

Major discovery in MOLS

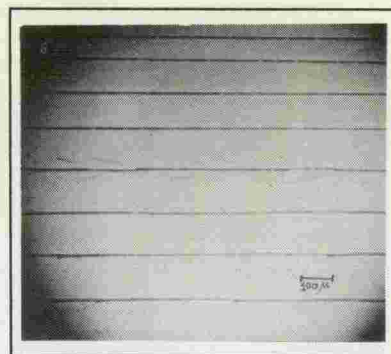
A significant discovery in the field of optoelectronics has been made by Sussex scientists. The research group in Mols (Nazar Azoz, Paul Calvert, Muntessar Khadim, Tony McCaffery and Ken Seddon) has produced a totally new material which has outstanding optical properties and which will enable new developments in optical communications and optical computers.

Periodically, the field of electronics undergoes a revolution which makes today's gadget seem out of date overnight. The revolution now underway involves the use of light to carry information over long or short distances instead of the more traditional electrical current. Light travels much faster than electrons but apart from gains in speed, it can also be switched at very fast rates indeed. Because of this, information, which is frequently in the form of rapid on-off pulses, can be transmitted at rates and densities undreamed of in the world of electrons.

This revolution is already well underway. Who would go back to

tape after listening to a CD player? Already a major section of BT's telephone trunk system is carried optically through fine glass fibres and an optical transatlantic link is about to open. However, although optoelectronics is growing rapidly, it is still in the 'lusty infant' category as a technology and whether or not it will grow to mature middle age depends to a considerable degree on the discovery of new materials that will respond to or modify light in ways not yet achievable with current devices.

The new material developed at Sussex uses a design principle refined by nature over millions of years. Nature's method gives crustaceans their shells, vertebrates their bone and carnivores their teeth; it also gives port-imbibers their gout! In each case, minerals grow from natural polymers with their structures ordered and aligned in regular arrays which give strength. In the Sussex process, high efficiency optoelectronic crystals are grown within a synthetic polymer in a way which imitates nature but accelerates it



The aligned non-linear crystal in the polymer composite

many thousandfold by heating to dissolve the solid and by subsequent slow, directed, cooling. The result is a thin robust film which can double the frequency of laser light whilst retaining toughness and transparency.

The original impetus for the research came from Paul Calvert (now working in the USA) who, with Tony McCaffery and Ken Seddon, obtained BP Venture Research funds for a three-year project. When the fund-

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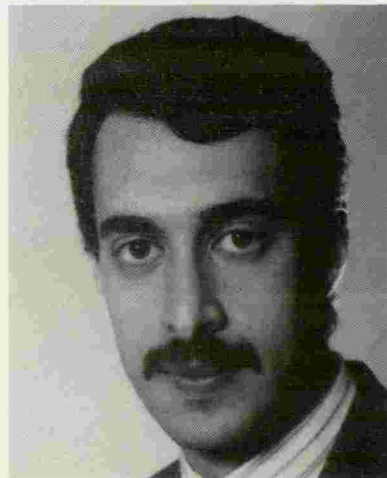
Graduates help out

Large numbers of Sussex graduates are offering to help current students on an informal basis through the alumni network and the Careers Advisory Service. Graduates often see individual students who are interested in following similar careers while others contribute to an expanding programme of workshops for groups of students.

Beverley Johnson, for example, who graduated in 1988 from ENGAM and is now with the Kent County Council Social Services Department, recently contributed to a session on careers in personnel and Chris Haxley and Kate Haycock, both EURO graduates, took part in a workshop on advertising and public relations.

Some graduates keep in touch

through the University of Sussex Society and with their Schools of Studies. Ben Jahromi (pictured below), who is Honorary Secretary of the Society, has



maintained contact with EAPS and is bringing his employers here tomorrow, 14th March. At 1.00 pm in EAPS Lecture Theatre AS1 there will be light refreshments, followed by a talk on "Advances in Public Telecommunications, especially with regard to global ISDN". All students — undergraduate or postgraduate — and staff with an interest in Electrical Engineering, Electronics or Computing (i.e. the technical side) will be welcome.

