

● Subject Index to Volume 38

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3D

Synonyms: 3-D, three dimensional, three-dimensional,
3-dimensional

Scopus Search: 3D OR 3-D OR “three dimensional” OR
three-dimensional OR 3-dimensional PubMed Search

Salman MS, Mousa HA, Twining P, Jones NW, James D,
Momtaz M, Aboulghar M, El-Sheikhah A, Bugg G. Would
gestational age and presence of brain anomalies affect
interobserver reliability of fetal head biometry? Using off-line
analysis of 3-D dataset. *38:69-74.*

Hacihaliloglu I, Abugharbieh R, Hodgson AJ, Rohling RN, Guy
P. Automatic bone localization and fracture detection from
volumetric ultrasound images using 3-D local phase features.
38:128-144.

Hata T, Tanaka H, Noguchi J. Transvaginal 3-d power Doppler
ultrasound evaluation of the fetal brain at 10-13 weeks’
gestation. *38:396-401.*

Ohashi S, Ohnishi I, Matsumoto T, Bessho M, Matsuyama J,
Tobita K, Kaneko M, Nakamura K. Measurement of articular
cartilage thickness using a three-dimensional image
reconstructed from B-mode ultrasonography mechanical
scans feasibility study by comparison with MRI-derived data.
38:402-411.

Gessner RC, Streeter JE, Kothadia R, Feingold S, Dayton PA.
An in vivo validation of the application of acoustic radiation
force to enhance the diagnostic utility of molecular imaging
using 3-d ultrasound. *38:651-660.*

Wang AS, Liang DH, Bech F, Lee JT, Zarins CK, Zhou W,
Taylor CA. Validation of a power law model in upper
extremity vessels: potential application in ultrasound bleed
detection. *38:692-701.*

Chen HC, Tsai PY, Huang HH, Shih HH, Wang YY, Chang CH,
Sun YN. Registration-based segmentation of three-
dimensional ultrasound images for quantitative measurement
of fetal craniofacial structure. *38:811-823.*

Buchanan DN, Lindenmaier T, McKay S, Bureau Y, Hackam
DG, Fenster A, Parraga G. The relationship of carotid three-
dimensional ultrasound vessel wall volume with age and sex:
comparison to carotid intima-media thickness. *38:1145-1153.*

Light ED, Lindsey BD, Upchurch JA, Smith SW. Ring array
transducers for real-time 3-d imaging of an atrial septal
occluder. *38:1483-1487.*

Li XC, Jin FL, Jing C, Xiao Q, Liu Y, Ran ZS, Zhang JJ.
Predictive Value of Left Ventricular Remodeling by Area
Strain Based on Three-Dimensional Wall-Motion Tracking
after PCI in Patients with Recent NSTEMI. *38:1491-1501.*

Yan P, Cheeseborough JC, 3rd, Chao CK. Automatic
Shape-based Level Set Segmentation for Needle Tracking in
3-D TRUS-Guided Prostate Brachytherapy. *38:1626-1636.*

Luk HK, Lai YM, Qin L, Huang Y-P, Zheng Y-P. Computed
Radiographic and Ultrasonic Evaluation of Bone
Regeneration During Tibial Distraction Osteogenesis in
Rabbits. *38:1744-1758.*

van Neer PLMJ, Blaak S, Bosch JG, Lancee CT, Prins C, van der
Steen AFW, de Jong N. Mode Vibrations of a Matrix
Transducer for Three-Dimensional Second Harmonic
Transesophageal Echocardiography. *38:1820-1832.*

Kumagai K, Koike H, Nagaoka R, Sakai S, Kobayashi K, Saijo
Y. High-Resolution Ultrasound Imaging of Human Skin In
Vivo by Using Three-Dimensional Ultrasound Microscopy.
38:1833-1838.

Chang Y-C, Huang Y-H, Huang C-S, Chang R-F. Vascular
Morphology and Tortuosity Analysis of Breast Tumor Inside
and Outside Contour by 3-D Power Doppler Ultrasound.
38:1859-1869.

Yang X, Coleman DP, Pugh ND, Nokes LDM. The Volume of
the Neovascularity and Its Clinical Implications in Achilles
Tendinopathy. *38:1887-1895.*

Plate A, Ahmadi S, Pauly O, Klein T, Navab N, Botzel K. 3D
Sonographic Examination of the Midbrain for Computer-
aided Diagnosis of Movement Disorders. *38:2041-2050.*

McLean G, Coombs P, Sehgal A, Paul E, Zamani L, Gilbertson T,
Ptasznik R. Measurement of the lateral ventricles in the
neonatal head: Comparison of 2D and 3D techniques.
38:2051-2057.

4D

Synonyms: 4-D, four dimensional, four-dimensional,
4-dimensional

Scopus Search: 4D OR 4-D OR “four dimensional” OR four-
dimensional OR 4-dimensional PubMed Search

Mukherjee R, Sprouse C, Pinheiro A, Abraham T, Burlina P.
Computing myocardial motion in 4-dimensional
echocardiography. *38:1284-1297.*

Welsh A, Hou M, Meriki N, Stevenson G. Use of four-
dimensional analysis of power Doppler perfusion indices to
demonstrate cardiac cycle pulsatility in fetoplacental flow.
38:1345-1351.

A

Abdominal ultrasound

Synonyms: Abdominal imaging, Abdomen

Scopus Search: “Abdominal ultrasound” OR “Abdominal imaging” OR Abdomen PubMed Search

See also: kidney, liver, spleen, pancreas, gall bladder

Acoustic emission

Synonyms: AE, passive detection

Scopus Search: “acoustic emission” OR AE OR “passive detection” PubMed Search

See also: cavitation

Acoustic microscopy

Synonyms: scanning acoustic microscopy (SAM), ultrasound/ultrasonic microscopy, biomicroscopy

Scopus Search: “acoustic microscop*” OR “ultrason* microscop*” OR “bio*microscop*” OR SAM PubMed Search

See also: high frequency ultrasound

Zhang B, Cheng Q, Chen M, Yao W, Qian M, Hu B. Imaging and analyzing the elasticity of vascular smooth muscle cells by atomic force acoustic microscope. *38:1383-1390.*

Petrella LI, de Azevedo Valle H, Issa PR, Martins CJ, Machado JoC, Pereira WCA. Statistical Analysis of High Frequency Ultrasonic Backscattered Signals from Basal Cell Carcinomas. *38:1811-1819.*

Kumagai K, Koike H, Nagaoka R, Sakai S, Kobayashi K, Saijo Y. High-Resolution Ultrasound Imaging of Human Skin In Vivo by Using Three-Dimensional Ultrasound Microscopy. *38:1833-1838.*

Acousto-optics

Scopus Search: “acoust* AND opt*” PubMed Search

See also: photoacoustic

Adaptive filtering

Synonyms: adaptive algorithm, optimising filter, noise cancellation, denoising, adaptive clutter rejection

Scopus Search: “adaptive filt*” OR “optimising filt*” OR “adaptive algorithm” OR “adaptive clutter rejection” OR “Least squares” OR “cost function” OR “finite impulse response” OR “noise cancellation” OR denoising PubMed Search

See also: image processing

Aneurysm

Synonyms: aneurism

Scopus Search: Aneur*sm OR AAA PubMed Search

See also: atherosclerosis, hypertension

Brekken R, Muller S, Gjerald SU, Hernes TA. Simulation model for assessing quality of ultrasound strain estimation in abdominal aortic aneurysm. *38:889-896.*

Angiogenesis

Synonyms: increase in vascularity, vascularisation

Scopus Search: Angiogenesis OR “increase in vascularity” OR “vascularity index” OR VI OR vasculari*ation OR “capillary density” OR “microvessel density” OR neoangiogenesis OR neovasculari*ation PubMed Search

Liu Z, Gao S, Zhao Y, Li P, Liu J, Tan K, Xie F. Disruption of tumor neovasculature by microbubble enhanced ultrasound: a potential new physical therapy of anti-angiogenesis. *38:253-261.*

Eveno C, Le Henaff C, Audollent R, Soyer P, Rampanou A, Nemeth J, Brouland JP, Dupuy E, Pocard M, Bonnin P. Tumor and non-tumor liver angiogenesis is traced and evaluated by hepatic arterial ultrasound in murine models. *38:1195-1204.*

Yang X, Coleman DP, Pugh ND, Nokes LDM. The Volume of the Neovascularity and Its Clinical Implications in Achilles Tendinopathy. *38:1887-1895.*

Hoogi A, Akkus Z, van den Oord SCH, ten Kate GL, Schinkel AFL, Bosch JG, de Jong N, Adam D, van der Steen AFW. Quantitative Analysis of Ultrasound Contrast Flow Behavior in Carotid Plaque Neovasculature. *38:2072-2083.*

Cheung W-H, Sun M-H, Zheng Y-P, Chu WC-W, Leung AH-C, Qin L, Wei F-Y, Leung K-S. Stimulated Angiogenesis for Fracture Healing Augmented by Low-Magnitude, High-Frequency Vibration in A Rat Model, Evaluation of Pulsed-Wave Doppler, 3-D Power Doppler Ultrasonography and Micro-CT Microangiography. *38:2120-2129.*

Animal studies

Synonyms: animal model

Scopus Search: “animal stud*” OR “animal model” OR mouse OR dog OR bovine OR murine OR canine OR porcine OR rabbit OR pig OR rat OR primate PubMed Search

Gao Y, Gao S, Zhao B, Zhao Y, Hua X, Tan K, Liu Z. Vascular effects of microbubble-enhanced, pulsed, focused ultrasound on liver blood perfusion. *38:91-98.*

