

7 REFERÊNCIAS BIBLIOGRÁFICAS

ALAE, M. *et al.* An overview of commercially used brominated flame retardants, their applications, their use patterns in different countries/ regions and possible modes of release. **Environment International**, v. 29, p. 683–9, 2003.

ALHO, C.J.R.; SCHNEIDER, M.; VASCONCELLOS, L.A. Degree of threat to the biological diversity in the Ilha Grande State Park (RJ) and guidelines for conservation. **Brazilian Journal of Biology**, v. 62, p. 375-385, 2002.

ALMEIDA, F.V. *et al.* Substâncias Tóxicas Persistentes (STP) no Brasil. **Química Nova**, v. 30, n° 8, p. 1976-1985, 2007.

ANALYTICAL METHODS COMMITTEE. Recommendations for the Definition, Estimation and Use of the Detection Limit. **Analyst**, v. 112, n. 2, p. 199, 1987.

ANDERSSON, Ö.; Blomkvist, G. Polybrominated aromatic pollutants found in fish in Sweden. **Chemosphere**, v. 10, p. 1051–1060, 1981.

AZEVEDO E SILVA, C.; TORRES, J.P.; MALM, O. Toxicologia das Bifenilas Policloradas. **Oecol. Bras.**, v. 11, n° 2, p. 179-187, 2007.

BEGOSSI, A. Mapping spots: fishing areas or territories among islanders of the Atlantic Forest (Brazil). **Regional Environmental Change**, v. 2, p. 1-12, 2001.

BERGEN, B.; NELSON, W.; PRUELL, J. Partitioning of Polychlorinated Biphenyl Congeners in the Seawater of New Bedford Harbor, Massachusetts. **Environ. Sci. Technol.**, v. 27, p. 938-942, 1993.

BITTAR, V.; CASTELLO, B.; BENEDITTO, A.P. Hábito alimentar do peixe-espada adulto, *Trichiurus lepturus*, na costa norte do Rio de Janeiro, sudeste do Brasil. **Biotemas.**, v. 21, nº 2, p. 83-90, 2008.

BLIGH, E.G. & DYER, W.J. A rapid method of total lipid extraction and purification. **Can. J. Biochem. Physiol.**, v. 37, p. 911-917, 1959.

BORGHESI, N. et al. Polybrominated diphenyl ether contamination levels in fish from the Antarctic and the Mediterranean Sea. **Chemosphere**, v. 77, p. 693-698, 2009.

BORJA, J. *et al.* Polychlorinated biphenyls and their biodegradation. **Process Biochemistry**, v. 40, p. 1999–2013, 2005.

BRASIL. **Instrução normativa.** Ministério da Agricultura, Pecuária e Abastecimento, nº 42, 1999.

BRASIL. **Consumo Per Capita aparente de pescado no Brasil.** Ministério da Pesca e Agricultura. Brasília, 2009.

BRAUNE, B.; DONALDSON, G.; HOBSON, K. Contaminant residues in seabird eggs from the Canadian Arctic. Part I. Temporal trends 1975-1998. **Environ. Pollut.**, v. 114, p. 39-54, 2001.

BREIVIK, K. *et al.* Towards a global historical emission inventory for selected PCB congeners — A mass balance approach: 3 An update. **Science of the Total Environment**, v. 377, p. 296-307, 2007.

BUCKLEY, D. *et al.* Soot Deposition in the Great Lakes: Implications for Semi-Volatile Hydrophobic Organic Pollutant Deposition. **Environ. Sci. Technol.**, v. 38, p. 1732-1739, 2004.

CAJARAVILLE, M.P. *et al.* Peroxisome proliferation as a biomarker in environmental pollution assessment. **Microscopy Research and Technique**, v. 61, p. 191-202, 2003.

CARDOSO, M.H.W.M. *et al.* Um material de referência (MR) ou material de referência certificado (MRC). **Ciência e Tecnologia dos Alimentos**, v. 30, nº 2, p. 429-438, 2010.

CARVALHO, C.V.A. **Exigência protéica de juvenis de tainha *Mugil platanus***. 2008. 49 f. Dissertação (Mestrado em Aquicultura) – Universidade Federal do Rio Grande.

CETIN, B.; ODABASI, M. Atmospheric concentrations and phase partitioning of polybrominated diphenyl ethers (PBDEs) in Izmir, Turkey. **Chemosphere**, v. 71, p. 1067-1078, 2008.

CHEN, L. *et al.* PBDEs in sediments of the Beijiang River, China: Levels, distribution, and influence of total organic carbon. **Chemosphere**, v. 76, p. 226-331, 2009.

CHIOU, W. *et al.* Food and feeding habits of ribbonfish *Trichiurus lepturus* in coastal waters of south-western Taiwan. **Fisheries Science**, v. 72, p. 373-381, 2006.

CORSOLINI, S. *et al.* Polybrominated Diphenyl Ethers, Perfluorinated Compounds and Chlorinated Pesticides in Swordfish (*Xiphias gladius*) from the Mediterranean Sea. **Environ. Sci. Technol.**, v. 42, p. 4344-4349, 2008.

COSTA, H. **Uma avaliação da qualidade das águas costeiras do estado do Rio de Janeiro**. Rio de Janeiro: Fundação de Estudos do Mar - Femar, 1998.

CREED, J.; Pires, D.; FIGUEIREDO, M. **Biodiversidade Marinha da Baía da Ilha Grande**; Ministério do Meio Ambiente, Brasil, 2007.

DACHS, J. *et al.* Oceanic biogeochemical controls on global dynamics of persistent organic pollutants. **Environ. Sci. Technol.**, v. 36, n° 20, p. 4229-4237, 2002.

DE BOER, J. *et al.* Method for the analysis of polybrominated diphenylethers in sediments and biota. **Trends in analytical chemistry**, v. 20, n° 20, p. 591-599, 2001.

DE BOER, J.; COFINO, W.P. First world-wide interlaboratory study on polybrominated diphenylethers (PBDEs). **Chemosphere**, v. 46, p. 625-633, 2002.

DE BOER, J. *et al.* Polybrominated diphenyl ethers in influents, suspended particulate matter, sediments, sewage treatment plant and effluents and biota from the Netherlands. **Environmental Pollution**, v.122, p. 63–74, 2003.

DE WIT, C.A. An overview of brominated flame retardants in the environment. **Chemosphere**, v. 46, n. 5, p. 583–624, 2002.

DE WIT, C.A. *et al.* Levels and trends of brominated flame retardants in the Arctic. **Chemosphere**, v. 64, p. 209–233, 2006.

DOMINGO, J.L.; BOCIO, A. Levels of PCDD/PCDFs and PCBs in edible marine species and human intake: A literature review. **Environment International**, v. 33, p. 397–405, 2007.

DOMINGO, J. *et al.* Human exposure to PBDEs through the diet in Catalonia, Spain: Temporal trend A review of recent literature on dietary PBDE intake. **Toxicology**, v. 248, p. 25-32, 2008.

DUNN, R.; HUWE, J. K.; CAREY, G.B. Biomonitoring polybrominated diphenyl ethers in human milk as a function of environment, dietary intake, and demographics in New Hampshire. **Chemosphere**, v. 80, p. 1175-1182, 2010.

