PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: RELEASE BY SECURED PARTY

CONVEYING PARTY DATA

	Name	Execution Date
Citicorp No	orth America, Inc.	12/22/2010

RECEIVING PARTY DATA

Name:	Nalco Company
Street Address:	1601 W. Diehl Road
City:	Naperville
State/Country:	ILLINOIS
Postal Code:	60563-1198

PROPERTY NUMBERS Total: 4

Property Type	Number
Patent Number:	6569413
Application Number:	09834128
Application Number:	10280518
Application Number:	10323217

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: NALCO SECURITY RELEASES

NAME OF SUBMITTER: Edward O. Yonter

PATENT

REEL: 025541 FRAME: 0431

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Total Attachments: 25 source=Citi Patent Release_Nalco#page1.tif source=Citi Patent Release_Nalco#page2.tif source=Citi Patent Release_Nalco#page3.tif source=Citi Patent Release_Nalco#page4.tif source=Citi Patent Release_Nalco#page5.tif source=Citi Patent Release Nalco#page6.tif source=Citi Patent Release_Nalco#page7.tif source=Citi Patent Release_Nalco#page8.tif source=Citi Patent Release Nalco#page9.tif source=Citi Patent Release_Nalco#page10.tif source=Citi Patent Release_Nalco#page11.tif source=Citi Patent Release_Nalco#page12.tif source=Citi Patent Release Nalco#page13.tif source=Citi Patent Release_Nalco#page14.tif source=Citi Patent Release_Nalco#page15.tif source=Citi Patent Release_Nalco#page16.tif source=Citi Patent Release Nalco#page17.tif source=Citi Patent Release_Nalco#page18.tif source=Citi Patent Release_Nalco#page19.tif source=Citi Patent Release_Nalco#page20.tif source=Citi Patent Release Nalco#page21.tif source=Citi Patent Release_Nalco#page22.tif source=Citi Patent Release_Nalco#page23.tif source=Citi Patent Release Nalco#page24.tif source=Citi Patent Release_Nalco#page25.tif

TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENT RIGHTS

TERMINATION AND RELEASE dated as of December 22, 2010 from Citicorp North America, Inc., as administrative agent (the "<u>Agent</u>") for certain banks and other financial institutions (the "<u>Secured Parties</u>"), to Nalco Company (the "<u>Company</u>").

WITNESSETH:

WHEREAS, the Company entered into that certain Credit Agreement dated as of November 4, 2003 (as amended, supplemented, or otherwise modified, the "Credit Agreement"), among Nalco Holdings LLC, the foreign subsidiary borrowers from time to time party thereto, the Lenders party hereto from time to time, and Agent;

WHEREAS, pursuant to that certain U.S. Guarantee and Collateral Agreement (the "Security Agreement") dated as of November 4, 2003, made by the Company in favor of the Agent, a security interest (the "Security Interest") was granted by the Company to the Agent in certain collateral, including the Patent Collateral (as hereinafter defined);

WHEREAS, pursuant to that certain Patent Security Agreement dated as of November 4, 2003, among the Company and the Agent (the "<u>Patent Security Assignment</u>"), the Company, by reference to the Security Agreement, reaffirmed its intent to grant a Security Interest to the Agent for the benefit of the Secured Parties specifically in certain Patent Collateral;

WHEREAS, the Patent Security Assignment was recorded in the Patent Division of the United States Patent & Trademark Office on December 8, 2003, at Reel 014805/ Frame 0132;

WHEREAS, the Agent now desires to terminate and release the entirety of its Security Interest in certain Patent Collateral; and

NOW, THEREFORE, for good and valuable consideration including satisfaction of all obligations, indebtedness and liabilities secured by the Patent Collateral pursuant to the Security Agreement, the receipt and adequacy of which are hereby acknowledged, and upon the terms set forth in this Termination and Release, the Agent hereby states as follows:

- 1. <u>Patent Collateral</u>: The term "Patent Collateral," as used herein, shall mean all of the Company's right, title and interest of every kind and nature as of the date hereof in the letters patents of the United States and applications therefor, and all reissues and extensions thereof, including those set forth on Schedule 1 attached hereto.
- 2. <u>Release of Security Interest</u>: The Agent, hereby terminates, releases and discharges its Security Interest in the Patent Collateral, and any right, title or interest of the Agent in such Patent Collateral shall hereby cease and become void.

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3. <u>Further Assurances</u> : The Agent hereby agrees to duly execute, acknowledge, procure and deliver any further documents and to do such other acts as may be reasonably necessary to effect the release of the Security Interest contemplated hereby.

IN WITNESS WHEREOF, the undersigned has executed this Termination and Release by its duly authorized officer as of the date first above written.

Citicorp North America, Inc., as Agent

By: 🧲

Name:

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Schedule 1

Nalco Company Patents

U.S. Patent Registrations

Title	Patent No.	Issue Date
Metal oxide/silica sols.	4,563,298	01/07/86
Metal oxide/silica sols.	4,613,454	09/23/86
Scrubbing media for removing volatile organic material from paint spray booths.	4,378,235	03/29/83
Paint spray booth emissions control process (nortru).	4,396,405	08/02/83
Paper sizing method and emulsion.	4,657,946	04/14/87
Stable acidic and alkaline metal oxide sols.	4,612,138	09/16/86
Acrylic acid-sodium vinylsulfonate-vinyl acetate terpolymer and use thereof as a dispersant.	4,604,211	08/05/86
Silica inhibition: prevention of deposition by boric acid/orthoborate ion.	4,584,104	04/22/86
Emulsification of alkenyl succinic anhydride sizing agents.	4,606,773	08/19/86
High molecular weight dadmac polymers by inverse emulsion technology.	4,713,431	12/15/87
Prevention of iron fouling of ion exchange resins.	4,664,811	05/12/87
Scale inhibitors which contain sulfate-containing polymers.	4,676,911	06/30/87
Purification of bayer process liquors.	4,578,255	03/25/86
Novel sulfonate surfactants.	4,574,061	03/04/86
Method of prevention of phosphonate decomposition by chlorine.	4,642,194	02/10/87
Method for prevention of phosphonate decomposition by chlorine.	4,711,724	12/08/87
Use of benzo and tolyltriazole as copper corrosion inhibitors for boiler condensate systems.	4,657,785	04/14/87
Dimeric aluminum compounds and their use.	4,655,934	04/07/87
Cross-linked cationic polymers for use in personal care products.	4,806,345	02/21/89
Sulfomethylamide-containing polymers.	4,762,894	08/09/88
Sulfomethylamide-containing polymers.	5,120,797	06/09/92
Process for producing sulfomethylamide polymers.	5,004,786	04/02/91

