



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Ilaria Capasso**

Address(es) 136, Via Giacomo Leopardi, 80125, Naples, Italy

Telephone(s) +390815939335

Mobile: +393386622482

E-mail [ilaria.capasso@unich.it](mailto:ilaria.capasso@unich.it)  
[ilarialias@gmail.com](mailto:ilarialias@gmail.com)

Nationality Italian

Date of birth 22<sup>nd</sup> September 1986

Gender Female



### Work experience

Dates 08/2019-now

Occupation or position held Fixed Term Assistant Professor

Main activities and responsibilities Development of scientific research projects on the building and masonry materials behaviour on different scales ( micro, meso and macro scale). Analysis and characterization of materials from chemical-physical, morphological and mechanical-point of view, with particular interest to the properties which highly affect the seismic behaviour of the Cultural Heritage.  
Lecturer of "Materials Science"

Name and address of employer Department of Engineering and Geology, University of Chieti-Pescara "G. d'Annunzio", Viale Pindaro 42, 65127,Pescara, Italy

Type of business or sector Scientific Research

Dates 01/2018 – 01/2019

Occupation or position held Postdoctoral Researcher

Main activities and responsibilities Theoretical studies and development of experimental activities on building products and systems, included construction binders and their fire behaviour. Elaboration of new verification methods to support the development of construction technologies, sustainable building, performance assessment and evaluation of the quality of products, components and construction systems (CE marking and voluntary product certification).

Name and address of employer Institute for Construction Technologies (ITC), National Research Council CNR, Viale Lombardia 49, 20098 San Giuliano Milanese (Milan), Italy

Type of business or sector Scientific Research

Dates 06/2017 – 11/2017

Occupation or position held Scholarship fellow

Main activities and responsibilities Activities of internationalization and business matching of innovative Italian research-enterprise systems with other countries. Promotion of international cooperation between Italy and foreign countries on innovation, scientific research and technology.

Name and address of employer Fondazione Idis-Città della Scienza, via Coroglio 104, 80124, Naples, Italy

Type of business or sector Internationalization and business matching

Dates 04/2014 – 05/2017

Occupation or position held	Phd student in Industrial Product and Process Engineering. (European PhD label)
Main activities and responsibilities	Design, development and characterization of hybrid ceramic foams with tailored porosity for thermal and acoustic insulation
Name and address of employer	Department of Chemical, Materials and Industrial Engineering University of Naples "Federico II", Piazzale Tecchio 80, 80125, Naples, Italy
Type of business or sector	Scientific Research
Dates	10/2016 -01/2017
Occupation or position held	Visiting Phd student in Complex Materials Group
Main activities and responsibilities	Use of the 3D printing technology for design and production of hybrid ceramic foams with hierarchical porosity
Name and address of employer	ETH Zurich, Department of Materials, HCI G, Vladimir-Prelog-Weg 1-5/10 8093, Zürich, Switzerland
Type of business or sector	Scientific Research
Dates	11/2013 – 04/2014
Occupation or position held	Research fellow for research project "COCET- Comportamento di materiali compositi in condizioni estreme: alta temperatura (Behaviour of composite materials in extreme conditions: high temperatures)"
Main activities and responsibilities	Preparation and characterization of composite systems with hybrid and / or inorganic matrix with properties of incombustibility. Study and determination of the fire, thermal, mechanical, chemical and physical properties.
Name and address of employer	Institute for Polymers, Composites and Biomaterials (IPCB), National Research Council CNR , P.le Enrico Fermi 1, 80055, Portici, Italy
Type of business or sector	Scientific Research
Dates	09/2012 – 09/2013
Occupation or position held	Research fellow for research project "MASTRI – Materiali e strutture intelligenti (Smart Materials and structures)"
Main activities and responsibilities	Development of processes of synthesis, characterization and production of materials alkali-activated to improve the environmental sustainability of the regional and national building sector.
Name and address of employer	University of Naples "Parthenope", via Ammiraglio Francesco Acton 38, 80133, Naples, Italy
Type of business or sector	Scientific Research

## Education and training

Dates	09/2009 - 03/2012
Title of qualification awarded	Degree in Materials Engineering, full marks with honors.
Principal subjects/occupational skills covered	Acquisition of skills in the context of structural and functional properties of the materials, the processes of transformation and experimental methods for measuring the properties. Ability to develop and implement an industrial production of items made with various types of materials, to optimize the use of specific materials in structural and technological applications, to develop the functional and structural properties of materials and managing applied research and related design artifacts with specific properties. Subject of thesis: Physical, chemical and mechanic characterization of mortars filled with different percentages of recycled plastic aggregate (synthetic sand). On the mortars were carried out physical, mechanical and thermal conductivity tests to characterize the porosity (water and mercury porosimetry), evidence of permeability to water and fire behavior and thermal and chemical characterization tests (DSC, FTIR).
Name and type of organisation providing education and training	University of Naples "Federico II", Faculty of Engineering, Piazzale Tecchio 80, 80125, Naples, Italy
Level in national or international classification	Master degree
Dates	10/2005 – 05/2009

