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(54) Title: BISMUTH VANADATE PIGMENTS

(57) Abstract: A bismuth vanadate pigment is provided which pigment is doped with a combination of Mg, Al and P and optionally an element E, wherein the molar ratios of the Bi, V, Mg, Al, P and E correspond to a formula $\text{Bi Mg}_a \text{Al}_b \text{E}_c \text{V}_d \text{P}_e \text{O}_f$ (I) wherein E is selected from the group consisting of Be, Ca, Sr, Ba, Zr, Mo, Ce and a combination thereof; $0.001 \leq a \leq 0.2$; $0.001 \leq b \leq 0.2$; $0 \leq c \leq 1.7$; $0.5 \leq d \leq 2.3$; $0.001 \leq e \leq 0.5$; and f denotes the number of oxygen atoms for satisfying the valence requirements of the cations. The pigment may be used as colorant in various applications, especially in coloring high molecular weight organic material, for example, coating compositions, paints, printing inks, liquid inks, plastics, films, fibers, or glazes for ceramics or glass.



INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER		
C09C 1/00(2006.01)i		
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) C09C; C01G		
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) CNPAT,CNKI,EPODOC,WPI;BASF, Mg, Al, Ca, Mo, Sr, Zr, Ce, bismuth vanadate, vanadate,pigment,colorant, colo?r?,painting,Magnesium, aluminium, aluminium, calcium, molybdenum, strontium,zirconium,cerium		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5536309 A (BASF LACKE & FARBEN) 16 July 1996 (1996-07-16) see its claim 1, description example 1 and column 3 lines 29 to 30	1-15
Y	CN 101107331 A (BASF AG) 16 January 2008 (2008-01-16) see its claim 1 and decription example 1	1-15
A	CN 1939981 A (ZHANG SU) 04 April 2007 (2007-04-04) see the whole document	1-15
A	IT 1243945 B (CIBA GEIGY AG) 28 June 1994 (1994-06-28) see the whole document	1-15
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents:		
“A”	document defining the general state of the art which is not considered to be of particular relevance	“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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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
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INTERNATIONAL SEARCH REPORT
Information on patent family members

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