



(51) International Patent Classification:

C08L 97/02 (2006.01) *B01J 8/24* (2006.01)
C08L 99/00 (2006.01)

(21) International Application Number:

PCT/US2015/028815

(22) International Filing Date:

1 May 2015 (01.05.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/987,270 1 May 2014 (01.05.2014) US
62/011,879 13 June 2014 (13.06.2014) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

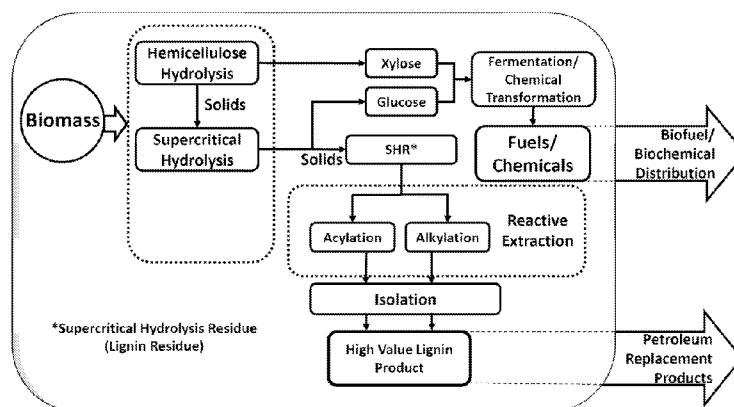
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: UPGRADING LIGNIN FROM LIGNIN-CONTAINING RESIDUES THROUGH REACTIVE EXTRACTION

FIG. 1



(57) Abstract: Disclosed are methods of functionalizing lignin using reactive extraction. The invention also generally relates to functionalized lignin. An exemplary method for producing functionalized lignin is disclosed, which comprises: providing a residue comprising lignin and cellulose; subjecting the residue to a liquid comprising an organic compound, thereby forming a first mixture; wherein the subjecting is performed at a first temperature of about 100°C or less; and wherein the first mixture comprises: a first liquid fraction comprising solubilized functionalized lignin, wherein the solubilized functionalized lignin is functionalized with the organic compound; and a first solid fraction comprising cellulose.