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Title	Patent No.	Issue Date
Modified acrylamide polymers used as scale inhibitors.	4,801,388	01/31/89
Modified maleic anhydride polymers and the like for use as scale inhibitors.	4,919,821	04/24/90
Portable liquid container.	4,746,034	05/24/88
Chemical modification of (meth) acrylic acid homopolymers and alkyl (meth) acrylate polymers in aqueous systems with amino sulfonic acids.	4,604,431	08/05/86
Carboxylate containing modified acrylamide polymers.	4,680,339	07/14/87
Carboxylate containing modified acrylamide polymers.	4,777,219	10/11/88
Sulphonate-containing terpolymers as flocculants for suspended solids.	4,704,209	11/03/87
Cooling water corrosion inhibition method.	4,752,443	06/21/88
Cooling water corrosion inhibition method.	4,929,425	05/29/90
Cooling water corrosion inhibition method.	4,923,634	05/08/90
Zinc stabilization with modified acrylamide based polymers and corrosion inhibition derived therefrom.	4,898,686	02/06/90
Zinc stabilization with modified acrylamide based polymers and corrosion inhibition derived therefrom.	5,049,310	09/17/91
Composition of corrosion inhibitors for cooling water systems using chemically modified acrylamide or methyacrylamide polymers.	4,756,881	07/12/88
Fluorescent tracers chemical treatment monitors.	4,783,314	11/08/88
Ampholytic diallyldimethyl ammonium chloride (dadmac) copolymers and terpolymers for water clarification.	4,715,962	12/29/87
Papermaking aid.	4,643,801	02/17/87
Papermaking aid.	4,750,974	06/14/88
Amine/gallic acid blends as oxygen scavengers.	4,929,364	05/29/90
Synergistic biocide of dodecyl guanidine hydrochloride and a mixture of 5-chloro-2-methyl-4-isothiazolin-3-one.	4,661,503	04/28/87
Process for the manufacture of potassium stabilized silica sols.	4,915,870	04/10/90
Monomeric, oligomeric and polymeric sulfonates.	4,837,283	06/06/89
Use of surfactants in alumina precipitation in the bayer process.	4,737,352	04/12/88
Use of sulfamic acid to inhibit phosphonate decomposition by bromine mixtures.	4,759,852	07/26/88
Stabilization of soluble manganese in aqueous systems.	4,883,600	11/28/89
Gallic acid as an oxygen scavenger.	4,968,438	11/06/90

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Title	Patent No.	Issue Date
Compositions for iron ore agglomeration.	4,751,259	06/14/88
Process for separating solids with a keratin filter aid.	4,869,829	09/26/89
Procedure for the removal or reduction of residual trimethylamine odor from its reaction products.	4,845,289	07/04/89
Process for making acrylamido methane sulfonic acid polymers.	4,795,789	01/03/89
Process for making acrylamido methane sulfonic acid polymers.	4,952,642	08/28/90
Method for dewatering a slurry using a twin belt press with cationic amine salts.	4,792,406	12/20/88
Method for dewatering paper.	4,795,531	01/03/89
Polymeric ore agglomeration aids.	4,898,611	02/06/90
Heap leaching ores containing gold and silver.	5,100,631	03/31/92
Pulp mill waste color removal with carbon absorbents.	4,851,128	07/25/89
Prevention of vapor phase corrosion caused by halogens in brewery pasteurizers.	4,929,424	05/29/90
Continuous on stream monitoring of cooling tower water.	4,992,380	02/12/91
Cleaner for high pressure cleaning of ferrous and non-ferrous material.	4,941,925	07/17/90
Transition metals as treatment chemical tracers.	4,966,711	10/30/90
Compositions comprising transition metals for treating and monitoring liquid systems.	5,200,106	04/06/93
Filtration aids for removal of calcium solids from aqueous phosphoric acid.	4,800,071	01/24/89
Silica as blocking agent for fiberglass sizing.	4,931,318	06/05/90
Use of low molecular weight water-soluble anionic polymers as blocking agent for fiberglass sizing.	4,869,932	09/26/89
Application of multiple enzyme blend to control industrial slime on equipment surfaces.	5,071,765	12/10/91
Automated chemical storage and chemical feed system.	5,126,729	06/30/92
Automated chemical storage and chemical feed system.	5,029,602	07/09/91
Automated chemical storage and chemical feed system.	5,016,666	05/21/91
Concentration cycles, percent life holding time and continuous treatment concentration monitoring in boiler systems by inert tracers.	5,041,386	08/20/91
Anionic acrylamide polymers as copper ore agglomeration aids.	4,875,935	10/24/89

