

## **LSF Operational Statistics**

E. Belcher, S. Tavender, M. Towrie and A. W. Parker

Central Laser Facility, CCLRC Rutherford Appleton Laboratory, Chilton, Didcot, Oxon, OX11 0QX, UK

## Main contact email address e.l.belcher@rl.ac.uk

## **RAL-based experiments**

In the reporting period (March 2005 to March 2006), 26 different User groups performed a total of 54 experiments in the LSF laboratories at RAL. A total of 4313 hours laser time was scheduled to the UK User community and European Users throughout the year. 4994 hours were delivered with only 46 hours downtime. This year saw an increase in the number of weeks chemistry and decrease in biochemistry scheduled. A breakdown is shown in Figures 1 and 2. The RAL-Based schedule is shown in Table 1. The average User satisfaction marks are shown in Figure 3. There were a total of 28 publications, 9 conference proceedings and 4 PhD theses published during the reporting year.

## **Loan Pool**

The Loan Pool delivered 382 weeks of laser time in the reporting period. Downtime was 14 weeks and was mainly due to minor breakdowns throughout the year. In the laser loans there was 1 new group to the Loan Pool. The chemistry community was once again the biggest user with 45% of allocated time. The breakdown is shown in Figures 4 and 5. The Loan Pool schedule is shown in Table 2. The average User satisfaction marks are shown in Figure 6. There were a total of 20 publications, 11 conference proceedings and 2 PhD theses published during the reporting year.

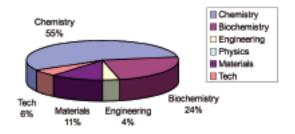


Figure 1. LSF based bids by subject group.

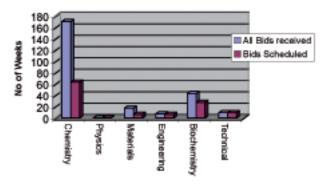


Figure 2. LSF based experiments by subject.

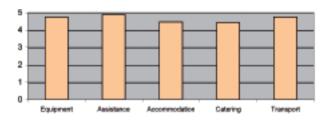


Figure 3. LSF average user satisfaction marks

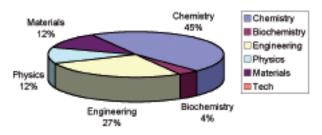


Figure 4. Loan Pool bids by subject group.

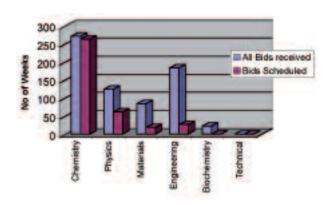


Figure 5. Bids received and scheduled by subject.

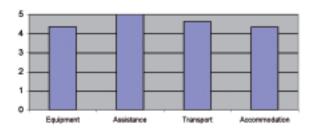


Figure 6. Loan Pool average user satisfaction marks.

