



STN is operated in North America  
by Chemical Abstracts Service.

## STN Database Summary Sheet

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**WATER (WATER Resources Abstracts)** is a bibliographic database providing information from the world's technical and scientific literature on water-related topics covering the characteristics, conservation, control, pollution, treatment, use, and management of water resources.

### Subject Coverage

- Lakes
- Estuaries
- Erosion and sedimentation
- Water supply and conservation
- Desalination
- Water yield improvement
- Water quantity management and control
- Watershed protection
- Water quality management
- Water resources planning
- Water law
- Engineering works and hydraulics

### Sources

- Journals
- Books
- Conference proceedings
- Reports

### File Data

- 1967 to the present
- More than 396,470 records (07/04)
- Updated monthly
- Automatic current-awareness searches (SDIs) are run monthly

### User Aids

- STNGUIDE
- Online Helps (HELP DIRECTORY lists all help messages available)

### Database Producer

Cambridge Scientific Abstracts  
7200 Wisconsin Avenue  
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Fax: (301) 961-6720  
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Telex: 17724710+  
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STNmail: HLPDESKK

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614-447-3700 (worldwide)  
Fax: 614-447-3751  
E-mail: help@cas.org

**WATER****Search and Display Field Codes**

The field that allows left truncation (/BI) is indicated by an asterisk (\*).

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index * (contains single words from the abstract (AB), classification code (CC), controlled term (CT), title (TI), and uncontrolled term (UT) fields)	None or /BI	S PACIFIC NORTHWEST S WATER(L)PRESSURE S ?COASTAL?	AB, CC, CT, TI, UT
Abstract	/AB	S WASTEWATER/AB	AB
Accession Number	/AN	S 2004000021/AN	AN
Author	/AU	S NING S?/AU S NING, S/AU	AU
Citation	/CIT (or /RE)	S 1930/CIT	PY
Classification Code (1) (code and text)	/CC	S 0560/CC S WATER IN SOILS/CC	CC
Controlled Term	/CT	S BACTERIAL ANALYSIS/CT	CT
Controlled Word	/CW	S EVALUATION?/CW	CT
Corporate Source (1) (including author's affiliation)	/CS	S TECHNICAL DEPARTMENT/CS	CS
Data Entry Date	/DED	S DED=DEC 1999	DED
Document Number	/DN	S 8913406/DN	DN
Document Type (code and text)	/DT (/TC)	S REPORT/DT S R/DT	DT
E-mail Address	/EML	S CUSTOMER@WILEY.CO.UK/EML	EML, SO
Entry Date (2)	/ED	S ED=20040609	UP
Field Availability	/FA	S AB/FA	Not displayed
International Standard (Document) Number	/ISN	S 1239-6095/ISN	ISN, SO
Journal Title (contains full and abbreviated journal names)	/JT	S GROUND WATER/JT	SO, JT
Language (ISO code and text)	/LA	S L1 NOT ENGLISH/LA	LA
Note (2)	/NTE	S TECHNICAL MEMORANDUM/NTE	NTE
Number of Report	/NR	S BNL-48908/NR	NR
Other Source	/OS	S ECOLOGY ABSTRACTS/OS	OS
Publication Date (2)	/PD	S JAN 2001-MAY 2001/PD	PD, SO
Publication Year (2)	/PY	S PY>=1999	PY, SO
Publisher (1)	/PB	S SPRINGER VERLAG/PB	PB
Reference	/RE (or /CIT)	S 1930/RE	PY
Source (contains journal titles, other higher level titles, publisher and place of publication, meeting information, collation information (volume, issue, pages), ISSN, ISBN, publication year, URL, and e-mail addresses)	/SO	S (ENVIRONMENTAL(S)CONFERENCE)/SO S ELSEVIER/SO AND OXFORD/SO S APPLICATIONS/SO AND 48/SO	SO
Summary Language (ISO code and text)	/SL	S L1 NOT FRENCH/SL	SL
Title	/TI	S WASTEWATER QUALITY/TI	TI
Uniform Resource Locator (1)	/URL	S HTTP://EHIS.NIEHS.NIH.GOV/URL	URL, SO
Update Date (2)	/UP	S UP=JUL 2004	UP
Word Count, Title (2)	/WC.T	S WC.T<10 AND 11	WC.T

(1) Search with implied (S) proximity is available in this field.

(2) Numeric search field that may be searched using numeric operators or ranges.

## DISPLAY and PRINT Formats

Any combination of display fields and formats may be used to display or print answers. Multiple codes must be separated by commas or spaces, e.g., D L1 1-5 TI AU. The fields are displayed or printed in the order requested.

Hit-term highlighting is available for all fields except PY. Highlighting must be ON during SEARCH in order to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AB AN AU CC CS CT DED (1) DN DT (TC) EML (1) ISN (1) JT (1) JTA (1) JTF (1) LA NR NTE OS PB (1) PD (1) PY (1) SL SO TI UP (ED) (1) URL UT WC.T	Abstract Accession Number Author Classification Code Corporate Source Controlled Term Data Entry Date Document Number Document Type E-mail Address International Standard (Document) Number Journal Title Journal Title, Abbreviated Journal Title, Full Language Number of Report Note Other Source Publisher Publication Date Publication Year Summary Language Source Title Update Date Uniform Resource Locator Uncontrolled Term Word Count, Title	D TI AB 1-10 D AN D AU 1-2 D CC D CS D CT D DED D DN D DT D EML D ISN D 1-10 JT L7 D 1-10 JTA L7 D 1-10 JTF L7 D L8 LA 1-3 D NR D NTE D OS D PB D PD D PY D SL 2 D SO D TI 1-3 D UP D URL D UT D WC.T
ABS ALL BIB (default) DALL IALL IBIB IND SCAN (2) TRIAL (TRI, SAMPLE, FREE)	AN, AB AN, DN, TI, AU, CS, SO, NR, DT, LA, SL, NTE, OS, AB, CC, CT, UT AN, DN, TI, AU, CS, SO, NR, DT, LA, SL, NTE, OS ALL, with delimiter for post-processing ALL, indented with text labels BIB, indented with text labels AN, CC, CT TI, CT (random display without answer numbers) AN, TI, CC, CT	D ABS D ALL L4 1-10 D BIB D L3 DALL 5 D IALL D IBIB 7 D IND 1-3 D SCAN D TRI 4-8 L10
HIT KWIC OCC	Hit terms and fields Up to 50 words before and after hit terms (Key-Word in Context) Number of occurrences of hit terms and fields in which they occur	D HIT D KWIC D OCC

(1) Custom display only.

(2) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

**WATER****SELECT, ANALYZE, and SORT Fields**

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y	-
Accession Number	AN	Y	-
Author	AU	Y	A
Citation	CIT	Y	-
Classification Code	CC	Y	A
Controlled Term	CT	Y	-
Corporate Source	CS	Y	A
Data Entry Date	DED	Y	N
Document Number	DN	Y	-
Document Type	DT (TC)	Y	A
E-mail Address	EML	Y	A
International Standard (Document) Number	ISN	Y (2)	Y
Journal Title	JT	Y	A
Journal Title, Abbreviated	JTA	Y (3)	A
Journal Title, Full	JTF	Y (3)	A
Language	LA	Y	A
Note	NTE	Y	A
Number of Report	NR	Y	A
Occurrence Count of Hit Terms	OCC	N	-
Other Source	OS	Y	A
Publication Date	PD	Y	N
Publication Year	PY	Y	N
Publisher	PB	Y	A
Source	SO	Y (4)	A
Summary Language	SL	Y	A
Title	TI	Y (default)	A
Uncontrolled Term	UT	Y (5)	-
Uniform Resource Locator	URL	Y (4)	-
Update Date	UP (ED)	Y	N
Word Count, Title	WC.T	Y	N

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT CC.

(2) Selects or analyzes the ISSN and ISBN with /ISN appended to the terms created by SELECT.

(3) Appends /JT to the terms created by SELECT.

(4) Selects or analyzes the ISSN and ISBN with /SO appended to the terms created by SELECT.

(5) Appends /BI to the terms created by SELECT.

## Sample Records

### DISPLAY IALL

ACCESSION NUMBER: 2004396007 WATER  
DOCUMENT NUMBER: 5842883  
TITLES: Treatment of drinking water residuals: comparing sedimentation and dissolved air flotation performance with optimal cation ratios

AUTHOR: Bourgeois, JC; Walsh, ME; Gagnon, GA  
CORPORATE SOURCE: CBCL Ltd. 1489 Hollis Street, Halifax, Canada NS B3J 2R7, [mailto:graham.gagnon@dal.ca]  
SOURCE: Water Research [Water Res.]. Vol. 38, no. 5, pp. 1173-1182. Mar 2004.  
Published by: Elsevier Science Ltd., The Boulevard Langford Lane Kidlington Oxford OX5 1GB UK, [mailto:nlinfo-f@elsevier.nl], [URL:http://www.elsevier.nl]

ISSN: 0043-1354  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
OTHER SOURCE: Aqualine Abstracts; Environmental Engineering Abstracts  
ABSTRACT: Spent filter backwash water (SFBW) and clarifier sludge generally comprise the majority of the waste residual volume generated and in relative terms, these can be collectively referred to as combined filter backwash water (CFBW). CFBW is essentially a low-solids wastewater with metal hydroxide flocs that are typically light and slow to settle. This study evaluates the impact of adding calcium and magnesium carbonates to CFBW in terms of assessing the impacts on the sedimentation and DAF separation processes. Representative CFBW samples were collected from two surface water treatment plants (WTP): Lake Major WTP (Dartmouth, Nova Scotia, Canada) and Victoria Park WTP (Truro, Nova Scotia, Canada). Bench-scale results indicated that improvements in the CFBW settled water quality could be achieved through the addition of the divalent cations, thereby adjusting the monovalent to divalent (M:D) ratios of the wastewater. In general, the DAF process required slightly higher M:D ratios than the sedimentation process. The optimum M:D ratios for DAF and sedimentation were determined to be 1:1 and 0.33:1, respectively. It was concluded that the optimisation of the cation balance between monovalent cations (e.g. Na super(+), K super(+)) and added divalent cations (i.e. Ca super(2+), Mg super(2+)) aided in the settling mechanism through charge neutralisation-precipitation. The increase in divalent cation concentrations within the waste residual stream promoted destabilisation of the negatively charged colour molecules within the CFBW, thereby causing the colloidal content to become more hydrophobic.

CLASSIFICATION CODE: 3060 Water treatment and distribution  
CONTROLLED TERMS: Drinking Water; Water Treatment; Backwash; Water Quality; Sludge; Sedimentation; Calcium Carbonate; Magnesium Carbonate; Backwashing; Water supplies (Potable); Sludge (see also Individual sources); Flotation processes

