



(12) Patent specification

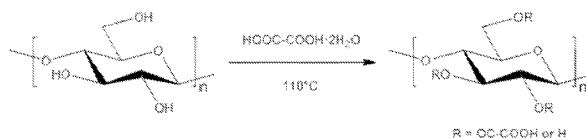
(10) SE 539 317 C2

(21) Patent application number:	1551657-8	(51) Int.Cl.:	
(45) Grant of patent:	2017-06-27	C08B 15/08	(2006.01)
(41) Available to the public:	2017-06-17	C08B 3/00	(2006.01)
(22) Filing date:	2015-12-16	C08B 15/02	(2006.01)
(24) Effective date:	2015-12-16	C08L 1/04	(2006.01)
(30) Priority data:	---	C08L 1/10	(2006.01)
		D21C 9/00	(2006.01)
		D21H 11/18	(2006.01)
		B29C 47/00	(2006.01)

- (73) Patentee: FineCell Sweden AB, Arkitektvägen 15, lgh 1101, 168 32 Bromma SE
 (72) Inventor: Dongfang LI, BROMMA SE
 Jonatan HENSCHEN, Stockholm SE
 Monica EK, Hägersten SE
 (74) Agent: Bergenstråhle & Partners Stockholm AB, Box 17704, 118 93, Stockholm SE
 (54) Title: Manufacture of nanocrystalline cellulose using oxalic acid dihydrate
 (56) Cited documents: EP 2184299 A1 · CN 103160016 B
 (57) Abstract:

A method for manufacturing nanocrystalline cellulose comprises the steps of: a) providing a cellulose-containing material wherein the cellulose-containing material contains less than 20 wt.% water, b) contacting the cellulose-containing material with oxalic acid dihydrate, and heating above the melting point of the oxalic acid dihydrate, to obtain cellulose oxalates, c) washing the mixture, d) sonication of the suspension of cellulose oxalates, followed by separation of nanocrystalline cellulose. The method is quick, simple, and direct. Pulp can be used as raw material. A considerable amount of free carboxyl groups are introduced. A high yield can be obtained. The method is inexpensive.

Reaction



Most possible structure