Title	Patent No.	Issue Date
Polyhydroxyamic acid polymers from polyacrylic acids.	4,868,248	09/19/89
Method for inhibiting corrosion in cooling systems and compositions therefore, containing a nitrite corrosion inhibitor and bromosulfamate.	4,992,209	02/12/91
Reverse emulsion breaking method using amine containing polymers.	5,032,285	07/16/91
Use of dadmac containing polymers for coated broke treatment.	5,131,982	07/21/92
Rapid selection of biocide using a reduction oxidation indicator system.	5,206,151	04/27/93
Monitoring and dosage control of tagged polymers in cooling water systems.	5,171,450	12/15/92
Method for injecting treatment chemicals using a constant flow positive displacement pumping apparatus.	5,066,199	11/19/91
Improved method for injecting treatment chemicals using a constant flow positive displacement pumping apparatus.	5,195,879	03/23/93
Method of monitoring flocculant effectiveness.	4,976,871	12/11/90
Diallyldimethyl ammonium chloride polymers with anionic monomers for coagulating deinking process waters.	5,013,456	05/07/91
Alumina crystal growth additive.	5,106,599	04/21/92
Oligomer containing phosphinate and their method of manufacture.	5,085,794	02/04/92
Oligomer-containing phosphinate scale inhibitors.	5,023,000	06/11/91
Cationic polymers for sludge dewatering.	5,137,641	08/11/92
Cationic polymers for sludge dewatering.	5,093,413	03/03/92
Ethylene oxide/propylene oxide block copolymers as green binders for ceramics.	5,324,770	06/28/94
Emulsion destabilization and treatment.	5,200,086	04/06/93
Composition and method for lubricant wax dispersant and pour point improver.	6,174,843	01/16/01
Synergistic product selection test for biocides.	5,374,536	12/20/94
Papermaking process with improved retention and drainage.	5,098,520	03/24/92
Papermaking process with improved retention and drainage.	5,185,062	02/09/93
Papermaking process.	5,221,435	06/22/93
Precipitation control.	5,126,059	06/30/92
Hydroxamic acid containing polymers used as corrosion inhibitors.	5,308,498	05/03/94

Title	Patent No.	Issue Date
Use of dextran as a filtration aid for thickener overflow filtration in Kelly filters in the Bayer process.	5,091,159	02/25/92
Dithiocarbamate polymers.	5,164,095	11/17/92
Dithiocarbamate polymers.	5,346,627	09/13/94
Application of enzymes and flocculants for enhancing the freeness of paper making pulp.	5,169,497	12/08/92
Monitoring film fouling in a process stream with a transparent shunt and light detecting means.	5,185,533	02/09/93
Mixed polymers for preventing scale caused by mineral processing water.	5,080,801	01/14/92
Scale control in phosphoric acid manufacture.	5,120,519	06/09/92
Polyvinyl alcohols in combination with glyoxlated-vinyl amide polymers as yankee dryer adhesive compositions.	5,179,150	01/12/93
Water soluble polyols in combination with glyoxlated acrylamide/diallyldimethyl ammonium chloride polymers as yankee dryer adhesive compositions.	5,187,219	02/16/93
Functionalized colloidal silica sol as a ceramics additive.	5,168,082	12/01/92
Monitoring of industrial water quality using monoclonal antibodies to polymers.	5,593,850	01/14/97
Liquid suspension of polyethylene oxide for use in treating paper and pulp wastewater.	5,342,538	08/30/94
Liquid suspension of polyethylene oxide for use in treating paper and pulp wastewater.	5,230,808	07/27/93
Method of treating BCTMP/CTMP wastewater.	5,178,770	01/12/93
Cross-linked poly (aminoamides) as yankee dryer adhesives.	5,382,323	01/17/95
Dust control and ore handling aid for bauxite ore.	5,181,957	01/26/93
Colloidal alumina for removing silica from cooling waters.	5,512,181	04/30/96
Volatile tracers for diagnostic use in stream generating systems.	5,282,379	02/01/94
Chemical aids for wet-grinding phosphate rock.	5,183,211	02/02/93
Method for inhibiting scale formation and/or dispersing iron in reverse osmosis systems.	5,256,303	10/26/93
Method for the alteration of siliceous materials from Bayer process liquids.	5,314,626	05/24/94
Production of lead zirconate titanates using zirconia sol as a reactant.	5,308,807	05/03/94
Method of monitoring and controlling corrosion inhibitor dosage in aqueous systems.	5,278,074	01/11/94

Title	Patent No.	Issue Date
Hydrophobic polyelectrolytes used in color removal.	5,292,793	03/08/94
Hydrophobic polyelectrolytes used in color removal.	5,314,627	05/24/94
Process of polymerizing diallyldialkyl ammonium compounds with azo catalyst.	5,248,744	09/28/93
Method for the polymerization of diallyldialkyl ammonium halide compounds.	5,422,408	06/06/95
Bayer liquor polishing.	5,387,405	02/07/95
Method of inhibiting corrosion in brine solutions.	5,330,683	07/19/94
Strength resins for paper.	5,401,810	03/28/95
Strength resins for paper.	5,490,904	02/13/96
Hydrophobic polyelectrolyte coagulants for the control of pitch in pulp and paper systems.	5,246,547	09/21/93
Emissive coatings for investment casting molds.	5,391,606	02/21/95
Clarification aid for the Bayer process.	5,217,620	06/08/93
Removal of silver from aqueous systems.	5,205,939	04/27/93
Aluminum trihydrate crystals and improved method for the production thereof.	6,599,489	07/29/03
Noncorrosive scale inhibitor additive in geothermal wells.	5,403,493	04/04/95
Leak detection and responsive treatment in industrial water processes.	5,304,800	04/19/94
Leak detection and responsive treatment in industrial water processes.	5,416,323	05/16/95
Method of preventing yellow metal corrosion in aqueous systems with superior corrosion performance in reduced environmental impact.	5,503,775	04/02/96
Method and apparatus for measuring underdeposit localized corrosion rate or metal corrosion rate under tubercles in cooling water systems.	5,275,704	01/04/94
Reduction of copper discharge to waste streams contaminated with isothiazolone biocides.	5,252,223	10/12/93
Bacterial-assisted heap leaching of ores.	5,196,052	03/23/93
System using sulfide ion-selective electrodes for control of chemical feed of organic sulfide products for metal ion precipitation from waste water.	5.328,599	07/12/94
Sulfide ion-selective electrodes for control of chemical feed of organic sulfide products for metal ion precipitation from waste water.	5,401,420	03/28/95

