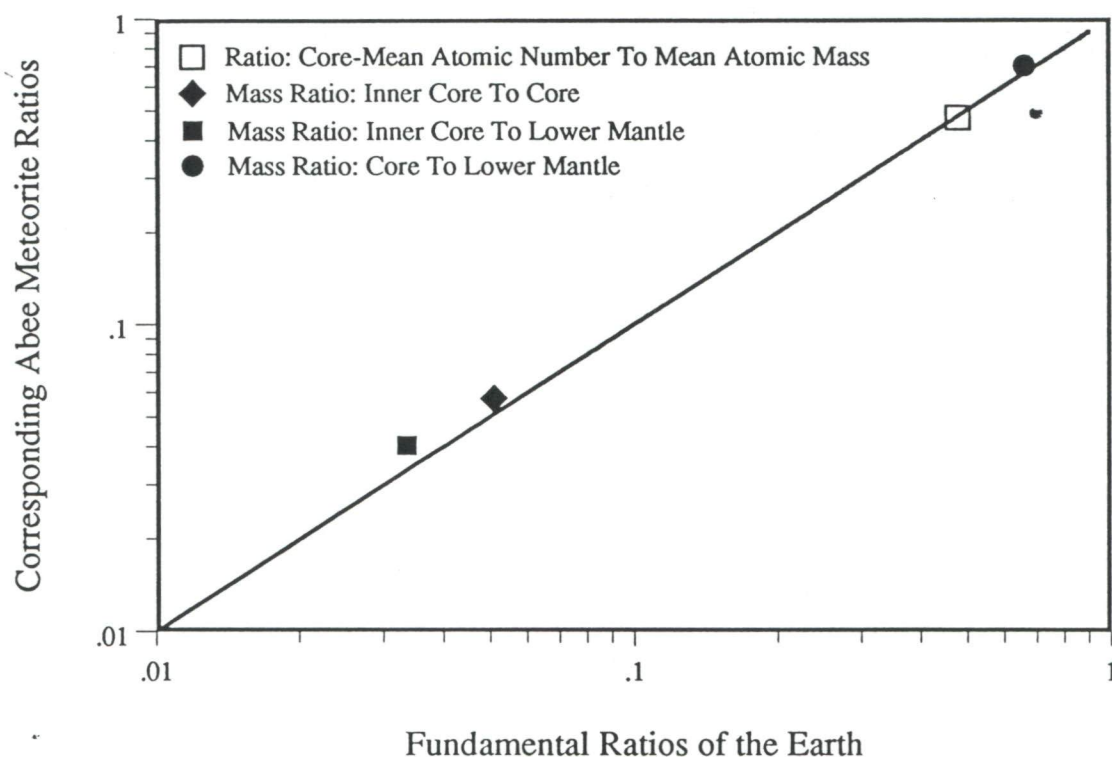


Figure 9 Comparison of fundamental mass ratios of the Earth with corresponding mass ratios of the alloy and slag components of the Abee enstatite chondrite. To facilitate comparison, a line of perfect correlation is shown. The core and lower mantle of the Earth, by these fundamental quantitative relationships, are virtually identical to the alloy and slag of the Abee meteorite.

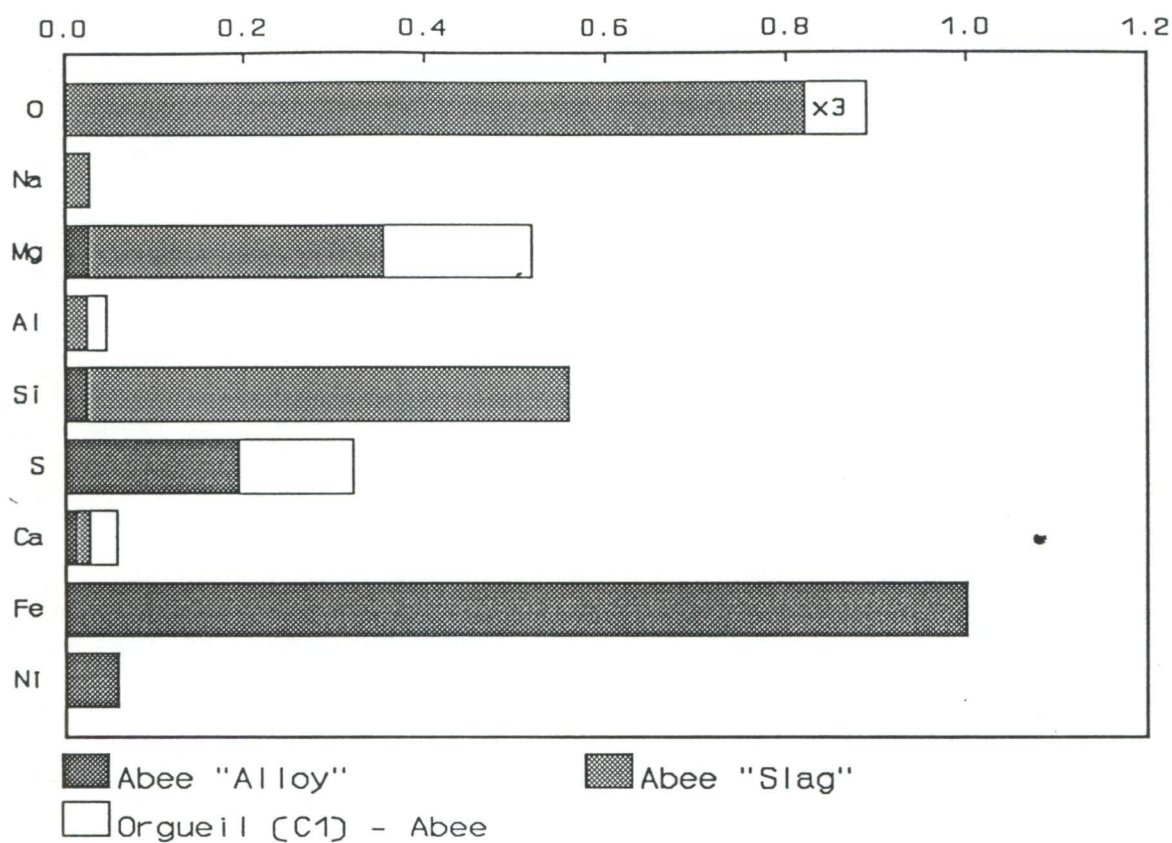


Figure 10 Mass ratios of elements, E/Fe , as partitioned between the alloy and slag, comprising ninety-eight percent of the mass of the Abee enstatite chondrite. For comparison, elemental mass ratio differences are shown for corresponding elements of the Orgueil carbonaceous chondrite. (The oxygen abundance ratio of the Orgueil meteorite is reduced in this figure by one-third so as to preserve the resolution of the other less abundant ratios.)

Seismic Correlations

Earthquake wave velocities undergo changes when passing into matter having a different chemical composition or a different crystalline structure. Figure 4 shows seismologically deduced boundaries between the major components of the interior of the Earth (indicated by abrupt changes in compressional and transverse earthquake wave velocities). Figure 4 also shows the seismic discontinuities that have been identified in the upper mantle. These seismic discontinuities suggest a complex structure within the upper mantle.

Geochemical and geophysical models are often based on the assumption of a chemically homogeneous mantle produced by convection; the seismic discontinuities observed in the mantle are assumed to result from pressure induced crystal structure changes. In light of the knowledge set forth in the present paper, those assumptions are no longer tenable. For example, geophysical models that assume total mantle convection as a mechanism for continental drift are inconsistent with a mantle segregated into layers having different and distinct chemical compositions. Clearly, the MgSiO_3 composition of the lower mantle is quite different and distinct from and out of chemical equilibrium with the FeO-bearing rocks that are thought to be derived from the upper mantle [62].

