

LIST OF PUBLICATIONS OF PROFESSOR CLAUDE BOUTRON**1. Books**

- (1) Boutron, C.F. (Editor) (1994) **Topics in atmospheric and interstellar physics and chemistry**, ERCA volume 1, Les Editions de Physique, Les Ulis/Paris, France, 494 pp.
- (2) Boutron, C.F. (Editor) (1996) **Physics and chemistry of the atmospheres of the Earth and other objects of the solar system**, ERCA volume 2, Les Editions de Physique, Les Ulis/Paris, France, 492 pp.
- (3) Boutron C.F. (Editor) (1998) **From urban air pollution to extra solar planets**, ERCA volume 3, EDP Sciences, Les Ulis/Paris, France, 430 pp.
- (4) Boutron, C.F. (Editor) (2000). **From weather forecasting to exploring the Solar system**, ERCA volume 4, EDP Sciences, Les Ulis/Paris, France, 416 pp.
- (5) Boutron, C.F. (Editor) (2002). **From the impacts of human activities on our climate and environment to the mysteries of Titan**, ERCA volume 5, EDP Sciences, Les Ulis/Paris, France, 400 pp.
- (6) Boutron, C.F. and Ferrari, C. (Editors) (2003). **Proceedings of the XIIth International Conference on Heavy Metals in the Environment**, Volume 1, Journal de Physique IV, 107, EDP Sciences, Les Ulis/Paris, France, 725 pp.
- (7) Boutron, C.F. and Ferrari, C. (Editors) (2003). **Proceedings of the XIIth International Conference on Heavy Metals in the Environment**, Volume 2, Journal de Physique IV, 107, EDP Sciences, Les Ulis/Paris, France, 741 pp.
- (8) Boutron, C.F.(Editor) (2004). **From indoor air pollution to the search for Earth-like planets in the Cosmos**, ERCA volume 6, EDP Sciences, Les Ulis/Paris, France, 306 pp.
- (9) Boutron, C.F. (Editor) (2006). **From regional climate modelling to the exploration of Venus**, ERCA volume 7, The European Physical Journal, EDP Sciences, Les Ulis/Paris, France, 445 pp.
- (10) Boutron, C.F. (Editor) (2009). **From the human dimensions of global environmental change to the observation of the atmosphere from space**, ERCA volume 8, The

European Physical Journal, EDP Sciences, Les Ulis/Paris, France, 296 pp.

- (11) Boutron, C.F. (Editor) **From the global mercury cycle to the discoveries of Kuiper Belt objects** , ERCA volume 9 , The European Physical Journal , EDP Sciences , Les Ulis/Paris, France, 319 pp.

2. Publications in international journals with peer review

- (A1) Boutron, C.F. (1972) Concentration of dilute solutions at ppb level by non boiling evaporation in quartz and teflon. **Analytica Chimica Acta**, *61*, 140-143.
- (A2) Boutron, C.F., Echevin, M. and Lorius, C. (1972) Chemistry of polar snows. Estimation of rates of deposition in Antarctica. **Geochimica et Cosmochimica Acta**, *36*, 1029-1041.
- (A3) Briat, M., Boutron, C.F. and Lorius, C. (1974) Chlorine and sodium content of East Antarctica firn samples. **Journal de Recherche Atmosphérique**, *8*, 895-901 (Paper presented at the "First International Symposium on the Chemistry of Sea Air Particulate Exchange Processes", Nice, France, 4-10 October 1973).
- (A4) Boutron, C.F. and Lorius, C. (1977) Trace elements content in East Antarctica snow samples. **International Association of Scientific Hydrology, Publication 118**, 164-171.
- (A5) Delmas, R. and Boutron, C.F. (1978) Sulfate in Antarctic snow layers : spatio-temporal distribution. **Atmospheric Environment**, *12*, 723-728 (Paper presented at the "International Symposium on Sulfur in the Atmosphere", Dubrovnik, Yugoslavia, 7-14 September 1977).
- (A6) Boutron, C.F. (1979) Past and present day tropospheric fallout fluxes of Pb, Cd, Cu, Zn and Ag in Antarctica and Greenland. **Geophysical Research Letters**, *6*, 159-163.
- (A7) Boutron, C.F. (1979) Reduction of contamination problems in sampling of Antarctic snows for trace elements analysis. **Analytica Chimica Acta**, *106*, 127-130.
- (A8) Boutron, C.F. (1979) Present enrichments for Pb, Cd, Cu, Zn and Ag in northern and southern hemisphere background aerosols : global pollution or natural phenomena ? **Journal of Aerosol Science**, *10*, 234 (Paper presented at the Sixth International Conference of Gesellschaft für Aerosol Forschung, Vienna, Austria, 26-28 September, 1978).
- (A9) Boutron, C.F. (1979) Trace elements content of Greenland snows along an East-West

- transect. **Geochimica et Cosmochimica Acta**, **43**, 1253-1258.
- (A10) Boutron, C.F. (1979) Alkali and alkaline earth enrichments in aerosols deposited in Antarctic snows, **Atmospheric Environment**, **13**, 919-924.
- (A11) Boutron, C.F. and Martin, S. (1979) Preconcentration of dilute solutions at the 10^{-12} g/g level by non boiling evaporation with variable variance calibration curves, **Analytical Chemistry**, **51**, 140-145.
- (A12) Boutron, C.F. and Lorius, C. (1979) Trace metals in Antarctic snows since 1914, **Nature**, **277**, 551-554.
- (A13) Boutron, C.F. (1980) Respective influence of global pollution and volcanic eruptions on the past variations of the trace metals content of Antarctic snows since 1880's, **Journal of Geophysical Research**, **85**, 7426-7432 (Paper presented at the Fourth International Conference of the Commission on Atmospheric Chemistry and Global Pollution, Boulder, Colorado, USA, 13-18 August 1979).
- (A14) Boutron, C.F. (1980) Trace metals in remote Arctic snows : natural or anthropogenic? **Nature**, **284**, 575-576.
- (A15) Delmas, R. and Boutron, C.F. (1980) Are the past variations of the stratospheric sulfate burden recorded in central Antarctic snow and ice layers ? **Journal of Geophysical Research**, **85**, 5645-5649 (Paper presented at the Fourth International Conference of the Commission on Atmospheric Chemistry and Global Pollution, Boulder, Colorado, USA, 13-18 August 1979).
- (A16) Boutron, C.F. and Martin, S. (1980) Sources of twelve trace metals in Antarctic snows determined by principal components analysis. **Journal of Geophysical Research**, **85**, 5631-5638 (Paper presented at the Fourth International Conference of the Commission on Atmospheric Chemistry and Global Pollution, Boulder, Colorado, USA, 13-18 August 1979).
- (A17) Boutron, C.F. and Delmas, R. (1980) Assessing global atmospheric pollution through trace elements measurements in polar ice sheets. **Ambio**, **9**, 210-215.
- (A18) Boutron, C.F. (1981) Nouvelles données sur le contenu en métaux traces des neiges de l'Antarctique, du Groënland et de l'île de Devon. **Zeitschrift für Gletscherkunde und Glazialgeologie**, **17**, 79-113.
- (A19) Boutron, C.F. (1982) Atmospheric trace metals in the snow layers deposited at the South

- Pole from 1928 to 1977. **Atmospheric Environment**, *16*, 2451-2459.
- (A20) Boutron, C.F. and Patterson, C.C. (1983) The occurrence of lead in Antarctic recent snow, firn deposited over the last two centuries and prehistoric ice. **Geochimica et Cosmochimica Acta**, *47*, 1355-1368.
- (A21) Batifol, F. and Boutron, C.F. (1984) Atmospheric toxic metals in high altitude surface snows from Mont-Blanc, French Alps. **Atmospheric Environment**, *18*, 2507-2515.
- (A22) Boutron, C.F., Leclerc, M. and Risler, N. (1984) Atmospheric trace elements in Antarctic prehistoric ice collected at a coastal ablation area. **Atmospheric Environment**, *18*, 1947-1953.
- (A23) Boutron, C.F. and Batifol, F. (1985) Assessing laboratory procedures for the decontamination of polar snow or ice samples for the analysis of toxic metals and metalloids. **Annals of Glaciology**, *7*, 7-11 (Paper presented at the International Symposium on Snow and Ice Chemistry and the Atmosphere, Peterborough, Ontario, Canada, 19-24 August 1984).
- (A24) Boutron, C.F. (1986) Comments on "Specific activity of Pb 210 and historical changes of lead levels" by Jaworowski Z. **Atmospheric Environment**, *20*, 228-229.
- (A25) Boutron, C.F. and Patterson, C.C. (1986) Lead concentration changes in Antarctic ice during the Wisconsin/Holocene transition. **Nature**, *323*, 222-225.
- (A26) Boutron, C.F., Patterson, C.C., Petrov, V.N., and Barkov, N.I. (1987) Preliminary data on changes of lead concentrations in Antarctic ice from 155,000 to 26,000 years BP. **Atmospheric Environment**, *21*, 1197-1202.
- (A27) Boutron, C.F. and Patterson, C.C. (1987) Relative levels of natural and anthropogenic lead in recent Antarctic snow. **Journal of Geophysical Research**, *92*, 8454-8464.
- (A28) Boutron, C.F., Patterson, C.C., Lorius, C., Petrov, V.N., and Barkov, N.I. (1988) Atmospheric lead in Antarctic ice during the last climatic cycle. **Annals of Glaciology**, *10*, 5-9 (Paper presented at the International Conference on Ice Core Analysis, Bern, Switzerland, 30 March-4 April 1987).
- (A29) Boutron, C.F. (1988) Comment on the paper "The cometary breakup hypothesis re-examined" by Paul A. Laviolette (Mont. Not. R. Astr. Soc. 224, 945-951, 1987), **Monthly Notices Royal Astronomical Society**, *233*, 215-220.

- (A30) Batifol, F., Boutron, C. and De Angelis, M. (1989) Changes in copper, zinc and cadmium concentrations in Antarctic ice during the past 40,000 yrs, **Nature**, **337**, 544-546.
- (A31) Apatin, V.M., Arkhangelskii, B.V., Bolshov, M.A., Ermolov, V.V., Koloshnikov, V.G., Kompanetz, O.N., Kuznetsov, N.I., Mikhailov, E.L., Shishkovskii, V.S. and Boutron, C.F. (1989) Automated laser excited atomic fluorescence spectrometer for determination of trace concentrations of elements. **Spectrochimica Acta**, **44B**, 253-262.
- (A32) Boutron, C.F. and Wolff, E.W. (1989) Heavy metal and sulphur emissions to the atmosphere from human activities in Antarctica. **Atmospheric Environment**, **23**, 1669-1675.
- (A33) Bolshov, M.A., Boutron, C.F. and Zybin, A.V. (1989) Determination of lead in Antarctic ice at picogram-per-gram level by laser atomic fluorescence spectrometry. **Analytical Chemistry**, **61**, 1758-1762.
- (A34) Laj, P. and Boutron, C.F. (1990) Trace elements in snow deposited at Nevado del Ruiz volcano, Colombia. **Journal of Volcanology and Geothermal Research**, **42**, 89-100.
- (A35) Boutron, C.F. (1990) A clean laboratory for ultralow concentration heavy metal analysis. **Fresenius Zeitschrift für Analytische Chemie**, **337**, 482-491 (invited plenary paper presented at the 11th International Symposium on Microchemical Techniques, Wiesbaden, Federal Republic of Germany, 28 August-1 September 1989).
- (A36) Boutron, C.F., Bolshov, M.A., Koloshnikov, V.G., Patterson, C.C. and Barkov N.I. (1990). Direct determination of lead in Vostok Antarctic ancient ice by laser excited atomic fluorescence spectrometry. **Atmospheric Environment**, **24A**, 1797-1800.
- (A37) Boutron, C.F., Patterson, C.C. and Barkov, N.I. (1990) The occurrence of zinc in Antarctic ancient ice and recent snow. **Earth and Planetary Science Letters**, **101**, 248-259.
- (A38) Görlach, U. and Boutron, C.F. (1990) Preconcentration of lead, cadmium, copper and zinc in water at the pg/g level by non boiling evaporation. **Analytica Chimica Acta**, **236**, 391-398.
- (A39) Bolshov, M.A., Boutron, C.F., Ducroz, F.M., Görlach, U., Kompanetz, O.N., Rudniev,

- S.N. and Hutch, B. (1991) Direct ultratrace determination of cadmium in Antarctic and Greenland snow and ice by laser atomic fluorescence spectrometry. **Analytica Chimica Acta**, **251**, 169-175.
- (A40) Boutron, C.F., Görlach, U., Candelone, J.P., Bolshov, M.A. and Delmas, R.J. (1991) Decrease in anthropogenic lead, cadmium and zinc in Greenland snows since the late 1960's. **Nature**, **353**, 153-156.
- (A41) Boutron, C.F., Bolshov, M.A., Rudniev, S.N., Hartmann, F.P., Hutch, B. and Barkov, N.I. (1991). Direct determination of lead and cadmium down to sub pg/g level in Antarctic and Greenland snow and ice by laser atomic fluorescence spectrometry. **Journal de Physique**, IV, **1**, C7, 695-698 (paper presented at the 2nd International Conference Laser M2P, Grenoble, France, 9-11 July 1991).
- (A42) Görlach, U. and Boutron, C.F. (1992) Changes in heavy metals concentrations in Antarctic snows from 1940 to 1980. **Journal of Atmospheric Chemistry**, **14**, 205-222 (paper presented at the 7th International Conference of the Commission on Atmospheric Chemistry and Global Pollution, Chamrousse, France, 5-11 September 1990).
- (A43) Bolshov, M.A., Koloshnikov, V.G., Rudniev, S.N., Boutron, C.F., Görlach, U. and Patterson, C.C. (1992) Detection of trace amounts of toxic metals in environmental samples by laser-excited atomic fluorescence spectrometry. **Journal of Analytical Atomic Spectrometry**, **7**, 99-104.
- (A44) Vandal, G.M., Fitzgerald, W.F., Boutron, C.F. and Candelone, J.P. (1993). Variations in mercury deposition to Antarctica over the past 34,000 years. **Nature**, **362**, 621-623.
- (A45) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P. and Görlach, U. (1993) Isotopic evidence for the source of lead in Greenland snows since the late 1960's. **Nature**, **362**, 333-335.
- (A46) Boutron, C.F., Rudniev, S.N., Bolshov, M.A., Koloshnikov, V.G., Patterson, C.C. and Barkov, N.I. (1993) Changes in cadmium concentrations in Antarctic ice and snow during the past 155,000 years. **Earth and Planetary Science Letters**, **117**, 431-441.
- (A47) Lobinski, R., Boutron, C.F., Candelone, J.P., Hong S. , Szpunar-Lobinska, J. and Adams, F. (1993) Speciation analysis of organolead compounds in Greenland snow at the femtogram-per-gram level by capillary gas chromatography / atomic emission spectrometry. **Analytical Chemistry**, **65**, 2510-2515.