ELJARRAT, E. *et al.* Occurrence of polybrominated diphenylethers, polychlorinated dibenzo-p-dioxins, dibenzofurans and biphenyls in coastal sediments from Spain. **Environmental Pollution**, v. 136, p. 493-501, 2005.

ERICKSON, M.D.; **Analytical Chemistry of PCBs**; Lewis Publishers, USA, 1997.

FASOLA, M.; MOVALLI, C.; GANDINI, C. Heavy metal, organochlorine pesticide and PCB residues in eggs and feathers of herons breeding in Northern Italy. **Archives of Environmental Contamination and Toxicology**, v. 34, p. 87–93, 1998.

FIGUEIREDO, L.H.M. *et al.* Non-Aromatic Hydrocarbons in Recent Sediments of Sepetiba and Ilha Grande Bays, Brazil. **J. Braz. Chem. Soc.**, v. 19, n° 3, p. 516-527, 2008.

FOOD & DRUG ADMINISTRATION/ENVIRONMENTAL PROTECTION AGENCY (FDA/EPA). Fish and Fisheries Products Hazards and Controls **Guidance: FDA & EPA Safety Levels in Regulations and Guidance. Appendix 5, Table A-5, 4p.**, 2001.

FROEHNER, S.; MACENO, M. Assessment of bioaccumulation of biphenyls in the trophic chain of a coastal area of Parana, Brazil. **Environ. Monit. Assess.**, v. 164, p. 189-198, 2010.

GOCHT, T. *et al.* Validation of an passive atmospheric deposition sampler for polybrominated diphenyl ethers. **J. Environ. Monit.**, v. 9, p. 1176-1182, 2007.

GOUIN, T. *et al.* Air-Surface Exchange of Polybrominated Diphenyl Ethers and Polychlorinated Biphenyls. **Environ. Sci. Technol.**, v. 36, p.1426-1434, 2002.

GOUIN, T.; HARNER, T. Modelling the environmental fate of the polybrominated diphenyl ethers. **Environmental International**, v. 29, p. 717-724, 2003.

GUVENIUS, D.; BERGMAN, A.; NOREN, K. Polybrominated diphenyl ethers in Swedish human liver and adipose tissue. **Arch. Environ. Contam. Toxicol.**, v. 40 p. 564–570, 2001.

HAIR, J.F. *et al.* Análise **Multivariada de Dados**; 6ª edição, Bookman, USA, 2009.

HALE, R.C. *et al.* Polybrominated Diphenyl Ether Flame Retardants in Virginia Freshwater Fishes (USA). **Env. Sci. Technol.**, v. 35, n° 23, p. 4585-4591, 2001.

HALE, R.C. *et al.* Potential role of fire retardant-treated polyurethane foam as a source of brominated diphenyl ethers to the US environment. **Chemosphere**, v. 46, p. 729-735, 2002.

HARVEY, G.R.; STEINHAUER, W.G. Atmospheric transport of polychlorobiphenyls to the North Atlantic. **Atmospheric Environmental**, v.8, p. 777-782, 1973.

HEIMSTAD, E. *et al.* Quantitative structure – Photodegradation relationships of polybrominated diphenyl ethers, phenoxyphenols and selected organochlorines. **Chemosphere**, v. 77, p. 914-921, 2009.

HITES, R. Polybrominated diphenyl ethers in the environment and in people: a meta-analysis of concentrations. **Environ. Sci. Technol.**, v. 38, p. 945-956, 2004.

HONEYCUTT, M.E.; MCFARLAND, V.A.; MCCANT, D.D. Comparison of three lipid extraction methods for fish. **Bull. Environ. Contam. Toxicol.**, v. 55, p. 469–472, 1995.

HOOPER, K.; MCDONALD, T.A. The PBDEs: an emerging environmental challenge and another reason for breast milk monitoring programs. **Environ. Health Perspect.**, v. 108, n° 5, p. 387-392, 2000.

IGNACIO, B.L. *et al.* Bioinvasion in a Brazilian Bay: Filling Gaps in the Knowledge of Southwestern Atlantic Biota. **Biodiversity and Globalization**, v. 5, n° 9, p. 1-9, 2010.

IKONOMOU, M.G.; RAYNE, S.; ADDISON, R. Exponential increases of brominated flame retardants, polybrominated diphenyl ethers, in the Canadian Arctic from 1981– 2000. **Environ. Sci. Technol.**, v. 36, p.1886-1892, 2002.

INGEBRIGTSEN, K.; SKAARE, J.; TEIGEN, S. Organochlorine residues in two Norwegian puffin (*Fratercula arctica*) colonies. **J. Toxicol. Environ. Health**, v. 14, p. 813-828, 1984.

IWATA, H. *et al.* Distribution of persistent organochlorines in the oceanic air and surface seawater and the role of ocean on their global transport and fate. **Environ. Sci. Technol.**, v. 27, p. 1080-1098, 1993.

JOHNSON-RESTREPO, B. *et al.* Polybrominated Diphenyl Ethers and Polychlorinated Biphenyls in a Marine Foodweb of Coastal Florida. **Environ. Sci. Technol.**, v. 39, n. 21, 8243-8250, 2005.

JOHNSON-RESTREPO, B.; KANNAN, K. An assessment of sources and pathways of human exposure to polybrominated diphenyl ethers in the United States. **Chemosphere**, v. 76, p. 542-548, 2009.

KAJIWARA, N. *et al.* Polybrominated diphenyl ethers (PBDEs) and organochlorines in melon-headed whales, *Peponocephala electra*, mass stranded along the Japanese coasts: Maternal transfer and temporal trend. **Environmental Pollution**, v. 156, p. 106-114, 2008.

KALANTZI, O.I. *et al.* Polybrominated diphenyl ethers and polychlorinated biphenyls in human breast adipose samples from Brazil. **Environmental International**, v. 35, p. 113-117, 2009.

KANNAN, K. *et al.* Bioaccumulation and toxic potential of extremely hydrophobic polychlorinated biphenyl congeners in biota collected at a superfund site contaminated with Aroclor 1268. **Environ. Sci. Technol.**, v. 32, p. 1214-1221, 1998.

KEHRIG, H.; MALM, O.; MOREIRA, I. Mercury in a widely consumed fish *Micropogonias furnieri* (Demarest, 1823) from four main Brazilian estuaries. **The Science of the Total Environment**, v. 213, p. 263-271, 1998.

KEHRIG, H. *et al.* Transferência trófica de mercúrio e selênio na costa norte do Rio de Janeiro. **Química Nova**, v. 32, nº 7, p. 1822-1828, 2009.

KOWALSKI, C. *et al.* Determination of Polychlorinated Biphenyls in Brazilian Breast Milk Samples using Solid-Phase Microextraction and Gas Chromatography-Electron Capture Detection. **J. Braz. Chem. Soc.**, v. 21, nº 3, p. 502-509, 2010.

LEONEL, J. *et al.* Long-term trends of polychlorinated biphenyls and chlorinated pesticides in franciscana dolphin (*Pontoporia blainvillei*) from Southern Brazil. **Marine Pollution Bulletin**, v. 60, p. 412-418, 2010.

