

TEACHING ACTIVITY FOR PhD COURSES IN INDUSTRIAL CHEMISTRY, A.A. 2019-2020

COORDINATOR Prof.ssa Dominique Marie ROBERTÒ

	Title	Date	Hour	Room	CFU
Coordinator: Benaglia Maurizio Lecturers: Benaglia Maurizio (4h) Pirola Carlo (3h) Proserpio Davide (3h)	Literature and library research in industrial chemistry Course on the literature in industrial chemistry. The student learns to read and comment in a critical manner articles in the field of industrial chemistry, in particular in organic (with Prof. Benaglia), inorganic (with Prof. Proserpio) and physical chemistry (with Prof. Pirola).	Il corso si svolgerà tra Marzo e Settembre. Date da concordare con il docente.			2
Coordinator: Colombo Valentina Lecturers: Navarro Jorge A.R. (4h, a,b) Borfecchia Elisa (4h, c, d) Colombo Valentina (2h)	Advanced characterization techniques for Porous Materials: adsorption, spectroscopy and diffraction In this course, the characterization of solid phases will be treated through advanced adsorption techniques (breakthrough curves, GC-MS); powder diffraction techniques (X-rays -laboratory and synchrotron radiation) and X-ray absorption and emission spectroscopies. The introduction and characterization of structural defects, and the in depth characterization of open-metal sites and catalytical centers in porous materials, will be described.	a) 05 February 2020 b) 06 February 2020 c) 06 February 2020 d) 07 February 2020 e) 07 February 2020	14:30-16:30 10:00-12:00 14:30-16:30 10:00-12:00 14:30-16:30	Aula G15 Aula G16 Aula G16 Aula G16 Aula G16	2
Coordinator: Benaglia Maurizio Lecturers: Diaz Diaz David (6h, a, b) Zonta Cristiano (2h, c) Federsel Hans Jurgen (2h, d)	Organic reactions in confined spaces New and more recent developments of a frontier theme will be presented, such as reactivity in confined spaces, a highly interdisciplinary topic ranging from chemical reactivity to new materials and biological systems.	a) 09 March 2020 b) 10 March 2020 c) 30 March 2020 d) 07 April 2020	14:30-17:30 14:30-17:30 14:30-15:30 14:30-16:30	Aula Canonica Aula Canonica Aula Canonica Aula Canonica	2

<p>Coordinator: Pieraccini Stefano</p> <p>Lecturers:</p> <p>Belvisi laura (2h)</p> <p>Pieraccini Stefano (2h)</p> <p>Civera Monica (2h)</p> <p>Marcou Gilles (4h)</p>	<p>Chemoinformatics and Molecular Modelling: a drug design oriented introduction</p> <p>The course aims at providing the students with the basic principles and the main tools of chemoinformatics and molecular modeling currently employed for drug design. A chemistry knowledge at the level of a scientific master degree is advisable to attend the course.</p>	<p>a) 23 April 2020</p> <p>b) 24 April 2020</p> <p>c) 28 April 2020</p> <p>d) 29 April 2020</p> <p>e) 30 April 2020</p>	<p>14:30-16:30</p> <p>10:30-12:30</p> <p>14:30-16:30</p> <p>14:30-16:30</p> <p>14:30-16:30</p>	<p>Aula Canonica</p> <p>Aula Canonica</p> <p>Aula Canonica</p> <p>Aula Canonica</p> <p>Aula Canonica</p>	<p>2</p>
<p>Coordinator: Ranucci Elisabetta</p> <p>Lecturers:</p> <p>Tartamella Vito (2h)</p> <p>Ranucci Eliabetta (2h)</p> <p>Alongi Jenny (2h)</p> <p>Castelvetro Valter (2h)</p> <p>Castelvetro Valter (2h)</p>	<p>Plastics: myths and truths of an environmental emergency</p> <p>Plastics changed our life, becoming necessary in various technological fields. For example, plastic helps prolonging the life of food, it allows to reduce fuel consumption in transport, thanks to its lightness, and energy for heating contributing to thermal insulation. However, plastic has become pervasive and creates many serious environmental problems. Among these, many are due to microplastics, which are in the waters we drink and in the air we breathe. Can we defend ourselves against plastic waste? The course aims to deal scientifically with environmental problems related to the use of plastics and their possible solutions.</p>	<p>a) 17 April 2020</p> <p>b) 20 April 2020</p> <p>c) 21 April 2020</p> <p>d) 21 April 2020</p> <p>e) 22 April 2020</p>	<p>14:30-16:30</p> <p>14:30-16:30</p> <p>09:30-11:30</p> <p>14:30-16:30</p> <p>14:30-16:30</p>	<p>Aula Canonica</p> <p>Aula Canonica</p> <p>Aula Farina</p> <p>Aula Farina</p> <p>Aula Canonica</p>	<p>2</p>
<p>Coordinator: Rossetti Ilenia</p> <p>Lecturers:</p> <p>Rossetti Ilenia (7h, a,b,c)</p> <p>Montante G (3h, d)</p>	<p>From materials to process design: scale up issues in the development of chemical processes</p> <p>The goal is the presentation of the main issues for the developments of chemical processes. Besides the development of innovative reactions and materials, the industrial chemist should early identify hypotheses on the future structure of the production process, to join the lab scale investigation with a technol-economic feasibility assessment of the solutions proposed. Examples will be discussed for the design of industrial reactors and separation processes, as well on full process design schemes. Basic economic assessment parameters will be proposed to evaluate the remuneration of the project.</p>	<p>a) 04 May 2020</p> <p>b) 06 May 2020</p> <p>c) 13 May 2020</p> <p>d) 14 May 2020</p>	<p>14:00-17:00</p> <p>14:00-16:00</p> <p>14:00-16:00</p> <p>14:00-17:00</p>	<p>Aula 302</p> <p>Aula 501</p> <p>Aula 501</p> <p>Aula 501</p>	<p>2</p>

