Title (en)

HIGH STRENGTH PAPER

Title (de)

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Title (fr)

PAPIER DE HAUTE RÉSISTANCE

Publication

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Application

EP 10808690 A 20100811

Priority

- US 23344809 P 20090812
- US 2010045162 W 20100811

Abstract (en)

[origin: WO2011019811A1] Disclosed herein are systems and methods for attaching particulate additives to a population of cellulose fibers dispersed in an aqueous solution. The cellulose fibers are treated with an activator that forms complexes with them. The particulate additive is attached to a tether that is capable of interacting with the activator, thereby forming a tether-bearing particulate additive. The tether-bearing particulate additive can be added to the activated suspension of cellulose fibers. The resulting interaction between the tether and the activator forms durable complexes that attach the particulate additive to the cellulose fibers. Using these systems and methods, useful additives like starches can be attached to cellulose fibers, imparting advantageous properties such as increased strength to paper products formed thereby. These systems and methods are particularly useful for papermaking involving virgin pulp fibers, recycled fibers, or any combination thereof.

IPC 8 full level

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CPC (source: EP)

D21H 17/29 (2013.01); **D21H 17/70** (2013.01); D21H 17/455 (2013.01); D21H 21/18 (2013.01)

Citation (search report)

- [XY] US 6849156 B2 20050201 - BESEMER ARIE CORNELIS [NL], et al
- [XY] US 6303000 B1 20011016 - FLOYD WILLIAM C [US], et al
- See references of WO 2011019811A1

Designated contracting state (EPC)

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