JAN 13 1976

NTISearch

NTIS/PS-75/713

Polychlorinated Biphenyls in the Environment

A Bibliography with Abstracts

National Technical Information Service
U.S. DEPARTMENT OF COMMERCE
Springfield, Virginia 22161

MONS 054353



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Search period covered

1964 - September 1975

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BIBLIOGRAPHIC DATA SHEET	1. Report No.	2.	3. Recipient's Accession No. NTIS/PS-75/713
4. Title and Subtitle: Polychlorinated Biphenyls in the Environment (A Bibliography with Abstracts)			5. Report Date: September, 1975 6.
7. Author(s): Edward J. Lehmann			8. Performing Organization Rept. No.
9. Performing Organization Name and Address: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161			10. Project/Task/Work Unit No. 11. Contract/Grant No.
12. Sponsoring Organization Name and Address: Same			13. Type of Report & Period Covered: 1964 - Sept., 1975 14.

15. Supplementary Notes

16. Abstracts

The environmental aspects of polychlorinated biphenyls (PCBs) are cited in this bibliography of Federally-funded research reports. Most of the studies are concerned with the toxicity, ecology, and abundance of PCBs in water. (Contains 52 abstracts)

17. Key Words and Document Analysis. 17a. Descriptors

17b. Identifiers Open-Ended Terms

17c. COSATI Field/Group 68, 57

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18. Availability Statement	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages
	20. Security Class (This Page) UNCLASSIFIED	22. Price $25.00

MONS 054355

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SAMPLE ENTRY

Title — Industry, Innovation and the Municipal Market

Corporate Author — Franklin Inst. Research Labs., Philadelphia, Pa. (142 925)

Final rept.
AUTHOR: Blair, John F. Jr.
C1872L3 FLD: 5C, 96*, 88K USGRDR7324
Report Date — 15 Oct 73
Pages in Report — 103p*
REPT NO: FIRL-F-C3431
PROJECT: EDA-99-6-08281
MONITOR: EDA-73-048

Abstract or Technical Report Summary —

ABSTRACT: The summary report is made on work done under the auspices of the Economic Development Administration and funded through The Experimental Technology Incentives Program (ETIP). It delineates the form and content of the policies and programs required to develop the municipal local government market into a force for technological innovation and economic development. In addition to this document, a series of eighteen background papers is on file that deals in considerable depth with the more important aspects of the study. This supplementary documentation is referenced in footnotes throughout the text of the summary volume.

Key Words —

DESCRIPTORS: (*Industrial engineering, *Urban planning), (*Public administration, *Urban development), Procurement, Reviews, Optimization, Economic development, Industrial relations, Marketing, Productivity, Systems engineering, Local government, Policies, Recommendations, Pennsylvania

IDENTIFIERS: Technological development, Innovations, Philadelphia (Pennsylvania), EDA

Order Number — COM-73-11748/3 NTIS Prices: PC$4.25/MF $2.25

Paper Copy Price

Microfiche Price

NOTE: Prices are subject to change. See colored pages in back of search for current prices.

MONS 054358

Chlorinated Hydrocarbons in the Lake Ontario Ecosystem (IFYGL)

Wisconsin Univ., Madison. Water Chemistry Program.*National Environmental Research Center, Corvallis, Oreg.

Final rept.
AUTHOR: Haile, C. L., Veith, G. D., Lee, G. F., Boyle, W. C.
C5053H1 FLD: 06F, 08H, 57H, 68D, 68E USGRDR7519
Jun 75 35p
GRANT: EPA-R-800608
MONITOR: EPA/660/3-75-022
Paper copy also available from GPO.

ABSTRACT: Lake Ontario fish, water, sediment, net plankton, Cladophora, and benthos were examined for DDT group pesticides, dieldrin, and PCBs. Endrin, BHC group pesticides, and heptachlor were also identified in some fish samples. Average concentrations ranged from 28 ng/l (t-DDT), 4.8 ng/l (dieldrin), and 55 ng/l (PCBs as Aroclor 1254 equivalent) for water to 1.40 micrograms/g (t-DDT), 0.07 micrograms/g (dieldrin), and 5.15 micrograms/g (PCBs) for whole fish. DDE levels were generally similar to t-DDT values. PCB/t-DDT ratios averaged 2.6 for all samples except for sediment (7.0) and benthos(5.3).

DESCRIPTORS: *Lake Ontario, *Chlorohydrocarbons, *Pesticides, Ecology, Fishes, Plankton, Sediments, Tables(Data), Recommendations, Lakes, Dieldrin, Chlorine aromatic compounds, Algae, Benthos

IDENTIFIERS: *Ecosystems, *Water pollution effects(Animals), Biphenyl/chloro, Cladophora, NTISEPAORD

PB-243 364/7ST NTIS Prices: PC$3.75/MF$2.25

MONS 054359

Extraction and Separation of Polychlorinated Biphenyls from Pesticide Monitoring Samples

Army Environmental Hygiene Agency Aberdeen Proving Ground Md (038150)

Entomological special study
AUTHOR: Holler, Jack M.
C4874E4 FLD: 7D, 6F, 99A, 68E USGRDR7517
15 Apr 75 10p
REPT NO: USAEHA-44-042-74/75
MONITOR: 18

ABSTRACT: A new method was tested for the removal of polychlorinated biphenyls (PCB's) from biological samples. These industrial chemicals are ubiquitous in biological samples such as fish and bird adipose tissue. Based on retention characteristics they can easily be misidentified as organochlorine pesticides. The PCB's are partially or completely recovered from a Florisil column using the multiresidue methodology for organochlorine pesticides. A silic acid column was spiked with a solution of 4 PCB's and 11 insecticides. Performance of the method was judged by percent recovery of pesticides along with their complete separation from the PCB's and p,p-DDE. The method performed well with respect to the above-mentioned criteria.