The chemical compositions of the shells of the upper mantle can not be set forth with certainty at the present time. One might, however, expect those shells to incorporate the above referred to Abee-deficient elements (Mg, Al, Ca) and an undifferentiated chondritic component. An initially undifferentiated chondritic component is the source for the FeO and siderophile element content of upper mantle rocks [62] as well as being the progenitor of the ferrous, noble, and base metals that are mined at the Earth's surface.

Location of Heat Sources Within the Earth

The above discussion of element partitioning between alloy and slag focuses only on the nine elements shown in Fig. 10, which comprise most of the mass of the Earth and ninety-eight percent of the mass of the Abee meteorite. Except for hydrogen and oxygen, elemental abundances in the Abee enstatite chondrite are within a factor of two of those in the Orgueil carbonaceous chondrite for most major, minor, and trace elements, including uranium and thorium.

Uranium and thorium, radioactive elements, are at the present time the main sources of heat within the Earth. Their abundances and distributions within the Earth profoundly affect major global phenomena, such as the separation of the continents and generation of the geomagnetic field. In ordinary chondrites and in carbonaceous chondrites, uranium and thorium occur exclusively in the slag component. In the enstatite chondrites, on the other hand, uranium and thorium occur to a large extent in the alloy portion [63]. Uranium and thorium, in the Abee enstatite chondrite, are about sixty-five percent as abundant, relative to iron, as in the Orgueil carbonaceous chondrite [64]. Moreover, much, if not all, of the uranium and thorium of the Abee enstatite chondrite is present in the alloy [63]. Because of the nearly identical compositions of the core of the Earth and the Abee alloy, which follows from the fundamental ratio relationships shown in Fig. 9, one may conclude that a major portion of the Earth's uranium and thorium, estimated to be as much as one-half, occurs in the core.

The elements of the Abee enstatite chondrite constitute a mineral assemblage that is essentially in equilibrium with itself; the alloy and slag components are generally unreactive with one another. Therefore, one should likewise expect a lack of chemical reactivity at the boundary of the Earth's core and lower mantle.

The chemical behaviors of the elements within the Earth are dominated by the relative amount of a single element, oxygen. The chemical compositions of the alloy of enstatite chondrites and the alloy that is the core of the Earth are a consequence of limited available oxygen during formation. Elements, such as silicon, magnesium, and calcium, would, were sufficient oxygen available, exist entirely as silicate-oxides in the slag.

The chemistry that is manifest in the alloy of the Earth and of the Abee meteorite may be more familiar to the steelmaker than to the geologist or geochemist. For example, in steelmaking calcium is intentionally introduced into the alloy for the purpose of precipitating calcium sulfide (CaS) at a high temperature to desulfurate steel [65]. Calcium sulfide is a constituent of the alloy of enstatite meteorites. In one instance, meteoritic calcium sulfide was observed to contain occluded grains of titanium nitride (TiN), another high-temperature compound [66]. Within the Earth's core, one might expect calcium sulfide to be a high-temperature precipitate, possibly collecting at the core-lower mantle boundary. Notably, in enstatite chondrites some uranium and thorium occur within calcium sulfide [63]. At the present time, the precise chemical behaviors of uranium and thorium within the Earth's core can not be set forth with certainty. A fundamental question arises as to whether they would be more stable as sulfides, as silicides, or as some other compounds. That question must be answered to understand the location of these important heat sources within the core. For efficient convection within the fluid core, one might anticipate their occurrence within the nickel silicide inner core. Ultimately, experiments may provide that information.

Conclusions

Several profound geophysical ramifications follow as a consequence of my relating by fundamental ratios the components of the Earth with corresponding components of the Abee meteorite, as shown in Fig. 9.

As much as one-half of the Earth's complement of uranium and thorium resides in the core, as opposed to being confined to the mantle and crust, as previously assumed. Heat from radioactive decay within the core is more than sufficient to power the geomagnetic field. The presence of uranium and thorium in the core of the Earth obviates *ad hoc* assumptions and postulates, such as the *assumption* that the geomagnetic field is presently powered primarily by gravitational and thermal energy released by the *assumed* freezing of the inner core.

Heat production, from the radioactive decay of uranium and thorium in the core, clearly makes it necessary to re-think the problem of heat transport within the Earth. Because the chemical composition of the lower mantle is quite different and distinct from and out of equilibrium with rocks from the upper mantle [62], as discussed above, the idea of whole-mantle convection as a means for transferring heat to the surface and for moving the continents is untenable.

All geophysical estimates of the temperature near the center of the Earth are likewise untenable as they are predicated on the *ad hoc* assumption that the inner core consists of partially frozen iron metal and that the temperature lies on the melting point curve of iron, extrapolated to the

relevant pressure [67]. Until such a time that melting point measurements as a function of pressure have been made for nickel silicide and until phase relations at the relevant pressures have been determined for matter of the composition of the Abee alloy, the temperature at the center of the Earth must be considered unknown.

Advances in knowledge result from elucidating fundamental quantitative relationships. That approach is adopted in the present paper. Fundamental relationships, based upon mass ratios, connect in a logical manner the components of the interior of the Earth with corresponding components of the Abee meteorite, as summarized in Fig. 9. By means of this approach, an understanding of the chemical elements of the Earth is attained, causal relationships become evident, and knowledge is created that is fundamental and not based upon theory, postulate, model, or assumption.

Acknowledgements

I thank my son, Oliver W. Herndon, and Dr. Hatten S. Yoder, Jr. for their comments upon reading the manuscript.

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"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9023658

FROM: FYFE, W.S.: UNIVERSITY OF WESTERN ONTARIO

TO: BROMLEY

DATE OF
CORRESPONDENCE: 09/25/90

SUBJECT: THANK YOU LETTER

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE: OSTP DUE DATE:

DATE COMPLETED: -----

COPIES TO: D. ALLAN BROMLEY

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 10/04/90

FILE: NEOB



The UNIVERSITY of WESTERN ONTARIO

Faculty of Science • Office of the Dean

September 25, 1990.

Mr. D. Allan Bromley,
Assistant to the President for
Science and Technology,
The White House,
Washington, D. C.

Dear Allan:

Let me be honest. I was thrilled to get your letter of September 11!

Energy security - energy for 2000-3000 → is at the core of future world development and world security.

For me, this is a priority and it can be done. I could come to Washington for a day or so: October 24, November 5, 6, or 7.

Let me know if any are possible! If not, please suggest some.

It would be a very great pleasure to work with you again.

Sincerely,

W. S. Fyfe,
Dean,
Faculty of Science.

WSF:bjc

THE WHITE HOUSE

WASHINGTON

January 2, 1991

Dear Bill:

Profound apologies for the long delay in responding to your letter of September 25. You will perhaps understand when I tell you that after an extended illness my wife of 44 years died on October 2. It has been a tough autumn and a bleak Christmas.

Let me now come back to our earlier discussion. We would be delighted to meet and talk with you here in Washington and I would ask you to call Ms. Marian Nida at 202/456-7116 so that we can arrange a mutually convenient time. It would be a pleasure to work with you again and I look forward to seeing you.

In the meantime, let me take this opportunity to wish you a happy, healthy, and rewarding New Year.

With all best wishes,

Sincerely yours,



D. Allan Bromley
Assistant to the President
for
Science and Technology
and
Director

Office of Science and Technology Policy
Executive Office of the President

Dr. William S. Fyfe
Dean, Faculty of Science
The University of Western Ontario
London, Ontario
Canada N6A 5B7

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01. Letter	To: Nikolai Dobretsov From: Allan Bromley Re: Visit to Siberia (2 pp.)	6/13/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

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(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

Withdrawal/Redaction Sheet

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Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02. Letter	To: Nikolay Laverov From: Allan Bromley Re: Joint Commission on Basic Scientific Research (2 pp.)	6/13/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

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PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

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(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE

WASHINGTON

April 4, 1991

Dear President Laustriat:

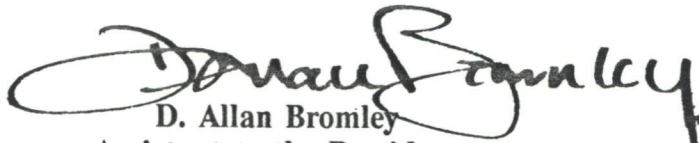
I was delighted to hear from our mutual friend, Professor Andre Gallmann, that our university has decided to grant the doctorate honoris causa to Professor Walter Greiner. I am sure that you played a very important role in this decision and I would simply like both to thank you for that role and again, assure you that Professor Greiner will add distinction to an already great university.

