

Title (en)

KRAFT PULP MILL SCALE CONTROL WITH END GROUP MODIFIED POLYCARBOXYLATES

Title (de)

KESSELSTEINKONTROLLE IN KRAFTZELLSTOFFWERKEN MIT ENDGRUPPENMODIFIZIERTEN POLYCARBOXYLATEN

Title (fr)

RÉGULATION DES BATTITURES DE PÂTE KRAFT AVEC DES POLYCARBOXYLATES MODIFIÉS PAR DES GROUPES TERMINAUX

Publication

**EP 3994307 A4 20230726 (EN)**

Application

**EP 20834429 A 20200630**

Priority

- US 201962869235 P 20190701
- US 2020040221 W 20200630

Abstract (en)

[origin: US2021002826A1] Scale build-up on metal surfaces of a black liquor evaporator is prevented or mitigated by treating the black liquor with a deposit inhibiting concentration of a water-soluble polymer containing a polycarboxylate chain and a 3-mercaptopropionic acid end group.

IPC 8 full level

**D21C 9/00** (2006.01); **C04B 24/04** (2006.01); **C08F 22/26** (2006.01); **D21C 3/20** (2006.01); **D21C 11/10** (2006.01)

CPC (source: EP KR US)

**D21C 3/02** (2013.01 - EP KR); **D21C 9/008** (2013.01 - EP KR); **D21C 11/0092** (2013.01 - EP KR US); **D21C 11/106** (2013.01 - EP KR US)

Citation (search report)

- [X] JP 2012031326 A 20120216 - NIPPON CATALYTIC CHEM IND
- [X] US 3404063 A 19681001 - HARDING CHARLES I
- [X] CN 109879627 A 20190614 - SHAANXI RUIXING BUILDING MATERIALS TECH CO LTD
- [A] US 2008277083 A1 20081113 - SHEVCHENKO SERGEY M [US], et al
- [A] WO 0012436 A1 20000309 - NALCO CHEMICAL CO [US]
- [A] US 3516910 A 19700623 - ENGMAN WILLIAM C, et al
- [A] WO 02098803 A1 20021212 - SOLUTIA INC [US], et al
- See references of WO 2021003115A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**US 2021002826 A1 20210107**; BR 112022000003 A2 20220215; CA 3145550 A1 20210107; CL 2021003583 A1 20220923; CN 114096712 A 20220225; EP 3994307 A1 20220511; EP 3994307 A4 20230726; KR 20220034140 A 20220317; WO 2021003115 A1 20210107

DOCDB simple family (application)

**US 202016916127 A 20200630**; BR 112022000003 A 20200630; CA 3145550 A 20200630; CL 2021003583 A 20211230; CN 202080047890 A 20200630; EP 20834429 A 20200630; KR 20227003430 A 20200630; US 2020040221 W 20200630