Vergari C, Pourcelot P, Ravary-Plumioen B, Dupays AG, Denoix JM, Mitton D, Laugier P, Crevier-Denoix N. First application of axial speed of sound to follow up injured equine tendons. *38:162-167.*

Johnson K, Cianciolo R, Gessner RC, Dayton PA. A pilot study to assess markers of renal damage in the rodent kidney after exposure to 7 MHz ultrasound pulse sequences designed to cause microbubble translation and disruption. *38:168-172.*

Barry CT, Mills B, Hah Z, Mooney RA, Ryan CK, Rubens DJ, Parker KJ. Shear wave dispersion measures liver steatosis. *38:175-182.*

Zhao X, Cai XZ, Shi ZL, Zhu FB, Zhao GS, Yan SG. Low-intensity pulsed ultrasound (LIPUS) may prevent polyethylene induced periprosthetic osteolysis in vivo. *38:238-246.*

Liu Z, Gao S, Zhao Y, Li P, Liu J, Tan K, Xie F. Disruption of tumor neovasculature by microbubble enhanced ultrasound:

- a potential new physical therapy of anti-angiogenesis. 38:253-261.
- Tobita K, Ohnishi I, Matsuyama J, Sakai R, Ohashi S, Ogawa K, Minagawa E, Miyasaka K, Nakamura K. Measurement of mechanical properties with respect to gap healing in a rabbit osteotomy model using echo tracking. 38:287-295.
- Ohashi S, Ohnishi I, Matsumoto T, Bessho M, Matsuyama J, Tobita K, Kaneko M, Nakamura K. Evaluation of the accuracy of articular cartilage thickness measurement by B-mode ultrasonography with conventional imaging and real-time spatial compound ultrasonography imaging. 38:324-334.
- Sveinsdottir S, Cinthio M, Ley D. High-frequency ultrasound in the evaluation of cerebral intraventricular haemorrhage in preterm rabbit pups. 38:423-431.
- Abdelrahman MA, Marston G, Hull MA, Markham AF, Jones PF, Evans JA, Coletta PL. High-frequency ultrasound for in vivo measurement of colon wall thickness in mice. 38:432-442.
- Wu H, Patel RB, Zheng Y, Solorio L, Krupka TM, Ziats NP, Haaga JR, Exner AA. Differentiation of benign periablational enhancement from residual tumor following radio-frequency ablation using contrast-enhanced ultrasonography in a rat subcutaneous colon cancer model. 38:443-453.
- Nam KH, Yeom E, Ha H, Lee SJ. Simultaneous measurement of red blood cell aggregation and whole blood coagulation using high-frequency ultrasound. 38:468-475.
- Chen CC, Sirsi SR, Homma S, Borden MA. Effect of surface architecture on in vivo ultrasound contrast persistence of targeted size-selected microbubbles. 38:492-503.
- Schellpfeffer MA, Kolesari GL. Microbubble contrast imaging of the cardiovascular system of the chick embryo. 38:504-510.
- Xu J, Tripathy S, Rubin JM, Stidham RW, Johnson LA, Higgins PD, Kim K. A new nonlinear parameter in the developed strain-to-applied strain of the soft tissues and its application in ultrasound elasticity imaging. 38:511-523.
- Mathieu V, Vayron R, Soffer E, Anagnostou F, Haiat G. Influence of healing time on the ultrasonic response of the bone-implant interface. 38:611-618.
- Park D, Ryu H, Kim HS, Kim YS, Choi KS, Park H, Seo J. Sonophoresis using ultrasound contrast agents for transdermal drug delivery: an in vivo experimental study. 38:642-650.
- Gessner RC, Streeter JE, Kothadia R, Feingold S, Dayton PA. An in vivo validation of the application of acoustic radiation force to enhance the diagnostic utility of molecular imaging using 3-d ultrasound. 38:651-660.
- Tang HL, Wang ZG, Li Q, Ran HT, Zheng YY, Ren JL, Ling ZY, Li A, Zhao B. Targeted delivery of bone mesenchymal stem cells by ultrasound destruction of microbubbles promotes kidney recovery in acute kidney injury. 38:661-669.
- Yan F, Li X, Jin Q, Chen J, Shandas R, Wu J, Li L, Ling T, Yang W, Chen Y, Liu X, Zheng H. Ultrasonic imaging of endothelial CD81 expression using CD81-targeted contrast agents in in vitro and in vivo studies. 38:670-680.
- Fung CH, Cheung WH, Pounder NM, de Ana FJ, Harrison A, Leung KS. Effects of different therapeutic ultrasound intensities on fracture healing in rats. 38:745-752.
- Lv F, Tang J, Luo Y, Ban Y, Wu R, Tian J, Yu T, Xie X, Li T. Muscle crush injury of extremity: quantitative elastography with supersonic shear imaging. 38:795-802.
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- Wu J, You J, Li L, Ma H, Jia J, Jiang G, Chen Z, Ye Y, Gong H, Bu L, Ge J, Zou Y. Early estimation of left ventricular systolic pressure and prediction of successful aortic constriction in a mouse model of pressure overload by ultrasound biomicroscopy. 38:1030-1039.
- Shimizu J, Fukuda T, Abe T, Ogihara M, Kubota J, Sasaki A, Azuma T, Sasaki K, Shimizu K, Oishi T, Umemura S, Furuhashi H. Ultrasound safety with midfrequency transcranial sonothrombolysis: preliminary study on normal macaca monkey brain. 38:1040-1050.
- Yang FY, Lin GL, Horng SC, Chen RC. Prenatal exposure to diagnostic ultrasound impacts blood-brain barrier permeability in rats. 38:1051-1057.
- Browning RJ, Mulvana H, Tang MX, Hajnal JV, Wells DJ, Eckersley RJ. Effect of albumin and dextrose concentration on ultrasound and microbubble mediated gene transfection in vivo. 38:1067-1077.
- Eveno C, Le Henaff C, Audollent R, Soyfer P, Rampanou A, Nemeth J, Brouland JP, Dupuy E, Pocard M, Bonnin P. Tumor and non-tumor liver angiogenesis is traced and evaluated by hepatic arterial ultrasound in murine models. 38:1195-1204.
- Lee J, Karshafian R, Papanicolau N, Giles A, Kolios MC, Czarnota GJ. Quantitative ultrasound for the monitoring of novel microbubble and ultrasound radiosensitization. 38:1212-1221.
- Huang Q, Deng J, Xie Z, Wang F, Chen S, Lei B, Liao P, Huang N, Wang Z, Cheng Y. Effective Gene Transfer into Central Nervous System Following Ultrasound-Microbubbles-Induced Opening of the Blood-Brain Barrier. 38:1234-1243.
- Gao QC, Fu X, Chen XY, Zeng JS, Huang RX. A method of evaluating the lower limit of cerebral autoregulation and its correlation with blood pressure by transcranial Doppler in rats. 38:1244-1250.
- Hirahara N, Ukimura O, Hayashi I, Kamoi K, Kawauchi A, Matsui M, Miki T. Measurement of postvoid residual urine in conscious mice using high-frequency transrectal ultrasound. 38:1357-1362.