Title	Patent No.	Issue Date
Novel phosphinate compounds prepared from acetylenic compounds and inorganic phosphite salts and derivatives of these compounds.	5,647,995	07/15/97
Novel phosphinate compounds prepared from acetylenic compounds and inorganic phosphite salts and derivatives of these compounds.	5,783,728	07/21/98
Method and composition for the alteration of siliceous materials from Bayer process liquors.	5,415,782	05/16/95
Dispersion polymers for oilfield water clarification.	5,330,650	07/19/94
Recovery of oil from waste oil fluids.	5,332,507	07/26/94
Boiler system leak detection.	5,320,967	06/14/94
Hydrophobically-modified demulsifiers for oil-in-water systems.	5,635,112	06/03/97
Monitoring and in-system concentration control of polyelectrolytes using fluorochromatics dyes.	5,389,548	02/14/95
Hydrophobically associating dispersants used in forming polymer dispersions.	5,597,858	01/28/97
Papermaking process with improved drainage and retention.	5,266,164	11/30/93
Method of removing color from waste water using an aqueous dispersion polymer.	5,435,922	7/25/95
Hydroxylamine modified methyl acrylate/acrylic acid latices (water-continuous).	5,405,898	04/11/95
Liquor oxalate stabilizers.	5,385,586	01/31/95
Method for using ozone in cooling towers.	5,415,783	05/16/95
Fluorescent tracer in sludge dewatering.	5,413,719	05/09/95
Polymeric binders for ceramic processing.	5,358,911	10/25/94
Treatment of agricultural waste.	5,531,907	07/02/96
Alkoxyysilane functionalized silica gels for metal removal.	5,286,464	02/15/94
A new class of polymeric adhesives for yankee dryer applications.	5,374,334	12/20/94
Treatment of process waters to destroy filamentous bacteria.	5,324,432	06/28/94
Γreatment of fresh waters to destroy filamentous bacteria.	5,395,530	03/07/95
Chemical feed system.	5,419,836	05/30/95
Method and composition for inhibiting growth of microorganisms including peracetic acid and a second organic biocide.	5,494,588	02/27/96

Title	Patent No.	Issue Date
Method and composition for inhibiting growth of microorganisms including peracetic acid and a non-oxidizing biocide.	5,658,467	08/19/97
Method and composition for inhibiting growth of microorganisms including peracetic acid and a non-oxidizing biocide.	5,785,867	07/28/98
Method and composition for inhibiting growth of microorganisms including peracetic acid and a non-oxidizing biocide.	5,980,758	11/09/99
Synergistic activity of glutaraldehyde in the presence of oxidants.	5,368,749	11/29/94
Regulating water treatment agent dosage based on operational system stresses.	5,411,889	05/02/95
Monitoring water treatment agent in-system concentration and regulating dosage.	5,435,969	07/25/95
Hydrazones as oxygen scavengers.	5,384,050	01/24/95
Red mud flocculation.	5,286,391	02/15/94
Modified tannin mannich polymers.	5,659,002	08/19/97
Method for inhibiting scale formation and/or dispersing iron in reverse osmosis systems.	5,358,640	10/25/94
On-line electrochemical monitoring of nitrite and automated control of nitrite in cooling systems.	5,382,331	01/17/95
Compositions and method for foam control and crystal modification Bayer process.	5,275,628	01/04/94
Chemistry to prevent the build up of hard ash deposits on equipment.	5,389,135	02/14/95
Fluorescent monomer and polymers.	5,378,784	01/03/95
Vinylamine polymers and coagulants for removing color from paper mill effluents.	5,435,921	07/25/95
Vinylamine polymers for removing color from paper mill effluents.	5,476,594	12/19/95
Use of dispersion polymers for coated brake treatment.	5,466,338	11/14/95
Colloidal silica/polyelectrolyte blends for natural water clarification.	5,620,629	04/15/97
Colloidal silica/polyelectrolyte blends for natural water clarification.	5,667,697	09/16/97
Colloidal silica/polyelectrolyte blends for pulp and paper applications.	5,840,158	11/24/98

Title	Patent No.	Issue Date
Seed process for salt dispersion polymer.	6,133,368	10/17/00
Seed process for salt dispersion polymer.	5,597,859	01/28/97
Chemical treatment of food processing wastes using dispersion polymers.	5,451,326	09/19/95
Cationic anionic polyelectrolytes for enhancing the freeness of paper pulp.	5,423,946	06/13/95
Polymers for treatment of food processing wastes.	5,429,749	07/04/95
Magnesium hydroxide to prevent corrosion caused by water spray in continuous casting.	5,311,925	05/17/94
Preparation of water soluble polymer dispersions from vinylamide monomers.	6,426,383	07/30/02
Preparation of amphoteric acrylic acid copolymers suitable as oil-in-water emulsion breakers.	5,552,498	09/03/96
Vinyl alkoxysilane copolymer polyelectrolytes for pitch deposit control.	5,510,439	04/23/96
Silicon polyelectrolytes for pitch deposit control.	5,527,431	06/18/96
Coagulants for mineral refuse slurries.	5,653,886	08/05/97
Coagulant for twin belt filter presses.	5,518,634	05/21/96
Polymers containing vinylamine/vinylformamide as demulsifiers in oily wastewaters.	5,702,613	12/30/97
Isostearic acid-amino-methyl-propanol salt for improving hydraulic oil rejecting properties of aqueous metalworking fluids.	5,866,521	02/02/99
Compositions of fluorescent biocides for use as improved antimicrobials.	5,702,684	12/30/97
Method for preventing microbial deposits in the wet end of papermachines using ethylene oxide/propylene oxide copolymers.	5,573,641	11/12/96
Method for preventing microbial deposits in the papermaking process with ethylene oxide/propylene oxide copolymers.	5,624,575	04/29/97
Use of polymers containing vinylamine/vinylformamide for the reatment of food processing wastewater.	6,280,631	08/28/01
Steel mill flume water treatment.	5,554,298	09/10/96
Synthesis of high molecular weight anionic dispersion polymers.	5,605,970	02/25/97
Process for producing water soluble anionic dispersion polymers.	5,837,776	11/17/98