- (A48) Boutron, C.F., Ducroz, F.M., Görlach, U., Jaffrezo, J.L., Davidson, C.I. and Bolshov, M.A. (1993) Variations in heavy metals concentrations in fresh Greenland snow from January to August 1989. **Atmospheric Environment**, *27A*, 2773-2779.
- (A49) Davidson, C.I., Jaffrezo, J.L., Mosher, B., Dibb, J.E., Borys, R.D., Bodhaine, B.A., Rasmussen, R.A., Boutron, C.F., Görlach, U., Cachier, H., Ducret, J., Colin, J.L., Heidam, N.Z., Kemp, K. and Hillamo, R. (1993) Chemical constituents in the air and snow at Dye 3, Greenland : I. Seasonal variations. **Atmospheric Environment**, *27A*, 2709-2722.
- (A50) Davidson, C.I., Jaffrezo, J.L., Mosher, B., Dibb, J.E., Borys, R.D., Bodhaine, B.A., Rasmussen, R.A., Boutron, C.F., Ducroz, F.M., Cachier, H., Ducret, J., Colin, J.L., Heidam, N.Z., Kemp, K. and Hillamo, R. (1993) Chemical constituents in the air and snow at Dye 3, Greenland : II. Analysis of episodes in April 1989. **Atmospheric Environment**, *27A*, 2723-2737.
- (A51) Boutron, C.F., Candelone, J.P. and Hong, S. (1994) The changing occurrence of natural and man-derived heavy metals in Antarctic and Greenland ancient ice and recent snow. **International Journal of Environmental Analytical Chemistry**, *55*, 203-209.
- (A52) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P. and Hong, S. (1994). Isotopic evidence to account for changes in the concentrations of lead in Greenland snow between 1960 and 1988. **Geochimica et Cosmochimica Acta**, *58*, 3265-3269.
- (A53) Boutron, C.F., Candelone, J.P. and Hong S. (1994) Past and recent changes in the large scale tropospheric cycles of Pb and other heavy metals as documented in Antarctic and Greenland snow and ice : a review. **Geochimica et Cosmochimica Acta**, *58*, 3217-3225 (invited paper presented at the Symposium in Honor of Clair C. Patterson "Topics in Global Geochemistry", Pasadena, California, USA, 3-4 December 1992).
- (A54) Lobinski, R., Boutron, C.F., Candelone, J.P., Hong, S., Szpuznar-Lobinska, J. and Adams, F. C. (1994) Present century snow core record of organolead pollution in Greenland. **Environmental Science and Technology**, *28*, 1467-1471.
- (A55) Lobinski, R., Boutron, C.F., Candelone, J.P., Hong, S., Szpuznar-Lobinska, J. and Adams, F. C. (1994) Northern Hemispheric organic lead emissions in fresh Greenland snow. **Environmental Science and Technology**, *28*, 1459-1466.
- (A56) Savarino, J., Boutron, C.F. and Jaffrezo, J.L. (1994) Short-term variations of Pb, Cd, Zn

- and Cu in recent Greenland snow. **Atmospheric Environment**, **28A**, 1731-1737.
- (A57) Bolshov, M.A., Rudniev, S.N., Candelone, J.P., Boutron, C.F. and Hong, S. (1994) Ultratrace determination of Bi in Greenland snow by laser atomic fluorescence spectrometry. **Spectrochimica Acta**, **49B**, 1445-1452.
- (A58) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P. and Patterson, C.C. (1994) Isotopic evidence for anthropogenic lead in Antarctica. **Geophysical Research Letters**, **21**, 2669-2672.
- (A59) Candelone, J.P., Bolshov, M.A., Rudniev, S.N., Hong, S. and Boutron, C.F. (1994) Determination of Bismuth down to sub pg/g level in Greenland snow by laser excited atomic fluorescence spectrometry. **Journal de Physique**, III, **4**, C4, 661-664 (paper presented at the 3rd International Conference Laser M2P, Lyon, France 8-10 December 1993).
- (A60) Lobinski, R., Witte C., Adams F.C., Teissédre, P.L., Cabanis, J.C. and Boutron, C.F. (1994) Organolead in wine. **Nature**, **370**, 24.
- (A61) Hong, S., Candelone, J.P., Patterson, C.C. and Boutron, C.F. (1994) Greenland ice evidence of hemispheric pollution for lead two millennia ago by Greek and Roman civilizations. **Science**, **265**, 1841-1843.
- (A62) Candelone, J.P., Hong, S. and Boutron, C.F. (1994) An improved method for decontaminating polar snow and ice cores for heavy metals analysis. **Analytica Chimica Acta**, **299**, 9-16.
- (A63) Candelone, J.P., Hong, S., Pellone C. and Boutron, C.F. (1995) Post-industrial revolution changes in large-scale atmospheric pollution of the Northern Hemisphere by heavy metals as documented in central Greenland snow and ice. **Journal of Geophysical Research**, **100**, 16605-16616.
- (A64) Boutron, C.F., Candelone, J.P. and Hong, S. (1995) Greenland snow and ice cores : unique archives of the large scale pollution of the troposphere of the Northern Hemisphere for lead and other heavy metals. **The Science of the Total Environment**, **160/161**, 233-241 (invited plenary lecture presented at the International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, 4-8 October

- 1993).
- (A65) Candelone, J.P., Bolshov, M.A., Rudniev, S.N., Hong, S. and Boutron C.F. (1995) Bismuth in recent snow from central Greenland : preliminary results. **Atmospheric Environment**, **29 A**, 1843-1848.
- (A66) Boutron, C.F. (1995) Historical reconstruction of the earth's past atmospheric environment from Greenland and Antarctic snow and ice cores. **Environmental Reviews**, **3**, 1-28.
- (A67) Chisholm, W., Rosman, K.J.R., Boutron, C.F., Candelone, J.P. and Hong, S. (1995). Determination of lead isotopic ratios in Greenland and Antarctic snow and ice at picogram per gram concentrations. **Analytica Chimica Acta**, **311**, 141-151.
- (A68) Hong, S., Candelone, J.P., Patterson, C.C. and Boutron, C.F. (1996). History of ancient copper smelting pollution during Roman and medieval times recorded in Greenland ice. **Science**, **272**, 246-249.
- (A69) Hong, S., Candelone, J.P., Turetta, C. and Boutron, C.F. (1996). Changes in natural lead, copper, zinc and cadmium concentrations in central Greenland ice from 8250 to 149,100 years ago : their association with climatic changes and resultant variations of dominant source contribution. **Earth and Planetary Science Letters**, **143**, 233-244.
- (A70) Hong, S., Candelone, J.P., Soutif, M. and Boutron, C.F. (1996). A reconstruction of changes in copper production and copper emissions to the atmosphere during the past 7000 years, **The Science of the Total Environment**, **188**, 183-193.
- (A71) Hong, S., Candelone, J.P. and Boutron, C.F. (1996). Deposition of atmospheric heavy metals to the Greenland ice sheet from the 1783-1784 volcanic eruption of Laki, Iceland. **Earth and Planetary Science Letters**, **144**, 605-610.
- (A72) Candelone, J.P., Jaffrezo, J.L., Hong, S., Davidson, C.I. and Boutron, C.F. (1996) Seasonal variations in heavy metals concentrations in present day Greenland snow. **The Science of the Total Environment**, **193**, 101-110.
- (A73) Chisholm, W., Rosman, K.J.R., Candelone, J.P., Boutron, C.F. and Bolshov, M.A.(1997) . Measurement of bismuth at pg g^{-1} concentrations in snow and ice samples by thermal ionisation mass spectrometry. **Analytica Chimica Acta**, **347**, 351-358
- (A74) Bolshov, M.A., Rudniev, S.N., Rudnieva, A.A., Boutron, C.F. and Hong, S. (1997) Determination of heavy metals in polar snow and ice by laser excited atomic

- fluorescence spectrometry with electrothermal atomization in a graphite cup. **Spectrochimica Acta**, *52 B*, 1535-1544.
- (A75) Barbante, C., Bellomi, T., Mazzadri, G., Cescon, P., Scarponi, G., Morel, C., Jay, S., Van de Velde, K., Ferrari, C. and Boutron, C.F. (1997) Direct determination of heavy metals at pg g^{-1} level in Greenland and Antarctic snow by double focusing Inductively Coupled Plasma Mass Spectrometry. **Journal of Analytical Atomic Spectrometry**, *12*, 925-931.
- (A76) Espi, E., Boutron, C.F., Hong, S., Pourchet, M., Ferrari, C., Shotyk, W. and Charlet, L. (1997) Changes in the occurrence of heavy metals in a high altitude peat bog from Bolivia during the past three centuries. **Water, Air and Soil Pollution**, *100*, 289-296.
- (A 77) Hong, S., Candelone, J.P. and Boutron, C.F. (1997) Changes in zinc and cadmium concentrations in Greenland ice during the past 7760 years. **Atmospheric Environment**, *31*, 2235-2242.
- (A78) Rosman, K.J.R., Chisholm, W., Hong, S., Candelone, J.P. and Boutron, C.F. (1997) Lead from Carthaginian and Roman spanish mines isotopically identified in Greenland ice dated from 600 BC to 300 AD. **Environmental Science and Technology**, *31*, 3413-3416.
- (A79) Laj, P., Ghermandi, G., Cecchi, R., Maggi, V., Riontino, C., Hong, S., Candelone, J.P. and Boutron, C.F. (1997) Distribution of Ca, Fe, K and S between soluble and insoluble material in the Greenland Ice Core Project ice core. **Journal of Geophysical Research**, *102*, 26615-26623.
- (A80) Adams, F. Heisterkamp, M., Candelone, J.P., Laturus, F., Van de Velde, K. and Boutron, C.F. (1998) Speciation of organometal and organohalogen compounds in relation to global environmental pollution. **The Analyst**, *123*, 767-772.
- (A81) Edwards, P.R., Sedwick, P.N., Morgan, V.I., Boutron, C.F. and Hong, S. (1998) Iron in ice cores from Law Dome, East Antarctica : implications for past deposition of aerosol iron. **Annals of Glaciology**, *27*, 365-370.
- (A82) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Hong, S., Edwards, R., Morgan V. and

- Sedwick P. (1998) Lead isotopes and selected metals in ice from Law Dome, Antarctica. **Annals of Glaciology**, *27*, 349-354.
- (A83) Rosman, K.J.R., Chisholm, W. , Jimi, S., Candelone, J.P., Boutron, C.F., Teisseidre, P.L. and Adams, F.C. (1998) Lead concentrations and isotopic signatures in vintages of french wine between 1950 and 1991. **Environmental Research**, *A78*, 161-167, (special issue devoted to Clair C. Patterson).
- (A84) Hong, S., Boutron, C.F., Edwards, R. and Morgan, V.I. (1998) Heavy metals in Antarctic ice from Law Dome : initial results. **Environmental Research**, *A78*, 94-103, (special issue devoted to Clair C. Patterson).
- (A85) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P., Jaffrezo, J.L. and Davidson, C.I. (1998) Seasonal variations in the origin of lead in snow at Dye 3, Greenland. **Earth and Planetary Science Letters**, *160*, 383-389.
- (A86) Van de Velde, K., Boutron, C.F., Ferrari, C.P., Bellomi, T., Barbante, C., Rudniev, S. and Bolshov (1998) Seasonal variations of heavy metals in the 1960s Alpine ice : sources versus meteorological factors. **Earth and Planetary Science Letters**, *164*, 521-533.
- (A87) Veysseyre, A., Van de Velde, K., Ferrari, C. and Boutron, C.F. (1998) Searching for manganese pollution from MMT antiknock gasoline additives in snow from central Greenland. **The Science of The Total Environment**, *221*, 145-158.
- (A88) Boutron, C.F., Vandal, G.M., Fitzgerald, W.F. and Ferrari C.P. (1998) A forty year record of mercury in central Greenland snow. **Geophysical Research Letters**, *25*, 3315-3318.
- (A89) Boutron, C.F. (1999) Antarctic and Greenland snow and ice cores : archives of the climate and pollution of the atmosphere of the Earth. **Korean Journal of Polar Research**, *10*, 42-52.
- (A90) Rosman, K.J.R., Chisholm, W., Boutron, C.F. and Candelone, J.P. (1999) Lead isotopes as tracers of pollution in snow and ice. **Korean Journal of Polar Research**, *10*, 53-58.
- (A91) Barbante, C., Cozzi, G., Capodaglio, G., Van de Velde, K., Veysseyre, A., Ferrari, C., Boutron, C., Scarponi, G. and Cescon, P. (1999) Pd, Pt and Rh determination in polar and alpine snow and ice by double focusing ICP-MS with microconcentric nebulisation. **Analytical Chemistry**, *71*, 4125-4133.

- (A92) Van de Velde, K., Ferrari, C., Barbante, C., Bellomi, T. and Boutron C.F. (1999) A two hundred year record of atmospheric cobalt, chromium, molybdenum and antimony in high altitude alpine firn and ice. **Environmental Science and Technology**, **33**, 3495-3501.
- (A93) Barbante, G. Cozzi, C., Capodaglio, G., Van de Velde, K., Ferrari, C., Boutron, C. and Cescon, P. (1999) Trace element determination in alpine snow and ice by double focusing inductively coupled plasma mass spectrometry with microconcentric nebulization. **Journal of Analytical Atomic Spectrometry**, **14**, 1433-1438.
- (A94) Heisterkamp, M., Van de Velde, K., Adams, F.C., Ferrari C. and Boutron C.F. (1999) Present century record of organolead pollution in high altitude Alpine snow. **Environmental Science and Technology**, **33**, 4416-4421.
- (A95) Ferrari, C.P., Van de Velde, K., Boutron, C.F., Hong, S., Rudniev, S.N., Bolshov, M.A., Chisholm, W. and Rosman, K.J.R. (2000) Natural and anthropogenic bismuth in central Greenland. **Atmospheric Environment**, **34**, 941-948.
- (A96) Van de Velde, K., Boutron, C.F., Ferrari, C.P., Delmas, R.J., Barbante C. and Bellomi, T. (2000) A two hundred years record of atmospheric cadmium, copper and zinc concentrations in high altitude snow and ice from the French-Italian Alps. **Geophysical Research Letters**, **27**, 249-252.
- (A97) Rosman, K.J.R., Ly, C., Van de Velde K., and Boutron, C.F. (2000) A two century record of lead isotopes in high altitude alpine snow and ice. **Earth and Planetary Science Letters**, **176**, 413-424.
- (A98) Van de Velde, K., Barbante, C., Cozzi, G., Moret, I., Bellomi, T., Ferrari, C. and Boutron, C.F. (2000) Changes in the occurrence of silver, gold, platinum, palladium and rhodium in Mont-Blanc snow and ice since the 18th century. **Atmospheric Environment**, **34**, 3117-3127.
- (A99) Ferrari, C.P., Moreau, A.L. and Boutron, C.F. (2000) Clean conditions for the determination of ultralow levels of mercury in ice and snow samples. **Fresenius Zeitschrift für Analytische Chemie**, **366**, 433-437.
- (A 100) Hong, S., Lee, G., Van de Velde, K., and Boutron, C.F. (2000) Variability of Pb, Mn, Al and Na concentrations in snow deposited from winter to early summer 1998 in Livingston Island, Antarctic Peninsula. **Journal of the Korean Society for**

Atmospheric Environment, *16*, 85-96.