Table 1. Lasers for Science Facility RAL-based Schedule 2005-2006

April 18  R BISBY (Salford) CM381/05 Hyperfuminescence from serotonin within mammalian cells  May 2  May 9  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  May 23  Characterisation of DNA damage – relation to DNA ionisation  May 30  MAINTENANCE  J REID (Bristol) CM5C1/05 CM6C1/05 CM6C1/05 June 27  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  May 13  J REID (Bristol) P O'NEILL (MRC) CM8B1/05 Characterisation of DNA damage – relation to DNA ionisation  May 30  MAINTENANCE  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J WEINSTEIN (Nottingham) N.BC1/05 Structure and energetics of three-leader of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 The structure and energetics of three-leader of radical anions the feasibility transient absorption study  J WEINSTEIN (Nottingham) N.BC1/05 The structure and energetics of three-leader of poletal anions the feasibility transient absorption study  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structure of radical anions of metal thiolates  J WEINSTEIN (Nottingham) N.BC1/05 Structu	Date	Confocal Micros Tweezers La		Nanosecond Science Laboratory		pectroscopy ratory	
April 11  MAINTENANCE  April 12  R BISBY (Salford) CMS1/105 (Voldred) Naminus (Color of the Procursor films)  May 2  May 2  May 3  J REID (Bristol) CM10/105 (Main)ubation of arrays of aerosol droplets  May 30  MAINTENANCE  May 30  MAINTENANCE  J REID (Bristol) CMS1/105 (MS81/105 (MS1/105 (M	Mar 28			COMMERCIAL	MAINT	ENANCE	
April 18 R BISBY (Salford) CM381/05 Hyperfuminescence from serotonin within mammalian cells May 2 May 3 May 6 May 9 Mapulation of arrays of aerosol droplets May 15 May 16 May 16 May 16 May 16 May 20 May 8 May 21 May 16 May 21 May 23 Characterisation of bink damage – relation to DNA ionisation May 20 May 30 Manipulation of arrays of aerosol droplets May 30 Manipulation of or bink damage – relation to DNA ionisation May 30 Manipulation of or bink damage – relation to DNA ionisation May 30 Manipulation of arrays of aerosol droplets June 13 Jei D (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets June 27 Jac D (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets June 27 June 27 June 27 Jei D (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets July 4  July 11 C BAIN (Oxford) CM5C1/05 Deformation of oil drops with lutralow interfacial tensions in an optical trap July 13 July 14  July 15 C BAIN (Oxford) CM5C1/05 Deformation of oil drops with lutralow interfacial tensions in an optical trap  July 17 July 18  J C BAIN (Oxford) CM5C1/05 Deformation of oil drops with lutralow interfacial tensions in an optical trap  July 19 July 19 July 19 Aug 1 FACILITY DEVELOPMENT ABEEBY (Durham) NL2C2/04 Triplet states of molecular wires  MAINTENANCE  J MECOUSTRA (Nottingham) NL3C1/05 Structure of radical anions of metal thickness on the properties of three-learned and anarypitics of three-learned and anarypitics of three-learned and anarypitics of three-learned and anarypitics of three-learned analypity disulfied radical anions. the feasibility transient absorption study  July 18  July 19  July 19  S BAIN (Oxford) CM5C1/05 Deformation of oil drops with lutralow interfacial tensions in an optical trap  July 25  Aug 1  FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  J WEINSTEIN (Nottingham) NL8C1/05 Structure and anergelics of three-learned anions. the feasibility transient absorption study  J WEINSTEIN (Nottingham) NL8C1/05 Structure of radical anions of metal thickness of monitoring da	April 4			COMMERCIAL	IR S	SETUP	