I much appreciate your thoughtful comments on the Human Frontier Science Program in your letter of February 14 and I can tell you that we are currently looking into this question of further support for the program, although as yet have reached no firm conclusions on it. Your input will be extremely helpful and I thank you for it.

May I take this opportunity to wish you continuing success in the demanding position you occupy as the leader of one of the world's great universities.

With warmest best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
Assistant to the President
for
Science and Technology

cc: Prof. Gallmann

Professor G. Laustriat
President
Universite Louis Pasteur
4, rue Blaise Pascal
B. P. 1032 F
67070 Strasbourg Cedex
France

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120442

FROM: LAUSTRIAT, G. (UNIVERSITE LOUIS PASTEUR, STRASBOURG)

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 02/14/91

SUBJECT: ANSWERS REGARDING THE QUESTIONS RAISED IN YOUR
LETTER: THE HUMAN FRONTIER SCIENCE PROGRAM AND THE
HONORIS CAUSA DOCTORATE IN PHYSICS AT ULP.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED: -----

COPIES TO: D. Allan Bromley
Thomas Ratchford

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 02/19/91

FILE: INTERNATIONAL

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
03. Letter	To: Allan Bromley From: G. Laustriat Re: Human Frontier Science Program (3 pp.)	2/14/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

Freedom of Information Act - [5 U.S.C. 552(b)]

P-1 National Security Classified Information [(a)(1) of the PRA]
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PRM. Removed as a personal record misfile.

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 (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
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THE WHITE HOUSE

WASHINGTON

March 29, 1991


Dear Dr. Langenberg:

Thank you for your letter of March 22, 1991, inviting me to present a keynote address at the **Bilateral Cooperation in Science and Technology** seminar in Germany, scheduled for September 9-11, 1991.

I would very much like to join you and your colleagues for this occasion, but unfortunately I have a previous commitment scheduled at that time. I am sorry that I have to pass up this opportunity at such a crucial time of change in Europe.

I wish you much success with the seminar and my warmest best wishes,

Sincerely yours,



D. Allan Bromley
Assistant to the President
for
Science and Technology

Dr. Donald N. Langenberg
Chairman of the Board
American Association for the
Advancement of Science
1333 H Street, Northwest
Washington, D.C. 20005

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9120864

SPEECH: YES NO

FROM: LANGENBERG, Donald N.: AAAS

DATE OF EVENT: 09/09/91

LOCATION OF EVENT: EASTERN GERMANY

TIME OF EVENT:

SUBJECT: INVITATION TO GIVE THE KEY NOTE ADDRESS AT THE
US-GERMAN SEMINAR ON BILATERAL COOPERATION IN
SCIENCE AND TECHNOLOGY.

RSVP: 04/09/91

CONTACT PERSON:

CONTACT NUMBER: 301/853-3601

INVITATION ACCEPTED?

YES

NO

COPIES TO: Thomas Ratchford

REMARKS:

DATE OF LETTER: 03/22/91

DATE RECEIVED: 03/25/91

FILE: INVITATION-SPEECH

7120824

American
Association
for the Advancement of
Science

1333 H STREET, NW., WASHINGTON, D.C., 20005 (202)326-6400
CABLE ADDRESS: ADVANCESCI

RECEIVED

01 MAR 25 AM 11:32

March 22, 1991

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Executive Office of the President
Rm 360, Old Executive Office Building
Washington, DC 20506

Dear Allan:

On behalf of the American Association for the Advancement of Science (AAAS), I am pleased to extend a cordial invitation to give a keynote address at the US-German seminar on *Bilateral Cooperation in Science and Technology*. The seminar will take place in eastern Germany, September 9-11, 1991. German organizers are currently in the process of identifying the exact venue. As you know, plans for this seminar grew out of the very successful 1987 seminar on *Mobility of Scientists and Engineers Between the Federal Republic of Germany and the United States*, for which you and Hans-Joachim Queisser served as co-chairs. In fact, before your appointment as Presidential Science Adviser, you played an important role during the initial stages of planning for the 1991 seminar. Allow me to review briefly the current status of seminar plans.

As you well know, US-German S&T cooperation has been of great benefit to both countries and to the scientific community. The goal of the September seminar is to examine this important bilateral relationship, in the context of the changing world order, in order to make policy recommendations for strengthening the tie in the coming years. The seminar will last three days. Deliberations on the first day will examine select areas in which either the US or Germany has met with particular success on a national level, and from which lessons might be learned by the other side through international cooperation. The second day will examine case studies of cooperation already underway to determine where the strengths and weaknesses have been, and to discuss any stresses within the current infrastructure. The third day will be devoted to formulating practical recommendations of future policy options to strengthen US-German S&T cooperation in specific areas.

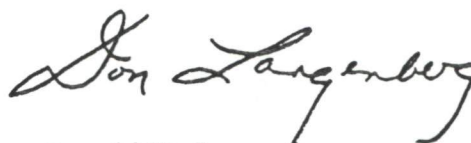
One important underlying factor in the seminar's agenda will be the current merging of the science and technology base of the former German Democratic Republic with that of the Federal Republic, a process that appears to have relevance to other parts of central Europe as well. Deliberations will also take place in the context of the coming integration of Europe in 1992, as well as the role of S&T cooperation with industrialized nations outside of Europe, such as Japan. The enclosed background material will give you a better idea of the seminar's scope, agenda, and participants.

Dr. D.Allan Bromley
March 22, 1991
Page 2

Participants in the seminar will be distinguished members of the scientific, technical, and policy communities of each country, representing industrial, academic, and governmental organizations. Your participation, as Science Adviser to President Bush, as a distinguished scientist, and as an expert in US-German S&T relations, would greatly enhance the seminar's success. We would hope you could give a keynote address at the beginning of the seminar from the US perspective, to complement a similar presentation by your German colleague, Dr. Heinz Riesenhuber, German Federal Minister for Research and Technology.

I sincerely hope that you will be able to accept our invitation to speak at the September seminar. The event takes place at a time of unprecedented change in the political landscape of the world, particularly within Europe, and of increasing importance of international scientific collaboration on global problems. Your involvement in the seminar would certainly add a great deal to deliberations. Should you have any questions, please feel free to call me at (301) 853-3601. I look forward to hearing from you.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Don Langenberg". The signature is fluid and cursive, with the first name "Don" and last name "Langenberg" clearly distinguishable.

Donald N. Langenberg
Chairman of the Board

cc: Richard W. Getzinger, AAAS
J. Thomas Ratchford, OSTP

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04. Letter	To: Nikolay Laverov From: Allan Bromley Re: Joint Commission on Basic Scientific Research (1 pp.)	3/19/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
(b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
05. Letter	To: Allan Bromley From: Nikolay Laverov Re: Joint Commission on Basic Scientific Research (1 pp.)		(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

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 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
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 (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
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 (b)(9) Release would disclose geological or geophysical information

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
06. Letter	To: Barbara Levi From: Allan Bromley Re: Letter of Recommendation for Doug Beason [personal information redacted] (1 pp.)	9/17/92	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

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 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
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APS Award Nomination for Doug Beason

- Dr Don Petit (Los Alamos) nominated Doug Beason's (and Kevin Anderson's) novel The Trinity Paradox for the APS "1993 Forum Award for Promoting Public Understanding to the Relationship of Physics and Society"
- Doug Beason was informed of the nomination (attached) Wednesday, 9 September
- Supporting letters are due to Barbara Levi (APS) on Monday, 14 September:
 - FAX: (908) 389-2847
 - VOICE: (908) 542-2204
- Suggested comments if DAB decides to concur:
 - "Uniquely, and entertainingly, explained complex nuclear physics issues"
 - "Highlighted enigmatic problems facing post-Cold War relations"
 - "Brought to life otherwise textbook-stereotyped physicists"
 - "I support Kevin Anderson and Doug Beason's nomination"

DAB

Doug Beason wonders if you would write an endorsement letter to APS on his behalf on Tuesday - your first day back. He says you read his book.