- (A101) Veysseyre, A., Moutard, K., Ferrari, C., Van de Velde, K., Barbante, C., Cozzi, G., Capodaglio, G. and Boutron, C. (2001). Heavy metals in fresh snow collected at different altitudes in the Chamonix and Maurienne valleys, french Alps : initial results. **Atmospheric Environment**, *35*, 415-425.
- (A102) Barbante, C., Veysseyre, A., Ferrari, C.P., Van de Velde, K., Morel, C., Capodaglio, G., Cescon, P., Scarponi, G. and Boutron, C.F. (2001) Greenland snow evidence of large scale atmospheric contamination for platinum, palladium and rhodium. **Environmental Science and Technology**, *35*, 835-839,
- (A103) Ferrari, C., Clotteau, T., Thompson, L., Barbante, C., Cozzi, G., Cescon, P., Hong, S., Maurice-Bourgoin, L., Francou, B. and Boutron, C. F. (2001). Heavy metals in ancient tropical ice : initial results, **Atmospheric Environment**, *35*, 5809-5815.
- (A104) Veysseyre, A., Bollhöfer, A.F., Rosman, K.J.R., Ferrari, C.P., and Boutron, C.F. (2001). Tracing the origin of pollution in french alpine snow and aerosols using lead isotopic ratios. **Environmental Science and Technology**, *35*, 4463-4469.
- (A105) Barbante, C., Van de Velde, K., Cozzi, G., Capodaglio, G., Cescon, P., Planchon, F., Hong, S., Ferrari, C. and Boutron, C. (2001). Post-World War II uranium changes in dated Mont Blanc ice and snow. **Environmental Science and Technology**, *35*, 4026-4030.
- (A106) Planchon, F., Boutron, C.F., Barbante C., Wolff. E.W., Cozzi, G., Gaspari, V., Ferrari, C.P. and Cescon, P. (2001) Ultrasensitive determination of heavy metals at the sub-picogram per gram level in ultraclean Antarctic snow samples by inductively coupled plasma sector field mass spectrometry. **Analytica Chimica Acta**, *450*, 193-205.
- (A107) Ferrari, C.P., Dommergue, A., Veysseyre, A., Planchon, F. and Boutron, C.F. (2002) Mercury speciation in the french seasonal snow cover : photoreduction processes, **The Science of the Total Environment**, *287*, 61-69.
- (A108) Vallelonga, P., Van de Velde, K., Candelone, J.P., Rosman, K.J.R., Boutron, C.F., Morgan, V.I. and Mackey, D. (2002) Recent advances in measurement of Pb isotopes in polar ice and snow at sub-picogram/gram concentrations using Thermal Ionisation Mass Spectrometry. **Analytica Chimica Acta**, *453*, 1-12.
- (A109) Dommergue, A., Ferrari, C.P. Planchon, F. and Boutron, C.F. (2001) Influence of

- anthropogenic sources on Total Gaseous Mercury variability in Grenoble suburban air (France). **The Science of the Total Environment**, **297**, 203-213.
- (A110)Planchon, F.A.M., Boutron, C.F., Barbante, C., Cozzi, G., Gaspari, V., Wolff, E.W., Ferrari, C.P. and Cescon, P. (2002) Changes in heavy metals in Antarctic snow from Coats Land since the mid 19th to the late 20th century. **Earth and Planetary Science Letters**, **200**, 207-222
- (A 111) Barbante, C., Boutron, C., Moreau, A.L., Ferrari, C., Van de Velde, K., Cozzi, G., Turetta, C. And Cescon, P. (2002) Seasonal variations in nickel and vanadium in Mont-Blanc snow and ice dated from the 1960s and 1990s. **Journal of Environmental Monitoring**, **4**, 960-966.
- (A112) Burton, G.R., Morgan, V.I., Boutron, C.F. and Rosman, K.J.R. (2002) High-sensitivity measurements of strontium isotopes in polar ice. **Analytica Chimica Acta**, **469**, 225-233.
- (A113) Vallelonga, P., Van de Velde, K., Candelone, J.P., Morgan, V.I., Boutron, C.F. and Rosman, K.J.R. (2002) The lead pollution history of Law Dome, Antarctica, from isotopic measurements on ice cores : 1500 AD to 1989 AD. **Earth and Planetary Science Letters**, **204**, 291-306.
- (A114)Planchon, F.A.M., Boutron, C.F., Barbante, C., Cozzi, G., Gaspari, V., Wolff, E.W., Ferrari, C.P. and Cescon, P. (2002) Short term variations in the occurrence of heavy metals in Antarctic snow from Coats Land since the 1920's. **The Science of the Total Environment**, **300**, 129-142.
- (A115)Dommergue, A., Ferrari, C.P. and Boutron, C.F. (2003) First investigation of an original device dedicated to the determination of gaseous mercury in interstitial air in snow. **Analytical and Bioanalytical Chemistry**, **375**, 106-111.
- (A116)Planchon, F.A.M., Van de Velde, K., Rosman, K.J.R., Wolff, E.W., Ferrari, C.P. and Boutron, C.F. (2003) One hundred fifty year record of lead isotopes in Antarctic snow from Coatsland. **Geochimica et Cosmochimica Acta**, **67**, 693-708.
- (A117)Barbante, C., Boutron, C., Morel, C., Ferrari, C., Jaffrezo, J.L., Cozzi, G., Gaspari, V. and Cescon, P. (2003) Seasonal variations of heavy metals in central Greenland snow deposited from 1991 to 1995. **Journal of Environmental Monitoring**, **5**, 328-335.
- (A118)Dommergue, A., Ferrari, C.P., Poissant, L. Gauchard, P.A. and Boutron, C.F. (2003)

- Diurnal cycles of gaseous mercury within the snow-pack at Kuujjuarapik/Whapmagoostui, Québec, Canada. **Environmental Science and Technology**, **37**, 3289-3297.
- (A119) Dommergue, A., Ferrari, C.P., Gauchard, P.A., Boutron, C.F., Poissant, L., Pilote, M., Jitaru, P. and Adams, F. (2003). The fate of mercury species in a sub-arctic snowpack during snowmelt. **Geophysical Research Letters**, **30**, 1621-1624.
- (A120) Hong, S., Kim, Y., Boutron, C.F., Ferrari, C., Petit, J.R., Barbante, C., Rosman, K. and Lipenkov, V.Y. (2003) Climate - related variations in lead concentrations and its source implication in the Vostok Antarctic ice core from 65,000 to 240,000 years B.P. **Geophysical Research Letters**, **30**, 2138-2142 (doi : 10.1029/2003GL018411).
- (A121) Schwikowski, M., Barbante, C., Döring, T., Gäggeler, H.W., Boutron, C.F., Schotterer, U., Tobler, L., Van de Velde, K., Ferrari, C., Cozzi, G., Rosman, K.J.R. and Cescon, P. (2004) Post 17th century changes of European lead emissions recorded in high altitude Alpine snow and ice. **Environmental Science and Technology**, **38**, 957-964.
- (A122) Ferrari, C.P., Dommergue, A., Boutron, C.F., Jitaru, P. and Adams, F.C. (2004) Profiles of mercury in the snow-pack in Station Nord, Greenland shortly after polar sunrise. **Geophysical Research Letters**, **31**, 3401-3404.
- (A123) Hong, S., Barbante, C., Boutron, C., Gabrielli, P., Gaspari, V., Cescon, P., Thompson, L., Ferrari, C., Francou, B. and Maurice-Bourgoin, L. (2004) Atmospheric heavy metals in tropical South America during the past 22,000 years recorded in a high altitude ice core from Sajama, Bolivia. **Journal of Environmental Monitoring**, **6**, 322-326.
- (A124) Barbante, C., Schwikowski, M., Döring, T., Gäggeler, H.W., Schotterer, U., Tobler, L., Van de Velde, K., Ferrari, C., Cozzi, G., Turetta, A., Rosman, K., Bolshov, M., Capodaglio, G., Cescon, P. and Boutron, C. (2004). Historical record of European atmospheric pollution by heavy metals since the 1650s from a well dated alpine snow/ice core. **Environmental Science and Technology**, **38**, 4085-4090.
- (A125) Boutron, C., Rosman, K., Barbante, C., Bolshov, M., Adams, F., Hong, S. and Ferrari, C. (2004). L'archivage de l'activité industrielle par les glaces polaires : le cas du plomb. **Compte-Rendus de l'Académie des Sciences, Geoscience**, **336**, 847-867 (invited review paper).
- (A126) Gabrielli, P., Varga, A., Barbante, C., Cozzi, G., Gaspari, V., Boutron, C.F. and

- Capodaglio G. (2004) Determination of Ir and Pt down to the sub-femtogram per gram level in polar ice by ICP-SFMS using preconcentration and a desolvation system. **Journal of Analytical Atomic Spectrometry**, *19*, 831-837.
- (A127) Ferrari, C.P., Dommergue, A., Boutron, C.F., Skov, H., Goodsite, M. and Jensen B. (2004) Nighttime production of elemental gaseous mercury in interstitial air of snow at Station Nord, Greenland. **Atmospheric Environment**, *38*, 2727-2735.
- (A 128) Planchon, F.A.M., Gabrielli, P., Gauchard, P.A., Dommergue, A., Barbante, C., Cairns, W.R.L., Cozzi, G., Nagorski, S.A., Ferrari, C.P., Boutron, C.F., Capodaglio, G., Cescon, P., Varga, A. and Wolff E.W. (2004) Direct determination of mercury at the sub-picogram per gram level in polar snow and ice by ICP-SFMS, **Journal of Analytical Atomic Spectrometry**, *19*, 823-830.
- (A129) Gauchard, P.A., Ferrari, C.P., Dommergue, A., Poissant, L., Pilote, M., Guehenneux, G., Boutron, C.F. and Baussand, P. (2004) Atmospheric particle evolution during a nighttime atmospheric mercury depletion event in sub-Arctic at Kuujjuarapik/Whapmagoostui, Québec, Canada, **The Science of the Total Environment**, *336*, 215-224.
- (A130) Gabrielli, P., Barbante, C., Plane, J.M.C., Varga, A., Hong, S., Cozzi, J., Planchon, F.A.M., Cairns, W., Ferrari, C., Crutzen, P., Cescon, P. and Boutron, C.F. (2004) Meteoric smoke fallout over the Holocene epoch revealed by iridium and platinum in Greenland ice. **Nature**, *432*, 1011-1013.
- (A131) Hong, S., Boutron, C.F., Gabrielli, P., Barbante, C., Ferrari, C.P., Petit, J.R., Lee, K. and Lipenkov, V.Y. (2004) Past natural changes in Cu, Zn and Cd in Vostok Antarctic ice dated back to the beginning of penultimate interglacial period. **Geophysical Research Letters**, *31*, doi : 10.1029/2004GL021075.
- (A132) Vallelonga P., Barbante, C., Cozzi, G., Gaspari, V., Candelone, J.P., Van de Velde, K., Morgan, V.I., Rosman, K.J.R., Boutron, C.F. and Cescon, P. (2004) Elemental indicators of natural and anthropogenic aerosol inputs to Law Dome, Antarctica. **Annals of Glaciology**, *39*, 169-174.
- (A133) Van de Velde, K., Vallelonga, P., Candelone, J.P., Rosman, K.J.R., Gaspari, V., Barbante, C., Cescon, P. and Boutron C.F. (2005) Pb isotope record over one century in snow from Victoria Land, Antarctica, **Earth and Planetary Science Letters**, *232*, 95-108.

- (A134) Gabrielli, P., Barbante, C., Plane, J.M.C., Varga, A., Hong, S., Cozzi, J., Planchon, F.A.M., Cairns, W., Ferrari, C., Crutzen, P., Cescon, P. and Boutron, C.F. (2005) Meteoric smoke fallout over the Holocene epoch revealed by iridium and platinum in Greenland ice. **Nature**, **432**, 1011-1013.
- (A135) Gabrielli, P., Hong, S., Kim, Y., Oh, J.K., Boutron, C.F., Barbante, C., Ferrari, C.P., Petit, J. R., Lipenkov, V.Y. and Cescon, P. (2005) Trace elements in Vostok Antarctic ice during the last four climatic cycles. **Earth and Planetary Science Letters**, **234**, 249-259.
- (A136) Gabrielli, P., Barbante, C., Boutron, C., Cozzi, G., Gaspari, V., Planchon, F., Ferrari, C. and Cescon, P. (2005). Variations in atmospheric trace elements in Dome C (East Antarctica) ice over the last two climatic cycles. **Atmospheric Environment**, **39**, 6420-6429.
- (A137) Hong, S., Boutron, C.F., Barbante, C., Do Hur, C., Lee, K., Gabrielli, P., Capodaglio, G., Ferrari, C.P., Turetta, C., Petit, J.R. and Lipenkov, V.Y. (2005) Glacial-interglacial changes in the occurrence of Pb,Cd, Cu and Zn in Vostok Antarctic ice from 240000 to 410000 years BP. **Journal of Environmental Monitoring**, **7**, 1326-1331.
- (A138) Gauchard, P.A., Aspino, K., Temme, C., Steffen, A., Ferrari, C., Berg, T., Ström, J., Kaleschke, L., Dommergue, A., Bahlmann, E., Magand, O., Planchon, F., Ebinghaus, R., Banic, C., Nagorski, S., Baussand, P. and Boutron, C.F. (2005) Study of the origin of atmospheric mercury depletion events recorded in Ny-Alesund, Svalbard, spring 2003. **Atmospheric Environment**, **39**, 7620-7632.
- (A139) Ferrari, C.P., Gauchard, P.A., Aspino, K., Dommergue, A., Magand, O., Bahlmann, E., Nagorski, S., Temme, C., Ebinghaus, R., Steffen, A., Banic, C., Berg, T., Planchon, F., Barbante, C., Cescon, P. and Boutron, C.F. (2005) Snow-to-air exchanges of mercury in an Arctic seasonal snow pack in Ny-Alesund, Svalbard. **Atmospheric Environment**, **39**, 7633-7645.
- (A140) Gaspari, V., Barbante, C., Cozzi, G., Cescon, P., Boutron, C.F., Gabrielli, P., Capodaglio, G., Ferrari, C.P., Petit, J.R. and Delmonte, B. (2006) Atmospheric iron fluxes over the last deglaciation : climatic implications, **Geophysical Research Letters**, **33**, doi : 10.1029/2005/GL024352.
- (A141) Gabrielli, P., Barbante, C., Turetta, C., Marteel, A., Boutron, C.F., Cozzi, G., Cairns, W.,

- Ferrari, C. and Cescon, P. (2006) Direct determination of Rare Earth Elements at the sub picogram per gram level in Antarctic ice by ICP-SFMS using a desolvation system. **Analytical Chemistry**, **78**, 1883-1889.
- (A142) Wolff, E.W., Fischer, H., Fundel, F., Ruth, U., Twarloh, B., Littot, G.C., Mulvaney, R., Röthlisberger, R., de Angelis, M., Boutron, C.F., Hansson, M., Jonsell, U., Hutterli, M., Lambert, F., Kaufmann, P., Stauffer, B., Stocker, T.F., Steffensen, J.P., Bigler, M., Siggaard-Andersen, M.L., Udisti, R., Becagli, S., Castellano, E., Severi, M., Wagenbach, D., Barbante, C., Gabrielli, P. and Gaspari, V. (2006). Southern Ocean sea-ice extent, productivity and iron flux over the past eight glacial cycles. **Nature**, **440**, 491-496.
- (A143) Fain, X., Ferrari, C.P., Gauchard, P.A., Magand, O. and Boutron, C.F. (2006) Fast depletion of gaseous elemental mercury in the Kongsvegen glacier snowpack in Svalbard, **Geophysical Research Letters**, **33**, doi : 10.1029/2006GL027615.
- (A144) Burton, G.R., Rosman, K.J.R., Van de Velde, K.P. and Boutron, C.F. (2006) A two century record of strontium isotopes from an ice core drilled at Mt Blanc, France. **Earth and Planetary Science Letters**, **248**, 202-211.
- (A145) Edwards, R., Sedwick, P., Morgan, V. and Boutron, C.F. (2006) Iron in ice cores from Law Dome : a record of atmospheric iron deposition for maritime East Antarctica during the Holocene and Last Glacial Maximum, **Geochemistry, Geophysics, Geosystems**, **7**, doi:10.1029/2006GC001307.
- (A146) Gabrielli, P., Plane, J.M.C., Boutron, C.F., Varga, A., Hong, S., Cozzi, G., Gaspari, V., Planchon, F.A.M., Cairns, W., Ferrari, C., Crutzen, P., Cescon, P., Petit, J.R., Lipenkov, V.Y. and Barbante, C. (2006) A climatic control on the accretion of meteoric and super-chondritic iridium-platinum to the Antarctic ice cap. **Earth and Planetary Science Letters**, **250**, 459-469.
- (A147) Barbante, C., Barnola, J.M., Becagli, S., Beer, J., Bigler, M., Boutron, C., Blunier, T., Castellano, E., Cattani, O., Chappellaz, J., Dahl-Jensen, D., Debret, M., Delmonte, B., Falourd, S., Faria, S., Federer, U., Fischer, H., Freitag, J., Frenzel, A., Fritzsche, D., Fundel, F., Gabrielli, P., Gaspari, V., Gersonde, R., Graf, W., Grigoriev, D., Hamann, I., Hansson, M., Hoffmann, G., Hutterli, M.A., Huybrechts, P., Isaksson, E., Johnsen, S., Jouzel, J., Kaczmarek, M., Karlin, T., Kaufmann, P., Kipfstuhl, S., Lambert, F., Lambrecht, A., Landais, A., Lawer, G., Leuenberger, M., Littot, G., Loulergue, L., Lüthi,

