



- (51) **International Patent Classification:** Not classified
- (21) **International Application Number:** PCT/JP2012/052437
- (22) **International Filing Date:** 27 January 2012 (27.01.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
2011-017658 31 January 2011 (31.01.2011) JP  
2011-193574 6 September 2011 (06.09.2011) JP
- (71) **Applicant (for all designated States except US):** SUMITOMO CHEMICAL COMPANY, LIMITED [JP/JP]; 27-1, Shinkawa 2-chome, Chuo-ku, Tokyo, 1048260 (JP).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** HAGIYA, Koji [JP/JP]; c/o SUMITOMO CHEMICAL COMPANY, LIMITED, 1-98, Kasugadenaka 3-chome, Konohana-ku, Osaka-shi, Osaka, 5548558 (JP).
- (74) **Agents:** SAMEJIMA, Mutsumi et al.; AOYAMA & PARTNERS, IMP Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka, 5400001 (JP).

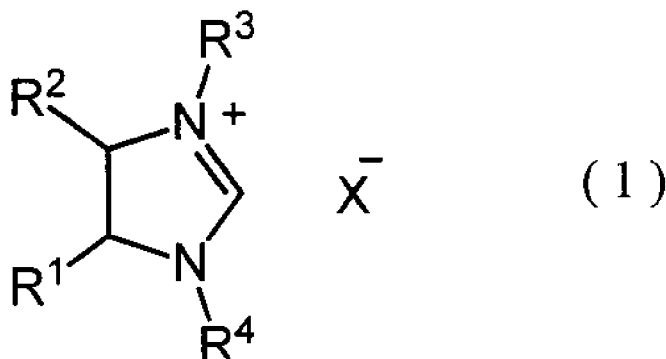
(81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) **Title:** PROCESS FOR PRODUCING ALPHA-HYDROXYKETONE COMPOUND



(57) **Abstract:** An object of the present invention is to produce an  $\alpha$ -hydroxyketone compound easily and effectively. Provided is a process for producing an  $\alpha$ -hydroxyketone compound comprising a stirring step of stirring one or more aldehyde compounds or polymers thereof in the presence of a base and an imidazolinium salt represented by the formula (1): wherein  $R^1$  and  $R^2$  each independently represent a hydrogen atom, an alkyl group optionally having a substituent or an aryl group optionally having a substituent, or  $R^1$  and  $R^2$  are bound to each other to form a ring together with carbon atoms to which they bind,  $R^3$  and  $R^4$  each independently represent an aryl group having one or more electron withdrawing groups, and  $X^-$  represents an anion.

