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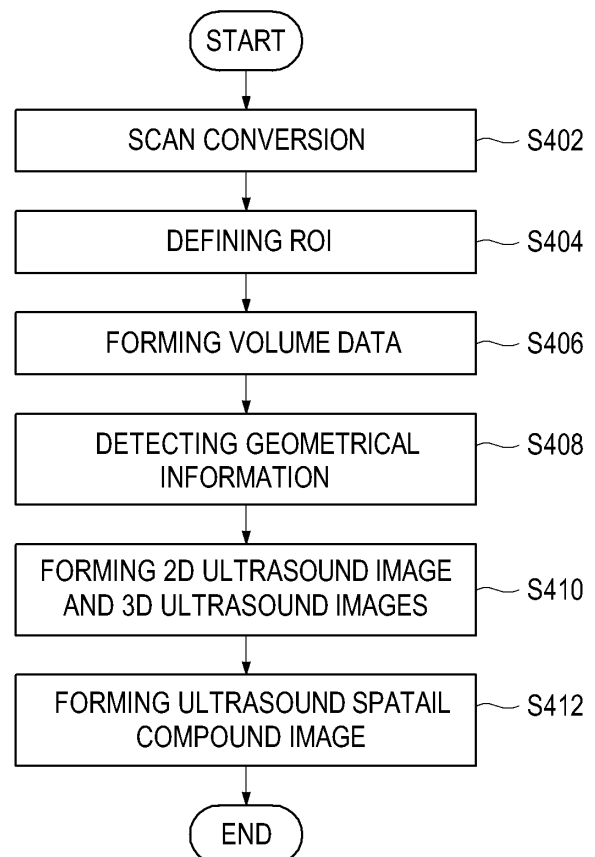
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(54) **Providing an ultrasound spatial compound image in an ultrasound system**

(57) Embodiments for providing an ultrasound spatial compound image are disclosed. In one embodiment, by way of non-limiting example, an ultrasound system comprises: an ultrasound data acquisition unit configured to transmit and receive ultrasound signals to and from a target object to output first ultrasound data and a plurality of sets of second ultrasound data corresponding to a region of interest (ROI); a user input unit configured to receive input information for defining the ROI; and a processing unit in communication with the ultrasound data acquisition unit and the user input unit, the processing unit being configured to form volume data based on the plurality of sets of second ultrasound data, compare the first ultrasound data with the volume data to detect geometric information therein, form a two-dimensional (2D) ultrasound image based on the first ultrasound data, and a first three-dimensional (3D) ultrasound image and a second 3D ultrasound data based on the volume data in consideration of the geometric information, and perform a spatial compound upon the 2D ultrasound image, the first 3D ultrasound image and the second 3D ultrasound image based on the geometric information to form an ultrasound spatial compound image.

FIG. 4





EUROPEAN SEARCH REPORT

Application Number
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A	US 6 283 918 B1 (KANDA RYOICHI [JP] ET AL) 4 September 2001 (2001-09-04) * abstract; figures 2, 5, 7 * * column 4, line 3 - line 18 * * column 5, line 19 - line 65 * * column 6, lines 16 - 21, 25 - 33 *	1-10	
A	EP 1 935 344 A1 (HITACHI MEDICAL CORP [JP]; UNIV NAGOYA NAT UNIV CORP [JP]) 25 June 2008 (2008-06-25) * abstract; figures 1, 3, 9, 10 * * paragraph [0016] - paragraph [0018] * * paragraphs [0035], [0054] - [0061] * * paragraphs [0067], [0071] - [0074] *	1-10	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC) G01S A61B
Place of search Munich		Date of completion of the search 8 March 2017	Examiner Knoll, Bernhard
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 19 2103

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专利名称(译)	在超声系统中提供超声空间复合图像		
公开(公告)号	EP2333724A3	公开(公告)日	2017-04-19
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CPC分类号	G01S15/8993 A61B8/085 A61B8/13 A61B8/469 A61B8/5215 A61B8/5253 G01S7/52063 G01S7/52071 G01S7/52074 G06T7/0012		
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审查员(译)	KNOLL伯恩哈德		
优先权	1020090121590 2009-12-09 KR		
其他公开文献	EP2333724A2		
外部链接	Espacenet		

摘要(译)

公开了用于提供超声空间复合图像的实施例。在一个实施例中，作为非限制性示例，超声系统包括：超声数据获取单元，被配置为向目标对象发送超声信号和从目标对象接收超声信号，以输出对应的第一超声数据和多组第二超声数据到感兴趣的区域 (ROI) ;用户输入单元，被配置为接收用于定义ROI的输入信息;处理单元，其与超声数据获取单元和用户输入单元通信，处理单元被配置为基于多组第二超声数据形成体数据，将第一超声数据与体数据进行比较以检测几何其中的信息，基于第一超声数据形成二维 (2D) 超声图像，并且考虑到几何信息，基于体数据形成第一三维 (3D) 超声图像和第二3D超声数据，以及基于几何信息对2D超声图像，第一3D超声图像和第二3D超声图像执行空间复合，以形成超声空间复合图像。

FIG. 4

