



Università di Roma "Tor Vergata"

Dipartimento di Scienze e Tecnologie Chimiche

Via della Ricerca Scientifica - 00133 Roma

Tel. +39 06 72594014 - Fax +39 06 72594328

AVVISO DI SEMINARIO

Mercoledì 12 marzo ore 15.00

in aula Seminari del Dipartimento di Scienze e Tecnologie Chimiche

Dott . Felici

European Synchrotron Radiation Facility, Grenoble, France

Terrà un seminario dal titolo;

Surface X-ray Diffraction Studies at the ID03 Beamline of the ESRF

Proponente ; Prof.ssa Silvia Licocchia



Università di Roma "Tor Vergata"

Dipartimento di Scienze e Tecnologie Chimiche

Via della Ricerca Scientifica - 00133 Roma

Tel. +39 06 72594014 - Fax +39 06 72594328

Abstract

X-rays are an ideal probe for studying structural properties of matter and, thanks to the brilliance of synchrotron sources, they are also employed to determine the atomic structure and morphology of surfaces and interfaces.!

Aim of this talk is to provide the basic knowledge on the main techniques used in this field i.e. x-ray reflection, surface x-ray diffraction and grazing incidence small angle scattering together with a description of the beamline layout and equipment.!

Examples will be shown dealing with the adsorption of organic molecules on noble metals surfaces /1,2/, with the in-situ characterization of the structure and morphology of a catalyst surface during the heterogenous catalytic oxidation of CO /3,4/ and of electrochemical reactions /5,6/.

References!

/1/ R. Felici et al, Nat. Mat. 4(2005) 688!

/2/ M. Hinterstein et al., Phys. Rev. B77 (2008) 153412!

/3/ R. van Rijn et al., Phys. Chem. Chem. Phys. 13 (2011) 13167!

/4/ B.L. Hendriksen et al., Nat. Chem. 2 (2010) 730!

/5/ F. Golks et al., Phys. Rev. Lett. 108 (2012) 256101!

/6/ F. Carlà et al., J. Chem. Phys. C, accepted