- D., Maggi, V., Marino, F., Masson-Delmotte, V., Meyer, H., Miller, H., Mulvaney, R., Narcisi, B., Oerlemans, J., Oerter, H., Parrenin, F., Petit, J.R., Raisbeck, G., Raynaud, D., Röthlisberger, R., Ruth, U., Rybak, O., Severi, M., Schmitt, J., Schwander, J., Siegenthaler, U., Siggaard-Andersen, M.L., Spahni, R., Steffensen, J.P., Stenni, B., Stocker, T., Tison, J.L., Traversil, R., Udisti, R., Valero-Delgado, F., van den Broeke, M.R., van de Wal, R.S.W., Wagenbach, D., Wegner, A., Weiler, K., Wilhelms, F., Winther, J.G. and Wolff, E. (2006) One to one coupling of glacial climate variability in Greenland and Antarctica, **Nature**, **444**, 195-198.
- (A148) Amato, P., Hennebelle, R., Magand, O., Sancelme, M., Delort, A.M., Barbante, C., Ferrari, C. and Boutron, C.F. (2007) Bacterial characterization of the snow cover at Spitzberg, Svalbard . **FEMS Microbiological Ecology**, **59**, 255-264.
- (A149) Dommergue, A., Bahlmann, E., Ebinghaus, R., Ferrari, F. and Boutron, C.F. (2007). Laboratory simulation of Hg⁰ emissions from a snowpack. **Analytical and Bioanalytical Chemistry**, doi. 10.1007/s00216-007-1186-2.
- (A150) Burton, G.R., Rosman, K.J.R , Candelone, J.P., Burn, L., Boutron, C.F. and Hong, S. (2007) The impact of climatic conditions on Pb and Sr isotopic ratios found in Greenland ice, 7-150 ky BP. **Earth and Planetary Science Letters**, **259**, 557-566.
- (A151) Siggaard-Andersen, M.L., Gabrielli, P., Steffensen, J.P., Stromfeldt, T., Barbante, C., Boutron, C.F., Fischer, H. and Miller, H. (2007) Soluble and insoluble lithium dust in the EPICA Dome C ice core – implications for changes of the East Antarctic dust provenance during the recent glacial-interglacial transition. **Earth and Planetary Science Letters**, **258**, 32-43.
- (A152) Hur, S.D., Cunde, X., Hong, S., Barbante, C., Gabrielli, P., Lee, K., Boutron, C.F. and Ming Y. (2007). Seasonal patterns of heavy metal deposition to the snow on Lambert Glacier basin, East Antarctica. **Atmospheric Environment**, **41**, 8567-8578.
- (A153) Fain, X., Grangeon, S., Bahlmann, E., Fritsche, J., Obrist, D., Dommergue, A., Ferrari, C., Cairns, W., Ebinghaus, R., Barbante, C., Cescon, P. and Boutron, C. (2007). Diurnal production of gaseous mercury in the alpine snowpack before snowmelt. **Journal of Geophysical Research**, **112**, D21311, doi:10.1029/2007JD008520.
- (A154) Fischer, H., Fundel, F., Ruth, U., Twarloh, B., Wegner, A., Udisti, R., Becagli, S., Castellano, E., Morganti, A., Severi, M., Wolff, E., Littot, G., Rothlisberger, R.,

- Mulvaney, R., Hutterli, M., Kaufmann, P., Federer, U., Lambert, F., Bigler, M., Hansson, M., Jonsell, U., De Angelis, M., Boutron, C., Siggaard-Andersen, M.L., Steffensen, J.P., Barbante, C., Gaspari, V., Gabrielli, P. and Wagenbach, D. (2007) Reconstruction of millennial changes in dust emission, transport and regional sea ice coverage using the deep EPICA ice cores from the Atlantic and Indian Ocean sectors of Antarctica. **Earth and Planetary Science Letters**, **260**, 340-354.
- (A155) Ferrari, C.P., Padova C., Fain, X., Gauchard, P.A., Dommergue, A., Aspino, K., Berg, T., Cairns, W., Barbante, C., Cescon, P., Kaleschke, L., Richter, A., Wittrock, F. and Boutron, C.F. (2008) Atmospheric mercury depletion event study in Ny-Alesund (Svalbard) in spring 2005. Deposition and forthcoming transformation of Hg in surface snow during springtime. **The Science of the Total Environment**, **397**, 167-177.
- (A156) Fain, X., Ferrari, C., Dommergue, A., Albert, M., Battle, M., Arnaud, L., Barnola, J.M., Cairns, W., Barbante, C. and Boutron, C.F. (2008). Mercury in the snow and firn at Summit Station, central Greenland, and implications for the study of past atmospheric mercury levels. **Atmospheric Chemistry and Physics**, **7**, 18221-18268.
- (A157) Jimi, S.I., Rosman, K.J.R., Hong, S., Candelone, J.P., Burn, L.J. and Boutron, C.F. (2008) Simultaneous determination of picogram per gram concentrations of Ba, Pb and Pb isotopes in Greenland ice by Thermal Ionisation Mass Spectrometry. **Analytical and Bioanalytical Chemistry**, **390**, 495-501.
- (A158) Gabrielli, P., Barbante, C., Plane, J., Boutron, C.F., Jaffrezo, J.L., Mather, T.A., Stenni, B., Gaspari, V., Cozzi, G., Ferrari, C. and Cescon, P. (2008). Siderophile metal fallout to Greenland from the 1991 winter eruption of Hekla (Iceland) and during the global atmospheric perturbation of Pinatubo. **Chemical Geology**, **255**, 78-86.
- (A159) Marteel, A., Boutron, C.F., Barbante, C., Gabrielli, P., Cozzi, G., Gaspari, V. Cescon, P., Ferrari, C., Dommergue, A., Rosman, K., Hong, S. and Hur, S.D. (2008). Changes in atmospheric heavy metals and metalloids in Dome C (East Antarctica) ice back to 672.0 kyr BP (Marine Isotopic Stage 16.2). **Earth and Planetary Science Letters**, **272**, 579-590.
- (A160) Lee, K., Hur, S.D., Shugui, H., Hong, S., Qin, X., Ren, J., Liu, Y., Rosman, K., Barbante, C. and Boutron, C.F. (2008). Atmospheric pollution for trace elements in the remote high altitude atmosphere in central Asia as recorded in snow from Mt.

- Qomolangma (Everest) of the Himalayas. **The Science of the Total Environment**, *404*, 171-181.
- (A161) Marteel, A., Gaspari, V., Boutron, C.F., Barbante, C., Gabrielli, P., Cescon, P., Cozzi, G., Ferrari, C., Dommergue, A., Rosman, K., Hong, S. and Hur S.D. (2009). Climate-related variations in crustal trace elements in Dome C (East Antarctica) ice during the past 671 ky. **Climatic Change**, *92*, 191-211.
- (A162) Burn, L.J., Rosman, K., Candelone, J.P., Vallelonga, P., Burton, G.R., Smith, A.M., Morgan, V.I., Barbante, C., Hong, S. and Boutron, C.F. (2009). An ultra-clean technique for accurately analysing Pb isotopes and heavy metals at high spatial resolution in ice cores with sub-pg/g Pb concentrations. **Analytica Chimica Acta**, *634*, 228-236.
- (A163) Jitaru, P., Gabrielli, P., Marteel, A., Plane, J.M.C., Planchon, F.A.M., Gauchard, P.A., Ferrari, C.P., Boutron, C.F., Adams, F.C., Hong, S., Cescon, P. and Barbante, C. (2009). Atmospheric depletion of mercury over Antarctica during glacial periods. **Nature Geosciences**, *2*, 505-508.
- (A164) Jenk, T.M., Szidat, S., Bolius, D., Sigl, M., Gäggeler, H.W., Wacker, L., Ruff, M., Barbante, C., Boutron, C.F. and Schwikowski, M., (2009). A novel radiocarbon dating technique applied to an ice core from the Alps indicating late Pleistocene ages. **Journal of Geophysical Research**, *114*, D 14305, doi 10.1029/2009JD011860.
- (A165) Gabrielli, P., Planchon, F., Barbante, C., Boutron, C.F., Petit, J.R., Bulat, S., Hong, S., Cozzi, G. and Cescon, P. (2009) Ultra-low Rare Earth Element content in accreted ice from sub-glacial Lake Vostok, Antarctica. **Geochimica et Cosmochimica Acta**, *73*, 5959-5973.
- (A166) Sigl, M., Jenk, T.M., Kellerhals, T., Szidat, S., Gäggeler, H.W., Wacker, L., Synal, H.A., Boutron, C.F., Barbante, C. and Schwikowski, M. (2009). Towards radiocarbon dating of ice cores. **Journal of Glaciology**, *55*, 985-996.
- (A167) Hong, S., Lee, K., Hur, S.D., Hou, S., Ren, J., Burn, L.J., Rosman, K.J.R., Barbante, C. and Boutron, C.F. (2009) An 800-year record of atmospheric As, Mo, Sn and Sb deposition in central Asia in high altitude ice cores from Qomolangma (Mt Everest), Himalayas, **Environmental Science and Technology**, *43*, 8060-8065.
- (A168) Fain, X., Ferrari, C.P., Dommergue, A., Albert, M., Battle, M., Severinghaus, J., Arnaud, L., Barnola, J.M., Cairns, W., Barbante, C. and Boutron, C. (2009). Polar firn

- air reveals large-scale impact of anthropogenic mercury emissions during the 1970's. **Proceedings of the US National Academy of Science**, doi : 10.1073/pnas.0905117106
- (A169) Vallelonga, P., Gabrielli, P., Balliana, E., Wegner, A., Delmonte, B., Turetta, C., Burton, G., Vanhaecke, F., Rosman, K.J.R., Hong, S., Boutron, C.F., Cescon, P. and Barbante, C. (2010). Lead isotopic compositions in the EPICA Dome C ice core and Southern Hemisphere potential source areas. **Quaternary Science Reviews**, **29**, 247-255
- (A170) Gabrielli, P., Wegner, A., Petit, J.R., Delmonte, B., De Deckker, P., Gaspari, V., Fischer, H., Ruth, U., Kriews, M., Boutron, C.F., Cescon, P. and Barbante, C. (2010). A major glacial interglacial change in aeolian dust composition inferred from Rare Earth Elements in Antarctic ice. **Quaternary Science Reviews**, **29**, 265-273
- (A171) Wolff, E.W., Barbante, C., Becagli, S., Bigler, M., Boutron, C.F., Castellano, E., De Angelis, M., Federer, U., Fischer, H., Fundel, F., Hansson, M., Hutterli, M., Jonsell, U., Karlin, T., Kaufmann, P., Lambert, F., Littot, G.C., Mulvaney, R., Röthlisberger, U., Ruth, U., Severi, M., Siggaard-Andersen, M.L., Sime, L.C., Steffensen, J.P., Stocker, T.F., Traversi, R., Twarloh, B., Udisti, R., Wagenbach, D. and Wegner, A. (2010). Changes in environment over the last 800000 years from chemical analysis of the EPICA Dome C ice core. **Quaternary Science Reviews**, **29**, 285-295
- (A172) Gabrieli, J., Vallelonga, P., Cozzi, G., Gabrielli, P., Gambaro, A., Schwikowski, M., Sigl, M., Decet, F., Gaggeler, H., Boutron C.F., Cescon, P. and Barbante, C. (2009) Post-17th-century changes of European PAHs emissions recorded in high-latitude alpine snow and ice. **Environmental Science and Technology**, **44**, 3260-3266.
- (A173) Gabrieli, J., Cozzi, G., Vallelonga, P., Schwikowski, M., Sigl, M., Gaggeler, H., Boutron, C., Cescon, P. and Barbante, C. (2010) Contamination of alpine snow and ice at Colle Gnifetti, Swiss/Italian Alps, from nuclear weapons tests. **Atmospheric Environment**, in press
- (A174) Gaspari, V., Cozzi, G., Turetta, C., Capodaglio, G., Vallelonga, P., Gabrielli, P., Boutron, C.F., Marteel, A., Cescon, P. and Barbante, C. (2010) Chemical-physical fractionation of major, trace and rare earth elements (REE) in a glacial and interglacial matrix from polar ice cores ; climatic implications. Submitted to **Analytical Chemistry**
- (A175) Lee, K., Hur, S.D., Hou, S., Hong, S., Burn-Nunes, L.J., Barbante, C. and Boutron, C.F. (2010) Long-term (1205-2002 AD) high altitude Mt Everest ice record of changes in the

occurrence of atmospheric Cu, Zn, Cd, and Pb in central Asia. Submitted to **Atmospheric Environment**.

- (A176) Planchon, F.A.M., Gabrielli, P., Barbante, C., Boutron, C.F., Petit, J.R., Cairns, W.R.L., Cozzi, G., Ferrari, C.P. and Cescon, P. (2010). Trace elements in the deepest part of the Vostok ice core, East Antarctica : biogeochemical information on the sub-glacial lake environment. Submitted to **Geochimica et Cosmochimica Acta**.
- (A177) Cairns, W.R.L., De Boni, A., Cozzi, G., Asti, M., Merlone Borla, M., Parussa, F., Moretto, E., Cescon, P., Boutron, C. and Barbante, C. (2010) The use of cation exchange matrix separation coupled with ICP-MS to directly determine Platinum Group Element (PGE) , and other trace element emissions from passenger cars equipped with Diesel Particulate Filters (DPF) . Submitted to **Analytical and Bioanalytical Chemistry**
- (A178) Gaspari, V., Marteel, A., Cozzi, G., Gabrielli, P., Boutron, C.F., Delmonte, B., Petit, J.R., Cescon, P. and Barbante, C. (2010) MIS 11 emerging from 740000 yr of trace elements fallout over the Antarctic continent. Submitted to **Earth and Planetary Science Letters**.

3. Other publications

- (B1) Boutron, C.F. (1975). Contribution to the chemistry of Antarctic snow : determination of trace elements at the ppb level by atomic absorption spectrometry. **Translation 424, Cold Regions Research and Engineering Laboratory**, Hanover, New Hampshire, USA, **81**.
- (B2) Boutron, C.F., Delmas, R. and Lorius, C. (1980). L'homme a-t-il pollué l'atmosphère à une échelle globale ? **La Recherche**, **190**, 340-343.
- (B3) Patterson, C.C., Boutron, C.F. and Flegal, R. (1985). Present status and future of lead studies in polar snows. In “**Greenland Ice Core : Geophysics, Geochemistry and the Environment**”, Langway, C.C., Oeschger, H. And Dansgaard, W. Eds., **Geophysical Monograph, 33, American Geophysical Union**, 101-104.

