

## Curriculum vitae of Raffaele Sassi

### Brief biography

Born in Padova on 1.3.1963, married, two children. He graduated in Geological Sciences on June 1988 in Padova. CNR (1990) and doctoral (1991-92) grant holder. From March 1st, 2006 he is Associate Professor (GEO/07) at the Department of Geosciences of the University of Padova.

### Scientific Co-Ordination Tasks

(1999-2000-2001). Co-ordinator of three MURST ex-60% Projects: 1999, 2000, 2001 on Compositional changes of micas, chlorites and other minerals as a function of the metamorphic variables.

(2002). Co-ordinator of MURST ex-60% Project: "Relationships among mineral-chemistry, rock microstructures and P-T-deformation conditions in metapelites".

(2001-2002) and (2003-04). Scientific Co-ordinator of the Research Unit of Padova of the National Project CROP2 (deep seismic reflection profile) (Formal agreement among CNR, AGIP, ENEL).

(2003-2004). Scientific Responsible for the Research Unit of Padova for the National Project PRIN 2002 "Relationships between the physical-chemical properties of micas and metamorphic P-T conditions".

(2005-2006). Scientific Responsible for the Research Unit of Padova of the National Project PRIN 2004 "Metamorphic micas: correlations between mineral chemistry and physical and chemical conditions of crystallization".

(2006). Scientific Responsible of the Project 20060246 "Determination of the Ti substitution mechanism in extremely Ti-rich biotites" at the Swiss Light Source (SLS) at the Paul Scherrer Institut (Villigen, Switzerland).

(2006). Scientific co-Responsible of the Project 20060432 "Minor and trace elements substitution mechanisms in micas and petrological implications" at Swiss Spallation Neutron Source SINQ at the Paul Scherrer Institut (Villigen, Switzerland).

(2006-2007). Scientific Responsible of the Research Project of the University of Padova 2005 "Deciphering P-T-t paths from reaction microstructures in metamorphic rocks: a new approach by means of three-dimensional finite element modelling".

(2007-2008). Scientific Responsible for the Research Unit of Padova of the National Project PRIN 2006 "Biotite and muscovite features as environmental indicators in metamorphic changes".

(2000-2004). Scientific Responsible of Research Program no. 3 of the Department of Mineralogy and Petrology "Features of phyllosilicate as a function of crystallisation conditions" (result: scientific publications), which has been evaluated as "very good" by the international Assessment Committee of the Department for the five-year period 2000-2004.

(2009-2012). Scientific Responsible for the Research Unit of Padova of the National Project PRIN 2008 "Combining petrology and crystallochemistry in phyllosilicate: some case studies".

(2014-2016). Scientific Responsible of the Research Project of the University of Padova 2013: Geological and geochemical control on Radon occurrence and natural radioactivity in the Euganean Hills district (North-Eastern Italy)

### Scientific Activity

The Scientific activity of Raffaele Sassi is documented by 52 papers and 54 abstracts, 2 short notes and 1 Edited Volume, dealing with many different topics, which also reflect the wide range of subjects he taught in the courses at the Faculty of Engineering.

His whole scientific activity focuses on several topics: 1) petrologic studies on some south-European (Alpine-Dinaric-Carpathian) and extra-European basements; 2) studies on metamorphic petrology; 3) petrophysics; 4) geological mapping of crystalline basements. However it mainly deals with metamorphic processes and basements, and includes studies on the behaviour of sheet silicates as a function of chemical-physical conditions of metamorphism. In his most recent scientific career, he devoted part of his research to metamorphic petrology, focusing on REE partitioning in coexisting mineral of metamorphic rocks and transition reactions of  $Al_2O_5$  phases.