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RS 11/5/55

E. Robert Baumann (1921-)

Papers, 1946-2010, undated

Descriptive summary

creator: Baumann, E. Robert (1921-)
title: Papers
dates: 1946-2010, undated
extent: 16.9 linear feet (13 records center cartons)
collection number: RS 11/5/55
repository: University Archives, Special Collections Department, Iowa State University.

Administrative information

access: Open for research
publication rights: Consult Head, Special Collections Department
preferred citation: E. Robert Baumann Papers, RS 11/5/55, Special Collections Department, Iowa State University Library.

Abstract

Sanitation engineer, professor, and consultant, E. Robert Baumann was born in Rochester, New York in 1921. He earned a B.S.E. degree (1944) in civil engineering from the University of Michigan, and a B.S. degree (1945), an M.S. degree (1947), and a Ph.D. (1954) all in sanitary engineering from the University of Illinois. He was a professor at Iowa State University in the Department of Civil and Construction Engineering from 1953 until his retirement in 1991. The collection (1946-2010, undated) contains biographical information, copies of Baumann's many publications, departmental and research notes, and Baumann's personal coursework from his undergraduate and graduate degrees. Baumann's research centers on water filtration and waste water treatment.

Biographical note

E. Robert Baumann was born on May 12, 1921 in Rochester, New York. He earned a B.S.E. degree (1944) in civil engineering from the University of Michigan, and a B.S. degree (1945) in sanitary engineering, an M.S. degree (1947) in sanitary engineering, and a Ph.D. (1954) in sanitary engineering all from the University of Illinois. He served as a postdoctoral fellow (1959-1960) for the National Science Foundation at the University of Durham, Kings College, Newcastle-on-Tyne, England.

Baumann served as a teacher and researcher during his time at the University of Illinois and began teaching and researching at Iowa State University in 1953. He was made a full professor at Iowa State University in 1957 and was named Anson Marston Distinguished Professor of Engineering in 1972. Upon his retirement in 1991, he was made a Distinguished Professor Emeritus.

Baumann's research centers on water filtration and waste water treatment. He published several books and hundreds of journal articles, research reports, trade magazine articles, and conference papers on diatomite filtration and municipal sewage treatment. His vast experience in sewage systems and filtration led to his work as a civil engineering consultant to cities and private companies throughout his career. He also served as an expert witness for many court cases involving water treatment. Since his retirement, Baumann continues to work as a consultant to Bolton and Menk, a civil engineering company.

Baumann married Mary Massey in 1946. They had two children: Betsy, who received a B.A. in psychology from Lawrence University; and Philip, who earned a B.A. and M.A. in political science from Iowa State University and an M.A. and Ph.D. in political science from Michigan State University.

Collection description

The collection (1946-2010, undated) contains biographical information, copies of Baumann's many publications, departmental and research notes, and Baumann's personal coursework from his undergraduate and graduate degrees. Included in the collection are books, refereed journal articles, proceedings of conferences, and research reports from the University of Illinois and Iowa State University that Baumann wrote and published. The collection also contains consulting reports that Baumann completed for the civil engineering company Bolton and Menk, for which he was a consultant, among other companies, cities, and court cases.

Included in Series 1, Box 1, Folder 9 is a complete listing of all published works compiled by Baumann. Not all of these publications are present in the collection. Also, his publications included many Engineering Research Institute reports, copies of which can be found by searching the library catalog or in the Engineering Research Institute reports housed in the University Archives (record series number RS 11/2/0/6). A list of the Engineering Research Institute reports he was responsible for can be found in the [appendix](#).

Related materials

Related collections in the University Archives, Iowa State University Library include:

- Iowa State University Department of Civil, Construction, and Environmental Engineering Records, RS 11/5
- Engineering Research Institute Reports, RS 11/2/0/6
- John L. Cleasby Papers, RS 11/5/53

Organization

The collection is organized into five series:

- [Series 1, Biographical Information, 1959-2000, undated \(chronological\)](#)
- [Series 2, Publications, 1946-2006, undated \(chronological\)](#)
- [Series 3, Lectures and Course Notes, 1950-2010, undated \(chronological\)](#)
- [Series 4, Departmental Records, Committee Work, and Correspondence, 1955-2010, undated \(chronological\)](#)
- [Series 5, Research and Professional Development, 1948-2007, undated \(chronological\)](#)

description: The series contains copies of Baumann's publications, including theses, refereed journal articles, proceedings of conferences, consulting reports, and grant reports. The majority of these publications are concerned with water filtration and waste water treatment methods. Baumann also produced numerous reports published by Iowa State's Engineering Research Institute. Copies of these reports can be located in the Engineering Research Institute Reports (RS 11/2/0/6) located in the University Archives. Baumann was also the lead investigator for many years of an ongoing water quality study of the Red Rock and Saylorville Reservoirs in Iowa. Copies of these reports are also available in the University Archives (call no. TD365 I6) or can be located by searching the library catalog.

Container list

Box	Folder	Title	Dates
1	11	Personal Theses: "An Investigation of the Hydraulic Jump in Small Open Channels"	1947
1	12	Personal Theses: "The Design and Operation of Diatomite, Precoat Filters for Water"	1954
1	13	Book Chapters: "Water Treatment for Various Demands and Purposes"	1956
1	14	Book Chapters: "Physical, Scientific, and Engineering Aspects of Pollution"	1967
1	15	Book Chapters: "Sedimentation"	1969
1	16	Book Chapters: "Effects of Surface Runoff on the Feasibility of Municipal Advanced Waste Treatment"	1970
1	17	Book Chapters: "Sand and Diatomite Filtration Practices"	1970
1	18	Book Chapters: "Diatomite Filtration of Potable Water"	1971
1	19	Book Chapters: "Least Cost Design-Optimization of Deep Bed Filters"	1975
1	20	Book Chapters: "Backwash of Granular Filters"	1975
1	21	Book Chapters: "Filtration as a Laboratory Tool"	1978
1	22	Book Chapters: "Granular-Media Deep-Bed Filtration"	1978
1	23	Book Chapters: "Precoat Filtration"	1978
1	24	Book Chapters: "Gravity Filtration"	1985

Box	Folder	Title	Dates
1	25	Book Chapters: "Precoat Filtration Equations for Flat and Cylindrical Septa"	1985
1	26	Book Chapters: "BDST Analysis in Deep Bed Filtration"	1985
2	1	Books: "Water Filtration for Point-of-Use Application"	1988
2	2	Books: "AEEP 25 Years"	1990
2	3	Refereed Journals: "Garbage Cooking in Iowa"	1955
2	4	Refereed Journals: "Recent Sewage Treatment Plant Costs in Iowa"	1955
2	5	Refereed Journals: "Particle-Size Distribution of Ground Garbage"	1955
2	6	Refereed Journals: "The Specific Heat of Garbage"	1955
2	7	Refereed Journals: "A Colorimetric Method for Determining Dissolved Oxygen"	1956
2	8	Refereed Journals: "Three Tracer Methods for Determining Detention Times in Primary Clarifiers"	1957
2	9	Refereed Journals: "Diatomite Filters for Municipal Installations"	1957
2	10	Refereed Journals: "Adsorption of Radioactive Rubidium on Trickling Filters"	1957
2	11	Refereed Journals: "Trickling Filters Successfully Treat Milk Wastes"	1957
2	12	Refereed Journals: "A Statistical Analysis of Water Works Data for 1955"	1957
2	13	Refereed Journals: "Effect of 1952-56 Drought on Iowa Impounded Water Supplies"	1958
2	14	Refereed Journals: "Variation of Sewage Flow in a College Town"	1958
2	15	Refereed Journals: "Preaeration and the Primary Treatment of Sewage"	1960
2	16	Refereed Journals: "Education for Engineering in America"	1960
2	17	Refereed Journals: "Effect of Preaeration on the Primary Treatment of Sewage"	1961
2	18	Refereed Journals: "Detention Vessels for Water Chlorination"	1962

