Alfred Bader fonds

Correspondence

University College Landon

QUEEN'S UNIVERSITY ARCHIVES

HLE 20





924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709 E-mail: baderfa@execpc.com

A Chemist Helping Chemists

August 21, 2000

Professor Anthony J. Deeming University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ ENGLAND

Dear Tony,

I have been delaying writing to you simply because I find it so difficult to write strongly to a man I like and respect, as I do you.

But the accounting supplied by your Finance people is totally unsatisfactory. The draft for the bursaries, which you gave me during my visit, is satisfactory, except for two changes:

- 1. The money is supplied by Isabel and myself personally and not by the Foundation, and;
- 2. Please consider for Paragraph 4:

"The value of each award ranges from £1,000 to £3000 per year depending upon the financial circumstances of the student. The award is intended to encourage those who would not otherwise be able to consider the completion of a degree programme."

The Financial Statement given to you with the account code ZTX7 is unintelligible.





Professor Anthony J. Deeming August 21, 2000 Page Two

We have established many other bursaries, for instance, in Edinburgh and Glasgow, and from each University we receive an annual statement showing the beginning balance, which student received what amount, the interest earned on the capital, and the final balance.

According to my records, I gave the equivalent of 3 x £16,000 to The Friends of University College in 1997, so that if we continue, we should make another payment of the equivalent of £48,000 now.

But if your financial people do not find it worthwhile to keep and send us intelligible records, should we consider stopping the bursaries? Tony, I do not have to tell you that we don't really want to do that, but no other University except for Sheffield has treated us like UC. (The Sheffield experience is described on pp. 260-263 of my autobiography.)

Would it be advisable for us to speak directly to the financial person responsible?

I much look forward to hearing from you and remain with best personal regards

Yours sincerely,

Alfred Bader www.alfredbader.com AB/az





R. J. H. Clark FRS

Sir William Ramsay Professor

Delfred Bader Andwarker. **University College London** 

Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 020 7679 2000 Ext. 7457 Direct Line: 020 7679 7457 Fax: 020 7679 7463

E-mail: r.j.h.clark@ucl.ac.uk

24/8/01

Ikan Alfred, Manh you for your letter Mangust 20. I'm sony, indeed, that yn felt mable to help De Greg Turner, who undoubtedly will go far in his appliestions of Science to artwork Unfortunated the BL claim not to be able to support a scientist! Manle you for your Consideration of this matter.

I'm just leaving now for a week's

boleday - Plesse excuse the handworthen hatese

Of this letter, done in haste

Some in hoste





W. B. Motherwell

Alexander Williamson Professor of Chemistry

**University College London** 

Chemistry Department Christopher Ingold Laboratories 20 Gordon Street

London WC1H 0AJ

Direct Line: 0171-380 7533

Switchboard: 0171-387 7050 ext. 7533

0171-380 7463 or

0171-380 7524

March 6th, 2000

Dear alfred

Many thanks for your letter of Felway 28th and the enclosures. I have now reminded Tony Deening who assumed me that he had replied to you. In any event, he is certainly viset from you on 23rd of 24th anlicipating a march.

My first reaction to your news of mila was one of disappointment because he is of course, a billiant scientist. On reflection however, I tend to agree with you that his influence in his new coreer may be even more beneficial for themists

in the Czech republic. If I were as intelligent as mila, given the current situation in UK Universities and indeed elsewhere in Europe, I would also have no hesitation whatsoever in searching for something else to do.

With all good wishes from our home to yours, Sincerely yours, Wellie





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U S A University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Ext. 4620 Direct Line: 0171-380 7457 Fax: 0171-380 7463

E-mail: r.j.h.clark@ucl.ac.uk

16 January 1997

ihn Alfred

I wondered whether you might consider the following proposition. I have a girl doing a project with me on Raman microscopy of pigments on manuscripts. She is in her third year of a BSc honours course at UCL (in which she is expected to graduate with second class honours) and she is both very able and extremely keen to study with me for a PhD in this area, starting in September 1997. She is Miss Amanda Hardy, aged 21, and her family circumstances are such that she will not be able to support herself. Nor, unfortunately, do we have any suitable grants with which I would be able to support her. As you perhaps know, finance to support research at the Arts/Science borderline is *extremely* difficult to obtain, each discipline suggesting that the other should provide it! I would be very pleased to introduce her to you, should you wish to meet her.

I wondered whether you might consider supporting Miss Hardy for her PhD studies (currently this amounts to £7,250 p.a. for living expenses and £2,650 p.a. fees, each for 3 years).

Alfred, I hope that you do not mind my putting this proposition directly to you. But I would not have done so had it not been for the very great keenness of Miss Hardy to work in the area, her obvious abilities and deep interest therein, coupled with the unfortunate fact that neither she nor the Department is able to find a way to support her.

On another matter, as you will see from the attachment, I am giving a Friday evening discourse at the Royal Institution on March 7, and I wondered whether you and Isabel would like to come as my guests.

With best wishes for the New Year.

Yours sincerely,

Professor R.J.H. Clark

Enc.

RJHC/djm



# J.J. Thomson, Discoverer of the Electron: The Man im His Setting

DAVID THOMSON

Former Board Member, Lazard Brothers Bankers and former Honorary Treasurer, The Royal Institution

was at heart as much a mathematician as a physicist. than as ends in themselves. He had a strong visual imagery and who used experiments to prove a theory or find a meaning rather lay a forceful but modest personality. He was an intuitive scientist Royal Institution in April 1897. His subsequent experiments made somewhat disbelieving audience at a Friday Evening Lecture at the J.J. Thomson's popular claim to fame rests on his "discovery" of the most famous pupil, Ernest Rutherford. Behind his achievements in 1884 and stayed there until he was succeeded in 1919 by his Cavendish Professor at Cambridge at the early age of twenty-eight good his bold claim. It was one of the great discoveries that has and a universal constituent of matter was first announced to a electron one hundred years ago. His belief that cathode rays were helped to shape the twentieth century. "corpuscles" (as he first called them) smaller than a hydrogen atom J.J. was appointed

The lecturer, who is JJ.'s grandson and not a scientist, looks at some of the forces that shaped his life and personality: the Manchester background, his teachers at Owens College, mathematics at Cambridge, his passion for original research, the influences of Faraday and Clark Maxwell, the interaction with the great German and French physicists, building up of the Cavendish reputation, his colleagues and pupils. The lecturer will explore JJ.'s personality, putting his life in the setting of his times and the places that meant most to him and his marriage, family and friends. To do so he has drawn on a family archive of letters and papers.

The Lecturer: born 1931 when his father, Sir George Thomson, was Professor of Physics at Imperial College and his grandfather, Sir J.J. Thomson, was Master of Trinity College, Cambridge. He went to Rugby School and from there won a scholarship to Trinity — as did his elder brother, Jather and grandfather before him. He graduated in Economics from Cambridge and, after National Service in the Navy, started a career with Laxard Brothers, merchant bankers in the City, from which he retired in 1986 after 21 years on the Board. He has served as Treasurer and Chairman of the Council of the Royal Institution. He is currently Chairman of an insurance company, two investment trusts and of the naval heritage attractions in Portsmouth Dockyard. He is also a Trustee of Lucy Cavendish College and the Fitzwilliam Museum in Cambridge. In 1959 he married Patience Bragg, then laving in the Royal Institution, where her father, Sir Lawrence Bragg, was Director. He is Chairman of the Athenaeum.

Friday, March 7

# An Arts/Science Interface: Mediaeval Manuscripts, Pigments and Spectroscopy

ROBIN J.H. CLARK FRS

Sir William Ramsay Professor of Chemistry, University College London

The identification of the pigments used on paintings, manuscripts, and ceramics is important in matters to do with restoration, conservation, dating and authentication. The subject is very much at the Arts/Science interface, attracting as much interest from art historians, curators, and museum scientists as from conservationists and research scientists. Many techniques have been employed for this purpose, some of which are specific to the elements present in the pigment, some to the chemical groups, some to the compounds, and some to the pigment material in bulk.

The most recent to be applied, Raman microscopy, is now considered to be the best single technique for this purpose, since it combines the required attributes of reliability and sensitivity, with those of being non-destructive and largely immune to interference from both other pigments and the binder. Moreover Raman microscopy is amenable to *in situ* studies, which makes it particularly important for the study of illuminated manuscripts, and it has high spatial resolution, a facility of obvious value for establishing the nature of pigment mixes. It is hoped that the technique can be demonstrated.

The Discourse begins with a survey of the pigments, inorganic and organic, responsible for the beautiful illuminations in many early manuscripts and paintings. Examples are taken from Italian, German, Icelandic, Persian, and other sources. The pigments present in Italian and Egyptian pottery have also been identified, and will be discussed, as will the nature of the degradation products arising from overexposure to light and atmospheric pollution.

The Lecturer: born 1935, he was educated at the Universities of Canterbury and Olago before being awarded a PhD in Inorganic Chemistry at University College London in 1961. He joined the academic staff at that Institution shortly thereafter, becoming a Professor in 1982, Dean of Science 1988-89, and Sir William Ramsay Professor and Head of Department in 1989. His research in inorganic chemistry and spectroscopy has led to the publication of nearly 400 scientific papers, 3 books and 33 edited books. He has held many visiting professorships and has lectured at some 250 universities and institutions in 28 countries throughout the world. He has given the Royal Society of Chemistry's Tilden, Nyholm, Thomas Graham and Harry Hallam Lectures and has served on many national and international committees, including the Royal Society Council. He was elected an Honorary Fellow of the Royal Society of New Zealand in 1989, a Fellow of the Royal Society of New Zealand in 1989, and a Fellow of the Royal Society and a Member of the Academia Europaeea in 1990, and a Fellow of University College London in 1993.

## FRIDAY EVENING DISCOURSES

Addressed to Members and their guests, and Subscribers. An exhibition relating to the subject of the Discourse may be visited in the main library (first floor) between 8.00 pm and 11.00 pm. Refreshments are served after the Discourse. The Discourse begins at 9.00 pm precisely and lasts for one hour. Members and guests are requested to be in their seats by 8.45 pm.

Friday Evening Discourses are, by tradition, formal occasions and, while evening dress (dinner jacket) is not obligatory, the Council would like guests to know that it is customary. Members are asked to ensure that their guests are suitably attired. Admission of casually dressed Members or guests may be refused. Discourses are intended for an adult audience but well-behaved children will be admitted if they are suitably dressed. It has been customary to credit Members for tickets returned before 5.00 pm on the day before the Discourse. However, this courtesy has proved costly in time and labour and, in cases where inadequate notice has been given, has prevented the attendance of other Members. It is regretted that this practice is suspended and refunds will not be available for returned tickets.

### DISCOURSE TICKETS

All seats, whether booked in advance or at the door, will be subject to a charge.

Members, Associate Subscribers and Schools Subscribers: Subscription to a sin

Members, Associate Subscribers and Schools Subscribers: Subscription to a single Discourse, including reservation charge, refreshments and admission to the library exhibition.

Main theatre (downstairs)
Main theatre (gallery)

Members £11.00 (not transferable); Guests £12.00 Members £5.00 (not transferable); Guests £6.00

## DISCOURSE SUBSCRIPTION TICKETS

Members and Associate Subscribers may subscribe to the twenty Discourses of one calendar year, from January until December, as follows:

Main theatre (downstairs) £120.00 (not transferable)

Main theatre (gallery) £55.00 (not transferable)

A Discourse Subscription Ticket does not automatically reserve a seat unless a reservation has been made (see 'Reservation of Seats' below). Holders of Discourse Subscription Tickets cannot be guaranteed a seat on every occasion. Tickets are non-transferable.

### RESERVING SEATS

Telephone bookings are accepted for CREDIT CARD HOLDERS ONLY (Mastercard or Visa). A 50p administration charge will be made if you require the tickets to be posted to you. Postal bookings must be accompanied by a blank cheque with an upper limit entered between the crossed lines; please enclose an SAE if you require your tickets to be posted to you. Unsold tickets will be available at the Ticket Office from 7.45 pm to 8.45 pm on the evening of the Discourse at the above charges. If the theatre is full, the Discourse will be relayed to the Bernard Sunley Lecture Theatre and no charge will be made for seats in this theatre. Members who make advance reservations and are subsequently unable to use their ticket(s) are asked to notify the Ticket Office before 5.00 pm on the day preceding the Discourse. Tickets are not transferable and no refunds will be made.

### INTRODUCING GUESTS

Members and Associate Subscribers may introduce guests at Evening Discourses. The first two guests will be at the normal rate (£12.00), and the third guest, complimentary; for each additional guest ticket purchased, one extra will be offered free. Corporates and College Corporates will be entitled to up to four tickets per Discourse, and School Subscribers may apply for additional tickets.

### OPEN DISCOURSE

Friday, March 21 at 6.00 pm SIR HAROLD KROTO, FRS

School of Chemistry and Molecular Sciences, University of Sussex

As part of the National Week of Science, Engineering and Technology, and in association with the Royal Society of Chemistry, an open discourse by the UK's most recent Nobel Laureate will be held at which all are welcome, no prior booking is necessary, and admission is free.

## MEMBERS' MEETINGS IN 1997

Monday, February 3 at 6.00 pm ORDINARY GENERAL MEETING OF MEMBERS

Monday, May 19 at 5.00 pm ANNUAL GENERAL MEETING OF MEMBERS

Monday, July 7 at 6.00 pm ORDINARY GENERAL MEETING OF MEMBERS

Monday, November 8 at 6.00 pm ORDINARY GENERAL MEETING OF MEMBERS

## DATES OF DISCOURSES SUMMER TERM 1997

Friday 9 May Friday 16 May Friday 23 May Friday 30 May



University College London
Development Office
Gower Street
London WC1E 6BT

Tel: (44) 171-391 1635 Fax: (44) 171-209 0117

Dr Alfred Bader 924 East Juneau, Suite 622 Milwaukee Wisconsin 53202 USA

6 March 1997

### Dear Dr Bader

I thought that I would write and add my thanks to those of the Department for your recent gift to support the bursaries scheme for the next three years. I am enclosing a formal UCL Friends & Alumni Inc. acknowledgement in case you should need this for tax purposes. It is kind, and extremely helpful, of you to let us know of your long-term provision for the bursaries. We very much appreciate this.

Also enclosed is a copy of the College's "Reports and Financial Statements" for the year ending 31 July 1996, in case this is of interest to you. It certainly covers some of the issues endowment income and such like - that you raised with me when we met last year.

I hope that this letter finds you and Isabel in good health.

Thank you again, on behalf of UCL.

With best wishes.

Yours sincerely

Rachel Hall Director of Development

Encs.





W. B. Motherwell
Alexander Williamson Professor of Chemistry

University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street

20 Gordon Street London WC1H 0AJ

Direct Line: 0171-380 7533

Switchboard: 0171-387 7050 ext. 7533

Fax: 0171-380 7463 or

0171-380 7524

20th January 97

Dear alfred and Isabel,

thank you both for the delightful day at
Herstmoreaux and Preshell before otherstman. Petyn,
Many-dynn and I were all very excited and it
was great to see Professor Pophael and Preshere.
Once again. Please keep me informed of your
detective work on Fornday and Prossion Blueit is going to develop into a foreinating story
It is going to develop into a foreinating story
of have just received the capy of the letter
which you have sent to Packel Hall about the
Boder Proje at UCL. I had alrowly spoken to
Boder Proje at UCL. I had alrowly spoken to
Boder Proje at UCL. I had alrowly spoken to
what has been done and what should be done. I
what has been done and what should be done. I
write to you!

( Please excuse my poor writing. This note is being written on a Main while in a joinney to visit my Doch who has been taken into hospital. )

With very best wister as always,

Wille

PTO

Un amod home Norm reminded me to send off the photo which many type took with mer "tey" camera fet me know if you have made yet another discovery We were also delighted by the wateroday which shows a dramatic Normaler stay is the south downs. It is now tromed in our longe and lakes a preminent place alongwide the beautiful scene is material by Both which you gave us some your earlier

Very Rest wister to both for a happy and healthy year in 1997



924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

March 29, 1996

Professor Robin J.H. Clark, FRS Head, Department of Chemistry Christopher Ingold Laboratories University College London 20 Gordon Street London WC1H 0AJ England

### Dear Robin:

In response to your kind letter of March 19th, there appears to be a misunderstanding.

Of course, Isabel and I are happy about the way that the bursary scheme is being handled so very carefully, and I have already sent my check to cover the cost of the next year. But of course, we plan to continue the funding for more than just one year. It is just that at the moment, interest rates paid are so low that it makes better sense to pay for one or several years.

In any case, I look forward to being back in London at the end of May and most of July and will discuss all the details then. Please just don't think for a moment that we want to fund the scheme for just one further year.

With all good wishes, I remain,

Yours sincerely,

AB/cw

c: Professor Anthony Deeming



### R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U S A

-TAON

University College London Christopher Ingold Laboratories 20 Gordon Street

London WC1H 0AJ

Tel: 0171-387 7050 Ext. 4620 Direct Line: 0171-380 7457

Fax: 0171-380 7463 E-mail: ucca15r@ucl.ac.uk

19 March 1996

Dear Alfred,

I understand from Dr Cooper that you have agreed to continue to fund your bursary scheme for disadvantaged students for a further year. I'm writing to thank you most sincerely for doing this. The scheme is a really good one, and Tony Deeming and others are working very hard indeed to make it successful.

Thank you again – we do appreciate your generosity, as do the students who derive the benefit.

Yours sincerely,

Professor R.J.H. Clark

52 Wickham Avenue, BEXHILL ON SEA, E Sussex Dr R E Cooper

RJHC/djm

CC.



924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

February 21, 1997

Dr. R. E. Cooper University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ England

Dear Bob:

I am sorry that my inquiry about the Bader prize has caused you such an enormous amount of work, described in your kind letter of February 11th.

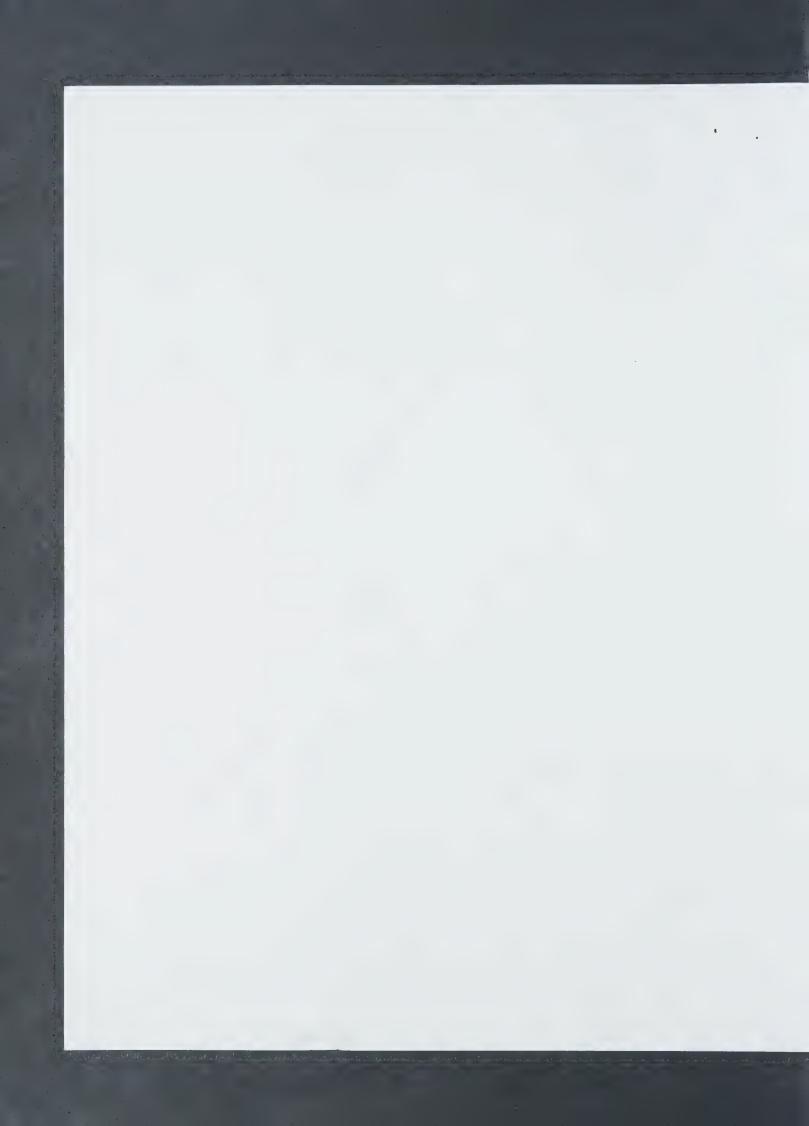
When I gave University College the £10,000 interest rates were very much higher and you could purchase British government bonds maturing twenty or thirty years from now, yielding well over ten percent. I counselled that such bonds be bought, but clearly that would have caused some difficulties and the money was put into a general fund.

