

Proposals on the most urgent needs in rebuilding and updating the scientific base of some Kharkiv and Poltava institutions

1. Infrared microscope with spectrometer, Shimadzu (Japan) or analogues
2. Multizone growth furnaces, Mellen (USA) or analogues
3. Oil-free vacuum pumps, Becker (USA) or analogues
4. Setup for X-ray phase and structural analysis, Bruker (USA) or analogues
5. ICP setup with laser ablation and sample preparation, Shimadzu (Japan) or analogues
6. Magnetron sputtering setup for deposition of contacts with a working field from 2''
7. Setup for laser lithography, Heidelberg (Germany) or analogues
8. Microscopes and visual inspection systems, 2 pcs. or more would be preferable (several requests)
9. Equipment for thread cutting of ingots, Precision surface solution (USA) or analogues
10. Setup for welding contacts to substrates, F&K Delvotec (Germany) or analogues
11. Setup for charge mobility measurement, Eurorad (France) or analogues
12. Spectrometric measuring complex for scintillation detectors, Canberra (France) or analogues
13. Digital multichannel analyzer and scintillation preamplifier, CAEN or analogues
14. Time to Amplitude converter, ORTEC or analogues
15. Atomic Force Microscope working in contact and tapping modes, possibility of liquids scanning would be preferable
16. Confocal Laser Scanning Microscope
17. Graphics cards with Turing GPU architecture such as Quadro RTX 4000, 2 pcs. or more would be preferable (several requests)

18. Simultaneous Thermal Analysis (STA) instrument, SHIMADZU DTG-60H/60AH (1500 °C) or analogues
19. Simultaneous Thermal Analysis (TGA/DSC), METTLER TOLEDO TGA/DSC 3+ or analogues
20. UV-Vis spectrophotometer 190-1100 nm, 2 pcs. or more would be preferable (several requests)
21. UV-Vis-NIR spectrophotometer 190-3300 nm. SHIMADZU UV-3600i Plus or analogues
22. Spectrofluorometer 190-900 nm, 2 pcs. or more would be preferable (several requests)
23. Circular dichroism spectropolarimeter 163-900 nm, JASCO J-815 or analogues
24. Xe-lamp light source 100W
25. Uninterruptible power supply 10 kVA, 2 pcs. or more would be preferable (several requests)
26. Pure water system Milli-Q grade. 2 pcs. or more would be preferable (several requests)
27. Climate chamber, Memmert HPP260eco or analogues
28. 16-position autosampler, Agilent 7693A or analogues
29. Turbomolecular pump, Pfeiffer Vacuum (Germany) or analogues
30. Complete Freeze Dryer System, Labconco 700201000 FreeZone 2.5L -50 C or analogues
31. Diamond anvil cell with spectrometer for pressure measure
32. Polarization microscope trinocular
33. Calculation nodes for cluster
34. Plate Express mass-spectroscopy instrument of TLC-MS type
35. Powder X-ray diffraction diffractometer, Smart Lab SE with DSC options and optics of Rigaku (Japan) or analogues
36. NMR-spectrometer 400-500 MHz, Bruker (Germany) or analogues
37. X-ray fluorescence spectrometer, EDX 8100 Shimadzu or analogues

38. FT-IR spectrometer, Bruker Vertex 70v with QATR and 10-28000 cm⁻¹ spectral upgrades or analogues. 2 pcs. or more would be preferable (several requests)
39. XRF scanner, Bruker Elio or analogues
40. Micro-XRF spectrometer, Bruker M4 Tornado Plus or analogues
41. Flash chromatograph, Biotage® Selekt or analogues
42. Single crystal X-ray diffractometer, XtaLAB Synergy-S of Rigaku (Japan) or analogues
43. Raman spectrometer with confocal microscope
44. Dynamic Light Scattering / Zeta Potential Analyzer
45. Digital Oscilloscope (200 MHz +)
46. Ultrasonic Generator (200 MHz +)
47. The Liquid Circulating Thermostat (+5...+90 °C)
48. Cryothermostat (-50...+120 °C)
49. Automatic Rotational Viscometer
50. Laboratory Analytical Scales (± 0.0001 g)
51. Infrared Pyrometer (-50 ...2250 °C)
52. Multimode microplate reader, Thermo Fisher Scientific or analogues
53. Ultrasonic processor, UIP1000hdT-230 (1000W) or analogues
54. Desktop and laptop computers
55. Uninterruptible power supplies