Title	Patent No.	Issue Date
System and method for determining a deposition rate in a process stream indicative of a mass build-up and for controlling feed of a product in the process stream to combat same.	6,053,032	04/25/00
Chemical for the prevention of attachment of microorganisms to surfaces.	6,054,054	04/25/00
Improved papermaking process.	5,595,629	01/21/97
Clarification of deinking process waters using polymers containing vinylamine.	5,573,675	11/12/96
Field method for determining if adequate corrosion inhibition has been applied to thermally processed cans.	5,610,068	03/11/97
Enzymes in combination with polyelectrolytes for enhancing the freeness of clarified sludge in papermaking.	5,501,770	03/26/96
Process for enhancing the freeness of papermaking pulp.	5,507,914	04/16/96
Use of alginates to treat bauxite red mud.	5,478,477	12/26/95
Tracer technology for dust control.	5,714,387	02/03/98
Apparatus for continuous polymer dosage optimization and waste water analysis system.	5,645,799	07/08/97
Hydrophilic dispersion polymers for treating wastewater.	6,025,426	02/15/00
Hydrophilic dispersion polymers for treating wastewater.	5,938,937	08/17/99
Carbon steel corrosion inhibitors.	5,589,106	12/13/96
Transportable brominator and a method for holding and transporting a product.	5,713,483	02/03/98
Detection of process components in food process streams by fluorescence.	5,658,798	08/19/97
Fluorescent-tagged polymers for boiler internal treatment.	5,736,405	04/07/98
Papermaking process utilizing hydrophilic dispersion polymers of diallyldimethyl ammonium chloride and acrylamide as retention and drainage aids.	6,071,379	06/06/00
Papermaking process utilizing hydrophilic dispersion polymers of dimethylaminoethyl acrylate methyl chloride quaternary and acrylamide as retention aids and drainage aids.	6,059,930	05/09/00
4-alkyl and aryl semicarbazides as oxygen scavengers.	5,904,857	05/18/99
Method and apparatus for detecting amines and ammonia by fluorescence.	5,858,798	01/12/99
A process to manufacture stabilized alkali or alkaline earth metal hypobromite and uses thereof in water treatment to control microbial fouling.	5,683,654	11/04/97

Title	Patent No.	Issue Date
A process to manufacture stabilized alkali or alkaline earth metal hypobromite and uses thereof in water treatment to control microbial fouling.	6,136,205	10/24/00
Method to improve quality and appearance of leafy vegetables by using stabilized bromine.	6,440,476	08/27/02
A process to manufacture stabilized alkali or alkaline earth metal hypobromite and uses thereof in water treatment to control microbial fouling.	5,795,487	08/18/98
A process to manufacture stabilized alkali or alkaline earth metal hypobromite and uses thereof in water treatment to control microbial fouling.	5,942,126	08/24/99
Improved papermaking process.	6,007,679	12/28/99
Use of diallyldimethylammonium chloride-acrylamide dispersion copolymer in a papermaking process.	6,238,521	05/29/01
Hydrophilic dispersion polymers for the clarification of deinking process waters.	5,750,034	05/12/98
Hydrophilic dispersion polymers of diallyldimethyl ammonium chloride and acrylamide for the clarification of deinking process waters.	6,019,904	02/01/00
Biodegradable poly(amino acid)s, derivatized amino acid polymers and methods for making same.	5,929,198	07/27/99
Biodegradable poly(aminoacid)s, derivatized amino acid polymers and methods for making same.	6,184,336	02/06/01
Corrosion inhibitor.	5,849,220	12/15/98
Stabilizers for additives in aqueous systems containing ozone.	5,662,803	09/02/97
Opposite phase entrainment reduction in solvent extraction/ electrowinning circuits using chemical additives.	5,758,255	05/26/98
Combination of tale-bentonite for deposition control in papermaking processes.	5,798,023	08/25/98
Synergy biocides for use in aqueous ore slurries.	5,637,587	06/10/97
Use of hydrophilic dispersion polymers for coated broke treatment.	5,891,304	04/06/99
Novel crystalline metal-organic microporous materials.	5,648,508	07/15/97
Use of tartonic acid as an oxygen scavenger.	5,750,037	05/12/98
Cationic latex terpolymers for wastewater treatment.	6,369,182	04/09/02
Ether diphosphonate scale inhibitors.	5,772,893	06/30/98
Use of linear alkylbenzene sulfonate as a biofouling control agent.	5,670,055	09/23/97