Of course I understand the difficulties of deviating from an accepted practice and I am happy that the prize will now revert to £1,000 per year.

With all good wishes, I remain,

Yours sincerely,

AB/nik





Dr R E Cooper Extn: 4600 University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Fax: 0171-380 7463

Dr Alfred Bader 924 East Juneau, Suit 622 Milwaukee, Wisconsin 53202 USA 11 February 1997

Dear Alfred.

Willie Motherwell and Rachel Hall have both referred to me copies of your letter of January 15 concerning the reduction in the value of the Bader Prize to £700 pa. Until Willie mentioned it I was unaware that such a reduction had taken place, and I have not been able to find any information that the Department had requested or agreed to such a reduction. However, I did check the copy of the prize certificate in our files and it states thereon that the value of the prize is £700 so we should have picked this up before the award was made, and I can only apologise that this was not done.

In order to find out what had gone wrong I have made enquiries from the several college departments who help administer the prize funds, starting with the Finance Division, who have provided me with details as to how the original £10,000 invested in January 1991 has done, and these are attached. You will note that the average yield (interest + income + capital appreciation) over the last 6 years has been some 14.2%, and that although the income yield has been between £800-£900 per year only, the shortfall needed to make the prize up to £1000 has so far been met from the extra years interest (for 1990-91) as was intended by our Mr Ellis, who devised the scheme, and only now will we need to start using some of the capital appreciation, by selling some units annually to make up any shortfall from £1000 in the annual income received. The capital value is now nearly £15,000, so we may not have to do this at all if interest rates rise.

There is therefore no need to reduce the prize value on financial grounds. However, for most prizes the College pursues a much more conservative policy and regularly reviews the prize funds to ensure that the value of the prizes awarded does not exceed the income, except in special circumstances. For this review the capital gain is usually disregarded, as it is felt that increases here will maintain the real value of the fund and protect it from the effects of inflation. To this effect the Director of Student Finance tells me that such a review was held in summer 1995 and a letter sent to the Head of Department to the effect that the Bader fund income was approximately £815 pa, and that in consequence the prize should be reduced in value to £700 pa. I do not know why this letter was sent, as, although Mr Ellis has retired,



his successor is well aware of the circumstances of the setting up of the prize and its value. However, I cannot trace that Professor Clark ever received this letter and nothing appears on our files. Nor do the College have a record of a reply; but the letter was couched in such terms that absence of a reply indicated the Department's assent to the reduction, which was therefore implemented.

The Department even so should have picked this up, and indeed the Chairman of the Departmental Examination Board, who deals with the award of prizes, did notice the reduction, but did not realize its significance.

It is in all a sorry story, which does not reflect credit on the Department or on the College, and I can only apologise again that it has happened. I have however taken the following steps to redress the situation.

- 1. Professor Clark is writing to request that the value of the prize should revert to the original value of £1000.
- 2. I am asking the College to place a note on file to the effect that the prize value is to remain at £1000 and not be altered unless -
  - (a) to increase the value if the investment does well enough or
  - (b) to decrease it only if the investment does so badly that the original capital sum would be eroded below £10,000; and in either case to inform you of what is proposed before any action is taken.
- 3. I shall provide a schedule of the value of all Departmental Prizes for the use of the Departmental Tutor and Chairman of the Departmental Examination Board, so that in future any discrepancy might be picked up and dealt with before any prize is awarded.

I hope that in future this will prevent any further happenings of this nature. I am sorry that this has been such a long letter but I do feel that you should have as full an explanation as to what happened as possible.

Yours sincerely

afol

R E Cooper



### COPY OF EMAIL MESSAGE FROM COLIN READ (FINANCE DIVISION) TO BOB COOPER RE BADER PRIZE FUND INVESTMENT

### Dear Bob,

Thanks for the information on the Bader Prize. The only change to your attached table was that the dividend income for 94-5 should be £782.17 and not £799.69 as estimated by you. Other than that the figures quoted are correct. However the balance will not be quite as bad as you state because you do not show the interest that is allocated to the fund (based on average balances). On this fund it amounts to an extra £30+ pa.

The capital is invested in the College's Unified Fund. The rate for buying in or selling is revalued each August and at the time of investment the rate was £1.90. The annual rates since then are 8/91 £2.02, 8/92 £2.01, 8/93 £2.32, 8/94 £2.37, 8/95 £2.62 and currently from 8/96 £2.79. This gives the fund a capital value of £14,708, which is just short of a 50% increase on the original investment.

The dividend income remains fairly steady at around £800 pa. Although we have been through a recession most companies try to maintain their annual dividends and, therefore, the income has not fallen as much as inflation. UCL also gives a nominal interest to each fund based on the average balance in the fund over the course of the year. Neither of these figures are based on actual percentages but the annual returns work out as follows:

| YEAR                    | INCOME | INTEREST | TOTAL  | %age        | unit cost | GROWTH(%age) | INCREASE(%age) |
|-------------------------|--------|----------|--------|-------------|-----------|--------------|----------------|
| 90-1                    | £887   | £34      | £921   | 9.21        | £1.90     | nil          | 9.2            |
| 91-2                    | £856   | £46      | £902 = | 9.02        | £2.02     | 6.50         | 15.52          |
| 92-3                    | £779   | £29      | £807 = | 8.07        | £2.01     | nil          | 8.07           |
| 93-4                    | £832   | £27      | £858 = | 8.58        | £2.32     | 14.80        | 23.38          |
| 94-5                    | £782   | £27      | £809 = | 8.09        | £2.37     | 2.20         | 10.29          |
| 95-6                    | £793   | £30      | £823 = | 8.23        | £2.62     | 10.50        | 18.73          |
| 96-7                    |        |          |        |             | £2.79     |              |                |
|                         |        |          | £5,121 | 51.21 total |           | 34.00        | 85.19          |
|                         |        |          |        |             |           |              |                |
| AVERAGE ANNUAL INCREASE |        |          |        | 8.53        |           | 566.67       | 14.20          |





### R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 924 East Juneau, Suite 622 MILWAUKEE Wisconsin 53202 U S A University College London

Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Ext. 4620 Direct Line: 0171-380 7457

Fax: 0171-380 7463

E-mail: r.j.h.clark@ucl.ac.uk

24 February 1997

den Alped,

Thank you for your letter of 22 January. I understand your concerns about making the proper choice of students for any project — but, that, after all, is what we in academia specialise in. I would not have dreamt of having made the proposition without having been sure that the person concerned was highly appropriate.

I can only repeat that research at the Arts/Science frontier is, indeed, extremely difficult to finance — neither the EPSRC nor Arts-based funding bodies are very keen to do so in this country (they *are* in Italy!). If you have any suggestions as to how I might be able to obtain funding from any source for Miss Hardy, I'd be immensely grateful if you'd let me know.

With best wishes,

Yours sincerely,

Professor R.J.H. Clark

RJHC/djm





924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

August 8, 1997

Ms. Rachel Hall
Director of Development
University College London
Gower Street
London WC1E 6BT
England

Dear Ms. Hall:

The U.S. Internal Revenue Service requires receipts from the organizations that receive donations.

In going through my records, I note that I have not received receipts from the Friends of University College for my last two donations. Could you please ask the Friends of University College to send these to me.

With all good wishes, I remain,

Yours sincerely,

AB/nik

Enclosure



The Chemical and Physical Society University college London 122nd Session 1997-1998

The Christopher Ingold Laboratories
Department of Chemistry
University College London
20 Gordon Street
London WC1H OAJ

0171 387 7050 7533

Dr Alfred Bader 924 East Juneau Suite 622 Milwaukee Wisconsin 53202 USA

7th July 1997

Dear Alfred

This year, I have been unable to escape my departmental duty of taking up the Presidency of the Chemical and Physical Society of University College. In the light of this I would like to invite you to speak at one of our meetings. As you may know, this is the first chemical society in England with a continuous history of over 120 years (but not in Scotland!).

Each Tuesday evening of term at around 5 o'clock, a lecture is given by a speaker on a topic based around their work. The talk is directed at a general audience which includes many undergraduates and postgraduates. I have enclosed a copy of last year's lecture timetable.

Each meeting is preceded by tea, and afterwards there is a dinner in the department for those who wish to talk with the speaker in a less formal atmosphere. Everyone is invited to the meal and about twenty staff and students usually attend.

If you wish to accept our invitation, please could you please supply me with a title for your talk. The society's secretary Matthew Popkin will then contact you to select a mutually convenient date.

While I appreciate that you have a very busy schedule we would be honoured if you helped to maintain our tradition and accepted our invitation. I look forward to hearing from you.

With best wishes,

Wille.

Nov14 & 25

William B Motherwell





924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

August 18, 1997

Ms. Rachel Hall
Director of Development
University College London
Development Office
Gower Street
London WC1E 6BT
ENGLAND

Dear Ms. Hall:

Thank you for your fax of today and the two receipts for the IRS, much appreciated.

As you know, I will be in London during the week of November 17 and would then be happy to talk to Dr. Drucker.

Best regards,

Sincerely,

AB/nik





Development Office

University College London



DR. ALFRED BADER WHITE GABLES 2A HOLMESDALE ROAD BEXHILL ON-SEA EAST SUSSEX TN39 3QE TEL: 01424 222223 Ms Rachel Nale Director of Development RE you lax of to day i) ear M's Salc There is no need for Dr. House to came to Milwanker: he can call me in Bexhill Eis afternoon I was in your chemistry deportment en Menday & Prof. Mokewell invited me to speak on November 18 - 1 look forward to fat. I am glad flat te busparier are going well - Lank to the efforts of Dr. Daley Price and Viol. Heeming. Be A withe Lua Brag July 18 97



#### -- Toomsey (assisted the only --

H- (0)









#### Development Office

rollowin. epon estimate the first in the state of the particularit with regard 

 $(x-t) + (t-t) = 0 \quad , \quad h = \{(1,0), (1-t), (1-t),$ iptirm tuture strategy. The study will in the study will in the study will be study wi Fro into: , it was all the life of the second of the secon

it again the same to the same ery vides (fig. 1) representation to the second contract of the

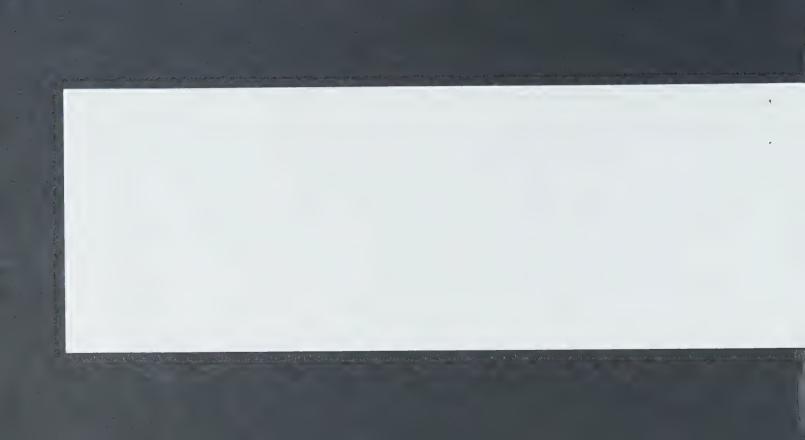
er porture it in a (prover little in the lit (). ((de | 10 M) ()) () ras, however, a window of opportunit

490.8C.1.3061

University College London Development Office Gower Street









# FAX MESSAGE

7 1-11-11-1

From: Karthelman District College Coll

No. 2 (20%)

50

Tree of the contract of the co

AS ATTACIBLE



The Chemical and Physical Society University college London 122nd Session 1997-1998

The Christopher Ingold Laboratories
Department of Chemistry
University College London
20 Gordon Street
London WC1H OAJ

0171 387 7050 7533

Dr Alfred Bader 924 East Juneau Suite 622 Milwaukee Wisconsin 53202 USA

7th July 1997

Dear Alfred

This year, I have been unable to escape my departmental duty of taking up the Presidency of the Chemical and Physical Society of University College. In the light of this I would like to invite you to speak at one of our meetings. As you may know, this is the first chemical society in England with a continuous history of over 120 years (but not in Scotland!).

Each Tuesday evening of term at around 5 o'clock, a lecture is given by a speaker on a topic based around their work. The talk is directed at a general audience which includes many undergraduates and postgraduates. I have enclosed a copy of last year's lecture timetable.

Each meeting is preceded by tea, and afterwards there is a dinner in the department for those who wish to talk with the speaker in a less formal atmosphere. Everyone is invited to the meal and about twenty staff and students usually attend.

If you wish to accept our invitation, please could you please supply me with a title for your talk. The society's secretary Matthew Popkin will then contact you to select a mutually convenient date.

While I appreciate that you have a very busy schedule we would be honoured if you helped to maintain our tradition and accepted our invitation. I look forward to hearing from you.

With best wishes.

Wille

William B Motherwell



# The Chemical and Physical Society 121st Session 1996-1997

### September

| 22 | N / L | CTT. | Cu .   |
|----|-------|------|--------|
| 23 | Mon   | Lerm | Starts |
|    |       |      |        |

#### October

| 1 8 | Tue<br>Tue | Dr. L.Turin (UCL)<br>Prof. M.Henchman (Brandeis) | "Is Smell a Spectroscopic Sense?" "How to Design an Invisible Missile" |
|-----|------------|--|--|
| 15  | Tue        | RSC Young Chemists Meeting                       | Lecture followed by party in   |
| 22  | Tue        | Dr. W.G.Richards (Oxford)                        | Engineering Dept. bar "Computer-Aided Drug Discovery"                  |

# November

| 5        | Tue        | Dr. D.O'Hare (Oxford)                              | "Making and Studying Organometallic                     |
|----------|------------|--|---|
| 12<br>19 | Tue<br>Tue | RSC Symposium at UCL<br>Dr. C.Sell (Quest Int'nal) | Sandwiches" All day, Includes Ingold Lecture            |
| 26       | Tue        | Sir John Mason (Centre for                         | "Chemistry and Perfume" "The Latest Developments in the |
| 30       | Fri        | Environmental Technology) Neil Sharp Memorial Ball | Global Warming Debate"                                  |

### **December**

| 3  | Tue | Dr. D.Cowan (Drug Control Centre) | "The Dope in Sport" |
|----|-----|-----------------------------------|---------------------|
| 10 |     | Xmas Quiz                         | The Dope in Sport   |
| 13 | Fri | Term Ends                         |                     |

## **January**

| 6 7   | Mon<br>Tue | Term Starts Prof. J.K.M.Sanders (Cambridge)   | "Biodegradable Plastics"                         |
|-------|------------|---|--|
| 14    | Tue        | Prof. D.A.Williams (UCL)                      | "Gas, Dust, and Star Formation in the Galaxy"    |
| 21 28 | Tue<br>Tue | Prof. J.Mann (Reading) Dr. J.E.Anderson (UCL) | "The Elusive Magic Bullet" "A Spectrum of Wines" |

## **February**

| 4<br>11<br>18 | Tue<br>Tue<br>Tue | Dr. M.Bonell (UNESCO) RSC Chilterns & Middlesex Meeting Dr. M.Anstice (Eastman Dental Institute) Prof. S.E.V.Phillips (Leeds) | Title to be arranged "Chemistry and Dental Materials" <i>n.b.</i> tea 5pm, lecture 5.30 "Nature's Mystic Book; The |
|---------------|-------------------|---|--|
| 25            | Tue               | Student Papers  | Structure of DNA and Proteins"   |

## March

| 4  | Tue | Prof. Sir John Meurig Thomas (Cambridge) | "Designed Solid Catalysis" |
|----|-----|--|----------------------------|
| 11 | Tue | Presidential Address                     | 8                          |
| 18 | Tue | Annual Dinner & Revue                    |                            |
| 21 | Fri | Term ends                                |                            |





#### Dr. Alfred Bader

924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

January 15, 1997

Ms. Rachel Hall
Director of Development
University College London
Development Office
Gower Street
London WC1E 6BT
England

Dear Ms. Hall:

Isabel and I so enjoyed our dinner at University College and particularly the good fortune of being seated beside you so that we could discuss a number of subjects about University funding.

As you know, the funding of the Bader bursaries is proceeding smoothly and I am happy to be able to tell you that the Chemistry department of the University of Edinburgh was able to use the material prepared by Professor Deeming and four similar bursaries are likely to begin at Edinburgh this summer.

At such a happy occasion as the Annual Dinner I did not want to bother you with one vexing question.

Some years ago Isabel and I established scholarships at various British universities such as, for instance, University College, Imperial College, Glasgow, etc. These are for senior students to begin Graduate work in Organic Chemistry at these universities.

In every case, we gave each University £10,000. At the time, interest rates were high and I urged each University to invest the money in long-term bonds so that a scholarship of £1,000 could be given for at least 30 years.



Ms. Rachel Hall January 15, 1997 Page 2

I was surprised to learn that University College has unilaterally reduced the award to £700. Checking with Imperial College, I find that it has maintained the award at £1,000 and, as you will see from the enclosed, I have just received a thank you note from the student in Glasgow who also received the £1,000 award.

Does it really seem right to you to reduce the award? I much look forward to hearing from you and remain with best personal regards,

Yours sincerely,

AB/nik

encl.

cc: Professor Robin Clark Professor W. Motherwell



The Henderson Laboratory
The Joseph Black Building
Glasgow University
University Avenue
G12 5QQ
Monday 6 January 1997

Door Or Boder

I am writing to thank you most sincerely for the prize of £1000 donated by you and accepted by me with a great deal of pride and greatitude.

It was most unfortunate that you were unable to present the cheque in person but I would wish you to be aware of my appreciation of your sponsorship.

Yours sincerely Vikki C. Rouson.





University College London
Development Office
Gower Street
London WC1E 6BT

Tel: 0171-391 1635 Fax: 0171-209 0117

Dr Alfred Bader 2A Holmesdale Road Bexhill on Sea East Sussex TN39 3QE

10 December 1996



Dear Dr Bader

It was a pleasure to meet you just recently at the Chemistry Department's annual Lab Dinner. I know that you and Isobel are regular guests and I hope that you both enjoyed the evening as much as you obviously have in the past. I also hope that you found your way home to Bexhill without too much trouble, after staying rather longer than planned to hear the speeches in their entirety.

During the course of dinner you asked a couple of questions to which I promised answers, and raised a number of issues about which I promised to send further details. With everything now to hand I am very pleased to enclose all of this information for you.

I shall begin with the question of endowments - both for UCL as a whole and for the Chemistry Department in particular. The College's total endowment (investments with specific trusts attaching to the monies) currently stands at just under £50 million. Last year these endowments generated £6.3 million income, of which £2.8 million was spent on the requisite purposes. You may also be interested to know that UCL's turnover currently stands at just over £200 million p.a.

It transpires that the Chemistry Department itself is not well endowed. Aside from your generous support for the Bader Bursaries and Prize, the Department has two small endowed funds, the A G Davis Travel Bursary fund and the Lady Durning Lawrence fund, generating £350 and £1,000 p.a. respectively, and a fifth share of the Le Rossignol fund which provides the Department with annual income of the order of £4,000, to further research in Chemistry.

The Department does have one block of more significant support, the SmithKline & French Chair which is held by Professor Robin Ganellin, but unfortunately this funding is short-term rather than an endowment and is due to come to an end in the Autumn of 1999. As I mentioned when we met, the true cost of a fully endowed Chair in a science department is now over £2 million (although the endowment of salary costs alone is nearer to £1.25 million), which makes it increasingly difficult to attract this type of long-term support.



We talked a little about the wider UCL and about your interest in Flemish art. Here I am pleased to have some very positive news. I have spoken with Professor David Bindman, Head of the History of Art Department, and we seem to have a number of connections with your field of interest. In particular, understand that we have two seventeenth-century Dutch and Flemish specialists, Mr Charles Ford and Ms Tarnya Cooper, that we have a number of prints of this type and age in our Strang Print Room Collection, and that we have a specialist Painting Analysis Unit (which examines paintings for both private collectors and the sale rooms) which has seen some notable works, including paintings by Claude and Teniers, during the last year.

I have also uncovered an interesting link between History of Art and Chemistry! Just this year, the History of Art Department introduced a new degree programme entitled History of Art with Material Studies. The degree offers students the opportunity to combine an interest in close scientific observation and the analysis of material objects (in this case works of art) with a full programme of study in the History of Art. This is a modular programme involving the History of Art, Archaeology and Chemistry Departments.

I would be very happy to arrange for you to meet some of our art historians, and perhaps even to take a look at the College's art collections, if that would be of interest.

In closing, I have discussed the Bader Prize with Professor Robin Clark, who is delighted that you would like to meet his year's recipient. Since I know that the Provost, Sir Derek Roberts, is also very keen to meet with you and Isobel we would very much like to arrange a small lunch or dinner at UCL, perhaps sometime early in the New Year? I am conscious that you spend much of your time outside of the UK so if you are agreeable to our suggestion I wonder whether you could suggest some dates which would be convenient for you? We would then work around these to make the necessary arrangements.

