

Seminar Alert

La Ginestra Room - Chemistry Department (Cannizzaro building)

February 29, 2016; time: 11 am

Presentation of the **EDXD New Diffrattometer** (Energy Dispersive X-ray Diffraction)
with three detectors

Designed and built by Prof **Ruggero Caminiti**

First worldwide lab instrument prototype

**NEW ENERGY-DISPERSIVE X-RAY DIFFRACTOMETER FOR LIQUID, DISORDERED AND
NANOSTRUCTURED SYSTEMS**

STRUCTURAL CHARACTERIZATION OF MATERIALS USED IN APPLIED SCIENCES

EDXD3H

The New EDXD Diffractometer at Rome Sapienza University

High Speed, High q and High Savings

Abstract

The seminar will describe the innovative features of the instrument – just completed – with respect to the first-generation EDXD diffractometer (R.Caminiti et al. Patent No. 01126484-23 June, 1993).

The EDXD instrument uses a polychromatic source (Tungsten white radiation) instead of the monochromatic beam (CuKalpha, MoKalpha lines) employed by commercial/traditional diffractometers,

One of the most striking feature will be stressed: the marked reduction of the measuring time necessary to obtain the complete structure function of a sample, that is two order of magnitude shorter than the measuring time needed by older EDXD machines or commercial instruments.

Applications in Chemistry, Physics, Biology and Cultural Heritage fields will be shown

**Prof. Ruggero Caminiti,
Dip Chimica- Sapienza**