



# *Physical Research Laboratory*

## **Tuesday Seminar**

### **Oldest to infant rocks: Hadean mantle story**

## **Abstract**

The Hadean Eon, representing the first five hundred million years of Earth's history, was one of the most eventful periods when the planet got differentiated to various chemical layers based on density. One of these major events was the segregation of core and mantle from bulk Earth. Direct evidence for subsequent differentiation of the earliest differentiation of mantle is difficult to find, as the preserved Hadean rock record is scanty. However, information about these events can be obtained with the help of extinct radioactivity, in particular from  $^{146}\text{Sm}$ - $^{142}\text{Nd}$  systematics (Half-life of 103 Ma). Surprisingly, such evidence is not only restricted to the oldest rocks but also found in some infant rocks. In this talk I will discuss recent findings which provide a new perspective on the preservation of such evidence through geologic time. Some similar efforts by us in this direction will also be discussed.

**Speaker:** **Dr. Ikshu Gautam**  
**PDF, GSDN**

<b>Date</b>	<b>Time</b>	<b>Venue</b>
12- June-2018	16:00 hrs	Ground Floor Lecture Hall

**All are invited to attend and participate in discussion**

*A .K. Sudheer, Geosciences Division*