With kind regards

Yours sincerely

Rachel Hall

Director of Development

cc. Professor Robin Clark







#### Dr. Alfred Bader

924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists January 22, 1997

Professor Robin J.H. Clark, FRS Head, Department of Chemistry Christopher Ingold Laboratories University College London 20 Gordon Street London WC1H 0AJ England

Dear Robin:

Thank you for your letter of January 16th regarding financial help for Miss Amanda Hardy.

Robin, there must be hundreds of worthy students around Britain who need financial help. How do we pick these intelligently? Hence, Isabel and I have refrained from helping individuals but rather set up scholarships for very able students and bursaries for disadvantaged ones.

You know how hard Tony Deeming and Sally Price have worked to establish the bursaries at UCL and that we want to continue in perpetuity. Also their help has allowed us to go ahead and establish similar bursaries at Edinburgh University and we hope to move to other urban universities shortly.

Regarding the scholarships, I was puzzled why University College is the only one among many that has reduced the amount of the scholarship on which we agreed initially. I much look forward to hearing about that and hopefully to have the matter corrected.

I am a life member of the Royal Institution but unfortunately cannot be at your lecture on March the 7th.

With all good wishes, I remain,

Yours sincerely,

AB/nik





University College London Chemistry Department Christopher Ingold Laboratories

20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Fax: 0171-380 7463

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

19 March 1996

Dear Alfred,

Thank you very much for the cheque for \$15,000 for the bursary scheme for 1996/97 which I have passed on. Sally and I are very happy to explain what we are doing to people in the Universities of Edinburgh, Glasgow and Birmingham. We will produce a few pages to decribe the scheme including the summer school and the costs involved. We look forward to your visit in May or July. The summer school will be on the 4th and 5th of July and of course we will be very busy on those two days but please feel free to come whenever it suits you best.

Tany

Yours sincerely,

Professor A J Deeming





Dr. Alfred Bader

924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists

March 29, 1996

Professor Robin J.H. Clark, FRS Head, Department of Chemistry Christopher Ingold Laboratories University College London 20 Gordon Street London WC1H 0AJ England

Dear Robin:

In response to your kind letter of March 19th, there appears to be a misunderstanding.

Of course, Isabel and I are happy about the way that the bursary scheme is being handled so very carefully, and I have already sent my check to cover the cost of the next year. But of course, we plan to continue the funding for more than just one year. It is just that at the moment, interest rates paid are so low that it makes better sense to pay for one or several years.

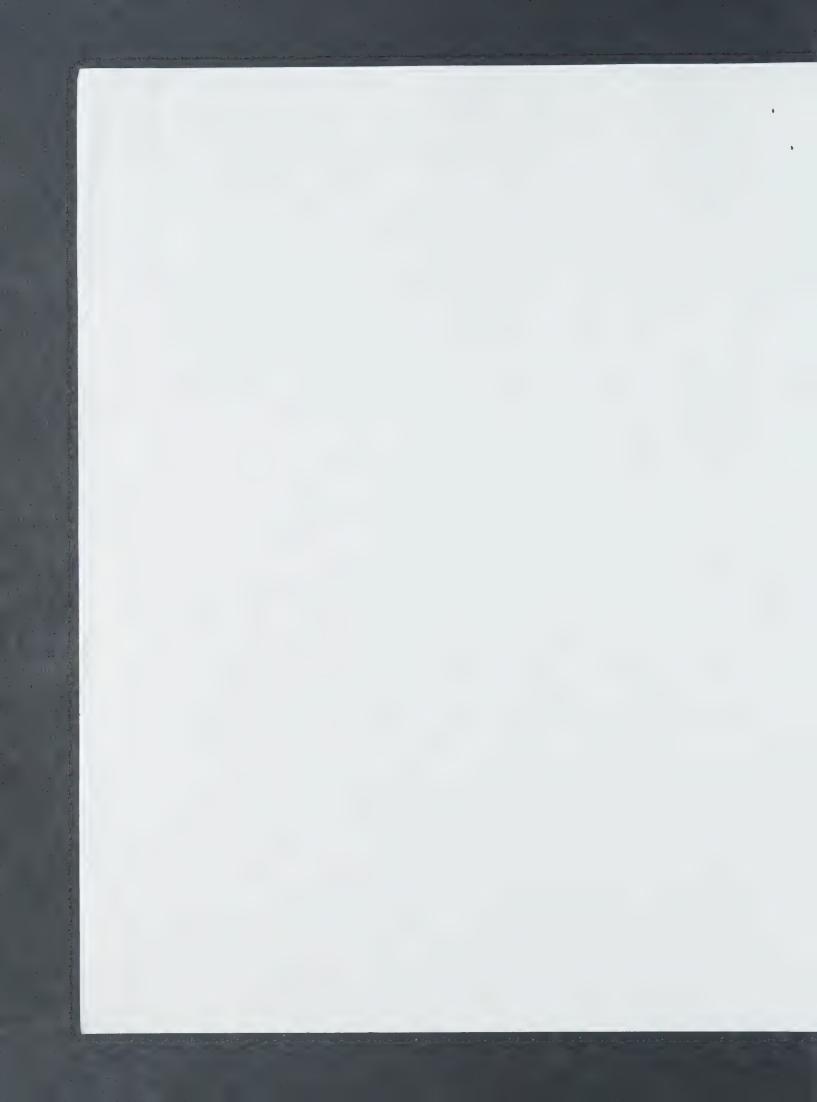
In any case, I look forward to being back in London at the end of May and most of July and will discuss all the details then. Please just don't think for a moment that we want to fund the scheme for just one further year.

With all good wishes, I remain,

Yours sincerely,

AB/cw

c: Professor Anthony Deeming





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U S A University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Ext. 4620 Direct Line: 0171-380 7457 Fax: 0171-380 7463 E-mail: ucca15r@ucl.ac.uk

19 March 1996

Dear Alfred,

I understand from Dr Cooper that you have agreed to continue to fund your bursary scheme for disadvantaged students for a further year. I'm writing to thank you most sincerely for doing this. The scheme is a really good one, and Tony Deeming and others are working very hard indeed to make it successful.

Thank you again – we do appreciate your generosity, as do the students who derive the benefit.

Yours sincerely,

Professor R.J.H. Clark

cc. 52 Wickham Avenue, BEXHILL ON SEA, E Sussex Dr R E Cooper

RJHC/djm





University College London

Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Fax: 0171-380 7463

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

19 March 1996

Dear Alfred,

Thank you very much for the cheque for \$15,000 for the bursary scheme for 1996/97 which I have passed on. Sally and I are very happy to explain what we are doing to people in the Universities of Edinburgh, Glasgow and Birmingham. We will produce a few pages to decribe the scheme including the summer school and the costs involved. We look forward to your visit in May or July. The summer school will be on the 4th and 5th of July and of course we will be very busy on those two days but please feel free to come whenever it suits you best.

Tany

Yours sincerely,

Professor A J Deeming



# Bader Bursaries in Chemistry The UCL Scheme

These notes were prepared by Tony Deeming to whom enquiries about the UCL Scheme should be directed.

Professor Tony Deeming Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ

Tel: 0171-387-7050 X 4705 Fax: 0171-380-7463 e-mail: a.j.deeming@ucl.ac.uk

#### 1. INTRODUCTION

The UCL Scheme was initiated in 1993 school with the financial support of Dr Alfred Bader when we ran the first summer school. The first students to receive bursaries were registered for degree courses in 1994 and the first Bader Bursary students will be graduating in 1997.

Many state schools in poorer districts have difficulties in encouraging students from certain home backgrounds to take A-levels and to opt for higher education in science, including some students with obvious talent. The Deering report to come out next year will address the problem of encouraging young people from poor backgrounds into higher education. State comprehensive schools in inner city areas commonly have poor records of sending students on to university. There are various reasons for this including low individual expectations, poor encouragement from parents and friends and, increasingly, financial problems. The UCL Chemistry Department is trying, with the help of sponsorship by Dr Alfred Bader, to support promising students with various disadvantages of background that do not encourage them to study chemistry. As well as supporting particular students we hope that disadvantaged schools feel we are offering them some encouragement by supporting their students and this may have a knock-on effect with other students not directly supported.

The Scheme is to award four bursaries each year to incoming students. These awards are £1000 for each year of the three-year BSc or four-year MSci degree. The bursaries are awarded to students coming from state comprehensive schools, generally in city areas and in communities with low traditions of higher education. Students are nominated by teachers and selected after a visit by the sixth-former to UCL to talk with tutors. We put considerable weight in selecting suitable students on the confidential reference from the schoolteacher and on our interview with the students.

## 2. OPERATION OF SCHEME

The major challenge in running the Scheme is to identify and select suitable students of appropriate background for the award. Clearly students from poor schools are unlikely to be well qualified in terms of A-level grades and therefore we need to assess potential carefully. This part of the operation is very time-consuming and although, this is closely linked with our other recruitment efforts, we would not



recommend any department to consider operating a scheme of this kind solely for the purposes of increasing recruitment. We attempt to identify appropriate students in the following ways:

### a. Mailing to Schools

We have produced a mailing list of schools, mainly within 50 miles of UCL, that we know from experience and from our personal contact with teachers do have low traditions of sending students to university. Nearly all schools on our mailing list are state comprehensives and not grant-maintained, grammar or independant schools. The latter schools will, no doubt, have the occassional suitable student from a poor family background, but in general the very fact that the student is in such a school will be a sufficient inducement to consider higher education. We explain the UCL Scheme to teachers and ask them to nominate students for an award.

**Comments on this approach:** Teachers are very busy and get bombarded by mail. As a result we only get about 8 nominations by this methods. Nominated students are invited to come to UCL to talk with us, either at the Summer School or on an UCAS afternoon. As we talk face-to-face with teachers from disadvantaged schools, we get considerable encouragement for what we are doing and we believe that we are slowly building up interest in the awards.

### b. Summer School (AIMS, Adventures in Molecular Science)

We also mail the same group of disadvantaged schools to advertise AIMS, a two-day residential summer school at UCL, specifically designed to encourage and enthuse students at the end of their first year in the sixth form (normally 17-year olds). The school runs at the beginning of July for about 50 participants and contains an afternoon of laboratory work, lecture-demonstrations, visits to research laboratories, tutorials in groups of four or five, talks and presentations and discussion sessions. Students are accommodated for one night in a hall of residence. Because unfortunately we cannot run a summer school in term-time when undergraduates are around, we encourage contact between participants and our postgraduate students who were first-degree students at UCL. Our students take the sixth-formers to lunch and dinner, demonstrate to them in the teaching laboratories and are involved in demonstrating their research. It is important to talk individually with the participants during the two days to assess their suitability. We subsequently follow up with letters to teachers of the summer school participants.

#### Comments on this approach:

- a. Response from students and their teachers is very positive. Most students say in a questionnaire that they have a much better appreciation of chemistry as a degree subject following the school. Some students become very enthusiastic but go eventually to other universities but a significant number have applied to UCL and a few have entered with bursaries and some without.
- b. A problem is to get the right students attending. We strongly emphasise to teachers that we do not want them to send us students who are inclined towards engineering, medicine, pharmacy etc. Capable students who are keen on chemistry or are genuinely still making up their minds about their future are encouraged to attend. However, ever year we get some attending who have no real intention of studying chemistry beyond A-level.
- c. Most participants comment on the helpful and friendly manner of UCL staff and students and this is very important. In setting up the school we rely on a core of dedicated people in the department who are prepared to give their time and efforts and without this the summer schools would fail. The time required



to design, administer and run a summer school should not be underestimated. Purely as a recruitment method it is not cost-effective, but schools become aware of the efforts of UCL on their behalf and this leads to building relations between schools and UCL, and a high degree of mutual trust.

d. Teachers are enthusiastic about what we are doing and generally encourage their students to attend.

## c. UCAS Days at UCL

All intending students at UCL are required to spend a day with us and are invited to come in groups of 24. All students identified by methods **a** and **b** above are encouraged to apply to study chemistry at UCL and are invited along with normal UCAS applicants for interview. We also pick out a few additional students from those who apply who would seem from school reports and students statements to be potential Badar Bursary students. All potential Bader Bursary students are then carefully interviewed for 30 minutes by the same few UCL staff involved in the Scheme to assess the suitability of the students.

Following the interview successful students are offered bursaries by mail. To accept a bursary the student must firmly accept our offer of a place on a chemistry BSc or MSci degree course and about 80% of students offered a bursary do this.

**Comments on this approach:** Sensitive interviewing is essential since we need to touch on rather private areas relating to family background. Sometimes we are unable to appraise the student properly because he/she is not forthcoming.

# 3. FINANCIAL REQUIREMENTS

Our initial costings were based on the award of four new bursaries annually. We assumed that there would be four suitable students each year to be made awards, that there would be no drop-out, and that the awards would be for three years.

Summer School: We budgetted for 50 students at £50 for each, i.e. £2500 each year. This estimate was based on £1000 for overnight accommodation, £700 for food and drinks, £300 for student demonstrators, £200 for mailshots, £300 for course manual, laboratory consummables etc. There is no provision for the cost of secretarial and staff time and overheads.

| Projected costs:             |                |                |                 |                 |                 |
|------------------------------|----------------|----------------|-----------------|-----------------|-----------------|
|                              | Year 1         | Year 2         | Year 3          | Year 4          | Year 5          |
| Bursaries:<br>Summer School: | £4000<br>£2500 | £8000<br>£2500 | £12000<br>£2500 | £12000<br>£2500 | £12000<br>£2500 |
| Total costs:                 | £6500          | £10500         | £14500          | £14500          | £14500          |



| Actual Costs we have i | ncurred |        |                   |                   |                   |
|------------------------|---------|--------|-------------------|-------------------|-------------------|
|                        | Year 1  | Year 2 | Year 3 (estimate) | Year 4 (estimate) | Year 5 (estimate) |
| New awards             | 3       | 4      | 4                 | 4                 | 4                 |
| Total awards           | 3       | 7      | 10                | 12                | 12                |
| Bursaries              | £3000   | £7000  | £10000            | £12000            | £12000            |
| Summer School          | £2650   | £2664  | £2500             | £2500             | £2500             |
| Total costs:           | £5650   | £9664  | £12500            | £14500            | £14500            |

The cost of the summer school over the last three years has been around £2600 and we believe we will be able to continue with this level of support over the next few years. The cost of the bursaries was below estimate because we did not made the estimated number of awards in Year 1.

# 4. PROGRESS OF OUR BURSARY STUDENTS

All students have progressed through the course without mishap except for one student who is taking a year out for health reasons. Her award will continue when she rejoins the course. The continuation of awards after the first year are dependant upon satisfactory academic progress. So far all bursary students have progressed satisfactorilly. One of our final-year students last year was in serious financial difficulties and was about to drop out. We awarded him an exceptional Bader Bursary for one year and he has now graduated with BSc (2i). Since the original planning we have gone over to running four-year MSci as well as three-year BSc degrees. How many bursary students will progress to the fourth year is still unknown but we would like to extend the awards to the fourth year.

# 5. GENERAL COMMENTS AND NOTES

- We are making contact with 17-year olds, but attitudes to science develop at an earlier age. I doubt if we could have much effect through the Scheme to encourage students into chemistry who had not already developed some interest in it. The department has a recruitment programme directed at sixth-forms but does often involve 13 or 14 year olds in our visits to schools. However, the UCL Scheme does not formally involve young students prior to A-levels.
- Since we are contacting schools in poorer city areas, a significant proportion of students coming
  forward are from ethnic minorities. We are seeking ways to make better contact with a representive
  section of the whole community.



- Several of the applicants we consider have had particular problems. We come across students from
  one-parent families with financial problems, students with unemployed parents, students with sibblings
  or parents with serious health problems, refugees, young students with dependants of their own and are
  therefore forced to work while doing A-levels. We believe the Scheme should be flexible enough to
  take into account all the particular circumstances of students.
- Although the UCL Scheme formally administered by the Departmental Recruitment Committee, we
  feel that it would be misguided to consider the Scheme as an effective recruitment method. The work
  involved in making contact with schools, in organising and running summer schools, in communicating
  with and assessing potential students, etc is not justified in straight recuitment terms. The value of the
  Scheme must lie in the personal development and achievements of those supported by the Scheme.
- The UCL Scheme is managed by Professor Tony Deeming, but the awards are made by a small panel
  including Tony Deeming (Chairman of the Recruitment Committee), Sally Price (Admissions Tutor,
  now replaced by Derek Tocher), Fred Pearce (Departmental Tutor). Fred Pearce as Departmental
  Tutor monitors the academic progress of each bursary student who also has a personal tutor to follow
  their progress and give guidance.





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U S A University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Ext. 4620 Direct Line: 0171-380 7457

Fax: 0171-380 7463 E-mail: ucca15r@ucl.ac.uk

19 March 1996

Dear Alfred,

I understand from Dr Cooper that you have agreed to continue to fund your bursary scheme for disadvantaged students for a further year. I'm writing to thank you most sincerely for doing this. The scheme is a really good one, and Tony Deeming and others are working very hard indeed to make it successful.

Thank you again – we do appreciate your generosity, as do the students who derive the benefit.

Yours sincerely,

Professor R.J.H. Clark

cc. 52 Wickham Avenue, BEXHILL ON SEA, E Sussex Dr R E Cooper

RJHC/djm





#### Dr. Alfred Bader

924 East Juneau, Suite 622 Milwaukee, Wisconsin 53202 Phone: 414/277-0730 Fax: 414/277-0709

A Chemist Helping Chemists March 14, 1996

Professor Anthony J. Deeming
Department of Chemistry/Christopher Ingood Laboratories
University College London
20 Gordon Street
London WC1H 0AJ
England

Dear Tony:

Thank you so much for your letter of March 4th and the details of the bursaries fund. I am glad to note that you are keeping track so carefully, and I enclose my check for U.S. \$15,000, made out to the Friends of University College, to cover the 1996-7 requirements.

At the moment, interest rates are so low that it does not make sense to capitalize the fund. However, I note that you are receiving interest and even some capital gain, and so I would like to discuss with you during our next visit paying for the bursaries for some time in advance.

As I have explained to you, we would like to consider this fund at University College as a sort of pilot scheme and then to suggest to other British universities to consider a similar scheme. The next schools we would like to approach are the universities in Edinburgh, Glasgow and Birmingham, and I hope that you will not mind if I suggest to the academics there that they may like to contact you and Sally to discuss the details.

Also, during my next visit, I would like to put together a few pages showing the details of your summer school and of the costs involved.

We plan to be in England during the last week of May and most of July, and of course I will telephone you to inquire when might be a good time for a visit. Actually, I will be in London the entire week of July 1st, but that being the time of the summer school, it may not be a good time for a visit.

With all good wishes to you, Sally, Willie, and all our friends at University College, I remain,

Yours sincerely,

AB/cw





University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 0171-387 7050 Fax: 0171-380 7463

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

4 March, 1996

Dear Alfred,

I enclose an estimate of our requirements for 1996/97 which will be necessary to continue the scheme as in previous years, together with a statement of the expenditure incurred on past summer schools and on bursaries provided by our accounts section. As you will see we would like to be able to make awards of four new bursaries to students arriving in September and we have based the estimate for 1996/97 on this. We would like ten students to receive bursaries next year: six students continuing from this academic year and four students starting in September.

Sally and I have looked at your autobiography with much interest and have made this available to other people in department through the departmental library.

Plans are going ahead for a summer school on July 3 and 4 and we are at present assessing students for bursaries in the coming year.

My very best wishes, Yours sincerely,

Tay Deening



Department of Chemistry, University College London Statement on Bader Bursaries Fund January 1996

| Balance b/f                              |         |         |          |          |
|--|---------|---------|----------|----------|
| Balance b/f                              | 1993/94 | 1994/95 | 1995/96  | 1996/97  |
| Income                                   | LL 0699 | 6549.29 | 1652.26  | 4489.06  |
| Interest                                 |         | 465.57  | 457.21   | 450.00   |
| Capital gain (est)                       |         | 146.98  | 721.25   |          |
|  | 22.0699 | 7161.84 | 14152.84 | 13939.06 |
| Summer School                            |         |         |          |          |
| Student demonstrators                    | 141.48  | 495.38  | 450.84   |          |
| Laboratory Supplies                      |         | 304.10  | 303.88   |          |
| Food and Accommodation  Teas and coffees |         | 120.00  | 1803.06  |          |
| Miscellaneous                            |         |         | 16.00    |          |
|  | 141.48  | 2509.58 | 2663.78  | 2500.00  |
| Bursaries                                | 0       | 3000.00 | 7000.00  | 10000.00 |
| TOTAL SPEND                              | 141.48  | 5509.58 | 9663.78  | 12500.00 |
| Contingency                              |         |         |          | 1250.00  |
| BALANCE IN HAND                          | 6549.29 | 1652.26 | 4489.06  | 189.06   |

Requirement for 1996/97 = £9000 (\$14400)

13939.06

14152.84

7161.84

72.0699





5 H122

# Director, Alumni Relations: Michael Freeman

Dr Alfred Bader, 2961 North Shepard Avenue, Milwaukee, Wisconsin 53211 USA

31st January 1995

University College London
Development Office
Gower Street
London WC1E 6BT

Tel: 0171-391 1624 Fax: 0171-209 0117

E-mail: m.freeman@ucl.ac.uk

#### Dear Dr Bader,

The cheque that you drew in favour of Friends of UCL and sent to Tony Deeming, has been forwarded to me (as were the previous donations) for processing.