- (B4) Boutron, C.F. (1986). Atmospheric toxic metals and metalloids in the snow and ice layers deposited in Greenland and Antarctica from prehistoric times to present. In “**Toxic Metals in the Atmosphere**”, **Advances in Environmental Science and Technology Series**, Davidson, C.I. and Nriagu, J.O. Eds, John Wiley and Sons, 467-505.
- (B5) Patterson, C.C. and Boutron, C.F. (1987). Lead records in Antarctic ice : changes in global atmospheric concentrations during the past 150,000 years. **U.S. Antarctic Journal**, **22**, (5), 85-87.
- (B6) Boutron, C.F. (1988). Le plomb dans l’atmosphère. **La Recherche**, **198**, 446-455.
- (B7) Boutron, C.F., Patterson, C.C., Petrov, V.N. and Barkov, N.I. (1988). The occurrence of tropospheric lead in Antarctic ice during the last 155,000 years. **Antarctic Research Climate Newsletters**, **3**, 26-27.
- (B8) Brimblecombe, P., Hammer, C., Rodhe, H. Ryaboshapko, A. and Boutron, C.F. (1989). Human influence on the sulphur cycle. In “**Evolution of the Global Biogeochemical Sulphur Cycle**”, Brimblecombe P. and Lerin A. Y. Eds, John Wiley and Sons, 77-121.
- (B9) Davidson, C.I., Barrie, L.A., Bergametti, G., Boutron, C.F., Harrison, R.M., Kemp, K., Krell, U., Maenhaut, W., Müller, J., Schroeder, W.H. and Ross, H. (1989). Research needs in understanding processes of transformation and dry and wet deposition of atmospheric metals. In “**Control and Fate of Atmospheric Trace Metals**”, Pacyna J.M. and Ottar B. Eds, Kluwer Academic Publishers, 355-364.
- (B10) Boutron, C.F. and Görlach, U. (1990). The occurrence of heavy metals in Antarctic and Greenland ancient ice and recent snow. In “**Metal Speciation in the Environment**”, NATO ASI Series, **G 23**, Broekaert J.A.C., Gücer S. and Adams F. Eds, Springer Verlag, 137-151.
- (B11) Bolshov, M.A., Koloshnikov, V., Boutron, C.F., Patterson, C.C. and Barkov, N.I. (1990). Determination of toxic metals in environmental objects by laser excited atomic fluorescence spectrometry. In “**Optoelectronics in Environmental Science**”, Martellucci S. and Chester A.N. Eds, Plenum Press, New York, 185-197.
- (B12) Boutron, C.F. and Jouzel, J. (1992) Stable isotopes and gaseous and particulate impurities in polar ice cores. In "**Applications of Isotopes and Radiation in Conservation of the Environment**", International Atomic Energy Agency publication SM 325/197, Vienna, Austria, 43-61 (invited plenary paper presented at the International

- Symposium on Applications of Isotopes and Radiation in Conservation of the Environment, Karlsruhe, Germany, 9-13 March 1992).
- (B13) Boutron, C.F., Candelone, J.P. and Görlach, U. (1992) Ultratrace analysis of heavy metals in ice and snow from the Antarctic and Greenland. **Analusis**, **20**, M24-M27.
- (B14) Boutron, C.F., Candelone, J.P. and Hong, S. (1993) Le Plomb dans les neiges et glaces du Groenland. **Pollution Atmosphérique**, **139**, 128-131.
- (B15) Laj, P., Sidgursson, H., Palais, J. and Boutron, C.F. (1993) Contribution de la glaciologie à l'étude de l'impact atmosphérique des éruptions volcaniques. **La Météorologie**, **8**, 9-22.
- (B16) Boutron, C.F. (1994) Atmospheric lead, cadmium, mercury and arsenic in Antarctic and Greenland recent snow and ancient ice. In "**Global Perspectives on Lead, Mercury and Cadmium Cycling in the Environment**", Hutchinson T.C., Gordon C.A. and Meema K. Eds., Wiley Eastern, New Delhi, India, 329-345.
- (B17) Hong, S., Candelone, J.P. and Boutron, C.F. (1994) Greenland ice history of the pollution of the atmosphere of the Northern Hemisphere for lead during the last three millennia, **Analusis**, **22**, M38-M40.
- (B18) Bolshov, M.A. and Boutron, C.F. (1994) Determination of heavy metals in polar snow and ice by laser excited atomic fluorescence spectrometry. **Analusis**, **22**, M44-M46.
- (B19) Vandal, G.M., Fitzgerald, W.F., Boutron, C.F. and Candelone, J.P. (1995) Mercury in ancient ice and recent snow from the Antarctic. In "**Ice Core Studies of Global Biogeochemical Cycles**", NATO ASI Series, **I 30**, Delmas R.J. Ed., Springer Verlag, 401-416.
- (B20) Boutron, C.F. (1996). Neiges et glaces de l'Antarctique et du Groenland. In "**Aspects Analytiques du Plomb dans l'Environnement**", Morlot M. Ed., Lavoisier, Paris, 89-108.
- (B21) Boutron, C.F. (1996). Spectrométrie de masse à ionisation thermique et spectrométrie de fluorescence atomique laser. In "**Aspects Analytiques du Plomb dans l'Environnement**", Morlot M. Ed., Lavoisier, Paris, 435-451.
- (B22) Boutron, C.F. (1996). La mémoire des glaces du Groenland, **Pour la Science** **228**, 34-41.
- (B23) Boutron, C.F. (1999). Analyzing polar ice and snow for heavy metals and other

- trace elements : two decades of fruitful interaction with Clair Patterson. In "**Clean Hands : Clair Patterson's Crusade Against Environmental Lead Contamination**", Davidson C. I. Ed., Nova Science Publisher, 105-118.
- (B24) Ferrari, C., Hong, S. and Boutron, C.F. (1999) Ice archives of atmospheric pollution from mining and smelting activities during Antiquity. In "**Metals in Antiquity**", Young S., Mark Pollard A., Budd P. and Ixer R. Eds., British Archeological Reports International Series 792, The Basingstoke Press, Oxford, 211-217.
- (B25) Veysseyre, A., Ferrari, C., Elichegaray, C., Ebner, P. and Boutron, C. (2000). Fluxes of heavy metals deposition on the snow of the French Alps during the 1997-1998 and 1998-1999 winter periods. Methodology and preliminary results. **Pollution Atmosphérique**, *168*, 599-607.
- (B26) Barbante C., Turetta C., Capodaglio, G., Cescon, P., Hong S., Candelone J.P., Van de Velde K. and Boutron C.F. (2001) Trace element determination in polar snow and ice. An overview of the analytical process and application in environmental and paleoclimatic studies. In "**Environmental Contamination in Antarctica : a challenge to Analytical Chemistry**", Caroli S., Cescon P. and Walton D.W.H. Eds., Elsevier, 55-86.
- (B27) Barbante, C., Gabrielli, P., Boutron, C., Cescon, P. and Plane, J. (2005) Polvere di stelle dal cosmo ai ghiacci polari. **Darwin**, *8*, 60-66.
- (B28) Boutron, C. and Barbante, C. (2006) Man-induced changes of palladium in polar and alpine snow and ice archives. In : "**Palladium Emissions in the Environment : Analytical methods, Environmental Assessment and Health Effects**", Zereini F. and Alt F. Eds., Springer Verlag, pp. 355-367.
- (B29) Boutron, C. and Barbante, C. (2006) Antarctic snow archives of atmospheric pollution for heavy metals. In : "**Encyclopedia of the Antarctic**", Beau Riffenburgh ed., Routledge, New York.
- (B30) Hong, S., Rosman, K., Boutron, C. and Barbante, C. (2010). An historical record of heavy metal pollution in Greenland and Antarctic snow and ice. In : "**Heavy Metal Pollution**", Colombus, F., Ed., Nova Science Publishers, New York, in press.
- (B31) Boutron, C., Barbante, C., Hong, S., Rosman, K., Bolshov, M., Adams, F., Gabrielli, P., Plane, J.M.C., Hur, S.D., Ferrari, C. and Cescon, P. (2010). Heavy metals in Antarctic

and Greenland snow and ice cores : man induced changes during the last millennia and natural variations during the last climatic cycles. In : “**Persistent Pollution. Past, Present, Future**”, Quante, M., Ebinghaus, R. and Flöser, G. Eds., Springer, Berlin, in press.

- (B32) Barbante, C., Gabrieli, J., Gabrielli, P., Vallelonga, P., Cozzi, G., Turetta, C., Hong, S., Rosman, K., Boutron, C.F. and Cescon, P. (2010). An historical record of heavy metals pollution in Alpine snow and ice. In : “**Persistent Pollution. Past, Present, Future**”, Quante, M., Ebinghaus, R. and Flöser, G. Eds., Springer, Berlin, in press.

4. Conference proceedings

- (C1) Boutron, C.F., Martin, S. and Lorius C. (1981). Composition of aerosols deposited in snow at the South Pole : time dependency and sources. In “**Proceedings of the 9th International Conference on Atmospheric Aerosols, Condensation and Ice Nuclei**”, Galway, Ireland, 21-27 September 1977, Irish Elsevier Printers, Shannon, Ireland, 268-273.
- (C2) Boutron, C.F. (1983). Atmospheric heavy metals in the snow and ice layers deposited in Antarctica and Greenland from prehistoric times to present. In “**Proceedings of the International Conference on Heavy Metals in the Environment**”, Heidelberg, Federal Republic of Germany, 6-9 September, Müller G. Ed., Page Bros, Norwich, UK, 174-177.
- (C3) Batifol, F. and Boutron, C.F. (1984). Toxic metals and metalloids in high altitude alpine glaciers snow and ice. In “**Proceedings of the Third European Symposium on Physico-Chemical Behaviour of Atmospheric Pollutants**”, Varese, Italy, 10-12 April, Versino B. and Angeletti G. Eds., D. Reidel, Dordrecht, Federal Republic of Germany, 471-479.
- (C4) Chabot, J. and Boutron, C.F. (1984). Atmospheric heavy metals in sediment cores taken in mid altitude alpine lakes. In “**Proceedings of the Third European Symposium on the Interaction between Sediments and Water**”, Geneva, Switzerland, 28-31 August, Vernet J.P. Ed., Page Bros, Norwich, UK, 131-134.
- (C5) Boutron, C.F., Patterson, C.C. and Barkov, N.I. (1989). Assessing the quality of thermally drilled deep Antarctic ice cores for trace elements analysis. In “**Proceedings of**

- the International Workshop on Ice Core Drilling**”, Grenoble, France, 10-15 October 1988, 182-197.
- (C6) Görlach, U. and Boutron, C.F. (1989). Heavy metal concentrations in surface snow from central Greenland. In **“Proceeding of the 7th International Conference on Heavy Metals in the Environment”**, Geneva, Switzerland, 10-15 September, Vernet J.P. Ed., Page Bros, Norwich, England, 24-27.
- (C7) Görlach, U., Candelone, J.P. and Boutron, C.F. (1991). Changes in heavy metals concentrations in Greenland snow during the past twenty years. In **"Proceedings of the 8th International Conference on Heavy Metals in the Environment"**, Edinburgh, UK, 16-20 September, Farmer J.G. Ed., Page Bros, Norwich, England, 74-77.
- (C8) Boutron, C.F. (1992). History of the large scale pollution of the atmosphere as documented in Greenland and Antarctic snow and ice cores (invited plenary lecture). In **"Proceedings of the 5th International Conference on Environmental Contamination"**, Morges, Switzerland, 29 September-1st October (invited plenary paper). Vernet J.P. Ed., CEP Consultants, Edinburgh, UK, 19-21.
- (C9) Candelone, J.P., Hong, S. and Boutron, C.F. (1993). The changing occurrence of Pb, Cd, Zn and Cu in Greenland snow from 1772 to 1965. In **"Proceedings of the 9th International Conference on Heavy Metals in the Environment"**, Toronto, Canada, 12-16 September, Allan R.J. and Nriagu J.O. Eds., Page Bros, Norwich, UK, 575-577.
- (C10) Lobinski, R., Boutron, C.F., Candelone, J.P., Hong, S., Szpunar-Lobinska, J. and Adams, F. (1993). The occurrence of organolead compounds in Greenland snow during the 1945-1989 period. In **"Proceedings of the 9th International Conference on Heavy Metals in the Environment"**, Toronto, Canada, 12-16 September, Allan R.J. and Nriagu J.O. Eds., Page Bros, Norwich, UK, 571-574.
- (C11) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P. and Hong, S. (1993). Lead isotopes in Greenland snow since the last 1960's. In **"Proceedings of the 9th International Conference on Heavy Metals in the Environment"**, Toronto, Canada, 12-16 September, Allan R.J. and Nriagu J.O. Eds., Page Bros, Norwich, UK, 567-570.
- (C12) Hong, S., Candelone, J.P. and Boutron, C.F. (1995). Early large scale pollution for copper during the Antiquity documented in Greenland ice. In **"Proceedings of the 10th International Conference on Heavy Metals in the Environment"**, Hamburg,

- Germany, 18-22 September. Wilken R.D., Förstner U. and Knöchel A. Eds, Page Bros, Norwich, UK, 96-99.
- (C13) Rosman, K.J.R., Chisholm, W., Boutron, C.F., Candelone, J.P. and Hong, S. (1995). Lead isotope record in ancient Greenland ice. In "**Proceedings of the 10th International Conference on Heavy Metals in the Environment**", Hamburg, Germany, 18-22 September. Wilken R.D., Förstner U. and Knöchel A. Eds., Page Bros, Norwich, UK, 34-36.
- (C14) Boutron, C.F., Hong, S. and Candelone, J.P. (1995). History of the large scale atmospheric pollution of the Northern Hemisphere for heavy metals as documented in Greenland snow and ice. In "**Proceedings of the 10th International Conference on Heavy Metals in the Environment**", Hamburg, Germany, 18-22 September, Wilken R.D., Förstner U. And Knöchel A. Eds, Page Bros, Norwich, UK, 28-33 (invited plenary lecture).
- (C15) Tarpin, M., Hong, S., Ferrari, C.P., Braunstein, P., Chastagnaret, G., Boutron, C.F. and Domergue, C. (1997) Les neiges et glaces polaires : de véritables archives de l'histoire récente et ancienne. Approche méthodologique. In "**Proceedings of the Conference Les Temps de l'Environnement**", Toulouse, France, 5-7 November, pp 359-364.
- (C16) Boutron, C.F., Hong, S., Candelone, J.P. and Patterson, C.C. (1998). History of ancient copper smelting recorded in central Greenland ice. In "**L'Atelier du Bronziste en Europe du XXe au VIIIe siècle avant notre ère**" Actes du Colloque International Bronze'96, Dijon, France, 6-9 March, Mordant C., Pernot M. and Rychner V. Eds., CTHS, Paris, 93-100.
- (C17) Boutron, C.F. (1998) Les glaces polaires, archives de la pollution de l'atmosphère par les activités de production de métaux de la Grèce antique à la Renaissance, Proceedings of the **Colloquium "Le Temps"**, Institut Universitaire de France, Nantes, France, pp. 165-175, 12-13 Mars 1998.
- (C18) Hong, S., Park, J.K., Thompson, L.G., Boutron, C.F., Ferrari, C.P., Francou, B. and Maurice-Bourgoin, L. (2003) Changes in the occurrence of heavy metals in the tropical atmosphere during the past 22,000 years as recorded in Bolivian ice core. In "**Proceedings of the 12th International Conference on Heavy Metals in the Environment**", Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds.,

- Journal de Physique, IV, **107**, 633-636.
- (C19) Gabrielli, P., Barbante, C., Planchon, F., Ferrari, C.P., Delmonte, B. and Boutron, C.F. (2003) Changes in the occurrence of heavy metals in polar ice during the last climatic cycles, with special emphasis on the possible link between cosmic dust accretion rate and the 100 kyr cycle. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 499-503.
- (C20) Hong, S., Park, J.K., Boutron, C.F., Ferrari, C.P., Petit, J.R. and Lipenkov, V.Y. (2003) Changes in natural lead, cadmium, zinc and copper concentrations in the Vostok Antarctic ice over the last two glacial-interglacial cycles (240,000 years). In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 629-632.
- (C21) Rosman, K.J.R., Hong, S., Burton, G., Burn, L., Boutron, C.F., Ferrari, C.P., Thompson, L.G., Maurice-Bourgoin, L. and Francou, B. (2003) Pb and Sr isotopes from an ice core provide evidence for changing atmospheric conditions at the Sajama ice cap, South America. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 1157-1160.
- (C22) Planchon, F.A.M., Barbante, C., Boutron, C.F., Bulat, S., Cescon, P., Cozzi, G., Dommergue, A., Ferrari, C.P., Gabrielli, P. And Petit, J.R. (2003). Trace elements in accreted ice from the Vostok sub-glacial lake, Antarctica : initial results, In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 1067-1070.
- (C23) Gauchard, P.A., Ferrari, C.P., Dommergue, A., Poissant, L. and Boutron, C.F. (2003) In field kinetic experiments to better understand chemical mechanisms involved during mercury depletion events (MDE) : preliminary results. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 529-532.
- (C24) Jitaru, P., Infante, H.G., Ferrari, C.P., Dommergue, A., Boutron, C.F. and Adams, F.C.