Title	Patent No.	Issue Date
Polymeric combinations used as copper and precious metal heap leaching agglomeration aids.	5,833,937	11/10/98
Method for using an all solid-state fluorometer in industrial water system applications.	6,255,118	07/03/01
Higher actives dispersion polymer to aid clarification, dewatering, and retention and drainage.	6,171,505	01/09/01
Method for dewatering of sludge.	6,413,433	07/02/02
Method of controlling oxalate precipitation in Bayer process liquor.	6,293,973	09/25/01
Adapter assembly for storage containers.	4,832,237	05/23/89
Scale and sludge compositions for aqueous systems.	4,576,722	03/18/86
Rheology modification of settled solids in mineral processing.	6,231,768	05/15/01
Rheology modification of settled solids in mineral processing.	6,356,116	04/02/02
Luminol tagged polymers for treatment of industrial systems.	5,958,788	09/28/99
Preparation and utility of water-soluble polymers having pendant derivatized amide, ester or ether functionalities as ceramics dispersants and binders.	5,726,267	03/10/98
Production of paper and board products with improved retention, drainage and formation.	6,099,689	08/08/00
Fluorometric method for increasing the efficiency of the rinsing and water recovery process in the manufacture of semiconductor chips.	5,922,606	07/13/99
Method for improving the efficiency of semiconductor chip production.	6,238,487	05/29/01
Composition and method for inhibiting the growth of microorganisms including stabilized sodium hypobromite and isothiazolones.	5,922,745	07/13/99
Composition and method for controlling biological growth using stabilized sodium hypobromite in synergistic combinations.	6,419,879	07/16/02
Composition and method for inhibiting the growth of microorganisms including stabilized sodium hypobromite and sothiazolones.	6,322,749	11/27/01
A process for producing colloidal borosilicates.	6,310,104	10/30/01
Use of colloidal borosilicates in the production of paper.	6,270,627	08/07/01
Method of increasing drainage in papermaking using colloidal porosilicates.	6,361,652	03/26/02

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Method for flocculating a papermaking furnish using colloidal borosilicates.	6,358,364	03/19/02
Method of increasing retention in papermaking using colloidal borosilicates.	6,361,653	03/26/02
Colloids comprising amorphous borosilicate.	6,372,805	04/16/02
Preparation of anionic nanocomposites and their use as retention and drainage aids in papermaking.	6,083,997	07/04/00
Method of using an anionic composite to increase retention and drainage in papermaking.	6,200,420	03/13/01
Method for inhibiting precipitation of sodium oxalate in a Bayer process liquor.	5,902,560	05/11/99
Amphoteric polymer/polyamine combinations for color removal and clarification of paper mill waste water.	5,961,838	10/05/99
Use of control matrix for cooling water systems control.	6,315,909	11/13/01
Method of removing and preventing the buildup of contaminants in papermaking processes.	6,051,108	04/18/00
Method of using polyammonium quaternary for controlling anionic trash and pitch deposition in pulp containing broke.	5,989,392	11/23/99
Use of additives to breakdown and stabilize wax during fiber recycle.	6,113,738	09/05/00
Contaminant dispersants useful in recycling of treated containers.	6,548,558	04/15/03
Contaminant dispersants useful in recycling of treated containers.	6,248,793	06/19/01
Stable oxidizing bromine formulations, methods of manufacture thereof and methods of use for microbiofouling control.	6,007,726	12/28/99
Stable oxidizing bromine formulations, method of manufacture and uses thereof for biofouling control.	6,156,229	12/05/00
Stable oxidizing bromine formulations, method of manufacture and uses thereof for biofouling control.	6,123,870	09/26/00
Stable oxidizing bromine formulations, method of manufacture and uses thereof for biofouling control.	6,423,267	07/23/02
Stable oxidizing bromine formulations, method of manufacture and uses thereof for biofouling control.	6,287,473	09/11/01
Use of hydrophilic dispersion polymer for oily wastewater clarification.	6,036,868	03/14/00
Water continuous methyl acrylate emulsion polymers for mproved flocculation of red mud in the Bayer process.	6,036,869	03/14/00

Title	Patent No.	Issue Date
Water continuous methyl acrylate emulsion polymer combinations and methyl acrylate emulsion homopolymers for improved flocculation of red mud in the Bayer process.	6,048,463	04/11/00
Water continuous emulsion polymers for improving scale control in the Bayer process.	6,086,771	07/11/00
System and method to monitor for fouling.	6,023,070	02/08/00
Stabilized substituted aminomethane-1,1-diphosphonic acid noxides and use thereof in preventing scale and corrosion.	6,083,403	07/04/00
Kraft process for the production of wood pulp by adding a copolymer of 1,2-dihrdroxy-3-butene antiscalant.	6,146,495	11/14/00
Process for treating an aqueous liquid containing scale forming calcium salts by adding a copolymer of 1,2-dihydroxy-3-butene antiscalant.	6,235,152	05/22/01
Process for the inhibition of scale in harsh systems and novel antiscalants for same.	6,232,419	05/15/01
Fluorometric control of aromatic oxygen scavengers in a boiler system.	6,436,711	08/20/02
Method of enhancing the fluorescent signal of a fluorescent oxygen scavenger.	6,566,139	05/20/03
Method of dewatering difficult sludges.	6,083,404	07/04/00
Horizontally flowing continuous free radical polymerization process for manufacturing water-soluble polymers from monomers in aqueous solution.	6,103,839	08/15/00
Detectable cationic flocculant and method of using same in industrial food processes.	6,238,486	05/29/01
Polymers for chemical treatment and precipitation of soluble metal cyanide and oxoanion compounds from waste water.	6,114,484	09/05/00
Polymers for chemical treatment and precipitation of soluble metal cyanide and oxoanion compounds from waste water.	6,177,017	01/23/01
Method of making colloidal silica.	6,372,806	04/16/02
Method of making paper.	6,372,089	04/16/02
Stable colloidal silica aquasols.	6,486,216	11/26/02
Cationic chemiluminescent monomers and polymers.	6,077,461	06/20/00
Detection and removal of copper from wastewater streams from semiconductor and printed circuit board processing.	6,140,130	10/31/00
Hydrophilic cationic dispersion polymer for paper mill color removal.	6,258,279	07/10/01