I am writing in the first instance to add my thanks to those of Tony Deeming on behalf of College.

I think I should advise you that our bank in New York may not credit us with the money because the cheque was not drawn in the way the previous two were in favour of the UCL Friends and Alumni Association Inc. but rather in favour of the Friends of UCL. If that is the case I hope you won't mind if I return the cheque to be redrawn. As soon as it is cleared I will arrange for the full amount to be transferred for the benefit of the Chemistry Department.

Thank you very much again for your continued support.

Yours sincerely

Michael Freeman

cc Professor Anthony J\ Deeming Mr R E Cooper Professor Robin Clark, Mr I Bartlett

Gunhael Freman.



Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

December 30, 1994

Professor Anthony J. Deeming Chemistry Department University College London 20 Gordon Street London WC1H 0AJ England

Dear Tony,

Thank you so much for all the time which you spent with us, explaining your progress in the summer school in chemistry. I found the description and accounting very understandable.

To continue for another year, you will require approximately \$18,000, and my check in that amount is enclosed.

Next year, we will be in a better position to decide whether this scheme is really productive. Please don't think for a moment we have to continue simply because we have started. It may well be that you and your colleagues will feel that some other approach to help disadvantaged students may be more productive. We can discuss that next year.

Surely you know that Isabel and I want to help both University College and disadvantaged students in Britain.

All good wishes to you and your colleagues for 1995.

Sincerely,

Enclosure



BADER BURSARIES

Department of Chemistry University College London

Review 1994

The scheme started with an AIMS summer school in July 1993. This targetted students at the age of 16/17 who might be seeking entry at university in October 1994. Thus we have had experience of the first round of the process. The outcome is that of the students that applied for bursaries as a result of the 1993 summer school, none were able to reach the rquired entry standards. During the period October 1993 to March 1994 students were interviewed and five offers were made to four British students and one Ugandan student who were identified to be within the appropriate category. These came from widely different bachgrounds, each in their own way perceived to be markedly disadvantaged. Of these five students, three have joined us with a bursary.

#### 1. Catherine Kane.

School: William Ellis Comprehensive School. An inner London state comrehensive school with a restricted record of sending students to higher education.

Background: Her father is a milkman and her family is one which would not easily consider university for their children.

<u>Interview</u>: She is a pleasant girl with a very positive attitude but academically not a high-flyer at first encounter. However, we felt that she did have potential given the right encouragement.

Outcome: Although she was predicted by her school to get grades C, C and D in her three A-levels, we offered her a place in the department and a bursary, conditional on her qualifying for entry. She accepted the offer but unfortunately she performed very poorly in her examinations and failed in two subjects. We were therefore not in a position to admit her.

#### 2. Francesca Caraffini.

An only child from a family whose father was unemployed. She was at a state school in Streatham and showed great talent in chemistry. She declined our offer choosing to study elsewhere. We hope she will do very well.

Steven Komakech.

School: He came to the UK from Uganda and studied at Hounslow Borough College (a state education college with 150 out of 4700 going on to higher education each year) from Sept 1990 till June 1992.

Background: He was a refugee from Uganda and applied to



enter UCL in October 1993. His A-level grades are quite poor (Chemistry D, Physics E and Biology D) and barely reach our minimum entry standards. Unfortunately he was unable to find the finance to study so withdrew and spent a year working to try to raise money. In the meantime he has achieved the residence qualifications in the UK to receive a local education authority grant. He is now 22 years old, four years older than normal for entry. He lives in Hounslow with his sister who has also settled in this country.

Interview: He is very keen on chemistry and is prepared to work hard to succeed in chemistry. His very positive attitude was considered sufficient to override his basically poor academic qualifications.

Outcome: He is now in our first year and has been awarded a bursary which will help considerably in removing his financial problems. Our impressions of him up to now are good. He is working hard and shows considerable promise and enthusiasm but it is still to be seen whether he can make up the deficiencies in his background.

## 4. Lyndsey Molkenthin.

School: Peterborough Regional College (state education). She chose to study beyond 16 at this college which has large numbers of students, only some of whom study A-levels and get to university.

Background: Fairly typical working family.

Interview: She appeared to be very shy and lacking in confidence, but on getting to know her in interview, she appears to have strengths and resilience.

Outcome: She is now in her first year with a bursary, although her A-level grades were lower than predicted (Biology A, Chemistry D and Mathematics D). She seem to be settling in and starting to open up and respond to our teaching.

#### 5. Alan Wong.

School: Irlam and Ladishead Community High School, Manchester. A typical state school in an urban community.

Background: His father works in a fish-and-chip shop. There is a low family income and he has a disabled sister who demands quite a bit of the family resources and for whom he feels particular responsibility.

Interview: A quiet student who is academically quite
promising.

Outcome: He gained quite good A-levels (Chemistry A, Mathematics B, Physics C) and has entered our first year with a bursary.

Of the five students to whom we offered bursaries, only three have finally come to UCL, entering in 1994. We will follow their progress with care and interest.

In July 1994 we held the second AIMS summer school with 52 attending. Following this we mailed schools asking for nominations for bursaries. So far four applications have arrived and more are indicated. However, several students who came to AIMS this year have now applied for our chemistry courses but not for a bursary. Since we were only able to make three awards in 1994, we should consider making five awards in 1995 if this is appropriate.





## University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

#### BADER BURSARY FUND

Estimate of requirements up to the end of the 1995/96 academic year, assuming that the three present bursary students continue to make satisfactory progress through their course and that we are able to find five suitable students for awards, entering in September 1995.

# Bursaries 1995/96 academic year

| 1994 | entry | (second year) | £3000.00 |
|------|-------|---------------|----------|
|      |       | (first year)  | £5000.00 |

#### AIMS 1995

Expenses for the 2-day summer school £2500.00

#### AIMS 1996

Expenses for the 2-day summer school £2500.00

Total: £13000.00

Balance in hand: £1505.28

Sum required to run the scheme as above to Sept 1996: £11494.72



## BADER BURSARY FUND

| Income b/f Aug 93<br>Interest                       |  |                    | 6690.77<br>465.57 |
|---|--|--------------------|-------------------|
| AIMS 93   |  |                    |                   |
| Demonstrating                                       |  |                    |                   |
|   | make degate require feation spaces delated student variety between | 141.48             |                   |
| AIMS 94   |  |                    |                   |
| Demonstrating<br>Lab Supplies                       | 495.38<br>304.10   |                    |                   |
| Accomodation<br>Luncheon Vouchers<br>Tea and Coffee | 437.50   |                    |                   |
|   |  | 2509.58            |                   |
| Bursaries   |  | 3000.00            |                   |
| TOTAL SPEND<br>BALANCE IN HAND                      |  | 5651.06<br>1505.28 |                   |
|   |  | 7156.34            | 7156.34           |





**University College London** 

Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

11 September 1994

Dear Alfred,

I enclosed the two pages of your autobiography with additions in red. We have offered Bader Bursaries to three students who will be starting degree courses in a few weeks. Letters have been sent to all the students who came to AIMS in June and to their teachers asking for applications/nominations for bursaries for 1995. These students will be applying for university this autumn and we will have another chance to talk with applicants when they come for interview. I will also mail a larger number of state schools in the kind of locality we are considering, including those schools who asked to send students to AIMS but there were insufficient places.

I look forward to seeing you again at the lab dinner in November.

Best wishes.
Yours sincerely,

Tany

Professor A J Deeming



of our differences over the library he would countermand it. And o I agreed, provided I could come to Aldrich at 10 a.m. that day and we would mail the check to the A.C.S. then and there.

This we did. All's well that ends well.

Of course, as so often, this fight was an ego trip, satisfying for the help it gave Project

SEED, impossible to get from the company in any other way. I was reminded of what Don

Accord

Hazelhorst said to me after a particularly difficult argument with Cori and Fischer, "Nice guys

don't always finish last."

David was probably not as amused as I was when he received a letter from Prof.

Ochrymowycz saying that "The volumes will be placed in our library with a dedication to Dr.

Alfred Bader and Aldrich Chemical Company in recognition of the donors' generosity."

When I told Marvin about all of this, he replied, "The solution to the matter of your books was, indeed, most satisfactory. Although neither of us could think of it at the time, there was a very good reason for your holding off on signing the German share transfer document."

And of course I hope that Aldrich's \$25,000 will help the continuation of Project SEED II.

There is no Project SEED in Britain, and so Isabel and I have tried to get one started on a small scale. For years many of our academic friends in London have been at University College, and recently Willy Motherwell has become professor of organic chemistry there, moving from Imperial College where he was one of the ablest and most caring teachers. We agreed to fund four bursaries for three years for students from areas with predominately poor traditions of higher education. University College planned to have a two-day summer school, inviting about 50 students, getting to know them during the two days and then awarding the



bursaries. Unfortunately plans for 1993 had to be changed, the "summer school for sixth formers" was cut back to one day in June, and that day was filled up almost completely with demonstrations, lunch, tea and biscuits-with hardly any time to get to know the students. Only and 3 were awarded to students students characteristic lique. 52 afterded to students came, five applied for bursaries and 1 were given. In 1994 \*\*\*\*\*\* 52 afterded two-day summer school and these will be remainded for bursaries in 1995.

We hope that this scheme will have proved successful by 1995, that we can then fund it fully and suggest that other urban universities in Britain try it.

In 1966, Marvin and I set up the Bader Klitsner Fund of the Milwaukee Jewish Community Foundation with gifts of Aldrich stock and later Sigma-Aldrich stock, and along with the Helen Bader Foundation many educational projects have been funded in Israel. We also tried to help a co-educational Jewish high school in Milwaukee, but money alone could not assure success. We were, of course, wondering how such a school would have helped David and Daniel if only it had been in existence at the time. But some right wing orthodox rabbis in Milwaukee strenuously objected to such a school and it failed after struggling for eight years. How short sighted can they get!

My roots are in the Czech Republic, a victim of geography if there ever was one. The Czechs are a down-to-earth, hard-working people. Under Thomas Masaryk, Czechoslovakia was one of Europe's most democratic countries with a high standard of living. We have tried to help Czech students in chemistry and art history. Don't think for a moment that is easy.

In art history, we suggested a travelling fellowship of \$15,000 for a student to study any baroque artist anywhere for six months. As we didn't know how to fund this in perpetuity nor whether it would really work, we pledged \$15,000/year for three years. In 1993, the first year, only two art historians applied. The younger was chosen, a man of 41 with an established





W. B. Motherwell
Alexander Williamson Professor of Chemistry

University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071 387 7050 ext. 7533 Fax: 071 380 7463 Direct Line: 071 380 7533

4th lectorer 174

Elter to Tony Deering, which I have just received on my return from a Tanachin visit office included Queens what a delighted spit brokers well a delighted spit have yet to track him down. On my reaching if the manuscript of your autotrography, you have presented the British Project SEES my approval to your amounts.

I book poward to seeing you and Frabel in the same of the server of the seeing your and Frabel in the server of the seeing you and Frabel in the server of the seeing you and Frabel in the server of the seeing you and Frabel in the server of the seeing your and Frabel in the server of the seeing you and Frabel in the server of the seeing the server of the server of the seeing the server of the server

Mille



When I told Marvin about all of this, he replied, "The solution to the matter of your books was, indeed, most satisfactory. Although neither of us could think of it at the time, there was a very good reason for your holding off on signing the German share transfer document." And of course I hope that Aldrich's \$25,000 will help the continuation of Project SEED II.

There is no Project SEED in Britain, so Isabel and I have tried to get one started on a small scale. For years many of our academic friends in London have been at University College, and recently Willy Motherwell has become professor of organic chemistry there, moving from Imperial College where he was one of the ablest and most caring teachers. We agreed to fund four bursaries for three years for students from areas with predominately poor traditions of higher education. University College planned to have a two-day summer school, inviting about 50 students, getting to know them during the two days and then awarding the bursaries. Unfortunately plans for 1993 had to be changed, the "summer school for sixth formers" was cut back to one day which was filled up almost completely with demonstrations, lunch, tea and biscuits—with hardly any time to get to know the students. Only 40 students came, five applied for bursaries and one was given. In 1994, 52 students attended the two-day summer school which we hope will result in more applications. If this scheme proves successful by 1995, we plan to fund it fully and suggest that other urban universities in Britain try it also.





W. B. Motherwell
Alexander Williamson Professor of Chemistry

University College London
Chemistry Department
Christopher Ingold Laboratories
20 Gordon Street
London WC1H 0AJ

Tel: 071 387 7050 ext. 7533 Fax: 071 380 7463 Direct Line: 071 380 7533

20th June 194

Dear alfred,

Robyn and I were delighted to beam - (albeil that we are usually the last to how!)

that you are to receive the 1995 Purpors

Quand If the american Herical size of allow

us to add our congrabilations and best unstess

to both I you, even although you will prototly.

read this on your return from Source.

It is pool to these that pure will

consider a sent the pure all one has

to plant, and the pure all one has

to plant, and the pure prove, not

may to pure, but to you, the pure prove, not

may to you, but to you all you prove some

and to pure, but to you, but to you are the

more to you, but to you are the work to

may to pure, not

tille very out person regards so ever,





University College London
Chemistry Department
Christopher Ingold Laboratories
20 Cordon Street

20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconson 53211 USA

15 June 1994

Dear Alfred,

Arrangements for the summer school (AIMS) are now well advanced. There were over 90 applications to attend the school but we were only able to take 55 of these. I think we have been able to produce an exciting programme including most of the important aspects of university student life: accommodation in a hall of residence, lectures, laboratory work (each student will tackle two experiments), a tutorial with a member of staff looking after 5 or 6 students, and two demonstrations of chemistry (Let there be light and Looking at the Elements). We will be working the students hard but there are times during the two days for our staff and students to talk with the participants, to get to know them and to answer their queries.

Immediately after the school I will be writing to all the teachers who have sent students.

Also in the same week we have 70 chemistry schoolteachers attending a course called Chemistry Update which is designed to encourage them in their work and to discuss problems related to interesting children in chemistry. We have charged teachers a course fee to cover all expenses for that course. Both AIMS and Chemistry Update rely heavily on contributions from our younger staff members whose enthusiasm should ensure the success of these ventures.

Please let me know if there is anything more we can do for you with respect to AIMS.

Best wishes.
Yours sincerely,

Professor A J Deeming



## **AIMS**

# ADVENTURES IN MOLECULAR SCIENCE

A SUMMER SCHOOL FOR SIXTH-FORMERS



Monday and Tuesday, June 27 and 28 1994

# DEPARTMENT OF CHEMISTRY UNIVERSITY COLLEGE LONDON

This is a two-day residential Summer School to allow sixth-formers at the end of their first year of A-level studies to gain a wider appreciation of Chemistry as a subject for study beyond A-level. Emphasis will be on how Chemistry can lead to great intellectual satisfaction, to useful practical and theoretical knowledge, and to a firm scientific base on which to base future career prospects.

#### **PROGRAMME**

#### **MONDAY 27 JUNE**

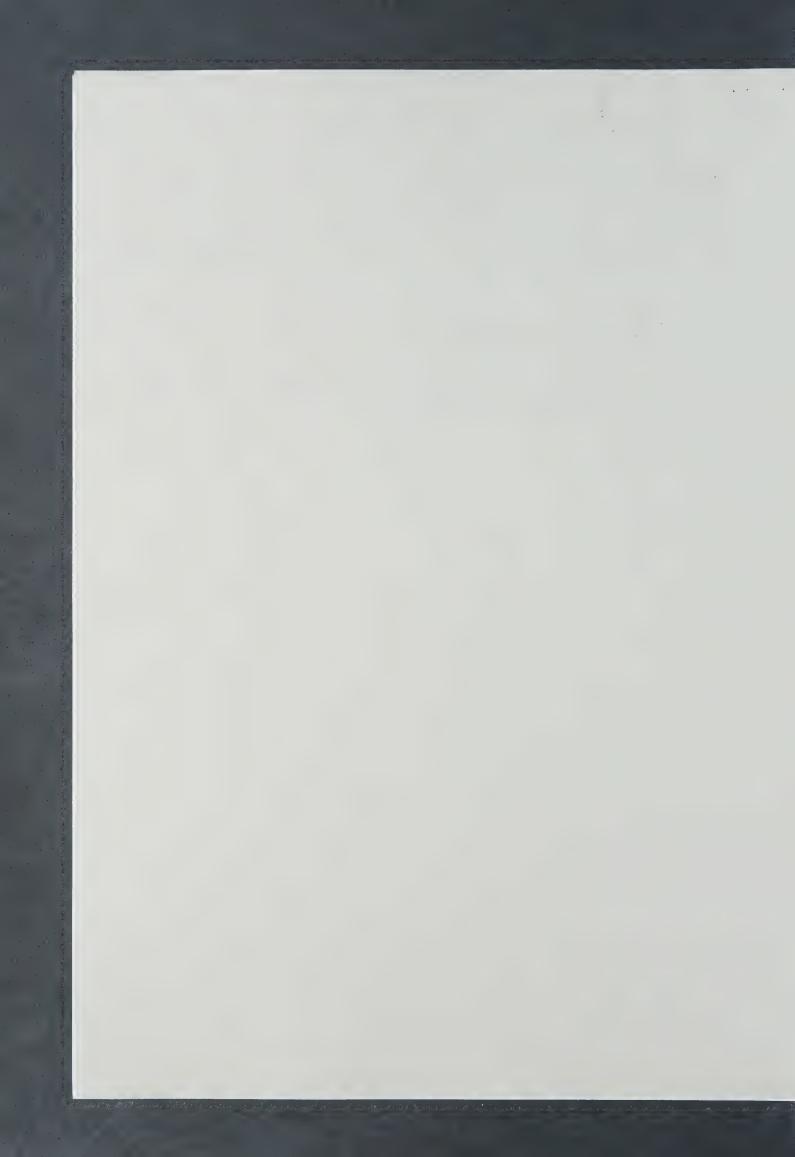
Students should arrive at the Chemistry Department between 10.30 and 11.00. The registration desk will be just inside the front door of the Department. Overnight bags will be stored safely till 18.15.

For the practical work in the afternoon, students should bring calculators, laboratory coats and safety glasses. If this is a problem, please let us know and we will do what we can to provide these.