- Xia JZ, Xie FL, Ran LF, Xie XP, Fan YM, Wu F. High-intensity focused ultrasound tumor ablation activates autologous tumor-specific cytotoxic T lymphocytes. *38:1363-1371*.
- Fan CH, Liu HL, Huang CY, Ma YJ, Yen TC, Yeh CK. Detection of intracerebral hemorrhage and transient blood-supply shortage in focused-ultrasound-induced blood-brain barrier disruption by ultrasound imaging. *38:1372-1382*.
- Mehrad H, Mokhtari-Dizaji M, Ghanaati H, Shahbazfar AA, Salehnia M. Ultrasonographic analysis versus histopathologic evaluation of carotid advanced atherosclerotic stenosis in an experimental rabbit model. *38:1391-1403*.
- Weijers G, Starke A, Thijssen JM, Haudum A, Wohlsein P, Rehage J, de Korte CL. Transcutaneous vs. Intraoperative Quantitative Ultrasound for Staging Bovine Hepatic Steatosis. *38:1404-1413*.
- Engelmann J, Vitto MF, Cesconetto PA, Silveira PC, Possato JC, Pinho RA, Paula MM, Victor EG, De Souza CT. Pulsed ultrasound and dimethylsulfoxide gel treatment reduces the expression of pro-inflammatory molecules in an animal model of muscle injury. *38:1470-1475*.
- Miller DL. Induction of pulmonary hemorrhage in rats during diagnostic ultrasound. *38:1476-1482*.
- Garvin RP, Duryee MJ, Klassen LW, Thiele GM, Anderson DR. Ultrasound Imaging in an Animal Model of Vascular Inflammation following Balloon Injury. *38:1552-1558*.
- Gennisson JL, Grenier N, Combe C, Tanter M. Supersonic Shear Wave Elastography of in vivo pig kidney: Influence of blood pressure, urinary pressure and tissue anisotropy. *38:1559-1567*.
- Kim H, Taghados SJ, Fischer K, Maeng LS, Park S, Yoo SS. Noninvasive Transcranial Stimulation of Rat Abducens Nerve by Focused Ultrasound. *38:1568-1575*.
- Faez T, Skachkov I, Versluis M, Kooiman K, de Jong N. In vivo Characterization of Ultrasound Contrast Agents: Microbubble Spectroscopy in a Chicken Embryo. *38:1608-1617*.
- Katayama M, Jiamsripong P, McMahan EM, Lombardi TR, Bukatina AE, Wu Q, Marler RJ, Belohlavek M. Detection of Progressive Myocardial Tissue Injury by Ultrasonic Integrated Backscatter Immediately After Coronary Reperfusion. *38:1662-1669*.
- Treat LH, McDannold N, Zhang Y, Vykhodtseva N, Hynynen K. Improved Anti-Tumor Effect of Liposomal Doxorubicin After Targeted Blood-Brain Barrier Disruption by MRI-Guided Focused Ultrasound in Rat Glioma. *38:1716-1725*.
- Luk HK, Lai YM, Qin L, Huang Y-P, Zheng Y-P. Computed Radiographic and Ultrasonic Evaluation of Bone Regeneration During Tibial Distraction Osteogenesis in Rabbits. *38:1744-1758*.
- Wang Z, Cao T-s, Yuan L-j, Yang Y, Liu J, Zhao L-b, Duan Y-y. New Method for Quantifying and Correcting Underestimated Cardiac Doppler Blood Flow Velocities: In Vitro and In Vivo Studies. *38:1778-1783*.
- Dave JK, Halldorsdottir VG, Eisenbrey JR, Merton DA, Liu J-B, Zhou J-H, Wang H-K, Park S, Dianis S, Chalek CL, Lin F, Thomenius KE, Brown DB, Forsberg F. Investigating the Efficacy of Subharmonic Aided Pressure Estimation for Portal Vein Pressures and Portal Hypertension Monitoring. *38:1784-1798*.
- Shi B, Zhu H, Liu Y-J, Lü L, Jin C-b, Ran L-f, Zhou K, Yang W, Wang Z-b, Mei Z-c. Experimental Studies and Clinical Experiences on Treatment of Secondary Hypersplenism with Extracorporeal High-Intensity Focused Ultrasound. *38:1911-1917*.
- Liu J, Xiao S, Wu S, Ou W, He J, Gao S, Liu Z. Disruption of Splenic Circulation Using Microbubble-Enhanced Ultrasound and Prothrombin: A Preliminary Study. *38:1930-1937*.
- Liao A-H, Li Y-K, Lee W-J, Wu M-F, Liu H-L, Kuo M-L. Estimating the Delivery Efficiency of Drug-Loaded Microbubbles in Cancer Cells with Ultrasound and Bioluminescence Imaging. *38:1938-1948*.
- Zeng H, Wang J, Xie W, Liu W, Wen H. Assessment of Early Hepatic Echinococcus Multilocularis Infection in Rats with Real-Time Contrast-Enhanced Ultrasonography. *38:1982-1988*.
- Wang BK, Andrei; Yeager, Doug; Amirian, James; Litovsky, Silvio; Smalling, Richard; Emelianov, Stanislav. In vivo intravascular ultrasound-guided photoacoustic imaging of lipid in plaques using an animal model of atherosclerosis. *38:2098-2103*.
- Cheung W-H, Sun M-H, Zheng Y-P, Chu WC-W, Leung AH-C, Qin L, Wei F-Y, Leung K-S. Stimulated Angiogenesis for Fracture Healing Augmented by Low-Magnitude, High-Frequency Vibration in A Rat Model, Evaluation of Pulsed-Wave Doppler, 3-D Power Doppler Ultrasonography and Micro-CT Microangiography. *38:2120-2129*.
- Kemmerer JP, Oelze ML. Ultrasonic Assessment of Thermal Therapy in Rat Liver. *38:2130-2137*.
- Du Y-H, Zou J-Z, Bai J, Zhan Y, Wu F, Wang Z-B. Focused-Ultrasound Termination of an Early Pregnancy in Rhesus Macaques (*Macaca mulatta*): A Pilot Study. *38:2138-2142*.
- Jeong E-J, Seo S-J, Ahn Y-J, Choi K-H, Kim K-H, Kim J-K. Sonodynamically Induced Antitumor Effects of 5-Aminolevulinic Acid and Fractionated Ultrasound Irradiation in an Orthotopic Rat Glioma Model. *38:2143-2150*.
- Ghoshal G, Lavarello RJ, Kemmerer JP, Miller RJ, Oelze ML. Ex vivo Study of Quantitative Ultrasound Parameters in Fatty Rabbit Livers. *38:2238-2248*.

Arrays

Synonyms: phased array, beam steering, compound imaging
Scopus Search: array* OR "phased array*" OR "beam steering" OR compound* OR "multi* element" OR "beam forming" PubMed Search

See also: transducers

Hemmsen MC, Hansen PM, Lange T, Hansen JM, Hansen KL, Nielsen MB, Jensen JA. In vivo evaluation of synthetic aperture sequential beamforming. *38:708-716*.

Light ED, Lindsey BD, Upchurch JA, Smith SW. Ring array transducers for real-time 3-d imaging of an atrial septal occluder. *38:1483-1487*.

van Neer PLMJ, Blaak S, Bosch JG, Lancee CT, Prins C, van der Steen AFW, de Jong N. Mode Vibrations of a Matrix Transducer for Three-Dimensional Second Harmonic Transesophageal Echocardiography. *38:1820-1832*.

Zhao H, Song P, Urban MW, Greenleaf JF, Chen S. Shear Wave Speed Measurement Using an Unfocused Ultrasound Beam. *38:1646-1655*.

Artefacts

See **image artifacts**

Atherosclerosis

Synonyms: vascular disease, atheromatous plaque, arterial hardening

Scopus Search: Atherosclerosis OR plaque OR stenosis OR "vascular disease" OR atheromatous OR "arter* hardening"

PubMed Search

See also: **blood vessels, aneurysm**

Martinez-Sanchez P, Fernandez-Dominguez J, Ruiz-Ares G, Fuentes B, Alexandrov AV, Diez-Tejedor E. Changes in carotid plaque echogenicity with time since the stroke onset: an early marker of plaque remodeling? *38:231-237*.

Ershova AI, Balakhonova TV, Meshkov AN, Rozhkova TA, Boytsov SA. Ultrasound markers that describe plaques are more sensitive than mean intima-media thickness in patients with familial hypercholesterolemia. *38:417-422*.

Nassar H, Furukado S, Tanaka M, Miwa K, Okazaki S, Sakaguchi M, Mochizuki H, Kitagawa K. The relation between carotid plaque echogenicity and oxidative stress marker 8-iso-prostaglandin F2alpha. *38:487-491*.

Niu L, Qian M, Song R, Meng L, Liu X, Zheng H. A texture matching method considering geometric transformations in noninvasive ultrasonic measurement of arterial elasticity. *38:524-533*.

Yan F, Li X, Jin Q, Chen J, Shandas R, Wu J, Li L, Ling T, Yang W, Chen Y, Liu X, Zheng H. Ultrasonic imaging of endothelial CD81 expression using CD81-targeted contrast agents in in vitro and in vivo studies. *38:670-680*.

Acharya UR, Sree SV, Krishnan MM, Molinari F, Saba L, Ho SY, Ahuja AT, Ho SC, Nicolaides A, Suri JS. Atherosclerotic risk stratification strategy for carotid arteries using texture-based features. *38:899-915*.

Buchanan DN, Lindenmaier T, McKay S, Bureau Y, Hackam DG, Fenster A, Parraga G. The relationship of carotid three-dimensional ultrasound vessel wall volume with age and sex: comparison to carotid intima-media thickness. *38:1145-1153*.

Mehrad H, Mokhtari-Dizaji M, Ghanaati H, Shahbazfar AA, Salehnia M. Ultrasonographic analysis versus histopathologic evaluation of carotid advanced atherosclerotic stenosis in an experimental rabbit model. *38:1391-1403*.

Garvin RP, Duryee MJ, Klassen LW, Thiele GM, Anderson DR. Ultrasound Imaging in an Animal Model of Vascular Inflammation following Balloon Injury. *38:1552-1558*.

Zahnd G, Vray D, Sérusclat A, Alibay D, Bartold M, Brown A, Durand M, Jamieson LM, Kapellas K, Maple-Brown LJ, O'Dea K, Moulin P, Celermajer DS, Skilton MR. Longitudinal Displacement of the Carotid Wall and Cardiovascular Risk Factors: Associations with Aging, Adiposity, Blood Pressure and Periodontal Disease Independent of Cross-Sectional Distensibility and Intima-Media Thickness. *38:1705-1715*.

Idzenga T, Reesink KD, van Swelm Y, Hansen HHG, Holewijn S, de Korte CL. Noninvasive Estimation of the Blood Pressure Waveform in the Carotid Artery Using Continuous Finger Blood Pressure Monitoring. *38:1998-2006*.

Hoogi A, Akkus Z, van den Oord SCH, ten Kate GL, Schinkel AFL, Bosch JG, de Jong N, Adam D, van der Steen AFW. Quantitative Analysis of Ultrasound Contrast Flow Behavior in Carotid Plaque Neovasculature. *38:2072-2083*.

Le Floc'h SC, Guy; Saijo, Yoshifumi; Finet, Gerard; Yazdani, Saami; Deleaval, Flavien; Rioufol, Gilles; Pettigrew, Roderic; Ohayon, Jacques. A Four-Criterion Selection Procedure for Atherosclerotic Plaque Elasticity Reconstruction based on in Vivo Coronary Intravascular Ultrasound Radial Strain Sequences. *38:2084-2097*.

Wang BK, Andrei; Yeager, Doug; Amirian, James; Litovsky, Silvio; Smalling, Richard; Emelianov, Stanislav. In vivo intravascular ultrasound-guided photoacoustic imaging of lipid in plaques using an animal model of atherosclerosis. *38:2098-2103*.

Kemmerer JP, Oelze ML. Ultrasonic Assessment of Thermal Therapy in Rat Liver. *38:2130-2137*.