Box	Folder	Title	Dates
2	19	Refereed Journals: "Selection of Sand Filtration Rates"	1962
2	20	Refereed Journals: "Optimums in Diatomite Filtration"	1962
2	21	Refereed Journals: "Free Available Chlorine Residuals for Small Nonpublic Water Supplies"	1962
2	22	Refereed Journals: "A Theory of Diatomite Filtration"	1962
2	23	Refereed Journals: "Effect of Prechlorination on Filtration and Disinfection"	1963
2	24	Refereed Journals: "Optimum Economical Design for Municipal Diatomite Filter Plants"	1963
2	25	Refereed Journals: "Properties and Pumping Characteristics of Hog Wastes"	1964
2	26	Refereed Journals: "Effect of Filtration Rate Changes on Quality"	1963
2	27	Refereed Journals: "Anaerobic Digestion of Hog Wastes"	1963
2	28	Refereed Journals: "Modified Form of Diatomite Filtration Equation"	1964
2	29	Refereed Journals: "Effectiveness of Potassium Permanganate for Disinfection"	1964
2	30	Refereed Journals: "Hydraulic and Particle Size Characteristics of Some Diatomite Filter Aids"	1964
2	31	Refereed Journals: "Streaming Potentials in Diatomite Filtration of Water"	1964
2	32	Refereed Journals: "Effect on Filtration of Polyelectrolyte Coatings of Diatomite Filter Media"	1964
2	33	Refereed Journals: "Diatomite Filters for Municipal Use"	1965
2	34	Refereed Journals: "Two-Dimensional Infiltration and Wetting Fronts"	1965
2	35	Refereed Journals: "Optimum Design and Operation of Diatomite Filtration Plants"	1966
2	36	Refereed Journals: "Diatomite Filtration Equations for Various Septa"	1967
2	37	Refereed Journals: "Prediction of Diatomite Filter Cake Resistance"	1967
2	38	Refereed Journals: "Oxygenated Efficiency of a Bladed Rotor"	1968

Box	Folder	Title	Dates
2	39	Refereed Journals: "Interdistrict Apportionment of Flood Control Costs"	1968
2	40	Refereed Journals: "Particulate Removal on Coated Filter Media"	1970
2	41	Refereed Journals: "Pollution Control-Feedlot Operations"	1970
2	42	Refereed Journals: "Polyelectrolyte Coatings for Filter Media"	1970
2	43	Refereed Journals: "Least Cost Sand Filter Design for Iron Removal"	1971
2	44	Refereed Journals: "Advanced Organics Removal by Pulsed Adsorption Beds"	1971
2	45	Refereed Journals: "Lawsuit Involving Sources of Hepatitis Outbreak"	1971
2	46	Refereed Journals: "AWWA Research T and P Com. And Water Supply Research"	1972
2	47	Refereed Journals: "Hydrogen Peroxide Aids in Measuring Oxygen Uptake Rates of Sludges"	1973
2	48	Refereed Journals: "The Crisis in Solid-Fluid Separation Technology"	1973
2	49	Refereed Journals: "Granular Filters for Tertiary Wastewater Treatment"	1974
2	50	Refereed Journals: "Wastewater Filtration-Design Considerations"	1974
2	51	Refereed Journals: "Packed-Bed Reactors for Secondary Effluent BOD and Ammonia Removal"	1975
2	52	Refereed Journals: "The Electrolytic Respirometer-I Factors Affecting Oxygen Uptake Measurements"	1976
2	53	Refereed Journals: "The Electrolytic Respirometer-II Use in Water Pollution Control Plant Laboratories"	1976
2	54	Refereed Journals: "Trickling Filter-Activated Sludge Combinations"	1976
2	55	Refereed Journals: "Flow and Load Variations in Treatment Plant Design"	1978
2	56	Refereed Journals: "The Application of Filtration Theory to Pilot-Plant Design"	1979

Box	Folder	Title	Dates
2	57	Refereed Journals: "Polymer Characterization Based on Zeta Potential and Filtration Resistance"	1979
2	58	Refereed Journals: "Wastewater Filtration Design Considerations"	1977
2	59	Refereed Journals: "Field Evaluation of the Treatability of Type A Zeolite in a Trickling Filter Plant"	1981
2	60	Refereed Journals: "Identity and Character of Iron Precipitates"	1981
2	61	Refereed Journals: "Direct Filtration of Water"	1983
2	62	Refereed Journals: "Performance of Surface Rotors in an Oxidation Ditch"	1985
2	63	Refereed Journals: "Characterization and Treatment of Condensates from High Efficiency Appliances"	1985
2	64	Refereed Journals: "Interaction of Aliphatic Amines with Montmorillonite to Enhance Adsorption of Organic Pollutants"	1985
2	65	Refereed Journals: "Adsorption of Organic Pollutants on Montmorillonite Treated with Amines"	1986
2	66	Refereed Journals: "Evaluation of Temperature Effects on Trickling Filter Plant Performance"	1984
2	67	Refereed Journals: "Aggregate Formation During Batch Thickening of Flocculent Suspensions"	1986
2	68	Refereed Journals: "Overweging Bijkhet Antwerp van een Endikker"	1986
2	69	Refereed Journals: "Curbing THMs in Small Water Systems"	1987
2	70	Refereed Journals: "Midwest (USA) Reservoir Water Quality Modification I. Particulate Parameters"	1988
2	71	Refereed Journals: "Midwest (USA) Reservoir Water Quality Modification II. Oxygen-Demanding Parameters"	1988
2	72	Refereed Journals: "Midwest (USA) Reservoir Water Quality Modification III. Soluble Nutrients"	1988
2	73	Refereed Journals: "Deep Bed Filtration"	1988
2	74	Refereed Journals: "Applying 'Old' Filtration Technology Effectively"	1989

Box	Folder	Title	Dates
2	75	Refereed Journals: "Supplemental Aeration Enhances Nitrification in a Secondary RBC Plant"	1989
2	76	Refereed Journals: "Effects of Various Parameters on the Thickening of Softening Plant Sludges"	1989
2	77	Refereed Journals: "Water, Its Quality and You!"	1989
2	78	Refereed Journals: "Design and Operational Guidelines for Optimization of the High-Rate Filtration Process: Plant Survey Results (Proposal)"	1989
3	1	Refereed Journals: "Design and Operation Guidelines for Optimization of the High-Rate Filtration Process: Plant Survey Results"	1989
3	2	Refereed Journals: "Tube Settler Modeling"	1990
3	3	Refereed Journals: "Design and Operation for Optimization of the High-Rate Filtration Process: Plant Demonstration Studies"	1992
3	4	Refereed Journals: "RBC Kinetics in Treating Domestic and Industrial Wastewater Under Low and High Organic Loading Conditions"	1992
3	5	Refereed Journals: "Effectiveness of Supplemental Aeration and an Enlarged First-Stage in Improving RBC Performance"	1993
3	6	Refereed Journals: "Value of Supplemental Air in Improving RBC Performance"	1994
3	7	Refereed Journals: "Sludge Production in Rotating Biological Contactors with Supplemental Aeration and an Enlarged First Stage"	1996
3	8	Refereed Journals: "Optimizing High-Rate Filtration for Drinking Water Treatment: A Case Study"	1996
3	9	Refereed Journals: "Role of Supplemental Aeration in Improving Overloaded First-Stage RBC Performance"	1997
3	10	Unsubmitted Work: "Fundamental Equation for Biological Oxidation on Tricking Filters"	1978
3	11	Discussion of Papers: "Discussion of Theoretical Evaluation of Filter Modeling Experiments by Charles Mott and Richard H. Bogan"	1970
3	12	Discussion of Papers: "Understanding Streaming Current: Practical Coagulant Control"	1989

Box	Folder	Title	Dates
3	13	Engineering Experiment Station Research Bulletins: "Gradually Varied Flow in Uniform Channels on Mild Slopes"	1952
3	14	Engineering Experiment Station Research Bulletins: "An Investigation of the Performance of Six Small Septic Tanks"	1953
3	15	Engineering Experiment Station Research Bulletins: "The Corrosion of Copper Tube Used in Soil-Stack Installations"	1953
3	16	Engineering Experiment Station Research Bulletins: "Effect of Body Feed on the Filtration of Water Through Diatomite"	1954
3	17	Engineering Experiment Station Research Bulletins: "The Removal of Entamoeba Histolytica Cysts from Water by Porous Filter Septums Either with or without Filter Aid"	1955
3	18	Engineering Experiment Station Research Bulletins: "The Survival of Swine Disease Organisms in the Heat Treatment of Garbage"	1957
3	19	Engineering Experiment Station Research Bulletins: "The Effect of Preaeration on the Primary Treatment of Sewage"	1960
3	20	Engineering Experiment Station Research Bulletins: "Selection of Optimum Filtration Rates for Sand Filters"	1962
3	21	Engineering Experiment Station Research Bulletins: "Retention of Water for Disinfection in Chlorinated Small Water Supplies"	1962
3	22	Proceedings of Conferences: "University Research in Filter Aid Filtration"	1961
3	23	Proceedings of Conferences: "The Role of Preaeration in Design-Gadget or Genuine?"	1962
3	24	Proceedings of Conferences: "Performance of Sedimentation Tanks Evaluated in Model Tests"	1963
3	25	Proceedings of Conferences: "Theoretical Aspects of Diatomite Filtration"	1964
3	26	Proceedings of Conferences: "Fundamentals of Diatomite Filter Design"	1965

Box	Folder	Title	Dates
3	27	Proceedings of Conferences: "Progress Toward Optimum Design of Diatomite Filtration Plants"	1966
3	28	Proceedings of Conferences: "Progress Toward Optimum Design of Diatomite Filtration Plants"	1966
3	29	Proceedings of Conferences: "Sedimentation, Coagulation, and Filtration Related to Farm Water Supply" and "Chemical Feeders and Filters"	1966
3	30	Proceedings of Conferences: "Mathematical Models for Expressing the Biochemical Oxygen Demand in Water Quality Studies"	1967
3	31	Proceedings of Conferences: "Optimum Design of Water-Filtration Plants"	1968
3	32	Proceedings of Conferences: "Filtration Equipment"	1968
3	33	Proceedings of Conferences: "Effects of Agricultural Pollutants on Municipal Uses of Surface Waters"	1969
3	34	Proceedings of Conferences: "Sources and Contributions of Nitrogen and Phosphorous to an Iowa Stream"	1971
3	35	Proceedings of Conferences: "Filtration of Iron and Manganese"	1972
3	36	Proceedings of Conferences: "Least Cost Sand Filter Design for Iron Removal"	1970
3	37	Proceedings of Conferences: "Granular Filters of Tertiary Wastewater Treatment"	1972
3	38	Proceedings of Conferences: "Tertiary Treatment for Ammonia Reduction"	1972
3	39	Proceedings of Conferences: "Five Year Study of Des Moines River Water Quality"	1974
3	40	Proceedings of Conferences: "Training of Water Supply and Pollution Control Plant Operators in Iowa"	1974
3	41	Proceedings of Conferences: "Diatom Filters for Asbestiform Fiber Removal from Water"	1975
3	42	Proceedings of Conferences: "Biological Treatment of a Toxic Industrial Waste-Performance of an Activated Sludge and Trickling Filter Pilot Plant"	1975
3	43	Proceedings of Conferences: "Preimpoundment, Postimpoundment, Des Moines River Quality"	1975

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3	44	Proceedings of Conferences: "Flow and Load Variations in Treatment Plant Design"	1976
4	1	Proceedings of Conferences: "Physical and Chemical Means of Improving Water Quality"	1976
4	2	Proceedings of Conferences: "Energy Conservation Through Direct Filtration"	1976
4	3	Proceedings of Conferences: "Des Moines River Quality: A Pre-Impoundment Survey of Saylorville Reservoir and Subsequent Downstream Effects of Red Rock Reservoir"	1977
4	4	Proceedings of Conferences: "Principles of Direct Filtration"	1977
4	5	Proceedings of Conferences: "Wastewater Filtration, Design Considerations"	1977
4	6	Proceedings of Conferences: "Application of Filtration Theory to Pilot Plant Design"	1977
4	7	Proceedings of Conferences: "Fundamental Research Needs in Water Treatment"	1977
4	8	Proceedings of Conferences: "What, When, and Why of Deep Bed Filtration"	1977
4	9	Proceedings of Conferences: "Septic Tanks"	1978
4	10	Proceedings of Conferences: "Direct Filtration: Polymer-Filter Media Characterization"	1978
4	11	Proceedings of Conferences: "Direct Filtration-Particle Removal with Polymers"	1978
4	12	Proceedings of Conferences: "Des Moines River Quality: A Survey of Saylorville and Red Rock Reservoirs and their Effects on Downstream Water Quality"	1978
4	13	Proceedings of Conferences: "Turbidity Control"	1979
4	14	Proceedings of Conferences: "Des Moines River Quality: A Survey of Saylorville and Red Rock Reservoirs and their Effects on Downstream Water Quality"	1979
4	15	Proceedings of Conferences: "Filtration Fundamentals, and Selection and Evaluation of Media"	1978
4	16	Proceedings of Conferences: "Technology Modifications"	1978
4	17	Proceedings of Conferences: "Water Quality Studies, Saylorville and Red Rock Reservoirs, Des Moines River"	1980

Box	Folder	Title	Dates
4	18	Proceedings of Conferences: "Water Quality Studies: Saylorville and Red Rock Reservoirs, Des Moines River"	1981
4	19	Proceedings of Conferences: "The Influence of Silica on Iron Precipitation"	1981
4	20	Proceedings of Conferences: "Water Disinfection Methods"	1984
4	21	Proceedings of Conferences: "The Value of Supplemental Air in Improving RBC Performance"	1984
4	22	Proceedings of Conferences: "Evaluation of Temperature Effects on Trickling Filter Plant Performance"	1984
4	23	Proceedings of Conferences: "Role of Air in Improving First-Stage RBC Performance"	1985
4	24	Proceedings of Conferences: "Aggregate Formation During Batch Thickening of Flocculent Suspensions"	1985
4	25	Proceedings of Conferences: "Nitrogen in Our Surface Waters"	1986
4	26	Proceedings of Conferences: "RBC Kinetics in Treating Domestic and Industrial Dairy Wastewater Under Low and High Organic Loading Conditions"	1986
4	27	Proceedings of Conferences: "The Effect of Zeta Potential on Gravity Thickening"	1986
4	28	Proceedings of Conferences: "Supplemental Aeration Enhances Nitrification in a Secondary RBC Plant"	1986
4	29	Proceedings of Conferences: "What's Ahead for Us in Environmental Control?"	1987
4	30	Proceedings of Conferences: "The Evidence for Wormholes in Deep Bed Filters"	1987
4	31	Proceedings of Conferences: "Sludge Production in RBC Plant Using Supplemental Air and an Enlarged First Stage"	1988
4	32	Proceedings of Conferences: "Deep-Bed Filtration and Chemical Pretreatment"	1988
4	33	Proceedings of Conferences: "History of Deep Bed Filtration"	1989
4	34	Proceedings of Conferences: "Water, Its Quality, and You!"	1988

Box	Folder	Title	Dates
4	35	Proceedings of Conferences: "Deep Bed Filtration"	1988
4	36	Proceedings of Conferences: "Continuing Competency and Recertification"	1992
4	37	Proceedings of Conferences: "Fluid/Particle Separation: Processes, Process Fundamentals, Process Applications, Process Demonstrations"	1993
4	38	Proceedings of Conferences: "Ammonia Removal by Precipitation from Anaerobically Treated Egg-Breaking Plant and Chicken Manure Wastes"	1993
4	39	Proceedings of Conferences: "Evaluation of Rapid Mixing Parameters in Chemical Phosphate Removal"	1993
4	40	Proceedings of Conferences: "Why is Filtration So Critical?"	1994
4	41	Proceedings of Conferences: "Optimizing High-Rate Filtration for Drinking Water Treatment: A Case Study"	1995
4	42	Proceedings of Conferences: "World-Wide Problems in the Future on Water"	1995
4	43	Proceedings of Conferences: "Mating Industrial/Academic Research Interests into Research Support"	1996
4	44	Proceedings of Conferences: "Effect of Trichloromethyl Pyridine on Carbonaceous Biochemical Oxygen Demand in Wastewater"	1997
4	45	Proceedings of Conferences: "Staging Water Quality Improvements"	2000
4	46	Miscellaneous: "A Preliminary Investigation of the Effectiveness of a Diatomite Filter in the Removal of Radioactive Phosphorous from Water"	1951
4	47	Miscellaneous: "Report of Tests Made by Sanitary Engineering Department for Physical Plant on Filter Plant Sand, Finished Water, and Crenothrix in Mains"	1956
4	48	Trade Magazines: "A Graphical Method for Determining Slopes of Curves" (2- 3x4 b/w photographs)	1952
4	49	Trade Magazines: "Use of Diatomite Filters Can be Economical"	1953
4	50	Trade Magazines: "Improving Septic-Tank Efficiency with a Gas-Deflection Baffle"	1954

Box	Folder	Title	Dates
4	51	Trade Magazines: "Iowa Sewage Works Operators' Basic Training Courses"	1955
4	52	Trade Magazines: "A College Town Finances Sewer Treatment"	1955
4	53	Trade Magazines: "Garbage Cooking in Iowa"	1955
5	1	Trade Magazines: "Sewage Treatment Plant Costs in Iowa"	1955
5	2	Trade Magazines: "Swimming Pool Accidents Result in Operator's Training Course"	1957
5	3	Trade Magazines: "Should Small Water Supplies be Superchlorinated?" Part 1 and 2	1961-1962
5	4	Trade Magazines: "Educate Owners on Treatment to Solve Water Pollution Problems"	1962
5	5	Trade Magazines: "Iowa State: Pilot Studies of Diatomite Filtration"	1963
5	6	Trade Magazines: "Sludge Digestion of Farm Animal Wastes"	1963
5	7	Trade Magazines: "Safe Disinfection for Household Water Systems"	1964
5	8	Trade Magazines: "Theoretical Aspects of Diatomite Filtration" Parts I, II, and III	1964
5	9	Trade Magazines: "Polyelectrolyte Coatings for Filter Media"	1971
5	10	Trade Magazines: "Particle Removal in Deep Bed Filters Observed with the Scanning Electron Microscope"	1980
5	11	University of Illinois Research Reports: "Filter Septum Research, First Interim Report"	1948
5	12	University of Illinois Research Reports: "Filter Septum Research, Second Interim Report"	1949
5	13	University of Illinois Research Reports: "A Study of Factors Affecting the Precoat, Backwash, and the Hydraulic Characteristics of a Diatomite Filter"	1950
5	14	University of Illinois Research Reports: "A Study of the Qualitative Effects of Electrokinetic Phenomena in the Filtration of Distilled Water"	1950

Box	Folder	Title	Dates
5	15	University of Illinois Research Reports: "A Study in the Relationship Between Filter Area and Filter Capacity in Diatomite Filtration"	1950
5	16	University of Illinois Research Reports: "A Study of the Effect of Mechanical compression on the Particle Size and Permeability of Diatomite Filter Aids"	1950
5	17	University of Illinois Research Reports: "A Study of the Effectiveness of Porous Filter Septums in Removing Entamoeba Histolytical Cysts from Water"	1950
5	18	University of Illinois Research Reports: "A Study of Factors Affecting the Design, Operation, and Testing of Diatomite Filters"	1951
5	19	University of Illinois Research Reports: "Effect of Body Feed on the Filtration of Water Through Diatomaceous Earth"	1952
5	20	University of Illinois Research Reports: "Effect of Coagulation with Ferric Chloride and Limestone on the Filterability of Surface Water"	1953
5	21	Iowa State University Research Reports: "Operation of Pressure vs. Vacuum Diatomite Filters Using Iron-Containing Water"	1959
5	22	Iowa State University Research Reports: "Design Requirements for Municipal Diatomite Filters," First Progress Report	1962
5	23	Iowa State University Research Reports: "Design Requirements for Municipal Diatomite Filters," First Progress Report	1962
5	24	Iowa State University Research Reports: "Permeability of Diatomite Filter Cakes Containing Various Flocculent Solids"	1964
5	25	Iowa State University Research Reports: "Diatomite Filtration Equations for Flat and Cylindrical Septa"	1966
6	1	Iowa State University Research Reports: "Design Requirements for Municipal Diatomite Filters," Second Progress Report	1964
6	2	Iowa State University Research Reports: "Design Requirements for Municipal Diatomite Filters," Third Progress Report	1965

Box	Folder	Title	Dates
6	3	Iowa State University Research Reports: "User Manual-Program for Optimization of Plant Operation (POPO)"	1966
6	4	Iowa State University Research Reports: "Interim Report on Filter Aid Specifications"	1968
6	5	Iowa State University Research Reports: "Final Report on Filter Aid Specifications"	1968
6	6	Iowa State University Research Reports: "Selection of Optimum Filtration Rates for Sand Filters"	1961
6	7	Iowa State University Research Reports: "Application Potential for Iron Adsorption and Oxidation on Lepidocrocite"	1989
6	8	University of Illinois Research Reports: "Investigation of Small Septic Tanks"	1948-1950
6	9	Iowa State University Research Reports: "A Plant Scale Study of Preaeration in Sewage Treatment," Progress Report	1957
6	10	Iowa State University Research Reports: "(The) Effect of Preaeration on the Primary Treatment of Sewage," Final Report	1959
6	11	Iowa State University Research Reports: "Hydraulics of Circular Settling Tanks Determined by Models"	1961
6	12	Iowa State University Research Reports: "Oxygenation Efficiency of a Bladed Rotor"	1965
6	13	Iowa State University Research Reports: "Tertiary Treatment with Potassium Permanganate"	1964
6	14	Iowa State University Research Reports: "Water Quality Studies-Red Rock and Saylorville Reservoirs Des Moines River, Iowa"	1989
6	15	University of Illinois Research Reports: "The Corrosion of Copper Tube Used in Soil-Stack Installations"	1951
6	16	University of Illinois Research Reports: "Vacuum Drying in Sewage Treatment"	1946
6	17	University of Illinois Research Reports: "Diatomite Filtration at Mounds, Illinois"	1950
6	18	Iowa State University Research Reports: "Survival of Swine Disease Organisms in the Heat Treatment of Garbage," Part 1	1956