The talk, which should finish at approx. 2.30 pm, will be given by Dave Frame, Technical Director, and Phil Tremewan, Business Development Manager, of STC (Digital Switching Division). STC's Personnel Manager will also be there to discuss career opportunities with interested students; he, Joe Carlebach, also has Sussex connections through his father, Julius.

Images of Sussex

The seven weeks of *A Sense of Guilt* are now over; whatever your opinion of the storyline, this winter's major drama effort on BBC1 contained a large number of free mentions (or, if you prefer, plugs) for Sussex and several views of the campus. No doubt the BBC will show the serial again for the benefit of those who missed it this time.

If you don't watch fiction of the Andrea Newman variety, perhaps you could tune in to religion? Beginning on 4th March, for six successive Sundays, there will be live broadcasts from the Meeting House at 9.15 am. (Better still, go along and be in it.)

Several Sussex people figure in a programme about Japanese links with British education, to be shown this Friday, 16th March, at 7.30 pm on BBC2 (South region only). And on 28th March at 8.10 pm, the BBC2 current affairs programme *Antenna* will be presented by Gordon MacKerron of SPRU on the history of the economics of nuclear power in relation to the Government's decision to withdraw nuclear power from its privatisation plans.

Several companies have used Sussex this term as the backdrop for careers and market research videos and we have of course had our usual share of Sussex stories, and people on television news and features.

If you decide to leave the country in order to avoid Sussex on the box, we advise against a courtesy call on the nearest British Council office where the new tape/slide show for overseas students wishing to apply for places in the UK features many different facets of university life, from shops to welfare and launderette to tutorials. All the photographs were taken at a single university — this one.



The Ralph Lewis Award, worth £4,000 per annum, is made triennially for a publishing programme which makes available the works of new writers of poetry, drama or fiction. The 1989/90/91 Award was made on 6th March to Harry Chambers, Publishing Director of Peterloo Poets. Pictured above with the Vice-Chancellor, who presented the Award, are (from left): Adrian Peasgood, University Librarian; John Whitworth, one of the nine writers whose work is to be published; and Harry Chambers.

Small ads

BOOK BARGAINS: *Language in Mind and Language in Society*, was £25, now £10; *Language, Truth and Politics*, was £7.50, now £2.50. From the author, Trevor Pateman, ext. 2505.

DAUGHTER of Italian academic seeks position as *au pair* in Brighton area for Aug/Sept. Contact Bob Lumley, ext. 2072, Room Arts A149.

NISSAN Micra for sale: 1989 F reg, 3-door hatchback, 45+ mpg, one owner, metallic light blue, inc. comp. Nissan extended warranty to May 1993, sunroof, digital radio, etc. Tel. Mark 682015 or 0860-436906. Price £4,500 ono.

WHICH? Does anyone have early copies of the magazine *Which?* that I could look

at for a project on the history of consumerism? Anything up to 1975 would be useful. Rachel Bowby, CCS, Arts B; ext. 2193.

TO LET: 1/2 study bedrooms, own bath/wc in quiet house on edge of village Lewes area; suit mature student p/g. Non-smoker preferred; refs. required. Tel: 859-402.

FOR SALE: FM and TV antenna inc. aerial, rotary unit, control unit and mount £35. Dr. Richard Vincent, ext. 8432.

ACCOMMODATION required for foreign students attending our Summer Pre-Sessional Course. For the month of August only. B&B and evening meal, plus lunch at weekends. £65 per week. Please contact Sally Buffard, Language Centre, ext. 8006.