LIEM, A. *et al.* Exposure of populations to dioxins and related compounds. **Food Addit. Contam.**, v. 17, p. 241–259, 2000.

LILIENTHAL, H. *et al.* Effects of developmental exposure to 2,2,4,4,5-pentabromodiphenyl ether (PBDE-99) on sex steroids, sexual development, and sexually dimorphic behavior in rats. **Environ. Health Perspect.**, v. 114, p. 194–201, 2006.

LINDERHOLM, L. *et al.* Human exposure to persistent organic pollutants in West Africa — A temporal trend study from Guinea-Bissau. **Environment International**, v. 36, p. 675-682, 2010.

LOGANATHAN, B.; KANNANN, K. Global organochlorine contamination trends: an overview. **Ambio.**, v. 23, p.187-191, 1994.

LORBER, M. Exposure of Americans to polybrominated diphenyl ethers. **J. Exp. Sci. Environ. Epidemiol.**, v. 18, p. 2–19, 2008.

LORENZON, M.C.; CONDE, M.M.; BARBOSA, C.G. Eusocial Apidae in Tropical Insular Region. **Brazilian Archives of Biology and Technology**, v.49, n° 5, p. 733-738, 2006.

LOSADA, S. *et al.* Suitability of selective pressurized liquid extraction combined with gas chromatography–ion-trap tandem mass spectrometry for the analysis of polybrominated diphenyl ethers. **Analytica Chimica Acta**, v. 679, p. 73-81, 2010.

LUO, X. *et al.* Polybrominated diphenyl ethers (PBDEs) in free-range domestic fowl from an e-waste recycling site in South China: Levels, profile and human dietary exposure. **Environmental International**, v. 35, p. 253-258, 2009.

MAHIQUES, M.M.; FURTADO, V.V. Utilização da análise dos componentes principais na caracterização dos sedimentos de superfície de fundo da Baía da Ilha Grande. **Bolm. Inst. Oceanogr., S Paulo**, v. 37, p. 1-19, 1989.

MARTINS, A.; HAIMOVICI, M.; PALACIOS, R. Diet and feeding of the cutlassfish *Trichiurus lepturus* in the Subtropical Convergence Ecosystem of southern Brazil. **Journal of the Marine Biological Association of United Kingdom**, v. 85, p. 1223-1229, 2005.

MAZET, A.; KECK, G.; BERNY, P. Concentrations of PCBs, organochlorine pesticides and heavy metals (lead, cadmium and copper) in fish from Drôme river: Potential effects on otters (*Lutra lutra*). **Chemosphere**, v. 61, p. 810-816, 2005.

MEADOWS, J. *et al.* Estimation of Uptake Rate Constants for PCB Congeners Accumulated by Semipermeable Membrane Devices and Brown Trout (*Salmo trutta*). **Environ. Sci. Technol.**, v. 32, p.1847-1852, 1998.

MEIRONYTÉ GUVENIUS, D.; BERGMAN, Å.; NORÉN, K. Polybrominated Diphenyl Ethers in Swedish Human Liver and Adipose Tissue Arch. Environ. **Contam. Toxicol.**, v. 40, p. 564–570, 2001.

MENDOZA-CARRANZA, M.; VIEIRA, J. Whitemouth croaker *Micropogonias furnieri* (Desmarest, 1823) feeding strategies across four southern Brazilian estuaries. **Aquat. Ecol.**, v. 42, p. 83-93, 2008.

METCALFE, D. *et al.* Polychlorinated Biphenyls (PCBs), physical and chemical property data. Hazards, decontamination and replacement of PCB: a comprehensive guide. **Environmental Science Research**, v. 37, p. 3-34, 1986.

MIRANDA, A.L. *et al.* Bioaccumulation of chlorinated pesticides and PCBs in the tropical freshwater fish *Hoplias malabaricus*: Histopathological, physiological, and immunological findings. **Environmental International**, v. 34, p. 939-949, 2008.

MIYAKE, Y. *et al.* Preliminary health risk assessment for polybrominated diphenyl ethers and polybrominated dibenzo-p-dioxins/furans in seafood from Guangzhou and Zhoushan, China. **Marine Pollution Bulletin**, v. 57, p. 357-364, 2008.

MOLISANI, M.M. *et al.* Environmental changes in Sepetiba Bay, SE Brazil. **Reg. Environ. Change**, v. 4, n° 1, p. 17–27, 2004.

MUENHOR, D. *et al.* Brominated flame retardants (BFRs) in air and dust from electronic waste storage facilities in Thailand. **Environment International**, v. 36, p. 690-698, 2010.

NAKATA, H. *et al.* Concentrations and compositions of organochlorine contaminants in sediments, soils, crustaceans, fishes and birds collected from Lake Tai, Hangzhou Bay and Shanghai city region, China. **Environmental Pollution**, v. 133, p.415-429, 2005.

NUMATA, M. *et al.* Investigation of saponification for determination of polychlorinated biphenyls in marine sediments. **Chemosphere**, v. 58, p. 865-875, 2005.

ODUSANYA, D.; OKONKWO, J.; BOTHA, B. Polybrominated diphenyl ethers (PBDEs) in leachates from selected landfill sites in South Africa. **Waste Management**, v. 29, p. 96-102, 2009.

OLIVEIRA, I.; SOARES, L. Alimentação da tainha *Mugil platanus* Günther, 1880 (Pisces: Mugilidae), da região estuarino-lagunar de Cananéia, São Paulo, Brasil. **Bol. Inst. Pesca**, v. 23, p. 95-104, 1996.

OROS, D. *et al.* Levels and Distribution of Polybrominated Diphenyl Ethers in Water, Surface Sediments, and Bivalves from the San Francisco Estuary. **Environ. Sci. Technol.**, v. 39, p. 33-41, 2005.

PENTEADO, J.C.P.; VAZ, J.M. O legado das Bifenilas Policloradas (PCBs). **Química Nova**, v. 24, nº 3, p. 390-398, 2001.

POHL, H.; BOSCH, S. ATSTR's guidance values for Polybrominated diphenyl ethers (PBDEs). **Update. Organohalogen. Comp.**, v. 67, p. 2507-2509, 2003.

PREFEITURA MUNICIPAL DE ANGRA DOS REIS. **Baía da Ilha Grande**. Desenvolvida pela Secretaria de Fazenda de Angra dos Reis. Disponibilização de informações acerca da cidade e da Baía da Ilha Grande. 2006 Disponível em: <http://www.angra.rj.gov.br/asp/municipio/muni_ilhag.asp>. Acessado em 10 de dezembro de 2010.

PRIETO, A. *et al.* Simultaneous preconcentration of a wide variety of organic pollutants in water samples: Comparison of stir bar sorptive extraction and membrane-assisted solvent extraction. **Journal of Chromatography A**, v. 1214, p. 1-10, 2008.

QUINETE, N.S. *et al.* Specific profiles of polybrominated diphenylethers (PBDEs) and polychlorinated biphenyls (PCBs) in fish and tucuxi dolphins from the estuary of Paraíba do Sul River, Southeastern Brazil. **Marine Pollution Bulletin**, v. 62, p. 440-446, 2011.

