



- (51) **International Patent Classification:**
C07C 45/85 (2006.01) *C07C 49/727* (2006.01)
- (21) **International Application Number:**
PCT/EP2012/069452
- (22) **International Filing Date:**
2 October 2012 (02.10.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
P201131601 4 October 2011 (04.10.2011) ES
- (71) **Applicant:** INDENA S.P.A. [IT/IT]; Viale Ortles, 12, I-20139 Milano (IT).
- (72) **Inventors:** BELLIDO CABELLO DE ALBA, Maria Luz; PCT Rabanales 21, Cecilia Payne, Edificio Centauro, Primera Planta, E-14014 Cordoba (ES). APPENDINO, Giovanni; PCT Rabanales 21, Cecilia Payne, Edificio Centauro, Primera Planta, E-14014 Cordoba (ES). PAGANI, Alberto; PCT Rabanales 21, Cecilia Payne, Edificio Centauro, Primera Planta, E-14014 Cordoba (ES). MUÑOZ BLANCO, Eduardo; PCT Rabanales 21, Cecilia Payne, Edificio Centauro, Primera Planta, E-14014 Cordoba (ES).
- (74) **Agent:** MINOJA, Fabrizio; Via Plinio, 63, I-20129 Milano (IT).

- (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, IS, JP, 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, PA, 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, 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:

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

(54) **Title:** METHOD OF ISOLATING INGENOL

(57) **Abstract:** The present invention relates to a new method for isolating ingenol ($C_{20}H_{28}O_5$) from mixtures of diterpenoid esters and ingenol esters in a single step. Ingenol isolated by means of this method can be used as a precursor for the synthesis of biologically active ingenol derivatives, such as ingenol-3-angelate and ingenol-3-tiglate.

