

Title (en)
METHOD FOR PRODUCING AMIDES OR ESTERS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON AMIDEN ODER ESTERN

Title (fr)
PROCEDE DE PRODUCTION D'AMIDES OU D'ESTERS

Publication
EP 1289934 A1 20030312 (DE)

Application
EP 01949406 A 20010612

Priority
• DE 10029139 A 20000614
• EP 0106655 W 20010612

Abstract (en)
[origin: WO0196282A1] The invention relates to a method for producing amides or esters from carboxylic acids and from an amine constituent or alcohol constituent in the presence of a 1,3,5-triazine and optionally in the presence of an organic solvent and of a tertiary amine. According to the invention, a (bi)cyclic diamine or an adduct formed therefrom with the triazine constituent is used as a tertiary amine in a preferred stoichiometric ratio of diamine to the triazine constituent ranging from 0.30 to 1.10; the stoichiometric ratio of carboxylic acid to the amine constituent or alcohol constituent should range from 0.2 to 5.0, and; the molar ratio of carboxylic acid to the triazine constituent ranges from 0.5 to 1.5. Amino acids such as N-protected amino acids and peptides serve as carboxylic acid constituents, and (C-protected) amino acids or a C-protected peptide serve as the amine constituent. 2-chlorine-4,6-dimethoxy-1,3,5-triazine (CDMT) is used as the preferred 1,3,5-triazine, and the N,N'-dimethyl-1,4-piperazine is used as the cyclic diamine. In addition to this method, which can be carried out at temperatures ranging from -80 to +150 DEG C and in the presence of an organic solvent, the invention also relates to adducts comprised of (bi)cyclic diamine and 1,3,5-triazine. Compared to the prior art, higher yields with shorter reaction times are achieved using the described method, and distinctly smaller waste quantities of tertiary amine bases accrue.

IPC 1-7
C07C 233/65; **C07C 233/05**; **C07C 231/02**; **C07C 69/78**; **C07C 67/08**; **C07K 1/10**; **C07K 5/06**; **C07D 487/08**; **C07D 251/46**

IPC 8 full level
C07B 61/00 (2006.01); **C07C 67/08** (2006.01); **C07C 69/76** (2006.01); **C07C 231/02** (2006.01); **C07C 233/65** (2006.01); **C07C 269/06** (2006.01); **C07C 271/22** (2006.01); **C07D 251/46** (2006.01); **C07D 487/08** (2006.01); **C07K 1/08** (2006.01); **C07C 233/05** (2006.01)

CPC (source: EP US)
C07C 67/08 (2013.01 - EP US); **C07C 231/02** (2013.01 - EP US); **C07D 251/46** (2013.01 - EP US); **C07D 487/08** (2013.01 - EP US); **C07K 1/084** (2013.01 - EP US)

C-Set (source: EP US)
1. **C07C 231/02** + **C07C 233/05**
2. **C07C 231/02** + **C07C 233/65**

Citation (search report)
See references of WO 0196282A1

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

DOCDB simple family (publication)
WO 0196282 A1 20011220; **WO 0196282 B1 20020404**; AU 7056901 A 20011224; DE 10029139 A1 20020103; EP 1289934 A1 20030312; JP 2004503522 A 20040205; US 2003181753 A1 20030925

DOCDB simple family (application)
EP 0106655 W 20010612; AU 7056901 A 20010612; DE 10029139 A 20000614; EP 01949406 A 20010612; JP 2002510426 A 20010612; US 29782503 A 20030515