RAHMAN, F. *et al.* Polybrominated diphenyl ether (PBDE) flame retardants. **The Science of the Total Environment**, v. 275, p. 1-17, 2001.

RAMU, K. *et al.* Polybrominated diphenyl ethers (PBDEs) and organochlorines in small cetaceans from Hong Kong waters: Levels, profiles and distribution. **Marine Pollution Bulletin**, v. 51, p. 669-676, 2005.

RICHARDSON, V.M. *et al.* Possible mechanisms of thyroid hormone disruption in mice by BDE 47, a major polybrominated diphenyl ether congener. **Toxicol. Appl. Pharmacol.**, v. 226, p. 244–250, 2008.

RODRIGUES, A.P.C. **Avaliação de risco ecológico associado à contaminação mercurial em dois estuários do Rio de Janeiro: Baía de Guanabara e Baía da Ribeira.** 2006. 97 f. Dissertação (Mestrado em Geociências) – Universidade Federal Fluminense.

ROSS, G. The public health implications of polychlorinated biphenyls (PCBs) in the environment. **Ecotoxicology and Environmental Safety**, v. 59, p. 275–291, 2004.

ROSS, P.S. *et al.* Large and growing environmental reservoirs of Deca-BDE present an emerging health risk for fish and marine mammals. **Marine Pollution Bulletin**, v. 58, p. 7-10, 2009.

SCHECTER, A. *et al.* Polybrominated diphenyl ether levels in foodstuffs collected from three locations from the United States. **Toxicology and Applied Pharmacology**, v. 243, p. 217–224, 2010.

SCHLUMMER, M.; MOSER, G.A.; MCLACHLAN, M. Digestive tract absorption of PCDD/Fs, PCBs and HCB in humans: mass balance and

mechanistic considerations. **Toxicology and Applied Pharmacology**, v. 152, p. 128–137, 1998.

SEIXAS, T.G. **Selênio total em tecidos de quatro diferentes organismos marinhos da Baía de Guanabara, RJ, Brasil**. 2004. 121 f. Dissertação (Mestrado em Química) – Pontifícia Universidade Católica do Rio de Janeiro.

SHAW, S.D. *et al.* Bioaccumulation of polybrominated diphenyl ethers in harbor seals from the northwest Atlantic. **Chemosphere**, v. 73, p. 1773-1780, 2008.

SHEN, H. *et al.* Levels and congener profiles of PCDD/Fs, PCBs and PBDEs in seafood from China. **Chemosphere**, v. 77, p. 1206–1211, 2009.

SILVA, S.F.G. **Ocorrência de PBDEs e PCBs em mexilhões e peixes da Baía de Guanabara**. 2009. 196 f. Tese (Doutorado em Química) – Pontifícia Universidade Católica do Rio de Janeiro.

SILVA-FILHO, E.V. *et al.* Mercury deposition through litterfall in an Atlantic Forest at Ilha Grande, Southeast Brazil. **Chemosphere**, v. 65, p. 2477-2484, 2006.

SJÖDIN, A. *et al.* U. Gas chromatographic identification of polybrominated diphenyl ethers in a commercial product, Bromkal 70-5DE. **J. Chromatogr. A**, v. 822, p. 83-89, 1998.

SKARPHEDINSDOTTIR, H. *et al.* Bioaccumulation and Biomagnification of Organochlorines in a Marine Food Web at a Pristine Site in Iceland. **Arch. Environ. Contam. Toxicol.**, v. 58, p. 800-809, 2010.

SOUZA, M.L.; MOULTON, T.P. The effects of shrimps on benthic material in a Brazilian island stream. **Freshwater Biology**, v. 50, p. 592-602, 2005.

STAPLETON, H. M. *et al.* Polybrominated Diphenyl Ethers in House Dust and Clothes Dryer Lint. **Environ. Sci. Technol.**, v. 39, n. 4, p. 925-931, 2005.

STEWART, P.W. *et al.* Cognitive development in preschool children prenatally exposed to PCBs and MeHg. **Neurotoxicol. Teratol.**, v. 25, p. 11-22, 2003.

STORELLI, M. *et al.* Health risk of coplanar polychlorinated biphenyl congeners in edible fish from the Mediterranean Sea. **J. Food Prot.**, v. 66, p. 2176-2179, 2003.

STORELLI, M. *et al.* Polychlorinated biphenyl and organochlorine pesticide contamination signatures in deep-sea fish from the Mediterranean Sea. **Environmental Research**, v. 109, p. 851-856, 2009.

STRANDBERG, B. *et al.* Concentrations and Spatial Variations of Polybrominated Diphenyl Ethers and Other Organohalogen Compounds in Great Lakes Air. **Environ. Sci. Technol.**, v. 35, p. 1078-1083, 2001.

SYLVESTRE, M. Total biodegradation of 4-chlorobiphenyl (PCB) by a two-membered bacterial culture. **Appl. Environ. Biotechnol.**, v. 21, p. 193-7, 1985.

SUN, S. *et al.* Levels of dioxins and polybrominated diphenyl ethers in human milk from three regions of northern China and potential dietary risk factors. **Chemosphere**, v. 80, p. 1151-1159, 2010.

SZPILMAN, M. **Guia Aqualung de peixes – Guia prático de identificação dos peixes do litoral brasileiro.** Aqualung Confecção Ltda, Brasil, p.284, 1991.

TAKAYAMA, K. *et al.* PCDDs, PCDFs and Coplanar PCBs in Coastal and Marketing Fishes in Japan. **Journal of Toxicology and Environmental Health**, v.37, nº2, p.125-131, 1991.

TURYK, M. *et al.* Longitudinal biomonitoring for polybrominated diphenyl ethers (PBDEs) in residents of the Great Lakes basin. **Chemosphere**, v. 81, p. 517-522, 2010.

UENO, D. *et al.* Global pollution monitoring of polychlorinated dibenzo-p-dioxins (PCDDs), furans (PCDFs) and coplanar polychlorinated biphenyls (coplanar PCBs) using skipjack tuna as bioindicator. **Environmental Pollution**, v. 136, p. 303-313, 2005.

VAN DEN BERG, M. *et al.* The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. **Toxicological Sciences**, v. 93, n° 2, p. 223-241, 2006.

VAN DER OOST, R. Biomonitoring aquatic pollution with feral eel (*Anguilla anguilla*): I. Bioaccumulation: biota-sediment ratios of PCBs, OCPs, PCDDs and PCDFs. **Aquat. Toxicol.**, v. 35, p. 21-46, 1996.

VAN DER OOST, R.; BEYER, J.; VERMUELEN, N. Fish bioaccumulation and biomarkers in environmental risk assessment: a review. **Environ. Toxicol. Pharmacol.**, v. 13, p. 57-149, 2003.

VAZZOLER, A.; ZANETI, E.; KAMAKAMI, E. **Estudo preliminar sobre o ciclo de vida dos Sciaenidae**. Parte I, Prog. Rio Grande do Sul – II, p. 240-291, 1973.