Prize winner



Dr. Mike English, Lecturer in EAPS, recently won first prize out of 2,000 entrants in a technical crossword competition organised by the trade journal *Business Equipment Digest*. The presentation of a laptop wordprocessor and printer was made on behalf of Smith Corona (UK) Ltd by their sales training manager, Debra Simpson, at English's Oyster Bar in Brighton.

Deaths

With sadness we report the following deaths:

Dr. E.A. Boucher was found dead in mid-February. A Lecturer in MOLS, he took early retirement in 1988 but returned to undertake part-time teaching.

Mr. Michael Carritt, a former Lecturer for the Centre for Continuing Education, has died at the age of 84. He was one of the original tutors transferred from Oxford University when Sussex took over responsibility for Extra Mural Studies.

Mr. Ludo Foster, has died at the age of 81, after many years' valuable service to the University. His retirement from the University Council and Court in 1985 was marked by a special presentation from students in appreciation of his work for the campus community.

Discipline

Members and employees of the University are reminded that all students are obliged to abide by the General Provisions of the Ordinance on Student Discipline which says that "students shall maintain a standard of conduct which is not harmful to the work, good order or good name of the University".

Under the Ordinance, all University members and employees are required to try to prevent any breach of University discipline and should report any such breach to the Registrar & Secretary. Minor breaches are referred to the appropriate Dean for action while major breaches are referred to a Discipline Panel.

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ing ended, there was, as is often the case, little to show but the two research students continued the work and a major discovery has now resulted. Indeed, the work continues still and improvements to the basic material have already been made. Future work will be helped by a grant from the Wolfson Foundation which has been made for the establishment of a unique optoelectronics test and evaluation laboratory in Mols.

A large research grant has also been obtained for synthetic work in harmonic generation and coupled with previous work (with Physics and with Southampton University) on the first waveguide laser from ion bombardment, Sussex now has an established reputation for innovation in this area.

Vice-Chancellor

The Vice-Chancellor has been elected an Honorary Fellow of Emmanuel College, Cambridge. Sir Leslie was a student at Emmanuel, taking a First in History.

University Summer Ball

Back in 1987 the idea of a University ball taking place with any success was met with scepticism by the longer-serving members of the University. It all started with three Biochemists from BIOLS who got together to form the Spoon committee to stir up action for entertainments on campus. The first ball was held in two small marquees on the lawn by Stanmer House. The food was prepared by the committee who then teamed up to run the disco. I still can't believe that event took place, let alone lead to what we have today.

The '88 ball grew larger and much more professional. Last year's ball was so large that we were forced to change the venue and move to the entrance to Stanmer Park. Seven marquees housed 1,700 people for what has become one of the largest university balls in the country.

And so to the present. The first ball of the '90s will be only slightly bigger but many more events during the evening will make it an evening to remember. Ten marquees at the entrance to the Park will be the venue for this year's event. Two international jazz bands and a campus band will provide the music, and a disco sound and light show will explode on to the scene later in the evening. As last year,



To mark the 15th anniversary of the establishment of the Gothenburg University programme at Sussex, Dr. Ulf Dantanus, Director of Studies, is pictured presenting a commemorative medal to the Vice-Chancellor. In presenting the medal, Dr. Dantanus spoke of Sussex's good reputation for creating international links. "Gothenburg is pleased and proud to be part of that international involvement," he said. Around 100 students a year come from the Swedish university to study at Sussex for approximately five or ten months.

the catering department will provide a cold buffet to satisfy every taste. While eating, you may enjoy the jugglers and mime artists who will perform both inside and out.

The tickets will be on sale from the first day of next term in either the Union Shop or the University Bookshop. They will cost £13 (single) and £25 (double). A programme of events will be issued with the ticket. The last three years have sold out after just a few weeks, so get your tickets early.

In previous years the event has not made money — it's not supposed to. However, this year by obtaining sponsorship we hope to pass some money on to the Trafford Appeal for Medical Research.

