

# Frank Delaglio

## List of Publications by Year in descending order

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43  
papers

25,343  
citations

218677

26  
h-index

254184

43  
g-index

45  
all docs

45  
docs citations

45  
times ranked

21324  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Interlaboratory Studies Using the NISTmAb to Advance Biopharmaceutical Structural Analytics. <i>Frontiers in Molecular Biosciences</i> , 2022, 9, .   | 3.5 | 5         |
| 2  | A simple approach for reconstruction of non-uniformly sampled pseudo-3D NMR data for accurate measurement of spin relaxation parameters. <i>Journal of Biomolecular NMR</i> , 2021, 75, 213-219.  | 2.8 | 1         |
| 3  | Principal Component Analysis of 1D <sup>1</sup> H Diffusion Edited NMR Spectra of Protein Therapeutics. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 3385-3394.   | 3.3 | 11        |
| 4  | NUScon: a community-driven platform for quantitative evaluation of nonuniform sampling in NMR. <i>Magnetic Resonance</i> , 2021, 2, 843-861.  | 1.9 | 7         |
| 5  | The NMR Spectral Measurement Database: A System for Organizing and Accessing NMR Spectra of Therapeutic Proteins. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2021, 126, .   | 1.2 | 1         |
| 6  | Principal component analysis for automated classification of 2D spectra and interferograms of protein therapeutics: influence of noise, reconstruction details, and data preparation. <i>Journal of Biomolecular NMR</i> , 2020, 74, 643-656.   | 2.8 | 12        |
| 7  | Reducing the measurement time of exact NOEs by non-uniform sampling. <i>Journal of Biomolecular NMR</i> , 2020, 74, 717-739.  | 2.8 | 7         |
| 8  | Assessment of the Higher-Order Structure of Formulated Monoclonal Antibody Therapeutics by 2D Methyl Correlated NMR and Principal Component Analysis. <i>Current Protocols in Protein Science</i> , 2020, 100, e105.  | 2.8 | 9         |
| 9  | Chemometric outlier classification of 2D-NMR spectra to enable higher order structure characterization of protein therapeutics. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2020, 199, 103973.   | 3.5 | 6         |
| 10 | Comparative Analysis of One-Dimensional Protein Fingerprint by Line Shape Enhancement and Two-Dimensional <sup>1</sup> H, <sup>13</sup> C Methyl NMR Methods for Characterization of the Higher Order Structure of IgG1 Monoclonal Antibodies. <i>Analytical Chemistry</i> , 2020, 92, 6366-6373. | 6.5 | 12        |
| 11 | Best Practices in Utilization of 2D-NMR Spectral Data as the Input for Chemometric Analysis in Biopharmaceutical Applications. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 2339-2355.   | 5.4 | 18        |
| 12 | Enabling adoption of 2D-NMR for the higher order structure assessment of monoclonal antibody therapeutics. <i>MABs</i> , 2019, 11, 94-105.  | 5.2 | 67        |
| 13 | Practical Guidelines for <sup>13</sup> C-Based NMR Metabolomics. <i>Methods in Molecular Biology</i> , 2019, 2037, 69-95.   | 0.9 | 10        |
| 14 | Nonuniform sampling in multidimensional NMR for improving spectral sensitivity. <i>Methods</i> , 2018, 138-139, 62-68.  | 3.8 | 23        |
| 15 | Selective suppression of excipient signals in 2D <sup>1</sup> H- <sup>13</sup> C methyl spectra of biopharmaceutical products. <i>Journal of Biomolecular NMR</i> , 2018, 72, 149-161.  | 2.8 | 18        |
| 16 | NMRbox: A Resource for Biomolecular NMR Computation. <i>Biophysical Journal</i> , 2017, 112, 1529-1534.   | 0.5 | 336       |
| 17 | Multivariate Analysis of Two-Dimensional <sup>1</sup> H, <sup>13</sup> C Methyl NMR Spectra of Monoclonal Antibody Therapeutics To Facilitate Assessment of Higher Order Structure. <i>Analytical Chemistry</i> , 2017, 89, 11839-11845.  | 6.5 | 63        |
| 18 | Sparse multidimensional iterative lineshape-enhanced (SMILE) reconstruction of both non-uniformly sampled and conventional NMR data. <i>Journal of Biomolecular NMR</i> , 2017, 68, 101-118.  | 2.8 | 238       |

