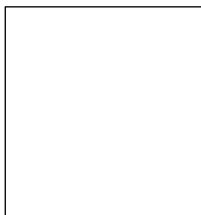


PERSONAL INFORMATION

Amerigo Beneduci



Affiliation
University of Calabria
Department of Chemistry and Chemical Technologies
Address

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input checked="" type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

(26-05-2021 - now)

National scientific habilitation (ASN) to full professor in physical chemistry

(01-2020 - now)

Head of the Laboratory of Environmental Chemistry – HTI SILA

University of Calabria, Italy

- Coordination of the research and development activities, supervisor of undergraduate and Ph.D. students, and Post Doc.

Business or sector **Academic research and development**

(01-2020 - now)

Head of the Laboratory of Physical Chemistry – CF- INABEC

Department of Chemistry and Chemical Technologies, University of Calabria, Italy

- Coordination of the research and development activities, supervisor of undergraduate and Ph.D. students, and Post Doc.

Business or sector **Academic research and development**

(30-11-2019 - now)

Associate Professor

University of Calabria, Italy

- Teaching

Business or sector **Education**

EDUCATION AND TRAINING

(01-10-1999 – 10-01-2002)

Ph.D. in Chemical Sciences

Department of Chemistry, University of Calabria, Italy

- Thesis on the “Study of the effects induced by low power millimetre waves on biological systems”
- Business or sector **Academic research and Education**

(01-10-1992 – 14-07-1998)

Master degree in Chemistry

Department of Chemistry, University of Calabria, Italy

WORK ACTIVITIES

Awards

- IAAM Innovation Award awarded by the International Association for Advanced Materials;
- Pibiri et al. Mesomorphic and electrooptical properties of viologens based on nonsymmetric

alkyl/polyfluoroalkyl functionalization and on an oxadiazolyl-extended bent core" Journal of Materials Chemistry C 2019, 7, 7974, included in the thematic collection "Most popular articles published in Journal of Materials Chemistry C in 2019;

- Invited frontispiece for Advanced Functional Materials. Fluorescent materials (2015);
- Invited back cover for Chemical Communication. Orthogonal electronic coupling in multicenter arylamine mixed-valence based on dibenzofulvene-thiophene conjugated bridge (2017)

Editorial activity

Editorial board member of Applied Sciences – Section Materials
Guest Editor of the Special Issue in *Applied Sciences*: Recent Advances in Optoelectronics: Organic/Hybrid Materials and Devices;
Guest Editor of the Special Issue in *Applied Sciences*: Synthesis, Characterization and Applications of Ionic Liquids and Ionic Liquid Crystals.
Guest Editor of Frontiers in Materials for the special issue "Advanced electrochromic materials and devices"

Invited presentations at international/national workshops and congresses in the last 5 years

1. Beneduci, Mixed valence compounds for near infrared electrochromism and electrofluorochromism. Advanced Materials Lecture Series 2020. 25 November 2020.
2. Beneduci, Ad hoc cellulose surface functionalization for water remediation: efficient adsorption of either hydrophobic organic or heavy metal ion pollutants. 3rd International Caparica Conference on Pollutant Toxic Ions & Molecules 2019, 4th - 7th November 2019 Caparica, Portugal.
3. Beneduci, A. Electrochromic and electrofluorochromic devices based on small organic mixed valence compounds. Energy Materials Nanotechnology Meeting (EMN Meeting), May 13 to 17, 2019 in Rome, Italy.
4. Beneduci, A. Organics mixed valence compounds for electrochromic and electrofluorescence applications. Società Chimica Italiana. Congresso Congiunto delle Sezioni Sicilia e Calabria, Catania 2018 (**Plenary speaker**).
5. Beneduci, A. Fluorescent switchable devices based on thienoviologen liquid crystals. 9th Italian-Japanese Workshop on Liquid Crystals, Pavia (Italy), September 17th to September 20th, 2018.