VIEIRA, M.F.P. **Determinação de Ba, Cd, Cr, Cu, Ni, Pb, Sn e Zn em tainha (*Mugil brasiliensis*) nos estuários potiguares**. 2007. Tese (Doutorado em Química) – Universidade Federal do Rio Grande do Norte.

VONDERHEIDE, A. A review of the challenges in the chemical analysis of the polybrominated diphenyl ethers. **Microchemical Journal**, v. 92, p. 49-57, 2009.

WALKER, C.H. In: **Organic Pollutants - An Ecotoxicological Perspective**. Taylor & Francis, London, UK, p.282, 2001.

WATTS, R.J. **Hazardous wastes: sources, pathways, receptors**. New York: John Wiley and Sons Inc., 1998.

WHO. **Polychlorinated Biphenyls and Terphenyls**. Environmental Health Criteria 140, World Health Organization, Geneva, 1993.

WHO. **Polychlorinated Biphenyls: Human Health Aspects**. Concise International Chemical Assessment Document 55, World Health Organization, Geneva, 2003.

WONG, M.H. *et al.* Export of toxic chemicals - a review of the case of uncontrolled electronic waste recycling. **Environ. Pollut.**, v. 149, p.131–40, 2007.

WU, J.P. *et al.* Bioaccumulation of polybrominated diphenyl ethers (PBDEs) and polychlorinated biphenyls (PCBs) in wild aquatic species from an electronic waste (e-waste) recycling site in South China. **Environment International**, v. 34, p. 1109–1113, 2008.

XIA, K. *et al.* Polybrominated Diphenyl Ethers (PBDEs) in Biota Representing Different Trophic Levels of the Hudson River, New York: From 1999 to 2005. **Environ. Sci. Technol.**, v. 42, n. 12, 4331-4337, 2008.

XIONG, G.; HE, X.; ZHANG, Z. Microwave-assisted extraction or saponification combined with microwave-assisted decomposition applied in pretreatment of soil or mussel samples for the determination of polychlorinated biphenyls. **Analytica Chimica Acta**, v. 413, p. 49-56, 2000.

XU, T. *et al.* Suitability of a magnetic particle immunoassay for the analysis of PBDEs in Hawaiian euryhaline fish and crabs in comparison with gas chromatography/electron capture detection-ion trap mass spectrometry. **Environmental Pollution**, v. 157, p. 417-422, 2009.

YOGUI, G.T.; SANTOS, M.C.O.; MONTONE, R.C. Chlorinated pesticides and polychlorinated biphenyls in marine tucuxi dolphins (*Sotalia fluviatilis*) from the Cananéia estuary, southeastern Brazil. **The Science of the Total Environment**, v. 312, p. 67–78, 2003.

YOGUI, G.T.; SERICANO, J.L. Polybrominated diphenyl ether flame retardants in the U.S. marine environment: A review. **Environment International**, v. 35, p. 655–666, 2009.

ZHANG, Y.; ROTT, B.; FREITAG, D. Accumulation and elimination of ¹⁴C-PCBs by *Daphnia magna* strains 1820. **Chemosphere**, v. 12, p. 1645–1651, 1983.

ZHANG, Z. *et al.* Fate and assessment of persistent organic pollutants in water and sediments from Minjiang River Estuary, Southeast China. **Chemosphere**, v. 52, p. 1423-1430, 2003.

ZHU, W. *et al.* Effect of decabromodiphenyl ether (BDE 209) on soil microbial activity and bacterial community composition. **World J. Microbiol. Biotechnol.**, v. 26, p. 1891-1899, 2010.

ZOU, M. *et al.* Polybrominated Diphenyl Ethers in Watershed Soils of the Pearl River Delta, China: Occurrence, Inventory, and Fate. **Environ. Sci. Technol.**, v. 41, n. 24, p. 8262-8267, 2007.

ZUIN, V. *et al.* Determination of pentachlorophenol and hexachlorobenzene in natural waters affected by industrial chemical residues. **Journal of the Brazilian Chemical Society**, v. 10, n° 1, p. 25-30, 1999.

8 APÊNDICE

8.1. Curvas analíticas dos principais PCBs e PBDEs encontrados

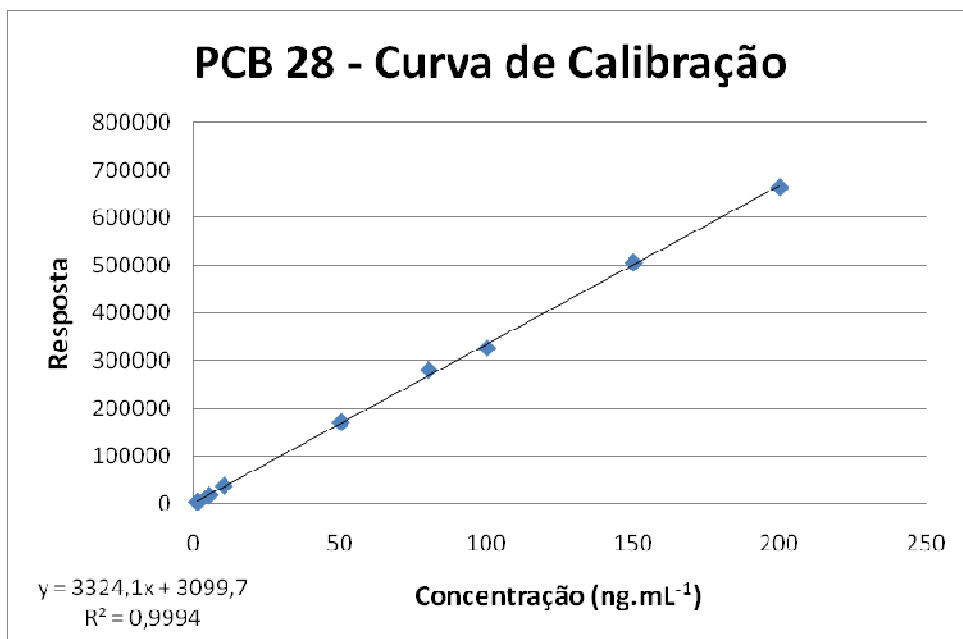


Figura 30. Curva de calibração do PCB-28.

