

Title (en)
SYSTEM AND METHOD FOR DETECTING AND MONITORING BLAST EXPOSURE USING MAGNETIC RESONANCE SPECTROSCOPY (MRS)

Title (de)
SYSTEM UND VERFAHREN ZUR DETEKTION UND ZUR ÜBERWACHUNG VON EXPLOSIONSEXPOSITION MITTELS MAGNETISCHER
RESONANZSPEKTROSKOPIE (MRS)

Title (fr)
SYSTÈME ET PROCÉDÉ DE DÉTECTION ET DE SURVEILLANCE DE L'EXPOSITION AU SOUFFLE À L'AIDE DE SPECTROSCOPIE PAR
RÉSONANCE MAGNÉTIQUE (SRM)

Publication
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Application
EP 18851200 A 20180831

Priority
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• IB 2018056683 W 20180831

Abstract (en)
[origin: WO2019043648A1] A system and method identifies blast exposure by the use of magnetic resonance spectroscopy (MRS) to measure absolute and relative concentrations of metabolites in specific brain regions in the central nervous system or brain. The system and method can be used as a diagnostic tool for the assessment of blast exposure. These chemical changes in the brain of those people suffering from blast exposure are different from those suffering from head injury, chronic pain and other neurological conditions.

IPC 8 full level
A61B 5/055 (2006.01); **A61B 5/145** (2006.01); **G01R 33/46** (2006.01)

CPC (source: AU EP)
A61B 5/0042 (2013.01 - AU); **A61B 5/05** (2013.01 - AU); **A61B 5/055** (2013.01 - EP); **A61B 5/14546** (2013.01 - EP); **A61B 5/165** (2013.01 - AU); **A61B 5/4064** (2013.01 - EP); **A61B 5/4076** (2013.01 - AU); **A61B 5/4848** (2013.01 - EP); **G01R 33/485** (2013.01 - EP); **A61B 5/4842** (2013.01 - AU); **A61B 5/4848** (2013.01 - AU); **G01R 33/4625** (2013.01 - AU); **G01R 33/4633** (2013.01 - AU EP); **G01R 33/483** (2013.01 - AU)

Citation (search report)
• [X1] GALLOWAY GRAHAM J. ET AL: "NEURO 2D CORRELATED SPECTROSCOPY IDENTIFIES NEURO DEREGLATION IN SOLDIERS EXPOSED TO BLAST PRIOR TO DISCERNIBLE CHANGES BY CONVENTIONAL IMAGING", INTERNATIONAL SOCIETY FOR MAGNETIC RESONANCE IN MEDICINE, ISMRM, 2030 ADDISON STREET, 7TH FLOOR, BERKELEY, CA 94704 USA, no. 5651, 7 April 2017 (2017-04-07), XP040693218
• [X1] KONTOS ANTHONY P. ET AL: "Clinical and Magnetic Resonance Spectroscopic Imaging Findings in Veterans With Blast Mild Traumatic Brain Injury and Post-Traumatic Stress Disorder", MILITARY MEDICINE, vol. 182, no. S1, 1 March 2017 (2017-03-01), US, pages 99 - 104, XP055792311, ISSN: 0026-4075, Retrieved from the Internet <URL:https://watermark.silverchair.com/milmed-d-16-00177.pdf?token=AQECaHi208BE49Ooan9kKhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAAtQwggLQBgkqhkiG9w0BBwagggLBMIIcVQIBADCCArYGCSqGSib3DQEhATAel> DOI: 10.7205/MILMED-D-16-00177
• [X1] LANEROLLE NIHAL C. ET AL: "Concussive brain injury from explosive blast", ANNALS OF CLINICAL AND TRANSLATIONAL NEUROLOGY, vol. 1, no. 9, 30 September 2014 (2014-09-30), GB, pages 692 - 702, XP055792398, ISSN: 2328-9503, Retrieved from the Internet <URL:https://onlinelibrary.wiley.com/doi/full-xml/10.1002/acn3.98> DOI: 10.1002/acn3.98
• [X1] MOUNTFORD CAROLYN: "MRS as a Biomarker for Brain Disease", INTERNATIONAL SOCIETY FOR MAGNETIC RESONANCE IN MEDICINE, ISMRM, 2030 ADDISON STREET, 7TH FLOOR, BERKELEY, CA 94704 USA, no. 8059, 7 April 2017 (2017-04-07), XP040693436
• See references of WO 2019043648A1

Designated contracting state (EPC)
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WO 2019043648 A1 20190307; AU 2018326834 A1 20200305; AU 2018326834 A8 20220217; EP 3675728 A1 20200708; EP 3675728 A4 20210519

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