Damer
9/10

tional potential for scientific research by an original contribution to physics.

Application Procedure: The application should include the following: (1) A letter of nomination from the head of the physics department, (2) a copy of the student's academic transcript, (3) a description of the original contribution, written by the student, such as a manuscript, a reprint of a research publication, or a senior thesis, and also a 1000-word summary thereof, and (4) two letters of recommendation from physicists who know the candidate's individual contribution to the work submitted. The applicant's address and telephone number during the summer also should be provided. **The deadline for completed application is 12 June 1992.**

Send name of proposed candidate and the supporting information to Dr. Harry Lustig, Administrator, Apker Award Selection Committee, The American Physical Society, 335 East 45th Street, New York, NY 10017.

1993 JOHN H. DILLON MEDAL OF THE APS DIVISION OF HIGH POLYMER PHYSICS

Purpose: To recognize outstanding accomplishments by young polymer physicists.

Nature: The prize consists of a bronze medallion and a certificate.

Establishment and Support: This annual prize was first awarded in 1984 and is supported by the Division of High Polymer Physics.

Rules and Eligibility: Nominations are open to scientists from all nations. Nominees are restricted to those whose doctorate dates are not more

than 10 years from the date of the award. Nominations remain active for three years, unless the 10-year limitation is exceeded. The prize committee is the Divisional Executive Committee.

Please send names of proposed candidates and supporting information before **1 August 1992** to: Professor Hyuk Yu, University of Wisconsin, Department of Chemistry, Madison, WI 53706.

1993 AWARD FOR OUTSTANDING DOCTORAL THESIS RESEARCH IN BEAM PHYSICS

Supported by Universities Research Association.

Purpose: To recognize doctoral thesis research of outstanding quality and achievement in beam physics and engineering.

Nature: The award consists of \$1500 and a certificate to be presented at an awards ceremony at the Division of Physics of Beams Annual Meeting, and an additional allowance of up to \$500 for travel to the meeting. The recipient will be invited to present the work as an invited talk in an appropriate session of the meeting.

Establishment and Support: The award was established in 1990 by the Division of Physics of Beams and is supported by Universities Research Association.

Rules and Eligibility: A nomination will be accepted for any doctoral student of a university in the United States or abroad, for work performed as part of the requirements for a doctoral degree.

Nominees must pass their thesis defense not more than 18 months before the nomination deadline. An individual can only be nominated once; however, an unsuccessful candidate will be carried over for one year.

The nomination package should include:

(1) Five copies of the thesis, publications and/or reports describing the work, together with a letter reviewing the merits of the work and the nominee.

(2) A letter from the thesis advisor certifying the eligibility of the student and delineating in detail the contributions of the nominee, making comparisons with others.

(3) The nominee's graduate course record; and

(4) Three independent letters of reference, at least one of which should be from outside the nominee's institution.

Send name of proposed candidate and supporting information before **1 September 1992** to: Alex J. Dragt, University of Maryland, Department of Physics & Astronomy, College Park, MD 20742.

1993 FORUM AWARD FOR PROMOTING PUBLIC UNDERSTANDING OF THE RELATIONSHIP OF PHYSICS TO SOCIETY

Purpose: To recognize outstanding accomplishment in the endeavor to promote public understanding of issues involving the interface between physics and society.

Nature: The award consists of \$250, a certificate citing the contributions of the recipient, a sculpture to be

held one year and passed on to the next winner, and an allowance for travel to the meeting of the Society at which the award is bestowed.

Establishment and Support: This annual award was established in 1974 by the Forum on Physics and Society.

Rules and Eligibility: To be eligible for consideration, within the past two years a person must have made significant contributions to the public understanding of science and society issues through such means as newspaper or journal articles, books, films, etc. The award is open to a person of any nationality. Nominations of candidates shall remain active for three years.

Send name of proposed candidate and support information before **1 September 1992** to: Barbara G. Levi, 20 North Point Drive, Colts Neck, NJ 07722.

1993 MARIA GOEPPERT-MAYER AWARD

Sponsored by the General Electric Foundation.

Purpose: To recognize and enhance outstanding achievement by a woman physicist in the early years of her career, and to provide opportunities for her to present these achievements to others through public lectures.

Nature: The award consists of \$2,000 plus a \$3,000 travel allowance to provide opportunities for the recipient to give lectures in her field of physics at four institutions of her choice and at the meeting of the Society at which the award is bestowed.

Establishment and Support: This award was established in 1985 by the

General Electric Foundation and was first awarded in 1986.

Rules and Eligibility: This award is given to a woman not later than ten years after the granting of the Ph.D. degree or the equivalent career stage, for scientific achievements that demonstrate her potential as an outstanding physicist. The award is open to women of any nationality, and the lectures may be given at institutions in any country within two years after the award is made. Nominations of candidates shall remain active for three years.

Send name of proposed candidate and supporting information, which should include at least one letter of nomination and a current *curriculum vitae* of the nominee, before **1 September 1992** to: Helen R. Quinn, Stanford University, SLAC, Bin 81, P.O. Box 4349, Stanford, CA 94305.

1993 OTTO LAPORTE AWARD

Sponsored by the friends of Otto Laporte and the Division of Fluid Dynamics.

Purpose: To recognize outstanding accomplishments in research in fluid dynamics.

Nature: The award consists of \$1,000 and a certificate citing the contributions made by the recipient.

Establishment and Support: The award was established as an APS award in 1985, but existed as a Division Prize for twelve previous years. The award is to recognize outstanding contributions to fluid dynamics and to honor Otto Laporte. It is supported by the friends of Otto Laporte and the Division of Fluid Dynamics.

Rules and Eligibility: The award is given in recognition of outstanding accomplishment in research in fluid dynamics. The recipient will be invited to present a plenary lecture at the Annual meeting of the Division of Fluid Dynamics. Nominations of candidates shall remain active for three years.

Send name of proposed candidate and supporting information by **1 September 1992** to: Ronald Blackwelder, University of California, Department of Aerospace Engineering, Los Angeles, CA 90089.

1993 AMERICAN PHYSICAL SOCIETY AWARD TO A FACULTY MEMBER FOR RESEARCH IN AN UNDERGRADUATE INSTITUTION

Sponsored by the Research Corporation.

Purpose: To honor a physicist whose research in an undergraduate setting has achieved wide recognition and contributed significantly to physics and who has contributed substantially to the professional development of undergraduate physics students.

Nature: The award consists of two parts. A \$5,000 stipend to the awardee and a separate \$4,000 unrestricted grant for the research of the recipient to the awardee's institution. An additional allowance will be provided for travel expenses to the APS meeting at which the award ceremony will take place, and a certificate citing the contribution by the recipient.

Establishment and Support: The award was established in 1984 by a

8/26/92

Barbara G. Levi
20 North Point Drive
Colts Neck, NJ 07722

Dear Barbara:

I here by nominate Kevin Anderson and Doug Beason, authors of The Trinity Paradox, for the 1993 Forum Award for Promoting Public Understanding of the Relationship of Physics to Society.