- 10.30 Coffee and biscuits in the Nyholm Common Room on the first floor of the Chemistry Department. Welcome to the UCL Department of Chemistry by Professor Robin Clark FRS (Head of Department).
- 11.00 LET THERE BE LIGHT: A Lecture-Demonstration by Drs Andrea Sella and Steve Price showing how light is important in chemistry.
- 12.00 DOING CHEMISTRY IN A COMPUTER. An illustrated talk by Dr Sally Price.



| 13.15 WHAT GOES ON IN UNDERGRADUATE LABORATORIES. A talk by Professor Tony Deeming and Dr Derek Tocher.  13.45 EXPERIMENTAL WORK, PART 1. Sixth-formers will work in small groups with the help of staff and students in the Department to carry out some experiments designed for Chemistry undergraduates.  15.45 Tea and biscuits in the Nyholm Common Room  16.15 EXPERIMENTAL WORK, PART 2.  18.15 Depart for Ramsay Hall. Students will pick up their bags if these have been stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where they will collect their keys for their study-bedrooms.  19.00 Dinner in Ramsay Hall with some students and staff of the Chemistry Department.  TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.  12.00 Lunch with UCL Chemistry students in the lower refectory. |                 | 12.30     | Lunch with UCL chemistry students in the lower refectory.  |
|---|-----------------|-----------|--|
| Sixth-formers will work in small groups with the help of staff and students in the Department to carry out some experiments designed for Chemistry undergraduates.  15.45 Tea and biscuits in the Nyholm Common Room  16.15 EXPERIMENTAL WORK, PART 2.  18.15 Depart for Ramsay Hall. Students will pick up their bags if these have been stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where they will collect their keys for their study-bedrooms.  19.00 Dinner in Ramsay Hall with some students and staff of the Chemistry Department.  TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 13.15     |  |
| 16.15 EXPERIMENTAL WORK, PART 2.  18.15 Depart for Ramsay Hall. Students will pick up their bags if these have been stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where they will collect their keys for their study-bedrooms.  19.00 Dinner in Ramsay Hall with some students and staff of the Chemistry Department.  TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 13.45     | Sixth-formers will work in small groups with the help of staff and students in the Department to carry out some experiments designed for Chemistry |
| Depart for Ramsay Hall. Students will pick up their bags if these have been stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where they will collect their keys for their study-bedrooms.  19.00 Dinner in Ramsay Hall with some students and staff of the Chemistry Department.  TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 15.45     | Tea and biscuits in the Nyholm Common Room   |
| stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where they will collect their keys for their study-bedrooms.  19.00 Dinner in Ramsay Hall with some students and staff of the Chemistry Department.  TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION.  A talk by Professor David Williams  9.30 WEIGHING MOLECULES.  A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1.  Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY?  A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 16.15     | EXPERIMENTAL WORK, PART 2.   |
| TUESDAY 28 JUNE  7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)  8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.  9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.   |                 | 18.15     | stored and they will be escorted over to Ramsay Hall (Ten minutes walk) where  |
| <ul> <li>7.30-8.45 Breakfast in Ramsay Hall (Cafeteria Service)</li> <li>8.45 Students will be escorted from Ramsay Hall to the Chemistry Department.</li> <li>9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION.  A talk by Professor David Williams</li> <li>9.30 WEIGHING MOLECULES.  A talk by Dr Steve Price</li> <li>10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1.  Participants will divide up into small groups to visit two areas of research activity in the department.</li> <li>10.30 Coffee and biscuits in the Nyholm Room.</li> <li>11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.</li> <li>11.30 WHY ORGANIC CHEMISTRY?  A talk and discussion on organic chemistry at the end of the 20th century.</li> </ul>  |                 | 19.00     |  |
| <ul> <li>Students will be escorted from Ramsay Hall to the Chemistry Department.</li> <li>CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams</li> <li>WEIGHING MOLECULES. A talk by Dr Steve Price</li> <li>MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.</li> <li>Coffee and biscuits in the Nyholm Room.</li> <li>MODERN METHODS IN CHEMICAL RESEARCH, PART 2.</li> <li>WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.</li> </ul>   | TUESDAY 28 JUNE |           |  |
| <ul> <li>9.00 CHEMICAL SENSORS: FROM RESEARCH TO PRODUCTION. A talk by Professor David Williams</li> <li>9.30 WEIGHING MOLECULES. A talk by Dr Steve Price</li> <li>10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.</li> <li>10.30 Coffee and biscuits in the Nyholm Room.</li> <li>11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.</li> <li>11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.</li> </ul>  |                 | 7.30-8.45 | Breakfast in Ramsay Hall (Cafeteria Service)   |
| A talk by Professor David Williams  9.30 WEIGHING MOLECULES. A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 8.45      | Students will be escorted from Ramsay Hall to the Chemistry Department.  |
| A talk by Dr Steve Price  10.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 1. Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.   |                 | 9.00      |  |
| Participants will divide up into small groups to visit two areas of research activity in the department.  10.30 Coffee and biscuits in the Nyholm Room.  11.00 MODERN METHODS IN CHEMICAL RESEARCH, PART 2.  11.30 WHY ORGANIC CHEMISTRY?  A talk and discussion on organic chemistry at the end of the 20th century.   |                 | 9.30      |  |
| <ul> <li>MODERN METHODS IN CHEMICAL RESEARCH, PART 2.</li> <li>WHY ORGANIC CHEMISTRY?         <ul> <li>A talk and discussion on organic chemistry at the end of the 20th century.</li> </ul> </li> </ul>  |                 | 10.00     | Participants will divide up into small groups to visit two areas of research activity  |
| WHY ORGANIC CHEMISTRY? A talk and discussion on organic chemistry at the end of the 20th century.   |                 | 10.30     | Coffee and biscuits in the Nyholm Room.  |
| A talk and discussion on organic chemistry at the end of the 20th century.  |                 | 11.00     | MODERN METHODS IN CHEMICAL RESEARCH, PART 2.   |
| 12.00 Lunch with UCL Chemistry students in the lower refectory.   |                 | 11.30     |  |
|   |                 | 12.00     | Lunch with UCL Chemistry students in the lower refectory.  |



- 13.30 CATALYSING CHEMICAL REACTIONS
  A talk by Professor Tony Deeming
- 14.00 A TUTORIAL IN CHEMISTRY.
  Participants will divide into small groups for a tutorial on certain topics in chemistry.
- 14.45 CHEMISTRY AT UNIVERSITY: Information and advice for participants. A discussion session.
- 15.15 Tea and biscuits.

  There will be an opportunity to talk to UCL members of staff and students about anything arising from this Summer School.
- 15.45 LOOKING AT THE ELEMENTS

  A lecture-demonstration on the elements and their behaviour by

  Drs Graeme Hogarth and Ivan Parkin.
- 16.45 End of AIMS



### **CHEMISTRY-UPDATE 1994**

Friday 1st July Department of Chemistry University College London



#### **PROGRAMME**

10.30 Nyholm Common Room, Department of Chemistry. Welcome with coffee and biscuits.

#### **SESSION 1**

11.00 Introduction by Professor Tony Deeming.

11.05 Why is Chemistry difficult?

Dr Stuart Bennett (Department of Chemistry, Open University)

Is chemistry an intrinsically difficult and demanding study or do we as teachers help make it so? Some thoughts on the teaching of chemical theory and practice that may explain why so many students perceive chemistry to be difficult and inaccessible.

12.00 Trends and Perspectives in Materials Chemistry.

Dr Kenneth Harris (Lecturer in Chemistry ar UCL with research interests in solid-state chemistry).

Increasing chemical research is being devoted to the investigation of fundamental properteis of solids and their applications. It is crucial that a modern chmical curriculum reflects important developments in rapidly evolving fields of this type. The talk will highlight some key areas of materials chemistry with emphasis on the benefits from both academic and industrial viewpoints.

- 12.30 Lunch in UCL Refectory.
- 13.15 Coffee in the Nyholm Room and a time for informal discussions between teachers in schools and university.

14.00 Contemporary Issues In Chemical Education.

Professor Richard Kempa (Department of Education, Keele University).

Recent and current changes in the school science curriculum have considerable consequences for the future shape of A level and similar programmes in chemistry, as well as for chemical education at university level. During the lecture, some of these consequences will be examined, with particular reference to the structure of public examinations in chemistry and the secondary-tertiary interface.

15.00 So Simple, So Difficult: Stereoisomerism and Conformations.

Dr Edgar Anderson (Senior Lecturer in Organic Chemistry at UCL with interests in molecular dynamics of organic molecules).

If you teach these topics well, students will all be nodding their heads in understanding, but a good answer in an examination will still be hard to come by. No solutions are promised, but maybe rehearing the problems will help.

15.30 Tea and biscuits in the Nyholm Room.

#### **SESSION 3**

16.00 Vibrating molecules.

Dr Ivan Parkin (UCL chemistry lecturer with research interests in synthesis and characterisation of inorganic materials).

This lecture details a number of ways of preparing samples for infrared spectroscopy and explains, with a few case studies, the use of IR techniques in forensic science and the food industry.

16.30 Aromaticity: Benzene and its Brethren.

Professor Peter Garratt (UCL organic chemist with interests in organic synthesis, including compounds related to melatonin and other biologically active molecules).

The shape, size, spectra, and chemical properties of benzene are well known, but the reasons for its unexpected stability are still in dispute. Benzene and its brethren can be based on benzene units, like naphthalene, or can have 4, 8, 10, 18 or more membered rings. Some of these compounds are of great industrial importance, some are curiosities, many are biologically important and some are harmful.

17.00 "Let there be light," said the Chemist.

Drs Andrea Sella and Steve Price. (Two members of UCL staff, both with interests in the practical demonstration of chemical principles).

A DIY excursion into photochemistry with the aid of a Polomint, a pickled onion, an air-ship, a tee-shirt, and the rear-end of a firefly.

17.45 Close of Chemistry Update 1994.

#### **FAX FROM**

DR. ALFRED R. BADER
Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

May 18, 1994

To: Professor W. Motherwell Chemistry Department University College London

011 44 71 380 7463

Dear Willie:

In response to your kind letter of May 11th, I still haven't heard from Professor Deeming. However, we will be leaving soon to attend the meeting of the Chemical Institute of Canada and then fly over to Gatwick.

If at all possible, we would like to adjust our plans to be at University College during the two days of the "Summer School". Please do fax us just the dates.

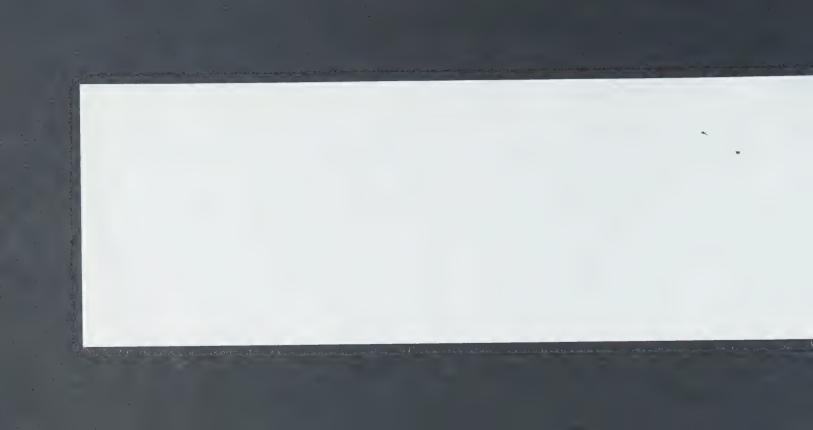
Many thanks.

Best regards from house to house,

Qu. a









University College London
Chemistry Department
Christopher Ingold Laboratories

20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr Alfred Bader 1961 North Shepard Avenue Milwaukee Wisconson 53211 USA

14 May 1694 AM 4705

Dear Alfred,

Unfortunately I have been away for a month working in Vonecuela. I do apologize for taking so long to reply to your letter. We have scheduled the two-day summer school for Monday June 17 and Tuesday 28 June 1994 and I enclose the flint that has been molted to about 400 schools. Some response is starting to come in and I am confident that this year we will be able to put on a successful meeting for these students Pleane let me know if you will be able to attend some or all of the summer school. We would be delighted for you to come. I know you would like to talk informally to the young students attending. The students will be accommodated for the night of the Munday in Ramsay Hall which will give them a good idea of student accommodation since this Hall is very typical. I am organising dinner in the Hall in the evening for our students and staff to meet the school students socially and, of course, you would be most welcome.

The final programme is still to be determined and I will send you a copy of this when it is ready. I have been getting some of the younger staff members to develop material suitable for 17 year olds and I think we will have a very good programme.

Incidentally in the same week on the Friday I have organised a chemistry schoolteachers conference and we have over 50 teachers coming to UCL. I feel very strongly that achoolteachers need input from each other and from purselves to continue to produce enthusiastic teaching and a one-day meeting of this kind can help in this respect.

Pert wishes.
Yours sincerely,

Tany

Professor A J Deeming





W. B. Motherwell Alexander Williamson Professor of Chemistry University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071 387 7050 ext. 7533 Fax: 071 380 7463 Direct Line: 071 380 7533

11 36 1 200 Her almay Allow Olevis you are com-We + 7 May of Mad of these total comes app of the was a former one was to had just you go to and the three, I sake him a mit being that I se pept my - I it me prome me Low search to a more starty of strongs amount to truck him I was to an proved to and in it's letter to you south that we have if he has not been I do you to my were to make you and agreement something or the or they the year of



#### Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

May 4, 1994

Professor W. Motherwell Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ England

Dear Willie:

I wrote to Professor Deeming on March 23 and enclose copy of my letter. I have not received a response and wonder whether Professor Deeming is sick.

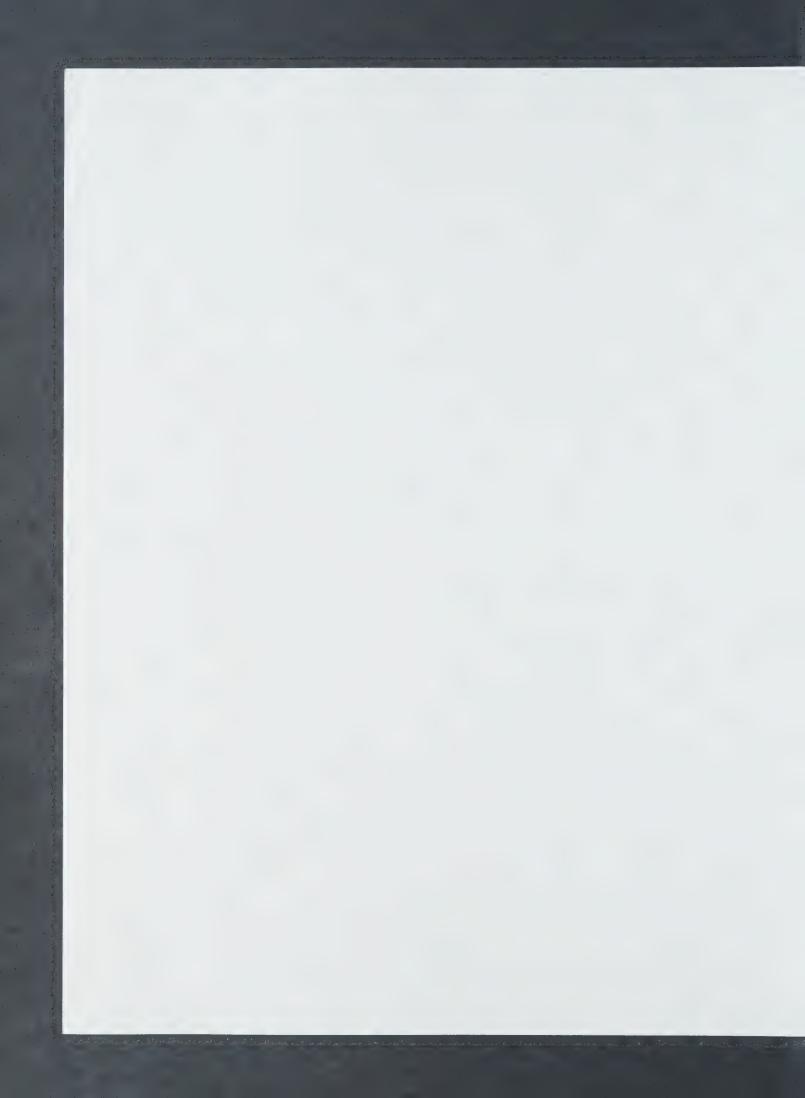
In any case, would you please let me know when in June the two-day workshop for high school students will be held.

We much look forward to seeing you in June or July.

Best wishes.

As always,

Enclosure



Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

March 23, 1994

Professor Anthony Deeming Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ England

Dear Tony:

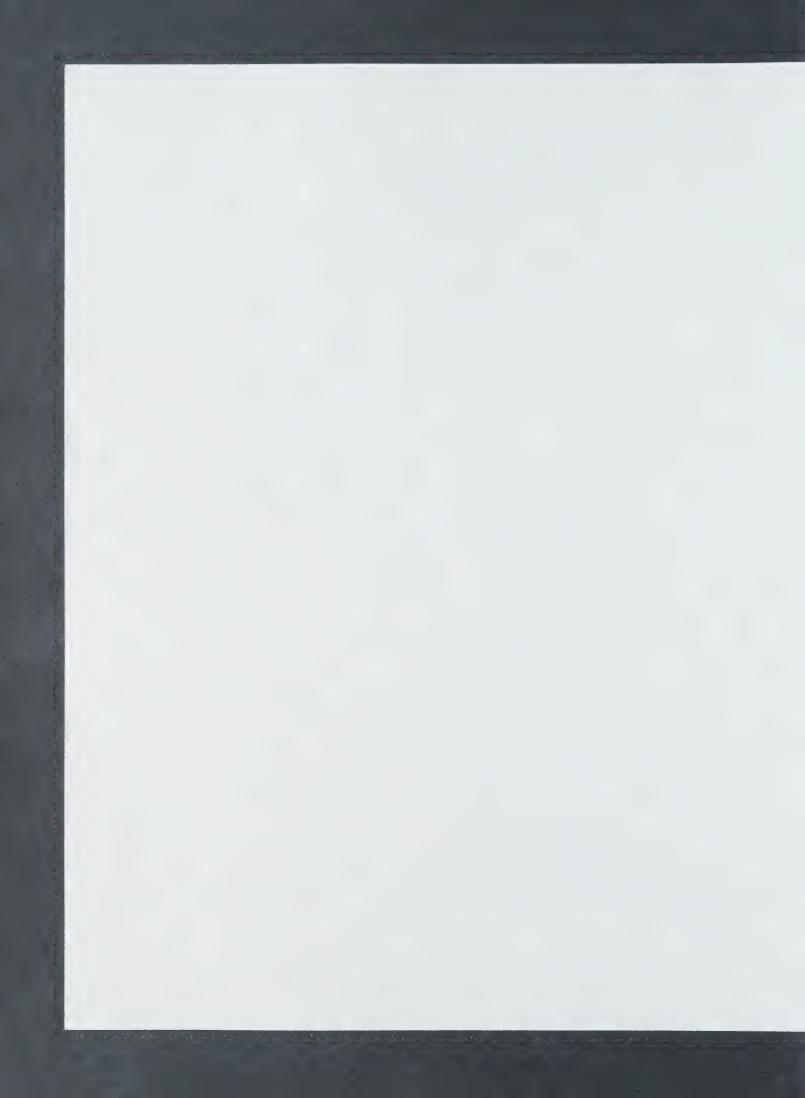
I still remember with great pleasure our fruitful discussion about the bursaries last December, and I very much hope that you will have a good two-day summer school for six formers in June. Could you please let me know the exact dates and when the fliers are ready to be sent to the schools, please send me a copy.

Isabel and I will be in and out of England several times this summer, and if at all possible would like to be at University College during one of the days of summer school and much look forward to your Friday evening dinner in November.

I listened to a very exciting lecture by Professor David Crich on his last years' work at the University of Illinois in Chicago yesterday afternoon, and we then had dinner with him. I sense that he is really enjoying his work with eleven PhD students, and yet I am sure that he cannot help but miss his many friends at University College.

All good wishes to you and your associates.

Sincerely,



### PROPOSAL FOR A BURSARY SCHEME Department of Chemistry, University College London

#### BADER BURSARIES IN CHEMISTRY

#### **OBJECTIVES:**

This bursary scheme will be to encourage and enable students to study chemistry who would be unlikely to do so otherwise.

Students will qualify because of their potential talent in chemistry and would, in general, come from Schools and Colleges without a strongly established tradition of sending students to study chemistry at university. The Scheme is to encourage talented students with various disadvantages of background to take full unencumbered advantage of higher education in chemistry.

#### SELECTION OF STUDENTS:

We will identify about 100 schools with a relatively poor record in sending students to university, mainly because their catchment areas do not foster the prospect of university education. We will ask those schools to nominate up to two students from their first year sixth form who are studying chemistry with a particular interest and aptitude for the subject and who might benefit from a first-hand experience of chemistry at university in a two-day Summer School. The list of schools will be annually reviewed to ensure that the scheme operates as intended and schools will not normally be on the list for more than three years.

A selection of nominated students (about 50) will be invited to attend a two-day Summer School in the Chemistry Department at UCL to experience modern chemistry as encountered by chemistry undergraduates. The School will include laboratory work, lectures, demonstrations, and tutorials to give them a flavour of undergraduate life. The course and accommodation will be free to students but they will need to pay for their own travel.

After the course, students will be selected for the award of Bursaries of £1000 p.a. In practice the award of the bursaries should not be linked too obviously to attendance at the Summer School so as to avoid devaluing the School by making it overtly competitive.

The great value of such a method of selection is that more students would benefit than those successful in receiving awards. We hope that two days at university will excite many students to apply for studies in chemistry at university whether or not they receive awards.

#### CRITERIA FOR SELECTION:

The following criteria will be considered in making selection for the awards:

The nature of the school for sixth-form studies.

The academic potential of the student as assessed by a school report and UCL's assessment of the student at the course.

1 = = - Jun 95

In recent years we have a good record of admitting excellent students with low examination grades by careful interviewing, for example, this year three students with below average A level grades obtained first class degrees.

#### CONDITIONS OF THE AWARD:

The student must study for a BSc degree course in the Chemistry Department at UCL (currently 7 different degree courses are available).

The initial award of a Bursary will depend upon the students being qualified to enter a degree course in chemistry at UCL and continuation of the award for a second and third year will depend upon academic progress allowing admittance into those years.

#### VALUE OF THE BURSARIES:

£1000 p.a. is totally insufficient to fund a student through university. However, we envisage that many of the students will receive maintenance grants from Local Education Authorities. The maximum value of these means-tested grants has been fixed so that they are increasingly inadequate. A Government loan scheme is in operation to fill the increasing gap between grants and the substantially higher real cost of maintenance. It appears that students from disadvantaged backgrounds are those least prepared to encumber themselves with debt. Accordingly these bursaries are likely to encourage such students since the need to borrow would be eliminated or reduced.

#### COSTS:

We believe that the scheme will operate most successfully if linked to a selection procedure based on Summer Schools. The costs would then be as follows:

Schools: 50 students annually to attend a Summer School at a cost of £50 each.

