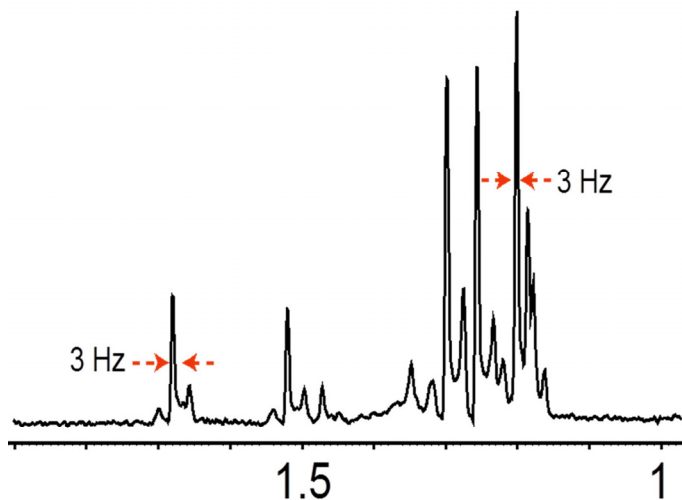


## DEAR COLLEAGUE,

We are anticipating seeing you at the ENC (or maybe at ISMRM). We are excited about our new quad resonance MAS probe with results of **3Hz  $^1\text{H}$  linewidth on solid protein GB1.**



This  $^1\text{H}$  spectrum was taken at 500 MHz with  $^2\text{H}$  decoupling using our  $^1\text{H}/\text{X}/\text{Y}/\text{Z}$  MAS probe. Please see more details in the following page. There is also more information on our website. [www.dotynmr.com](http://www.dotynmr.com)

For now, we'll let the following page speak for itself, but we'd love to discuss this probe... and our other probes and coils with you.

David and Judy Doty

*Come see us at the Doty ENC  
Hospitally Suite in Toyon.*

*Our suite will be open Sunday –  
Wednesday 7:00 PM-11:30.*

## IN THIS ISSUE:

### Dramatic Advance in NMR of Insoluble Proteins.

**3Hz  $^1\text{H}$  linewidth on solid protein GB1.**  
using the new Doty QUAD-FAST-MAS  
 $\text{H}/\text{X}/\text{Y}/\text{Z}$  Probe for Quad Resonance MAS.

The Doty ENC Hospitality Suite is in Toyon.

*(Yes there will be ice cream.)*

## UPCOMING CONFERENCES

SUN  
**26**  
March  
2017

FRI  
**31**  
March  
2017

### 58<sup>th</sup> ENC

Asilomar, Pacific Grove, CA, USA  
<http://www.enc-conference.org/>

SUN  
**23**  
April  
2017

THUR  
**27**  
April  
2017

### ISMRM 25<sup>th</sup> Annual Meeting

Honolulu, HI, USA

<http://www.ismrm.org/>

## Doty Quad-Fast-MAS H-F/X/Y/Z HR-Solids

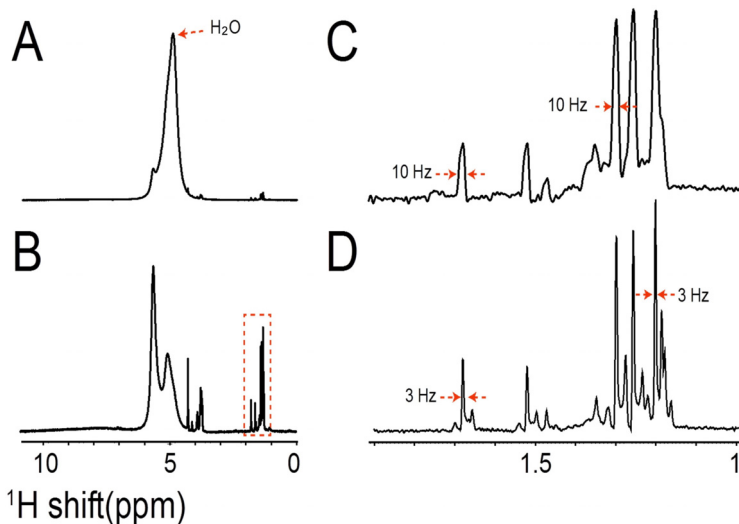


500 MHz, NB, H/X/Y/Z  
3 mm MAS Probe with  
3 Broadband Channels

Acknowledgement:  
NIH R43GM117905

- True Solids Quad Resonance
- High resolution – 3 Hz  $^1\text{H}$
- $^2\text{H}$  high-power decoupling
- Broadband H/X/Y/Z
- Fast-MAS
- (1.3 mm coming)
- Widest VT range
- NB or WB, all fields
- Four Efficient Channels
- Fast, Efficient MAG Coil (option)
- To 1300 MHz (coming)

### $^1\text{H}$ spectra from protein GB1.



(A) Simple  $^2\text{H}$  decoupled (10 kHz cw)  $^1\text{H}$  spectrum. The peak at 5 ppm is residual water signal.

(B) Same as A, but water suppressed.

(C) & (D) The expanded region (red box in B) for methyl protons without and with  $^2\text{H}$  decoupling, respectively. Linewidths at half maximum are shown in Hz. (Note the major linewidth reduction from 10-kHz  $^2\text{H}$  decoupling.)

Bibhuti Das and Paul Ellis, Doty Scientific, Inc., and Professor Leonard Mueller, Univ. of CA Riverside.