

Title (en)  
APPARATUS FOR MONITORING A SYSTEM IN WHICH A FLUID FLOWS

Title (de)  
VORRICHTUNG ZUR ÜBERWACHUNG EINES FLÜSSIGKEITSFÜHRENDEN SYSTEMS

Title (fr)  
APPAREIL DE CONTROLE D'UN SYSTEME DANS LEQUEL S'ECOULE UN FLUIDE

Publication  
**EP 0877917 A4 20030507 (EN)**

Application  
**EP 97902992 A 19970121**

Priority  
• IL 11681096 A 19960118  
• US 9700801 W 19970121

Abstract (en)  
[origin: WO9726507A1] Apparatus and method for monitoring a system in which a fluid flows and which is characterized by a change in the system with time in space. A preselected place in the system is monitored (14) to collect data at two or more time points (12) correlated to a system event. The data is indicative of a system parameter that varies with time as a function of at least two variables related to system wash-in and wash-out behaviour (15). A calibration map is made (20) on a calculated basis with each pixel or voxel representative of a color hue indicative of wash-out behaviour (19) and a color intensity indicative of wash-in behaviour (16). When a satisfactory map is obtained, the collected data is processed on the basis of the map to obtain an image of the preselected place with each spatial unit thereof correlated with a color hue and a color intensity. Software and a data processing system are provided to develop the calibration map. The calibration map and image of the preselected place are also novel implementations.

IPC 1-7  
**G01F 1/716**; **G01R 33/48**; **G06T 11/20**

IPC 8 full level  
**G01F 1/716** (2006.01); **A61B 5/055** (2006.01); **G01R 33/28** (2006.01); **G01R 33/54** (2006.01); **G06T 11/20** (2006.01)

CPC (source: EP)  
**G01R 33/5608** (2013.01); **G01R 33/56366** (2013.01); **G06T 11/206** (2013.01)

Citation (search report)  
• [A] US 5051922 A 19910924 - TORAL HALUK [GB], et al  
• [A] US 5432718 A 19950711 - MOLVIG KIM [US], et al  
• [A] GULLBERG G T ET AL: "Efficient estimation of dynamic cardiac SPECT kinetic parameters using weighted least squares estimates of dynamic reconstructions", 1995 IEEE NUCLEAR SCIENCE SYMPOSIUM AND MEDICAL IMAGING CONFERENCE RECORD (CAT. NO.95CH35898), 1995 IEEE NUCLEAR SCIENCE SYMPOSIUM AND MEDICAL IMAGING CONFERENCE RECORD, SAN FRANCISCO, CA, USA, 21-28 OCT. 1995, 1995, New York, NY, USA, IEEE, USA, pages 1684 - 1688 vol.3, XP002233696, ISBN: 0-7803-3180-X  
• See references of WO 9726507A1

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