Bursaries: 4 Bursaries of £1000 to be awarded annually and to be held for three years provided that the candidates work is satisfactory.

#### SUMMER SCHOOL FOR SIXTH-FORMERS:

We envisage that the £50 per student will cover:

Accommodation for one night in a College Hall of Residence, lunches and evening meal (£35).

Payment of postgraduate demonstrators and tutors.

Cost of advertising the course and for the manual and handouts at the course.

Cost of communicating with students and schools.

The Department of Chemistry will supply:

Staff time for setting up and running the course.

Laboratory space, equipment, chemicals and other consumables.

Secretarial assistance in setting up, advertising and running the course.

Technical staff for the laboratory and demonstrations.

Students will be expected to pay for travel.





University College London
Chemistry Department
Christopher Ingold Laboratories
20 Gordon Street
London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

29 June 1994

Dear Alfred,

I was a pleasure to have Elizabeth visit our department for the summer school. I did not get the opportunity to ask for her views at the end of the afternoon but Sally Price told me that she had asked about what feedback we would get. We asked the students to fill in a questionnaire and we got 47 responses out of the 52 attending the course. I enclose the originals of these as I have a photocopies for myself.

I am trying at the moment to work out from these responses and by talking with UCL staff and students what the consequencies of AIMS has been. We specifically asked teachers to send students studying chemistry at A level who were showing a leaning towards chemistry and had talents in that direction. Of students studying chemistry up to 18 years of age in Britain, only about 5% follow a career in chemistry and many are studying it because they need the subject for other reasons. Clearly a number attending AIMS were in this category. When the students arrived the majority were very nervous and took some time to relax and to feel able to ask questions and talk freely but I think that overall we were able to communicate at a personal level with a large proportion of the participants. Overall 35 UCL staff and students were involved on the course and spent time talking with the school children. I believe that having the two days does help to further our objectives of communicating with the school children effectively and I am sure that we are such a friendly department that students are happy to talk with us.

I do believe that we were successful in conveying the idea that chemistry could provide an enjoyable, challenging and useful career, that it is multifaceted, and that many people find great satisfaction from it.

Tany

I would welcome your comments.

Best wishes.
Yours sincerely,

Professor A J Deeming



### Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

September 27, 1994

Professor Anthony J. Deeming Chemistry Department University College London 20 Gordon Street London WC1H 0AJ England

Dear Tony,

I am sorry that you have not replied to my fax about the bursaries. Perhaps you are travelling, or are reluctant to reply without specific information.

However, I have had to send the manuscript of my autobiography to the editor and enclose what I have written.

I do hope that you will approve. Of course we could make minor changes in the galleys.

All good wishes.

Sincerely,

Enclosure c: Prof. W. Motherwell



When I told Marvin about all of this, he replied, "The solution to the matter of your books was, indeed, most satisfactory. Although neither of us could think of it at the time, there was a very good reason for your holding off on signing the German share transfer document." And of course I hope that Aldrich's \$25,000 will help the continuation of Project SEED II.

There is no Project SEED in Britain, so Isabel and I have tried to get one started on a small scale. For years many of our academic friends in London have been at University College, and recently Willy Motherwell has become professor of organic chemistry there, moving from Imperial College where he was one of the ablest and most caring teachers. We agreed to fund four bursaries for three years for students from areas with predominately poor traditions of higher education. University College planned to have a two-day summer school, inviting about 50 students, getting to know them during the two days and then awarding the bursaries. Unfortunately plans for 1993 had to be changed, the "summer school for sixth formers" was cut back to one day which was filled up almost completely with demonstrations, lunch, tea and biscuits--with hardly any time to get to know the students. Only 40 students came, five applied for bursaries and one was given. In 1994, 52 students attended the two-day summer school which we hope will result in more applications. If this scheme proves successful by 1995, we plan to fund it fully and suggest that other urban universities in Britain try it also.





University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconson 53211 USA

11 August 1994

Dear Alfred,

I have just got back from a period in Japan to find your letter of 11 July. I am glad to hear that you would like to attend our Lab dinner on Friday 18 November and I have made sure that Dr Thirunamachandran has your name on the invitation list. You will hear from him in due course. This will be a good opportunity to assess the progress of the bursaries.

My best wishes to you and Isabel. Yours sincerely,

Professor A J Deeming

Tany



## FAX TRANSMITTAL SHEET

Dr. Alfred Bader

2961 North Shepard Avenue Milwaukee, Wisconsin 53211 Telephone 414 962 5169 FAX 414 962 8322

September 20, 1994

TO: Professor Anthony J. Deeming Chemistry Department - University College London 011 44 71 380 7463

Dear Tony:

Thanks for your kind reception on September 2nd. I am sorry I have not heard whether the one student actually came to UC as a result of last year's open day.

I am close to the deadline for my autobiography and would like to include:

"There is no Project SEED in Britain, and so Isabel and I have tried to get one started on a small scale. For years many of our academic friends in London have been at University College, and recently Willy Motherwell has become professor of organic chemistry there, moving from Imperial College where he was one of the ablest and most caring teachers. We agreed to fund four busaries for three years for students from areas with predominately poor traditions of higher education. University College planned to have a two-day summer school, inviting about 50 students, getting to know them during the two days and then awarding the bursaries. Unfortunately plans for 1993 had to be changed, the "summer school for sixth formers" was cut back to one day in June, and that day was filled up almost completely with demonstrations, lunch, tea and biscuits--with hardly any time to get to know the students. Only 40 students came, five applied for bursaries and one was given. That student did (or did not?) come to UC.

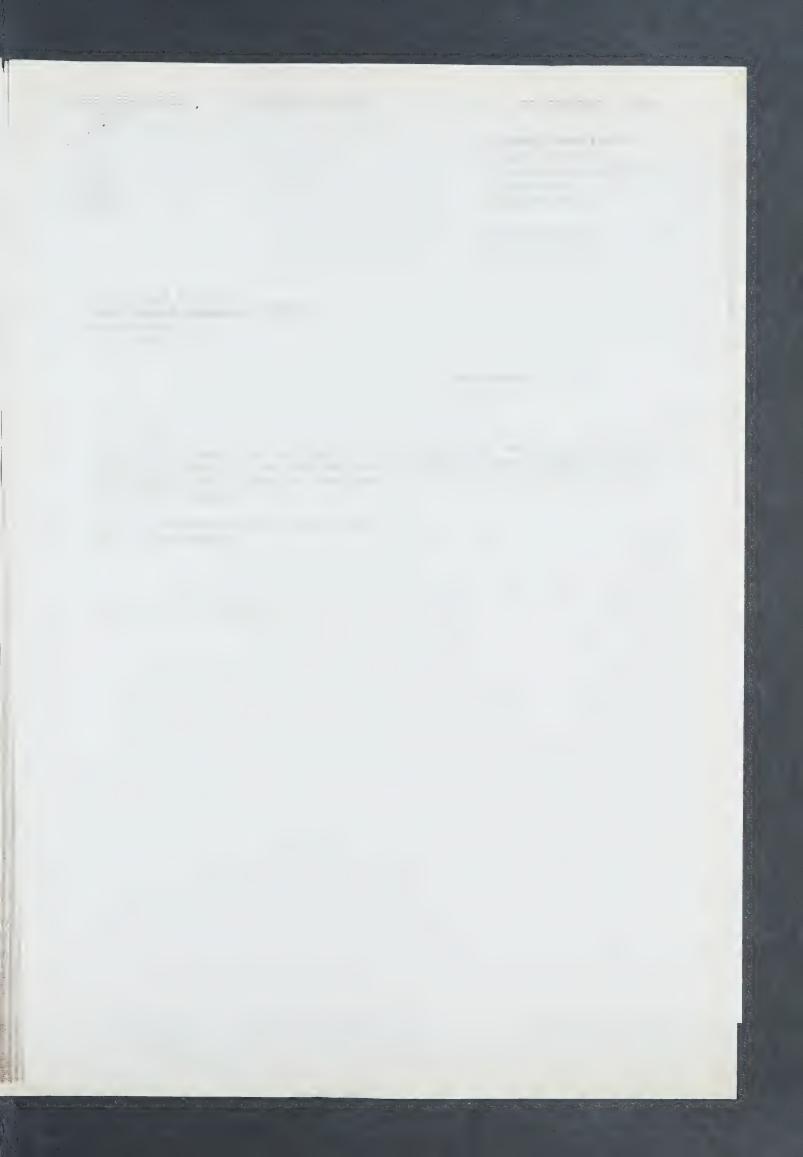
"In 1994 fifty-two students came to the two-day summer school and bursaries were offered.

"We don't really know whether the effort will succeed; perhaps UC is approaching students too late in their high school lives. If it is successful by 1995, we will then try to fund it fully and suggest that other urban universities in Britain try it also. If unsuccessful, we will work with UC to try to make the scheme more interesting."

Please fax me this week. Thanks.

Please do comment
Bet regards, also to wo, 114







DR. ALFRED R. BADER Suite 622 924 East Juneau Avenue

Milwaukee, Wisconsin 53202 Telephone 414-277-0730

Fax No. 414-277-0709

4471 380 7463

( ) of A J. Deeming

Near Tony:

Thanks for your fax of Seyor. 29

I am sorry not to have peen

letter to Bexhill. It will be easy

to make the changer

Good luck

and beit regards

30 IX. 9t.

ry a





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr and Mrs A Bader 2961 North Shepard Avenue **MILWAUKEE** Wisconsin 53211 **USA** 

**University College London** 

Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

071-387 7050 Ext. 4620

Direct Line: 071-380 7457

Fax: 071-380 7463

5 October 1994

Dear Alfred and Isobel,

It is a pleasure to invite you both most warmly to be our guests at the Lab Dinner on Friday 18 November 1994 at 1800 for 1900. This is an annual event to which past and present members of the research school are invited, and typically has an attendance of circa 100. The guest speaker is Lord Lewis.

We shall meet for drinks at 1800 in the Nyholm Room in the Christopher Ingold Building at 20 Gordon Street, and shall move over to the Old Refectory at 1900.

I shall be grateful if you will let me know whether you can accept this invitation. We shall be delighted if you can.

Yours sincerely,

Professor R.J.H. Clark

RJHC/djm



### Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

October 13, 1994

Professor R. J. H. Clark, Head Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ England

Dear Robin,

Thank you so much for your invitation to join you at the Lab Dinner on Friday, November 18th. Isabel and I accept with pleasure.

Best personal regards,





# aldrich chemical company, inc.

CONTACT REPORT

| Copies | to: |
|--------|-----|
|        |     |
|        |     |

| Report No.                  | Ву   |  |  |
|-----------------------------|--|--|--|
| Date 177 19                 | Department   |  |  |
| Other Persons Accompanying: | Persons Interviewed and Position  1. 2. 2. 3. Dr Ti luch |  |  |
| Company Name and Address:   | 3.   |  |  |
|                             | Send catalog to: 1 2 3 4 5                               |  |  |
|                             | Add to mailing list: 1 2 3 4 5                           |  |  |

REPORT:

Cibaria Trock

Ex RP This R harm





# aldrich chemical company, inc.

CONTACT REPORT

| Report No                   | Ву  |
|-----------------------------|---|
| Date 1777                   | Department  |
| Other Persons Accompanying: | Persons Interviewed and Position  1. A Remission  2 |
| Company Name and Address:   | 4 5 Send catalog to: 1 2 3 4 5                      |
|                             | Add to mailing list: 1 2 3 4 5                      |

REPORT:

N 200 phods

Two day for next year.

|      | Ap    | prove | d by | <b>/:</b> |   | Date: |
|------|-------|-------|------|-----------|---|-------|
| Form | A40 I | Rev.  | 12/  | 18        | 0 |       |

Copies to:



### Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

November 12, 1993

Professor R. J. H. Clark Head, Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ

Dear Robin:

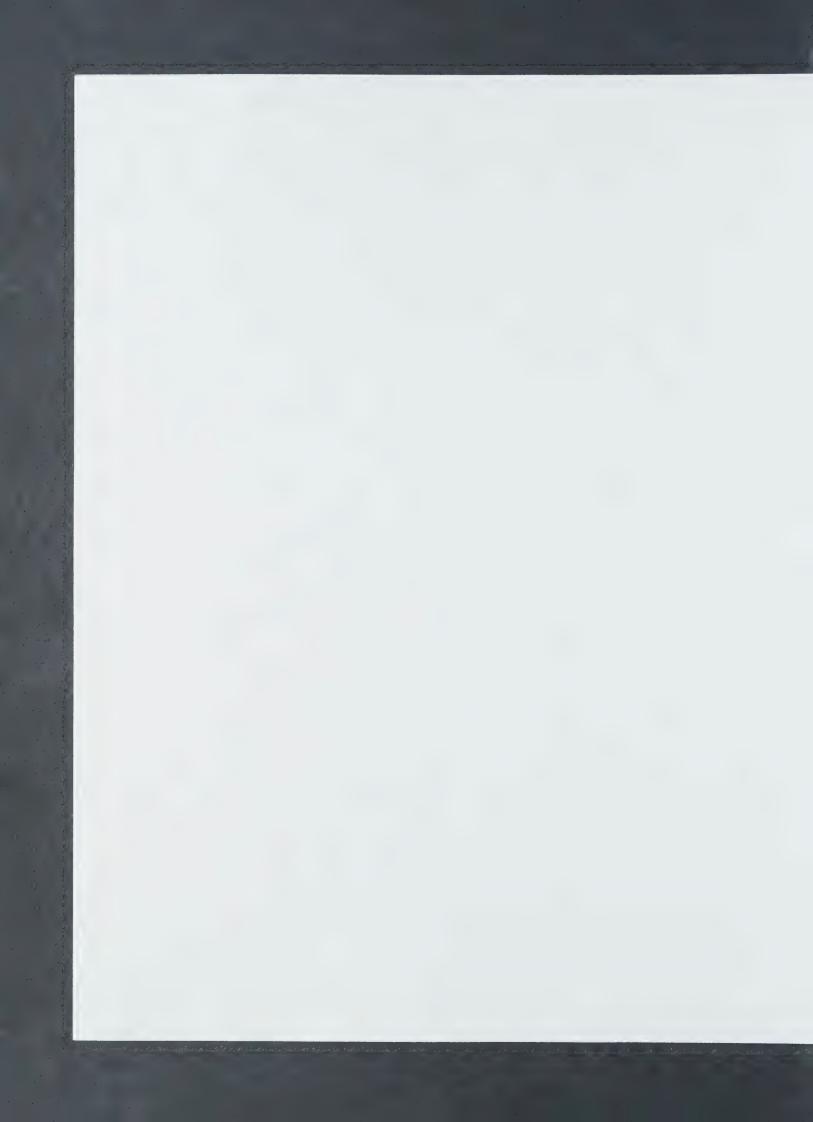
Thank you for your kind invitation to the lab dinner on Friday, November 19th.

As I mentioned during my last visit in July, Isabel and I very much look forward to attending this fun annual event.

We plan to be in the Chemistry Department a little earlier, particularly to greet Willie Motherwell and to discuss the progress of the bursaries.

All good wishes.

Sincerely,





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr and Mrs A Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 USA **University College London** 

Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Ext. 4620

Direct Line: 071-380 7457

fax: 071-380 7463

15 October 1993

ikn Alfredam skolel,

It is a pleasure to invite you and Isabel most warmly to be our guests at the Lab Dinner on Friday 19 November 1993 at 1800 for 1900. This is an annual event to which past and present members of the research school are invited, and typically has an attendance of circa 120. The guest speaker is Sir Ronald Mason KCB.

We shall meet for drinks at 1800 in the Nyholm Room in the Christopher Ingold Building at 20 Gordon Street, and shall move over to the Old Refectory at 1900.

I shall be grateful if you will let me know whether you can accept this invitation. We shall be delighted if you can.

Yours sincerely,

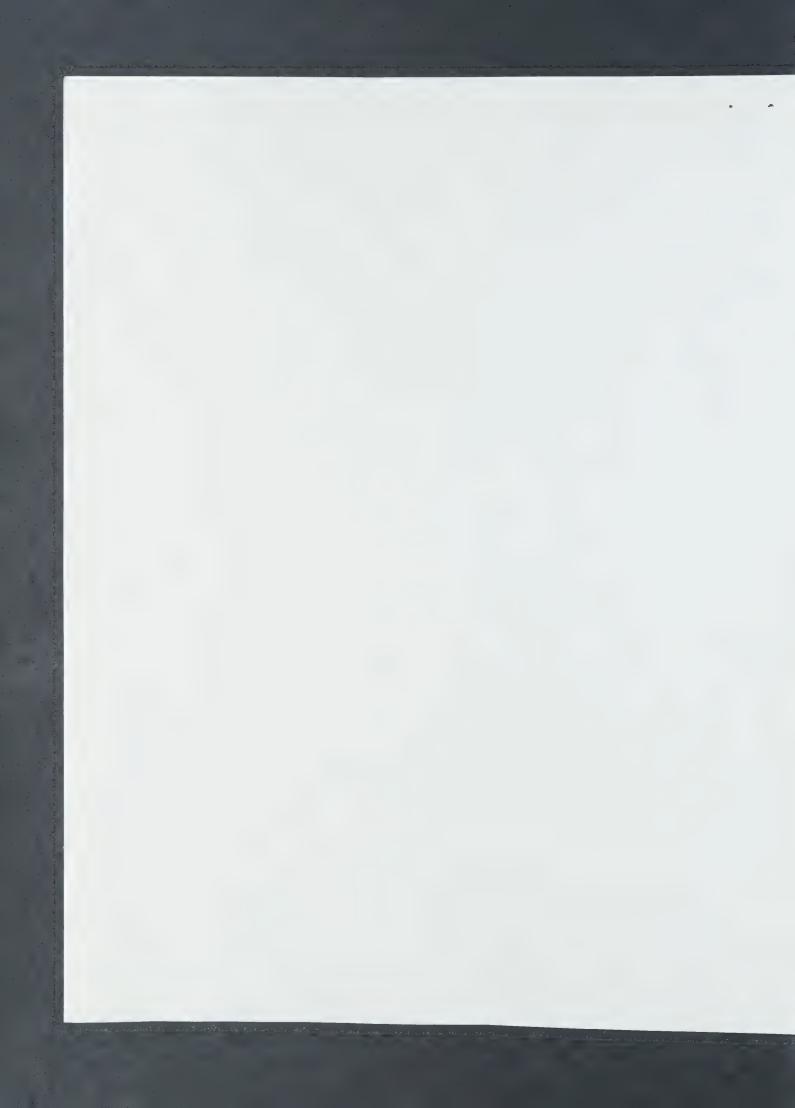
R.J.H. Clark

52 Wickham Avenue, BEXHILL ON SEA, East Sussex, UK

RJHC/djm









#### UNIVERSITY COLLEGE LONDON

Gower Street London WC1E 6BT Tel: 071-387 7050 Direct Line: 071-380 7234

Fax: 071-388 5412 Telex: 28722 UCPHYS G

Provost: Dr D. H. Roberts, CBE, FRS, FEng

28 September 1993

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

Dear La Gader

I must thank you for your generous support for our Chemistry Department and to Professor Motherwell.

I do hope that whenever you next visit the UK you might have time to come to UCL and give me a chance to thank you personally and to tell you of our plans in organic chemistry and related areas.

Yours sincerely,

Dr D H Roberts Provost



### Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

August 6, 1993

Professor Robin Clark, Chairman Department of Chemistry University College 20 Gordon Street London WC1H 0AJ, England

Dear Robin:

Thank you so much for your kind reception last month, and for sharing with me the details of your efforts to recruit students under the bursary scheme. Isabel and I already look forward to being with you again on Friday, November 19th.

Let me share with you some concerns I have about the bursary scheme. You will recall that originally you planned for a two-day summer school, and to invite approximately 50 students, then to be able to pick four for the bursaries. Now, on June 29th you had a one-day summer school, with 40 students and five applicants, and you don't think that four may be suitable for the bursaries.

Of course I understand that when you start with such a scheme, not too many students will apply, and so I am not surprised that only 40 students attended, and only five applied. What concerns me much more is that the meeting was held only one day, during which little time could be spent for the staff to get to know the students individually. If at all possible, let me urge you to hold the meeting for two days next year, and the staff will then have much more time for personal interaction.

You know that Isabel and I are committed to this scheme for three years and that during the third year we want to take counsel with you, Professors Tony Deeming, Willie Motherwell and Steven Ley to decide whether the scheme has really been a success, and then take it from there, as discussed.

Best personal regards to you and your associates.