Lin W, Serra-Hsu F, Cheng J, Qin Y-X. Frequency Specific Ultrasound Attenuation is Sensitive to Trabecular Bone Structure. *38:2198-2207*.

Idzenga T, Holewijn S, Hansen HHG, de Korte CL. Estimating Cyclic Shear Strain in the Common Carotid Artery Using Radiofrequency Ultrasound. *38:2229-2237*.

Ghoshal G, Lavarello RJ, Kemmerer JP, Miller RJ, Oelze ML. Ex vivo Study of Quantitative Ultrasound Parameters in Fatty Rabbit Livers. *38:2238-2248*.

Attenuation

Synonyms: BUA

Scopus Search: attenuat* OR BUA PubMed Search

Duchateau ND, Adelina; Silva, Etelvino; De Craene, Mathieu; Piella, Gemma; Angeles Castel, Maria; Mont, Lluis; Brugada, Josep; Frangi, Alejandro; Sitges, Marta. Atlas-based

Quantification of Myocardial Motion Abnormalities: added-value for Understanding the effect of Cardiac Resynchronization Therapy. *38:2186-2197.*

Barry CT, Mills B, Hah Z, Mooney RA, Ryan CK, Rubens DJ, Parker KJ. Shear wave dispersion measures liver steatosis. *38:175-182.*

Browning RJ, Mulvana H, Tang MX, Hajnal JV, Wells DJ, Eckersley RJ. Effect of albumin and dextrose concentration on ultrasound and microbubble mediated gene transfection in vivo. *38:1067-1077.*

Helfield BL, Huo X, Williams R, Goertz DE. The Effect of Preactivation Vial Temperature on the Acoustic Properties of Definity(TM). *38:1298-1305.*

Mulvana H, Browning RJ, Tang MX, Hajnal JV, Eckersley RJ. Albumin Coated Microbubble Optimization: Custom Fabrication and Comprehensive Characterization. *38:1599-1607.*

Mulvana H, Eckersley RJ, Tang MX, Pankhurst Q, Stride E. Theoretical and experimental characterisation of magnetic microbubbles. *38:864-875.*

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Weijers G, Starke A, Thijssen JM, Haudum A, Wohlsein P, Rehage J, de Korte CL. Transcutaneous vs. Intraoperative Quantitative Ultrasound for Staging Bovine Hepatic Steatosis. *38:1404-1413.*

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Backscatter

Synonyms: back scatter, backscattering

Scopus Search: Backscatter* OR "Back scatter*" OR Nakagami PubMed Search

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Bacteria

Synonyms: biofilms, infection

Scopus Search: Bacteria* OR biofilm OR bio-film OR infectio* PubMed Search

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Beam focusing

Synonyms: beam forming, dynamic focusing

Scopus Search: Beam AND focus*ing OR forming OR "dynamic focusing" PubMed Search

See also: arrays

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Biological effects

Synonyms: Bioeffects, Biochemical effect

Scopus Search: "bio*effect*" PubMed Search

See also: toxicity, thermal effects

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Short-Burst Microbubble Oscillations and Vascular
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Biometrics

Synonyms: Identification

Scopus Search: “bio*metric*” PubMed Search

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thickness accurately predicts total and segmental body fat of
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Blood perfusion

Synonyms: tissue perfusion, vascularity

Scopus Search: Blood OR tissue AND perfusion OR
vascularity OR “flash replenishment” PubMed Search

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Blood flow

Synonyms: haemodynamics, venous reflux

Scopus Search: “Blood flow” OR “h*emodynamic*(s)” OR
“venous reflux” OR “flow index” PubMed Search

See also: Doppler

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Recordings: A Simple Doppler-based Method. 38:1546-1551.

Beach KW. Blood in Motion. 38:1670

Blood pressure

Synonyms: hypertension, hypotension, vascular pressure,
arterial pressure

Scopus Search: “Blood pressure” OR hypertension OR
hypotension OR “vascular pressure” OR “arterial pressure”
PubMed Search

See also: hypertension

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Vein Pressures and Portal Hypertension Monitoring.
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Cyclic Shear Strain in the Common Carotid Artery Using
Radiofrequency Ultrasound. 38:2229-2237.

Blood vessel

Synonyms: artery, vein, capillary, vascular

Scopus Search: “blood vessel” OR artery OR vein OR
capillary OR vascular PubMed Search

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Blood-brain barrier

Synonyms: BBB

Scopus Search: "blood-brain barrier" OR BBB OR "tight junctions" OR fenestrations PubMed Search

See also: thrombolysis, transcranial ultrasound

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Bone

Synonyms: osteo-

Scopus Search: bone OR trabecular OR cortical OR osteo* PubMed Search

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Bone density measurement

Synonyms: Calcaneal quantitative ultrasound, bone mineral density test, bone mass measurement

Scopus Search: "bone density measurement" OR "Calcaneal quantitative ultrasound" OR "bone mineral density test" OR "bone mass measurement" PubMed Search

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Brain

Synonyms: cerebral, cerebrovascular, cerebrum

Scopus Search: Brain OR cerebr* OR neurosurgery PubMed Search

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- Breast**
Synonyms: mammary glands
Scopus Search: Breast OR Mamm* PubMed Search
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- C**
- Calibration**
Synonyms: standards, metrology, quality assurance
Scopus Search: calibration OR standard* OR metrology OR quality assurance PubMed Search
See also: dosimetry, exposimetry, safety, instrumentation
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- Cancer**
Synonyms: tumor
Scopus Search: cancer* PubMed Search
See also: tumor
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Cardiology

Synonyms: heart, cardiography

Scopus Search: Cardi* OR myocardi* OR heart OR ECG OR ventricular OR atrial PubMed Search

See also: echocardiography

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Cartilage

Scopus Search: cartilage OR articular OR chondrogenesis OR chondrocyte OR fibrocartilage OR hyaline OR "elastic cartilage" PubMed Search

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Cavitation

Synonyms: bubble dynamics, acoustic cavitation, bubble collapse

Scopus Search: cavitation OR inertial OR transient OR "bubble collapse" PubMed Search

See also: contrast agents

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Cavitation detection

Synonyms: Broadband Noise, ACD, PCD

Scopus Search: "Cavitation detect*" OR "Passive Cavitation Detect*" OR "Active cavitation detect*" OR "Broadband Noise" OR PCD OR ACD PubMed Search

See also: instrumentation

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See also: drug delivery

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See also: liver

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Synonyms: Clinical study, clinical trial

Scopus Search: Clinical AND study OR trial PubMed Search

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Coded pulse excitation

Synonyms: pulse compression, coded excitation, chirped excitation, pulse coding, phase codes, compression codes, Barker codes, Golay codes, complementary sequences, m-sequences

Scopus Search: "Coded pulse excitation" OR Barker OR Golay OR "pulse compression" OR "coded excitation" OR chirp* OR "phase codes" OR "compression codes" OR "m-sequences" OR "pulse coding" PubMed Search

Color flow techniques

Synonyms: color velocity imaging, color Doppler

Scopus Search: color OR colour AND velocity OR flow PubMed Search

See also: Doppler

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Compliance

Synonyms: adherence, observance

Scopus Search: Compliance OR Adherence OR Observance PubMed Search

See also: Drug delivery

Computed tomography

Synonyms: ultrasonic tomography, CT

Scopus Search: tomography OR CT PubMed Search

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Computer aided diagnosis (CAD) system

Synonyms: CAD, automated analysis, automatic classification, automatic thresholding, artificial intelligence

Scopus Search: "Computer-Aided Diagnosis" OR CAD OR "automa* analysis" OR "automa* classification" OR "automa* thresholding" PubMed Search

See also: Ultrasound guided surgery, feature detection

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Contrast agents

Synonyms: Contrast media, microbubbles

Scopus Search: Contrast AND agent* OR medi* OR microbubble* OR "micro-bubble*" OR Optison OR Sonovue OR Levovist OR Quantison OR Definity PubMed Search

See also: cavitation, contrast enhanced ultrasound

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Contrast enhanced ultrasound

Synonyms: contrast echocardiography, contrast ultrasound, contrast sonography, contrast-enhanced, CEUS

Scopus Search: “contrast enhanc*” PubMed Search

See also: Doppler, contrast agents, harmonic imaging

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Coupling agents

Scopus Search: “Coupling agent*” OR “Coupling Gel” PubMed Search

Critical angle reflectometry

Synonyms: UCR

Scopus Search: “critical angle” OR UCR PubMed Search

D**Dental**

Synonyms: teeth

Scopus Search: Dent* OR t* PubMed Search OR enamel

Derated values*Synonyms:* derating*Scopus Search:* [derat* PubMed Search](#)*See also:* **thermal effects****Diffusion***Synonyms:* Acoustically driven diffusion*Scopus Search:* [Diffusion PubMed Search](#)**Dispersion***Synonyms:* speed of sound dispersion*Scopus Search:* [dispersion PubMed Search](#)*See also:* **velocity**

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Jeong E-J, Seo S-J, Ahn Y-J, Choi K-H, Kim K-H, Kim J-K. Sonodynamically Induced Antitumor Effects of 5-Aminolevulinic Acid and Fractionated Ultrasound Irradiation in an Orthotopic Rat Glioma Model. *38:2143-2150.*

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E

Echocardiography

Synonyms: cardiac imaging, sonocardiography

Scopus Search: echocard* OR "card* imaging" OR "card* ultraso*" OR sonocard* PubMed Search

See also: **cardiology, contrast enhanced ultrasound**

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Editorial

Elastography

Synonyms: elasticity imaging, strain imaging, sonoelastography, vibro-acoustography

