



国立研究開発法人理化学研究所 仁科加速器研究センター
第204回 RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 204th RIBF Nuclear Physics Seminar

Astrochemical Approach to Star and Planet Formation

坂井 南美 氏

国立研究開発法人理化学研究所坂井星・惑星形成研究室

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Star and planet formation is one of the most fundamental structure-formation processes in the Universe. Physical processes of star and planet formation have widely been investigated as one of the major targets of astronomy and astrophysics by observations in the entire wavelength region during the last few decades. Although a rough outline of these processes has been presented, there still remain many unknowns and missing links. One of them is when the disk structure is formed around a protostar, and how it is evolved into a protoplanetary disk and eventually to a planetary system. At the same time, understanding the evolution of matter from interstellar clouds to stars and planets is also a goal of astronomy. So far, about 180 interstellar molecules have been identified mainly by radio-astronomical observations, and about 1/3 of them are "complex" molecules having 6 atoms or more. This indicates the high chemical complexity of interstellar clouds even in the extreme condition

of low temperature (10-100 K) and low density (10^2 - 10^7 cm⁻³) in comparison with the terrestrial condition, which would ultimately be related to an origin of rich substances in the Solar System. Thus, approaches both from physical and chemical view points are indispensable to bridge star/planet formation studies and planetary science of the Solar System. In this seminar, I am going to present importance of chemistry in astronomical studies by introducing chemical evolution from starless clouds to star forming clouds.

* The talk will be given in English language..

July 14th (Tue.) 2015 13:30 ~
RIBF Hall (rm.201), RIBF bldg., RIKEN

Contact: Nuclear Physics Seminar Organizing Committee
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<http://ribf.riken.jp/~seminar/>



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講演標題(日本語)

講演標題(英語)

?????氏

(所属日本語)

Dr. ???

(所属英語)

Abstract

* The talk will be given in English.

Feb 10(Tue.) 2015 15:30 ~
RIBF Hall (rm.201), RIBF bldg., RIKEN

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