April 18 R BISBY (Salford) CM381/05 Hyperfurninescence Inform serotonin within mammalian cells R J REID (Bristol) CM1C1/05 May 2  May 2  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets Deformation of oil drops with ultralow interfacial tensions in an optical trap  June 13  June 20  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM5C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM5C1/05 May 30  MAINTENANCE  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  June 20  J REID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  J REID (Bristol) CM5C1/05 Manipulation of arrays of aerosol droplets  J WEINSTEIN (Nottingham) NLSC1/05 Structure of radical anions of metal phase of three feetor obnoded anyl disulfider adracial anions: the feasibility transient absorption study  J WEINSTEIN (Nottingham) NLSC1/05 Manipulation of arrays of aerosol droplets  J WEINSTEIN (Nottingham) L C BAIN (Oxford) CM5C1/05 Manipulation of arrays of aerosol droplets  J WEINSTEIN (Nottingham) L C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 4  C COMMERCIAL  M GEORGE (Nottingham) L C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 13  July 13  July 14  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 25  Aug 1  FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 8  Aug 15  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 8  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 8  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 8  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 8  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adiation  Aug 9  P FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultraf	April 11	MAINTENANCE					
April 25   C   May 2   Maintenance   May 3   Maintenance   May 30   Maintenance   May 30   Maintenance   May 30   Maintenance   May 30   Maintenance   Mai	April 18	R BISBY (Salford)	(Oxford)	interrogation of novel metal –	monitoring damage of DNA and DNA		
May 9	April 25	CM3B1/05 Hyperluminescence from serotonin within mammalian cells  NESW 1705 Spectroscopic characterisation of viral membrane proteins in		A BEEBY (Durham) NL20C2/04 Triplet states of molecular wires			
May 9	May 2			MAINTENANCE			
May 16  JREID (Bristol) CM1C1/05  May 23  P O'NEILL (MRC) CM8B1/05  May 30  MAINTENANCE  C BAIN (Oxford) CM5C1/05  June 6  June 13  June 13  JREID (Bristol) CM1C1/05  Manipulation of arrays of aerosol droplets  Manipulation of arrays of aerosol droplets  July 4  C BAIN (Oxford) CM5C1/05  July 11  C BAIN (Oxford) CM5C1/05  July 14  C BAIN (Oxford) CM5C1/05  July 15  July 15  July 15  July 16  Aug 1  FACILITY DEVELOPMENT  Aug 8  Aug 15  Aug 15  Aug 15  Aug 15  Aug 15  Aug 15  Aug 16  Aug 16  Av LCEK (OML) US1C1/05  M MCCOUSTRA (Nottingham) NL1C1/105 NM MCCOUSTRA (Nottingham) NL1C1/105 New directions in surfaces science utilising laser-based techniques  M MCOUSTRA (Nottingham) NL1C1/105 New directions in surfaces science utilising laser-based techniques  M MAND (Sheffield) US10C1/105 MAINTENANCE  J WEINSTEIN (Nottingham) NL8C1/105 Structure of radical anions of metal thiolates J WEINSTEIN (Nottingham) NL8C1/105 The structure and energitics of three-electron bonded anyl disulfider adical anions: the feasibility transient absorption study  COMMERCIAL  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 18  July 18  July 18  JUly 19  FACILITY DEVELOPMENT Aug 8  Aug 16  Aug 16  Aug 17  Aug 17  FACILITY DEVELOPMENT Aug 17  Aug 17  Aug 18  Aug 16  Aug 16  Aug 17  Aug 17  Aug 17  Aug 18  Aug 18  Aug 18  Aug 19  Aug 20  Aug 19  Aug 20  Aug 19  Aug 19  Aug 19  Aug 20  Aug 19  Aug 20  Aug 19  Aug 20  A	May 9				Ultrafast processes in nucleic acids- The effect of DNA structure		
P O'NEILL (MRC) CM8B1/05   Characterisation of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA tonisation   Number of DNA damage – relation to DNA damage – relation   Number of DNA damage – Number of DNA damage – relation   Number of DNA damage –	May 16				Ultrafast relaxation and electron- transfer dynamics  J THOMAS (Sheffield) US2B1/05 Photophysical studies on novel DNA light switches  M WARD (Sheffield) US10C1/05 conformational control in		
May 30   Maintenance   Maintenance   Maintenance   Maintenance   C Bain (Oxford) CM5C1/05   Deformation of oil drops with ultralow interfacial tensions in an optical trap   JWEINSTEIN (Nottingham)   NLBC1/05   Structure of radical anions of metal thiolates   JWEINSTEIN (Nottingham)   NLBC1/05   Development of spatially offset   Salary Spectroscopy	May 23	Characterisation of DNA	damage – relation	NL1C1/05  New directions in surfaces science			