With the crumbling of the Berlin Wall, the disintegration of the Soviet Union, and the continuous striving of third world countries to obtain nuclear weapons, nuclear issues are in the forefront of the public's mind. To the general public, the understanding of the physics-social nature of nuclear weapons defy reason. It is dealt with in fear. It is dealt with in a manner not unlike one reads in historical accounts of early scientists being exiled from society (or burned at the stake, which I suppose is permanent form of being exiled) for pursuit of knowledge that escaped public understanding. It is appropriate at this moment in time to help in the public understanding of such technically complicated issues, which is what Anderson and Beason have done in The Trinity Paradox.

"A society that does not remember its history is destined to make the same mistakes" is not only a well known quote but the wedge in the block of knowledge that The Trinity Paradox uses to pry forth understanding of nuclear issues. The Trinity Paradox, to first order, is a science fiction history of the building of the first nuclear bomb via the Manhattan project. It gives one a flavor for the panic-mind set of "Stop the Germans and Japanese" which has sufficiently faded from the minds of our current generation that they can not understand why we did the things that are now only, and rather poorly, recorded in history books. But here is where The Trinity Paradox takes science fiction licence and diverges from actual history and paints an alternative history where events did not work out the way *they were suppose to*. Upon experiencing this alternative history, I was left with a sobering message: our generation who built and used these devices did so with painstaking purpose, thought, and action. This realization invoked the same feeling as re-reading our Constitution at age 35 and gaining an appreciation (for the first time) of our forefather's vision, which of course, totally escapes one when presented with the Constitution back in high school history class.

Wisely, The Trinity Paradox does not give one answers for our current nuclear weapon problems. Instead, it gives one an understanding as to how and

why *they* are here, which, this generation can use as tools to sort out the issues.

I would like to end with one stanza from a poem (works in progress) which I feel is germane:

future Children, soles yet born
don't view us harsh, save us your scorn
for our deeds drew praise, they had their day
but now like us, are destine fey

Sincerely,

Dr. Donald Pettit†

†Don Pettit is a scientist at Los Alamos National Laboratory. This letter reflects his personal opinion and in no way is associated with the Los Alamos National laboratory.

THE WHITE HOUSE
WASHINGTON

July 6, 1992

Dear Mr. Levy:

Thank you for your kind letter of June 7 inviting me to participate in the Earth Space Institute symposia scheduled for August 27-29, 1992, at Arlie House in Virginia.

Because I have a long standing commitment on my calendar during that time, I must regretfully decline.

Thank you for thinking of me. With best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Mr. Maurice Levy
ESI Symposium
58 rue Lhomond
F-75005 Paris
France

TYPE: INVITATION

ORIGINATOR: 02

SPEECH: YES NO

FROM: LEVY, Maurice: EARTH SPACE INSTITUTE

DATE OF EVENT:

THRU:

TENTATIVE DATES:

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: AN INVITATION TO VISIT THEM IF DR. BROMLEY IS
PLANNING TO ATTEND THE WORLD SPACE CONFERENCE.

Maurice Levy

William P. G.

RSVP: 07/06/92

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: PHYSICAL SCIENCES

REMARKS:

DATE OF LETTER: 06/07/92

DATE RECEIVED: 06/22/92

FILE: P-INVITATION

Ray Gibson

Maurice Levy

Enclosures

Vacation

PPB

THE WHITE HOUSE
WASHINGTON

June 25, 1992

Dear Dr. Lakshmikantham:

Thank you for your kind letter of June 1 inviting me to be a plenary speaker at the First World Congress of Nonlinear Analysts scheduled to be held in Tampa, Florida on August 19-26, 1992.

Because my schedule has become increasingly consumed with election year activities as well as my regular duties, I must regretfully decline.

Thank you for thinking of me and I would like to offer my best wishes for a successful session.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. V. Lakshmikantham
Chairman
Global Scientific Advisory Committee
Florida Institute of Technology
Department of Applied Mathematics
150 West University Boulevard
Melbourne, Florida 32901

"Document Control"

TYPE: INVITATION-SPEECH DOCUMENT NUMBER: 9202095
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: LAKSHMIKANTHAM, V.: FLORIDA INSTITUTE OF TECHNOLOGY

TO: DR. D.A. BROMLEY

DATE OF EVENT: 8/19-26/92

DATE OF
CORRESPONDENCE: 06/01/92

SUBJECT: AN INVITATION TO DELIVER AN ADDRESS AT THE FIRST
WORLD CONGRESS OF NONLINEAR ANALYSTS.

DIRECTORATE STAFF
ASSIGNED: D. Allan Bromley ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 06/23/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO:

No. 6/21/92

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: PHONE: EXT:

OSTP RECEIVED: 06/10/92
FILE: P-INVITATION

DEPT RECEIVED:

CENTRAL FILES:

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
07a. Memorandum	To: Perry Lindstrom From: Allan Bromely Re: Letter of Recommendation [personal information redacted] (1 pp.)	4/15/92	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

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P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
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P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
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(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
07b. Letter	To: Helga Steeg From: Allan Bromley Re: Letter of Recommendation for Perry Lindstrom [personal information redacted] (2 pp.)	4/15/92	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

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Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
07c. Letter	To: Damar Hawkins From: Perry Lindstrom Re: Request for Letter of Recommendation from Allan Bromley [personal information redacted] (1 pp.)	3/27/92	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
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Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
 P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
 P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
 P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
 P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
 (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
 (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
 (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
 (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
 (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
 (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
 (b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE
WASHINGTON

March 26, 1992

Dear Chuck:

Thank you for your letter of February 7 inviting me to become a member of the new Federal Advisory Council to your Federal Science and Technology Committee. I apologize for the delay in responding.

In clearing your invitation with my legal counsel, I learned that serving on private advisory boards such as yours is against Executive Office of the President policy. I therefore must regretfully decline. Sorry, because I would have enjoyed working with you.

I do, however, appreciate your thinking of me. My best wishes,

Sincerely,



D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Charles F. Larson
Executive Director
Industrial Research Institute, Inc.
1550 M Street, N.W.
Washington, D.C. 20005

"INVITATION FOR DR. BROMLEY"

DOCUMENT NUMBER: 9200450

TYPE: INVITATION

ORIGINATOR: 02

SPEECH: YES NO

FROM: LARSON, Chuck: INDUSTRIAL RESEARCH INSTITUTE

DATE OF EVENT: 05/03/92 THRU: 05/06/92
TENTATIVE DATES:

LOCATION OF EVENT: BOCA RATON, FL

TIME OF EVENT:

SUBJECT: HE IS INVITING DR. BROMLEY TO BECOME A MEMBER OF THE
NEW FEDERAL ADVISORY COUNCIL TO THEIR FEDERAL
SCIENCE AND TECHNOLOGY COMMITTEE.

RSVP: 02/27/92

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

COPIES TO: INDUSTRIAL

REMARKS:

DATE OF LETTER: 02/07/92

FILE: P-INVITATION

You are being invited to become
a member of their Board and to
join the group for a meeting in
May in Florida...

M

Metzger: Is this legal?
DO

2/24/92

JAB - It's not illegal,
but it is against EOP policy for
you to serve on private
advisory boards such as this.
Recommend you decline, citing
schedule demands of your office. M

THE WHITE HOUSE
WASHINGTON

March 25, 1992

Dear Jim:

Jerry Duggan mentioned to me that you were nominating Pat Richard for a Cortelyou-Rust Distinguished Professorship. I hope that you will permit me the liberty of writing in support of that nomination.

When shortly before taking on my current responsibilities, I had the honor of speaking at the dedication of the KSU tandem facility I noted that, by any measure, it was the premier accelerator-based atomic physics facility in the U.S. -- and in the world. Subsequently, events have fully supported that statement. And inasmuch as Pat Richard has, from the outset, been the driving force behind the existence of this world-class facility at KSU, I would consider the honor conferred by the award of this distinguished professorship to be more than appropriate.