- (2003). Present century record of mercury species pollution in high altitude alpine snow and ice. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 683-686.
- (C25) Gauchard, P.A., Dommergue, A., Ferrari, C.P., Laj, P. and Boutron, C.F. (2003). Mercury speciation into tropospheric clouds. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 525-528.
- (C26) Boutron, G.R., Boutron, C.F., Hong, S., Candelone, J.P. and Rosman, K.J.R. (2003) Strontium isotope measurements in Greenland ice from the last glacial maximum to the early Holocene. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 241-244.
- (C27) Ferrari, C.P., Dommergue, A. and Boutron, C.F. (2003). Gaseous mercury distribution in interstitial air of snow pack in Station Nord, Greenland. Evidence of permanent mercury depletion event in the air of snow during polar sunrise. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 459-462.
- (C28) Gauchard, P.A., Guehenneux, G., Ferrari, C.P., Poissant, L., Dommergue, A., Boutron, C.F., Fourcade, M.C. and Baussand, P. (2003). Evidences of modifications in the size distribution of particles during a mercury depletion event at Kuujuarapik/Whapmagoostui, Québec (Canada). In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 521-524.
- (C29) Dommergue, A., Ferrari, C.P., Gauchard, P.A., Poissant, L. And Boutron, C.F. (2003) Diurnal cycles of interstitial gaseous mercury inside a sub-arctic snow-pack prior to and during snowmelt events. In **“Proceedings of the 12th International Conference on Heavy Metals in the Environment”**, Grenoble, France, 26-30 May, Boutron C.F. and Ferrari C.P. Eds., Journal de Physique, IV, **107**, 389-392.
- (C30) Cozzi, G., Barbante, C., Planchon, F., Boutron, C.F., Gaspari, V., Wolff, E., Ferrari, C. and Cescon, P. (2003) A record of heavy metals concentration in Antarctic snow since

the mid-19th century. In “**Proceedings of the 4th Meeting on Italian Antarctic Glaciology**”, Terra Antarctica Reports, 8, 29-32.

- (C31) Gabrielli, P., Barbante, C. and Boutron, C.F. (2003) Changes in the occurrence of heavy metals in Antarctic ice during the last climatic cycles with special emphasis on the possible link between cosmic dust accretion rate and the 100 kyr cycle. In “**Proceedings of the 14th Meeting on Italian Antarctic Glaciology**”, Terra Antarctica Reports, 8, 87-89.
- (C32) Jitaru, P., Ferrari, C., Dommergue, A., Gauchard, P.A., Boutron, C.F., Gabrielli, P., Barbante, C. and Adams, F. (2004). Speciation analysis of mercury in the polar environment by multi-capillary gas chromatography-inductively coupled plasma time-of-flight mass spectrometry. In “**Proceedings of the 7th International Conference on Mercury as a Global Pollutant**”, Ljubljana, Slovénia, June 7-14, RMZ-Materials and Geoenvironment, 51, 1947-1950.
- (C33) Rosman, K.J.R., Burn, L., Vallelonga, P., Hong, S., Hur, S., Lee, K., Boutron, C.F., Petit, J.R., Ferrari, C., Barbante, C. and Lipenkov, V. (2005) A record of lead isotopes from 237 ky to 409 ky BP in the Vostok ice core, Antarctica. In “**Proceedings of the 13th International Conference on Heavy Metals in the Environment**”, Rio de Janeiro, Brazil, June 5-9, Trindade, R.B.E., Melamed, R., Sobral, L.G.S. and Barbosa, J.P. eds, Centro de Tecnologia Mineral, 649-652.
- (C34) Vallelonga, P., Gabrielli, P., Rosman, K.J.R., Barbante, C. and Boutron, C.F. (2005). Lead, barium and bismuth in the EPICA Dome C ice core : a 220 ky record of crustal and volcanic aerosol deposition. . In “**Proceedings of the 13th International Conference on Heavy Metals in the Environment**”, Rio de Janeiro, Brazil, June 5-9, Trindade, R.B.E., Melamed, R., Sobral, L.G.S. and Barbosa, J.P. eds, Centro de Tecnologia Mineral, 546-549.

5. Conferences without proceedings

- (D1) Boutron, C.F., Echevin, M. and Lorius, C. (1971). Eléments traces dans la neige de l’Antarctique. **Société Hydrotechnique de France**, Grenoble, France, 4-5 mars.
- (D2) Boutron, C.F., Echevin, M. and Lorius, C. (1972). Chimie des neiges de l’Antarctique :

- étude d'une profil côte intérieur. **Colloque de Physique de la Basse Atmosphère**, Lille, France, 25-26 avril.
- (D3) Boutron, C.F., Briat, M. and Lorius, C. (1972). Chimie des neiges polaires. **Réunion des Sciences de la Terre**, Paris, France, 9-13 octobre.
- (D4) Boutron, C.F. (1976). Lead and copper increase at South Pole Station, Antarctica, since 1950 : global pollution or local contamination ? **Third European Geophysical Society Meeting**, Amsterdam, the Netherlands, 7-10 September. Abstract in "**E.O.S. Transaction American Geophysical Union**", 57, 9, 677.
- (D5) Delmas, R. and Boutron, C.F. (1976). Sulfate content in East Antarctica firn samples. **Third European Geophysical Society Meeting**, Amsterdam, The Netherlands, 7-10 September. Abstract in "**E.O.S. Transaction American Geophysical Union**", 57, 9, 677.
- (D6) Boutron, C.F. (1977). Preconcentration at the ng/kg level by non boiling evaporation in teflon : simultaneous determination of twelve elements in Antarctic snow. **International Symposium on Microchemical Techniques**, Davos, Switzerland, 22-27 May.
- (D7) Boutron, C.F. (1979). Short term variations of the trace metals content of the background aerosols deposited in Antarctic snows. **Fourth International Conference of the Commission on Atmospheric Chemistry and Global Pollution**, Boulder, Colorado, USA, 13-18 August.
- (D8) Boutron, C.F., Delmas, R. and Lorius, C. (1979). Historical record of twelve trace metals and sulfate in Antarctic snows since 1875. **International Symposium on Atmospheric Composition and Climate**, XVII General Assembly of the International Union of Geodesy and Geophysics, Canberra, Australia, 3-15 December.
- (D9) Delmas, R., Boutron, C.F. and Lorius, C. (1979). Volcanic events recorded in Antarctic snows during the last 100 years. **International Symposium on Volcanism and Climate**, XVII General Assembly of the International Union of Geodesy and Geophysics, Canberra, Australia, 3-15 December.
- (D10) Buat-Ménard, P. and Boutron, C.F. (1981). Some evidence of long-distance transport, local sources and fractionation between air and snow for metallic aerosols deposited in Antarctic snow since 1880's. **Third International Symposium on Antarctic Glaciology**, Columbus, Ohio, USA, 7-12 September. Abstract in "**Annals of**

Glaciology", 3, 348.

- (D11) Boutron, C.F. and Patterson, C.C. (1982). Lead in Antarctic snow deposited over the last two centuries and prehistoric ice. **Third Meeting of Working Party on Pollutant Cycles, European Communities, Cost 61 a bis**, Berlin, Federal Republic of Germany, 7-9 September.
- (D12) Boutron, C.F., Batifol, F. and Lorius, C. (1983). Anomaleously enriched elements in Antarctic snow and ice : a critical review and assessment. **International Symposium on Polar Meteorology and Climatology**, XVIII General Assembly of the International Union of Geodesy and Geophysics, Hamburg, Federal Republic of Germany, 15-27 August.
- (D13) Boutron, C.F. and Patterson, C.C. (1983). Lead in Antarctic snow deposited during recent centuries and prehistoric ice : a reevaluation of the data. **Fifth International Conference of the Commission on Atmospheric Chemistry and Global Pollution**. Oxford, England, 28 August-3 September.
- (D14) Boutron, C.F. (1984). Toxic metals and metalloids in Greenland and Antarctic snow and ice : a review. **International Symposium on Snow and Ice Chemistry and the Atmosphere**, Peterborough, Ontario, Canada, 19-24 August (invited paper).
- (D15) Bolshov, M.A., Boutron, C.F. and Koloshnikov, V.G. (1989). Direct ultrasensitive determination of lead at sub pg/g level in Antarctic ice by laser atomic fluorescence. **11th International Symposium on Microchemical Techniques**, Wiesbaden, Federal Republic of Germany, 28 August-1 September.
- (D16) Bolshov, M.A., Boutron, C.F. and Zybin, A.V. (1989). Direct determination of lead in Antarctic ice and snow by LEAFS technique. **26th Colloquium Spectroscopical International**, Sofia, Bulgaria, 2-7 July.
- (D17) Boutron, C.F. and Görlach, U. (1990). Teneurs en métaux lourds de la neige du Groenland. **Quatrièmes Entretiens du Centre Jacques Cartier**, Grenoble, France, 4-7 December.
- (D18) Boutron, C.F. (1992). Applications of Antarctic and Greenland snow and ice cores in pollution and climatology research. Invited plenary lecture presented at the "**Third International Conference on Nuclear and Radiochemistry**", Vienna, Austria, 7-11 September.

- (D19) Vandal, G.M., Fitzgerald, W.F., Boutron, C.F. and Candelone, J.P. (1992). Mercury in ancient ice and recent snow from the Antarctic. **International Conference on Mercury as a Global Pollutant**, Monterey, California, USA, 31 May-4 June.
- (D20) Boutron, C.F. (1993). Determination of heavy metals at ultralow concentration level in Antarctic and Greenland ice and snow. Invited lecture presented at the **Annual Chemistry Congress of the Royal Society of Chemistry**, Southampton, UK, 5-8 April.
- (D21) Boutron, C.F. (1993). Ultraclean and ultrasensitive methods for the reliable determination of heavy metals at the pg/g level in Antarctic and Greenland ice and snow. Invited plenary lecture presented at the **9th French-Italian-Spanish Meeting of Atomic Spectroscopy**, Gargnano, Italy, 24-26 May.
- (D22) Lobinski, R., Boutron, C.F., Candelone, J.P., Hong, S., Spuznar-Lobinska, J. and Adams, F. (1993). Speciation analysis of organolead in Greenland snow at the femtogram-per-gram level by capillary gas chromatography-atomic emission spectrometry. **28th Colloquium Spectroscopicum Internationale**, York, United Kingdom, 29 June-4 July.
- (D23) Rosman, K.J.R., Chisholm W, Boutron, C.F. and Candelone, J.P. (1993). Determination of lead isotopes in Greenland snow. **12th Australian Symposium on Analytical Chemistry and 3rd Environmental Chemistry Conference**, Perth, Australia, 26 September-1 October.
- (D24) Rosman, K.J.R., Chisholm, W., Boutron, C.F., and Candelone, J.P. (1993). Isotopic evidence of the sources of lead pollution in Greenland snow. **Annual Congress of the Australian and New Zealand Association for the Advancement of Science**, Perth, Australia, 28-30 September.
- (D25) Boutron, C.F., Candelone, J.P. and Hong, S. (1993) Time variations in natural and anthropogenic heavy metals in Antarctic and Greenland ice and snow. Invited plenary lecture presented at the **3rd International Environmental Chemistry Congress in Brazil**, Salvador, Brazil, 30 September-4 October.
- (D26) Boutron, C.F. and Bolshov, M.A. (1994) Ultrasensitive determination of Pb, Cd and Bi by laser excited atomic fluorescence. Invited lecture presented at the **13th International Symposium on Microchemical Techniques**, Montreux, Switzerland, 16-20 May.
- (D27) Candelone, J.P., Hong, S. and Boutron, C.F. (1994). Increase of heavy metals in

- Greenland ice and snow from the industrial revolution to the late 1960's. **14th International CODATA Conference**, Chambéry, France, 18-22 September.
- (D28) Hong, S., Candelone, J.P. and Boutron, C.F. (1994). Greenland ice evidence of large scale pollution of the atmosphere of the Northern Hemisphere for lead by Romans. **14th International CODATA Conference**, Chambéry, France, 18-22 September.
- (D29) Boutron, C. (1995). Mercury in polar ice cores. Invited lecture presented at the **Workshop on Patterns of Historical Atmospheric Mercury Deposition**, Orlando, USA, 28 February-2 March.
- (D30) Hong, S., Candelone, J.P. and Boutron, C.F. (1995). Changing natural sources of atmospheric heavy metals during the past 150000 years documented in Greenland ice. **10th International Conference on Heavy Metals in the Environment**, Hamburg, Germany, 18-22 September.
- (D31) Candelone, J.P., Chisholm, W., Rosman, K.J.R., Jaffrezo, J.L., Boutron, C.F. and Hong, S. (1995). Seasonal variations of the sources of pollutants reaching Summit in central Greenland using isotopic and geochemical data. **Australian Conference on Geochronology and Isotope Geoscience**, Perth, Australia, 9-10 November.
- (D32) Boutron, C.F. (1996). Ultratrace analysis of heavy metals in snow and ice from Antarctica and Greenland : ultraclean techniques for the sampling of surface snow and the decontamination of deep ice core. **Journées Scientifiques de la Société Royale de Chimie**, Bruxelles, Belgium, 5-6 June (invited lecture).
- (D33) Boutron, C.F. (1996) Greenland ice core records of large scale atmospheric pollution by heavy metals since antiquity. Invited lecture presented at the **International Workshop on Peat Bog Archives of Atmospheric Metal Deposition**, Bern, Switzerland, 29 September-5 October.
- (D34) Van de Velde, K. and Boutron, C.F. (1996) Atmospheric heavy metals in snow and ice from the Alps. Invited lecture presented at the **International Workshop on Glaciers from the Alps : climate and environmental archives**, Wengen, Switzerland, 21-23 October.
- (D35) Ferrari, C. and Boutron, C.F. (1997) Mesure des métaux lourds dans les neiges et glaces. **Société Hydrotechnique de France**, Grenoble, France, 6-7 March.
- (D36) Ferrari, C., Boutron, C.F., Van de Velde, K., Barbante, C., Scarponi, G., Adams, F.,