June 13  June 20  June 27  June 27  June 27  July 4  July 11  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 12  July 13  July 25  Aug 1  FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 15  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  MAINTENANCE  MAINTENANCE  JWEINSTEIN (Nottingham) NL8C1/05 Structure of radical anions of metal thiolates  JWEINSTEIN (Nottingham) NL8C1/05 The structure and energetics of three-electron bonded any disulfide radical anions: the feasibility transient absorption study  COMMERCIAL  M GEORGE (Nottingham) Us98 Time-resolved infrared spectroscome monitoring damage of DNA and D bases  M WARD (Sheffield) US10C1//Solvent-based conformational co of photoinduced electron and en transfer in bichromophoric system through living tissue  Aug 15  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions of metal thiolates  P AVICEK (QML) US1C1/05 Structure of radical anions of metal thiolates  Time-resolved infrared spectroscome monitoring damage of DNA and D bases  M WARD (Sheffield) US10C1//Solvent-based conformational co of photoinduced electron and en transfer in bichromophoric system through living tissue  TRIR (Amsterda US2302/IT RRIR (Nottingham) NL8C1/05 Structure of radical anions of metal thiolates  Time-resolved infrared spectroscome monitoring damage of DNA and D bases  M WARD (Sheffield) US10C1//Solvent-based conformational co of photoinduced electron and en transfer in bichromophoric system of the properties of three-electron and entransfer in bichromophoric system of the properties of three-electron of the properties of the prop	May 30	MAINTENA	ANCE	among accident			
June 13  June 20  June 27  Commercial  Commercial  Commercial  Commercial  Commercial  Macorial  Macorial  Macorial  June 28  June 28  Macorial  Macorial  Macorial  Macorial  June 28  June 29  June 27  Macorial  Macorial  Macorial  Macorial  Macorial  June 20  June 27  Macorial  Macorial  Macorial  June 20  June 27  June 27  June 27  Macorial  Macorial  Macorial  June 20  June 27  Commercial  Commercial  Early struct  Solvent-based conformational coof of photoinduced electron and entransfer in bichromophoric system of ph	June 6	Deformation of oil dro	ps with ultralow	MAINTENANCE		F HARTL (Amsterdam) US23C2/04 TRIR spectroscopy of manganese carbonyls J VAN THOR (Oxford) US8B1/05 Early structural events in the fluorescence cycle	
June 27  JREID (Bristol) CM1C1/05 Manipulation of arrays of aerosol droplets  Manipulation of arrays of aerosol droplets  July 4  COMMERCIAL  COMMERCIAL  M GEORGE (Nottingham) US9B Time-resolved infrared spectroscopy interfacial tensions in an optical trap  July 18  FACILITY DEVELOPMENT  B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 8  Aug 15  JWEINSTEIN (Nottingham) NL6C1/05 Structure and energetics of three-electron bonded arry disulfide radical anions: the feasibility transient absorption study  COMMERCIAL  M GEORGE (Nottingham) US9B Time-resolved infrared spectroscomonitoring damage of DNA and D bases  M WARD (Sheffield) US10C1/05 Solvent-based conformational co of photoinduced electron and entransfer in bichromophoric system transfer in bichromophoric system transfer dynamics  FACILITY DEVELOPMENT  B STEVENS (CMF, RAL) Ultrafast Laser Adlation  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  F MATOUSEK (RAL) US2B1.  P MATOUSEK (RAL) US311/105	June 13			NL8C1/05 Structure of radical anions of metal	(RAL) <b>NL5T1/05</b> Development of		
July 4  July 4  COMMERCIAL  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 25  Aug 1  Aug 8  Aug 15  Aug 16  Aug 16  Aug 17  Aug 16  Aug 17  Aug 17  Aug 16  Aug 17  Aug 17  Aug 17  Aug 18  Aug 17  Aug 18  Aug 17  Aug 18  Aug 18  Aug 18  Aug 19  Au	June 20			NL6C1/05	Raman		