Sincerely,

c:

Professors T. Deeming, S. Ley, W. Motherwell



## UNIVERSITY OF FUELE LONDON

The Control of the Co

MARKANACA YER E. For the Mark Halls

The Assessment of the second

Frotessor W.B. Motherwein c/o Professor R. LH.C.a.k. Donartment of Chamistry

. . I Processor Motte WAR

the secondary at the point of an expectation of the matry will account to the contract of the matry, will account to the costs cranges by the following

- E

Flamming and Neso roes





University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street

Tel: 071-387 7050 Fax: 071-380 7463

London WC1H 0AJ

Dr A Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

14 December 1993

Dear Alfred,

I enclose a list of schools that we mailed last year with invitations to send students to the Summer School and to invite applications for bursaries. All these schools are state schools and mostly comprehensive schools with unselected entry or sixth-form colleges which accept students for A-level studies from the whole local area. Of course, none are fee-paying. Even so, each school will have some highly deprived students and some who are more fortunate. As you know we aimed at areas with predominantly poor traditions of higher education. The best schools (not on this list) get 70% or even more into higher education but other are fortunate to get as many as 5%. A covering letter went out to the teachers explaining what we are trying to achieve and encouraging applications for bursaries from students that were thought to be appropriate.

Best wishes for 1994, Yours sincerely,

Tany



# First mailing for Summe School

Page No. 05/14/93

List of favoured schools

Avon BS15 1NU The Head of Chemistry A C ( Speedwell School Bristol ACC Avon BS16 2HD The Head of Chemistry Whitefield Fishponds School Bristol A C ( Avon BS5 9JH The Head of Chemistry St George School Bristol AG( Avon BS6 5JW The Head of Chemistry Fairfield Grammar School Bristol The Head of Chemistry A C ( Avon BS7 9NH Bristol St Thomas More RC School Avon BS7 9XT The Head of Chemistry A C ( Bristol Locklease School Beds LU2 7EW Luton Beds LU2 7EW Mr W Sellicks : Mr Atkin Ilford 081-514-4666 Essex IG1 2UT 503-8583 The Head of Chemistry H C L Luton Sixth Form College H C ( Loxford High School VHerts EN5 4AZ Barnet 571647 Ms Angela Melamed H ) Barnet College of Further Education Borehamwood 763-1852 Herts WD6 1HN Borehamwood 763-1852 Herts WD6 1HN The Head of Chemistry Borehamwood 761-953-3137 Herts WD6 5LG 381-453-0446 The Head of Chemistry H C Hillside School H C Nicholas Hawksmoor School Lancs BB5 OLU ACI The Head of Chemistry Mount Carmel RC High School Accrington London E1 OAB Mr M Chyriwsky H C Bishop Challoner School Commercial Road London E1 2JP The Head of Chemistry H C Mulberry School for Girls London E10 6EQ Mr A Booth HCL Leyton Sixth Form College ( 21 477-7. √London E17 4JB 123 н Walthoum Forest College The Head of Chemistry Walthamstow 081-517-2 Tondon E17 5AA H Sir George Monoux 6th Form College The Head of Chemistry London E2 8LS Haggerston School Hackney London E2 9LY The Head of Chemistry Raine's Foundation School The Head of Chemistry H C Central Foundation Girls' School London E3 2AE Hackney London E5 0RB Kenninghall Road London E5 8BP The Head of Chemistry H C C Clapton School The Head of Chemistry Hackney College H C ( London E5 8NP The Head of Chemistry Hackney Downs School Hackney Mr T R Malhi D. M. Ke Jenkinson The Head of Chemistry East Ham CE1471-24/cMLondon E6 1DG н Plashet School -NO SIXTH FORM High Street South London E6 4ER Newham Community College London E7 9PR The Head of Chemistry н Stretford School Newham Mr C Thompson Н Dalston Lane London E8 1LJ Hackney College The Head of Chemistry 89-115 Mare Street London E8 4RG Hackney College Hackney

London E9 5BX TY T Coputhe Head of Chemistry

London E9 5RR Н Hackney Sixth Form Centre H C C Cardinal Pole RC Secondary School Homerton House School Hackney 64 Fam Cake Hackney 081-486-8144 London E9 6EB No 64 Fer The Head of Chemistry H C C The Head of Chemistry H C C London E9 6NR Hackney Free and Parochial CE School Hackney The Head of Chemistry H C London EC2A 4AP Central Foundation Boys' School H E The Head of Chemistry London N1 6BX City & East London College The Head of Chemistry H C London N1 8PQ Istington Green School London N10 1NE The Head of Chemistry HCL Muswell Hill Fortismere Comprehensive School London N11 2QF The Head of Chemistry н Bounds Green College of N E London Dr L Parker London N15 4RU College of North East London London N16 5AF The Head of Chemistry H C Our Lady's Convent High School Stoke Newington H C The Head of Chemistry London N16 5RS The Skinners' Company's School for Girls H C The Head of Chemistry London N5 1AR Highbury Fields School H C The Head of Chemistry London N5 2EG Highbury Grove School H II London N6 5LY M N Wesley St Aloysius College The Head of Chemistry H C London N7 0JG Holloway School The Head of Chemistry HCN London N7 OSP North London College London N7 6EX Ms Keren Abse H C V Islington Sixth Form Centre The Head of Chemistry H C E London NW1 1RG South Camden Community School The Head of chemistry London NW1 1TA Maria Fidelis Convent School H I Mrs Berberian Ivor Place London NW1 6XR Francis Holland School H C V The Head of Chemistry London NW1 8AS Haverstock School HCL London NW5 1HD The Head of Chemistry La Sainte Union Convent School



| Parliament Hill School (LASWAP)           |                     | London NW5 1RL     | The Head of Chemistry | H C 1 |
|---|---------------------|--------------------|-----------------------|-------|
| William Ellis School                      |                     | London NW5 1RN     | The Head of Chemistry | H C   |
| Acland Burghley School (LASWAP)           |                     | London NW5 1UJ     | The Head of Chemistry | H C I |
| Camden School for Girls                   | 571                 | London NW5 2D8     | Ms C Rees             | H C ' |
| College of N W London                     | South Kilburn       | London NW6 5RS     | Dr G Pirie            | H F   |
| Queen's Park Community School             | Brondesbury Park    | London NW6 7AD     | Dr P E-Devitt         | H     |
| Lambeth College                           |                     | London SE1 2JR     | Miss C A Ariyo        | Н     |
| St Saviour's & St Olave's School .        | Southwark           | London SE1 4AN     | The Head of Chemistry | H C ( |
| Southwark College                         | 071-715-1500        | London SE1 8NL     | Mr Steve Flowerday 🗸  | H C I |
| Archbishop Tenison's School               | ,                   | London SE11 5SR    | The Head of Chemistry | H C   |
| Warwick Park School                       | Southwark F.        | London SE15 5DZ    | The Head of Chemistry | H C I |
| Bacon's College                           | Rotherhithe         | London SE16 1AG    | Mr M Browne           | H C   |
| Aylwin School                             | Southwark           | London SE16 3TZ    | The Head of Chemistry | H C ( |
| Woolwich College                          | Plumstead           | London SE18 7PN    | The Head of Chemistry | Н     |
| St Joseph's College                       | Upper Norwood       | London SE19 3HL    | The Head of Chemistry | Н     |
| Waverley School                           | Southwark           | London SE22 ONR    | The Head of Chemistry | ( C ( |
| Kidbrooke School 081-856-                 | \$2211              | ∉London SE3 8EP    | Miss Lynne Marjoram   | ' C   |
| Thomas Tallis School                      | Greenwich           | London SE3 9PX     | The Head of Chemistry | H C   |
|   | Blackheath Hill     | London SE4 1UT     | Dr. D-Eonocca Forserd | H F   |
| Hatcham Wood School                       | Lewisham            | London SE4 2NY     | The Head of Chemistry | H C I |
| Sacred Heart RC Secondary School          | Southwark           | London SE5 ORP     | The Head of Chemistry | H C ( |
| Southwark Sixth Form Centre               | 1.00                | London SE5 7EW     | The Head of Chemistry | H C   |
| Catford County Girls' School              | Catford             | London SE6 2PS     | The Head of Chemistry | H C   |
| Woolwich College 081-855-032              | 21                  | London SE7 8LN     | Ms Margaret Knights   | H F   |
| Eltham Hill School                        | Greenwich           | London SE9 5EE     | The Head of Chemistry | H C ( |
| Ernest Bevin School                       | Tooting Bec         | London SW17 7DF    | Mr A Irwin            | Н     |
| South Thames College                      |                     | London SW18 2PP    | The Head of Chemistry | Н     |
| Pimlico School                            |                     | London SW1V 3AT    | The Head of Chemistry | HCI   |
| Burlington Danes CE School                | Wood Lane           | London W12 OHR     | The Head of Chemistry | Н     |
| Hammersmith School                        | Shepherd's Bush     | London W12 ORQ     | The Head of Chemistry | Н     |
| Cardinal Vaughan Memorial School          |                     | London W14 8BZ     | The Head of Chemistry | H     |
| Hammersmith & West London College         | Barons Court (21-74 | London W14 9BL     | Ms Gweneth J Hughes   | Н     |
| Acton High Robord No Offic form           | Acton               | London W3 8EY      | Ms-D_Straughn         | -H-C  |
| Acton College 081-993-2344V               | Acton               | London W3 BUX      | Dr J Everett          | H F   |
| Drayton Manor High School                 | Hanwell             | London W7 1EU      | Mr R Hammond          | ( 1   |
| Brentside High School                     | Hanwell             | London W7 1JJ      | The Head of Chemistry | n C   |
| Kingsway College                          | Grays Inn Road      | London WC1H 8JB    | Mr John Nolan         | H F 1 |
| Croxteth Community Comprehensive School   | Liverpool           | Merseyside L11 0BD | The Head of Chemistry | A C ( |
| Speke School                              | Liverpool           | Merseyside L24 OTP | The Head of Chemistry | A C ( |
| Pope John Paul High School                | Liverpool           | Merseyside L24 2UB | The Head of Chemistry | ACI   |
| Netherley School                          | Liverpool           | Merseyside L27 3YA | The Head of Chemistry | A C ( |
| Breckfield Community Comprehensive School | Liverpool           | Merseyside L54RX   | The Head of Chemistry | A C ( |
| Our Lady of Fatima School                 | Liverpool           | Merseyside L6 2HN  | The Head of Chemistry | A C ( |
| Nugent School                             | Liverpool           | Merseyside L7 3HL  | The Head of Chemistry | A C ( |
| St Mary's High School                     | Liverpool           | Merseyside L8 3TF  | The Head of Chemistry | A C ( |
| Shorefields Community Comp. School        | Liverpool           | Merseyside L8 9SJ  | The Head of Chemistry | A C ( |
| Wembley High School                       | Wembley 904-5066 x2 | Middx HAO 3NT      | Mr M Hayes            | Н     |
| Greenhill Tertiary College                | Harrow              | Middx HA1 3AQ      | The Head of Chemistry | Н     |
| St Dominic's Sixth Form College *         | Harrow on the Hill  | Middx HA1 3HX      | Head of Chemistry     | Н     |
| Hounslow Borough College                  | Isleworth           | Middx TW7 4HS      | Head of Chemistry     | НF    |
| Villiers High School                      | Southall            | Middx UB1 3BT      | The Head of Chemistry | H C   |
|   |                     |                    |                       |       |



#### List of favoured schools

| Dormers Wells High School        | Southall             | Middx UB1 3HZ            | The Head of Chemistry | Н     |
|----------------------------------|----------------------|--------------------------|-----------------------|-------|
| Swakeleys School                 | Hillingdon           | Middx UB10 OEJ           | The Head of Chemistry | НС    |
| Featherstone High School         | Southall             | Middx UB2 5HF            | The Head of Chemistry | нс    |
| Northolt High School             | Northolt             | Middx UB5 4HW            | The Head of Chemistry | н с   |
| Walford High School              | Northolt             | Middx UB5 5LQ            | Miss S Gunasekera     | Н     |
| Greenford High School            | Greenford            | Middx UB6 9RX            | The Head of Chemistry | H C   |
| Uxbridge College                 | Uxbridge             | Middx UB8 1NQ            | The Head of Chemistry | Н     |
| Hall Cross Comprehensive School  | Doncaster            | S Yorks DN1 2HY .        | The Head of Chemistry | A C   |
| Edlington Comprehensive School   | Doncaster            | S Yorks PN12 1HH         | The Head of Chemistry | A C   |
| Northcliffe Comprehensive School | Doncaster            | S Yorks DN12 3J8         | The Head of Chemistry | ACC   |
| High Storrs School               | Sheffield            | S Yorks S11 7LH          | The Head of Chemistry | A C   |
| Silverdale School                | Sheffield            | 3 Yorks 311 9RT          | The Head of Chemistry | A C   |
| All Saints RC School             | Sheffield            | S Yorks S2 2RJ           | The Head of Chemistry | A C   |
| Wath Comprehensive School        | Wath upon Dearne,    | S Yorks S63 7NW          | The Head of Chemistry | A C   |
| •                                | Rotherham            |                          |                       |       |
| Dealinside Comprehensive School  | Barnsley             | S Yorks S63 9EW          | The Head of Chemistry | ACC   |
| Mexborough School                | Doncaster            | S Yorks S64 9SD          | The Head of Chemistry | ACC   |
| Abbeydale Grange School          | Sheffield            | S Yorks S7 2GU           | The Head of Chemistry | A C   |
| Selhurst Tertiary Centre         | Croydon              | Surrey                   | Dr Barbara Wilson     | H F   |
| Hornsey School                   |                      | London N8 9JF            | The Head of Chemistry | нси   |
| The Latymer School               | ·                    | London N9 9TN Miss Baker | Dr P W barnard        | H C   |
| St Richard of Chichester School  | Royal College Street | London NW1 9LY           | The Head of chemistry | H C U |
| Hampstead School                 |                      | London NW2 3RT           | The Head of Chemistry | H C U |
| Christ the King VI Form College  |                      | London SE13 5DZ          | Alida Burdett         | H C   |
| Addey & Stanhope School          |                      | London SE14 6TJ          | The Head of Chemistry | H C   |
|                                  |                      |                          |                       |       |





University College London Gower Street London WC1E 6BT

Tel: 071-387 7050 Ext. 7132 Direct Line: 071-380 7132

Fax: 071-383 0529

2 February 1993

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211

Dear Dr Bader

Thank you very much indeed for the cheque for \$10,400. Your contribution is to a bursary to be awarded by the Chemistry Department. I have forwarded your cheque to our bank in New York for further processing.

May I take the opportunity of enclosing some further literature about the College including some current publications.

Yours sincerely

Michael Freeman

Enclosed: Literature

Auchael Freeman.





**R. J. H. Clark FRS**Sir William Ramsay Professor and Head, Department of Chemistry

D AIC ID I

Dr Alfred Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U S A **University College London** 

Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Ext. 4620

Direct Line: 071-380 7457 Fax: 071-380 7463

25 January 1993

Dear Alfred,

We are most grateful for the cheque for \$10,400.00 for the Bader Bursaries.

We will discuss with Steve Ley the wording of the publicity leaflet for the scheme and keep you informed of progress.

With many thanks and best wishes.

Yours sincerely,

R.J.H. Clark

RJHC/djm



January 19, 1993

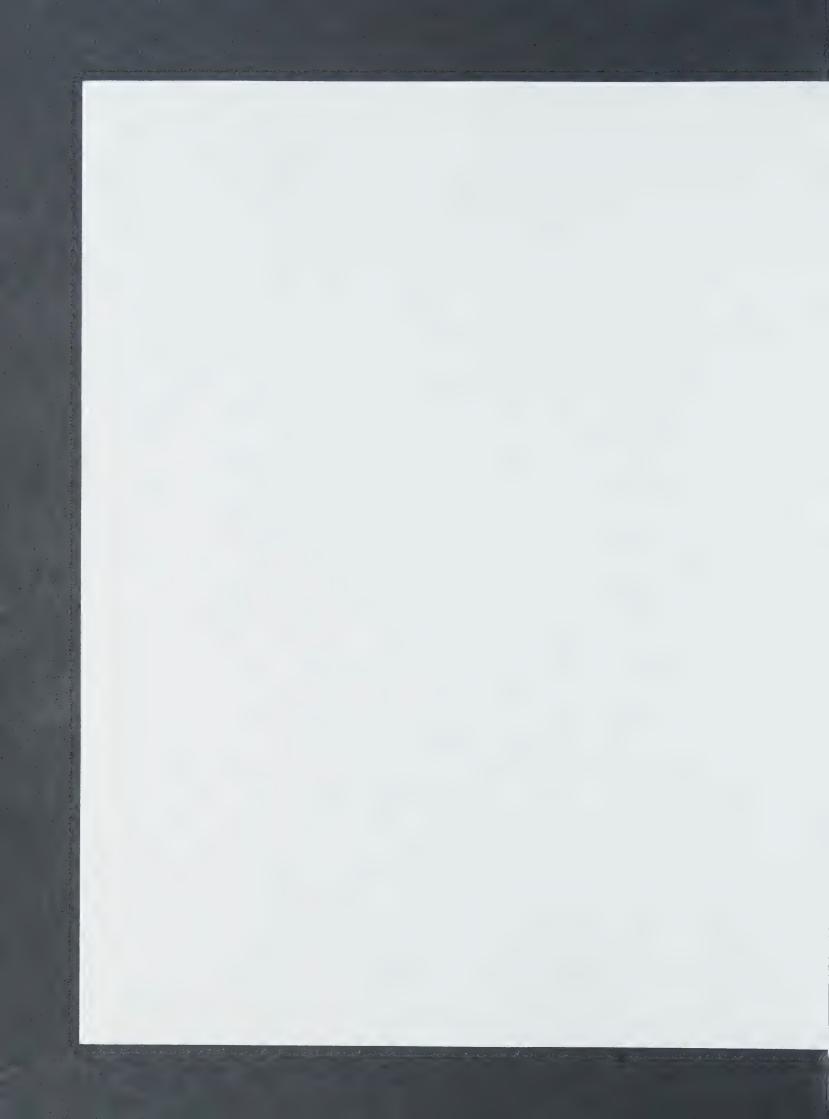
Mr. Michael Freeman Director Alumni Relations University College London Gower Street London WC1E 6BT England

Dear Mr. Freeman:

Enclosed please find my check for \$10,400.00, the equivalent of approximately L6,500.00 sterling, which is our contribution to bursaries to be awarded by the Chemistry Department of University College, as discussed in detail with Professor Robin J. H. Clark.

Best regards.

Sincerely,



January 19, 1993

Professor Robin J. H. Clark Head, Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ, England

Dear Robin:

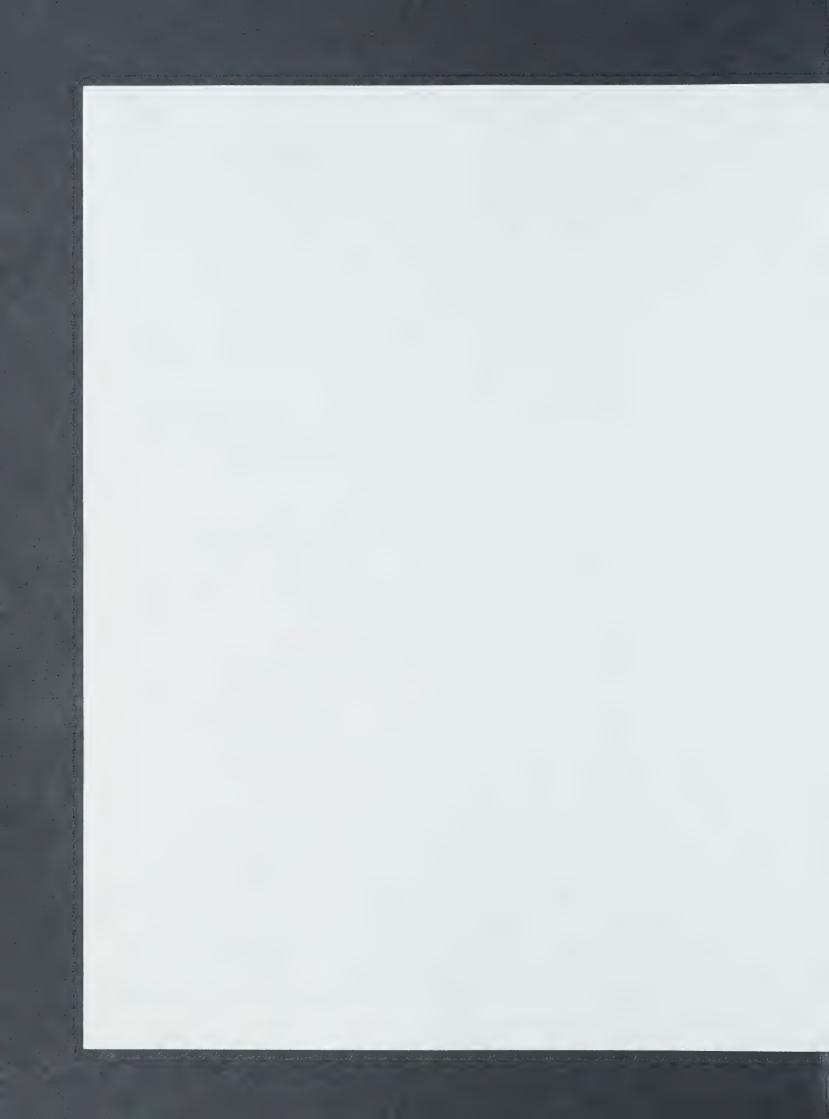
Thank you for your letter of January 6th. As you will see from my letter to Mr. Freeman, I am sending a check in the amount of \$10,400.00 from the Isabel and Alfred Bader Foundation, made out to University College London Friends and Alumni Association Inc. It is not easy to get that long a name onto a check! Please do let me know when the first bursaries are awarded, and you have my assurance that next year and the year following you will receive the equivalent of L10,500 and L14,500 for these bursaries. After three years, we will take counsel with you and Steven Ley about the usefulness of this scheme.