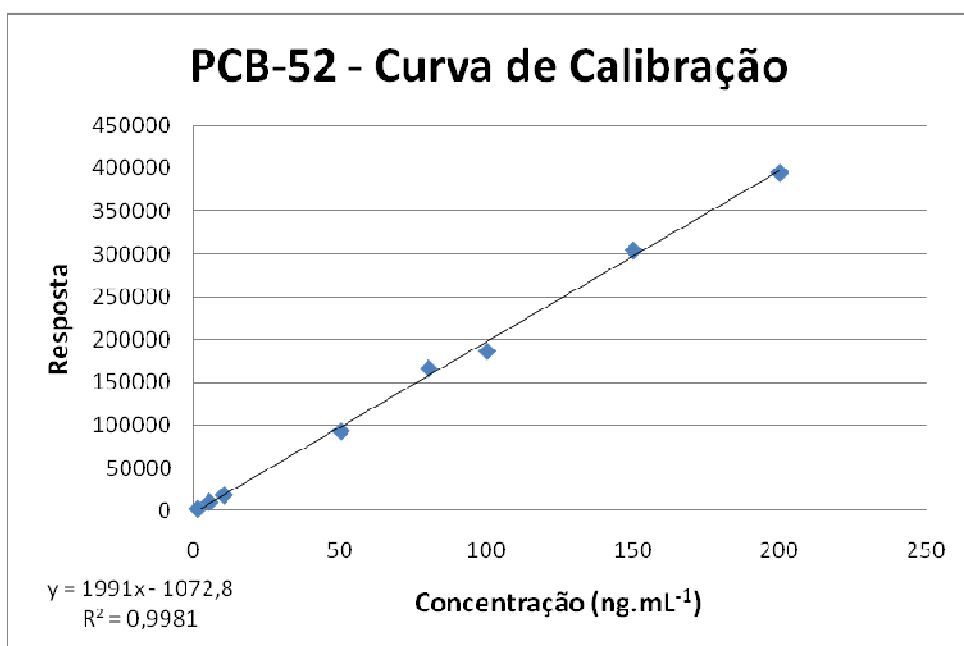


Figura 31. Curva de calibração do PCB-52.

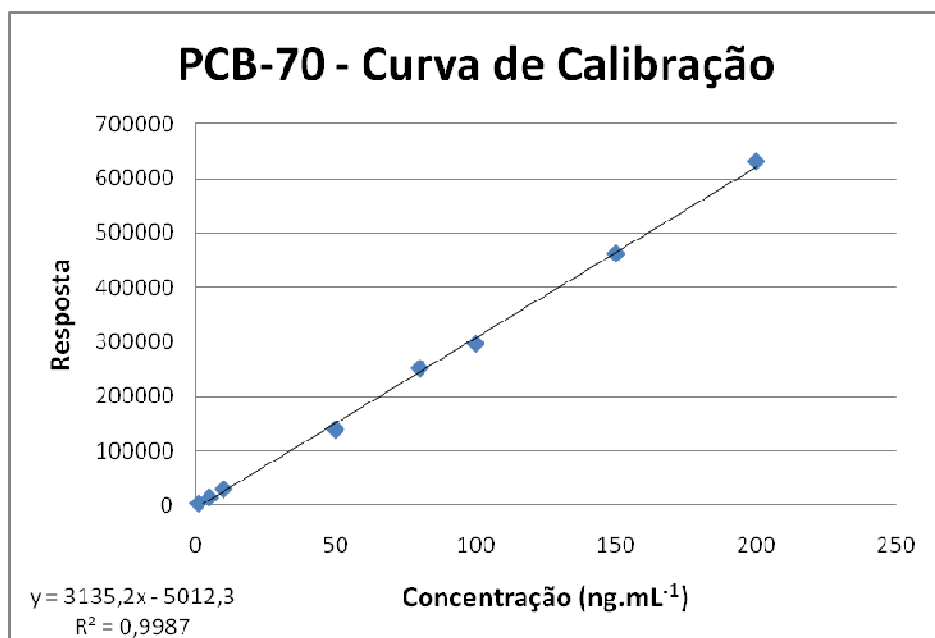


Figura 32. Curva de calibração do PCB-33.

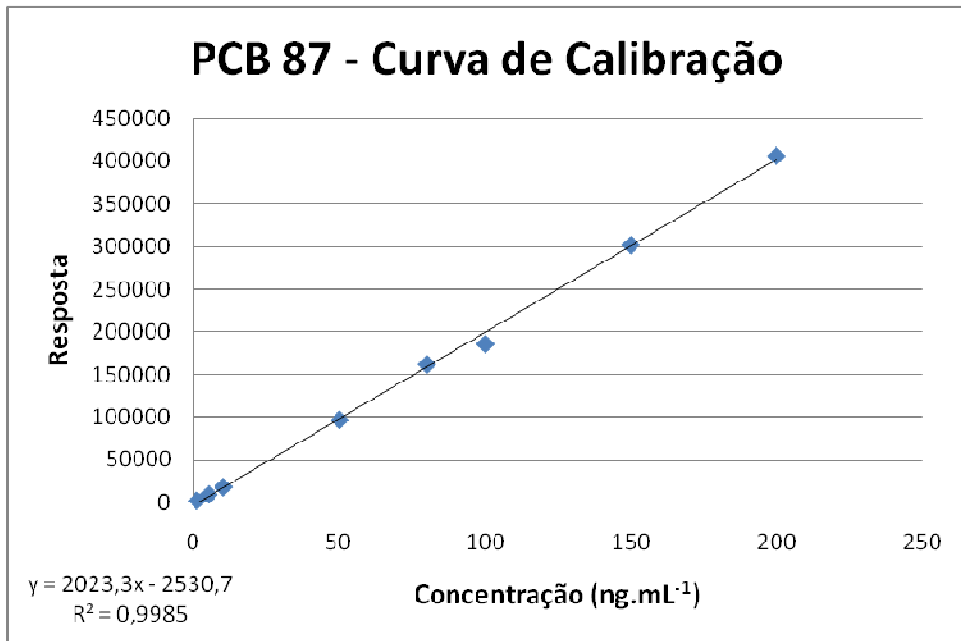


Figura 33. Curva de calibração do PCB-87.

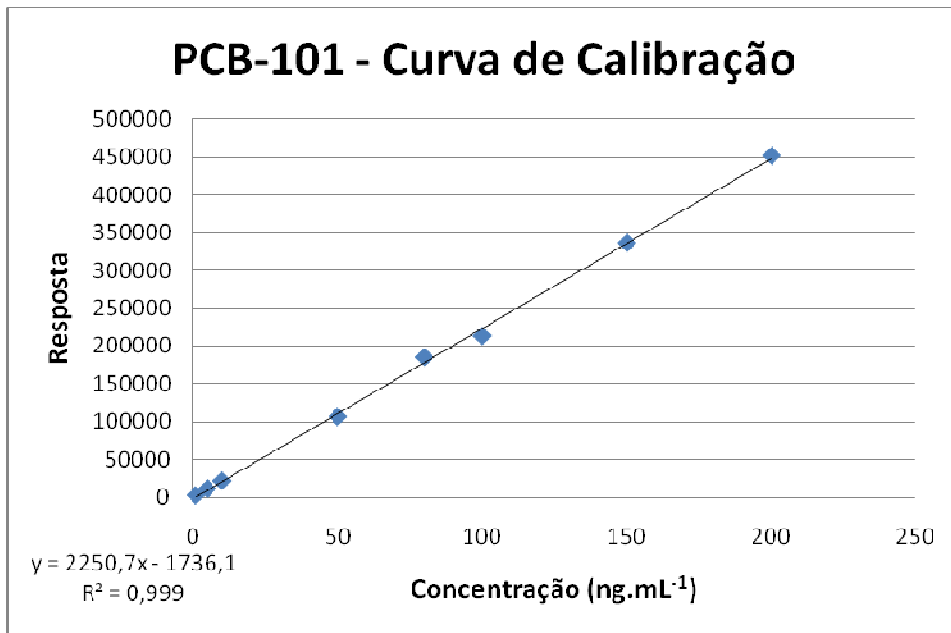


Figura 1. Curva de calibração do PCB-101.