- Candelone, J.P., Rosman, K.J.R., Chisholm, W. and Bolshov, M.A. (1997) Heavy metals at ultralow levels in polar ice and snow. **International Conference on Analytical Chemistry**, Moscow, Russia, 15-21 June.
- (D37) Van de Velde, K., Belomi, T., Boutron, C.F., Ferrari, C.P., Bolshov, M.A. and Rudniev, S.N. (1998) Seasonal variations in the occurrence of heavy metals in Mont Blanc snow dated from the 1960's. **Second Alpine Glaciological Meeting**, Grenoble, France, 6-7 March.
- (D38) Boutron, C.F. (1998) Greenland and Antarctic ice evidence of long range transport of anthropogenic heavy metals in the atmosphere. Invited lecture presented at the **Workshop on Atmospheric Transport and Fate of Metals in the Environment**, Antwerpen, Belgium, 10-11 September.
- (D39) Ferrari, C., Van de Velde, K., Veysseyre, A., Planchon, F. and Boutron, C.F. (1999) A method for the determination of mercury at pg/g level in snow and ice samples : preliminary results. **5th International Conference on Mercury as a Global Pollutant**, Rio de Janeiro, Brazil, 23-28 May.
- (D40) Barbante, C., Capodaglio, G., Veysseyre, A., Ferrari, C., Van de Velde, K., Scarponi, G., Boutron, C.F. and Cescon, P. (1999) Atmospheric pollution of the Northern Hemisphere for Pt, Pd and Rh as detected in snow and ice by double focusing ICP-MS. **European Winter Conference on Plasma Spectrochemistry**, Pau, France, 10-15 January.
- (D41) Boutron, C.F., Ferrari, C.P., Hong, S., Van de Velde, K., Veysseyre, A., Planchon, F., Rosman, K.J.R. and Barbante, C. (1999) Les neiges et glaces du Groenland et des Alpes : archives de la pollution atmosphérique en métaux lourds de l'Antiquité à nos jours. **Deuxièmes Rencontres Internationales de Liessies "La Pollution au Moyen Age et à l'Epoque Moderne"**, Liessies, France, 29-31 March (invited lecture).
- (D42) Boutron, C.F., Hong, S., Van de Velde, K., Veysseyre, A., Candelone, J.P., Ferrari, C., Rosman, K.J.R., Bolshov, M., Barbante, C. and Adams, F. (1999) Atmospheric heavy metals in ice and snow from Greenland, Antarctica and the Alps. Invited lecture presented at the **Sixth Seoul International Symposium on Antarctic Science**, Seoul, Korea, May 18-19.
- (D43) Barbante, C., Cozzi, G., Cescon, P., Van de Velde, K., Ferrari, C. and Boutron, C.F. (2000) Two hundred year record of atmospheric trace elements as revealed by high

- altitude alpine firn and ice cores. **25th General Assembly of the European Geophysical Society**, Nice, France, April 25-29.
- (D44) Veysseyre, A., Rosman, K.J.R., Van de Velde, K., Ferrari, C. and Boutron, C. (2000) Atmospheric heavy metals in the seasonal snow cover in the french Alps. **25th General Assembly of the European Geophysical Society**, Nice, France, April 25-29.
- (D45) Boutron, C., Barbante, C., Cescon, P., Rosman, K.J.R., Bolshov, M.A., Hong, S., Planchon, F. and Ferrari, C. (2000). Changes in the occurrence of heavy metals in polar and alpine snow and ice from the Antiquity to present. Invited lecture presented at the **20th Congress of the Italian Chemical Society**, Rimini, Italy, June 4-9.
- (D46) Boutron, C. (2000). The changing occurrence of heavy metals in polar and alpine snow and ice cores. Invited plenary lecture presented at the **11th International Conference on Heavy Metals in the Environment**, Ann Arbor, USA, August 6-10.
- (D47) Rosman, K.J.R., Van de Velde, K., Vallelonga, P., Candelone, J.P., Planchon, F. and Boutron, C.F. (2000) Thermal Ionization Mass Spectrometry for the reliable determination of lead concentration isotopic ratios in Antarctic snow and ice. **11th International Conference on Heavy Metals in the Environment**, Ann Arbor, USA, August 6-10.
- (D48) Ferrari, C., Dommergue, A., Veysseyre, A., Planchon, F. and Boutron, C. (2000) Atmospheric mercury monitoring in a peri-urban site in Champ sur Drac, France. Correlation with other pollutant levels and meteorological parameters. **11th International Conference on Heavy Metals in the Environment**, Ann Arbor, USA, August 6-10.
- (D49) Veysseyre, A., Ferrari, C., Boutron, C. and Rosman, K.J.R. (2000) Heavy metals deposition in the french alpine snow. Occurrence of mesoscale transport of these pollutants. **11th International Conference on Heavy Metals in the Environment**, Ann Arbor, USA, August 6-10.
- (D50) Vallelonga, P., Rosman, K.J.R., Bollhöfer, A., Ferrari, C., Boutron, C.F., Van de Velde, K., and Brauer, A. (2000). Natural and anthropogenic lead inputs to Lake Annecy between 11 ky BP and 0.3 ky BP, as determined by ID-TIMS of sediment cores. **15th International Conference on Mass Spectrometry**, Barcelona, Spain, August 27-31,
- (D51) Dommergue, A., Ferrari, C., Laj, P. and Boutron, C. (2001). Mercury measurements in

- condensed and interstitial phase of clouds. **6th International Conference on Mercury as a Global Pollutant**, Minamata, Japan, October 15-19.
- (D52) Dommergue, A., Ferrari, C.P. and Boutron, C. (2001). An assessment of the atmospheric transport of mercury in the Alpine valley of Chamonix, France. **6th International Conference on Mercury as a Global Pollutant**, Minamata, Japan, October 15-19.
- (D53) Ferrari, C., Dommergue, A. and Boutron, C. (2001). Mercury in ice cores : paleoindicator of global temperature changes ? **6th International Conference on Mercury as a Global Pollutant**, Minamata, Japan, October 15-19.
- (D54) Ferrari, C., Dommergue, A. and Boutron, C. (2001). Mercury speciation in seasonal snow cover : evidence of photoreduction processes. **6th International Conference on Mercury as a Global Pollutant**, Minamata, Japan, October 15-19.
- (D55) Boutron, C. (2002) Ice core archives of heavy metal pollution since Antiquity. **Colloquium in memoriam of Prof. Peter Beuge, Freiburger Geotage 2002**, Freiberg, Germany, June 20-23 (invited lecture)
- (D56) Boutron, C. (2002) Historical records of deposition of heavy metals to high altitude cold sites at Mont-Blanc and Monte Rosa during the last centuries. **Workshop on the Dispersion of Trace Metals in the Environment**, Blanes, Spain, October 4-5 (invited lecture).
- (D57) Boutron, C.F. (2002) Heavy metals in polar and alpine snow and ice cores dated from the Antiquity and the post industrial revolution period, **3rd European Meeting on Environmental Chemistry**, Geneva, Switzerland, December 11-14 (invited plenary opening lecture)
- (D58) Barbante, C., Gaspari, V., Cozzi, G., Cescon, P., Ferrari, C., Delmonte, B., Petit, J.R. and Boutron, C.F. (2003) Temporal variability of iron and other bioactive trace elements in Antarctic (Dome C) ice during the last 30,000 years. **EGS/AGU/EUG Joint Assembly**, Nice, April 6-11.
- (D59) Gabrielli, P., Barbante, C., Planchon, F., Ferrari, C., Delmonte, B. and Boutron, C.F. (2003) Changes in the occurrence of heavy metals in Antarctic ice during the last climatic cycles. **EGS/AGU/EUG Joint Assembly**, Nice, France, April 6-11.
- (D60) Planchon, F., Barbante, C., Boutron, C.F., Bulat, S., Cescon, P., Cozzi, G., Dommergue, A., Ferrari, C., Gabrielli, P. and Petit, J.R. (2003) Trace elements in accreted ice from

- Vostok sub-glacial lake, Antarctica. **EGS/AGU/EUG Joint Assembly**, Nice, France, April 6-11.
- (D61) Planchon, F., Barbante, C., Boutron, C.F., Bulat, S., Cescon, P., Cozzi, G., Dommergue, A., Ferrari, C.P. and Gabrielli, P. (2003) Initial results on trace elements in the deepest part of the Vostok ice core, Antarctica : information on the sub-glacial lake environment. **7th International Symposium on Antarctic Glaciology**, Milan, Italy, August 25-29.
- (D62) Gabrielli, P., Barbante, C., Varga, A., Hong, S., Cozzi, G., Gaspari, V., Planchon, F.A.M., Cairns, W., Ferrari, C., Cescon, P. and Boutron C. (2003) Changes in the occurrence of heavy metals in polar ice during the last climatic cycles, **Euroconference on the comparison of ice core records with marine sediment and climate models**, San Feliu de Guixols, Spain, October 4-9.
- (D63) Boutron C. (2003) Polar and alpine ice cores : unique archives of the large-scale pollution of the troposphere for trace elements, **4th International Conference on High Resolution Sector Field ICPMS**, Venice, Italy, October 15-17 (invited plenary opening lecture).
- (D64) Planchon, F., Boutron, C., Barbante, C., Wolff, E.W., Cozzi, G., Gaspari, V., Ferrari, C.P. and Cescon P. (2003) Ultrasensitive determination of heavy metals at the sub-picogram per gram level in ultraclean antarctic snow samples by inductively coupled plasma sector field mass spectrometry, **4th International Conference on High Resolution Sector Field ICP-MS**, Venice, Italy, October 15-17.
- (D65) Gabrielli, P., Varga, A., Barbante, C., Cozzi, G., Gaspari, V., Boutron, C.F. and Capodaglio, G. (2003) Determination of Ir and Pt in polar snow by sub-boiling preconcentration and ICP-SFMS, **4th International Conference on High Resolution Sector Field ICPMS**, Venice, Italy, October 15-17.
- (D66) Ferrari, C., Gauchard, P.A., Dommergue, A., Magand, O., Nagorski, S., Boutron, C.F., Temme, C., Bahlmann, E., Ebinghaus, R., Steffen, A., Banic, C., Aspö, K. and Berg, T. (2004). Atmospheric particles evolution during Hg depletion events. **7th International Conference on Mercury as a Global Pollutant**, Ljubljana, Slovenia, June 7-14.
- (D67) Nagorski, S., Ferrari, C., Planchon, F., Gabrielli, P., Barbante, C., Cescon, P. and Boutron, C.F. (2004) Hg in ice cores : reconstruction of the Hg record of the last 400,000

- years. **7th International Conference on Mercury as a Global Pollutant**, Ljubljana, Slovenia, June 7-14.
- (D68) Ferrari, C.P., Gauchard, P.A, Dommergue, A., Magand, O., Nagorski, S., Boutron, C.F., Temme, C., Bahlmann, E., Ebinghaus, R., Steffen, A., Banic, C., Aspino, K., Berg, T., Planchon, F. and Barbante, C. (2004) Hg deposition onto snow surface during mercury depletion events in Ny-Alesund (Svalbard) from April to May 2003 : temporal and spatial evolutions. Evaluation of deposition and re-emission fluxes of Hg. **7th International Conference on Mercury as a Global Pollutant**, Ljubljana, Slovenia, June 7-14.
- (D69) Gauchard, P.A, Dommergue, A., Ferrari, C.P., Poissant, L. and Boutron, C.F. (2004) Mercury speciation into tropospheric clouds. **7th International Conference on Mercury as a Global Pollutant**, Ljubljana, Slovenia, June 7-14.
- (D70) Planchon, F., Vallelonga, P., Van de Velde, K., Rosman, K.J.R., Candelone, J.P., Morgan, V.I., Wolff, E.W., Gaspari, V., Barbante, C., Cozzi, G., Capodaglio, G., Ferrari, C.P., Boutron, C.F. and Cescon, P. (2004). Isotopic evidence of the lead pollution of Antarctica since the onset of the industrial revolution. **XXVIII SCAR Open Science1)**
- (D71) Barbante, C., Schwikowski, M., Gäggeler, H.W., Schotterer, U., Tobler, L. Van de Velde, K., Ferrari, C., Boutron, C.F., Capodaglio, G. and Cescon, P. (2004) Historical record of european emissions of heavy metals to the atmosphere since the 1650s from an alpine snow/ice core drilled near Monte Rosa. **29th General Assembly of the European Geophysical Union**, Nice, France, April 26-30.
- (D72) Siggaard-Andersen, M.L., Gabrielli, P., Steffensen, J.P., Stromfeldt, T., Barbante, C., Boutron, C.F., Fisher, H. and Miller, H. (2004). Soluble and insoluble chemistry of lithium in the EPICA Dome C ice core. **29th General Assembly of the European Geophysical Union**, Nice, France, April 26-30.
- (D73) Plane, J.M.C., Saunders, R.W., McFiggans, G., Gabrielli, P., Boutron, C.F. and Barbante, C. (2004) Meteoric smoke – where does it form and where does it go ? **35th Scientific Assembly of the Committee on Space Research (COSPAR)**, Paris, August.
- (D74) Boutron C. (2004) Global and regional pollution for heavy metals documented in snow and ice cores from Greenland, Antarctica and the Alps. **Bilateral Workshop Flanders-**

- China on Long Distance Transported Dust Storm Particles**, Antwerpen, Belgium, November 9-10 (invited opening lecture).
- (D75) Nagorski, S., Ferrari, C.P., Planchon, F.A.M., Barbante, C. Gabrielli, P. and Boutron, C.F. (2004). Mercury concentrations in a 200 year ice core record from Mont Blanc, **AGU Fall Meeting**, San Francisco, December 13-17.
- (D76) Ferrari, C.P., Gauchard, P.A., Temme, C., Magand, O., Bahlmann, E., Ebinghaus, R., Aspino, K., Berg, T., Dommergue, A., Planchon, F., Nagorski, S., Barbante, C. and Boutron, C.F. (2005). Two years of mercury atmospheric chemistry study in Ny-Alesund, Svalbard. Air to snow interaction. Seasonal evolution of mercury deposited onto Kongsvegen Glacier. **3rd International Symposium on the Arctic Research**, Tokyo, Japan, February 22-24.
- (D77) Planchon, F.A.M., Gabrielli, P., Gauchard, P.A., Dommergue, A., Barbante, C., Cairns, W.R.L., Cozzi, G., Nagorski, S., Ferrari, C.P., Boutron, C.F., Capodaglio, G., Cescon, P., Varga, A. and Wolff, E. (2005) Direct determination of mercury at the sub-pg/g level in polar snow and ice by ICP-SFMS. **Winter Conference on Plasma Spectrochemistry**, Budapest, Hungary, January 30-February 4.
- (D78) Rosman, K.J.R., Vallelonga, P., Candelone, J.P., Burton, G., Burn, L., Loss, R., Bolhofer, A., Boutron, C.F., Hur, S.D., Hong, S., Barbante, C. and Lipenkov, V. (2005). Application of natural isotopic variations in lead for environmental purposes. Past and Present. **International Symposium on Calibration of Isotope Abundance Ratios and Atomic Weights, and Their Applications**. Beijing, China, August 7-8.
- (D79) Vallelonga, P., Rosman, K.J.R., Gabrielli, P., Boutron, C.F. and Barbante, C. (2005). Pb isotopes and climate : a 220 ky record from the EPICA Dome C ice core. **Cape Grim Baseline Air Pollution Station Annual Science Meeting**, Aspendale, Australia, December 8-9.
- (D80) Marteel, A., Boutron, C.F., Ricci, C.A., Barbante, C. and Gabrielli, P. (2006). Variations in atmospheric trace elements in Dome C ice over the last seven climatic cycles. **European Geosciences Union General Assembly**, Vienna, Austria, April 2-7.
- (D81) De Boni, A., Cairns, W.R.L., Capodaglio, G., Cescon, P., Rauch, S., Hemond, H.F., Boutron, C.F. and Barbante, C. (2006) On line matrix separation for the determination of

platinum group elements in sediments. **8th Highway and Urban Environment Symposium, Nicosia, Cyprus**, June 11-14.