Many will remember Lord Trafford as a prominent figure in the University. As a consultant at the Royal Sussex County Hospital in Brighton his link with the University was based on the work carried out at the Centre for Medical Research on campus. The Centre has grown up to provide the necessary link between hospitals and the University. The scope of work ranges from community studies to research on cancer and the brain.

Lord Trafford died in September of last year. Just before his death he started a campaign to expand the Centre to allow more much needed research to take place. Lady Trafford has now set up an appeal to raise money to

help with the expansion of the (re-named) Trafford Centre for Medical Research. Work has recently started on a new building and money is required to equip it and fund the research. The Centre is very much part of the University and it is hoped that this year's ball will help not only to raise a small amount of money for the appeal but also inform people that this University is helping directly in the fight against cancer and other important health problems.

Trevor Hawkins
Chairman, Spoon Committee



Last year's ball

Noticeboard

THE BARLOW COLLECTION of Chinese Ceramics, Bronzes & Jades

Annual Barlow Lecture — *GLASS IN CHINA: Imports from the Islamic World, 874 to 1388* by Peter Hardie, City of Bristol Museum & Art Gallery on Wednesday, 25th April, at 6.00 pm in Arts A Building, Lecture Theatre A1. Admission by ticket (free of charge) from M. Donoghue, Vice-Chancellor's Office, Sussex House; tel. (67)8253.

HAVE YOU TOLD US?

Are you organising a conference, summer school or other event on campus, particularly during the Easter or summer vacations? If so, the Information Office would like to receive details. The Office particularly needs to know about any courses/events which fall outside the University's usual course structure and which might attract interest from outside organisations or individuals.

NEWS FROM THE LIBRARY

The Library recently counted, for a national survey, the number of enquiries dealt with during a week. 'Enquiries' were defined to comprise only activities involving advice and assistance, and to exclude all routine transactions. Thus defined, over 2,200 enquiries were logged in the week, or more than one every two minutes (including evenings and the weekend).

A telephone answering machine now provides information about Library opening hours to callers ringing when the building is closed.

ECONOMIC & SOCIAL RESEARCH COUNCIL STUDENTSHIPS 1990

Sussex students who intend to apply for ESRC Studentships tenable at Sussex or elsewhere in 1990 should obtain details and an application form from the Admissions Office as soon as possible. Research Studentships are not tenable at Sussex in 1990, but awards may be given for course-work programmes here. The closing date for applications to reach the ESRC is 1st May 1990.

SCOTTISH EDUCATION DEPARTMENT

Postgraduate Studentships in Arts and Humanities Subjects

Sussex students who are ordinarily resident in Scotland and who intend to apply for Scottish Education Department Postgraduate Studentships tenable at Sussex or elsewhere in 1990-91 should obtain details and application forms now from the Admissions Office in Sussex House. The SED will accept applications only up to 1st May, 1990, and not thereafter, and Sussex students must submit them through the Sussex Admissions Office.

VACANCIES

The Personnel Office has issued the following summary of posts to be filled. Advertisements for these vacancies have been placed in local, and where appropriate, national papers, as well as being circulated to the relevant Section Heads and Union representatives for circulation to staff and noticeboards. Copies of these advertisements and further particulars, if available, as well as application forms, are available from the Personnel Office, Room 227, Sussex House. This list was compiled on 5th March and is subject to revision.

Teaching Faculty

Four Lectureships in Economics
Lectureship in Philosophy, SOCS
Lectureship in Plant Biology, BIOLS

Other Faculty

Deputy Secretary
Assistant Accountant

Secretarial, Clerical and Related

Building Managers, Student Accommodation, full-time, grade 4
Assistant Printer, f/t, grade 3/4
General Services Assistant, Students' Union, f/t, grade 2
Secretary to Research Teams, SPRU, f/t, grade 3
Secretary, MOLS, f/t or part-time, grade 1/2
Secretary, EAPS, p/t, grade 2
Receptionist, Sportcentre, f/t, grade 2

Technicians

In BIOLS: Technician, grade D; Research Technician, grade D; Technician grade C; all f/t — enquiries to Mr. J. Burns, ext. 8053.
In MAPS: Technician, f/t, grade C; Trainee Technician, f/t, trainee grade; — enquiries to Mr. M. Strong, ext. 8084.
In MOLS: Lab Technician, f/t, grade A/B — enquiries to Mr. B. Law, ext. 3245.