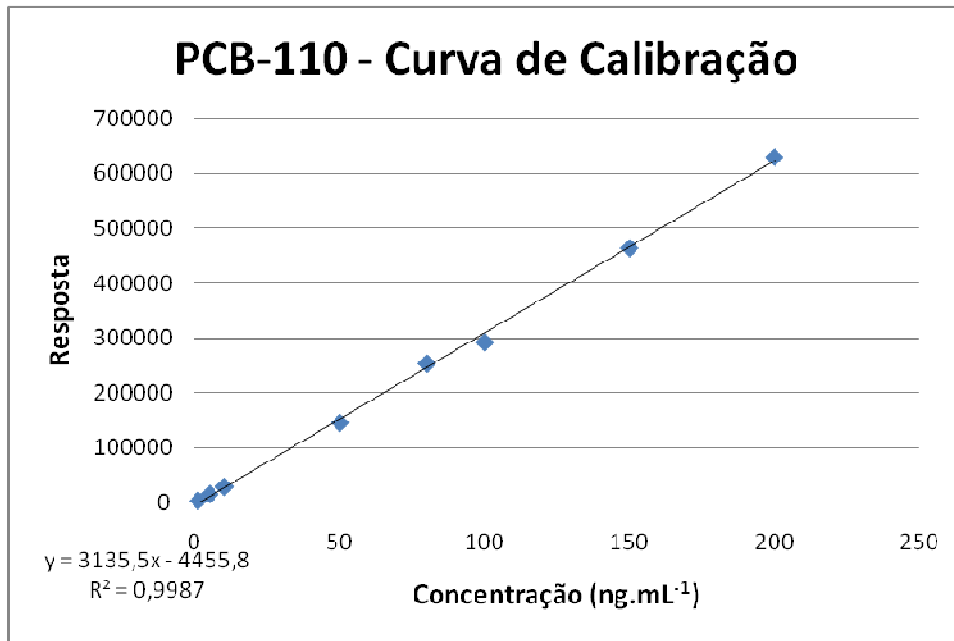


Figura 35. Curva de calibração do PCB-110.

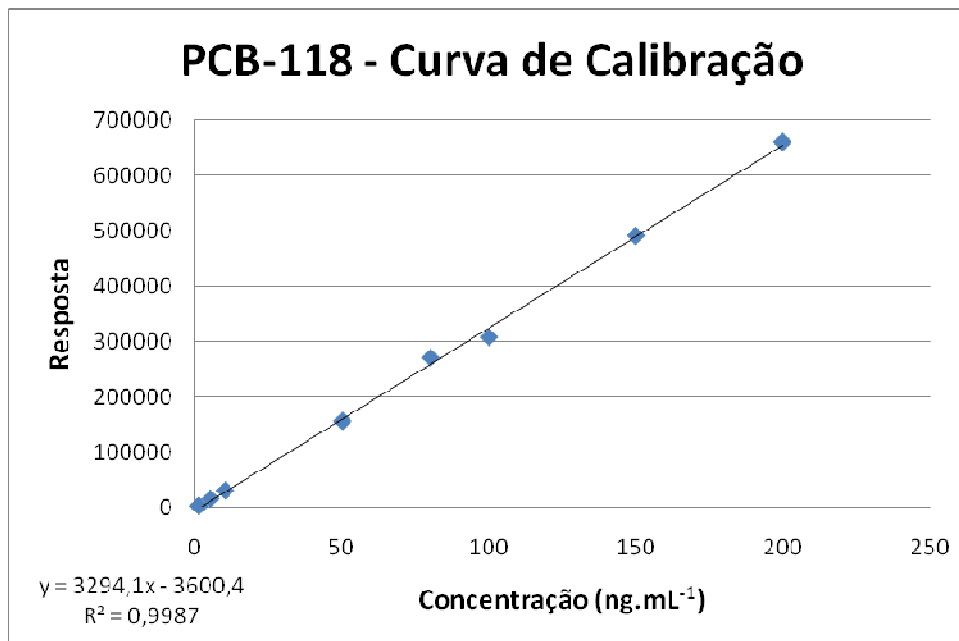


Figura 36. Curva de calibração do PCB-118.

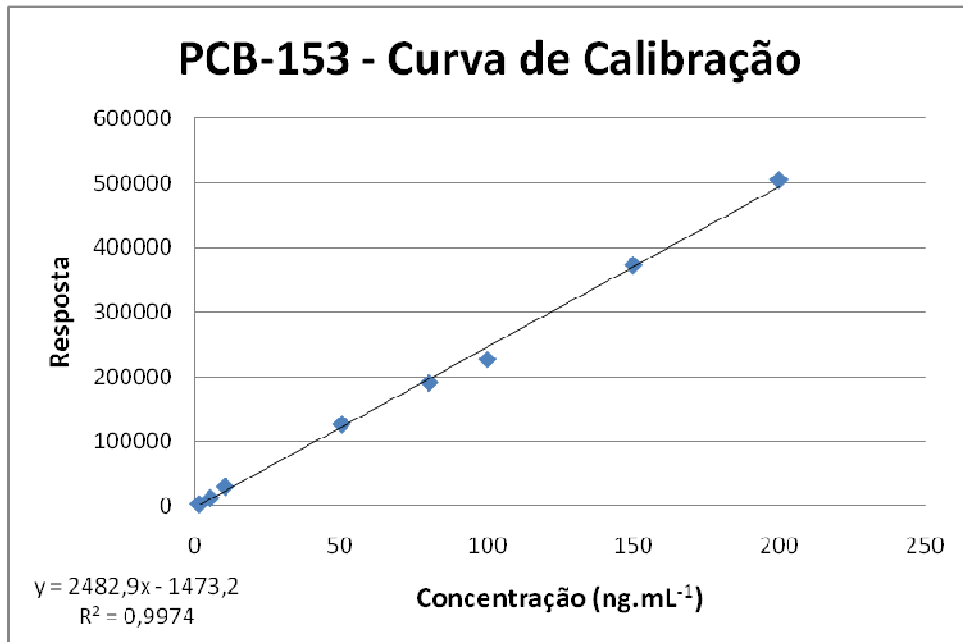


Figura 37. Curva de calibração do PCB-153.

