



- (51) **International Patent Classification:**
C07D 285/135 (2006.01) *A61K 31/433* (2006.01)
- (21) **International Application Number:**
PCT/IB2013/050899
- (22) **International Filing Date:**
3 February 2013 (03.02.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
1810/CHE/2012 8 May 2012 (08.05.2012) IN
- (72) **Inventor; and**
- (71) **Applicant : KANDULA, Mahesh** [IN/IN]; Door No. 11-61, Samalkot Mandal, East Godavari Dist, G.Medapadu 533 434, Andhra Pradesh (IN).
- (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:** COMPOSITIONS AND METHODS FOR SUPPRESSION OF CARBONIC ANHYDRASE ACTIVITY

(57) **Abstract:** Provided are the compounds of formula (I) or its pharmaceutical acceptable salts, as well as polymorphs, solvates, enantiomers, stereoisomers and hydrates thereof. The pharmaceutical compositions comprising an effective amount of compounds of formula (I), and methods for treating or preventing or modulating carbonic anhydrase activity in a disease may be formulated for oral, buccal, rectal, topical, transdermal, transmucosal, intravenous, parenteral administration, syrup, or injection. Such compositions may be used to treatment of glaucoma, epileptic seizures, Idiopathic intracranial hypertension (pseudotumor cerebri), altitude sickness, cystinuria, periodic paralysis and dural ectasia, congestive heart failure, drug induced edema, diuretic, intermittent claudication resulting from obstructed arteries in the limbs, and vascular dementia.

