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生体系の固体 NMR シンポジウムの案内

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2005 環太平洋国際化学会議(Pacifichem 2005)において生体系の固体 NMR のシンポジウム- **Advances of solid state NMR on biological systems** (#298)を開催いたします。このシンポジウムではポスター発表を募集していますので是非参加していただくよう案内させていただきます。

1) 日時 2005 年 12 月 15 日(木)? 20 日(火)

2) 場所 米国ハワイ州、ホノルル市

3) 発表形式

招待講演(Invited Paper):シンポジウムで招待されている発表

一般講演(Contributed Paper): その他の一般発表 (若干名をポスターより選出)

ポスター発表(Poster): ポスターボードで他のポスターと一緒にこなう発表

4) 発表申込/アブストラクト提出 申込方法

下記ホームページから指示に従って入力しアブストラクトをご提出下さい。

要旨は 2000 文字(Letter)以内。シンポジウム番号は(#298)です。

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

開始: 2005 年 1 月 18 日(火)

締切: 2005 年 4 月 13 日(水) (厳守)

5) シンポジウムの概要

Name of the Symposium: **Advances of solid state NMR on biological systems** .

Scientific subject area: Biological chemistry

Symposium No.: 298

Focus and content of symposium:

Solid-state NMR is recognized to be a powerful tool for elucidating structure function relationship in a various type of biological systems. As an approach of structural biology, recoupling methods in 1D and 2D NMR spectroscopy have greatly progressed to determine interatomic distances of site specifically and uniformly labeled biomolecules. These pieces of

information are used as structure constraints together with chemical shift interactions for determining the three dimensional structure of biological complexes. Solid-state NMR can also provide orientational information in mechanically and magnetically ordered biomolecules such as membrane proteins and peptides, liquid crystals and polymers. Dynamic information in solid biomolecules is also unique since local motions can be studied without the complexity of overall tumbling of biological complexes over a wide range of time scale, which may be relevant to biological function.

In this symposium, developments of new solid-state NMR techniques will be emphasized with a focus on resolution and sensitivity enhancement, including high field NMR. Secondly, recent advances in structural studies of biological solids such as proteins in crystalline and membrane bound states will be addressed. Thirdly, studies of orientation, conformation and dynamics of magnetically ordered biological systems will be presented. Also, molecular arrangement of fibril proteins and amyloid fibrils will be another topic discussed in this symposium in relation to molecular folding and association.

Sub sessions of the proposed symposium

1. Resolution and sensitivity enhancements in solid state NMR.
2. Structure determination of biomolecules by solid state NMR.
3. Advances in structural biology of Membrane associated proteins and peptides.
4. Characterization of fibril proteins and amyloid fibrils.

Organizers

Akira Naito (Corresponding organizer) (Yokohama National University)

Ayyalusamy Ramamoorthy (University of Michigan)

Frances Separovic (University of Melbourne)

R. Scott Prosser (University of Toronto at Mississauga)

Invited speakers

Toshimichi Fujiwara, Kiyonori Takegoshi, Michio Murata, Satoru Tuzi, Tomoki Erata,

Akira Naito, Paul Callaghan, Raymond S. Norton, Frances Separovic, Jim Davis,

Michele Auger, Stanley Opella, Francesca Marassi, Steven Smith, Gianluigi Veglia, Kurt Zilm,

Gary Lorigan, Kristin Kumashiro, Ayyalusamy Ramamoorthy, David Weliky (Tentative),

Robert Tycko (Tentative), Ann McDermott(Tentative)