

PERSONAL INFORMATION **Carlo Barbante**



Università Ca' Foscari Venezia – Dipartimento di Scienze Ambientali, Informatica e Statistica
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Sex M | Date of birth 03/04/1963 | Nationality Italian

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Research Areas	Long-term paleoclimate and atmospheric chemistry from ice cores (polar and non polar); Quaternary climate; development of mass spectrometry-based advanced analytical methodology for trace and ultra-trace determinations in environmental and biological matrices; chemical imaging analysis; heavy metals and organic pollutants in polar and temperate ice and snow; paleofire reconstruction through ice and lake sediment record.
Work experience	
Dates	2019 - present
Occupation or position held	Coordinator of the PhD Program on Polar Sciences
Name and address of employer	Ca' Foscari University of Venice
Dates	2017-2018
Occupation or position held	President
Name and address of employer	Italian Society for Climate Sciences (SISC http://www.sisclima.it)
Dates	2012-2018
Occupation or position held	Director of the Institute for the Dynamics of Environmental Processes
Name and address of employer	Consiglio Nazionale delle Ricerche – National Research Council
Dates	2014 - present
Occupation or position held	Member of the Board of Governors (Consiglio di Amministrazione)
Name and address of employer	Ca' Foscari University of Venice
Dates	Since 2013
Occupation or position held	National Representative at the Programme Committee for the implementation of H2020 Societal Challenge 5 “Climate action, environment, resource efficiency and raw materials
Name and address of employer	European Commission
Dates	2012-2014
Occupation or position held	Distacco Linceo
Name and address of employer	Accademia Nazionale dei Lincei
Dates	2012

Occupation or position held	Editor of Atmospheric Chemistry and Physics
Dates	2011 - 2017
Occupation or position held	Coordinator of the PhD Program on Science and Management of Climate Change
Name and address of employer	Ca' Foscari University of Venice – Department of Economics
Dates	2011
Occupation or position held	Deputy Director of the Department of Environmental Sciences, Informatics and Statistics
Name and address of employer	Ca' Foscari University of Venice
Dates	2008 - present
Occupation or position held	Professor at Harvard Summer School ENVR S-133 Earth's Climate, Past, Present and Future
Name and address of employer	Harvard University
Dates	2007-2014
Occupation or position held	Vice president of Collegio Didattico of the B. Sc. Course on Chemistry
Name and address of employer	Ca' Foscari University of Venice
Dates	November 2006
Occupation or position held	Full professor of Analytical Chemistry
Name and address of employer	Ca' Foscari University of Venice – Department of Environmental Sciences, Informatics and Statistics
Dates	2006- present
Occupation or position held	Member of the of the Steering Committee of the Subglacial Antarctic Lake Environments of the Scientific Committee on Antarctic Research- SCAR
Dates	2005
Occupation or position held	Visiting Professor
Name and address of employer	Université Joseph Fourier, Grenoble FR (1 month); Curtin University of Technology, Perth, Australia (4 months)
Dates	2004- present
Occupation or position held	National delegate to the Scientific Standing Group, Physical Science of the Scientific Committee on Antarctic Research- SCAR
Dates	2002 - 2006
Occupation or position held	Associate Professor of Analytical Chemistry
Name and address of employer	Ca' Foscari University of Venice – Department of Environmental Sciences
Dates	2001 - 2011
Occupation or position held	Associated Researcher to the Institute for the Dynamics of Environmental Processes
Name and address of employer	Consiglio Nazionale delle Ricerche – National Research Council
Dates	1995-2002
Occupation or position held	Assistant Professor
Name and address of employer	Ca' Foscari University of Venice – Department of Environmental Sciences
Dates	1998- present
Occupation or position held	Lecturer