July 11  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 25  Aug 1  FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 15  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  M WARD (Sheffield) US10C1/05 Solvent-based conformational co-of photoinduced electron and entransfer in bichromophoric system of radical anions of metal thiolates  A VLCEK (QML) US1C1/05 Structure of radical anions of metal thiolates  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  Time-resolved infrared spectroscom monitoring damage of DNA and D bases  M WARD (Sheffield) US10C1/05 Solvent-based conformational co-of photoinduced electron and entransfer in bichromophoric system  A VLCEK (QML) US1C1/05 Ultrafast relaxation and electron transfer dynamics  TR³ SETUP  J THOMAS (Sheffield) US2B1, Photophysical studies on novel I light switches  P MATOUSEK (RAL) US3T1/05	June 27	J REID (Bristol) Manipulation of arrays o	CM1C1/05 of aerosol droplets	electron bonded aryl disulfide radical anions: the feasibility transient			
July 18  July 18  July 25  Aug 1  Aug 8  Aug 15  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  July 25  Aug 1  FACILITY DEVELOPMENT B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 8  Aug 15  C BAIN (Oxford) CM5C1/05 Deformation of oil drops with ultralow interfacial tensions in an optical trap  M WARD (Sheffield) US10C1/05 Solvent-based conformational co of photoinduced electron and entransfer in bichromophoric system  TR3 SETUP  J WEINSTEIN (Nottingham) NL8C1/05 Structure of radical anions of metal thiolates  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  TR3 SETUP  J THOMAS (Sheffield) US2B1. Photophysical studies on novel E light switches  P MATOUSEK (RAL) US3T1/05	July 4			COMMERCIAL	M GEORGE (Nottingham) US9B1/0 Time-resolved infrared spectroscopy		
July 25  Aug 1  FACILITY DEVELOPMENT  B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 15  Aug 15  M WARD (Sheffield) US10C1/R Solvent-based conformational co of photoinduced electron and en- transfer in bichromophoric syste  J WEINSTEIN (Nottingham) NL8C1/05 Structure of radical anions of metal thiolates  FDRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  F M WARD (Sheffield) US10C1/05 Solvent-based conformational co of photoinduced electron and en- transfer in bichromophoric syste  A VLCEK (QML) US1C1/05 Ultrafast relaxation and electro transfer dynamics  TR³ SETUP  J THOMAS (Sheffield) US2B1. Photophysical studies on novel I light switches  P MATOUSEK (RAL) US3T1/05	July 11	C BAIN (Oxford)	CM5C1/05		monitoring damage of DNA and DN bases		
Aug 1  FACILITY DEVELOPMENT  B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Aug 15  J WEINSTEIN (Nottingham) NL8C1/05 Structure of radical anions of metal thiolates  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  F DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  P MATOUSEK (RAL) US311/0					M WARD (Sheffield) US10C1/05 Solvent-based conformational cont of photoinduced electron and energy		
Aug 1  Aug 1  B STEVENS (CMF, RAL) Ultrafast Laser Adlation  Litrafast Laser Adlation  B CRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  Raman Spectroscopy of bone through living tissue  P MATOUSEK (RAL) US311/05  P MATOUSEK (RAL) US311/05  Raman Spectroscopy of bone through living tissue  P MATOUSEK (RAL) US311/05	July 25			.I WFINSTFIN (Nottingham)	transfer in bichromophoric systems		
Aug 15  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue  J THOMAS (Sheffield) US2B1. Photophysical studies on novel light switches  P MATOUSEK (RAL) US3T1/0	Aug 1	B STEVENS (CMF, RAL)		NL8C1/05 Structure of radical anions of metal	Ultrafast relaxation and electron-		
Aug 15  through living tissue Photophysical studies on novel I light switches P MATOUSEK (RAL) US3T1/0	Aug 8				TR <sup>3</sup> SETUP		
	Aug 15				J THOMAS (Sheffield) US2B1/05 Photophysical studies on novel DNA light switches		
migration as an analytical tool	Aug 22			MAINTENANCE	P MATOUSEK (RAL) US3T1/0: Developing picosecond Raman pho migration as an analytical tool		
Aug 29 MAINTENANCE MAINTENANCE	Aug 29		-			_	
Sept 5 Characterisation of DNA damage – relation Developing picosecond Rama	Sept 5	Characterisation of DNA	damage – relation		P MATOUSEK (RAL) US3T1/05 Developing picosecond Raman photon migration as an analytical tool  E DRAPER (RVC) US11M1/05 Raman spectroscopy of bone through living tissue		
Sept 12  NL1C1/05  New directions in surfaces science utilising laser-based techniques  Raman spectroscopy of bone				NL1C1/05  New directions in surfaces science			

