



# IMPACT OF RUSSIAN FULL-SCALE ARMED INVASION OF UKRAINE

NATIONAL SCIENCE CENTER  
KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY (KIPT)

**Volodymyr Chyzhov**, Deputy director general of NSC KIPT

&

**Sergii Fomin**, Leading researcher of NSC KIPT

18 January 2024, Prague, Czech Republic

25 km from Russian border to KIPT

More than 100 strikes during 2022-2023

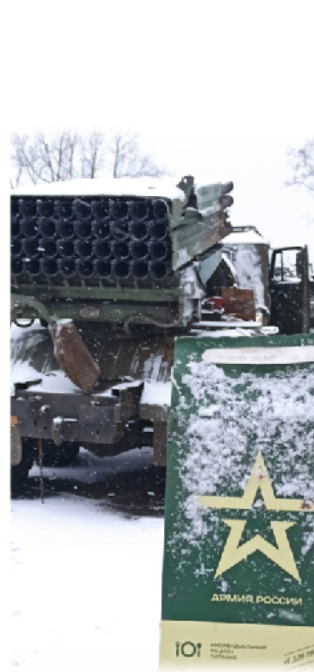
All building were impacted with different level of damage

## THE FIRST DAYS OF WAR

FEBRUARY 24-25, 2022

Russian military equipment  
in Kharkiv city edge

0.5 - 1 km form KIPT





# V.N. Karazin Kharkiv National University

## School of Physics and Technology



February 2024



Main auditorium of the School  
of Physics and Technology

Medical Physics Department







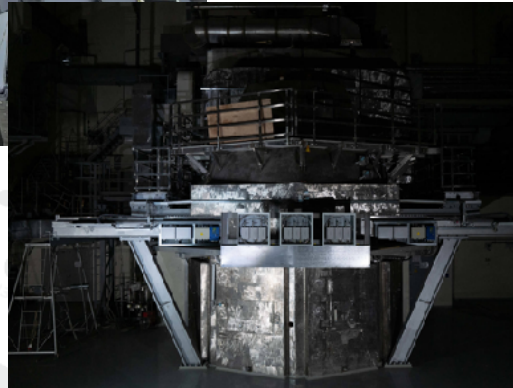
НАЦІОНАЛЬНИЙ НАУКОВИЙ ЦЕНТР "ХАРКІВСЬКИЙ ФІЗИКО-ТЕХНІЧНИЙ ІНСТИТУТ"

NATIONAL SCIENCE CENTER "KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY"

# National Science Center "Kharkiv Institute of Physics and Technology"

KIPT INSTITUTE FOR SOLID STATE PHYSICS,  
MATERIALS SCIENCE AND TECHNOLOGIES

**NSC KIPT**



**KIPT NUCLEAR FACILITY  
NEUTRON SOURCE**

**building restoration**

<https://undark.org/2023/05/01/pkeeing-the-lights-on-at-ukraines-research-nuclear-reactor/>

<https://apnews.com/article/ukraine-kharkiv-nuclear-research-lab-damaged-e41e7e8d84a7062d1184d92df1680cd0>





Fully or partly destroyed  
research equipment in  
12 lab premises





# EQUIPMENT MAINTENANCE and CONSERVATION







# Radio-telescope UTR-2 of the Institute of Radio Astronomy (Kharkiv region)







As a result of hostilities with missile and bomb attacks at the scientific infrastructure of the NAS of Ukraine has suffered considerable losses and continues to be ruined.



Institute of Radio Astronomy (Kharkiv)



Usikov Institute for Radio Physics  
and Electronics (Kharkiv)



Institute for Pulse  
Processes (Mykolayiv)



Frantsevich Institute for Problems  
of Materials Science (Kyiv)



Institute for Superhard Materials (Kyiv)

Founding Members:



<https://rilogistica.eu/guidelines-ilo/>

The ILO Ukraine initiative



## Guidelines

### Background

The RI Logistica Association was approached via email from representatives from the European ILO (Industry Liaison Officer) Network, following the ILO CERN meeting in September 2022, asking if we could help them in setting up a logistical solution providing RIs in Ukraine by replacing stolen/damaged equipment during the ongoing war also meeting the volume/magnitude needed to be transported.

### Step by step guide

#### 1. Donation gathering

- Based on the [lists](#) of needed equipment, the ILOs together with RI Logistica will find donors

Sponsored by:

<https://rilogistica.eu/equipment-list/>

#	EQUIPMENT	pcs	Requested KIPT department(s)	KIPT contact persons of request
1	1. Infrared microscope with spectrometer, Shimadzu (Japan) or analogues	3		
		1	DEPARTMENT OF PHYSICS OF THE SOLID AND CONDENSED STATE OF MATTER	Volodymyr Sokolenko, e-mail: <vsokol195@gmail.com>
		1	DEPARTMENT OF PLASMA DYNAMICS	Igor Garkusha, garkusha@ipp.kharkov.ua
		1	SRG ACCELERATOR NUCLEAR SYSTEMS, LAB 39-00	Andrii Zelinskii, e-mail: zelinsky@kipt.kharkov.ua
2	2. Multizone growth furnaces, Mellen (USA) or analogues	4		
		1	DEPARTMENT OF INTENSE VACUUM-PLASMA TECHNOLOGIES	Lyudmyla Martynenko, e-mail: fishkikyivstar199101@gmail.com
		1	DEPARTMENT OF PURE METALS, METALLOPHYSICS AND TECHNOLOGY OF NEW MATERIALS, lab.11-20	Mikhail Tikhonovsky, e-mail: tikhonovskym@gmail.com
		1	DEPARTMENT OF PHYSICS OF CHARGED PARTICLE BEAMS AND ION ACCELERATORS	Oleg Manuilenko, e-mail: ovm@kipt.kharkov.ua
		1	DEPARTMENT OF MAGNETOPLASMA TECHNOLOGIES AND SMALL-SIZED SUPER-ACCELERATORS	Yuferov V. B., e-mail: V.B.YUFEROV36@gmail.com
3	3. Oil-free vacuum pumps, Becker (USA) or analogues	16		
		1	DEPARTMENT OF PHYSICS OF RADIATION PHENOMENA AND RADIATION MATERIAL SCIENCE	Galyna Tolstolutska, e-mail: gtolst2019@ukr.net
			DEPARTMENT OF PLASMA SURFACE PHYSICS	Sergei Pavlov, e-mail: pavlov@kipt.kharkov.ua

## 30 COUNTRIES HAVE BEEN HOSTED KIPT EMPLOYEES







**THANK YOU VERY MUCH FOR ATTENTION,  
YOUR SUPPORT AND SOLIDARITY WITH UKRAINE !**

NATIONAL SCIENCE CENTER "KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY"