

**THE MODELING OF MATERIALS AND OF THE FORMATION OF MATERIALS**

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**ABSTRACT**

**In this talk we will present:**

- a) theoretical evidences for a new class of nanotubes and possible applications;**
- b) the simulation of clathrate formation by the sortive method;**
- c) the design of new inhibitors to avoid the hydration and swelling of smectite.**

**PRONEX, FAPERJ, CNPq.**