

8.1. STRUCTURE OF LABORATORY AND SCIENTIFIC DEPARTMENTS

Directorate:

Director:

V.L.Aksenov

Deputy Directors:

A.V.Belushkin

W.I.Furman

Scientific Secretary:

V.V.Sikolenko

Reactor and Technical Departments

Chief engineer: V.D.Ananiev

IBR-2 reactor

Chief engineer: A.V.Vinogradov

IBR-30 booster + LUE-40

Head: S.A.Kvasnikov

Mechanical maintenance division

Head: A.A.Belyakov

Electrical engineering department

Head: V.P.Popov

Design bureau

Head: V.I.Konstantinov

Experimental workshops

Head: A.N.Kuznetsov

Scientific Departments and Sectors

Condensed matter department

Head: V.L.Aksenov

Nuclear physics department

Head: V.N.Shvetsov

Department of IBR-2 spectrometers complex

Head: A.V.Belushkin

Department of IREN

Head: A.P.Sumbaev

Nuclear Safety and applied research

Head: V.I.Luschikov

Administrative Services

Deputy Director: S.V.Kozenkov

Secretariat

Finances

Personnel

Scientific Secretary Group

Translation

Graphics

Photography

Artwork

CONDENSED MATTER DEPARTMENT

Sub-Division	Title	Head
Diffraction sector. Head: A.M.Balagurov		
Group No.1	HRFD	V.Yu.Pomjakushin
Group No.2	DN-2	A.I.Beskrovnyi
Group No.3	DN-12	B.N.Savenko
Group No.4	NSVR	K.Ullemeyer
Small-angle neutron scattering group. Head: V.I.Gordeliy		
Neutron optics sector.		
Group No.1	SPN-1	Yu.V.Nikitenko
Group No.2	REFLEX	D.A.Korneev
Inelastic scattering group. Head: I.Natkaniec		

NUCLEAR PHYSICS DEPARTMENT

Sub-Division	Title	Head
Group No.1	Polarized neutrons and nuclei	Yu.D.Mareev
Group No.1	Neutron spectroscopy	A.B.Popov
Group No.3	Nuclear fission	Sh.S.Zeinalov
Group No.4	Thermal polarized neutrons	M.I.Tsulaya
Group No.5	Proton and α -decay	Yu.M.Gledenov
Group No.6	Properties of γ -quanta	A.M.Sukhovoy
Group No.7	Neutron structure	G.S.Samosvat
Group No.8	Ultra-cold neutrons	V.N.Shvetsov
Group No.9	Neutron optics	A.I.Frank
Group No.10	Neutron activation analysis	M.V.Frontasyeva
Group No.11	Theory	Yu.A.Alexandrov

DEPARTMENT OF IBR-2 SPECTROMETERS COMPLEX

Sub-Division	Title	Head
Sector No.1	Electronics	V.I.Prikhodko
Group No.1	Analogous electronics	A.A.Bogdzal
Group No.2	Digital electronics	V.F.Levchanovsky
Group No.3	Software	A.S.Kirilov
Group No.4	Local networks	G.A.Sukhomlinov
Group No.5	Technology	A.B.Melnichuk
Sector No.2	Spectrometers	V.V.Zhuravlev
Group No.1	Development	G.A.Varenik
Group No.2	Samples environment	A.P.Sirotin
Group No.3	Detectors	J.Sokolovsky

8.2. USER POLICY

The IBR-2 reactor usually operates 10 cycles a year (2500 hrs.) to serve the experimental programme. A cycle is established as of 2 weeks of operation for users, followed by a one week period for maintenance and machine development. There is a long shut-down period between the end of June and the middle of October.

All experimental facilities of IBR-2 are open to the general scientific community. The User Guide for neutron experimental facilities at FLNP is available by request from the Laboratory's Scientific Secretary.

Condensed matter studies at IBR-2 have undergone some changes in accordance with the experience gained during the last several years. It was found to be necessary to establish specialized selection committees formed of independent experts in their corresponding fields of scientific activities. The following four committees were organized:

1. <u>Diffraction</u> <i>Chairman - V.A.Somenkov - Russia</i>	3. <u>Neutron optics</u> <i>Chairman - A.I.Okorokov - Russia</i>
2. <u>Inelastic scattering</u> <i>Chairman - J.Janik - Poland</i>	4. <u>Small angle scattering</u> <i>Chairman - L.Cser - Hungary</i>

Dr. Vadim V. Sikolenko, Scientific Secretary of FLNP, is responsible for the user policy. Two deadlines for proposal submission are: May 16 - for the experimental period from October through February; and October 16 - for the period from March through June.