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|----|---|------|-----------|
| 19 | Non-Uniform Sampling for All: More NMR Spectral Quality, Less Measurement Time. American Pharmaceutical Review, 2017, 20, .   | 0.0  | 13        |
| 20 | A practical implementation of de-Pake-ing via weighted Fourier transformation. PeerJ, 2013, 1, e30.   | 2.0  | 13        |
| 21 | A practical implementation of cross-spectrum in protein backbone resonance assignment. Journal of Magnetic Resonance, 2010, 203, 208-212.   | 2.1  | 8         |
| 22 | TALOS+: a hybrid method for predicting protein backbone torsion angles from NMR chemical shifts. Journal of Biomolecular NMR, 2009, 44, 213-223.  | 2.8  | 2,305     |
| 23 | Consistent blind protein structure generation from NMR chemical shift data. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4685-4690.  | 7.1  | 776       |
| 24 | Local and global structure of the monomeric subunit of the potassium channel KcsA probed by NMR. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 3260-3270.   | 2.6  | 33        |
| 25 | The utility of residual dipolar couplings in detecting motion in carbohydrates: application to sucrose. Carbohydrate Research, 2005, 340, 863-874.  | 2.3  | 38        |
| 26 | Solution structure of $\hat{1}^3\text{S}$ -crystallin by molecular fragment replacement NMR. Protein Science, 2005, 14, 3101-3114.  | 7.6  | 41        |
| 27 | Molecular Fragment Replacement Approach to Protein Structure Determination by Chemical Shift and Dipolar Homology Database Mining. Methods in Enzymology, 2005, 394, 42-78.   | 1.0  | 49        |
| 28 | Complete Relative Stereochemistry of Multiple Stereocenters Using Only Residual Dipolar Couplings. Journal of the American Chemical Society, 2004, 126, 5008-5017.  | 13.7 | 84        |
| 29 | Overall structure and sugar dynamics of a DNA dodecamer from homo- and heteronuclear dipolar couplings and $31\text{P}$ chemical shift anisotropy. Journal of Biomolecular NMR, 2003, 26, 297-315.                              | 2.8  | 129       |
| 30 | Evaluation of Backbone Proton Positions and Dynamics in a Small Protein by Liquid Crystal NMR Spectroscopy. Journal of the American Chemical Society, 2003, 125, 9179-9191.   | 13.7 | 278       |
| 31 | Direct observation of dipolar couplings between distant protons in weakly aligned nucleic acids. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11333-11338.                       | 7.1  | 34        |
| 32 | A structural model for Alzheimer's $\hat{1}^2$ -amyloid fibrils based on experimental constraints from solid state NMR. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16742-16747. | 7.1  | 1,757     |
| 33 | Measurement of Homonuclear Proton Couplings from Regular 2D COSY Spectra. Journal of Magnetic Resonance, 2001, 149, 276-281.  | 2.1  | 63        |
| 34 | Measurement of one-bond $15\text{N}$ - $13\text{C}'$ dipolar couplings in medium sized proteins. Journal of Biomolecular NMR, 2000, 18, 101-105.  | 2.8  | 56        |
| 35 | Protein Structure Determination Using Molecular Fragment Replacement and NMR Dipolar Couplings. Journal of the American Chemical Society, 2000, 122, 2142-2143.   | 13.7 | 250       |
| 36 | Protein backbone angle restraints from searching a database for chemical shift and sequence homology. Journal of Biomolecular NMR, 1999, 13, 289-302.   | 2.8  | 2,825     |

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|----|--|------|-----------|
| 37 | Measurement of $^1\text{H}$ and Dipolar Couplings from Simplified Two-Dimensional NMR Spectra. <i>Journal of Magnetic Resonance</i> , 1998, 131, 373-378.  | 2.1  | 931       |
| 38 | Measurement of Dipolar Couplings for Methylene and Methyl Sites in Weakly Oriented Macromolecules and Their Use in Structure Determination. <i>Journal of Magnetic Resonance</i> , 1998, 134, 365-369. | 2.1  | 118       |
| 39 | NMRPipe: A multidimensional spectral processing system based on UNIX pipes. <i>Journal of Biomolecular NMR</i> , 1995, 6, 277-93.  | 2.8  | 14,090    |
| 40 | [2] Measurement of homo- and heteronuclear J couplings from quantitative J correlation. <i>Methods in Enzymology</i> , 1994, 239, 79-105.  | 1.0  | 373       |
| 41 | The use of $^1\text{J}_{\text{C}^{\alpha}\text{H}^{\alpha}}$ coupling constants as a probe for protein backbone conformation. <i>Journal of Biomolecular NMR</i> , 1993, 3, 67-80.                     | 2.8  | 65        |
| 42 | An empirical correlation between $^1\text{J}_{\text{C}^{\alpha}\text{H}^{\alpha}}$ and protein backbone conformation. <i>Journal of the American Chemical Society</i> , 1992, 114, 9674-9675.          | 13.7 | 68        |
| 43 | Measurement of $^{15}\text{N}$ - $^{13}\text{C}$ J couplings in staphylococcal nuclease. <i>Journal of Biomolecular NMR</i> , 1991, 1, 439-446.  | 2.8  | 95        |