General

Electricians, f/t
Cleaners, Residential Services, p/t
Teamakers, f/t
Steward and Housekeeper, f/t
Security Staff, f/t
In Catering Services: Bar Manager, f/t; Catering Supervisor, f/t — enquiries to Mr. P.K. Gassmann, Refectory

RECENT BOOKS

Recent books by Sussex authors include:

Yugoslavia: Socialism, Development and Debt by David A. Dyker. Routledge. £30.00.

Dominant Languages. Languages and Hierarchy in Britain and France by R. D. Grillo. Cambridge UP £25.00.

The Expedient Utopian: Bandaranaike and Ceylon by James Manor. Cambridge UP. £30.00.

Power, Competition and the State, Volume 2: Threats to the Postwar Settlement: Britain, 1961-74 by Keith Middlemas. Macmillan. £45.00.

A Nation of Home Owners by Peter Saunders. Unwin Hyman. Paper, £12.95.

Punjab and the Raj 1849-1947 by Ian Talbot. Manohar. £17.50.

Serving Two Masters: Third World Women in Development. Edited by Kate Young. Allied Publishers. £13.80.

In Search of Central Europe. Edited by George Schöpflin and Nancy Wood. Polity. £29.50.

All obtainable from Sussex University Bookshop

CLOSURES

The University will be closed for the Easter holiday from Wednesday, 11th April to Friday, 13th April, inclusive, and on Monday and Tuesday, 16th and 17th April. The University will also be closed for the Bank Holidays on Monday, 7th and 28th May and 27th August.

1990-91 Closures

Looking further ahead, the University will be closed from Monday, 24th December, to Friday, 28th December, inclusive, and on Monday, 31st December, and Tuesday, 1st January.

The 1991 Easter closure will be on Thursday and Friday, 28th and 29th March, and Monday and Tuesday, 1st and 2nd April. And the University will be closed for Bank Holidays on 6th and 27th May and 26th August, 1991.

TERM DATES

The Summer Term runs from Monday, 23rd April, to Friday, 29th June. The 1990-91 term dates are: 8th October — 14th December, 7th January — 15th March, 22nd April — 28th June.

SPECIAL GRADUATION CEREMONY

The annual meeting of the Court this Friday, 16th March, in the Meeting House, will be followed by a Special Graduation Ceremony at which the Chancellor, the Duke of Richmond and Gordon, will confer four honorary degrees.

The honorary graduands are Mr. Dudley Baker, Mr. Richard Bryant, Sir George Christie and Professor Sir Hugh Ford. This is a formal University occasion. Any member of staff who wishes to attend may do so, subject to obtaining permission from their office head. Admission is by ticket, obtainable from Dr. David Tutt, Room 347, Sussex House (tel. 8410).

Bulletin

This is the last Bulletin of the Spring Term. The Information Office would like to thank all those who have contributed in any way to the Bulletin during this term.

Please keep us informed about news events — not only in term time but during the vacation. The next edition will appear on Tuesday, 24th April. Copy for this issue must be received in the Information Office, Sussex House, tel. 8208, by no later than 4.00 pm on Monday, 9th April. Publication dates for the remainder of the Summer Term are: 15th May (copy date 4th May), 5th June (25th May) and 26th June (18th June).

The Bulletin is for the information of staff and students of the University of Sussex. Published by the Information Office. Photographs by the Photographic and Design Unit. Printed by the University of Sussex Printing Unit.



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