Title of qualification awarded Degree in Materials Engineering, final mark: 107/110

Principal subjects/occupational skills covered Study of relations between structural and functional properties of materials. Analysis of material morphology and chemical composition; study of material transformation processes and principal processing technologies.  
Subject of thesis: increasing of the removal, by adsorption, of carbon dioxide from gaseous effluents, particularly in mixtures with hydrogen or nitrogen, through the comparison of the performance of the zeolite 13X and a metal-organic material (Cu-BTC),

Name and type of organisation providing education and training University of Naples "Federico II", Faculty of Engineering, Piazzale Tecchio 80, 80125, Naples, Italy

Level in national or international classification Bachelor degree

Dates 09/2000– 07/2005

Title of qualification awarded Scientific high school diploma, final mark: 100/100

Name and type of organisation providing education and training Public scientific high school "Arturo Labriola", Via Cerbone 11, 80126, Naples, Italy

Level in national or international classification High school diploma

### Personal skills and competences

Mother tongue(s) **Italian**

Other language(s) **English**

Self-assessment

European level (\*)

**Language**

**Language**

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
B2	B2	B2	B2	B2	

(\*) Common European Framework of Reference for Languages

Social skills and competences Ability to work in a team matured in many contexts, in which it was necessary collaboration and ability to relate to other people, establishing good relationships of trust and respect.

Organisational skills and competences Ability to work under stress related to stringent deadlines. Very good organizational skills working in group.

Technical skills and competences Use of equipment for thermal analysis (TGA, DSC) and infrared spectroscopy acquired during the internship curriculum takes place at the IMCB-CNR in Naples

Computer skills and competences Office: Word, Excel, Power Point, Outlook Express, Internet Explorer.  
Programming languages C + +, Matlab.  
Software for data analysis and graphics: OriginLab, Kaleidagraph.

Artistic skills and competences Great ability to process complex scripts, with skill of synthesis.

Driving licence B

Additional information Enrolled in the Naples Professional Association of Engineers since November 2012, section A, number 20084, sector b (Industrial Engineering).