<p>Coordinator: Robertò Dominique</p> <p>Lecturers:</p> <p>Fondazione Sodalitas (20h, a, b, c, d)</p> <p>In Italian, for third year PhD students (XXXIII cycle) in Chemistry and in Industrial Chemistry, Recommended</p>	<p>Giovani e Impresa</p> <p>Course for third-year PhD students. It is an orientation course with exercises and laboratory activities, designed and organized by the Sodalitas Foundation. The course is based on the centrality of the person; it is oriented in the perspective of Social Responsibility and Sustainability, according to the European guidelines of MIUR, with the aim of enhancing vocations and attitudes that distinguish the excellence of young people, as an added value of cross-skills. The method is based on a guided path of progressive experience in the logic of the world of work, through interactive, laboratory, relational modes, support films, company testimony and simulations.</p>	<p>a) 25 May 2020</p> <p>b) 26 May 2020</p> <p>c) 27 May 2020</p> <p>c) 28 May 2020</p>	<p>09:00-14:00</p> <p>09:00-14:00</p> <p>09:00-14:00</p> <p>09:00-14:00</p>	<p>Aula 402</p> <p>Aula 402</p> <p>Aula 209</p> <p>Aula 301</p>	<p>4</p>
<p>Coordinator: Cariati Elena</p> <p>Lecturers:</p> <p>Cariati Elena (2h, a)</p> <p>Botta Chiara (2h, b)</p> <p>Giovanella Umberto (2h ,c; Lezione pratica c/o CNR-SCITEC, Via Corti 12)</p> <p>Tang Ben Zhong (4h, d, e)</p>	<p>Luminescent materials: from optical characterization to applications</p> <p>The course aims at providing the students with the basic principles of the optical characterization of luminescent materials and some examples of their practical applications. A chemistry knowledge at the level of a scientific master degree is advisable to attend the course.</p>	<p>a) 06 May 2020</p> <p>b) 12 May 2020</p> <p>c) 13 May 2020</p> <p>d) 20 May 2020</p> <p>e) 21 May 2020</p>	<p>10:30-12:30</p> <p>10:30-12:30</p> <p>10:30-12:30</p> <p>14:30-16:30</p> <p>10:00-12:00</p>	<p>Aula Farina</p> <p>Aula Farina</p> <p>c/o CNR</p> <p>Aula Bs</p> <p>Aula G10</p>	<p>2</p>