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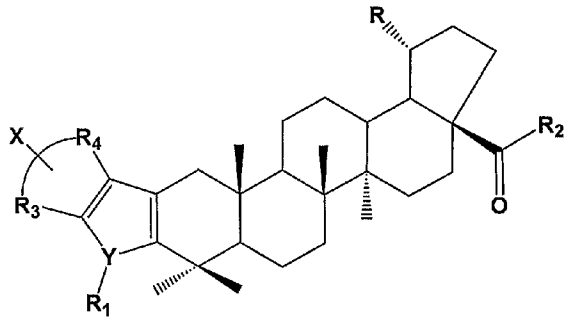
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(54) Title: NOVEL BETULINIC ACID DERIVATIVES A-RING-CONDENSED TO A HETEROCYCLIC GROUP



(I)

(57) Abstract: The invention relates to novel betulinic acid derivatives of formula (I), wherein R is C (=CH_2) CH_3 or $CH(CH_3)_2$; R_2 together with the adjacent carbonyl group forms a carboxylic acid, carboxylic acid ester or amide or substituted amide; R_3 or R_4 are hydrogen or aryl with the proviso that both are not independently hydrogen or alkyl or R_3 and R_4 are combined together to form an aryl ring optionally substituted with a group X, wherein X is selected from halogen, alkyl, cyano, nitro, alkoxy, amino or substituted amine; Y is N or O; and R_1 is zero when Y is O, and R_1 is hydrogen, alkyl or aryl alkyl when Y is N, useful for inhibition of tumor cancer cells. Formula (I)

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