8.2. Cromatogramas típicos de PCBs e PBDEs

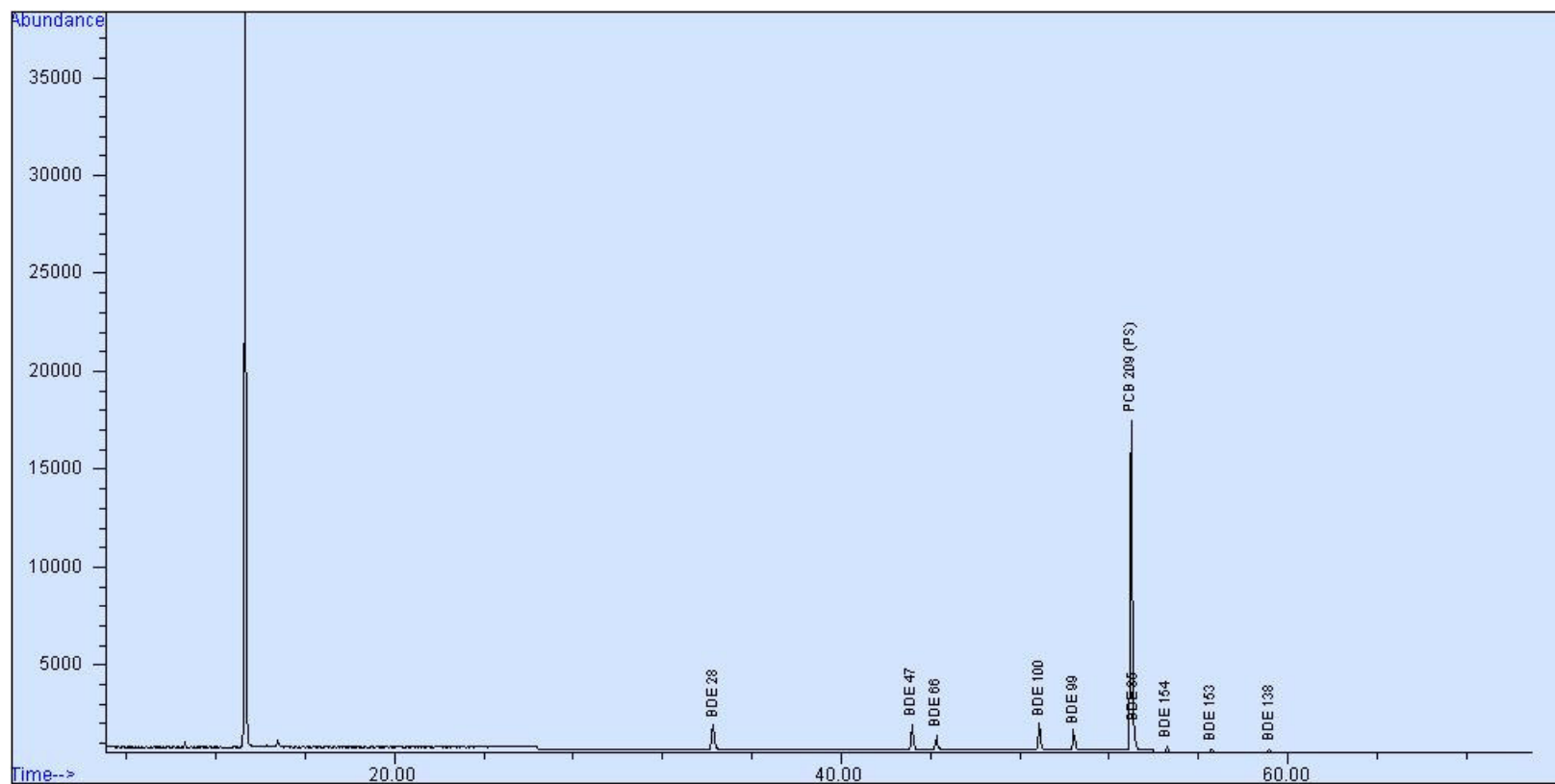


Figura 38. Cromatograma típico de uma mistura de padrões de PBDEs a uma concentração de 100 ng mL⁻¹.

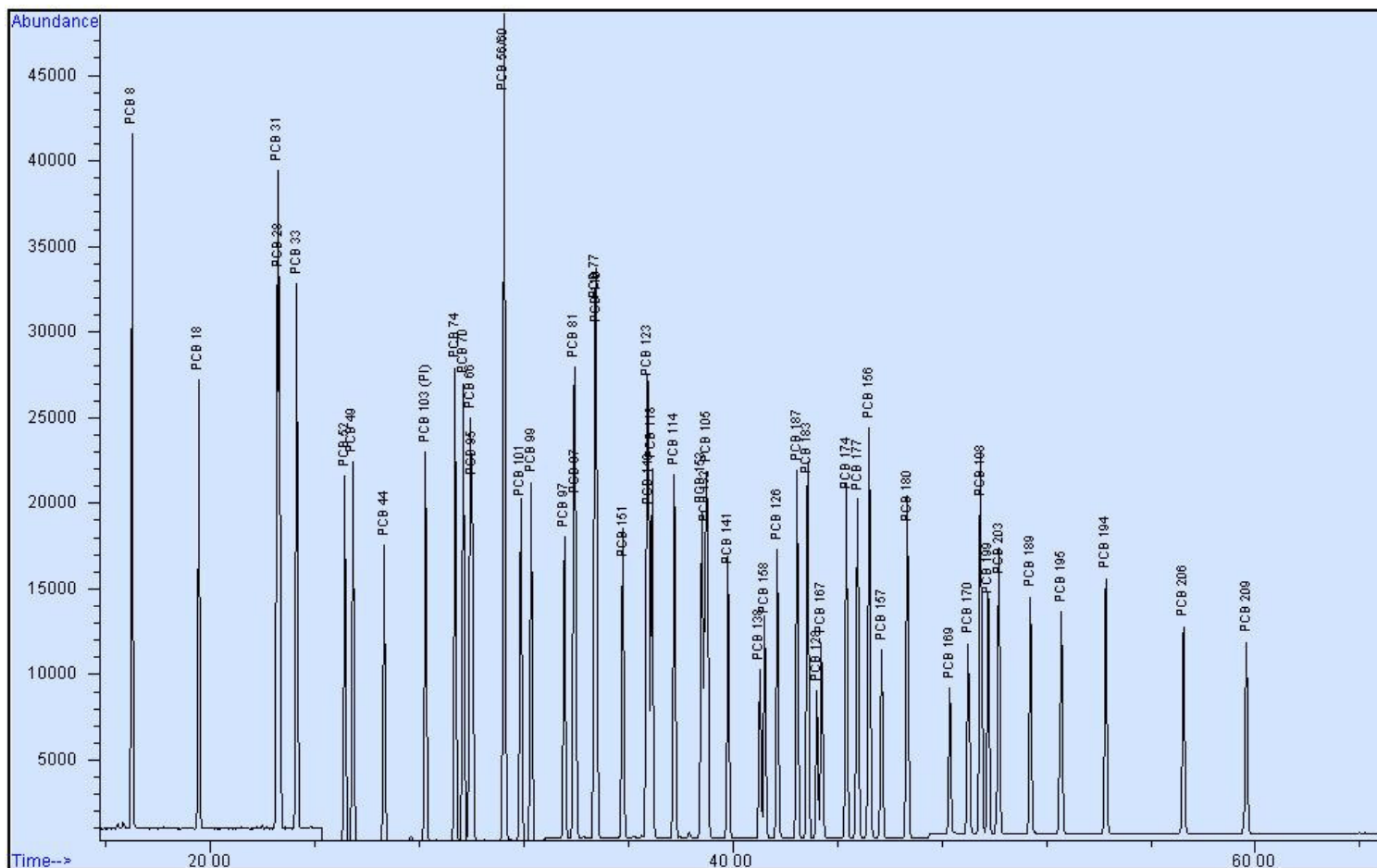


Figura 39. Cromatograma típico de uma mistura de padrões de PCBs a uma concentração de 100 ng mL^{-1} .