Box	Folder	Title	Dates
6	19	Iowa State University Research Reports: "Survival of Swine Disease Organisms in the Heat Treatment of Garbage," Part 2	1956
6	20	Iowa State University Research Reports: "Survival of Swine Disease Organisms in the Heat Treatment of Garbage," Part 3	1956
6	21	Iowa State University Research Reports: "Feasibility Report-Methods for Determination of Sugar Filterability"	1968
6	22	Iowa State University Research Reports: "A Preliminary Survey of Farm Water Supplies in Southern Iowa"	1956
6	23	Iowa State University Research Reports: "Retention of Water for Disinfection in Chlorinated Small Water Supplies"	1959
6	24	Iowa State University Research Reports: "Study of Taste and Odor Problem in Cedar Rapids, Iowa Municipal Water Supply"	1962
6	25	Iowa State University Research Reports: "Superchlorination-Dechlorination of Small Water Supplies"	1959
6	26	Iowa State University Research Reports: "Chlorine Removal Capacity of Precoat Carbon Filters"	1963
6	27	Iowa State University Research Reports: "Pond Water Use and Treatment"	1957
6	28	Iowa State University Research Reports: "Typical Residential Water Rates and Usage"	1962
6	29	Iowa State University Research Reports: "A New Look at 'Ten State Standards'"	1967
6	30	Iowa State University Research Reports: "Field Evaluation of Effects of Aluminosilicate Materials in Trickling Filter Treatment"	1976
6	31	Iowa State University Research Reports: "Field Evaluation of Effects of Aluminosilicate Materials in Trickling Filter Treatment," Progress Report 2	1977
6	32	Iowa State University Research Reports: "Field Studies of the Removal of Aluminosilicate by Water Treatment Plants"	1979

Box	Folder	Title	Dates
7	1	Iowa State University Research Reports: "Removal of Aluminosilicates from Water Using Complete Convection and Direct Filtration Processes"	1979
7	2	Iowa State University Research Reports: "Disinfection of Surface Water Containing 5.0 mg/l of Calcium Aluminosilicate"	1979
7	3	Iowa State University Research Reports: "A Study of the Factors Affecting the Removal of Aluminosilicate from Tap Water"	1979
7	4	Iowa State University Research Reports: "Aluminosilicate Surface Characteristics"	1979
7	5	Iowa State University Research Reports: "Moving Bridge Filter Performance in a Surface Water Treatment Plant at Kenova, West Virginia"	1984
7	6	Iowa State University Research Reports: "Field Evaluations of 'Spiragrit' Grit Chamber Performance at Belmond, Iowa"	1985
7	7	Iowa State University Research Reports: "Oil-Wettable Filter Media: Final Progress Report"	1983
7	8	Iowa State University Research Reports: "Highway Runoff Study Progress Report"	1984
7	9	Iowa State University Research Reports: "Performance Evaluation of Point-of-Use Ozone Generation Units"	1987
7	10	Iowa State University Research Reports: "Suggested Peaking Considerations for Activated Sludge"	1971
7	11	Iowa State University Research Reports: "Report of the Technical Task Force-Saylorville Reservoir Environmental Impact Study"	1973
7	12	Iowa State University Research Reports: "Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal, Appendix 1"	1975
7	13	Iowa State University Research Reports: "Backwash of Granular Filters Used in Wastewater Filtration"	1977
7	14	Iowa State University Research Reports: "Evaluation of Potential for Growth of Bacteria in Model Systems Consisting of Water and Activated Carbon, Resin or Sand"	1980

Box	Folder	Title	Dates
7	15	Iowa State University Research Reports: "Unsteady State Oxygen Transfer Testing of Plant-Scale Magma Rotors in an Oxidation Ditch"	1982
7	16	Iowa State University Research Reports: "Velocity and Power Correlations for Oxidation Ditch Aeration Systems"	1982
7	17	Iowa State University Research Report: "Operation Performance of a Moving Bridge Filter in Treating the Ames Secondary Effluent"	1984
7	18	Iowa State University Research Report: "Oxidation Ditches in Water Pollution Control Past-Present-Future"	1985
7	19	Iowa State Water Resources Research Institute: "Ames Reservoir Environmental Study, Summary Report"	1973
7	20	Iowa State Water Resources Research Institute: "Ames Reservoir Environmental Study, Appendix 5-Physical Relationship with the Urban Sector"	1973
7	21	Iowa State Water Resources Research Institute: "Ames Reservoir Environmental Study, Appendix 6-Detailed Economic Review and Project Evaluation"	1973
7	22	Iowa State Water Resources Research Institute: "Fiscal Year 1984 Program Report"	1984
7	23	National Report Reviews: "Small System Water Treatment Symposium"	1978
7	24	National Report Reviews: "Research Priorities 1981"	1981
7	25	National Report Reviews: "Environmental Engineering and Pollution Control Processes State-of-the-Art Seminar"	1982
7	26	National Report Reviews: "Federal Water Resources Research: A Review of the Proposed Five-Year Program Plan"	1981
7	27	National Report Reviews: "A Plan for Research on Floods and Their Mitigation in the United States"	1983
8	1	Training Grant Reports: "Training in Water Supply and Pollution Control, Terminal Report"	1967
8	2	Training Grant Reports: "Training in Water Supply and Pollution Control, Terminal Report"	1967
8	3	Training Grant Reports: "Training in Water Supply and Pollution Control"	1972-1978

Box	Folder	Title	Dates
8	4	Working Reports: "Role of Activated Sludge Processes in Waste Treatment"	1962
8	5	Working Reports: "Research Activities in Environmental Engineering"	1970
8	6	Working Reports: "Evaluation of THM Formation in Potable Water in Iowa Communities Using Impounded Supplies"	1984
8	7	Working Reports: "Treatment of Potable Water Using Impounded Supplies to Control Trihalomethane Formation in Iowa Communities"	1984
8	8	Working Reports: " A Photoelectric Settlimeter for Sedimentation Studies"	1958
8	9	Working Reports: "A Plastic Microelectrophoresis Cell for Zeta Potential Measurements"	1985
8	10	Working Reports: "Direct Filtration of Turbid Waters Using Deep-Bed, Coarse Media and Multimedia Filters in Series"	1984
8	11	Consulting Reports: "Progress Report on Study of Knoxville Water Pollution Control Plant Facilities"	1971
8	12	Consulting Reports: "Statement on Behalf of City of Storm Lake and Hygrade Packing Company Concerning Finding of Pollution in N. Raccoon River"	undated
8	13	Consulting Reports: "Sulfate Effects in Anaerobic Wastewater Treatment Systems"	undated
8	14	Consulting Reports: "Extended Aeration Wastewater Treatment"	1977
8	15	Consulting Reports: "Water Quality Considerations for City of Jacksonville"	1973
8	16	Consulting Reports: "Tertiary Treatment by Filtration in the Merrimack River Basin"	1974
8	17	Consulting Reports: "A Look at Current Technology in Water Pollution Control"	1967
8	18	Consulting Reports: "High-Rate, Granular Media Filtration at Wisconsin Steel Works"	1976
8	19	Consulting Reports: "Principles, Processes, and Problems in Biological Wastewater Treatment"	1976