- (D82) Vallelonga, P., Rosman, K.J.R., Burton, G., Burn, L., Candelone, J.P., Van de Velde, K.P., Morgan, V.I., van Ommen, T.A., Barbante, C., Gaspari, V., Cescon, P., Planchon, F.A.M. and Boutron, C.F. (2006). A lead isotope record of pollution in Antarctica between 1500 AD and 1990 AD. **SCAR Open Science Conference**, Hobart, Australia, July 9-14.
- (D83) Rosman, K.J.R., Vallelonga, P., Burn, L., Candelone, J.P., Hong, S., Barbante, C., Gabrielli, P., Boutron, C.F., Petit, J.R., Planchon, F., Morgan, V. and Lipenkov, V. (2006) Lead isotopes in ice cores sense climate change at Vostok and Dome C, Antarctica. **SCAR Open Science Conference**, Hobart, Australia, July 9-14.
- (D84) Marteel, A., Boutron, C.F., Ricci, C.A., Barbante, C., Gabrielli, P., Cairns, W.R.L and Ferrari, C.P. (2006) High deposition of mercury species in Dome C during the last 700000 years. **International Conference on Mercury as a Global Pollutant**, Madison, USA, August 6-11.
- (D85) Fain, X., Ferrari, C., Dommergue, A., Gauchard, P.A., Grangeon, S., Hennebelle, R, and Boutron, C.F. (2006) The snowpacks, a sink and a source of gaseous mercury : an overview of oxidation and reduction mechanisms involved in Arctic and Alpine areas. **International Conference on Mercury as a Global Pollutant**, Madison, USA, August 6-11.
- (D86) Hennebelle, R., Ferrari, C., Amato, P., Delort, A.M., Sancelme, M., Barbante, C., Cairns, W. and Boutron, C.F. (2006) Interaction between mercury and Arctic bacteria in snow. Implications on Hg cycle in polar areas. **International Conference on Mercury as a Global Pollutant**, Madison, USA, August 6-11.
- (D87) Fain, X., Moldovan, I., Pique, J.P., Ferrari, C., Fesquet, V., Vacelet, T., Guillet de Chatellus, H. and Boutron, C. (2006) Development of a new modeless laser tool dedicated to gaseous mercury measurement : application to past atmosphere studies by analyses of the air trapped in ice core bubbles. **International Conference on Mercury as a Global Pollutant**, Madison, USA, August 6-11.
- (D88) Fain, X., Ferrari, C., Albert, M., Severinghaus, J., Battle, M. and Boutron, C.F. (2006)

- Recent atmospheric evolution of gaseous mercury concentrations revealed by firn air archive at Summit Station, Greenland. **International Conference on Mercury as a Global Pollutant**, Madison, USA, August 6-11.
- (D89) Boutron, C.F., (2006). Large scale pollution for heavy metals documented in Antarctic and Greenland snow and ice. **Conferenza Nazionale Sulla Ricerca Nelle Aree Polari**, Rome, Italy, October 17-18 (invited lecture).
- (D90) Fain, X., Ferrari, C., Dommergue, A., Albert, M., Severinghaus, J., Battle, M., Barnola, J.M., Arnaud, L. and Boutron, C.F. (2006) Recent atmospheric evolution of gaseous elemental mercury concentrations revealed by firn air archive at Summit Station, Greenland, **AGU Fall Meeting**, San Francisco, USA, December 11-15.
- (D91) De Boni, A., Cairns, W.R.L., Capodaglio, G., Cescon, P., Rauch, S., Hemond, H.F., Boutron, C.F. and Barbante, C. (2007) Determination of platinum group elements in lagoon sediments by ICP-MS with a sensitivity enhancing spray chamber. **European Winter Conference on Plasma Spectrochemistry**, Taormina, Italy, February 18-23.
- (D92) Boutron, C.F. (2007) Anthropogenic and natural changes in heavy metals and other trace elements in Antarctic and Greenland recent snow and ancient ice, **32nd General Assembly of the European Geosciences Union**, Vienna, Austria, April 15-20 (invited Alfred Wegener Medal lecture).
- (D93) Gabrielli, P., Boutron, C.F., Marteel, A., Petit, J.R., Delmonte, B., Gaspari, V., Cescon, P. and Barbante, C. (2007). Rare Earth Elements as tracers of continental dust origin in EPICA Dome C ice during glacial and interglacial periods, **32nd General Assembly of the European Geosciences Union**, Vienna, Austria, April 15-20.
- (D94) Gaspari, V., Cozzi, G., Gabrielli, P., Marteel, A., Boutron, C.F., Delmonte, B., Petit, J.R., Cescon, P. and Barbante, C. (2007). 50 kyr of trace elements fallout over the Atlantic sector of Antarctica and differences in concentrations between dissolved/acid leachable and total metals between glacial and interglacial matrix, **32nd General Assembly of the European Geosciences Union**, Vienna, Austria, April 15-20.
- (D95) Zangrado, R., Gambaro, A., Gabrielli, P., Barbante, C., Boutron, C.F. and Cescon, P. (2007). Monosaccharide Anhydrides determined at pg/g level in EPICA Dome C ice. **32nd General Assembly of the European Geosciences Union**, Vienna, Austria, April

15-20.

- (D96) Vallelonga, P., Rosman, K.J.R., Gabrielli, P., Marteel, A., Boutron, C., Barbante, C. and Zolitschka, B. (2007). Lead (Pb) isotopes and dust transport – results from Antarctic ice cores and Southern Hemisphere aerosols and soils. **Multidisciplinary Workshop on Southern South American Dust**, Puerto Madryn, Argentina, October 3-5.
- (D97) Gabrieli, J., Barbante, C., Schwikowski, M. and Boutron, C. (2008). Fifteen centuries of lead contamination from the Colle Gnifetti firn/ice core (4450 m a.s.l., Mt. Rosa group, Swiss-Italian Alps). **Alpine Glaciological Meeting**, Chamonix, France, March 6-7.
- (D98) Friend, A.D., Garcia-Gonzalez, R., Zaehle, S., Chabrillat, M., Schulz, M., Pacifico, F., Kasikowski, T., Sitch, S., Betts, R., Gumperberger, M., Poulter, B., Bondeau, A., Cramer, W., Vogt, M., Telszewski, M., Watson, A.J., Bakker, D.C.E., Liss, P., Sicardi, V., Stephens, N., Heimann, M., Le Quéré, C., Rodenbeck, C., Shannon, S., Durant, A., Harrison, J.M., Watson, I.M., Keenan, T., Sabate, S., Gracia, C.A., Espelta, T.R., Le Page, Y., Pereira, J.M.C., Jackowicz-Korczynski, M., Christensen, T.R., Petrescu, A.M.R., Dolman, A.J., Van Huissteden, J., Laurantou, A., Chappellaz, J., Van der Merwe, H., Boutron, C. and Pechinot, J.M. (2008) Biogenic feedbacks on the atmospheric concentrations of greenhouse gases : overview of the Greencycles network. **33rd General Assembly of the European Geosciences Union**, Vienna, Austria, April 13-18.
- (D99) Vallelonga, P., Marteel, A., Gabrielli, P., Rosman, J.R., Barbante, C., Hong, S. and Boutron, C.F. (2008) Climate related variations in Pb and Ba concentrations and Pb isotopes over seven glacial cycles in the EPICA Dome C ice core. **33rd General Assembly of the European Geosciences Union**, Vienna, Austria, April 13-18.
- (D100) Hong, S., Rosman, K., Boutron, C. and Barbante, C. (2008). Heavy metals occurrence in Antarctic snow and ice : recent results. **SCAR/IASC Open Science Conference**, St Petersburg, Russia, July 8-11.
- (D101) Gabrielli, P., De Boni, A., Cairns, W., Cozzi, G., Boutron, C., Cescon, P. and Barbante, C. (2008) Determination of Os, Ir and Pt in Greenland snow by ICP-SFMS using microcolumn preconcentration. **7th International SF-ICP-MS Meeting**, New Brunswick, USA, September 10-12.

- (D102) Vallenga, P., Marteel, A., Gabrielli, P., Wegner, A., Delmonte, B., Balliana, E., Vanhaecke, F., Rosman, K.J.R., Barbante, C., Hong, S. and Boutron C.F. (2008) Lead isotopic compositions in the EPICA Dome C ice core and Southern Hemisphere potential source areas. **EPICA Open Science Conference**, Venice, Italy, November 10-14.
- (D103) Gabrielli, P., Wegner, A., Petit, J.R., Delmonte, B., De Deckker, P., Gaspari, V., Ruth, U., Fischer, H., Boutron, C.F., Cescon, P. and Barbante, C. (2008). Rare Earth Elements as tracers of continental dust in EPICA Dome C ice during the last termination. **EPICA Open Science Conference**, Venice, Italy, November 10-14.
- (D104) Gaspari, V., Cozzi, G., Turetta, C., Capodaglio, G., Vallenga, P., Gabrielli, P., Boutron, C.F., Marteel, A., Cescon, P. and Barbante, C. (2008). Chemical-physical fractionation of major, minor and Rare Earth Elements (REE) in a glacial and interglacial matrix from the EPICA Dome C ice core. **EPICA Open Science Conference**, Venice, Italy, November 10-14.
- (D105) Boutron, C., Barbante, C., Hong, S., Rosman, K., Bolshov, M., Adams, F., Gabrielli, P., Plane, J.M.C., Hur, S.D., Ferrari, C. and Cescon, P. (2008). Natural and anthropogenic heavy metals in Antarctic and Greenland snow and ice cores. **14th International Conference on Heavy Metals in the Environment**, Taipei, Taiwan, November 16-23 (invited keynote lecture).
- (D106) Rosman, K.J.R., Boutron, C.F., Candelone, J.P., Bollhöfer, A.F., Hong, S., Barbante, C. and Morgan, V.I. (2009). The changing concentrations and isotopic character of lead in aerosols and polar ice cores. **22nd Australian and New-Zealand Conference on Mass Spectrometry**, Sydney, Australia, January 27-30.
- (D107) Gabrieli, J., Cozzi, G., Vallenga, P., Schwikowski, M., Sigl, M., Boutron, C. and Barbante, C. (2009). A fast semi-quantitative method for Plutonium determination in an alpine firn/ice core. **34th General Assembly of the European Geosciences Union**, Vienna, Austria, April 19-24.
- (D108) Gabrieli, J., Vallenga, P., Cairns, W., Cozzi, G., Decet, F., Schwikowski, M., Sigl, M., Boutron, C. and Barbante, C. (2009). A novel firn/ice core melter system for semi-continuous extraction of PAHs and continuous ICP-QMS trace element analysis. **34th General Assembly of the European Geosciences Union**, Vienna, Austria, April 19-24.

- (D109) Cairns, W., De Boni, A., Asti, M., Borla, M., Parussa, F., Cozzi, G., Cescon, P., Barbante, C. and Boutron, C.F. (2009) The capability of Diesel Particulate Filters (DPF) to reduce platinum group metals and trace elements emissions in a Euro 4 compliant diesel vehicle. **17th Transport and Air Pollution Symposium and the 3rd Environment and Transport Symposium**, Toulouse, France, June 2-4.
- (D110) Fain, X., Ferrari, C.P., Dommergue, A., Albert, M., Battle, M., Severinghaus, J., Arnaud, L., Barnola, J.M., Cairns, W., Barbante, C. and Boutron, C.F. (2009) Polar firn air reveals large-scale impact of anthropogenic mercury emissions during the 1970s. **9th International Conference on Mercury as a Global Pollutant**, Guiyang, China, June 7-12.
- (D111) Barbante, C., Gabrielli, P., Turetta, C., Planchon, F., Boutron, C.F., Petit, J.R., Bulat, S., Hong, S., Cozzi, G. and Cescon, P. (2009) Ultra-low Rare Earth Element content in accreted ice from sub-glacial Lake Vostok, Antarctica. **AGU Fall Meeting**, San Francisco, USA, December 14-18.
- (D112) Barbante, C., Planchon, F., Gabrielli, P., Gabrieli, J., Turetta, C., Boutron, C.F., Petit, J.R., Bulat, S., Hong, S., Cozzi, G., Cairns, W. and Cescon, P. (2010) Trace elements and metalloids in accreted ice from sub-glacial Lake Vostok, Antarctica. **AGU Chapman Conference on the Exploration and Study of Antarctic Sub-glacial Aquatic Environments**, Baltimore, Maryland, USA, March 15-17.
- (D113) Schwikowski, M., Sigl, M., Gaggeler, H.W., Gabrieli, J., Barbante, C. and Boutron, C. (2010) Decadal variability of NAO during the last millennium inferred from Saharan dust in Alpine ice, **35th General Assembly of the European Geosciences Union**, Vienna, Austria, May 2-7
- (D114) Schwikowski, M., Sigl, M., Gaggeler, H.W., Divine, D., Jenk, T.M., Gabrieli, J., Barbante, C. and Boutron, C. (2010) 1000-year summer temperature reconstruction from an Alpine ice core, **35th General Assembly of the European Geosciences Union**, Vienna, Austria, May 2-7
- (D115) Lee, K., Hur, S.D., Hou, S., Hong, S., Burn-Nunes, L.J., Barbante, C. and Boutron, C.F. (2010) Mt Everest ice core record of atmospheric Cu, Zn, Cd, Pb and Pb isotopes variations in central Asia during the past 800 years, **15th International Conference on**

Heavy Metals in the Environment, Gdansk, Poland, September 20-23

- (D116) Gabrieli, J., Vallelonga, P., Cairns, W., Cozzi, G., Schwikowski, M., Sigl, M., Boutron, C., Cescon, P. and Barbante, C. (2010) High resolution Pb deposition over the last three centuries obtained by a novel firn/ice-core melter system for continuous ICP-QMS trace element analysis. **15th International Conference on Heavy Metals in the Environment**, Gdansk, Poland, September 20-23
- (D117) Cairns, W., De Boni, A., Cozzi, G., Asti, M., Merlone Borla, E., M., Parussa, F., Cescon, P., Boutron, C. and Barbante, C. (2010) Direct determination of Platinum Group Element (PGE) , and other trace element emissions from passenger cars equipped with Diesel Particulate Filters (DPF). **15th International Conference on Heavy Metals in the Environment**, Gdansk, Poland, September 20-23
- (D118) Kirchgeorg, T., Dreyer, A., Xie, Z., Gabrieli, J., Barbante, C., Boutron, C. and Ebinghaus, R. (2011) Perfluorinated compounds in ice core samples from the Alps . To be presented at the **21st Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC)** , Milan , Italy , May 15 – 19 .
- (D119) Spolaor, A., Vallelonga, P., Gabrieli, J., Kehrwald, N., Turetta, C., Zennaro, P., Plane, J.M.C. , Boutron, C. and Barbante, C. (2011) Iodine and bromine speciation at picogram per gram level in Talos Dome Antarctic ice core and the role of light . To be presented at the **18th Congress of the International Union for Quaternary Research (INQUA)** , Bern , Switzerland , July 20-27 .
- (D120) Gabrieli, J., Vallelonga, P., Schwikowski, M., Sigl, M., Boutron, C. and Barbante, C. (2011) High-resolution record of European trace element deposition over the past 2,000 yr from the Colle Gnifetti firn/ice core . To be presented at the **18th Congress of the International Union for Quaternary Research (INQUA)** , Bern, Switzerland , July 20-27 .