Title	Patent No.	Issue Date
Structurally rigid polymer coagulants as retention and drainage aids in papermaking.	6,451,169	09/17/02
Method of clarifying water using low molecular weight cationic dispersion polymers.	6,398,967	06/04/02
Method of improving retention and drainage in a papermaking process using low molecular weight cationic dispersion polymers.	6,517,677	02/11/03
Fluid, formulation and method for dust control and dewatering of particulate materials.	5,330,671	07/19/94
Aqueous dust suppression fluid and a method for suppressing dust.	5,527,482	06/18/96
Fluid, formulation and method for dust control and dewatering of particulate materials.	5,958,287	09/28/99
Fluid, formulation and method for dust control and dewatering of particulate materials.	5,863,456	01/26/99
Fluid, formulation and method for dust control and dewatering of particulate materials.	5,876,622	03/02/99
Fluid formulation and method for dust control and wetting enhancement.	6,124,366	09/26/00
Aqueous dispersion of a particulate high molecular weight anionic or nonionic polymer.	6,265,477	07/24/01
Anionic and nonionic dispersion polymers for clarification and dewatering.	6,217,778	04/17/01
Friction reducing coating for metal surfaces.	4,849,264	07/18/89
High molecular weight zwitterionic polymers.	6,313,246	11/06/01
High molecular weight zwitterionic polymers.	6,590,051	07/08/03
Use of control matrix for boiler control.	6,336,058	01/01/02
Use of control matrix for boiler control.	6,587,753	07/01/03
Method for measuring the rate of a fouling reaction induced by heat transfer using a piezoelectric microbalance.	6,250,140	06/26/01
Assay method for hemicellulases using a colored substrate.	5,496,707	05/05/96
Composition and method for simultaneously precipitating metal ions from semiconductor wastewater and enhancing microfilter operation.	6,258,277	07/10/01
Water soluble polymer containing dithiocarbamate functionalities.	6,403,726	06/11/02
Very high molecular weight cationic dispersion polymers for dewatering animal farm wastewater.	6,365,052	04/02/02

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Title	Patent No.	Issue Date
Measurement and control of sessile and planktonic microbiological activity in industrial water systems.	6,329,165	12/11/01
Method for inhibiting the formation and deposition of silica scale in water systems.	6,461,518	10/08/02
Method of removing biofilms from surfaces submerged in a fouled water system.	6,080,323	06/27/00
Rapid colorimetric method for measuring polymers in aqueous systems.	6,214,627	04/10/01
A process for removing heavy metal from a caustic fluid stream.	6,352,675	03/05/02
Stabilized bromine solutions, method of manufacture and uses thereof for biofouling control.	6,270,722	08/07/01
Fluorescent monomers and polymers containing same for use in industrial water systems.	6,312,644	11/06/01
Fluorescent compounds for use in industrial water systems.	6,358,746	03/19/02
Method for producing substantially dry water-insoluble polymers for improved flocculation in the Bayer process.	6,372,882	04/16/02
Method for the preparation of a purified sugary juice from raw juices obtained from sacchariferous material of vegetable origin.	6,508,886	01/21/03
Method and apparatus for measuring scaling capacity of calcium oxalate solutions using an electrochemically controlled pH change in the solution proximate to a piezoelectric microbalance.	6,375,829	04/23/02
Modular fluorometer.	6,369,894	04/09/02
Autocycle control of cooling water systems.	6,280,635	08/28/01
Monitoring of film formers.	5,264,917	11/23/93
Method of increasing retention and drainage in papermaking using high molecular weight water-soluble anionic or nonionic dispersion.	6,331,229	12/18/01
Method of increasing retention and drainage in papermaking using high molecular weight water-soluble anionic or nonionic dispersion.	6,432,271	08/13/02
Self-cleaning spray nozzle.	5,033,676	07/23/91
Self-cleaning spray nozzle.	5,115,978	05/26/92
Pseudo-fouling detector and use thereof to control an industrial water process.	6,475,394	11/05/02
Polymers and use thereof as scale inhibitors.	6,440,327	08/27/02

Title	Patent No.	Issue Date
Method of inhibiting corrosion of metal equipment which is cleaned with an inorganic acid.	6,540,943	04/01/03
Structurally rigid nonionic and anionic polymers as retention and drainage aids in papermaking.	6,444,091	09/03/02
Measurement of microbiological activity in an opaque medium.	6,440,689	08/27/02
Low cost, on-line corrosion monitor and smart corrosion probe.	6,556,027	04/29/03
Use of tracers to monitor application of treatment products to cut flowers.	6,472,219	10/29/02
Quick inverting liquid flocculant.	6,485,651	11/26/02
Corrosion inhibitors for aqueous systems.	6,572,789	06/03/03
Method of clarifying Bayer process liquors using salicylic acid containing polymers.	6,527,959	03/04/03
Method of enhancing brightness and brightness stability of paper made with mechanical pulp.	6,527,914	03/04/03
Hair fixative composition containing an anionic polymer.	6,569,413	05/27/03
Aqueous defoamer composition.	6,562,875	05/13/03
Method of increasing the strength and solids level of investment casting shells.	6,540,013	04/01/03
Dry strength resin compositions.	5,665,853	09/09/97
Wet strength resin composition.	5,503,713	04/02/96
Insolubilizers for binders in paper coating compositions.	5,435,841	07/25/95
Use of microcrystalline wax and low foaming emulsifiers as defoamers.	5,874,017	02/23/99
Aqueous thickener composition and process for making same.	5,663,263	09/02/97
Method for enhancing paper strength.	5,382,324	01/17/95
Defoamer composition and method of using the same.	5,645,762	07/08/97
Wet strength resin composition.	5,575,892	11/19/96
Method of improving retention and drainage in a papermaking process using a diallyl-n, n-disubstituted ammonium halide/acrylamide copolymer and a structurally modified cationic polymer.	6,592,718	07/15/03
Lubricant dispersions for paper coating compositions.	4,659,489	04/21/87
Anionic lubricant dispersions useful in paper coatings.	4,676,836	06/30/87
Process for production of acidic aqueous solutions of melaminealdehyde polymer having low levels of free aldehyde.	6,100,368	08/08/00

Title	Patent No.	Issue Date
Process for manufacturing bleaching compositions comprising chlorine and bromine sources and product thereof.	6,037,318	03/14/00
Process for manufacturing bleaching compositions.	6,015,782	01/18/00