- (B. Liguori, F. Iucolano, **I. Capasso**, M. Lavorgna, L. Verdolotti), The effect of recycled plastic aggregate on chemo-physical and functional properties of composite mortars. *Materials and Design*, 57(2014) 578-584.
- (L. Verdolotti, F. Iucolano, **I. Capasso**, M. Lavorgna, S. Iannace, B. Liguori), Recycling and recovery of fiber polymeric wastes PE-PP-PET based as aggregate replacement in lightweight mortar: evaluation as environmental friendly application. *Environmental Progress & Sustainable Energy* 33(4) (2014) 1445-1451.
- (C. Ferone, B. Liguori, **I. Capasso**, F. Colangelo, R. Cioffi, E. Cappelletto, R. Di Maggio), Thermally treated clay sediments as geopolymer source material. *Applied Clay Science*, 107 (2015) 195–204.
- (L. Verdolotti, B. Liguori, **I. Capasso**, A. Errico, D. Caputo, M. Lavorgna, S. Iannace), Synergistic effect of vegetable protein and silicon addition on geopolymeric foams properties. *Journal of Material Science*, 50 (2015) 2459–2466.
- (L. Verdolotti, B. Liguori, **I. Capasso**, D. Caputo, M. Lavorgna, and S. Iannace), Cellular morphology of organic-inorganic hybrid foams based on alkali alumino-silicate matrix. *AIP Conference Proceedings* 1599, 226 (2014); doi: 10.1063/1.4876819.
- (D. Asprone, E. Bilotta, **I. Capasso**, D. Caputo, A. Flora, B. Liguori, S. Lirer), Re-use of construction and demolition waste for geotechnical applications. *Geotechnical Engineering for Infrastructure and Development - Proceedings of the XVI European Conference on Soil Mechanics and Geotechnical Engineering, ECSMGE 2015*, 5(2015), 2589-2594.
- (L. Verdolotti, M. D'Auria, M. Lavorgna, P. Vollaro, S. Iannace, **I. Capasso**, B. Galzerano, D. Caputo, and B. Liguori), Organic-inorganic hybrid foams with diatomite addition: Effect on functional properties. *AIP Conference Proceedings* 1736, 020127 (2016); doi: 10.1063/1.4949702.
- (S. Lirer, B. Liguori, **I. Capasso**, A. Flora, D. Caputo), Mechanical and chemical properties of composite materials made of dredged sediments in a flyash based geopolymer. *Journal of Environmental Management*, 191 (2017) 1-7. doi: 10.1016/j.jenvman.2017.01.001.
- (B. Liguori, **I. Capasso**, V. Romeo, M. D'Auria, M. Lavorgna, D. Caputo, S. Iannace, L. Verdolotti), Hybrid geopolymeric foams with Diatomite addition: Effect on chemo-physical properties, *Journal of cellular plastics* (2017): 0021955X17695092.
- (B. Liguori, **I. Capasso**, M. De Pertis, C. Ferone, R. Cioffi) Geopolymerization Ability of Natural and Secondary Raw Materials by Solubility Test in Alkaline Media. *Environments*, 4.3 (2017) 56.
- (V. Marzocchi, **I. Capasso**, F. Scherillo, A. Squillace, D. Caputo, B. Liguori) Dielectric Properties of Monoclinic (Ba, Sr)-Celsian Obtained by Thermal Treatment of (Ba, Sr)-Exchanged Zeolite A. *Advanced Science Letters*, Volume 23 (6) (2017) 5991-5994(4).
- (F. Colangelo, R. Cioffi, G. Roviello, **I. Capasso**, D. Caputo, P. Aprea, B. Liguori, C. Ferone), Thermal cycling stability of fly ash based geopolymer mortars. *Composites Part B: Engineering*, 129, 11-17, (2017).
- (B. Galzerano, L. Verdolotti, **I. Capasso**, B. Liguori), Setting up the production process of diatomite based ceramic foams. *Materials and Manufacturing Processes*, 1-6 (2017).
- (B. Galzerano, **I. Capasso**, L. Verdolotti, M. Lavorgna, P. Vollaro, D. Caputo, B. Liguori), Design of sustainable porous materials based on 3D-structured silica exoskeletons, Diatomite: Chemo-physical and functional properties. *Materials & Design*, 145, 196-204 (2018).
- (**I. Capasso**, S. Lirer, A. Flora, C. Ferone, R. Cioffi, D. Caputo, B. Liguori), Reuse of mining waste as aggregates in fly ash-based geopolymers. *Journal of Cleaner Production*, 220 (2019) 65-73.
- (C. Ferone, **I. Capasso**, A. Bonati, G. Roviello, F. Montagnaro, L. Santoro, R. Turco, R. Cioffi), Sustainable management of water potabilization sludge by means of geopolymers production. *Journal of Cleaner Production*, 229, (2019) 1-9. <https://doi.org/10.1016/j.jclepro.2019.04.299>.
- (**I. Capasso**, B. Liguori, L. Verdolotti, D. Caputo, M. Lavorgna, E. Tervoort). Process strategy to fabricate a hierarchical porosity gradient in diatomite-based foams by 3D printing. *Scientific Reports*, 10(1), (2020) 1-9.
- (**I. Capasso**, F. Iucolano). Production of lightweight gypsum using a vegetal protein as foaming agent. *Materials and Structures* 53.2 (2020) 1-13.

Contributions submitted to conferences:

- (F. Iucolano, B. Liguori, **I. Capasso**, L. Verdolotti), Impiego di rifiuti plastici in malte di calce a bassa conducibilità termica, XI Convegno Nazionale AIMAT, Gaeta(LT) 16-19 Settembre 2012.
- (B. Liguori, C. Ferone, **I. Capasso**, R. Cioffi and C. Colella), Zeolited tuff as raw material for alkali activated binders, 17th IZC Mosca Luglio 7-12, 2013.
- (**I. Capasso**, C. Ferone, B. Liguori), Zeolited tuff as raw material for alkali activated binders, XVII Congresso Nazionale di Catalisi GIC 2013 e XI Congresso Nazionale di Scienza e Tecnologia delle zeoliti. 15 - 18 Settembre 2013, Riccione.
- (L. Verdolotti, B. Liguori, **I. Capasso**, D. Caputo, M. Lavorgna and S. Iannace), Cellular morphology of organic-inorganic hybrid foams based on alkali alumino-silicate matrix, Ischia (NA), 22–26 June 2014.
- (B. Liguori, **I. Capasso**, V. Romeo, M. D'Auria, M. Lavorgna, D. Caputo, S. Iannace and L. Verdolotti), Hybrid Geopolymeric foams with Diatomite addition: Effect on chemo-physical properties, 5th International Conference on Biofoams · Sorrento, Italy, 13-16 October 2015.

