

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International Application No.

PCT/AU2009/XXXXXX

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 13, 30-40, 57-59, 70-80	YES
	Claims 1-12, 14-29, 41-56, 60-69	NO
Inventive step (IS)	Claims 13, 30-40, 57-59, 70-80	YES
	Claims 1-12, 14-29, 41-56, 60-69	NO
Industrial applicability (IA)	Claims 1-80	YES
	Claims NONE	NO

The present invention relates to N3-alkylated benzoimidazole derivatives with a (4-iodophenyl amine) - substituent at the 6 position, which are useful as MEK inhibitors particularly in the treatment of hyperproliferative diseases such as cancer and inflammation.

2. CITATIONS AND EXPLANATIONS:**CITATIONS**

D1: WO 2000/042022 A1 (WARNER-LAMBERT COMPANY) 20 July 2000

D2: US 5502187 A (AYER et al.) 26 March 1996

NOVELTY (N)

D1 discloses benzoheterocyclic compounds useful as MEK inhibitors (Abstract). General formula I is very broad and overlaps in scope with the present claims (see pages 3-6). The citation discloses 3H-benzoimidazole-4-carboxylic acid derivatives with a 4-iodophenylamino group at the 5 or 7 position and derivatives of 1Hbenzoimidazole-5-carboxylic acid with a 4-iodophenylamino substituent at the 6 position (page 11 and Examples). Therefore claims 1-10, 14-27, 41-55 and 60-69 lack novelty in light of D1.

D2 discloses active bicyclic heterocyclic amines useful as pharmaceuticals to treat a number of hyperproliferative diseases and injuries. Formula (XXX) is very broad and notionally overlaps in scope with the present claims (cols 9-15). The citation discloses pyrrolo[2,3-d]pyrimidines (Formula VII, Examples), imidazo[4,5-b]pyridines (col 82, Formula XXV) and pyrrolo[3,2-c]pyridines (Formulae XVI), and exemplifies these compounds in which W₁ is -CH= and W₃ is -N=. Therefore claims 1-4, 11, 12, 14-18, 28, 29, 41-45, 56 and 60-64 lack novelty in light of D2.

Therefore the subject matter of claims 1-12, 14-29, 41-56 and 60-69 is not new and does not meet the requirements of Article 33(2) of the PCT with regard to novelty.

Claims 13, 30-40, 57-59 and 70-80 meet the criteria set forth in PCT Article 33(2) for novelty. The prior art published before the priority date does not disclose compounds of Formula 1 where W₁ and W₃ are both simultaneously -CH=, or the use of these compounds, as defined in these claims.

INVENTIVE STEP (IS)

Claims 1-12, 14-29, 41-56 and 60-69 lack novelty and are therefore considered to lack an inventive step.

Claims 13, 30-40, 57-59 and 70-80 are directed towards compounds of Formula 1 and their use wherein the compounds are imidazo[4,5-b]pyridines, pyrrolo[2,3-b]pyridines and imidazo[4,5-c]pyridines in which W₁ and W₃ are both -CH=.

There is no disclosure in D1 or D2, either alone or in combination, that would obviously suggest modifying the core structure of the compounds to arrive at the compounds defined in the present claims. The person skilled in the art would not expect that introducing -CH= groups at positions W₁ and W₃ would improve the activity of these compounds. Therefore the subject matter of these claims is not obvious and meets the requirements of Article 33(3) of the PCT with regard to inventive step.

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PCT/AU2009/XXXXXX**INDUSTRIAL APPLICABILITY (IA)**

The invention defined in the claims is considered to meet the requirements of Industrial Applicability under Article 33(4) of the PCT because it can be made by, or used in, industry.