

Title (en)

NOVEL PATHWAY FOR THE SYNTHESIS OF DIAZIRINES, THAT MAY OR MAY NOT BE ENRICHED IN NITROGEN-15

Title (de)

NEUARTIGER WEG ZUR SYNTHESE VON DIAZIRINEN, DIE MIT WASSERSTOFF-15 ANGEREICHERT SEIN KÖNNEN ODER NICHT

Title (fr)

NOUVELLE VOIE DE SYNTHÈSE DE DIAZIRINES, ENRICHIES OU NON EN AZOTE-15

Publication

EP 3880662 A1 20210922 (FR)

Application

EP 19804716 A 20191114

Priority

- FR 1860507 A 20181114
- EP 2019081393 W 20191114

Abstract (en)

[origin: CA3119871A1] The present invention concerns a novel method for synthesising diazirines, that may or may not be enriched in nitrogen-15, from amino acids or imines, via a one-pot synthesis method, comprising the reaction of the starting amino acid or imine with ammonia, which may or may not be enriched in nitrogen-15, and a hypervalent iodine oxidant. The present invention also relates to a method for synthesising ammonia enriched in nitrogen-15. The invention also concerns certain diazirines of formula (I) likely to be obtained by the claimed synthesis method, and also refers to the ¹⁵N₂-diazirines of formula (I'). The claimed diazirines can be used in photoaffinity labelling. The ¹⁵N₂-diazirines can also be used in hyperpolarisation, in particular in the medical imaging field.

IPC 8 full level

C07D 229/02 (2006.01)

CPC (source: EP US)

C07D 229/02 (2013.01 - EP US)

Citation (search report)

See references of WO 2020099596A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 3088322 A1 20200515; CA 3119871 A1 20200522; EP 3880662 A1 20210922; US 2022098155 A1 20220331; WO 2020099596 A1 20200522

DOCDB simple family (application)

FR 1860507 A 20181114; CA 3119871 A 20191114; EP 19804716 A 20191114; EP 2019081393 W 20191114; US 201917292832 A 20191114