Rocky Mountain Conference on Magnetic Resonance
Abstract Submission Instructions

ATTENTION: Before completing your submission, read the instructions carefully, and examine the sample abstract below.

Step by Step Instructions:

At the abstract submission website:

1. The presenting author should enter all contact information and ensure that it is accurate.
2. Enter a title for your presentation in the abstract title box. Rich text may be used.
3. Enter the author information in the authors and author locations box. Rich text may be used.
4. Enter your abstract in the abstract box (**see abstract formatting instructions below**). You may type text directly into this box, or copy and paste plain ASCII text and add any rich text formatting that you may require.
5. Graphics will be accepted only if you submit a properly formatted abstract, with its graphics incorporated, via the upload feature.

Instructions for authors and author locations:

1. List of authors, separated by commas: given name, initial(s), surname. Underline the presenting author's name.
2. Numbered list of institutions/businesses and short addresses, with carriage return after each institution. Indicate the address of each author by placing the appropriate number (in superscript font) after that author's name in the list (see sample abstract below).

Instructions for abstract structure:

1. Abstract text (no more than 300 words)
2. References/bibliography (optional) - citations to references in the text should be made with superscripted numbers (see sample abstract below).

- Abstracts should be 300 words or less.
- Enter abstract text into the abstract box on the website: please use superscript, subscript, italics, bold and underline where appropriate.
- Left justify everything. Do not use extra returns.
- Use upper and lower case lettering throughout. Do not use all caps unless it is to identify a trade name, registered name or other name that mandates all caps. In the title of the paper be sure to capitalize the first letter of each word as needed.
- Keep the abstract text in one paragraph. If literature citations are needed, indicate them in superscripted text. Footnotes should be numbered accordingly. Credits, if any, should be added at the end of the abstract, but not as a new paragraph.
- In the event that you have trouble with the website, you may use Microsoft Word or Text format. Keep the same point size throughout, and model your abstract on the sample below. This abstract can be submitted by attaching the file to the abstract submission page.

Sample abstract:

Title (entered in title box):

Multi-Frequency EPR Analysis of Dipolar and Exchange Interactions Between Managese and Tyrosine In The $S_2 Y_z$ State of Photosystems II

Authors and author locations (entered in authors box and author locations box):

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Abstract (entered in abstract box):

Acetate-inhibited photosystem II, upon room temperature illumination, exhibits a 240 G wide X-band EPR signal at 10 K.[1] This EPR signal arises from an interaction between the S_2 state of the Mn_4 cluster and an oxidized tyrosine residue, Y_z.[2] In the present study, the exchange and dipolar interactions between the two paramagnetic species are simulated at X and Q-band frequencies utilizing second-order perturbation theory.[3] The positions and relative intensities of the hyperfine lines in the $S = \frac{1}{2}$ S_2-state multiline EPR signal are accurately simulated by including g-anisotropy and four sets of axially symmetric ^{55}Mn hyperfine tensors. These parameters are then used to simulate the dipolar and exchange interactions giving rise to the broad experimental $S_2 Y_z$ EPR signal at X and Q-band frequencies. A precise distance determination between the Mn_4 Cluster and Y_z in the O2-evolving complex better enables us to elucidate the direct involvement of Y_z in water-oxidation chemistry. Supported by NIH GM32715 and GM36442 (Yale) and NIH GM21156 (Denver).
1. Boussac and Rutherford, *Biochem.,* **1988**, *27*, 3476.
2. Tang et al., *J. Amer. Chem. Soc.,* **1996**, *118*, 7638.
3. Eaton et al., *J. Magn. Res.,* **1983**, *52*, 435.