

EUROPEAN CURRICULUM VITAE FORMAT



PERSONAL INFORMATION

Name SECHI, Barbara n. matri. , 733 ORCID 0000-0001-5675-4731
Address ISTITUTO DI CHIMICA BIOMOLECOLARE, ICB_CNR, SEDE SECONDARIA SASSARI , TRAVERSA LA CRUCCA 3-
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Nationality Italian
Date of Birth January, 10TH 1971 in Sassari (IT)

WORK EXPERIENCE

Dates (2020 – to date)

- Name and address of the employer Consiglio Nazionale delle Ricerche - ICB-Sassari
- Occupation or position held Collaboratore tecnico ente di ricerca,(C.T.E.R) IV livello
 - Main activities and responsibilities High performance liquid chromatography analysis, Organic Synthesis, Research Activity
- Dates (2018 – 2019)
- Name and address of the employer Consiglio Nazionale delle Ricerche –ICRM Milano
- Occupation or position held Collaboratore tecnico ente di ricerca (CTER)IV livello
 - Main activities and responsibilities Enzymatic catalysis: reaction promoted by aminotrasferase. Cromatography HPLC,UV/Vis and fluorescence detection, analysis of carbohydrates, Destructuring of ligninocellulose biomass by organosolv pretreatment and its effect on production of lignin and sugar.

Dates(1994-2018)

- Name and address of the employer Consiglio Nazionale delle Ricerche - ICB-sassari
- Occupation or position held Collaboratore tecnico ente di ricerca,(C.T.E.R)
 - Main activities and responsibilities Organic Synthesis,Research Activity.

EDUCATION AND TRAINING

Dates (1989- 1990)

- Name and type of organisation providing education and training Istituto Tecnico Industriale ‘G.M.Angioy’
- Title of qualification awarded Diploma di perito Industriale Capotecnico, specializzazione Chimica Industriale

- PERSONAL SKILLS AND COMPETENCES

Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.

MOTHER TONGUE

Italian

OTHER LANGUAGES

- Reading skills Good
- Writing skills Good
- Verbal skills Good

<p>ORGANISATIONAL SKILLS AND COMPETENCES</p> <p>Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc</p>	<p>MEMBER OF THE GROUP OF BIOINFORMATICS AND MOLECULAR MODELLING AT THE ICB_SS</p> <p>RESEARCH ACTIVITY IN COLLABORATION WITH VARIOUS RESEARCH GROUPS BELONGING TO THE INSTITUTE OF BIOMOLECULAR CHEMISTRY (SASSARI) AND INSTITUTE OF MOLECULAR RECOGNITION (MILANO)</p> <p>TEACHING ACTIVITY: EXCHANGE PROGRAM SCHOOL-JOG FOR HIGH SCHOOL STUDENTS. SPECIFIC ACTIVITY IN THE FIELD OF PURIFICATION OF ORGANIC COMPOUNDS, GAS AND THIN-LAYER CHROMATOGRAPHY, EXTRACTION TECHNIQUES, LABORATORY EQUIPMENT AND INSTRUMENTS.</p> <p>CHROMATOGRAPHY: HPLC, UV-VIS AND FLUORESCENCE DETECTION, ANALYSIS OF CARBOHYDRATES, UTILIZATION OF POLYSACCHARIDE-BASED STATIONARY PHASES. PHYTOCHEMICAL CHARACTERIZATION OF ENDEMIC PLANTS OF SARDINIA.</p> <p>ENZYMATIC CATALYSIS: REACTION PROMOTED BY AMINOTRANSFERASE.</p> <p>ANALYSES OF ORGANIC MATRICES: UTILIZATION OF STANDARD PROTOCOL NREL/TP-510-42618 AND NREL/TP-510-42622</p> <p>HIGH-PRESSURE REACTIVITY MANAGEMENT OF HIGH-PRESSURE LABORATORIES. SYNTHESIS OF LIGANDS FOR ENANTIOSELECTIVE CATALYSIS.</p>
<p>TECHNICAL SKILLS AND COMPETENCES</p> <p>With computers, specific kinds of equipment, machinery, etc.</p>	<p>COMPETENCES AND SKILLS</p> <p>SYNTHESIS AND ANALYSIS OF ORGANIC COMPOUNDS, ANALYSIS OF COMPUTATIONAL DATA, MANAGEMENT OF HPLC AND SPECTROSCOPIC INSTRUMENTATION SOFTWARE EXPERTISE; LABSOLUTION LC SHIMADZU, AGILENT CHEMSTATION LC SYSTEM, CHIMERA 1.8.1, MULTIWFN, SPARTAN, MICROSOFT OFFICE.</p>
<p>OTHER SKILLS AND COMPETENCES</p> <p>Competences not mentioned above</p>	<p>PROJECT PARTECIPATION</p> <p>2021-2022: BILATERAL AGREEMENT Peluso/Jibuti_Italy-Georgia (Design, preparation e applications of new halogenated polysaccharide-based chiral stationary phases for liquid-phase separation of enantiomers). Role: Participating collaborator</p> <p>2018-2019: Project Biocatalysis and biorefinery, enzymatic catalysis (ICRM-CNR). Role: Participating collaborator</p>

Publication Co-author of 22 articles on national and international peer-reviewed journals.

1. *Enantioseparation of 5,5'-Dibromo-2,2'-Dichloro-3-Selanyl-4,4'-Bipyridines on Polysaccharide-Based Chiral Stationary Phases: Exploring Chalcogen Bonds in Liquid-Phase Chromatography- **Molecules (Basel, Switzerland), 2021, 26(1)** Autori: Peluso, P., Dessì, A., Dallochio, R., ...Aubert, E., Cossu, S.*
2. *Discovery and Characterization of a Novel Thermostable β -Amino Acid Transaminase from a Meiothermus Strain Isolated in an Icelandic Hot Spring- **Biotechnology Journal, 2020, 15(11), 2000125**, Autori: Ferrandi, E.E., Bassanini, I., Sechi, B., ...Peng, X., Monti, D.*
3. *Osmium complexes in catalysis of olefin hydrogenation and isomerization- **Cuihua Xuebao/Chinese Journal of Catalysis, 2016, 37(11), pp. 1824–1836**. Autori: Chelucci, G., Pinna, G.A., Pinna, G., Solinas, M., Sechi, B.*
4. *Rosmarinus officinalis L.: Chemical Modifications of the Essential oil and Evaluation of Antioxidant and Antimicrobial Activity” **Natural Product Communications 4 (2009) 1685-1690** Autori: Giorgio Pintore, Mauro Marchetti, Mario Chessa, Barbara Sechi, Nadia Scanu, Giuseppe Mangano, Bruno Tirillini*
5. *Enantioselective hydroformylation of vinyl-aromatics using a rhodium complex with the (1 R,2 R,4R)-2-(2-diphenylphosphinyl-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl) pyridine. **Journal of Molecular Catalysis A: Chemical, 1997, 122(2-3), pp. 111–114** Autori: Chelucci, G., Marchetti, M., Sechi, B.*