9

Table 1. Lasers for Science Facility RAL-based Schedule 2005-2006 (continued)

Date	Confocal Microso Tweezers Lak		Nanosecond Science Laboratory	Ultrafast Spectroscopy Laboratory		
Sept 26	MAINTENA	NCE	MAINTENANCE	IR SETUP		
Oct 3	MAINTENANCE			R PERUTZ (York) US17C2/05 Transient infrared and emission spectroscopy of selective ion-sensors		
Oct 10			MAINTENANCE	P LOW (Durham) US16C2/05 ps-TRIR studies of transition metal complexes featuring the unusual cyanoacetylide ligand  S MEECH (UEA) US13B2/05 Controlling the proton transfer step in GFP		
Oct 17	M KING (RHUL) C Probing the surface chen levitated mineral p	mistry of optically				
Oct 24			MAINTENANCE			
Oct 31	P O'NEILL (MRC)  Dynamics of assembly of genomic DNA of	repair proteins to	EACH ITY DEVEL ODMENT			
Nov 7	G WILLIAMS (Durhan Time-resolved lumines		FACILITY DEVELOPMENT  M McCOUSTRA (Nottingham)	P LOW (Durham) US16C2/05		
Nov 14	B STEVENS (CMF, RAL)  M KING CM11E2/05			A VLCEK (QML) US14C2/05 Acceleration of electron transfer in RE		
Nov 21				complexes with aminoacids		
Nov 28			M McCOUSTRA (Nottingham) NL12C2/05	TR <sup>3</sup> SETUP		
Dec 5	R PERUTZ (York) CM9C2/05 Transient infrared and emission spectroscopy of selective ion-sensors  Ch  MAINTENANCE  W HUANG (Oxford) CM14E2/05 Using Raman tweezers to analyse and sort 13C-labelled bacteria  FACILITY DEVELOPMENT B STEVENS (CMF, RAL)  P O'NEILL (MRC) CM13B2/05  W HUANG (Oxford) CM14E2/05  G WILLIAMS (Durham) CM10C2/05 Time-resolved luminescence imaging		Photon-induced processes in model interstellar ices	N STONE (Cranfield) US15C2/05 Evaluating the potential of Kerr-gated Raman spectroscopy to probe breast calcification biochemistry through soft tissue		
Dec 12						
Dec 19 Dec 28			hristmas & New Year 2005			
Jan 2				N STONE (Cranfield) US15C2/05		
Jan 9				K REID (Nottingham) US12C2/05		
Jan 16				Studies of mechanisms of intramolecular vibrational dynamics using time resolved photoelectron		
Jan 23				spectroscopy		
Jan 30			DE OVIGOU	IR SETUP		
Feb 6			PROVISIONAL  A HORN (Manchester) NL13C2/05 Sum frequency generation studies on the RAL-LSF UHV system	J VAN THOR (Oxford) US19B2/05 Picosecond transient infrared spectroscopy of chromoproteins		
Feb 13						
Feb 20	R BISBY (Salford) CM12B2/05 Serotonin hyperluminescence in biological microenvironments			A VLCEK (QML) US14C2/05		
Feb 27				S MEECH (UEA) US13B2/05		
Mar 6				M TOWRIE (RAL) US23T2/05 Full commissioning of a novel near IR time resolved absorption		
Mar 13						
Mar 20	P O'NEILL (MRC)	CM13B2/05		spectrometer		