Name and address of employer	European Research Course on Atmospheres (ERCA, Grenoble, France)										
Dates	1992-2002										
Occupation or position held	Researcher of Analytical Chemistry										
Name and address of employer	Ca' Foscari University of Venice – Department of Environmental Sciences										
Dates	1991-1992										
Occupation or position held	Technical Assistant										
Name and address of employer	Ca' Foscari University of Venice – Department of Environmental Sciences										
Dates	1990 - 1991										
Occupation or position held	Application Chemist										
Name and address of employer	Himont spa										
Education and training											
Dates	1998										
Title awarded	Degree (BS+MS) in Industrial Chemistry (110/110, Summa cum Laude)										
Name and type of organisation	University of Padova (IT)										
Teaching Experience											
<p>Since 1992. Various courses in the field of Instrumental Analytical Chemistry and Environmental and Climate Sciences at the University of Venice. Regularly teaching at the European Research Course on Atmospheres (ERCA), Grenoble, since 1998. Supervisor of about 40 Master and 25 PhD theses of students of various backgrounds (Chemistry, Polar sciences, Environmental, Climate and Polar Sciences) and member of 7 external PhD panels (2 in Belgium, 2 in France, 1 in UK, 2 in Switzerland, 1 in Sweden). Supervisor of 5 PhD students in co-tutelle with the University Joseph Fourier of Grenoble.</p>											
Research Expeditions											
<p>Oct 1993–Feb 1994. Field season to Antarctica. Chief Scientist Jun 1995 Drilling campaign at Monte Rosa, 4450 m, Scientist Oct 1995–Dec 1995. Field season to Antarctica. Chief Scientist Various sampling campaign in the European Alps (1995-) 2010 Field campaign at Svalbard Island 2012-2013 Field Campaign in Antarctica. Jun 2017 Field trip to EastGRIP - Greenland</p>											
Languages											
Mother tongue(s)	Italian										
Other language(s)											
	Understanding				Speaking				Writing		
	Listening		Reading		Spoken interaction		Spoken production				
English	C2	Excellent knowledge	C2	Excellent knowledge	C2	Excellent knowledge	C2	Excellent knowledge	C2	Excellent knowledge	
French	B2	Very good knowledge	B2	Very good knowledge	B2	Very good	B2	Very good	B2	Very good knowledge	
ADDITIONAL INFORMATION											
Projects	FP7 ERC Advanced Research Grant – Early Human Impact FP7 Collaborative project - G MOS Global Mercury Observation System FP7 Collaborative project - Past for Future										

