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File Number: W 48/90 - 3.3.1

Application No.: PCT/US 90/00746

Publication No.:

Title of invention: Arthropodicial Tetrahydrobenzopyranopyrazoles

Classification: C07D 231/54

D E C I S I O N
of 22 April 1991

Applicant: E.I. DU PONT DE NEMOURS AND COMPANY

Headword: Arthropodicial compounds/DU PONT

EPC PCT Art. 17(3)(a); Rules 13.1 and 40(2)(c)

Keyword: "a priori lack of unity of invention (confirmed)"

Headnote



Case Number : W 48/90 - 3.3.1

International Application No. PCT/US 90/00746

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 22 April 1991

Applicant :

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Representative :

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Subject of the Decision :

Protest according to Rule 40.2(c) of the Patent
Cooperation Treaty made by the applicants against
the invitation (payment of additional fee) of the
European Patent Office (branch at The Hague)
dated 14 February 1990

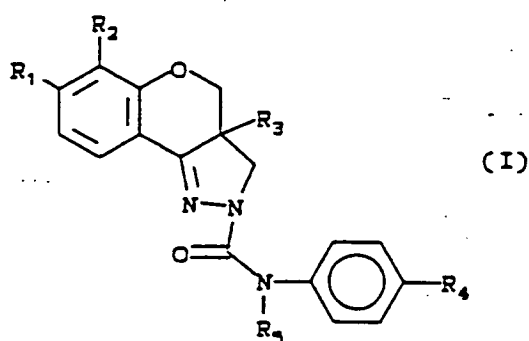
Composition of the Board :

Chairman : K. Jahn
Members : P. Krasa
J. Stephens-Ofner

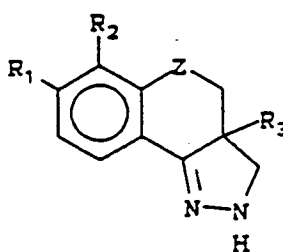
Summary of Facts and Submissions

- I. Following the filing of this International application, the EPO, acting as ISA, issued an invitation to pay an additional search fee because it considered that the application did not comply with the requirement of unity of invention.

Claim 1 of the application is directed to a compound of the formula



the definitions of R_1 to R_5 not being of any interest in respect to the present issue. Claim 12 is directed to a compound of the formula (designated "formula IV" in the description)



wherein Z is CH_2 or O and R_1 to R_3 have the same meaning as given for formula I.

- II. The invitation to the applicant sets out, as reasons for requiring the additional fee, the following:

"The acceptance of a single general inventive concept covering end products as well as products used to prepare these end products (intermediates) implies that each intermediate should lead to an end product, i.e. the scope of the claimed intermediates cannot be broader than the scope of the claimed end products.

As this is not the case here, some of the compounds qualified as intermediates are not so and have therefore no link with the end products.

This leads to the subjects as listed below, each falling under its own restricted inventive concept defined by the particular sub-scopes of the so-called intermediates.

1. Claims 1-11, 13-15, 12 (partially for $Z=O$)
2. Claim 12 (partially for $Z=CH_2$)".

- III. The applicant paid the additional fee and, while not contesting or commenting on the ISA's above arguments, stated only that the further search fee was paid under protest, "in view of the close structural similarity of the compounds of the alleged first and second inventions".

Reasons for the Decision

1. In accordance with Article 154(3) EPC, the Boards of Appeal are responsible for deciding on the protest raised by the applicant.

2. If an applicant wishes to pay an additional fee under protest, the additional fee must be accompanied by a reasoned statement setting out that the international application complies with the requirement of unity of invention or that the amount of the required fee is excessive (Rule 40.2(c) PCT). The only reason given in this respect in the applicant's notice of protest is a mere hint at the structural similarity of the compounds of the respective inventions. While this appears to be somewhat scanty reasoning, the Board concludes that it is sufficient in this particular case because it is immediately evident that the only structural difference in the compounds of Claim 12 of the second invention as compared with compounds of the first invention is the replacement of a ring-oxygen atom by a methylene group. Thus, the applicant's statement may be understood as an allegation that such a structural difference cannot give rise to non-unity of the invention. Hence, the protest complies with the requirements of Rule 40.2(c) PCT.
3. The compounds of formula I are suggested for the control of arthropods in agronomic and non-agronomic environments (see e.g. page 1, lines 11-15). Thus, the technical problem underlying the alleged invention, which can be deduced from the application, is to provide compounds with an arthropodicidal activity. The active compounds of formula I are suggested as a solution of this problem.

It is clear e.g. from page 3, Fig. 1 of the description that the compounds of formula IV with $Z=O$ are intermediates for the manufacture of the compounds of formula I. Thus, they also contribute to the solution of the said problem and, therefore, belong to the same general inventive concept as the compounds of formula I.

However, compounds which neither have the same or similar effects as the compounds of formula I nor are intermediates for their preparation nor contribute in some other way to the solution of the underlying problem are not technologically related to such inventive concept.

Nothing can be found in the international application with respect to possible arthropodicidal properties of the compounds of formula IV with $Z = -CH_2-$.

There is also no disclosure in the international application of how compounds of formula IV with $Z = -CH_2-$ could perhaps be transformed into the compounds of formula I, nor is the Board aware of such a possibility, nor has the applicant given any indication in this respect.

Finally, there is no suggestion in which other way these compounds could contribute to the solution of the above problem.

Hence, the compounds of formula IV with $Z = -CH_2-$ (Claim 12) constitute separate non-related subject-matter and, thus, the international application does not meet the requirements of unity of invention as set forth in Rule 13.1 PCT.

4. The applicant's implied argument cannot be accepted that the alleged close structural similarity of the compounds of formula IV with $Z = -CH_2-$ with those where $Z = O$ is sufficient to establish unity of invention. As far as chemical compounds are concerned, unity of invention is no mere question of the respective structural features,

but has to be decided taking into account the technical problem to be solved and whether or not the respective compounds contribute to the solution of such problem.

5. Under these circumstances the ISA's invitation to pay an additional search fee was justified.

ORDER

For these reasons, it is decided that:

The additional search fee is not refunded.

The Registrar:

The Chairman:

J. Stephens-Ofner

K. Jahn