

EUROPEAN PATENT APPLICATION

Application number: **86309047.8**

Int. Cl.⁴: **G 03 C 5/395**

Date of filing: **19.11.86**

Priority: **19.11.85 JP 259003/85**
19.11.85 JP 259004/85
19.11.85 JP 259010/85

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Date of publication of application: **27.05.87**
Bulletin 87/22

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Designated Contracting States: **DE FR GB**

Date of deferred publication of search
report: **26.04.89 Bulletin 89/17**

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Method for evaporation treatment of photographic processing waste solution and device therefor.

Disclosed is a method for treating a photographic processing waste solution which comprises evaporating a photographic processing waste solution by heating and cooling a vapor generated by the heating by use of a cooling device to obtain a distilled solution, and a treatment device therefor which comprises a treatment tank for performing heating treatment of the photographic processing waste solution, a device for discharging the heated and concentrated solution of the photographic processing waste solution from the treatment tank, a receiving tank for the discharged solution, a device for performing cooling treatment of vapor generated by the heating treatment, a recovering tank for recovering a distilled solution generated by the cooling treatment, and a control device for controlling heating treatment according to the progress of treatment of the waste solution.



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X,Y	GB-A-1 491 196 (AGFA-GEVAERT) * Whole document * ---	1,2,4, 15,16	G 03 C 5/395
Y,D	JP-U-60 070 841 (SONY) * Whole document * ---	1-16	
Y	JOURNAL OF IMAGING TECHNOLOGY, vol. 11, no. 2, April 1985, pages 43-50, Society of Photographic Scientists and Engineers, Springfield, Virginia, US; P.R. QUINONES: "Optimizing silver recovery in photofinishing operations" * Whole article * ---	1,8,9	
Y	JOURNAL OF APPLIED PHOTOGRAPHIC ENGINEERING, vol. 5, no. 3, Summer 1979, pages 144-147, Society of Photographic Scientists and Engineers, Springfield, VA, US; M.M. COOK et al.: "Use of sodium borohydride to control heavy metal discharge in the photographic industry" * Whole article * ---	1,8,9	
Y	GB-A-1 445 023 (WIEGAND KARLSRUHE) * Page 1, lines 88-95; claims * ---	1,12	
Y	US-A-4 289 577 (MABUCHI et al.) * Whole document * ---	1,12	
Y	REGELUNGSTECHNISCHE PRAXIS, 1960, pages 71-77, Verlag Von R. Oldenbourg, Munich, DE; VON H.G. SANNER: "Regelung an Eindampfanlagen" * Whole article * ---	1,3,12	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-02-1989	Examiner MAGRIZOS S.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	



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Y	PERRY'S CHEMICAL ENGINEERS' HANDBOOK, 6th Edition, 1984, chapter 22, pages 110-115, McGraw-Hill Book Co., New York, US; * Pages 22-110 * ---	1,12	<div>TECHNICAL FIELDS SEARCHED (Int. Cl.4)</div>
Y	US-A-4 375 751 (McCord) * Claims * ---	1,12	
Y	GB-A- 605 728 (AITON) * Claims * ---	1,12	
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Y	CHEMICAL ABSTRACTS, vol. 99, 1983, page 266, no. 199395e, Columbus, Ohio, US; & HU-A-25 516 (MUSZERIPARI KUTATO INTEZET) 28-07-1983 * Abstract * ---	1,12	
Y,D	PATENT ABSTRACTS OF JAPAN, vol. 2, no. 157, 27th December 1978, page 5318 M 78; & JP-A-53 125 600 (HITACHI SEISAKUSHO K.K.) 11-01-1978 * Abstract * ---	1,7	
Y	DE-A-1 142 162 (BASF) * Claims; figures * ---	1,7	
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Y	DD-A- 149 313 (VEB KOMBINAT KALI) * Claims * ---	1,7	
Y	JOURNAL OF IMAGING TECHNOLOGY, vol. 11, no. 2, April 1985, pages 67-73, Society of Photographic Scientists and Engineers, Springfield, Virginia, US; B.C. BARBO: "Wash water heat recovery" * Abstract; page 71, line 12 - page 72 * ---	1,7	
Y	FLUE GAS DESULFURIZATION INSPECTION AND PERFORMANCE EVALUATION MANUAL, October 1985, U.S. Environmental Protection Agency, Cincinnati, Ohio, US; * Pages IV-V * ---	1,2,5,6	
Y	PATENT ABSTRACTS OF JAPAN, vol. 6, no. 38 (P-105)[916], 9th March 1982; & JP-A-56 155 941 (KONISHIROKU SHASHIN KOGYO K.K.) 02-12-1981 * Abstract * ---	1,2,5,6	
Y	JAPANESE PATENTS DERWENT REPORT, week 41, 29th October 1981, page 7, vol. 81, no. 45, section CH, part I, Derwent Publications Ltd, London, GB; & JP-B-56 46 584 (TEIJIN K.K.) 04-11-1981 * Abstract * --- -/-	1,2,5,6	
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Y	FR-A-2 431 145 (COMPTOIR LYON-ALEMAND) * Claim 1 * ---	1,3		
Y	CHEMICAL ABSTRACTS, vol. 93, no. 10, November 1980, page 605, no. 195425t, American Chemical Society, Columbus, Ohio, US; Y. SHIRAI et al.: "Preparation and regeneration of titanium citrate developer by irradiation with ultraviolet light", & NIPPON KAGAKU KAISHI 1980, (9), 1321-6 * Abstract * ---	1,3		
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Y	SMPTE JOURNAL, vol. 89, no. 11, November 1980, pages 829-833, Society of Motion Picture and Television Engineers, Scarsdale, New York, US; D.C. BRANDT: "The application of reverse osmosis to recover photographic processing wastes" * Whole article * ---	1,3		TECHNICAL FIELDS SEARCHED (Int. Cl.4)
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Y,D	US-A-4 073 705 (JAPANESE AGENCY OF INDUSTRIAL SCIENCES AND TECHNOLOGY) * Claims * & JP-B-53 43 478 --- -/-	1,3		
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Y	FR-A-2 382 029 (CIBA-GEIGY) * Claim 1 * ---	1,3	
Y	RESEARCH DISCLOSURE, May 1972, pages 70-73, no. 9737, Industrial Opportunities, Havant, Hampshire, GB; "Regeneration of bleach-fix solutions used in photographic processing" * Whole article * ---	1,3	
Y	JOURNAL OF APPLIED PHOTOGRAPHIC ENGINEERING, vol. 7, no. 2, April 1981, pages 53-58, Society of Photographic Scientists and Engineers, Rochester, NY, US; M. YAMADA et al.: "Developer-regeneration system by electrodialysis for color paper processing" * Whole article * ---	1,3	
Y	FR-A-2 160 569 (FUJI) * Claim 1 * ---	1,3	
Y	FR-A-2 544 909 (COMMISSARIAT A L'ENERGIE ATOMIQUE) * Claims * ---	1,2,10,11	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
Y	CHEMICAL ABSTRACTS, vol. 102, 1985, page 473, no. 13917d, Columbus, Ohio, US; & JP-A-59 165 000 (HITACHI SERVICE ENGINEERING K.K.) 18-09-1984 * Abstract * --- -/-	1,2,10,11	
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