Scopus Search: *elastography OR "elastic* imaging" OR "strain imaging" OR "vibro*acoustography" OR "Modulus Contrast" PubMed Search

See also: **Tissue elasticity**

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Tzschatzsch H, Elgeti T, Rettig K, Kargel C, Klaua R, Schultz M, Braun J, Sack I. In Vivo time harmonic elastography of the human heart. *38:214-222.*

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Kim JK, Baek JH, Lee JH, Kim JL, Ha EJ, Kim TY, Kim WB, Shong YK. Ultrasound Elastography for Thyroid Nodules: A Reliable Study? *38:1508-1513.*

Gennisson JL, Grenier N, Combe C, Tanter M. Supersonic Shear Wave Elastography of in vivo pig kidney: Influence of blood pressure, urinary pressure and tissue anisotropy. *38:1559-1567.*

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Bernal MG, Jean-Luc; Flaud, Patrice; Tanter, Mickael. Shear wave elastography quantification of blood elasticity during clotting. *38:2218-2228.*

Emboli detection

Synonyms: embolic signal, microembolic signal, embolus, embolism

Scopus Search: embol* OR occlusion OR clot PubMed Search

See also: thrombolysis

Zmigrodzki J, Kaluzynski K. New microembolus size estimator for peripheral blood vessels. *38:454-467.*

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Endometriosis

Scopus Search: endometr* PubMed Search

Endorectal ultrasonography

Synonyms: transrectal

Scopus Search: *rectal PubMed Search

Wang Y, Zhou CW, Hao YZ, Li L, Liu SM, Feng XL, Zhou ZX, Leung VY. Improvement in T-staging of rectal carcinoma: using a novel endorectal ultrasonography

technique with sterile coupling gel filling the rectum. *38:574-579.*

Endoscopic ultrasonography

Synonyms: EUS

Scopus Search: "Endoscopic" OR "EUS" PubMed Search

Entropy-Based Imaging

Scopus Search: Entrop* PubMed Search

Errata

Erratum. *38:1849.*

Exposimetry

Scopus Search: expos* PubMed Search

See also: dosimetry, mechanical index, safety, thermal effects

Eyes

Synonyms: ocular, retinal, cornea

Scopus Search: eye* OR ocular OR retina* OR cornea* PubMed Search

See also: ophthalmology

F

Feature detection

Synonyms: Feature selection, Feature tracking, Feature Extraction, Feature selection, Edge detection, Contour detection, Boundary Delineation, Pattern recognition, Pattern classification, Automated tracking, virtual histology
Scopus Search: "Feature detection" OR "Feature selection" OR "Feature tracking" OR "Feature Extraction" OR "Feature selection" OR "Edge detection" OR "Contour detection" OR "Boundary Delineation" OR "Pattern recognition" OR "Pattern classification" OR "automated tracking" OR "virtual histology" PubMed Search

See also: Computer aided diagnosis (CAD) system, image processing, principle components analysis

Shan J, Cheng HD, Wang Y. Completely automated segmentation approach for breast ultrasound images using multiple-domain features. *38:262-275.*

Finite amplitude effects

Scopus Search: "finite amplitude" PubMed Search

See also: nonlineareffects, shock waves

Flow visualisation

Synonyms: flowmetry, particle image velocimetry, PIV

Scopus Search: "flow visualisation" OR "flowmetry" OR "particle image velocimetry" OR PIV PubMed Search

See also: Doppler

Fracture healing

Synonyms: regeneration

Scopus Search: Fracture AND healing OR regen* PubMed Search

See also: bone, healing

Fung CH, Cheung WH, Pounder NM, de Ana FJ, Harrison A, Leung KS. Effects of different therapeutic ultrasound intensities on fracture healing in rats. 38:745-752.

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Cheung W-H, Sun M-H, Zheng Y-P, Chu WC-W, Leung AH-C, Qin L, Wei F-Y, Leung K-S. Stimulated Angiogenesis for Fracture Healing Augmented by Low-Magnitude, High-Frequency Vibration in A Rat Model, Evaluation of Pulsed-Wave Doppler, 3-D Power Doppler Ultrasonography and Micro-CT Microangiography. 38:2120-2129.

G

Gall bladder

Synonyms: gallbladder, hepatobiliary, cholecyst

Scopus Search: "Gall*bladder" OR hepatobiliary OR cholecyst PubMed Search

Yu MH, Lee JY, Yoon JH, Baek JH, Han JK, Choi BI. Color Doppler Twinkling Artifacts from Gallbladder Adenomyomatosis with 1.8 MHz and 4.0 MHz Color Doppler Frequencies. 38:1188-1194.

Gastroenterology

Synonyms: Gastrointestinal Tract, gastric, digestive system, oesophageal

Scopus Search: Gastr* AND digestive OR oesophag* OR esophag* PubMed Search

See also: liver, pancreas

Abdelrahman MA, Marston G, Hull MA, Markham AF, Jones PF, Evans JA, Coletta PL. High-frequency ultrasound for in vivo measurement of colon wall thickness in mice. 38:432-442.

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Kim J-H, Kim M-S. Lateral Pharyngeal Wall Motion Analysis Using Ultrasonography in Stroke Patients with Dysphagia. 38:2058-2064.

Gene therapy

Synonyms: gene delivery, Gene transfection, Gene transfer

Scopus Search: gene AND therapy OR transfection OR transfer PubMed Search

Ando T, Sato S, Ashida H, Obara M. Propagation characteristics of photomechanical waves and their application to gene delivery into deep tissue. 38:75-84.

Liu Y, Yan J, Prausnitz MR. Can ultrasound enable efficient intracellular uptake of molecules? A retrospective literature review and analysis. 38:876-888.

Zheng MM, Zhou XY, Wang LP, Wang ZG. Experimental research of RB94 gene transfection into retinoblastoma cells using ultrasound-targeted microbubble destruction. 38:1058-1066.

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Campos-Guillen J, Fernandez F, Pastrana X, Loske AM. Relationship between plasmid size and shock wave-mediated bacterial transformation. 38:1078-1084.

Huang Q, Deng J, Xie Z, Wang F, Chen S, Lei B, Liao P, Huang N, Wang Z, Cheng Y. Effective Gene Transfer into Central Nervous System Following Ultrasound-Microbubbles-Induced Opening of the Blood-Brain Barrier. 38:1234-1243.

Genitourinary

Synonyms: urinary tract, bladder, urodynamics, reproductive system, pelvis

Scopus Search: Genitourinary OR urin* OR urodynamic* OR bladder OR reproduc* OR pelvi* PubMed Search

See also: prostate, testis, uterus

Winkel RR, Kalhauge A, Fredfeldt KE. The usefulness of ultrasound colour-Doppler twinkling artefact for detecting urolithiasis compared with low dose nonenhanced computerized tomography. 38:1180-1187.

Hirahara N, Ukimura O, Hayashi I, Kamoi K, Kawauchi A, Matsui M, Miki T. Measurement of postvoid residual urine in conscious mice using high-frequency transrectal ultrasound. 38:1357-1362.

Geriatric

Synonyms: aged, elderly, aging population, old

Scopus Search: Geriatric* OR age* OR elder* OR old PubMed Search

H**Harmonic Imaging**

Synonyms: Tissue harmonic imaging (TIH), phase inversion harmonic imaging (PIHI), second harmonic imaging, subharmonic imaging, pulse inversion, nonlinear imaging

Scopus Search: “second Harmonic” OR “2nd Harmonic” OR “TIH” OR “PIHI” OR “phase inversion” OR “pulse inversion” OR “Harmonic Imaging” OR “Nonlinear imaging” OR “sub*harmonic” PubMed Search

See also: contrast enhanced imaging

Tzschatzsch H, Elgeti T, Rettig K, Kargel C, Klaua R, Schultz M, Braun J, Sack I. In Vivo time harmonic elastography of the human heart. *38:214-222*.

Dave JK, Halldorsdottir VG, Eisenbrey JR, Merton DA, Liu J-B, Zhou J-H, Wang H-K, Park S, Dianis S, Chalek CL, Lin F, Thomenius KE, Brown DB, Forsberg F. Investigating the Efficacy of Subharmonic Aided Pressure Estimation for Portal Vein Pressures and Portal Hypertension Monitoring. *38:1784-1798*.

Healing

Synonyms: regeneration, regenerative

Scopus Search: healing OR regener* PubMed Search

See also: fracture healing

Vergari C, Pourcelot P, Ravary-Plumioen B, Dupays AG, Denoix JM, Mitton D, Laugier P, Crevier-Denoix N. First application of axial speed of sound to follow up injured equine tendons. *38:162-167*.

Mathieu V, Vayron R, Soffer E, Anagnostou F, Haiat G. Influence of healing time on the ultrasonic response of the bone-implant interface. *38:611-618*.

Liu S, Zhai L, Shi Z, Jing R, Zhao B, Xing G. Radial extracorporeal pressure pulse therapy for the primary long bicipital tenosynovitis a prospective randomized controlled study. *38:727-735*.

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Foldager CB, Kearney C, Spector M. Clinical Application of Extracorporeal Shock Wave Therapy in Orthopedics: Focused versus Unfocused Shock Waves. *38:1673-1680*.

Ito A, Aoyama T, Yamaguchi S, Zhang X, Akiyama H, Kuroki H. Low-Intensity Pulsed Ultrasound Inhibits Messenger RNA Expression of Matrix Metalloproteinase-13 Induced by Interleukin-1 β in Chondrocytes in an Intensity-Dependent Manner. *38:1726-1733*.

