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(54) Title: NOVEL BORONIC CHALCONE DERIVATIVES AND USES THEREOF

(57) Abstract: The present invention relates to novel boronic chalcone derivatives which are useful as antitumor/anticancer agents. The present compounds, which are inexpensive to synthesize, exhibit unexpectedly good inhibitors of the growth of human breast cancer cells. The present invention also relates to the use of the novel boronic chalcone derivatives to treat cancer. The invention also provides pharmaceutical compositions comprising the inhibitors of the invention and methods of utilizing the inhibitors and pharmaceutical compositions in the treatment and prevention of cancer.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/9; C07f 5/02

US CL : 514/64; 562/7

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/64; 562/7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P --- A	(KUMAR et al) Journal of Medicinal Chemistry 'Design, Synthesis, and Evaluation of Novel Boronic -Chalcone Derivatives as Antitumor agents', Volume 46 pages 2813-2815, on the Web 5/30/2003.	1-10, 15-18 ----- 11
X	Database CAPLUS on STN Chemical Abstracts (Columbus Ohio USA) CA:136:275539 (DI CAESARE et al) ' New sensitive and selective fluorescent probes for fluoride using boronic acids' abs of Analytical Biochemistry 301(1) pages 111-116, 2002.	1
A	US 6,297,217 B1 (ADAMS et al) 12 October 2001 (12.10.2001) see columns 4-6	1-21
A	US 6,083,903 A (ADAMS et al) 04 July 2000 (04.07.2000) see table 2 and examples.	1-21
A	US 5,814,622 A (DE NANTEUIL et al) 29 September 1998 (29.09.1998) columns 1-8.	1-21

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:
CAPLUS, EAST, BIELSTEIN

search terms: structure drawing, HIV, boronic acid, pharmaceutical