

THE Conference on Industrial Water

OFFICIAL PROCEEDINGS THE INTERNATIONAL WATER CONFERENCE®

51st ANNUAL MEETING

October 22-24, 1990 Hilton Hotel Pittsburgh, Pennsylvania

> David E. Simon II General Chairman

Malcolm Clemens Vice Chairman Connie Glover Ritzert Program Chairman

Sponsored by the

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THE Conference on Industrial Water

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THE Conference on Industrial Water

OFFICIAL PROCEEDINGS THE INTERNATIONAL WATER CONFERENCE® 56th ANNUAL MEETING

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The Conference on Industrial Water

OFFICIAL PROCEEDINGS

THE INTERNATIONAL WATER CONFERENCE

57th ANNUAL MEETING

October 21 - 23, 1996 Westin William Penn Hotel Pittsburgh, Pennsylvania

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Discussion Leader: Joseph G. Rabosky, Rabosky & Associates, Pittsburgh, Pennsylvania

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John Schubert, Modular Environmental Technologies, Inc., Pittsburgh, Pennsylvania

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Session Chair: Frank McGarvey, Sybron Chemicals, Inc., Birmingham, New Jersey Discussion Leader: Peter Yarnell, Ph.D., Graver Chemical, Glasgow, Delaware

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John Kristensen New York Power Authority Buchanan New York Discussion not published in

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Buckman Laboratories, Inc., Memphis, Tennessee (IWC-96-70)
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WEDNESDAY MORNING SESSION "C" ECONOMICS OF ADVANCED WATER PURFICATION

Session Chair: Edward Geishecker, Ionics, Inc., Watertown, Massachuttes Discussion Leader: Shan S. Sundaram, Ambi-Design, Inc., Rockford, Illinois

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Charles H. Fritz, Black & Vetach, Overland Park, Kansas
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Ionics, Incorporated, Watertown, Massachusetts (IWC-96-75)
Prepared Discussion
Dale E. Campion, MPW Industrial Services, Newark, Ohio

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Session Chair: Michael Rodgers, Syncrude Canada, Ltd., Fort McMurray, Alberta Canada

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The Conference on Industrial Water

OFFICIAL PROCEEDINGS

THE INTERNATIONAL WATER CONFERENCE

58th ANNUAL MEETING

November 3-6, 1997

Westin William Penn Hotel Pittsburgh, Pennsylvania

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The Conference on Industrial Water

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THE INTERNATIONAL WATER CONFERENCE

59TH ANNUAL MEETING

OCTOBER 19-21, 1998

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The Conference on Industrial Water

OFFICIAL PROCEEDINGS

THE INTERNATIONAL WATER CONFERENCE

60TH ANNUAL MEETING

OCTOBER 18-20, 1999

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Session Chair: Martin Orban – Mitco Inc., Grand Rapids, MI IWC Representative: Fred Potthoff – Kroff Chemical Company, Pittsburgh, PA Discussion Leader: Dr. Michael Trulear – ChemTreat, Inc., Glen Allen, VA

nongfang Lei – Fudan University, Shanghai, China; Qinai Bao – Shanghai Petrochemical Co., Ltd., Shanghai WC-99-46)	i, China
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J.E. Hoots, D.A. Johnson, J.D. Lammering, D.A. Meier, B. Yang – Nalco Chemical Company, Illinois, IL (IWC-99-48)

DEVELOPMENT OF AN "ALL ORGANIC" CHEMICAL TREATMENT, SPECIFICALLY FOR COOLING WATER WITH HIGH PHOSPHATE AND CALCIUM CONTENT

Sergio Castro – Instituto Mexicano Del Petroleo (IMP), Mexico, D.F., Mexico (IWC-99-49) – Not printed in these proceedings.

MAINTAINING EFFECTIVE COOLING SYSTEM PERFORMANCE WHEN USING CONTAMINATED MAKEUP WATER
Ricardo de Araujo Fernandes – BetzDearborn, Brazil; Altino Alves Bento – Petroquimica Uniao, Maua, SP. Brazil (IWC-99-50)
Prepared Discussion
Tuesday Afternoon Session POWER SYSTEMS WATER TECHNOLOGY
Session Chair: James Bellows – Siemens Westinghouse, Orlando, FL IWC Representative: David Simon – Cyrus Rice Water Consultants, Pittsburgh, PA Discussion Leader: Steve Shulder – Baltimore Gas & Electric, Baltimore, MD
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CORROSION-PRODUCT TRANSPORT ANALYSIS BY NONDESTRUCTIVE X-RAY AND GAMMA-RAY METHODS
Barbara D. Sawicka, Jerzy A. Sawicki – AECL, Chalk River Laboratories, Ontario, Canada (IWC-99-51)
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DEAERATION – THE PARALLEL DIFFERENCE
Prepared Discussion
CONDENSATE POLISHER UPGRADE AT CONEMAUGH STATION
Prepared Discussion
Tuesday Afternoon Session SOLVING MEMBRANE OPERATIONAL PROBLEMS
Session Chair: Harold Aronovitch – Hungerford & Terry, Clayton, NY IWC Representative: Malcolm Clemens – Consultant, Pittsburgh, PA Discussion Leader: Wayne Bates – Hydranautics, Rockton, IL
DESIGN-BUILD OF A 2,800-GPM MICROFILTRATION, REVERSE OSMOSIS AND MIXED BED ION EXCHANGE WATER TREATMENT SYSTEM IN NEW YORK CITY
Prepared Discussion Charles Fritz – Black & Veatch, Overland Park, KS – Not printed in these proceedings.
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David Threlfall – Ecolochem International Inc., Peterborough, U.K. (IWC-99-57) Prepared Discussion
Doug Glanz – BetzDearborn Argo Scientific, Cincinnati, OH – Not printed in these proceedings.
APPLICATIONS OF ON-LINE TOC ANALYSIS FOR MONITORING REVERSE OSMOSIS MEMBRANE PERFORMANCE
Karen Clark – Anatel Corporation, Boulder, CO (IWC-99-58)

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Wednesday Morning Session ADVANCES IN ION EXCHANGE TECHNOLOGY

Session Chair: Ed Nace – Rohm and Haas Company, Philadelphia, PA
IWC Representative: Andrew Calderwood - Westinghouse Nuclear Services Division, Madison, PA
Discussion Leader: Peter Yarnell - Graver Chemical Company, Glasgow, DE

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Francisco Javier Gomez – Pemex Refinacion Refineria; Miguel Hidalgo - Tula, Hgo, Mexico; Lemus Noguez Enrique – Mexico, D.F., Mexico (IWC-99-62) – Not printed in these proceedings.

Wednesday Morning Session INNOVATIVE MEMBRANE PROCESSES

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Michael Gottlieb – <i>ResinTech, Inc., Cherry Hill, NJ</i>
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Dr. John J. Kim – Riverbend Steam Station, Duke Power Co., Mount Holly, NC; Robbin M. Jolly – Allen Steam Station,
Duke Power Co., Belmont, NC (IWC-99-67)
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