Luk HK, Lai YM, Qin L, Huang Y-P, Zheng Y-P. Computed Radiographic and Ultrasonic Evaluation of Bone Regeneration During Tibial Distraction Osteogenesis in Rabbits. *38:1744-1758*.

Xing JZ, Yang X, Xu P, Ang WT, Chen J. Ultrasound-Enhanced Monoclonal Antibody Production. *38:1949-1957*.

Hemorrhage

Synonyms: bleeding, trauma

Scopus Search: H*emorrhage OR Bleed* OR trauma PubMed Search

Fan CH, Liu HL, Huang CY, Ma YJ, Yen TC, Yeh CK. Detection of intracerebral hemorrhage and transient blood-supply shortage in focused-ultrasound-induced blood-brain barrier disruption by ultrasound imaging. *38:1372-1382*.

Miller DL. Induction of pulmonary hemorrhage in rats during diagnostic ultrasound. *38:1476-1482*.

Hemostasis

Synonyms: stenosis, coagulation, clotting

Scopus Search: H*emostasis OR h*emostatic OR Occlusion OR stenosis OR coagulation OR clot* PubMed Search

Nam KH, Yeom E, Ha H, Lee SJ. Simultaneous measurement of red blood cell aggregation and whole blood coagulation using high-frequency ultrasound. *38:468-475*.

High frequency ultrasound

Synonyms: high resolution

Scopus Search: “high frequency” OR “high resolution” PubMed Search

See also: acoustic microscopy

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High intensity focused ultrasound

Synonyms: Focused ultrasound surgery, HIFU, FUS, thermal ablation

Scopus Search: “high intensity focused ultrasound” OR “Focused ultrasound surgery” OR HIFU OR FUS OR ablat* PubMed Search

See also: hyperthermia, thermal effects

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Historical review

Histotripsy

Synonyms: pulsed ultrasound cavitation therapy

Scopus Search: Histotripsy OR “cav* therapy” PubMed Search

See also: Cavitation

Wang TY, Xu Z, Hall TL, Fowlkes JB, Cain CA. An efficient treatment strategy for histotripsy by removing cavitation memory. *38:753-766.*

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Hyperthermia

Synonyms: thermotherapy

Scopus Search: Hyperthermia OR thermotherapy PubMed Search

See also: High intensity Focused Ultrasound, thermal effects

I

Image artifacts

Synonyms: artefacts, shadowing, imaging errors, defocusing, aliasing, distortion, afterglow, duplication

Scopus Search: art*facts OR shadow* PubMed Search

See also: speckle, image processing

Kate GL, Renaud GG, Akkus Z, Oord SC, Cate FJ, Shamdasani V, Entrekin RR, Sijbrands EJ, Jong N, Bosch JG, Schinkel AF, Steen AF. Far-wall pseudoenhancement during contrast-enhanced ultrasound of the carotid arteries: clinical description and in vitro reproduction. *38:593-600.*

Hassani H, Raynal G, Spie R, Daudon M, Vallee JN. Imaging-based assessment of the mineral composition of urinary stones: an in vitro study of the combination of hounsfield unit measurement in noncontrast helical computerized tomography and the twinkling artifact in color Doppler ultrasound. *38:803-810.*

Soldati G, Inchingolo R, Smargiassi A, Sher S, Nenna R, Inchingolo CD, Valente S. Ex Vivo lung sonography: morphologic-ultrasound relationship. *38:1169-1179.*

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Cardoso FM, Matsumoto MM, Furuie SS. Edge-preserving speckle texture removal by interference-based speckle filtering followed by anisotropic diffusion. *38:1414-1428.*

Gao J, Hentel K, Rubin JM. Correlation between Twinkling Artifact and Color Doppler Carrier Frequency: Preliminary Observations in Renal Calculi. *38:1534-1539.*

Image processing

Synonyms: filtering, averaging, denoising, decluttering, image enhancement, attenuation correction

Scopus Search: “image processing” OR Filter* OR averag* OR denois* OR *clutter OR “image enhance*” OR “attenuation correction” PubMed Search

See also: **adaptive filtering, feature detection, principle components analysis, speckle, computer aided diagnosis**

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Damodaran N, Ramamurthy S, Velusamy S, Manickam GK. Speckle noise reduction in ultrasound biomedical B-scan images using discrete topological derivative. *38:276-286.*

Niu L, Qian M, Song R, Meng L, Liu X, Zheng H. A texture matching method considering geometric transformations in noninvasive ultrasonic measurement of arterial elasticity. *38:524-533.*

Image reconstruction

Synonyms: compound imaging, compounding, spatial compound sonography (SONOCT), mapping, surface reconstruction, volume reconstruction

Scopus Search: reconstruction OR compound* OR SONOCT OR map* PubMed Search

Ohashi S, Ohnishi I, Matsumoto T, Bessho M, Matsuyama J, Tobita K, Kaneko M, Nakamura K. Evaluation of the accuracy of articular cartilage thickness measurement by B-mode ultrasonography with conventional imaging and real-time spatial compound ultrasonography imaging. *38:324-334.*

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Image segmentation

Synonyms: Partitioning Clustering

Scopus Search: segmentation OR Partitioning OR Clustering PubMed Search

See also: **computer aided diagnosis, image processing**

Tian JW, Ning CP, Guo YH, Cheng HD, Tang XL. Effect of a novel segmentation algorithm on radiologists' diagnosis of breast masses using ultrasound imaging. *38:119-127.*

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Shan J, Cheng HD, Wang Y. Completely automated segmentation approach for breast ultrasound images using multiple-domain features. *38:262-275.*

Image registration

Synonyms: correlation, recorrelation, fusion

Scopus Search: registration OR *correlation OR fusion PubMed Search

See also: **image processing**

Chen HC, Tsai PY, Huang HH, Shih HH, Wang YY, Chang CH, Sun YN. Registration-based segmentation of three-dimensional ultrasound images for quantitative measurement of fetal craniofacial structure. *38:811-823.*

Immunotherapy

Synonyms: immune response

Scopus Search: immun* PubMed Search

See also: **biological effects**

Instrumentation

Synonyms: scanning systems, imaging hardware

Scopus Search: instrument* OR scann* OR hardware PubMed Search

See also: **arrays, transducers**

Hazard C, Hah Z, Rubens D, Parker K. Integration of crawling waves in an ultrasound imaging system. Part 1: system and design considerations. *38:296-311.*

Intravascular ultrasound

Synonyms: IVUS

Scopus Search: intravascular OR IVUS PubMed Search

See also: **blood vessels**

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Cardoso FM, Moraes MC, Furuie SrS. Realistic IVUS Image Generation in Different Intraluminal Pressures. *38:2104-2119.*

Ischemia

Synonyms: ischaemia

Scopus Search: isch*emia OR isch*emic PubMed Search

See also: **thrombolysis, atherosclerosis, blood perfusion**

K**Kidney**

Synonyms: nephrology, renal

Scopus Search: kidney OR neph* OR renal PubMed Search

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Tang HL, Wang ZG, Li Q, Ran HT, Zheng YY, Ren JL, Ling ZY, Li A, Zhao B. Targeted delivery of bone mesenchymal stem cells by ultrasound destruction of microbubbles promotes kidney recovery in acute kidney injury. *38:661-669.*

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Zywiec J, Pluskiewicz W, Adamczyk P, Skubala A, Gumprecht J. Phalangeal quantitative ultrasound measurements in chronic hemodialysis patients: a 4-year follow-up. *38:962-971.*

Gao J, Hentel K, Rubin JM. Correlation between Twinkling Artifact and Color Doppler Carrier Frequency: Preliminary Observations in Renal Calculi. *38:1534-1539.*

Gennisson JL, Grenier N, Combe C, Tanter M. Supersonic Shear Wave Elastography of in vivo pig kidney: Influence of blood pressure, urinary pressure and tissue anisotropy. *38:1559-1567.*

Lu Q, Wang W, Huang B, Li C, Li C. Minimal Fat Renal Angiomyolipoma: The Initial Study with Contrast-Enhanced Ultrasonography. *38:1896-1901.*

L

Letters to the editor

Namazi H. Low-Intensity Pulsed Ultrasound (LIPUS) May Prevent Polyethylene Induced Periprosthetic Osteolysis In Vivo: A Novel Molecular Mechanism. *38:1845.*

Zhao X, Yan S-G. Response to the Letter to the Editor-in-Chief on Manuscript Entitled: Low-Intensity Pulsed Ultrasound (LIPUS) May Prevent Polyethylene Induced Periprosthetic Osteolysis In Vivo: A Novel Molecular Mechanism. *38:1845-1847.*

Ligament

Synonyms: Connective tissue, Collagen

Scopus Search: Ligament OR Collagen OR “Connective tissue” PubMed Search

See also: tendon

Shen ZL, Li ZM. Ultrasound assessment of transverse carpal ligament thickness: a validity and reliability study. *38:982-988.*

Liposomes

Synonyms: vesicle, reverse micelle

Scopus Search: Liposome* OR vesicle* OR micelle PubMed Search

See also: contrast agents, drug delivery

Afadzi M, Davies Cde L, Hansen YH, Johansen T, Standal OK, Hansen R, Masoy SE, Nilssen EA, Angelsen B. Effect of ultrasound parameters on the release of liposomal calcein. *38:476-486.*

Lattin JR, Pitt WG, Belnap DM, Husseini GA. Ultrasound-Induced Calcein Release From eLiposomes. *38:2163-2173.*

Lithotripsy

Synonyms: Extracorporeal lithotripsy, shock-wave lithotripsy (SWL), gall stones, kidney stones, calcification, choleliths, calculus/i

