



## PERSONAL INFORMATION

**Salvatore Abate** First name(s) / Surname(s)

+39 328 9170149/ skype: salvoo88 Telephone(s)

abates@unime.it E-mail

## **WORK EXPERIENCE**

June 2013 - Present • Dates (from – to)

• Name and address of employer University of Messina, Viale F. Stagno D'Alcontres 31, 98166 Messina (Italy)

Occupation or position held

Main activities and responsibilities

## Researcher in Industrial Chemistry

- -Teaching and researching on the follow topics:
- -Synthesis, characterization and testing on Pd-membranes for hydrogen separation, and H<sub>2</sub>O<sub>2</sub> direct synthesis.
- -Use of Throughput reactor for methanation reaction, in the framework of European project **HELMET**
- -Synthesis and characterization of Ni-based catalysts.
- -Hydrocracking of microalgae lipid oil, in high pressure reactor.
- -Coordination of PhD students team.

• Dates (from – to)

January 2012- May 2013

· Name and address of employer

INSTM Interuniversity Consortium for Science and Technology of Materials Via G.Giusti 9,50121 Florence (Italy))

Occupation or position held

# Collaboration contract for the European project INCAS

- Main activities and responsibilities
- -Synthesis of Pd membranes (contactor concept) by several techniques for direct H<sub>2</sub>O<sub>2</sub> production (gas-liquid phase).
- -Preparation and characterization of Pd-based catalysts supported on several oxides, carbon, and carbon nanotubes.
- -Testing in high-pressure batch and semi-batch reactors.
- -Attendance of meetings, webconfernce, preparation of reports and deliverables, contacts with academic and industrial partners.

Dates(from – to)

September 2009 - December 2011

· Name and address of employer

INSTM Interuniversity Consortium for Science and Technology of Materials

Via G.Giusti 9,50121 Florence (Italy)

Occupation or position held

## Collaboration contract for the European project NEXT-GTL

· Main activities and responsibilities

- -Synthesis, characterization and testing of Pd-based membranes for gas separation
- -Attendance of meetings, preparation of reports and deliverables, contacts with partners.
- -Optimization of Pd based membrane synthesis and characterization (SEM and AFM) focused on the microstructure.

• Dates (from - to)

January 2007- February 2009

· Name and address of employer

University of Messina, Viale F. Stagno D'Alcontres 31, 98166 Messina (Italy)

Occupation or position held

## Collaboration contract for the Italian project FISR-Hydrogen

- Main activities and responsibilities
- -Design of tubular membrane reactor, and synthesis of Pd composite membranes supported on the ceramic and metallic tubes.
- -Attendance of meetings, preparation of reports, contacts with other partners.
- -Testing of Pd membranes on pilot plant.

## **EDUCATION AND TRAINING**

• Date(from – to)

January 2004- December 2006

 Name and type of organisation providing education and training

University of Messina

• Title of qualification awarded

# PhD "Chemistry and Materials Engineering"

Thesis: "Development of catalytic membranes based on metals supported on ceramic materials"

Date(from – to)

September 1996- November 2002

 Name and type of organisation providing education and training

University of Messina, Faculty of Material Engineering, Italy

· Title of qualification awarded

## Master Degree in Material Engineering

Level in national classification

• Dates (from – to)

May2015- June 2015

- Name and type of organization providing education and training
- Avantium, Netherlands
- Principal subjects/occupational skills covered

In the framework of the European project BIOFUR. The study was focused on the possibility of using CMF (chloromethylfurfural) as starting molecule (instead HMF) to form MMF, key intermediate for other chemical process.

Thesis:" Metals covered with zeolite 4A for applications in heat pump adsorption"

• Title of qualification awarded

• Dates (from – to) October 2013

 Name and type of organization providing education and training

School on Engineering of Membrane Reactors for the Process Industry

 Principal subjects/occupational skills covered

Membrane reactor, syngas production, hydrocarbon dehydrogenation, water gas shift, Innovative catalytic technologies and Multifuel-Energy to hydrogen converter.

· Title of qualification awarded

certificate of attendance

Dates (from – to)

October 2008- November 2008

 Name and type of organisation providing education and training CNR institute of Rome, ITALY

 Principal subjects/occupational skills covered Surface characterization by AFM and STM analysis

• Title of qualification awarded

Certificate of attendance

• Dates (from - to)

1993-1998

 Name and type of organisation providing education and training XIV Materials National School, Bressanone, ITALY

Principal subjects/occupational skills covered

Overview of the main surface characterization techniques

• Title of qualification awarded

Certificate of attendance

Dates (from – to)

March 2008-June 2008

• Name and type of organisation providing education and training

Fritz-Haber-Institute of Berlin, GERMANY

• Principal subjects/occupational skills covered

Pd-membranes characterization by SEM and XPS synchrotron radiation

· Title of qualification awarded

Certificate of attendance

• Dates (from – to)

September 2006

 Name and type of organisation providing education and training School on Catalysis of St. Petersbourg, RUSSIA

 Principal subjects/occupational skills covered

Catalysis design

• Title of qualification awarded

Certificate of attendance

• Dates (from – to)

October 2003-November 2003

• Name and type of organisation providing education and training

Karl-Winnacker-Institute of Frankfurt, Dechema, GERMANY

Principal subjects/occupational skills covered

Testing on catalytic membranes (distributor and contactor concepts) for H<sub>2</sub>O<sub>2</sub> synthesis, in High pressure lab scale pilot plant (liquid-gas phase).

· Title of qualification awarded

Certificate of attendance

# **SCIENTIFIC PUBLICATIONS**

Publications on International journals:40

Chapter Book: 3

International conferences: more than 50