Box	Folder	Title	Dates
8	20	Consulting Reports: "Developments at Eighth Annual International Conference on Water Pollution Control" (Reviews of Papers)	1977
8	21	Consulting Reports: "Developments at Tenth International Conference on Water Pollution Research" (Reviews of Papers)	1980
8	22	Consulting Reports: "Developments at Eleventh International Conference on Water Pollution Research" (Reviews of Papers)	1982
8	23	Consulting Reports: "Developments at Twelfth International Conference on Water Pollution" (Reviews of Papers)	1985
8	24	Consulting Reports: "Cancer Control Monographs-Asbestos"	1978
8	25	Consulting Reports: "Recreation on Water Supply Reservoirs"	1975
8	26	Consulting Reports: "Pollution Control Report, File 14121, Madelia, MN"	1965
8	27	Consulting Reports: "Oxygen Transfer Characteristics of the Namco 'Micro-Bubble' Aerator"	1969
8	28	Consulting Reports: "Hydraulics of Circular Settling Tanks Determined by Models"	1961
8	29	Consulting Reports: "Quality Considerations in Potable and Irrigation Water in Israel"	1982
8	30	Consulting Reports: "Water Use Plan for Ames"	1982
8	31	Consulting Reports: "Should Point-of-Use Water Treatment Devices Containing Carbon be Banned?"	1981
9	1	Consulting Reports: "Water Filtration Study Guide"	1987
9	2	Consulting Reports: "Examination Report for Morphology and Inorganic Elements of Slime at Wastewater Treatment Plant"	1988
9	3	Consulting Reports: "Application Potential for Iron Adsorption and Oxidation on Lepidocrocite"	1989
9	4	Correspondence: South Africa Letter	1989

Box	Folder	Title	Dates
9	5	Consulting Reports: "Preliminary Results of Industrial Wastes Survey at Baxter Laboratories, Inc. Cleveland, Mississippi"	1956
9	6	Short Courses Developed: "Removal of Fluoride from Drinking Water Supplies"	1982
9	7	Short Courses Developed: "Nitrate Removal for Production of Drinking Water"	1982
9	8	Short Courses Developed: "Elementary Principles of Waste Water Treatment"	1977
9	9	Short Courses Developed: "Advanced Wastewater Treatment"	1977
9	10	Miscellaneous Trade Magazine Publications: "Limitations of Sewage Lagoons"	1955
9	11	Miscellaneous Trade Magazine Publications: "Pure Water-While You Wait"	1963
9	12	Miscellaneous Trade Magazine Publications: "So, You Want More Proof"	1995
9	13	Papers Presented: "The Quantitative Determination of Color, Odor, and Turbidity in the Water"	1954
9	14	Papers Presented: "Trends in Pond Water Use and Treatment"	1957
9	15	Papers Presented: "Water Purification by Superchlorination"	1959
9	16	Papers Presented: "Detention Vessels for Water Chlorination"	1961
9	17	Papers Presented: "Precoat Carbon Filter Applications in Water Treatment"	1961
9	18	Papers Presented: "Swine Waste Digestion and Potential for Methane Recovery"	1961
9	19	Papers Presented: "Effect of Prechlorination on Filtration and Disinfection"	1962
9	20	Papers Presented: "Properties and Pumping Characteristics of Hog Wastes"	1963
9	21	Papers Presented: "Performance of Sedimentation Tanks Evaluated"	1963

Box	Folder	Title	Dates
9	22	Papers Presented: "Environmental Problems in Suburbia-A Safe Water in Suburbia"	1963
9	23	Papers Presented: "Fundamentals of Diatomite Filter Design"	1965
9	24	Papers Presented: "Oxygenation Efficiency of a Bladed Rotor"	1965
9	25	Papers Presented: "Hydraulics of Circular Settling Tanks Determined by Models"	1965
9	26	Papers Presented: "Mathematical Models for Expressing the Biochemical Oxygen Demand in Water Quality Studies"	1967
9	27	Papers Presented: "Removal of Particulate Matter on Coated Filter Media"	1969
9	28	Papers Presented: "Pollution and Confinement Production of Animals"	1969
9	29	Papers Presented: "Polyelectrolyte Coatings for Filter Media"	1970
9	30	Papers Presented: "PAB Process for Advanced Waste Water Treatment"	1970
9	31	Papers Presented: "Least Cost Sand Filter Design for Iron Removal"	1970
9	32	Papers Presented: "Population Projection Models and Future Water Demands for a University Community"	1971
9	33	Papers Presented: "Time-of-Travel and Dispersion Study of the Skunk River at Ames, Iowa"	1971
9	34	Papers Presented: "Nitrogen Control in the Midwest"	1971
9	35	Papers Presented: "Granular Filters for Tertiary Wastewater Treatment"	1972
9	36	Papers Presented: "Demonstrating the Electrolysis Method for Measuring Biochemical Oxygen Demand"	1972
9	37	Papers Presented: "Tertiary Treatment for Ammonia Reduction"	1972
9	38	Papers Presented: "The Environmental Engineer and Solid-Liquid Separation"	1974
9	39	Papers Presented: "Facing Future Challenges"	1977

Box	Folder	Title	Dates
9	40	Papers Presented: "Review of Nitrate Levels in the Des Moines River"	1980
9	41	Papers Presented: "Design Considerations in Secondary Wastewater Filtration Using Deep Bed Filters"	1982
9	42	Papers Presented: "Point and Non-Point Sources of Pollution in the Des Moines River"	1982
9	43	Papers Presented: "Direct Filtration of Water Using Deep-Bed Coarse Media and Dual Media Filters in Series"	1982
9	44	Papers Presented: "Aggregate Formation During Batch Thickening of Flocculent Suspensions"	1986
9	45	Papers Presented: "Effectiveness of Supplemental Aeration and an Enlarged First-Stage in Improving RBC Performance"	1985
9	46	Papers Presented: "What's Ahead for Us in Environmental Control"	1987
9	47	Papers Presented: "Design and Operation of Moving Bridge Filters on Secondary Effluents"	1982
9	48	Papers Presented: "Design Considerations in Secondary Wastewater Filtration Using Deep Bed Filters"	1982
9	49	Congressional Appearances: "HEW Water Hygiene Program"	1969
9	50	Congressional Appearances: "Labor-HEW Subcommittee on Appropriations for the House of Representatives"	1970
9	51	Congressional Appearances: "Environmental Health Committee Solid Wastes Subcommittee"	1971
9	52	Uncategorized Publications: "Protection of Small Water Supplies from Underground Sewage Pollution"	1958
9	53	Uncategorized Publications: "Design of Filters for Advanced Waste Treatment"	1973
9	54	Uncategorized Publications: "Direct Filtration of Secondary Effluents"	1974
9	55	Uncategorized Publications: "Particle Removal in Deep Bed Filters Observed with the Scanning Electron Microscope" (23 3x5 b/w photographs)	1978
9	56	Uncategorized Publications: <i>Public Works</i> Journal with Baumann Cover Story	1979

Box	Folder	Title	Dates
9	57	Uncategorized Publications: "Nitrate Levels in the Des Moines River"	1980
9	58	Uncategorized Publications: "Design of Trickling Filter Nitrification Towers"	1985
9	59	Uncategorized Publications: "Requisites for Competence in Design and Operation"	1986
9	60	Uncategorized Publications: "Phosphorus Removal in an Oxidation Ditch"	1989
9	61	Uncategorized Publications: "Filtration Equipment for Wastewater Treatment"	1993
9	62	Uncategorized Publications: "Environmental Engineering Education at Iowa State-1953-1995"	1995
9	63	Uncategorized Publications: "Aquaculture Seminar" (23-3x5 color photographs)	1996
9	64	Uncategorized Publications: "Water Plant Operation for Cryptosporidium and Giardia Removal"	2002
9	65	Uncategorized Publications: "Water Quality Editorials"	2002-2006
9	66	Uncategorized Publications: "Characterization of Particulates in Selected Iowa Potable Waters"	undated
9	67	Uncategorized Publications: "Design Procedures for Two-Stage Direct Bed Filters"	undated
9	68	Uncategorized Publications: "Drinking Water Treatment Without Chemical Pretreatment"	undated
10	1	Uncategorized Publications: "Iowa State Histories"	undated
10	2	Uncategorized Publications: "Phase Transition Porosimeter (PTP) in Application"	undated
10	3	Uncategorized Publications: "Slow-Sand Filters for Water Treatment in Isolated Areas"	undated
10	4	Uncategorized Publications: "Water Recirculation/Reuse System for Fish Culture"	undated
12	5	Report: " Measuring Flaws in Drainage Channels"	1949
12	6	Report: "Coagulation of Water Supplies"	1951
12	7	Report: "Reproductibility of Filterability Determinations"	1967
12	8	Report: "Report on Blue Plains Pilot Plant Visit"	1972