I take the greatest pleasure in supporting this nomination enthusiastically.

With warmest best wishes.

Sincerely,



D. Allan Bromley
The Assistant to the President
for
Science and Technology
and
Director
Office of Science and Technology Policy
Executive Office of the President

Dr. James C. Legg
Physics Department
Kansas State University
Manhattan, Kansas 66506

BCC - Duggan

"Document Control"

TYPE: ACTION

ORIGINATOR: 02

DOCUMENT NUMBER: 9200952

STATUS I

DIRECTORATE STATUS

FROM: DUGGAN, Jerome L.: UNIVERSITY OF NORTH TEXAS

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 03/24/92

SUBJECT: NOMINATION OF DR. PATRICK RICHARD FOR A
CORTELYOU-RUST DISTINGUISHED PROFESSORSHIP.

DIRECTORATE
ASSIGNED: D. Allan Bromley
STAFF
ASSIGNED:

ACTION
REQUIRED: AS NECESSARY

STAFF
ACTION:

SENDER'S DUE DATE: 04/01/92
OSTP DUE DATE: 04/01/92
DATE COMPLETED: STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO:

WHITE HOUSE TRACKING #: CONTACT PERSON: DR. JAMES C. LEGG
REMARKS: PHONE: 913/532-6806 EXT: FAX

OSTP RECEIVED: 03/24/92
FILE: P-DAB-REFERRAL

DEPT RECEIVED:

CENTRAL FILES:



University of North Texas

Department of Physics

March 24, 1992

The Honorable D. Allan Bromley --- Via FAX # 202-395-3261
Assistant to the President for Scientific Affairs
Old Executive Building
17th Street and Pennsylvania Avenue, N.W., Suite 358
Washington, DC 20506

Re: Nomination of Dr. Patrick Richard for a
Cortelyou-Rust Distinguished Professorship

Dear Allan:

Enclosed is a letter I received from Jim Legg at Kansas State University (KSU) in regard to an outstanding professorship for Pat Richard.

A short note from you would probably help our case for Pat. In your remarks at the dedication of the KSU facility I recall that you pointed out that KSU, by any measure, was the premier Accelerator Based Atomic Physics Facility in the U.S. Clearly, Pat is the driving force behind this facility. A short note by you to this effect is all that is required.

If you have time (our deadline is April 1st), please fax a short note to Dr. James C. Legg Fax # 913-532-6806. His work number is 913-532-6786.

Allan, I realize you are busy on a scale most of us would not believe. I hope you can fit this in.

Sincerely yours,

Jerome L. Duggan
Professor of Physics

JLD/bs

Enclosures are copies of the following:
My letter to James C. Legg of March 24, 1992
James C. Legg's letter of March 19, 1992
Criteria and Procedures.....
Patrick Richard's Resume.

Note: Total sheets being transmitted including this letter = 15



COPY

University of North Texas

Department of Physics

March 24, 1992

Dr. James C. Legg ----- Via FAX # 913-532-6806
Kansas State University
Department of Physics
Cardwell Hall
Manhattan, KS 66506-2601

Re: Nomination of Dr. Patrick Richard for a
Cortelyou-Rust Distinguished Professorship

Dear Dr. Legg:

It is a pleasure for me to write a letter in support of Dr. Patrick Richard for a Cortelyou-Rust Distinguished Professorship. I am the co-organizer of the biennial International Conference on the Application of Accelerators in Research and Industry. Each of our conferences usually has 10 or 12 half day sessions on Atomic Physics. Therefore, in the past 20 years of doing this conference, I have worked with most of the accelerator based atomic physicists in the world. Without any qualifications, I would say that Pat is clearly one of the very best. He has been a prolific publisher since the very first of his career. His graduate students receive job offers from all of the better laboratories and universities throughout the world. He has done an outstanding job of training these students. His award as Distinguished Lecturer at KSU in 1978 also attests to the fact that he does an equally good job in the classroom.

If one looks at the major benefit that Kansas State University (KSU) has derived from Pat's tenure, it would be observed that at KSU there now exists a multi million dollar "world class" atomic physics facility that is there, in large part, because of the untiring efforts on his part. This facility enables KSU to attract the best faculty members and students into the program. The James R. Macdonald Laboratory and its excellence will remain at KSU long into the future. It will remain as tangible evidence of what a dedicated group, under Dr. Richard's guidance, has done.

In summary, Pat is one of the most outstanding atomic physicists in the world. He has produced a multitude of well trained scientists who now occupy prestigious positions in the better universities and laboratories throughout the world, and finally, he has been the prime mover on convincing the U.S. Department of Energy to put the James R. Macdonald facility at KSU. From any viewpoint, Pat is an excellent candidate for the Cortelyou-Rust Distinguished Professorship.

Sincerely yours,

Jerome L. Duggan
Professor of Physics
JLD/bs



Department of Physics

Cardwell Hall
Manhattan, Kansas 66506-2601
913-532-6786

March 19, 1992

Dr. Jerome Duggan
Department of Physics
University of North Texas
Denton, Texas 76203

Dear Jerry,

Thank you for agreeing to write a letter of support for my nomination of Pat Richard to be the Cortelyou-Rust Distinguished Professor. It should be addressed to me and I would like to receive it by April 1.

I enclose two items, as I promised. First is a two-page copy of the criteria and procedures for selection. Second is Pat's mini-vita that includes a list of his last five years of publications. I hope these are useful to you in writing a reference letter.

Again, thank you for your help. I feel that Pat deserves to be the Cortelyou-Rust Distinguished Professor.

Sincerely,

A handwritten signature in cursive script that reads "Jim".

James C. Legg
Professor and Head

Enclosures

THE WHITE HOUSE
WASHINGTON

March 18, 1992

Dear Dr. Lee:

Thank you for your letter of January 28, 1992, inviting me to be a speaker at your International Symposium on Physics and High Technology scheduled for October 22-12, 1992, in Seoul.

Unfortunately, those dates are not convenient for me to be away from Washington. As much as I would like to join you and your colleagues, I must regretfully decline your invitation.

I appreciate your thinking of me and would like to offer my best wishes for your symposium.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with a long horizontal stroke at the end.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Choochon Lee, President
Korean Physical Society
635-4, Yuksam-Dong
KangNam-Ku
Seoul 135-703
Korea

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9200288

ORIGINATOR: 02

SPEECH: YES NO

FROM: LEE, Choochon: KOREAN PHYSICAL SOCIETY

DATE OF EVENT: 10/22/92 THRU: 10/23/92
TENTATIVE DATES:

LOCATION OF EVENT: SEOUL, KOREA

TIME OF EVENT:

SUBJECT: AN INVITATION TO BE A SPEAKER AT THE INTERNATIONAL
SYMPOSIUM ON PHYSICS AND HIGH TECHNOLOGY.

RSVP: 02/11/92

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: INTERNATIONAL/POL
Steve Olson
PHYSICAL SCIENCES

REMARKS:

This date is set for
a PCAST meeting...

*regret
Scarflet* M

DATE OF LETTER: 01/15/92

DATE RECEIVED: 01/28/92

FILE: P-INVITATION-SPEECH

THE WHITE HOUSE
WASHINGTON

January 14, 1992

Dear Dr. Lander:

Thank you for your letter of January 3 inviting me to attend the 1992 Scientist to Scientist Colloquium scheduled for August 15-20, 1992, in Keystone, Colorado. My apologies for the belated response.

Your list of topics for discussion is a good one and I sure you will have many stimulating sessions. Unfortunately, that particular week on my calendar is not a good one so I must regretfully decline.

I appreciate your thinking of me and would like to offer my best wishes for a successful colloquium.

Sincerely yours,

A handwritten signature in dark ink, reading "D. Allan Bromley". The signature is fluid and cursive, with a large, stylized "D" and "B".