(I. Capasso, B. Liguori, F. Iucolano). Plastic waste aggregates in manufacturing of insulating mortars, Poster inviato a: Advanced training course on emerging biotechnologies for sustainable waste management and biorefinery development, Napoli 4-5 April 2016.

(I. Capasso, B. Liguori, F. Iucolano). The effect of plastic waste aggregates on chemico-physical and insulation properties of hydraulic mortars. An eco-friendly application of recycled plastic waste. Book of abstracts XXI IUPAC CHEMRAWN Conference Solid Urban Waste Management - Roma, 6-8 Aprile 2016.

(L. Verdolotti, M. D'Auria, M. Lavorgna, P. Vollaro, S. Iannace, I. Capasso, B. Galzerano, D. Caputo, B. Liguori). Organic-Inorganic Hybrid Foams with Diatomite addition: Effect on functional properties, abstract inviato alla TOP (Times of Polymers and Composites) Conference 2016. Ischia (NA), 19-24 Giugno 2016.

(V. Marzocchi, I. Capasso, F. Scherillo, A. Squillace, D. Caputo, B. Liguori). Dielectric Properties of Monoclinic (Ba, Sr)-Celsian obtained by thermal treatment of (Ba, Sr)-Exchanged Zeolite A, abstract inviato a VI International Workshop on Oxide-based Materials, Perspectives in Material Science and Technological Applications Joined with AIZ DAY 2016, Naples 21-24th September 2016.

(A. Flora, S. Lirer, I. Capasso, D. Caputo, B. Liguori). Reuse of dredged soils in geo-polymer based materials, CNRIG 2016, Bologna, 22-23rd September 2016.

(I. Capasso, B. Liguori, C. Ferone, R. Cioffi, S. Lirer, A. Flora, D. Caputo) Gestione sostenibile e valorizzazione di scarti di miniera attraverso processo di geopolimerizzazione". Poster presso IX edizione Giornate di studio sui geopolimeri, Geopolimeri e compositi, Napoli 26-27 Gennaio 2017.

(B. Liguori, I. Capasso, D. Caputo, M. Lavorgna, L. Verdolotti) Sistemi ibridi espansi a matrice geopolimerica". Contributo orale presso IX edizione Giornate di studio sui geopolimeri, Geopolimeri e compositi, Napoli 26-27 Gennaio 2017.

(A. Bonati, I. Capasso, O. Coppola, E. Grasso, L. Schiavi) The bond strength of repairing systems applied to concrete elements: analysis of historical data, DSCS 2018 2nd International Workshop on Durability and Sustainability of Concrete Structures, Mosca 6-7 Giugno 2018.

(C. Ferone, I. Capasso, A. Bonati, G. Roviello, R. Cioffi) Management and valorization of water potabilization sludge through use in producing geopolymer materials. Contributo orale presso III European Geopolymer Network, Faenza 30 Novembre 2018.

(I. Farina, I. Capasso, F. Fraternali) Geopolymer-based products using coal fly ash. Poster accettato presso NINE2019, 3rd International Conference on nanotechnology based innovative applications for the environment Napoli, 14-17 Aprile 2019.

(I. Farina, I. Capasso, F. Fraternali) Recycling of asbestos-cement wastes as building materials. Poster accettato presso NINE2019, 3rd International Conference on nanotechnology based innovative applications for the environment Napoli, 14-17 Aprile 2019.

Oral presentations at conferences:

(I. Capasso, B. Liguori, C. Ferone, R. Cioffi, S. Lirer, A. Flora, D. Caputo)

Sustainable Management And Valorization Of Mining Waste Rocks, XIII Aimat National Conference, Ischia Porto 13-15 July 2016.

(I. Capasso, A. Bonati, C. Ferone, G. Roviello, L. Ricciotti, R. Cioffi) Geopolymerization of potabilization sludge from artificial water reservoirs, CIEC16, 16th European Inter-Regional Conference on Ceramics, Turin 9-11<sup>th</sup> September 2018.

(I. Capasso) Qualification of concrete made with recycled materials. Workshop "Method for the stabilization of slag deriving from steel production processes in steelworks and blast furnaces and possible application", Rome 12<sup>th</sup> November 2018.

Other publications:

I. Capasso, (2017). Design and Synthesis of Hybrid Ceramic Foams with Tailored Porosity. Tesi di dottorato. DOI 10.6093/UNINA/FEDOA/11779

In compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document

Dr. Ilaria Capasso