Grants in the last 5 years

Tech4You- Technologies for climate change adaptation and quality of life improvement", codice identificativo ECS 00000009, CUP H23C22000370006, Piano Nazionale di Ripresa e Resilienza, Missione 4, Componente 2, Investimento 1.5. (Scientific coordinator of the Task 4, PP1, Goal 2.2, Spoke 2.
POR SMAFINEC - Smart Manufacturing per Fibre Naturali ed Ecosostenibili (Scientific coordinator)
POR 3DBIOCOMED – sviluppo in 3D di BIOCOMpositi per l'EDilizia, (Coordinator of the WP3).
PON FORESTCOMP – Nuovi Biocompositi da Risorse Forestali
PON MISE denominato RESIFAC - REalizzazione e Sperimentazione di Impianti pilota per il FAST Composting di rifiuti organici civili e industriali", (Scientific coordinator of the WP5c.6).

Patents

Chidichimo G, Tagliabue E, Beneduci A, De Rosa D, Corrente G A, De Filipo G. Electrochromic Wire Thread and Relative Fabrics WO2021116869 (A1) — 2021-06-17.
Arias F., Beneduci A., Chidichimo F, Straface S, Chidichimo G. Dispositivo depurante di metalli pesanti in acque e terreni inquinati e metodo di fabbricazione. mise.AOO_PIT.REGISTRO UFFICIALE.U.0096866.02-05-2019.
Olivito F, Algieri V, Tursi A, Maiuolo L, Beneduci A, De Nino A, Chidichimo G. Processo per convertire materiali lignino-cellulosici in bio-oil e bio-polimeri, impianto per la realizzazione del processo e prodotti ottenibili. IT201900017339A1 26/03/2021.
A. Beneduci, P. Caruso, Francesco Chidichimo, G. Chidichimo, G. Danieli, P. F. Greco, G. Gullo, G. La Greca, G. Larocca, A. Tursi. Nuovo impianto per il distacco di fibre lunghe da piante macerate e la raccolta automatizzata delle stesse. IT202000004441A1 Italy 2021-09-03.

Technological transfer

Co-founder of the academic SPIN-OFF SIRIA - Servizi Integrati E Ricerca Per L'ambiente
Integrated services for environmental protection and monitoring and for a sustainable development

Scientific coordinator of the chemistry area of the Spin-off

International/national cooperations

CNR NANOTEC – Lecce
Institute of Chemical Research of Catalonia (ICIQ) - Spain

ADDITIONAL INFORMATION

Publications total number of publications in peer-review journals: 77 (ISI Web of Knowledge)
total number of citations: 1903 (Scholar); 1508 (Scopus); 1410 (ISI Web of Knowledge)
H index: 26 (Google Scholar); 22 (Scopus); 22 (ISI Web of Knowledge)

Selected relevant publications in the last 10 years

1. Corrente, G.A., González, D.A., Aktas, E., Capodilupo, A.L., Mazzone, G., Ruighi, F., Accorsi, G., Imbardelli, D., Rodriguez-Seco, C., Martinez-Ferrero, E., Palomares, E., **Beneduci, A***. Vis–NIR Electrochromism and NIR–Green Electroluminochromism in Dual Functional Benzothiadiazole-Arylamine Mixed-Valence Compounds (2023) **Advanced Optical Materials**, 11 (1), art. no. 2201506.
2. Corrente, G.A., Di Maio, G., La Deda, M., Ruiz de Ballesteros, O., Gabriele, B., Veltri, L., Auriemma, F., **Beneduci, A***. The Rainbow Arching over the Fluorescent Thienoviologen Mesophases (2022) **Nanomaterials**, 12 (23), art. no. 4284.
3. Sánchez, J.G., Aktas, E., Martínez-Ferrero, E., Capodilupo, A.L., Corrente, G.A., Beneduci, A., Palomares, E. Increasing the stability of perovskite solar cells with dibenzofulvene-based hole transporting materials (2022) **Electrochimica Acta**, 432, art. no. 141190.
4. Tursi, A., Gallizzi, V., Olivito, F., Algieri, V., De Nino, A., Maiuolo, L., **Beneduci, A***. Selective and efficient mercury(II) removal from water by adsorption with a cellulose citrate biopolymer (2022) **Journal of Hazardous Materials Letters**, 3, art. no. 100060.
5. Corrente, G.A., Scarpelli, F., Caputo, P., Rossi, C.O., Crispini, A., Chidichimo, G., **Beneduci, A***. Chemical–physical and dynamical–mechanical characterization on *Spartium junceum* L. cellulosic fiber treated with softener agents: a preliminary investigation (2021) **Scientific Reports**, 11 (1), art. no. 35.
6. Corrente, G.A., **Beneduci, A***. Overview on the Recent Progress on Electrofluorochromic Materials and Devices: A Critical Synopsis. (2020) **Advanced Optical Materials**, 8 (20), art. no. 2000887.
7. Paone, E., Beneduci, A., Corrente, G.A., Malara, A., Mauriello, F. Hydrogenolysis of aromatic ethers under lignin-first conditions (2020) **Molecular Catalysis**, 497, art. no. 111228.
8. Veltri, F., Alessandro, F., Scarcello, A., Beneduci, A., Polanco, M.A., Perez, D.C., Gomez, C.V., Tavolaro, A., Giordano, G., Caputi, L.S. Porous carbon materials obtained by the hydrothermal carbonization of orange juice (2020) **Nanomaterials**, 10 (4), art. no. 655.
9. Pibiri, I., **Beneduci, A***, Carraro, M., Causin, V., Casella, G., Corrente, G.A., Chidichimo, G., Pace, A., Riccobono, A., Saielli, G. Mesomorphic and electrooptical properties of viologens based on non-symmetric alkyl/polyfluoroalkyl functionalization and on an oxadiazolyl-extended bent core (2019) **Journal of Materials Chemistry C**, 7 (26), pp. 7974-7983.
10. Corrente, G.A., Fabiano, E., La Deda, M., Manni, F., Gigli, G., Chidichimo, G., Capodilupo, A.-L., **Beneduci, A***. High-Performance Electrofluorochromic Switching Devices Using a Novel Arylamine-Fluorene Redox-Active Fluorophore (2019) **ACS Applied Materials and Interfaces**, 11 (13), pp. 12202-12208.
11. Tursi, A., De Vietro, N., Beneduci, A., Milella, A., Chidichimo, F., Fracassi, F., Chidichimo, G. Low pressure plasma functionalized cellulose fiber for the remediation of petroleum hydrocarbons polluted water. (2019) **Journal of Hazardous Materials**, 373, pp. 773-782.