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Eric Lander
Chairman
1992 Scientist to Scientist
Colloquium Steering Committee
Keystone Center
2033 M Street, Northwest
Suite 900
Washington, D.C. 20036

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9200059

ORIGINATOR: 02

SPEECH: YES NO

FROM: LANDER, Eric: KEYSTONE CENTER

DATE OF EVENT: 08/15/92 THRU: 08/20/92
TENTATIVE DATES:

LOCATION OF EVENT: KEYSTONE, COLORADO

Any interest?

TIME OF EVENT:

SUBJECT: AN INVITATION TO ATTEND THEIR "SCIENTIS
SCIENTIST" COLLOQUIUM.

*Read this note
but say I can't
fit it into my
calendar*

RSVP: 01/21/92

CONTACT PERSON:

CONTACT NUMBER: 617-258-5192

INVITATION ACCEPTED?

YES

NO

COPIES TO: PHYSICAL SCIENCES
INDUSTRIAL
LIFE SCIENCES

REMARKS:

DATE OF LETTER: 01/03/92

DATE RECEIVED: 01/07/92

FILE: P-INVITATION

THE WHITE HOUSE

January 3, 1992

Dear Peter:

Many thanks for the material on the
21st Century Manufacturing Enterprise
Strategy. I expect that our new FCCSET
cross cut next year will be on advanced
manufacturing and this will be very
helpful in part.

Best wishes for the new year Sincerely
Alan

"Document Control"

TYPE: INFORMATION

ORIGINATOR: 02

STATUS C

DOCUMENT NUMBER: 9125279

DIRECTORATE STATUS

FROM: LIKINS, Peter: LEHIGH UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/20/91

SUBJECT: HE IS FORWARDING A COPY OF A REPORT REGARDING "AGILE
MANUFACTURING".

DIRECTORATE
ASSIGNED: STAFF
ASSIGNED:

ACTION
REQUIRED: STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
INDUSTRIAL

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

PHONE:

EXT:

OSTP RECEIVED: 12/31/91 DEPT RECEIVED:
FILE: P-INDUSTRIAL-MANUFACTURING

CENTRAL FILES:

Lehigh University



Peter Likins, President

5274 I

Alumni Memorial Building 27

Bethlehem, Pennsylvania 18015

telephone (215) 758-3155

RECEIVED

OSTP
MAIL ROOM

December 20, 1991

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Executive Office of the President
Office of Science and Technology Policy
Old Executive Office Building, Room 360
Washington, DC 20506

Dear Allan,

The enclosed reports introduce the topic of "agile manufacturing," which phrase implies extreme forms of commitment to lean operations with remarkably fast response times, often achieved through networking and partnering.

This work was generously commissioned by the DOD, which seems now to be both pleased with the product and uncertain as to what to do with it!

Warm Regards,

PL/lg

enc: 2 reports, Vols I & II

THE WHITE HOUSE
WASHINGTON

December 18, 1991

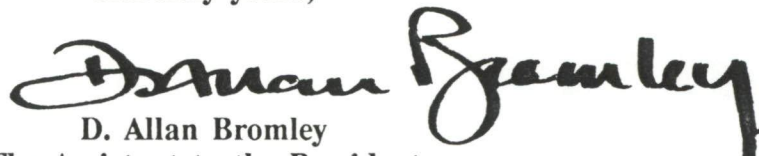
Dear Mr. President:

I want to take this opportunity to express to you my deep appreciation of the very warm hospitality that you and your colleagues at the University extended to me during my recent visit to Strasbourg.

The ceremony was carried off with the University's usual style and excellence and I considered it a privilege to be a participant. I particularly appreciate the superb Louis Pasteur Medal; it is one that I shall always cherish. The books too are excellent and will be added with pride to my library.

Let me again then thank you and take this occasion to wish you a very merry Christmas and a happy, healthy and rewarding 1992.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and the last name "Bromley" clearly distinguishable.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Professor Gilbert Laustriat
President
Universite Louis Pasteur
4, rue Blaise Pascal - B. P. 1032
67070 Strasbourg Cedex
France

Bcc: Ballmann

THE WHITE HOUSE

WASHINGTON

December 18, 1991

Dear Dr. Labahn:

Many thanks for your letter of December 9 with which you enclosed your fund raising brochure and the booklet describing the inventors who have been made members of the National Inventors Hall of Fame. I congratulate you on your leadership in this important activity.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with a large, stylized initial "D".

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. John O. Labahn
Inventure Place
80 West Bowery - Suite 201
Akron, Ohio 44308

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9125075

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: LABAHN, Jon O.: INVENTURE PLACE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/09/91

SUBJECT: HE IS PROVIDING DR. BROMLEY WITH A COPY OF THEIR
FUND RAISING BROCHURE AS WELL AS A BOOKLET
DESCRIBING THE INVENTORS WHO HAVE BEEN INDUCTED INTO
THE NATIONAL INVENTORS HALL OF FAME.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: PHONE: EXT:

OSTP RECEIVED: 12/11/91 DEPT RECEIVED:
FILE: P-DAB-PERSONAL

CENTRAL FILES:

THE WHITE HOUSE

Dec 17. 47

Dear Hankins: (Kerwin)

Here with the requested photo.

May you and Lapeta have a
wonderful Christmas and a happy
healthy and prosperous new year
Sincerely Allan

"Document Control"

TYPE: ACTION

DOCUMENT NUMBER: 9125070

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: KERWIN, Larkin: IUPAP

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/25/91

SUBJECT: HE REQUESTS A RECENT PHOTOGRAPH OF DR. BROMLEY TO BE
PRINTED IN THE IUPAP BROCHURE FOR THE 1993 MEETING.

DIRECTORATE

STAFF

ASSIGNED: DIRECTOR'S OFFICE

ASSIGNED:

ACTION

REQUIRED: DIRECT REPLY

STAFF

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 12/23/91

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

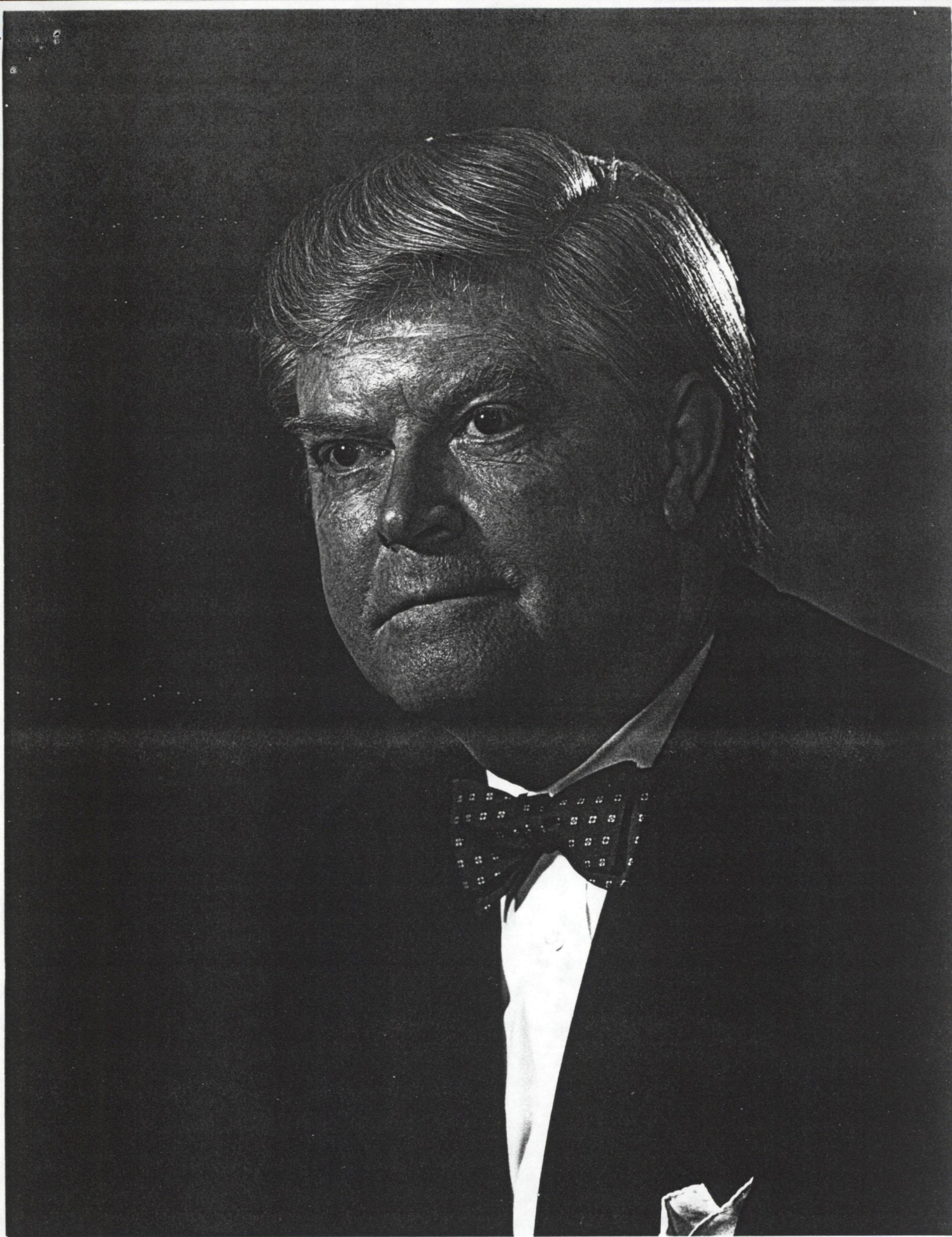
OSTP RECEIVED: 12/10/91

DEPT RECEIVED:

FILE: P-INTERNATIONAL

CENTRAL FILES:

*I have marked
the photo
OK
I will add a note
OK*



Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
08a. Letter	To: Pamela Looi From: Allan Bromley Re: Letter of Recommendation for Soey-Hian Sie (4 pp.)	1/22/91	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
 P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
 P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
 P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
 P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
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 (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
 (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
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 (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
 (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
 (b)(9) Release would disclose geological or geophysical information

NATIONAL UNIVERSITY OF SINGAPORE

Telephone : 7756666
Telegrams : UNIVSPORE
Telex : NUSPER RS51111
Telefax : 7783948
Bitnet : PERSDEPT@NUSVM



Personnel Department
10 Kent Ridge Crescent
Singapore 0511

Ref: T1-17-6

CONFIDENTIAL

4 January 1991

Prof D A Bromley
Wright Nuclear Structure Laboratory
Yale University
New Haven, Conn. 06511
USA

Dear Sir/Madam

APPOINTMENT IN THE DEPARTMENT OF PHYSICS

Dr Sie Soey-Hian is an applicant for the above post in the University and has mentioned you as a referee.

I should be grateful for your comments on his/her:

- (1) academic records as an undergraduate/postgraduate student;
- (2) interest in an academic career;
- (3) teaching ability and special areas in which he/she can excel as a teacher;
- (4) proficiency in English;
- (5) temperament (ability to work with others, to adjust to local conditions, etc.);
- (6) research ability;
- (7) potential for development (applicable only to junior appointments);
- (8) quality of publications (applicable, especially, in the case of senior appointments);
- (9) personal expectations (academic and social);
- (10) motivation in seeking an appointment at the National University of Singapore.

Any other comments you may have on the applicant will be appreciated. It would be particularly helpful to the University and the candidate if you could let us have an early reply. I should like to assure you that your comments will be kept in strict confidence.

Yours faithfully

Pamela Looi (Mrs)
for Director of Personnel

PL/en

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
08b. Letter	To: A.F. Reid From: Allan Bromley Re: Letter of Recommendation for Soey-Hian Sie (2 pp.)	2/24/88	(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence H-M [2 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-006
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
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C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
(b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE

Dec 7, 1991.

Dear Bill: (Lanford)

I know that I am going to thank for the enclosed.

I hope that all goes well and I look forward to seeing you in May if not before. Should you travel him,

you to Washington please give me some warning at 202-456-7116 and if I am in town I would be delighted to take you to lunch at the White House Executive Mess.

With warmest regards and again thanks! Sincerely Allan

THE WHITE HOUSE
WASHINGTON

December 16, 1991

Dear Messrs. Langer, DeLuccia and Griffith:

Thank you for your letter of August 7, 1991, inviting me to be a plenary speaker at ASM's AeroMat '92 on May 18, 1992 at the Anaheim Hilton. I apologize for the much belated response.

As much as I would like to join you, unforeseen events make it impossible for me to be away from Washington during that time.

I appreciate your thinking of me and would like to offer my best wishes for a successful session.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is stylized with a large, prominent "D" and "B".

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Messrs. Langer, DeLuccia and Griffith
ASM International
Materials Park, Ohio 44073

May 18

"CORRESPONDENCE TRACKING"

TYPE: ACTION ON AN INVITE DOCUMENT NUMBER: 9123448
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: LANGER, Edward L., John J. DeLuccia and Walt Griffith: ASM
INTERNATIONAL

TO: DR. D.A. BROMLEY

① MARLAN
② DAB

DATE OF
CORRESPONDENCE: 08/07/91

SUBJECT: ACKNOWLEDGEMENT OF DR. BROMLEY'S PARTICIPATION AS A
PLENARY SPEAKER DURING ASMM'S AEROMAT '92 AND A
REQUEST TO FORWARD THE EXACT TITLE OF THE
PRESENTATION AND A PHOTOGRAPH.

DIRECTORATE STAFF
ASSIGNED: DIRECTOR'S OFFICE ASSIGNED:

ACTION STAFF
REQUIRED: FOR DAB'S SIGNATURE ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/26/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: The assignment is for the Director's Office for Steve Olson.

OSTP RECEIVED: 08/12/91 FILE: P-INVITATION-SPEECH
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ASM WORLD HEADQUARTERS

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Edward L. Langer
Managing Director
Materials Park, Ohio
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RECEIVED

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OFFICE OF THE
DIRECTOR

7 August 1991
MD-400-91

Dr. Allan Bromley
Assistant to President
for Science & Technology
The White House
17th Pennsylvania Avenue N.W.
Washington, DC 20500

Dear Dr. Bromley,

It is a pleasure to acknowledge your participation as a plenary speaker during ASM's AeroMat '92 on 18 May 1992 at the Anaheim Hilton and Towers.

Plans for the AeroMat '92 technical sessions are well under way. Approximately fifty sessions on advanced materials and processes-related topics are being covered in the four-day event. Of course, the Plenary Session sets the theme for the entire event. Over 300 people, including industry leaders like yourself, attended the Plenary Session during the past two years.

We would like to request that you forward the exact title of your presentation and a black & white photograph for inclusion in the advance promotional brochure. Please send your title and photograph to the attention of Janine Vandiver, Conference Administrator, ASM International, Materials Park, OH 44073 no later than 1 October 1991.

Mrs. Vandiver will communicate further with you in late October regarding details of timing, housing, registration and other arrangements. However, please feel free to call any one of us if we can assist you as you prepare for the event.

On behalf of the AeroMat Executive and Management Committees, we are honored that you will join us in the Plenary Session and look forward to greeting you personally at AeroMat '92.

Sincerely,

E. L. Langer
Edward L. Langer
Managing Director
ASM International
216/338-5151

John DeLuccia
John J. DeLuccia
Co-Chairman
AeroMat Event
Management Committee
215/441-1096

Walt Griffith
Walt Griffith
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cc: William Phillips, Associate Director for Industrial Technology, The White House
J. Randy Cicen, Director, Member Activities, ASM International
Janine Vandiver, Conference Administrator, ASM International

jq/plsp1ltr