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- (71) Applicant (for all designated States except US): **EASTMAN KODAK COMPANY** [US/US]; 343 State Street, Rochester, NY 14650-2201 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LUSSIER, Barbara, Boland** [US/US]; 343 State Street, Rochester, NY 14650-2201 (US).
- (74) Common Representative: **EASTMAN KODAK COMPANY**; 343 State Street, Rochester, NY 14650-2201 (US).
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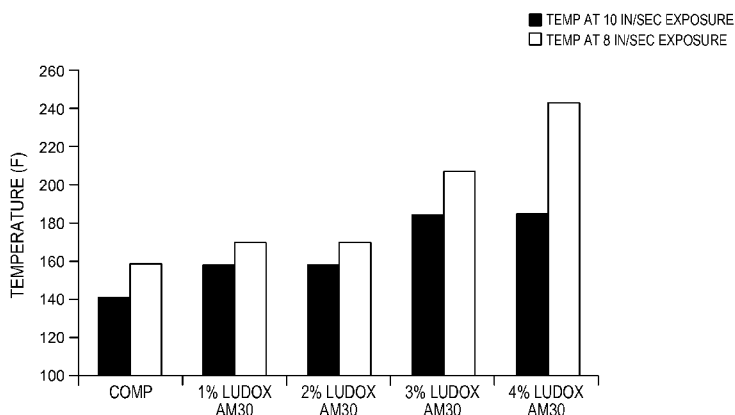
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(54) Title: INKJET PRINTING INK SET



**FIG. 3**

(57) Abstract: A process for printing an image includes printing a substrate with an aqueous inkjet ink and drying the printed image with a near-infrared drying system, wherein the inkjet ink is a yellow or magenta inkjet ink and comprises a yellow or magenta colorant and a distinct near-infrared absorbing compound. Inkjet ink sets for use with an inkjet printing system employing a near-infrared drying system in the process include at least a black ink and a yellow ink, wherein the yellow ink comprises a yellow colorant and dispersed nanoparticulate colloidal silica at a concentration of from 0.1 to 10 wt%, and the black ink comprises a black colorant and dispersed nanoparticulate colloidal silica at a concentration of from 0 wt.% to at most 1/2 of the wt.% of the dispersed nanoparticulate colloidal silica in the yellow ink. Various embodiments provide a process for inkjet printing and drying inks with improved absorption in the near-IR region of the spectrum for improved drying performance of aqueous, hypsochromic inks, and an inkjet ink set with improved balanced near-IR drying of black and yellow inkjet inks.



**INTERNATIONAL SEARCH REPORT**

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**A. CLASSIFICATION OF SUBJECT MATTER**  
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**B. FIELDS SEARCHED**  
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 C09D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 735 120 A2 (VIDEOJET SYSTEMS INT [US]) 2 October 1996 (1996-10-02) paragraph [0019] - paragraph [0020]; claim 1	1-17
A	EP 0 465 124 A1 (XEROX CORP [US]) 8 January 1992 (1992-01-08) page 10, line 1 - page 12, line 40; claims 1-12	1-17

Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search <b>7 September 2012</b>	Date of mailing of the international search report <b>19/09/2012</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <b>Feldmann, Gabriele</b>
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0735120	A2	02-10-1996	CA 2171524 A1 29-09-1996
			CN 1141324 A 29-01-1997
			EP 0735120 A2 02-10-1996
			JP 8269379 A 15-10-1996
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EP 0465124	A1	08-01-1992	DE 69103353 D1 15-09-1994
			DE 69103353 T2 23-03-1995
			EP 0465124 A1 08-01-1992
			JP 2957324 B2 04-10-1999
			JP 6025579 A 01-02-1994
			US 5145518 A 08-09-1992
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