

Title (en)  
PROCESS FOR PREPARING HETEROCYCLIC CARBENES

Title (de)  
VERFAHREN ZUR HERSTELLUNG HETEROCYCLISCHER CARBENE

Title (fr)  
PROCEDE DE PREPARATION DE CARBENES HETEROCYCLIQUES

Publication  
**EP 0888308 A1 19990107 (DE)**

Application  
**EP 97915369 A 19970314**

Priority  
• DE 19610908 A 19960320  
• EP 9701296 W 19970314

Abstract (en)  
[origin: WO9734875A1] The invention concerns a process for preparing heterocyclic carbenes of general formula (I) in which R1, R2, R3 and R4 are identical or different and mean saturated or unsaturated, straight-chain, branched or cyclic, unsubstituted or substituted Ci-Ci alkyl, C2-C5 alkylidene, C2-C5 alkylidene, C7-C19 aralkyl or C6-C14 alkyl groups, R3 and R4 can also stand for hydrogen or form jointly anellated, substituted or unsubstituted groups with between 3 and 7 carbon atoms and X stands for carbon or nitrogen, R3 being dropped if X is nitrogen. The process is carried out by reacting azolium salts with a deprotonizing reagent in pure liquid ammonia or in pure organic amine or a mixture of liquid ammonia or an organic amine and an organic polar-aprotic solvent. This process enables a plurality of in particular temperature-sensitive carbenes to be produced under mild reaction conditions at temperatures of between -75 and 0°C.

IPC 1-7  
**C07D 233/10**; **C07D 233/12**; **C07D 233/14**; **C07D 233/16**; **C07D 249/08**

IPC 8 full level  
**C07D 233/10** (2006.01); **C07D 233/06** (2006.01); **C07D 233/12** (2006.01); **C07D 233/14** (2006.01); **C07D 233/16** (2006.01); **C07D 233/20** (2006.01); **C07D 249/08** (2006.01); **C07D 401/06** (2006.01); **C07F 9/6506** (2006.01)

CPC (source: EP KR US)  
**C07D 233/06** (2013.01 - EP KR US); **C07D 233/20** (2013.01 - EP US); **C07D 249/08** (2013.01 - EP KR US); **C07D 401/14** (2013.01 - EP US); **C07F 9/6506** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 9734875A1

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)  
**WO 9734875 A1 19970925**; AU 2287897 A 19971010; AU 710591 B2 19990923; BR 9708234 A 19990803; CA 2250086 A1 19970925; CN 1216536 A 19990512; DE 19610908 A1 19970925; EP 0888308 A1 19990107; ID 16265 A 19970918; JP 2000507239 A 20000613; KR 100492653 B1 20051111; KR 20000064700 A 20001106; PL 329010 A1 19990301; TW 412530 B 20001121; US 6025496 A 20000215; ZA 972198 B 19970917

DOCDB simple family (application)  
**EP 9701296 W 19970314**; AU 2287897 A 19970314; BR 9708234 A 19970314; CA 2250086 A 19970314; CN 97193968 A 19970314; DE 19610908 A 19960320; EP 97915369 A 19970314; ID 970808 A 19970313; JP 53312997 A 19970314; KR 19980707423 A 19980919; PL 32901097 A 19970314; TW 86102643 A 19970305; US 15506598 A 19981102; ZA 972198 A 19970313