9

Table 2. Lasers for Science Facility Loan Pool Schedule 2005-2006

	NSL1	NSL2	NSL3	NSL4	NSL5	UFL1	UFL2	CWL1
Date	YAG/Dye Powerlite + Sirah + SHG + DFG	Compact YAG/Dye Surelite III- 10 + Sirah + SHG	Compact YAG/Dye Surelite III- 10 + Sirah + SHG	YAG/Dye Powerlite + Sirah + SHG	YAG/Dye Spectra Pro + Sirah + SHG	Coherent Verdi/Mira + SHG +THG	Coherent Libra OPerA Ultrafast Amp + OPA	Frequency Doubled Argon Ion
Mar 28		SIMONS		GHANDI		воотн		WITHNALL
Apr 4				(ISIS) Laser		(Oxford)		LP16M2/04
Apr 11				Control of		LP15E2/04	CEDDON	
Apr 18				Muonium	SONES		SEDDON (Daresbury)	
Apr 25				Reactions LP5C1/04	(S'hampton)		, , , , ,	
May 2	WRIGHT			El 301/04			Spin polarised	
May 9 May 16	(Nottingham)						Spectroscopy	
May 23		OUMONO	BROUARD				at the fermi	
May 30		SIMONS (Oxford)	(Oxford)		Light		edge Of NI (110)	
June 6		(Oxiola)			induced domain		O1141 (110)	
June 13					engineering			
June 20	Two-colour spectroscopy		Forodov		in ferroelectrics.	MEECH	LP6P1/04	
June 27	in molecular	The	Faraday rotation:	KONTIS (Manchester)	A route	(UEA)		
July 4	beams and helium droplets	common	A novel	(Manoriostor)	to submicron poling			POLIAKOFF
July 11	droplets	core of N-linked	probe of molecular		pog	Ultrafast		(Nottingham)
July 18		glycans:	dynamics	Development		fluorescence up –		
July 25		Rigidity through		of an optical imaging		conversion		
Aug 1	LP7C1/05	branching?		system	LP13P2/04	for chromo –		10/5
Aug 8			LP6C1/05	for pressure and	,	proteins and complex		UV Raman Process
Aug 15				temperature		fluids		Monitoring of
Aug 22		LP7C2/04		mapping of aerodynamic		1 5004/05		Reactions in
Aug 29				flows		LP3C1/05		Supercritical Water
Sep 5							OTANITON	
Sep 12 Sep 19				LP2E1/05			STANTON (Nottingham)	LP13C1/05
Sep 19							( ''' 5 ' '	
Oct 3								
Oct 10							Detection of picosecond	
Oct 17							ultrasound	
Oct 24							by nano-	
Oct 31					WEINSTEIN		structures	
Nov 7			BBOUABB		(Sheffield)			
Nov 14	WEIGHT		BROUARD (Oxford)				LP14C1/05	
Nov 21	WRIGHT (Nottingham)	SIMONS	, ,		Resonance Raman			
Nov 28	(*************************************	(Oxford)	Faraday	ROURKE (Warwick)	insight into			
Dec 5	Two-colour		rotation: A novel	(Trainien)	electronic properties of	CAVILL		
Dec 12	spectroscopy	Infra-red photo-	probe of		metal	(DLS)		
Dec 19	in molecular beams and	dissociation	molecular dynamics	Infra-Red	chromo- phores:	. ,		
Dec 26	helium droplets	of protonated amino-acids	uynaniios	Multiphoton dissociation	combining	Imaging hot		EASUN
Jan 2	LP21C2/05	and peptides	LP17C2/05	of organo-	(spectro) electro-	carrier		(S'hampton)
Jan 9		in the gas- phase	LF 1/ UZ/U3	metallic complexes:	chemistry,	dynamics in surface	DDO///O/C	
Jan 16		pridoo		Solution	isotopic substitution	nano-	PROVISIONAL	Ultraviolet direct writing
Jan 23		LP18C2/05		reactivity in the gas	and cyclo-	structure	HORN (Manahastar)	of photonic
Jan 30 Feb 6				phase	metallation to controlling	L D4050/05	(Manchester)	devices in Ferroelectric
Feb 13					charge	LP19P2/05	Cum	crystal hosts
Feb 20				LP22C2/05	separation		Sum frequency	
Feb 27					L DOEDO/OF		generation studies on	LP28M2/05
Mar 6					LP25P2/05		the RAL-LSF	
Mar 13							UHV system	
Mar 20							LP26C2/05	