Box	Folder	Title	Dates
12	9	Report: "Report of Activities During Faculty Improvement Leave"	1973
12	10	Report for Water Quality Considerations for the City of Jacksonville	1973
12	11	Report: Metro Manila Sewerage and Sanitation Project (IBRD 1415 PH)	1979
12	12	Report: "Specifications for Advanced Waste Treatment Pilot Plant Indianapolis, Indiana"	1970-1972, undated
12	13	List of Publications	1989-2000, undated
12	14	Editorial	undated
12	15	Metro-Manila Sewerage Project, Phase 1: Terms of Reference for Consulting Services	undated
12	16	Report: "Iowa Sewage Works Operators Basic Training Course"	undated

Description of series

Series 3 Lectures and Course Notes 1950-2010, undated

extent: 0.65 linear feet

description: The series contains hand-written and typed lecture outlines and notes, lectures prepared by graduate students, and notes from various courses taught by Baumann. Topics covered include water filtration, wastewater treatment, and sedimentation.

Container list

Box	Folder	Title	Dates
10	5	Lectures (1 of 2)	1950-2010
10	6	Lectures (2 of 2)	1950-2010
10	7	Course Materials for C.E. 623, Advanced Topics in Water Treatment	1961-1971
10	8	Lecture Outlines, Coursework	1962-1989
10	9	Lecture Notes: Deep Bed Filters	1973
10	10	Lecture Notes: Coagulation and Flocculation	1974

Box	Folder	Title	Dates
10	11	Seminar Notes: Advanced Waste Water Treatment	1976-1977
10	12	Lectures: "Design and Operation of Moving Bridge Filters on Secondary Effluents"	1982
10	13	Lectures: "Design Considerations in Secondary Wastewater Filtration Using Deep Bed Filters"	1982
10	14	Lecture Notes: Crisis in Solid/Fluid Separation	1989
10	15	Lecture Notes: Sedimentation and Thickening	1993
10	16	Lectures: International Seminar - Water Technology, Korea	1996
10	17	Lecture Notes: Filter Dynamics	undated
10	18	Lecture Notes: Sedimentation and Thickening	undated
10	19	Lecture Notes: Solid-Liquid Separation	undated
10	20	Lecture Notes: Testing-System Characteristics	undated
10	21	Student Lectures (1 of 2)	undated
10	22	Student Lectures (2 of 2)	undated
12	17	Chemistry 132: Organic Chemistry - Notes (1 of 2)	1951
12	18	Chemistry 132: Organic Chemistry - Notes (2 of 2)	1951
12	19	Chemical Engineering 371: Notes and Problems (1 of 2)	1951
12	20	Chemical Engineering 371: Notes and Problems (2 of 2)	1951
12	21	Chemical Engineering 377: Notes	1951
12	22	Chemical Engineering 356: Notes	1952
12	23	Chemical Engineering 373: Notes (1 of 2)	1952
12	24	Chemical Engineering 373: Notes (2 of 2)	1952
12	25	Chemistry 240: Notes	1950-1951
12	26	Chemistry 22: Experiment Notes	undated
12	27	Chemistry 132: Organic Notes	undated
12	28	Chemical Engineering 448: Lab Reports	undated

Description of series

Series 4	Departmental Records, Committee Work, and Correspondence	1955-2010, undated
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extent: 0.96 linear feet

description: The series contains records of committees on which Baumann worked, professional correspondence, reports from the Civil Engineering Department, and papers and records from graduate students working under Baumann.

Container list

Box	Folder	Title	Dates
10	23	Lists of Engineering Graduate Degrees	1996
10	24	Committees: College of Engineering Research Advisory Committee (1 of 3)	1975-1984
10	25	Committees: College of Engineering Research Advisory Committee (2 of 3)	1975-1984
10	26	Committees: College of Engineering Research Advisory Committee (3 of 3)	1975-1984
10	27	Graduate Student Resumes on File	1979
10	28	Graduate Students: Egypt	1979-1986
10	29	Graduate Students: "Operating Experience with a Moving Bridge Filter Pilot Plant on a Trickling Filter Plant Secondary Effluent" by Gregory Lee Sindt	1980
10	30	Graduate Study Exchange: University of Hamburg-Harburg	1984
10	31	Civil Engineering Department Reports	1985-1991
10	32	Colleagues: Turgut Demeriel	1985-1997
10	33	Civil Engineering Department Reports	1986-1990
10	34	Departmental Reports: "Annual Report for the Department of Civil and Construction Engineering"	1987
10	35	Graduate Students: "Adsorption of Ferrous Iron on Synthesized Gamma-FeOOH" by Suingill Choi	1987
11	1	Long-Range Strategic Planning Committee - Affirmation and Expectations for Iowa's Land-Grant University	1988
11	2	Academic Program Review Subcommittee - Review of Academic Programs	1989
11	3	College of Engineering Reorganization Plan	1989

Box	Folder	Title	Dates
11	4	Report of the Ad Hoc Committee for the Review of Outreach Programs	1989
11	5	Retirement Files	1991
11	6	Graduate Student Files: Seung-Hyun Kim	1992-1993
11	7	Memorials of Deceased Colleagues	2004-2010
11	8	History of Civil Engineering at Iowa State	2010
11	9	Environmental Engineering at Iowa State University	undated
11	10	Correspondence: Letters of Commendation (1- 5x7 b/w photograph)	1955-1967
11	11	Correspondence: Ahmed Fadel	1986-1987
11	12	Correspondence: Professional	1991
11	13	Correspondence: Personal	1991-1998
12	29	Graduate Student's Research/Degree Programs	1955-1993
12	30	Graduate Enrollment in Environmental Engineering	1970-1971

Description of series

Series 5 Research and Professional Development 1948-2007, undated

extent: 0.96 linear feet

description: The series contains records of Baumann's professional development activities and notes from research projects. Materials include contracts, workshop materials, and registrations, and reference materials related to Baumann's work as a sanitary engineer.