	<p>H2020 Collaborative project - EU-PolarNet (WP leader) H2020 Collaborative project - Beyond EPICA (Project Coordinator) H2020 Collaborative project - iCUPE (WP leader) H2020 Collaborative project - Nunataryuk (participant) Ice Memory Project – (Project Coordinator) Other various national grants including Italian National Antarctic projects PNRA; MISE Industria 2015</p>
Memberships	<p>Member of the International Advisory Board of Analytical and Bioanalytical Chemistry (since 2017); Member of the EuroPICS – International Partnership for Ice Coring Science (since 2015); Member of the Editorial Board of Climate of the Past (since 2011 Chief Editor for 2yr); Member of the Steering Committee of the Subglacial Antarctic Lake Environments of the SCAR (since 2006); Italian Chemical Society, Royal Society of Chemistry; American Geophysical Union; European Geosciences Union, Italian National Glaciological Society, Italian Society for the Climate Sciences</p>
Awards	<ul style="list-style-type: none"> • 2014 Member Elected at the Accademia Nazionale delle Scienze detta dei XL • « La Belgica » Prize 2009-2013 of the Belgian Royal Academy of Sciences. For the outstanding contribution in the understanding trace biogeochemistry in Antarctica. • 2013 Member Elected of the Istituto Veneto di Scienze Lettere ed Arti • 2012-2014 Distacco Linceo at Centro Linceo B. Segre, Accademia Nazionale dei Lincei • Award Ca'Foscari University for Research, 2010 • Award “Ambassador for the Biodiversity, Italy 2010 • Awarded the StartCup Veneto 2009, as one of the best 10 spin-off ideas combining university research, public interest groups, and private companies • Descartes Award for the Excellence in Research (jointly with the European Project for Ice Coring in Antarctica) as best European research project (2007).
Publications	<p>More than 250 peer reviewed papers (Jul 2019), listed in full publications list of which 243 appear in Web of Science (WoS) search (using distinct author set facility), cited more than 8,400 times (WoS). I published 15 edited book chapters. I've published a book: Adams F., Barbante C. “Chemical Imaging Analysis”, Elsevier 2015 pp 480. I have an h-index of 44 (WoS). The publications straddle topics including: polar climate, analytical chemistry, trace element and organic geochemistry, heavy metals and organic compound contamination, glaciology, ice chemistry, Quaternary paleoclimate, Polar and alpine regions</p> <p>Full list of publications: https://scholar.google.it/citations?user=b6xl5_sAAAAJ&hl=it&oi=ao</p> <p>A list of the top 10 publications, as senior author:</p> <ol style="list-style-type: none"> 1. Barbante C., Schwikowski, M., Döring T., Gäggeler H. W., C., Schotterer U., Tobler L., Van de Velde K., Ferrari C., Cozzi G., Turetta A., Rosman K., Bolshov, M., Capodaglio G., Boutron, C., Cescon P. Historical Record of European Emissions of Heavy Metals to the Atmosphere Since the 1650s From Alpine Snow/Ice Cores drilled near Monte Rosa. Environ. Sci. Tech., 38 (2004) 4085 – 4090. 2. EPICA community members Eight glacial cycles from an Antarctic ice core Nature. 429 (2004) 623 – 628. 3. Gabrielli P., Barbante C., Plane J.M.C., Varga A., Hong S., Cozzi G., Gaspari V., Planchon F., Cairns W., Ferrari C., Crutzen P., Cescon P., Botron C.. Meteoric smoke fallout over the Holocene revealed by iridium and platinum in Greenland ice. Nature, 432 (2004) 1011–1014. 4. Wolff, E. W., Fischer, H., Fundel, F., Ruth, U., Twarloh, B., Littot, G. C., Mulvaney, R., Rothlisberger, R., de Angelis, M., Boutron, C. F., Hansson, M., Jonsell, U., Hutterli, M. A., Bigler, M., Lambert, F., Kaufmann, P., Stauffer, B., Stocker, T. F., Steffensen, J. P., Siggaard-Andersen, M. L., Udisti, R., Becagli, S., Castellano, E., Severi, M., Wagenbach, D., Barbante C., Gabrielli, P. and Gaspari, V.: Southern Ocean sea-ice extent, productivity and iron flux over the past eight glacial cycles, Nature, 440 (2006) 491-496. 5. Barbante C., Barnola J.-M., Becagli S., Beer J., Bigler M., et al. (EPICA Comm. Members). One-to- one coupling of glacial climate variability in Greenland and Antarctica. Nature, 444 (2006) 195- 197.

	<p>6. Jitaru P., Gabrielli P., Marteel A., Plane J.M.C., Planchon F., Gauchard P.-A., Ferrari C., Boutron C., Adams F., Hong S., Cescon P., Barbante C. Atmospheric depletion of mercury over Antarctica during glacial periods. <i>Nature Geoscience</i>, 3 (2009) 505-508.</p> <p>7. Parrenin F., Masson Delmotte V., Koeler P., Raynaud D., Paillard D., Schwander J., Barbante C., Landais A., Wegner A. and Jouzel J. Synchronous change of atmospheric CO₂ and Antarctic temperature during the last deglacial warming. <i>Science</i> 339 (2013) 1060-1063.</p> <p>8. Christner, B.C., Prisco J.C., Achberger A.M., Barbante C., Carter S.P., ... A microbial ecosystem beneath the West Antarctic ice sheet. <i>Nature</i> 512 (2014), 310-313.</p> <p>9. Spolaor A., Vallelonga P., Turetta, C, Mafezzoli, N., Cozzi G., Gabrieli, J., Barbante C., Goto-Azuma K., Saiz-Lopez A., Cuevas C. A., Dahl-Jensen D., Canadian Arctic sea ice reconstructed from bromine in the Greenland NEEM ice core. <i>Nature Scientific Reports</i>, DOI: 10.1038/srep33925 (2016).</p> <p>10. Barbante, C., Spolaor, A., Cairns, W. R. L., & Boutron, C. (2017). Man's footprint on the Arctic environment as revealed by analysis of ice and snow. <i>Earth-Science Reviews</i>, 168, 218–231. https://doi.org/10.1016/j.earscirev.2017.02.010</p> <p>Books Adams F., Barbante C. "Chemical Imaging Analysis", Elsevier, 2015 pp 480, ISBN9780444634399.</p>
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