

Polymer NMR Meeting Chat

- 14:10:54 From Gary Martin to Everyone : In case Krish doesn't mention it, he has a beautiful review of CRAFT that is already in Early View in Magnetic Resonance in Chemistry.
- 14:11:26 From Dan Iverson to Everyone : The IVAN team sponsors an NMR forum on Slack called IVAN-Spinsights. It is a place where NMR people can discuss anything related to NMR. Membership is open to anyone, not just Varian/Agilent users. You can join the 359 current members with this link
https://join.slack.com/t/ivan-spinsights/shared_invite/zt-fbfzblja-vET5Gp5VsQdoCFbeBrNAfg
- 14:11:39 From Stella Petrova to Everyone : What does CRAFT stand for?
- 14:12:41 From Krish Krishnamurthy to Everyone : Complete Reduction to Amplitude Frequency Table
- 14:12:52 From Stella Petrova to Everyone : Thanks!
- 14:13:02 From Chunqing Zhao to Everyone : no sound, please help
- 14:13:03 From Krish Krishnamurthy to Everyone : There is a review in the early view of MRC
- 14:13:15 From Stella Petrova to Everyone : Excellent, will take a look
- 14:19:22 From Darcy Burns to Everyone : Feel free to ask questions here in the chat; happy to pass them along at the end :)
- 14:28:26 From Kun Cheng to Everyone : what probe do you use
- 14:38:57 From Clemens Anklin to Everyone : Sorry to disagree but you can integrate 100'000:1 and more.
- 14:39:58 From William Wolff to Everyone : Do the differences in the peak heights affect the "quality" of their integral by hitting the threshold of the ADC (due to the difference in the peak heights)? Can selective pulses be used on the large polymer peak (but not the satellites) to improve the quality of these results?
- 14:47:36 From William Wolff to Everyone : (Similar to solvent suppression)
- 14:50:54 From Ken Sharp-Knott to Everyone : Just a reminder, please feel free to enter any questions you have here in the chat and I will pose them to the speaker.
- 14:53:41 From Darcy Burns to Everyone : Odd Q: does anyone out there have a link to a company selling a well-built hand-crank centrifuge?
--> Ours recently broke - we opened it up and found that gear was made of plastic and completely chewed up :()
- 14:56:34 From Markus Voehler to Everyone : Helmer hand cracks: ksmith@helmerinc.com 1-800-743-5637
- 14:57:15 From Darcy Burns to Everyone : thanks Markus! :)
- 14:57:45 From Steve Clemens to Everyone : is that hand crank long enough for a 7" NMR tube?
- 14:58:29 From Markus Voehler to Everyone : It is ideal for 4" tubes, but I have spun down in 7" tubes (carefully)
- 15:00:00 From Hilary Jenkins to Everyone : Do we choose the decoupling sequence by trial and error? Sometimes waltz65 works better for certain polymers, other times it works better to use bilev_waltz65....but it's inconsistent and hard to predict. Any recommendations?
- 15:00:20 From Steve Clemens to Everyone : Can you provide the sequence for the anti-INADEQUATE experiment?
- 15:02:37 From Josh Kurutz to Everyone : Centrfuge tip: You can use a scoopula inserted in the same "bucket" as your NMR tube to help keep it from snapping against the hardware in the center. We did this with an old "UFO" centrifuge meant for 15mL Falcon tubes

15:02:45 From William Wolff to Everyone : Are there any disadvantages to the anti-INADEQUATE decoupling method?

15:17:24 From Kun Cheng to Everyone : can anyone share a good nmr solvent list for conventional polymers

15:18:13 From Steve Clemens to Everyone : @Kun Cheng, The book "NMR Spectra of Polymers & Polymer Additives" (Anita Brandolini & Deborah Hills) will give you a great list

15:19:20 From William Wolff to Everyone : Just out of curiosity, is it common to work largely with 1D spectra (instead of multidimensional spectra) with polymers?

15:19:47 From Darcy Burns to Everyone : Quantitation Q for our crowd: is ERETIC (or a similar synthetic signal injection method) now widely used, or are internal standards still de rigueur? Are there significant cons for signal injection?

15:22:38 From Stella Petrova to Everyone : Are there any NMR experiments you can use to try and quantify amine content in a polymer?

15:24:19 From Kun Cheng to Everyone : free small amine will use gc

15:24:22 From William Wolff to Everyone : All I can visualize (on the subject of ^{13}C vs ^1H) is the horror that is a protein ^1H spectrum...

15:25:04 From Alexei Buevich to Everyone : Can you comment on special probes for diffusion measurements.

15:25:53 From Zach Gouveia to Everyone : interested in the conversation about the complementary nature of cnmr to hnmr mentioned earlier

15:26:50 From Prashansa Agrawal to Everyone : Does the Bruker pulse sequence library has anti inadequate pulse sequence or we can get from you?

15:28:54 From Randy Youngman to Everyone : Any advantages/issues to traditional MAS NMR for something like LDPE?

15:29:23 From Steve Clemens to Everyone : Alan, what do you use for internal standard?

15:29:31 From Agnieszka Szczygiel to Everyone : Hi, I am using derivatisation agent 2-Chloro-4,4,5,5-tetramethyl-1,3,2-dioxaphospholane to quantify OH and COOH groups present in the polymers. I think it works also for primary and secondary amine functional groups

15:29:38 From Alan Sentman to Everyone : di nitrobenzene for most solvents

15:30:18 From Alan Sentman to Everyone : Maleic acid for D₂O

15:32:24 From Agnieszka Szczygiel to Everyone : Regarding the solvents - I used to use THF, but 1:1 v.v DMSO/CDCl₃ mixture is a great solvent for acrylic polymers

15:32:31 From Steve Clemens to Everyone : Thanks for the talks, all. Super informative!

15:35:30 From Darcy Burns to Everyone : Thanks to all! Great mtg :)

15:35:35 From Randy Youngman to Everyone : Thank you!

15:35:40 From Hilary Jenkins to Everyone : Thanks!

15:35:41 From Robin Stein to Everyone : Thanks all!!

15:35:48 From Prashansa Agrawal to Everyone : Thanks !

15:35:55 From William Wolff to Everyone : Thank you!