Scientific Secretary is responsible for:

- distribution of "Application for Beam Time" forms to potential users;
- registration of submitted proposals;
- reviewing of the proposals by instrument scientists to estimate the technical feasibility of the proposed experiment;
- sending of the approved proposals to Members of Selection Committees and registration of their comments and recommendations.

The IBR-2 beam schedules are drawn up by the head of the Condensed Matter Department together with instruments responsible on the basis of experts recommendations and are approved by the FLNP Director or Deputy Director for condensed matter physics. The schedules are sent to Chairmen of Selection Committees.

After the completion of experiments, "Experimental Report" forms are filled out by experimenter(s) and submitted to the Scientific Secretary.

The Application Form and other information about FLNP are available by WWW: <http://nfdfn.jinr.ru/~sikolen/usepol.html>

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8.3. MEETINGS AND CONFERENCES

In 1999, FLNP organized the following meetings:

1.	VII International Seminar on Interaction of Neutrons with Nuclei (ISINN-7)	May 25-28	Dubna
2.	II International Seminar on Neutron Scattering at High Pressure (NSHP-II)	September 29-October 2	Dubna

In 2000, FLNP will organize the following meetings:

1.	VIII International Seminar on Interaction of Neutrons with Nuclei	May 16-19	Dubna
2.	II International Workshop on Data Taking Systems in Neutron Source Experiments (DANEF'2000)	June 5-7	Dubna
3.	III International Seminar on Relaxor Ferroelectrics	June 14-17	Dubna

8.4. COOPERATION

List of Visitors from Non-Member States of JINR in 1999

Name	Organization	Country	Dates
Magdy Ibrahim Khalil El-Shareqawy	NRC, AEA, Cairo	Egypt	01.01-01.04
R.Machrafi	Univ. Mohamed V. Rabat	Marocco	01.01-25.08
	IzfP, Dresden		15.01-05.02
	ILL, Grenoble		17.01-30.01
	ILL, Grenoble		17.01-30.01
M.Janich	Univ. Halle-Saale	Germany	20.01-28.01
J.Lange	Univ. Halle-Saale	Germany	20.01-28.01
M.Jung	Univ. Darmstadt	Germany	23.01-30.01
K.Walther	GeoFRZ, Potsdam	Germany	08.03-19.03
M.Rudalics	Johannes Kepler University, Linz	Austria	19.03-30.04
A.Zidansek	J.Stefan Institute, Ljubljana	Slovenia	21.03-28.03
F.Haeussler	Univ. Leipzig	Germany	11.04-17.04
G.Klose	Univ. Leipzig	Germany	16.04-27.04
	ILL, Grenoble	France	19.04-27.04
	ILL, Grenoble		19.04-24.04
B.Gross	Firme TUMTECH, Muenchen	Germany	27.04-30.04
T.Hecks	Firme TUMTECH, Muenchen	Germany	27.04-30.04

P.Joerchel	Univ. Leipzig	Germany	16.05-23.05
H.-J.Lauter	ILL, Grenoble		
A.Bogdan		Finland	
Kim Guinyun		Korea	
M.Stalder	IzFP, Dresden	Germany	17.05-30.05
T.Wieder	TU Darmstadt	Germany	22.05-28.05
Zhang Guohui	Peking University, Beijing	China	24.05-31.05
T.Decker	Univ. Muenchen	Germany	26.05-30.05
F.Reinold	Univ. Muenchen	Germany	26.05-30.05
V.Lauter	ILL, Grenoble	France	01.06-11.06
H.Barthel	WH Burghausen		12.06-18.06
		Japan	29.06-04.07
Shanker Saxena Siddharth	University of Groningen	The Netherlands	30.06-03.07
D.N.Argyriou	Argonne National Laboratory	USA	30.06-03.07
I.Soloviev	JRC for Atom. Technology, Tsukuba	Japan	30.06-04.07
G.E.Biotteau	LLB, Saclay	France	30.06-05.07
B.Guettler	Univ. Braunschweig	Germany	30.06-07.07
B.Dorner	ILL, Grenoble	France	07.07-14.07
J.Gimaret	ILL, Grenoble		
H.Yasuda	JAERI	Japan	29.09- 29.01.2000
Jichen Li	UMIST, Manchester	UK	
	Argonne National Lab.	USA	16.10-20.10
R.De Cardy Carpenter	Argonne National Lab.	USA	16.10-20.10
O.Steinsvoll	Inst. for Energy Technology, Kjeller	Norway	17.10-01.11
L.Steinsvoll	Inst. for Energy Technology, Kjeller	Norway	17.10-01.11
Kim Guinyun	Pohang Accelerator Laaboratory	Korea	24.10-30.10
Zhang Zhaohui	IHEP, Beijing	China	29.10-20.12
E.Steines	Univ. of Sc. & Technology, Trondheim	Norway	01.11-07.11
H.-J.Lauter	ILL, Grenoble	France	10.11-18.11
V.Lauter	ILL, Grenoble	France	10.11-18.11
A.Frischbutter	GeoFRZ, Potsdam	Germany	10.11-18.11
K.Walther	GeoFRZ, Potsdam	Germany	12.11-18.11
A.Bogdan	University of Helsinki	Finland	17.11-19.11
K.G.Bramnik	TU Darmstadt	Germany	21.11-27.11
P.Jorchel	Univ. Leipzig	Germany	05.12-17.12
F.Haeussler	Univ. Leipzig	Germany	07.12-13.12