DESCRIPTORS: *Column chromatography, *Chromatography, Chlorine compounds, Body fluids, Tissues(Biology), Extraction, Separation, Pesticides, Test methods

IDENTIFIERS: *Biphenyl/chloro, *Chlorine aromatic compounds, Evaluation, NTISDODA

AD-A011 242/5ST NTIS Prices: PC$3.25/MF$2.25

MONS 054360

Accumulation of Dietary Polychlorinated Biphenyls (Aroclor 1254) by Rainbow Trout ('Salmo gairdneri')

Oregon State Univ., Corvallis. Dept. of Food Science and Technology.*National Oceanic and Atmospheric Administration, Rockville, Md. Office of Sea Grant. (272 265)
AUTHOR: Lieb, Andrew J., Bills, Donald D., Sinnhuber, Russell O.
C4715I4 FLD: 06T, 57Y, 98F, 86M USGRDR7514
4 Oct 73 8p
REPT NO: ORESU-R-74-011
GRANT: NOAA-04-3-158-4
MONITOR: NOAA-75040716
Also pub. as Oregon State Univ., Corvallis. Agricultural Experiment Station, Technical Paper-3672. Pub. in Agricultural and Food Chemistry, v22 n4 p638-642 1974.

ABSTRACT: The accumulation of PCB's (Aroclor 1254) by a Mt. Shasta strain of rainbow trout (Salmo gairdneri) from a dietary level of 15 ppm was determined using a gas chromatograph equipped with an electron capture detector. The relative concentration (parts per million) of PCB's in the fish stabilized while absolute quantities (micrograms of PCB/fish) increased as the fish grew. The total retention of PCB's from the diet was 68% for a 32-week feeding period. The distribution of PCB's was fairly constant in the lipid portion of various tissues. PCB's did not appear to be eliminated from the trout after PCB exposure ceased even when the fish were starved. The fish did not appear to be adversely affected by the PCB's and no mortalities were attributed to PCB toxicity.

DESCRIPTORS: *Trout, *Toxicology, Fishes, Chlorine aromatic compounds, Gas chromatography, Lipids, Physiological effects, Metabolism, Diets, Food chains

IDENTIFIERS: Reprints, Salmo gairdneri, Sea Grant program, *Biphenyl/chloro, Bioaccumulation, NTISCOMNOA

COM-75-10547/8ST NTIS Price: PC$3.25

MONS 054361

Identification and Determination of Trace Amounts of Organic and Inorganic Contaminants in the Delaware River and Bay and the Fresh Water Lakes of Delaware

Delaware State Coll., Dover. Dept. of Chemistry.*Office of Water Research and Technology, Washington, D.C.

Completion rept. Jul 71-Jun 74
AUTHOR: Seidel, George R., Wilkinson, Donald
C4662H4 FLD: 13B, 68D USGRDR7513
Nov 74 29p
CONTRACT: DI-14-31-0001-3508, DI-14-31-0001-3808
PROJECT: OWRT-A-019-DEL
MONITOR: OWRT-A-019-DEL(1)

ABSTRACT: The waters and bottom water of Delaware River and Bay and fresh water bodies were analyzed for chlorinated insecticides and metallic ions. The results of the analysis are included in the report.

DESCRIPTORS: *Water pollution, *Trace elements, *Insecticides, *Delaware River, *Delaware Bay, Inorganic compounds, Chlorohydrocarbons, Organic compounds, Chlorine aromatic compounds, Biphenyl, Mass spectroscopy

IDENTIFIERS: NTISDIOWRT

PB-241 059/5ST NTIS Prices: PC$3.75/MF$2.25

MONS 054362

The Effects of PCB's and Selected Herbicides on the Biology and Growth of 'Platymonas subcordiformis' and Other Algae

Maine Univ., Orono. Land and Water Resources Inst.*Office of Water Resources Research, Washington, D.C.

Project completion rept. 1 Jul 72-30 Jun 73
AUTHOR: Vadas, Robert L.
C4662H1 FLD: 06F, 13B, 57P, 68E, 68D USGRDR7513
30 Jun 73 38p
REPT NO: 2-74
PROJECT: OWRR-A-027-ME
MONITOR: OWRR-A-027-ME(1)

ABSTRACT: Growth rates and carrying capacities for Platymonas subcordiformis were determined using various concentrations of the PCB, Aroclor 1254, and the organophosphate, Malathion. Growth was slightly and completely inhibited by 100 and 1000 ppb respectively of Aroclor 1254. With Malathion growth inhibition was temporary or complete at 50 ppm or greater. At alkaline pH's the recovery of growth, especially at 50 ppm, took 3 to 5 days. At higher concentrations of Malathion recovery took longer if occurring at all. The inhibitory effects of Malathion, Aroclor, and chlorinated hydrocarbons are modified by inoculum densities, phase of algal growth at which the substance is added and in the case of the former possibly by the pH of the media.

DESCRIPTORS: *Algae, *Herbicides, Pesticides, Plants(Botany), Chlorine aromatic compounds, Growth, Phosphorus organic compounds, Malathion, pH, Chlorohydrocarbons, Inhibitors, Water pollution

IDENTIFIERS: Platymonas subcordiformis, Biphenyl/chloro, NTISDIOWRT

PB-241 056/1ST NTIS Prices: PC$3.75/MF$2.25

MONS 054363