12. Tursi, A., **Beneduci, A.***, Chidichimo, F., De Vietro, N., Chidichimo, G. Remediation of hydrocarbons polluted water by hydrophobic functionalized cellulose (2018) **Chemosphere**, 201, pp. 530-539.
13. Corrente, G.A., Fabiano, E., Manni, F., Chidichimo, G., Gigli, G., **Beneduci, A.***, Capodilupo, A.-L. Colorless to All-Black Full-NIR High-Contrast Switching in Solid Electrochromic Films Prepared with Organic Mixed Valence Systems Based on Dibenzofulvene Derivatives (2018) **Chemistry of Materials**, 30 (16), pp. 5610-5620.
14. **Beneduci, A.***, Corrente, Giuseppina Anna, Fabiano, E., Maltese, V., Cospito, S., Ciccarella, G., Chidichimo, G., Gigli, G., Capodilupo, A. -L. (2017). Orthogonal electronic coupling in multicentre arylamine mixed-valence compounds based on a dibenzofulvene-thiophene conjugated bridge. **Chemical Communications**, vol. 53, p. 8960-8963.
15. Maltese, Vito, Cospito, S, **Beneduci, A.***, De Simone, Bruna Clara, Russo, Nino, Chidichimo, Giuseppe, Janssen, Raj (2016). Electro-optical Properties of Neutral and Radical Ion Thienosquaraines. **Chemistry-A European Journal**, vol. 22, p. 10179-10186.
16. **Beneduci A***, Cospito S, La Deda, Massimo, Chidichimo, Giuseppe (2015). Highly Fluorescent Thienoviologen-Based Polymer Gels for Single Layer Electrofluorochromic Devices. **Advanced Functional Materials**, vol. 25, p. 1240-1247.
17. **Beneduci A.***, Cospito S, La Deda M, Veltri L, Chidichimo G (2014). Electrofluorochromism in π -conjugated ionic liquid crystals. **Nature Communications**, vol. 5, 3105, ISSN: 2041-1723.
18. **Beneduci A***, Cospito S, Crispini, Alessandra, Gabriele, Bartolo, Nicoletta, Fiore Pasquale, Veltri, Lucia, Chidichimo, Giuseppe (2013). Switching from columnar to calamitic mesophases in a new class of rod-like thienoviologens. **Journal of Materials Chemistry C**, vol. 1, p. 2233-2240.

*Corresponding author

Data
09-07-2023