

New 5mm FG/TH auto tune probe

A 5mm FG/TH probe is a standard auto tune probe with a 5mm sample tube and a field gradient coil for solution NMR spectroscopy. Recently, new materials for magnetic susceptibility compensation were used, and a detection coil and electric circuits were optimized, realizing sensitivity enhancement.

< Main specifications >

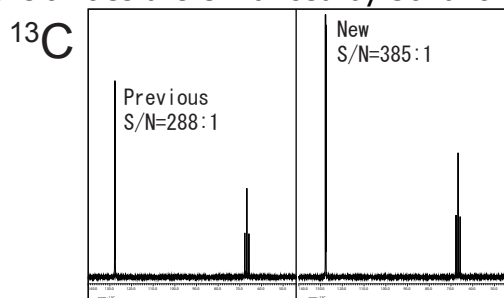
	400MHz	500MHz	600MHz
Sample tube o.d.	5mm		
Observation nuclei	$^{15}\text{N} \sim ^{31}\text{P}$, ^{39}K , ^{109}Ag		$^{15}\text{N} \sim ^{31}\text{P}$
Irradiation nuclei	^1H , ^{19}F		
NMR lock nucleus	^2H		
^{13}C sensitivity 10% ethyl benzene ASTN	200 (170) 200	270 (200) 270	350 (230) 350
^1H sensitivity 0.1% ethyl benzene	280 (220)	370 (280)	500 (320)

* Values in () are sensitivities of the previous type of probes with ECA/ECX series. Specifications may change without notice.

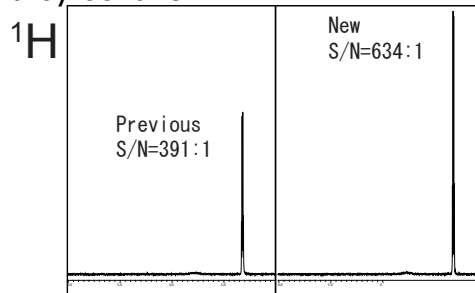


< Comparison with the previous probe >

Sensitivities are enhanced by 30% for ^{13}C and by 60% for ^1H .



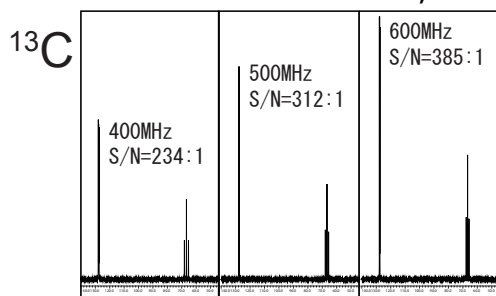
^{13}C S/N comparison at 600MHz
Sample: ASTM
Accumulation: 1scan



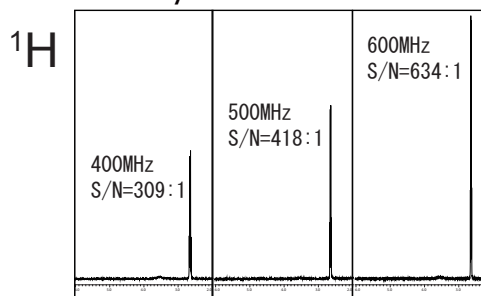
^1H S/N comparison at 600MHz
Sample: 0.1% ethyl benzene
Accumulation: 1scan

< Sensitivities in various Larmor frequencies >

Sensitivities obtained in 400MHz, 500MHz, and 600MHz systems are shown.



Example of ^{13}C measurements
Sample: ASTM
Accumulation: 1scan



Example of ^1H measurements
Sample: 0.1% ethyl benzene
Accumulation: 1scan