



NMR Center in the Zelinsky Institute: The Best Applied NMR! fast processing and assignment NMR spectra

Our NMR instruments are worked at 24 hours of day, 7 days of week, 365 days of year. Through our instrument improvement program we can register as much as 1000 samples in day from one instrument!

The main goal of the NMR Center is the provision of chemical and biochemical investigations with all the modern methods of high resolution NMR spectroscopy: 1D spectra for any magnetic nuclei, all the kinds of 2D homo- and heteronuclear correlations, a variety of special NMR experiments and powerful instruments of NMR data analysis, all this to be fast and with top quality.

Equipment

Bruker WM 250

Nuclei observed: 1H, 13C, 19F

Used experiments: 1D and 2D experiments: homo- and heteronuclear correlations, NOESY, NOE difference, ROESY, selective 1H-1H decoupling

Bruker AM 300

Nuclei observed: 1H, 31P-207Ag

Used experiments: all standard 1D and 2D experiments + inverse spectroscopy

Bruker DRX 500

Nuclei observed: 1H, 19F, 31P-207Ag

Used experiments: all standard 1D, 2D and 3D experiments with direct or inverse observation, 3D HMQC-TOCSY

Bruker AC 200 (31)

Nuclei observed: 1H, 19F, 31P-207Ag

Used experiments: standard 1D and 2D experiments: homo- and heteronuclear correlations, NOESY, NOE difference, ROESY, selective decoupling

Bruker AC 200 (33)

Nuclei observed: 1H, 19F, 31P-207Ag

Used experiments: standard 1D and 2D experiments: homo- and heteronuclear correlations, NOESY, NOE difference, ROESY, selective decoupling

Own investigations

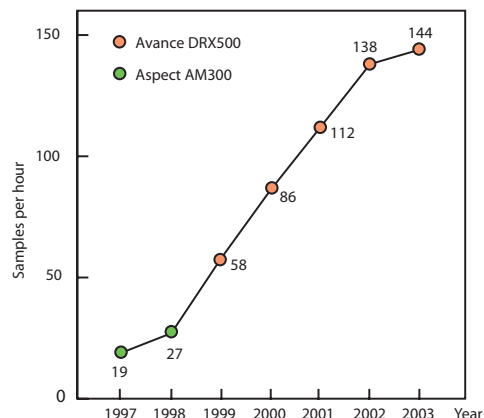
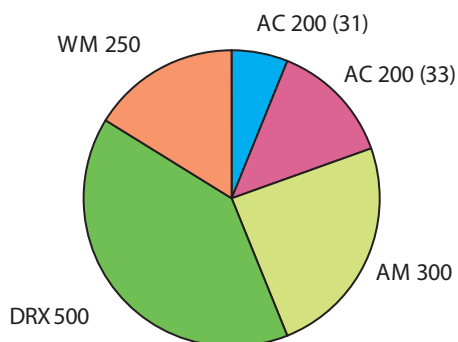
1. Carbohydrates structural research, including polysaccharide structure prediction
2. The classical structural and conformational studies of small organic molecules, mainly nitrogen-containing high-energy heterocycles, with multinuclear 1D to 3D NMR

Experimental studies of organometallic reactions and homogeneous catalytic cycles, advanced NMR refinement and quantum chemistry applications

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Number of instruments:
Number of operators:
Number of registered users:
Number of active users:
Total spectra in 1998 - 2004:
Maximum spectra in day:
Maximum spectra in week:
Maximum spectra in month:

5
34
318
240
623644
1286 (10 December 2002)
3854 (week start 22 Apr 2002)
13614 (Apr 2002)



Spectra distribution for different instruments
(1998-2004)

Average productivity for routine proton spectra
(1997-2003)

More statistical data and other useful information
you will find at the NMR Center site <http://nmr.ioc.ac.ru>

Our typical routine ¹H NMR spectrum