Container list

Box	Folder	Title	Dates
11	14	Professional Engineering Registration - Illinois	1948
11	15	University of Illinois Contracts	1948-1953
11	16	Professional Engineering Registration - Iowa	1953
11	17	Q-Clearance Forms - Ames Laboratory	1953-1967
11	18	Publication References	1955-1971

Box	Folder	Title	Dates
11	19	Second Annual Workshop of the American Association of Professors in Sanitary Engineering - Fundamentals of Chromatography	1967
11	20	Advanced Water Pollution Control	1969
11	21	Fourth Annual Workshop of the American Association of Professors in Sanitary Engineering - Applications of Systems Analysis in Sanitary Engineering	1969
11	22	Fifth Annual Workshop of the American Association of Professors in Sanitary Engineering - Consulting Sanitary Engineering Practice	1970
11	23	International Filtration Consortium	1970-1972
11	24	Professional Engineering Registration - Tennessee	1971
11	25	Professional Development Files	1979-1981
11	26	Professional Development Files	1982-1984
11	27	Research in Engineering Bulletin	1982-1985
11	28	Research Notes	1983-1999
11	29	Research Projects Underway in 1981 - "Water Resources Interdepartmental Program"	1984
11	30	Annual Report: Department of Civil and Construction Engineering	2000
11	31	Professional Development Files	2000-2001
11	32	Professional Development Files	2001
11	33	Professional Development Files (1 of 2)	2002
11	34	Professional Development Files (2 of 2)	2002
11	35	Rotary Club Memorial Resolution-Carl Edwin Ekberg, Jr.	2007
11	36	Proposals: Center for Management of Hazardous Materials	undated
11	37	Town and Gown Cooperation	undated
11	38	University of Illinois Graduate School Information (15- 3x5 b/w photographs, 2- 3x5 b/w negatives)	undated
12	31	Job: Stewart	1953
12	32	Bobbitt Thesis: Correspondence (1 b/w photograph)	1954, undated

Box	Folder	Title	Dates
12	33	Correspondence	1954-1981
12	34	US Public Health Service: Rosene Commissions	1955-1966, undated
12	35	Preliminary Results of Industrial Wastes Survey at Baxter Laboratories, Inc.	1956
12	36	National Science Foundation: Fellowship	1958-1964, undated
13	1	Staff Activity Resume (1 of 3)	1969-1982, undated
13	2	Staff Activity Resume (2 of 3)	1969-1982, undated
13	3	Staff Activity Resume (3 of 3)	1969-1982, undated
13	4	Application for Faculty Improvement Leave	1971
13	5	High-Rate, Granular Media Filtration at Wisconsin Steel Works	1976
13	6	Nomination for Office of Vice-President: AWWA	1979-1980
13	7	Witness Interrogation	1982
13	8	Staff Activity Resumes (1 of 2)	1983-1990
13	9	Staff Activity Resumes (2 of 2)	1983-1990
13	10	LaFayette, Louisiana	1985-1986
13	11	TDS and Chloride Monitoring Data	2005
13	12	Chloride Technical Advisory Committee Meeting	2007
13	13	Water Quality Standards	2004-2007, undated
13	14	Articles of Incorporation of Water Foundation Incorporated	undated
13	15	Consulting Report	undated
13	16	EPA Special Fellowship	undated
13	17	Process Development, Control, and Performance in Water Pollution Control: Grant Proposal	undated
13	18	Water Foundation Brochures	undated

Appendix - Engineering Research Institute (ERI) Reports

Call number	Title	Dates
RS 11/2/0/6 (ERI-217)	Final Report, Part 1 of IV Parts: Filtration Resistance of Several Commercial Filter Aids	1968
RS 11/2/0/6 (ERI-267)	Final Report, Part II of VI Parts: Physical Properties of Several Commercial Filter Aids	1968
RS 11/2/0/6 (ERI-268)	Final Report, Part III of VI Parts: Rationale for a Material Specification for Commercial Filter Aids for Military Use	1968
RS 11/2/0/6 (ERI-263)	Final Report, Part IV of VI Parts: Proposed Standard Procedures for Determination of the Effective Specific Gravity, Bulk Density, and Filter Cake Resistance of Precoat Filter Aids	1968
RS 11/2/0/6 (ERI-269)	Final Report: Filter Aid Specifications (in VI Parts)	1968
RS 11/2/0/6 (ERI-164)	Interim Report on Filter Aid Specifications	1968
RS 11/2/0/6 (ERI-306)	Methods for the Determination of Sugar Filterability: Feasibility Report	1968
RS 11/2/0/6 (ERI-104)	Program for Determination of an Index of Filter Cake Resistance Using Filter Aid Filters of the Bid Program: User Manual	1968
RS 11/2/0/6 (ERI-116)	User Manual for MAIDS Program: Program for Determination of Beta-Prediction Equations by Manipulation of Interpretation of Data Systems	1968
RS 11/2/0/6 (ERI-520)	Design Considerations for Expansion of the Water Pollution Control Plant, Ames, Iowa	1969
RS 11/2/0/6 (ERI-71000)	Demonstration of the Electrolysis Method for Measuring BOD: Progress Report No. 1	1970
RS 11/2/0/6 (ERI-91100)	PAB Process for Advanced Waste Treatment	1970
RS 11/2/0/6 (ERI-64400)	Physical and Economic Factors Associated with the Establishment of Stream Water Quality Standards (2 volumes)	1970
TD224.I8 I6x	Preimpoundment Water Quality Study: Saylorville Reservoir, Des Moines River, Iowa	1971-1972
RS 11/2/0/6 (ERI-72154)	Chemical Methods for Nitrification Control	1972

Call number	Title	Dates
RS 11/2/0/6 (ERI-72056)	Training in Water Supply and Pollution Control: Summary Progress Report	1972
RS 11/2/0/6 (ERI-72153)	Demonstration of the Electrolysis Method for Measuring BOD	1973
RS 11/2/0/6 (ERI-73128)	Design of Filters for Advanced Wastewater Treatment	1973
RS 11/2/0/6 (ERI-73128)	Design of Filters for Advanced Wastewater Treatment	1973
RS 11/2/0/6 (ERI-73202)	The Electrolytic Respirometer. Vol. 1: Factors Affecting Oxygen Uptake Measurements	1973
RS 11/2/0/6 (ERI-73201)	The Electrolytic Respirometer. Vol. 2: Use in Water Pollution Control Plant Laboratories	1973
RS 11/2/0/6 (ERI-73107)	Trickling Filter-Activated Sludge Combinations for Domestic Wastewater Treatment	1973
RS 11/2/0/6 (ERI-74112)	Backwash of Granular Filters Used in Wastewater Filtration	1974
TD224.I8 B38x	Des Moines -- Raccoon River Basin Characteristics Related to Red Rock and Saylorville Reservoirs, Des Moines River, Iowa	1974
RS 11/2/0/6 (ERI-76255)	A Statewide Training Plan for Water and Wastewater Treatment Plant Operators	1976
RS 11/2/0/6 (ERI-76114)	Backwash of Granular Filters Used in Wastewater Filtration	1976
TD224.I8 C65x	Management of Water Quality Data, Water Quality Studies, Red Rock and Saylorville Reservoirs, Des Moines River, Iowa	1977
RS 11/2/0/6 (ERI-81025)	Evaluating the Significance of Microorganisms in Owner-controlled Water Treatment Systems. Part A: A Literature Review	1980
RS 11/2/0/6 (ERI-81245)	Evaluating the Significance of Microorganisms in Owner-controlled Water Treatment Systems. Part B: Growth of Bacteria in Mixtures of Water and Humic Acid with Activated Carbon, Resin or Sand	1981
RS 11/2/0/6 (ERI-83279)	An Investigation of Split Treatment for Wastewater Management Under Peak Flow Conditions	1983
RS 11/2/0/6 (ERI-83271)	Soil Percolation Disposal of Flue-Gas Condensate	1983

Call number	Title	Dates
RS 11/2/0/6 (ERI-85232)	Characterization and Filtration of Process Oils: Progress Report	1985
RS 11/2/0/6 (ERI-86152)	Field Evaluation of "Spiragrit" Grit Chamber Performance at Belmond, Iowa	1985
TD428 R84 B382x 1985	Highway Runoff Study	1985
TD365 I6x	Water Quality Studies -- Red Rock and Saylorville Reservoirs, Des Moines River, Iowa: Annual Report	1973-1991
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