Scopus Search: Lithotrip* OR ESWL OR SWL OR “gall stones” OR “kidney stones” OR calcification OR choleliths OR calcul* PubMed Search

See also: cavitation, shock waves

Zhou Y, Qin J, Zhong P. Characteristics of the secondary bubble cluster produced by an electrohydraulic shock wave lithotripter. *38:601-610.*

Liver

Synonyms: hepatic

Scopus Search: Liver OR hepat* PubMed Search

Barry CT, Mills B, Hah Z, Mooney RA, Ryan CK, Rubens DJ, Parker KJ. Shear wave dispersion measures liver steatosis. *38:175-182.*

Tao S, Qin Z, Haitao L, Lei Y, Lanhui Y, Qin X, Yongquan L, Hao W. Evaluation of color Doppler ultrasonography in diagnosing hepatic alveolar echinococcosis. *38:183-189.*

Hohmann J, Muller A, Skrok J, Wolf KJ, Martegani A, Dietrich CF, Albrecht T. Detection of hepatocellular carcinoma and liver metastases with BR14: a multicenter phase IIA study. *38:377-382.*

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Lefort T, Pilleul F, Mule S, Bridal SL, Frouin F, Lombard-Bohas C, Walter T, Lucidarme O, Guibal A. Correlation and agreement between contrast-enhanced ultrasonography and perfusion computed tomography for assessment of liver metastases from endocrine tumors: normalization enhances correlation. *38:953-961.*

- Bota S, Sporea I, Sirli R, Popescu A, Danila M, Costachescu D. Intra- and Interoperator Reproducibility of Acoustic Radiation Force Impulse (ARFI) Elastography-Preliminary Results. *38:1103-1108*.
- Eveno C, Le Henaff C, Audollet R, Soyer P, Rampanou A, Nemeth J, Brouland JP, Dupuy E, Pocard M, Bonnin P. Tumor and non-tumor liver angiogenesis is traced and evaluated by hepatic arterial ultrasound in murine models. *38:1195-1204*.
- Sporea I, Sirli R, Bota S, Popescu A, Sendroiu M, Jurchis A. Comparative Study Concerning the Value of Acoustic Radiation Force Impulse Elastography (ARFI) in Comparison with Transient Elastography (TE) for the Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B and C. *38:1310-1316*.
- Shimada T, Maruyama H, Sekimoto T, Kamezaki H, Takahashi M, Yokosuka O. Heterogeneous staining in the liver parenchyma after the injection of perflubutane microbubble contrast agent. *38:1317-1323*.
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- Zeng H, Wang J, Xie W, Liu W, Wen H. Assessment of Early Hepatic Echinococcus Multilocularis Infection in Rats with Real-Time Contrast-Enhanced Ultrasonography. *38:1982-1988*.
- Kemmerer JP, Oelze ML. Ultrasonic Assessment of Thermal Therapy in Rat Liver. *38:2130-2137*.
- Ghoshal G, Lavarello RJ, Kemmerer JP, Miller RJ, Oelze ML. Ex vivo Study of Quantitative Ultrasound Parameters in Fatty Rabbit Livers. *38:2238-2248*.
- Low frequency ultrasound**
Synonyms: LFUS
Scopus Search: "Low frequency ultrasound" OR LFUS
 PubMed Search
See also: physiotherapy
- Low intensity ultrasound**
Synonyms: Low intensity pulsed ultrasound, LIPUS, LIFU
Scopus Search: "low*intensity ultrasound" OR LIPUS OR LIFU PubMed Search
- Zhao X, Cai XZ, Shi ZL, Zhu FB, Zhao GS, Yan SG. Low-intensity pulsed ultrasound (LIPUS) may prevent polyethylene induced periprosthetic osteolysis in vivo. *38:238-246*.
- Fung CH, Cheung WH, Pounder NM, de Ana FJ, Harrison A, Leung KS. Effects of different therapeutic ultrasound intensities on fracture healing in rats. *38:745-752*.
- Leskinen JJ, Hynynen K. Study of factors affecting the magnitude and nature of ultrasound exposure with in vitro set-ups. *38:777-794*.
- Engelmann J, Vitto MF, Cesconetto PA, Silveira PC, Possato JC, Pinho RA, Paula MM, Victor EG, De Souza CT. Pulsed ultrasound and dimethylsulfoxide gel treatment reduces the expression of pro-inflammatory molecules in an animal model of muscle injury. *38:1470-1475*.
- Kim H, Taghados SJ, Fischer K, Maeng LS, Park S, Yoo SS. Noninvasive Transcranial Stimulation of Rat Abducens Nerve by Focused Ultrasound. *38:1568-1575*.
- Zhao Y, Ang WT, Xing J, Zhang J, Chen J. Applications of Ultrasound to Enhance Mycophenolic Acid Production. *38:1582-1588*.
- Ito A, Aoyama T, Yamaguchi S, Zhang X, Akiyama H, Kuroki H. Low-Intensity Pulsed Ultrasound Inhibits Messenger RNA Expression of Matrix Metalloproteinase-13 Induced by Interleukin-1 β in Chondrocytes in an Intensity-Dependent Manner. *38:1726-1733*.
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- Namazi H. Low-Intensity Pulsed Ultrasound (LIPUS) May Prevent Polyethylene Induced Periprosthetic Osteolysis In Vivo: A Novel Molecular Mechanism. *38:1845*.
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- Xing JZ, Yang X, Xu P, Ang WT, Chen J. Ultrasound-Enhanced Monoclonal Antibody Production. *38:1949-1957*.
- Lung**
Synonyms: pulmonary, pneumonic, respiratory system, alveolar, bronchular, thoracic, pleural
Scopus Search: Lung OR Pulmo* OR Pneum* OR bronch* OR Alveol* OR Thora* OR "respiratory system" OR pleural PubMed Search
- Sanz-Santos J, Andreo F, Castella E, Llatjos M, de Castro PL, Astudillo J, Garcia-Lujan R, Serra P, Monso E. Representativeness of nodal sampling with endobronchial ultrasonography in non-small-cell lung cancer staging. *38:62-68*.
- Copetti R, Copetti P, Reissig A. Clinical integrated ultrasound of the thorax including causes of shock in nontraumatic critically ill patients. A practical approach. *38:349-359*.
- Garcia-Olive I, Radua J, Serra P, Andreo F, Sanz-Santos J, Monso E, Rosell A, Cases-Viedma E, Fernandez-Villar A, Nunez-Delgado M, Garcia-Lujan R, Morera J, Ruiz-Manzano J. Intra- and interobserver agreement among bronchial endosonographers for the description of intrathoracic lymph nodes. *38:1163-1168*.

Soldati G, Inchingolo R, Smargiassi A, Sher S, Nenna R, Inchingolo CD, Valente S. Ex Vivo lung sonography: morphologic-ultrasound relationship. 38:1169-1179.

Lymphatic system

Synonyms: lymph nodes

Scopus Search: lymph* PubMed Search

Bhatia KS, Cho CC, Tong CS, Yuen EH, Ahuja AT. Shear wave elasticity imaging of cervical lymph nodes. 38:195-201.

Ishibashi N, Yamagata K, Sasaki H, Seto K, Shinya Y, Ito H, Shinozuka K, Yanagawa T, Onizawa K, Bukawa H. Real-time tissue elastography for the diagnosis of lymph node metastasis in oral squamous cell carcinoma. 38:389-395.

Garcia-Olive I, Radua J, Serra P, Andreo F, Sanz-Santos J, Monso E, Rosell A, Cases-Viedma E, Fernandez-Villar A, Nunez-Delgado M, Garcia-Lujan R, Morera J, Ruiz-Manzano J. Intra- and interobserver agreement among bronchial endosonographers for the description of intrathoracic lymph nodes. 38:1163-1168.

M

Magnetic Resonance Imaging

Synonyms: MRI, nuclear imaging, MR imaging

Scopus Search: "Magnetic Resonance Imaging" OR MR* OR "nuclear imaging" PubMed Search

Nakano S, Yoshida M, Fujii K, Yorozuya K, Kousaka J, Mouri Y, Fukutomi T, Ohshima Y, Kimura J, Ishiguchi T. Real-time virtual sonography, a coordinated sonography and MRI system that uses magnetic navigation, improves the sonographic identification of enhancing lesions on breast MRI. 38:42-49.

Ohashi S, Ohnishi I, Matsumoto T, Bessho M, Matsuyama J, Tobita K, Kaneko M, Nakamura K. Measurement of articular cartilage thickness using a three-dimensional image reconstructed from B-mode ultrasonography mechanical scans feasibility study by comparison with MRI-derived data. 38:402-411.

Mammography

Synonyms: breast imaging, breast screening, mammogram

Scopus Search: Mammogra* OR "breast imaging" OR "breast screening" PubMed Search

See also: breast

Mechanical effects

Scopus Search: "mechanical effects" PubMed Search

See also: cavitation, radiation force, safety

Dickey TC, Tych R, Kliot M, Loeser JD, Pederson K, Mourad PD. Intense focused ultrasound can reliably induce sensations in human test subjects in a manner correlated with the density of their mechanoreceptors. 38:85-90.

Mechanical index

Synonyms: MI, cavitation threshold

Scopus Search: "mechanical index" OR MI* OR "cavitation threshold" PubMed Search

See also: cavitation, exposimetry, safety

MEMS

Synonyms: Micro-electromechanical systems, microsystems technology

Scopus Search: MEMS OR "Micro*electromechanical systems" OR "micro*systems technology" PubMed Search

See also: instrumentation, transducers

Modelling

Synonyms: simulations, theory, mathematical, in silico

Scopus Search: Modelling OR simulation* OR theor* OR mathemat* OR "in silico" PubMed Search

Brekken R, Muller S, Gjerald SU, Hernes TA. Simulation model for assessing quality of ultrasound strain estimation in abdominal aortic aneurysm. 38:889-896.

van Neer PLMJ, Blaak S, Bosch JG, Lancee CT, Prins C, van der Steen AFW, de Jong N. Mode Vibrations of a Matrix Transducer for Three-Dimensional Second Harmonic Transesophageal Echocardiography. 38:1820-1832.