8.5. EDUCATION

The education programme of FLNP is based on the chairs of Lomonosov Moscow State University and Moscow Engineering Physics Institute and admits students of the last two years in higher education institutions who have attended introductory specialized courses or lectures in nuclear physics and investigation of condensed matter at nuclear reactors and accelerators. These specializations are in line with research performed in FLNP which has at its disposal a good experimental base for both sectors comprising the IBR-2 reactor and the IBR-30 booster pulsed neutron sources.

The education and training courses for students affiliated with FLNP have been organized, to a large extent, to prepare specialists in neutron physics for the Laboratory and other Russian neutron centres.

For illustration we present the list of courses taught by lecturers of the Interfaculties Center of Lomonosov Moscow State University «Structure of Matter and New Materials» (Head: Prof. V.L.Aksenov):

- theoretical methods in condensed matter physics
- methods of investigation of condensed matter at nuclear reactors and accelerators
- fundamentals of neutron physics and neutron sources
- methods for structure analysis of ideal and real crystals
- synchrotron radiation spectroscopy of solid matter
- methods of experimental data processing.

A number of leading FLNP scientists take part in delivering these courses. Each student has access to the Laboratory computer network. An obligatory condition for successful completion of the 4th year is skillful to use of modern personal computers. Students are included in research groups led by their instructors. This makes it possible for undergraduate students working on their theses to take part in preparing or performing experiments.

In 1999, the training proceeded successfully. Six students who had their training course at FLNP were employed by JINR and other scientific centers in Russia.

The Interfaculties Center gave graduation certificates to its seventh group of students in the reported year. The group had 2 students making the total number of students who graduated from the Center equal 47. One of them has been employed by FLNP and joined the young scientists who have renewed the staff of the FLNP Scientific Department of Condensed Matter Physics to a noticeable degree.

8.6. PERSONNEL

Distribution of the Personnel per Department as of 01.01.2000

Theme	Departments	Main staff
-0974-	Nuclear Physics Department	58
-1031-	Condensed Matter Physics Department	54
-1012-	IBR-2 Spectrometers Complex Department	50.5
-0993-	IREN Department	33
-1007-	Nuclear Safety Sector	15
-0851-	IBR-2 Department	51
	Mechanical and Technical Department	61
	Electric and Technical Department	34
	Central Experimental Workshops	39
	Design Bureau	8
	<u>FLNP infrastructure:</u>	
	Directorate	5
	Services and Management Department	18
	Scientific Secretary Group	7
	Staff Management Group	5.5
	Supplies Group	3
Total		442

Personnel of the Directorate as of 01.01.2000

Country	People
Azerbaijan	1
Armenia	1
Bulgaria	8
Egypt	1
Germany	4
Georgia	2
Kazakhstan	1
Mongolia	3
Poland	8
Romania	3
Russia	18
Ukraine	1
TOTAL	51

8.7. FINANCE

Financing of the FLNP Scientific Research Plan in 1999 (th. USD)

No.	Theme	Financing plan, \$ th.	Expenditures for 12 months, \$ th.	In % of FLNP budget
I	Condensed matter physics	4059.1	1376.3	33.9
	-1031-	2357.4	808.0	34.3
	-0851-	1182.8	333.8	28.2
	-1012-	518.9	234.5	45.2
II	Neutron nuclear physics	1119.1	1180.0	105.4
	-0974-	619.1	377.4	60.9
	-0993-	500.0	802.6	160.5
III	Elementary particle physics			
	-1007-	6.1	22.3	365.6
IV	Relativistic nuclear physics			
	-1008-	41.6	7.0	16.8
V	TOTAL:	5225.9	2585.6	49.5