I cannot think of a better choice for the Alexander Williamson Chair than Willie Motherwell. He will, I am certain, make a great difference to your Department. I presume that he will not begin until autumn, and we look forward to seeing you and him in May.

All good wishes.

Sincerely,

Enclosures



January 18, 1993

Dr. and Mrs. W. Motherwell Department of Chemistry Imperial College London SW7 2AY England

Dear Robyn and Willie,

Thank you for your gracious note and good wishes.

If you do decide to go to University College, please let me know when your work will begin as I would like to send University College a modest check to be used by you purely to help your research students for those little extras, like going to meetings, etc.

Fond regards, and all good wishes,





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr Alfred Bader 2961 North Shepard Avenue **MILWAUKEE** Wisconsin 53211 USA

**University College London** Christopher Ingold Laboratories 20 Gordon Street

London WC1H 0AJ

071-387 7050 Ext. 4620

Direct Line: 071-380 7457 Fax:

071-380 7463

6 January 1993

Dear Alfred,

I thank you for your very warm and supportive letter. We are delighted that the scheme to help students can now go ahead, and I can assure you that the first summer school will be held this year. I am not sure whether we will release any bursaries this year or not; the plans are still in hand.

We shall, of course, discuss the working and operation of the scheme with Steve Ley. We will keep you informed as to progress; the Chairman of my Recruitment Committee, Professor Tony Deeming, has this in hand.

We are delighted with our choice of Willie Motherwell for the Alexander Williamson Chair, but we do not know yet whether he is prepared to accept it. The College's financial position, as judged by the Provost, is such that we could not get even near to Willie's stated financial needs. In this context, your offer of support will be a great help, and extremely timely. We are trying to bring matters to a head within two weeks from now.

With my very best wishes to you and Isobel.

Yours sincerely,

R.J.H. Clark

Copy of a letter I received from Michael Freeman. Enc.

RJHC/djm





University College London Gower Street London WC1E 6BT

Tel: 071-387 7050 Ext. 7132 Direct Line: 071-380 7132

Fax: 071-383 0529

4 January 1993

Professor R Clark Department of Chemistry

Dear Robin

As you ahealy know!

### GRANTS AND DONATIONS FROM THE USA

#### TAX EXEMPTION

American tax payers who give grants or donations to UCL can claim tax exemption on those donations. The University College London Friends and Alumni Association Incorporated has been registered as an American charity and the Federal Internal Revenue Service allows tax-paying donors, whether they are former students or not, to claim tax exemption on donations they make.

Cheques must be made payable to University College London Friends and Alumni Association Inc and forwarded to me at this office or to Peter Hoenig at the registered office of the Association in New York for processing. We have a NatWest Bank Account in New York and funds will be transferred from it to the College account here.

The Provost is Chairman of the Directors of the Association, alumnus Peter Hoenig is secretary, Cathy Giangrande of the Institute of Archaeology is another Director and there are two other non-executive Directors. I am, for the time being, Chief Executive of the Association, known as the President!

Please contact me if you would like more information.

Yours sincerely

Michael Freeman

hiho

The registered office of the University College London Friends and Alumni Association Incorporated is Biedermann, Hoenig, Massamillo and Ruff, 733, Third Avenue, New York, New York 10017.





University College London Gower Street London WC1E 6BT

Tel: 071-387 7050 Ext. 7132 Direct Line: 071-380 7132

Fax: 071-383 0529

17 December 1992

Professor RJH Clark FRS Chemistry

Dear Professor Clark

#### USA DONATIONS TO UCL

Our lawyers advise that donors, can make tax-exempt donations to us by making payments to:

# The University College London Friends and Alumni Association Incorporated

The donor, who need not be a UCL alumnus, will need to know, that we have an Employer Identification Number (EIN) which is 13-3634775 and that the Internal Revenue Service has registered us so that donations can be offset against the donor's federal taxes.

The full paperwork from the IRS is attached and if it helps you can forward it to Dr Bader.

Yours sincerely

Michael Freeman

hickeel freeman.

Papers attached





University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr. Alfred Bader, 52 Wickham Avenue, BEXHILL ON SEA, E Sussex TN39 3ER

10 December 1992

Dear Alfred.

I enclose a copy of a letter from Michael Freeman, the Director of our Alumni Relations, which confirms the registration number of the University College London Friends and Alumni Association Inc.; I understand that the name of the College is written in full as I have shown, and not as UCL.

I have spoken to him since his meeting with the lawyers, and there is little to add to his letter. An account is being opened this week at the National Westminster Bank in New York, but we have not yet got the account number. The name and address of the Attorneys who are acting for us are given on the enclosed copy of a letter from them.

I haope that this provides all the information you need.

With very best wishes, particularly for the Christmas season.

A.G. Davies

cc. RJH Clark





University College London Gower Street London WC1E 6BT

Tel: 071-387 7050 Ext. 7132 Direct Line: 071-380 7132

Fax: 071-383 0529

7 December 1992

Professor A Davies Chemistry

Dear Professor Davies

## USA DONATIONS TO UCL

Our lawyers say that a donor needs to pay money to the account of the UCL Friends and Alumni Association Incorporated which is registered as a charity, has been approved by the Internal Revenue Service as a tax exempt organisation and has an employer identification number (EIN) 13-3634775. Other than that I don't think I am going to be able to help you until we meet with the lawyers tomorrow.

Yours sincerely

Michael Freeman

Cuneal Feeman





**University College London** 

Chemistry Department Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Or. Afreed Bades. 72 Wicklam Venue. of XHIII OX SEA. F. Shesey TWO REP

à [m on] a. 1002

Dry Allera

The bisates of our Abumei Relations (Michael Escensor) has installed phoned to me the details of our Abumei Association in the State. He says that donations should specify that they are being a about the University College London Friends and Abumei Association in a and the eightration number for bader I Tax purposes is FIN#19-107477. This comber is that does appear at the top of the better force the Association and Finance, of which I think you have a copy.

I should have this in writing on conday, when I will send you a op. .

hir I tooy best wishes.

Area Draine

R.74 Charle





**University College London** Chemistry Department Christopher Ingold Laboratories

20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Fax: 071-380 7463

Dr. Mited Sader, 52 Wickham Avenue, ESUSSENTA 14 PER

SO November 10 C

D. In Alfred.

I was very pleased to see you at the Lab Dinner, and I apolytise for not writing before this, but I have been away in Scottand.

Cenclose copies of letters which I have received from our Structor of Alumini Relations, which position that the UC Exiconds and Mount 1- so father the 1s registers that his appliance have not yet remixed the registration number, but we hope to have it after The menting which has been arranged to the enheut. and I will be guarase I immulately it is available.

: illulies wishes



December 31, 1992

Professor R. J. H. Clark Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ, England

Dear Robin:

Thank you so much for going to all the trouble of sending me the information showing beyond a doubt that the University College London Friends and Alumni Association Inc. is able to receive contributions from American non-alumni and have these Americans deduct such contributions from their taxes.

You may have noted that the IRS ruling is good until December 31, 1996, which gives us lots of time. If we wish to make contributions after that period, I will ask you again in 1996 if the period has been extended.

My tax advisor has urged me not to make the contributions until 1993 and you have my assurance that we will contribute L6,500 in early 1993, L10,500 in 1994, and L14,500 in 1995. At that time we will review how this scheme has worked.

Of course, you know that this is important to us, not just because we hope that it will help students coming to University College, but that it may also become a pilot model for other urban British universities.

I was so happy to know that you understood why I wanted to involve Professor Steven Ley in giving his counsel about this scheme. He is one of Britain's ablest chemists, one of our best friends, and a wonderful human being. Isabel and I have shared with him our thinking and hopes for this plan, and so I would like to ask you to let him look at the plans for the bursaries as the plans develop, and then consider his comments.

Professor R. J. H. Clark University College London December 31, 1992 Page Two

We were delighted to learn that you have offered the new chair in organic chemistry to Willie Motherwell. He is a great chemist who truly cares for his students, and he will make a great contribution to your department.

Please let me know when he begins at University College. At that time, Isabel and I would like to send a modest check, again to the UCL Friends and Alumni Association, to be used by Willie totally without restriction, only to help his research students.

Many thanks for all your help, and all good wishes to you and your associates for 1993.

Sincerely,



R. J. H. Clark FRS
Sir William Ramsay Professor and
Head, Department of Chemistry

Dr A Bader 2961 North Shepard Avenue MILWAUKEE Wisconsin 53211 U.S.A. University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

el: 071-387 7050 Ext. 4620

Direct Line: 071-380 7457

Fax: 071-380 7463

23 October 1992

Han A Bade

It is a pleasure to invite you and your wife most warmly to be our guests at the Lab Dinner on Friday 20 November 1992 at 1800 for 1900. This is an annual event to which past and present members of the research school are invited, and typically has an attendance of circa 120. The guest speaker is Professor B.F.G. Johnson FRS, University of Edinburgh, a lecturer in the Department from 1967 to 1970.

We shall meet for drinks at 1800 in the Nyholm Room in the Christopher Ingold Building at 20 Gordon Street, and shall move over to the Old Refectory at 1900.

I shall be grateful if you will let me know whether you can accept this invitation. We shall be delighted if you can, particularly as this would give you the opportunity, if you wished, to present the second Bader prize in person at the dinner; we have just reached the decision to award this to Miss Karen Johnson.

Yours sincerely,

R.J.H. Clark

52 Wickham Avenue, BEXHILL ON SEA, East Sussex.

RJHC/djm

CC.

is Rine excuse le misdirectel earlier letters



October 20, 1992

Professor R. J. H. Clark Head, Department of Chemistry University College London 20 Gordon Street London WC1H 0AJ, England

Dear Professor Clark:

Thank you for your kind invitation to join you for your Lab Dinner on Friday, November 20th.

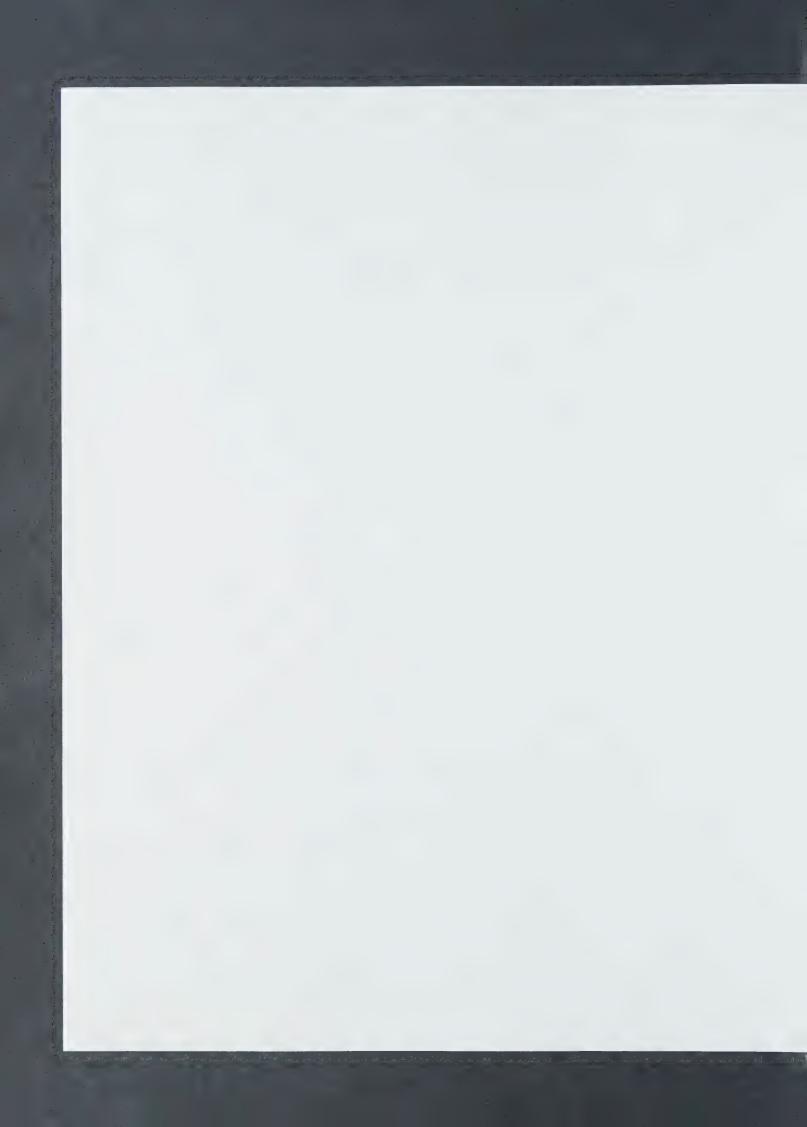
I would like to accept and then have a chance to chat with so many old friends. Is Isabel invited, also?

Could you please direct your reply to our English address:

52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

Best regards.

Sincerely,





R. J. H. Clark FRS

Sir William Ramsay Professor and Head, Department of Chemistry

Dr A Bader Chairman Sigma Aldrich Corporation P O Box 355 MILWAUKEE Wisconsin 53201 U.S.A. University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Ext. 4620

Direct Line: 071-380 7457 Fax: 071-380 7463

6 October 1992

Jen the Bade,

It is a pleasure to invite you most warmly to be one of our guests at the Lab Dinner on Friday 20 November 1992 at 1800 for 1900. This is an annual event to which past and present members of the research school are invited, and typically has an attendance of circa 120. The guest speaker is Professor B.F.G. Johnson FRS, University of Edinburgh, a lecturer in the Department from 1967 to 1970.

We shall meet for drinks at 1800 in the Nyholm Room in the Christopher Ingold Building at 20 Gordon Street, and shall move over to the Old Refectory at 1900.

I shall be grateful if you will let me know whether you can accept this invitation. We shall be delighted if you can.

Yours sincerely,

R.J.H. Clark

RJHC/djm



## Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

September 11, 1992

Prof. A. G. Davies
Department of Chemistry
Christopher Ingold Laboratories
Unviersity College London
20 Gordon Street
London WC1H 0AJ
England

Dear Alwyn:

I appreciated the thoughtfulness of your letter to <u>Chemistry in Britain</u> more than I can tell you.

Isabel and I look forward to being back in our English home in November and December, and I hope I will then be able to thank you personally.

Best personal regards,



Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

September 11, 1992

Professor R. J. H. Clark Head, Department of Chemistry Christopher Ingold Laboratories University College London 20 Gordon Street London WC1H 0AJ England

Dear Professor Clark:

I have just seen the September issue of <u>Chemistry in Britain</u>, and I want to thank you most sincerely for the thoughtfulness of your letter.

I already look forward to being back in England at the end of November and hope then to have a chance to meet with you and, if at all possible, to finalize on the details of how best to help disadvantaged high school students to come to your department.

Best personal regards, also to Professor Davies.

Sincerely,



Professor Dobin Clarke University College

Mean Robin:

Thank you for your letter of July 10 received only to-day. I gut with you had been prevent during em morning dipension with professors Didd and Javies, as you would have not hank me quite yet for petering up he burparies.

what I hope was clear to John and Always is had Isabel and I really would to pet up here burparies, and hink UCL is he right glove to start.

Monoever, I hope I made clear

- (1) The friends of the RSC must opposed. I left the factor with Dr. Rows peccelary, and hope to have his response phortey
- (1) 2 sould like to meet you new grofessor of organic chemistry in November, to diponse hip involvement
- (3) we would like to work out presific details, pull as choice of Student's etc.

All Rac con, l'hoge be petiled during en next. Visit in Nodember. Neccenter.

To turn to the other goines in your letter

Many Ranks for writing to its editor of Chamistry in Britain.

I am pure hat you work in Raman microscopy for Biguese identification is important, but we would like to concentrate helping Anderts in chemistry generally of in organic chemistry, gordienlandy Anderder who have had limited effortuities. I do hope you will understand. We have pet of Rea fellowsplig & 46: Czech organic graduates to obtain Leis d'hills, ni Rree puccessive years, and would like Lo per how his works before continuing I le be in London on Thursday, July 16, and will then call grof. Kida for pome furter charification regarding la burpary schene. As I have no pecretary, may 1 impose on you to phose this leties bok wik John and Alwyn. Best personal regular

gya

## Department of Chemistry UNIVERSITY COLLEGE LONDON

20 GORDON STREET LONDON WCIH OAJ

TELEPHONE GI-387 7050

071-387-7050 Ext. 4706

2" July 1992

Dear Dr Boder,

Here is a draft of our suggestions for the Burrony Schene but it is only a draft and could be modified in a number of ways.

Please let me tome what you what you what to it. I what he in College for mont days this month and much he very happy to discuss it will you in more detail.

Will all good with your wing.

John Redd

PM. J. H. RIDD





Professor J H Ridd Extn: 4706

Dr Alfred Bader 52 Wickham Avenue Bexhill on Sea East Sussex TN39 3ER University College London Chemistry Department Christopher Ingold Laboratories 20 Gordon Street

Tel: 071-387 7050 Fax: 071-380 7463

London WC1H 0AJ

13 July 1992

Dear Dr Bader,

First let me thank you for your very kind reception of our ideas last Thursday. I have raised the point you mentioned with the Registrar's Department here and they have assured me that students can received up to £3,000 per year before any cut is made in their financial support. The relevant regulations will be available for you to see when you come next in November. There is no need to fear that our proposed bursary scheme will reduce the sums available to them in other ways.

We will therefore put the Scheme into operation with the identification of the schools and the organisation of a Summer School in July 1993 with the intention of awarding the first bursaries in October 1994. We have given further thought to the possibility of running the Scheme from October 1993 since we recognise that you would prefer an earlier start. However, any earlier start would involve essentially a different Scheme and we would therefore prefer to retain the timing that we agreed with you.

The three people here who will be most involved with the operation of the Scheme are Professor Tony Deeming (the chairman of the recruitment committee), Dr Jim Parkin (the present admissions tutor) and Dr Sally Price, (who will take over as admissions tutor in October 1993).

I hope that you will be able to meet them and one of the College's financial officers when you next come in November.

With all good wishes.

Yours sincerely

RAR: Very good. John Rid

Professor J H Ridd

Dera 15. Ti.





R. J. H. Clark FRS
Sir William Ramsay Professor and
Head, Department of Chemistry

Dr A Bader 52 Wickham Ave Bexhill-on-Sea East Sussex TN29 3ER University College London Christopher Ingold Laboratories 20 Gordon Street London WC1H 0AJ

Tel: 071-387 7050 Ext. 4620

Direct Line: 071-380 7457 Fax: 071-380 7463

10 July 1992

Dear Alfred,

I am writing to thank you most sincerely for having set up the new Bader Bursaries in Chemistry at UCL. This is a very good idea, and I feel sure that we can operate it as a pilot scheme until it is proved to work, and then set it up in perpetuity. Thank you again for your generosity and please feel assured of a warm welcome in my Department at any time. Alwyn Davies and I have now written to "Chemistry in Britain" on the other matter and are pleased to have done so.

In view of your deep interest in paintings and other works of art, I was sorry that you did not have time to visit my laboratory in order to see the Raman microscopy in operation. We have developed the technique into a very powerful one for the characterisation of pigments in illustrated manuscripts, as outlined in the attached reprint. I hope that you will find this to be of interest and will see everything in operation when next you visit. I hope that I might be able to interest you in providing the funds for either a PhD student or a post-doctoral fellow in this area. I know that you are mainly interested in promoting Organic Chemistry, but this complementary interest of yours I hope might also appeal. Please let me know what you think.

I was also most interested in the fact that you are supporting Czech post-doctorals or staff members. UCL has, probably, the longest established connection with that country, going back to Heyrovsky (Nobel Laureate, trained by Donnan, see attached notes of the introduction which I delivered to the RSC conference in his honour at UCL in December 1990). I have strong connections with Prague via Dr Blanka Vlckova, who worked with me here in the 1980's. Could I possibly persuade you to extend your established scheme to help Czech chemists to come to UCL as well as IC and Columbia? I have regular requests from Czechs for support and never have any way of helping them.

I hope that I have not made too many suggestions in a single letter! Nevertheless, I am anxious to do all that I can to build up the strengths of this great Department. Any help that you can give would be greatly appreciated.

Yours sincerely

R J H Clark

enc.

RJHC\ah

Deca 14 July