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Title	App. No.	Filing Date
Bulk solids detackification.	08/134,697	10/12/93
Preparation of water soluble polymer dispersions from vinylamide monomers.	10/207,516	07/29/02
Use of polymers containing vinylamine/vinylformamide for the treatment of food processing wastewater.	09/899,675	07/05/01
Dextran, starch and flocculant combination for improving red mud clarification.	09/701,160	11/17/00
Stable colloidal silica aquasols.	10/252,301	09/23/02
Structurally-modified polymer flocculants.	09/606,581	06/29/00
Structurally-modified polymer flocculants.	10/621,529	07/17/03
Method of modifying rheology of slurries in mineral processing.	09/293,163	04/16/99
Filtration aid for the Bayer process.	09/484,071	01/18/00
Stabilized bromine solutions, method of making and uses thereof for biofouling control.	09/920,399	08/01/01
Method for producing substantially dry water-insoluble polymers for improved flocculation in the Bayer process.	10/059,474	01/29/02
Papermaking process and composition.	09/501,439	02/10/00
Method and apparatus for measuring deposit forming capacity of fluids using an electrochemically controlled pH change in the fluid proximate to a piezoelectric microbalance.	10/127,380	04/22/02
Fluorescent monomers and tagged treatment polymers containing same for use in industrial water systems.	09/560,881	04/27/00
Method of monitoring concentration and dosage control in aqueous systems.	09/712,077	11/14/00
Investment casting binders for making molds having high green strength and low fired strength.	09/940,816	08/27/01

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Title	App. No.	Filing Date
Method for locating hidden microorganism contaminated surfaces in industrial water systems.	10/213,682	08/06/02
Method of preparing a synthetic fuel from coal.	10/042,747	09/11/02
Method for determining the dissolution rate of a solid water treatment product.	10/066,168	01/31/02
Improved ink jet printing paper and methods for producing and using the same.	09/741,565	12/18/00
Improved ink jet printing paper and methods for producing and using the same.	10/406,165	04/03/03
Method to enhance pulp bleaching and delignification using an organic sulfide chelationg agent.	09/846,635	05/01/01
Method of removing lead from water using a high molecular weight cationic dispersion polymer.	09/939,419	08/24/01
Cationic latex terpolymers for sludge dewatering.	09/774,325	01/31/01
High molecular weight cationic and anionic polymers comprising zwitterionic polymers.	10/023,370	12/17/01
Method of controlling deposit formation in aqueous systems.	10/097,519	03/13/02
Polymers containing hyperbranched monomers.	10/205,282	07/25/02
High molecular weight polymers containing pendant salicylic acid groups clarifying Bayer process liquors.	10/373,132	02/24/03
Cosmetic compositions containing dispersion polymers.	09/834,128	04/12/01
Method of removing silica and silicate scale.	09/968,379	10/01/01
Mirror fluorometer.	09/893,831	06/28/01
Method of monitoring membrane separation processes.	10/109,256	03/28/02
Method of monitoring membrane cleaning processes.	10/108,694	03/28/02
Method of monitoring biofouling in membrane separation systems.	10/201,088	07/23/02
Method of monitoring membrane separation processes.	10/109,260	03/28/02
Personal care compositions containing n,n-diallyldialkylammonium halide/n-vinylpyrrolidone polymers.	10/280,518	10/25/02
Self-contained cooling system feed and bleed system.	09/903,466	07/11/01
Method of tracing drains.	09/966,912	09/28/01
Method of dewatering pulp.	10/174,230	06/18/02
Method of improving the removal of investment casting shells.	10/337,799	01/07/03
Fluorometric monitoring and control of soluble hardness of water used in industrial water systems.	10/033,756	12/28/01

Title	App. No.	Filing Date
Method to ascertain whether soluble hardness is calcium or magnesium based.	10/209,347	07/31/02
Stabilized bromine and chlorine mixtures, method of manufacture and uses thereof for biofouling control.	10/246,955	09/19/02
Method for removing organic carbon from Bayer process liquor.	10/033,761	12/20/01
Method of reducing fouling in filters for industrial water system analytical devices.	10/016,152	12/13/01
Use of anionic dispersion polymers as viscosity modifiers in aqueous drilling fluids.	10/173,253	06/17/02
Method of using water soluble cationic polymers in membrane biological reactors.	10/035,785	01/04/02
Method of using water soluble polymers in a membrane biological reactor.	10/329,791	12/26/02
Method of dewatering sludge using enzymes.	10/059,473	01/29/02
Method of dewatering sludge using enzymes.	10/347,891	01/22/03
Method of using high molecular weight water soluble polymers in membrane bioreactor systems.	10/342,860	01/15/03
Water-soluble monomers and polymers for protecting substrates from ultraviolet light.	10/290,978	11/08/02
Energy integrated farm operation with recovery of animal feed from food waste.	10/108,784	03/28/02
Method of simultaneously cleaning and disinfecting industrial water systems.	10/135,317	04/30/02
Simultaneous on-line cleaning and disinfection industrial water systems.	10/409,220	04/08/03
Method of deresinating pulp using alkyl alcohol alkoxylate surfactants.	10/201,332	07/23/02
Method of reducing energy waste by monitoring steam traps.	10/209,024	07/31/02
Method for targeting application of performance enhancing materials to a creping cylinder.	10/261,026	09/30/02
Method of inhibiting corrosion of copper plated or metallized surfaces and circuitry during semiconductor manufacturing process.	10/617,467	07/11/03
Skin care composition containing an anionic polymer.	10/323,217	12/18/02
Chrome-free final rinse for phosphated metal surfaces.	10/268,385	10/10/02
Method of preparing agglomerated silica.	10/610,687	07/01/03

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Method of controlling microorganisms in hydrogen peroxide pulp bleaching processes.	10/410,753	04/10/03
Aluminum hydroxide, made via the Bayer process, with low organic carbon.	10/610,379	06/30/03

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