

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 November 2006 (16.11.2006)

PCT

(10) International Publication Number
WO 2006/119939 A1

(51) International Patent Classification:
C07C 51/265 (2006.01) *C07C 63/307* (2006.01)

(21) International Application Number:
PCT/EP2006/004271

(22) International Filing Date: 6 May 2006 (06.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
05425324.0 13 May 2005 (13.05.2005) EP

(71) Applicant (*for all designated States except US*): POLYNT
SPA [IT/IT]; Via Enrico Fermi, 51, I-24020 Scanzorosciate
(IT).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): CASTIGLIONI,
Gian, Luca [IT/IT]; Via Don Primo Mazzolari, 31, I-24069
Trescore Balneario (IT). PIROLA, Roberto [IT/IT]; Via
Pizzo Scais, 1, I-24044 Dalmine (IT). FUMAGALLI,
Carlo [IT/IT]; Via Conti Albani, 2/c, I-24061 Albano
Sant'Alessandro (IT).

(74) Agent: RIEGLER, Norbert, Hermann; Lonza AG, Post-
fach, CH-4002 Basel (CH).

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

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))*
- *of inventorship (Rule 4.17(iv))*

Published:

- *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: PROCESS FOR THE PRODUCTION OF TRIMELLITIC ACID

(57) Abstract: Trimellitic acid is produced by oxidation of pseudocumene in acetic acid at temperatures between 130 and 240 °C in the presence of a catalyst composition containing cobalt, manganese and bromine. The process comprises the stages of: (i) simultaneously feeding pseudocumene and air or an oxygen-containing gas into a solution containing acetic acid and the catalyst composition, at an addition rate resulting in an oxygen concentration in the off-gas of less than 8 vol%, and at a temperature and a pressure sufficient to result in 5 to 25 mol% of the total amount of oxygen required to oxidize the pseudocumene to trimellitic acid being consumed, and (ii) feeding air or an oxygen-containing gas into the reaction mixture obtained in stage (i) until essentially all of the pseudocumene has been consumed and a molar yield of trimellitic acid of at least 90% has been obtained. There is no supplementation of catalyst after stage (i).



WO 2006/119939 A1