Cardoso FM, Moraes MC, Furuie SrS. Realistic IVUS Image Generation in Different Intraluminal Pressures. 38:2104-2119.

Molecular imaging

Synonyms: molecular tagging, targeted imaging, biomarkers

Scopus Search: "molecular imaging" OR "molecular tagging" OR "targeted imaging" OR bio*markers PubMed Search

Chen CC, Sirsi SR, Homma S, Borden MA. Effect of surface architecture on in vivo ultrasound contrast persistence of targeted size-selected microbubbles. 38:492-503.

Gessner RC, Streeter JE, Kothadia R, Feingold S, Dayton PA. An in vivo validation of the application of acoustic radiation force to enhance the diagnostic utility of molecular imaging using 3-d ultrasound. 38:651-660.

Yan F, Li X, Jin Q, Chen J, Shandas R, Wu J, Li L, Ling T, Yang W, Chen Y, Liu X, Zheng H. Ultrasonic imaging of endothelial CD81 expression using CD81-targeted contrast agents in in vitro and in vivo studies. 38:670-680.

Sirsi SR, Flexman ML, Vlachos F, Huang J, Hernandez SL, Kim HK, Johung TB, Gander JW, Reichstein AR, Lampl BS, Wang A, Hielscher AH, Kandel JJ, Yamashiro DJ, Borden MA. Contrast ultrasound imaging for identification of early responder tumor models to anti-angiogenic therapy. 38:1019-1029.

Frinking PJ, Tardy I, Theraulaz M, Arditi M, Powers J, Pochon S, Tranquart F. Effects of Acoustic Radiation Force on the Binding Efficiency of BR55, a VEGFR2-Specific Ultrasound Contrast Agent. 38:1460-1469.

Motion analysis

Synonyms: motion tracking, motion compensation, M mode, phased tracking method

Scopus Search: Motion OR “phased tracking” OR M*mode PubMed Search

Mukherjee R, Sprouse C, Pinheiro A, Abraham T, Burlina P. Computing myocardial motion in 4-dimensional echocardiography. *38:1284-1297.*

Zhao S, Deng YB, Chen XL, Liu R. Assessment of Right Ventricular Function in Recipient Twin of Twin to Twin Transfusion Syndrome With Speckle Tracking Echocardiography. *38:1502-1507.*

Zahnd G, Vray D, Sérusclat A, Alibay D, Bartold M, Brown A, Durand M, Jamieson LM, Kapellas K, Maple-Brown LJ, O’Dea K, Moulin P, Celermajer DS, Skilton MR. Longitudinal Displacement of the Carotid Wall and Cardiovascular Risk Factors: Associations with Aging, Adiposity, Blood Pressure and Periodontal Disease Independent of Cross-Sectional Distensibility and Intima-Media Thickness. *38:1705-1715.*

Musculoskeletal

Synonyms: Sonomyography

Scopus Search: Musc* OR Sonomyography PubMed Search

Sconfienza LM, Orlandi D, Fabbro E, Ferrero G, Martini C, Savarino E, Silvestri E. Ultrasound assessment of the rotator cuff cable: comparison between young and elderly asymptomatic volunteers and interobserver reproducibility. *38:35-41.*

English CK, Thoires KA, Fisher L, McLennan H, Bernhardt J. Ultrasound is a reliable measure of muscle thickness in acute stroke patients, for some, but not all anatomical sites: a study of the intra-rater reliability of muscle thickness measures in acute stroke patients. *38:368-376.*

Simao MN, Nogueira-Barbosa MH, Muglia VF, Barbieri CH. Anterior shoulder instability: correlation between magnetic resonance arthrography, ultrasound arthrography and intraoperative findings. *38:551-560.*

Lv F, Tang J, Luo Y, Ban Y, Wu R, Tian J, Yu T, Xie X, Li T. Muscle crush injury of extremity: quantitative elastography with supersonic shear imaging. *38:795-802.*

Brandsma R, Verbeek RJ, Maurits NM, Hamminga JT, Brouwer OF, van der Hoeven JH, Burger H, Sival DA. Visual Assessment of Segmental Muscle Ultrasound Images in Spina Bifida Aperta. *38:1339-1344.*

Zhang B, Cheng Q, Chen M, Yao W, Qian M, Hu B. Imaging and analyzing the elasticity of vascular smooth muscle cells by atomic force acoustic microscope. *38:1383-1390.*

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expression of pro-inflammatory molecules in an animal model of muscle injury. *38:1470-1475.*

Fukumoto Y, Ikezoe T, Tateuchi H, Tsukagoshi R, Akiyama H, So K, Kuroda Y, Yoneyama T, Ichihashi N. Muscle Mass and Composition of the Hip, Thigh and Abdominal Muscles in Women with and without Hip Osteoarthritis. *38:1540-1545.*

Zaidman CM, Holland MR, Hughes MS. Quantitative Ultrasound of Skeletal Muscle: Reliable Measurements of Calibrated Muscle Backscatter from Different Ultrasound Systems. *38:1618-1625.*

Scott JM, Martin DS, Ploutz-Snyder R, Caine T, Matz T, Arzeno NM, Buxton R, Ploutz-Snyder L. Reliability and Validity of Panoramic Ultrasound for Muscle Quantification. *38:1656-1661.*

Foldager CB, Kearney C, Spector M. Clinical Application of Extracorporeal Shock Wave Therapy in Orthopedics: Focused versus Unfocused Shock Waves. *38:1673-1680.*

Shi J, Guo J-Y, Hu S-X, Zheng Y-P. Recognition of Finger Flexion Motion from Ultrasound Image: A Feasibility Study. *38:1695-1704.*

N**Nervous system**

Synonyms: neurology

Scopus Search: Neuro* OR nerv* PubMed Search

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Neurosonology

Synonyms: brain imaging, transcranial

Scopus Search: Neurosonology OR “brain imaging” OR transcranial PubMed Search

See also: brain, transcranial Doppler

Fabjan A, Musizza B, Bajrovic FF, Zaletel M, Struel M. The effect of the cold pressor test on a visually evoked cerebral blood flow velocity response. *38:13-20.*

Nonlinear effects

Synonyms: nonlinear propagation, acoustic nonlinearity, harmonic distortion

Scopus Search: nonlinear* OR non-linear* OR “non linear*” OR harmonic PubMed Search

See also: finite amplitude effects, harmonic imaging, shock waves

O

Obstetrics

Synonyms: prenatal, fetal, gynaecology, foetal, FBM, FHR

Scopus Search: obstetric* OR gynaecolog* OR gynecolog* OR pre*natal PubMed Search

See also: uterus

Salman MS, Mousa HA, Twining P, Jones NW, James D, Momtaz M, Aboulghar M, El-Sheikhah A, Bugg G. Would gestational age and presence of brain anomalies affect interobserver reliability of fetal head biometry? Using off-line analysis of 3-D dataset. *38:69-74*.

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Peterlein CD, Fuchs-Winkelmann S, Schuttler KF, Lakemeier S, Timmesfeld N, Gorg C, Schofer MD. Does probe frequency influence diagnostic accuracy in newborn hip ultrasound? *38:1116-1120*.

Welsh A, Hou M, Meriki N, Stevenson G. Use of four-dimensional analysis of power Doppler perfusion indices to demonstrate cardiac cycle pulsatility in fetoplacental flow. *38:1345-1351*.

Zhao S, Deng YB, Chen XL, Liu R. Assessment of Right Ventricular Function in Recipient Twin of Twin to Twin Transfusion Syndrome With Speckle Tracking Echocardiography. *38:1502-1507*.

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Ophthalmology

Scopus Search: Ophthalmolog* PubMed Search

See also: eyes

Optoacoustic

See Photoacoustic

Orthopedic

See Musculoskeletal, Bone

Osteoarthritis

Synonyms: arthritis

Scopus Search: *arthritis PubMed Search

See also: bone, bone density measurement

Tormenta S, Sconfienza LM, Iannesi F, Bizzi E, Massafra U, Orlandi D, Migliore A. Prevalence study of iliopsoas bursitis in a cohort of 860 patients affected by symptomatic hip osteoarthritis. *38:1352-1356*.

Fukumoto Y, Ikezoe T, Tateuchi H, Tsukagoshi R, Akiyama H, So K, Kuroda Y, Yoneyama T, Ichihashi N. Muscle Mass and Composition of the Hip, Thigh and Abdominal Muscles in Women with and without Hip Osteoarthritis. *38:1540-1545*.

Osteoporosis

Synonyms: loss of bone density, bone fragility

Scopus Search: Osteoporosis OR "bone mineral density" PubMed Search

See also: bone, bone density measurement

Baron C. Using the gradient of human cortical bone properties to determine age-related bone changes via ultrasonic guided waves. *38:972-981*.

Ovary

Synonyms: reproductive system, ovarian

Scopus Search: Ovar* OR "reproductive system" PubMed Search

See also: genitourinary

Rouleau D, Case A, Gamelin A, Lim H, Baerwald A. A practical method for ultrasonographically monitoring the day-to-day growth of individual ovarian follicles in women undergoing assisted reproduction. *38:1004-1010*.

P

Pain relief

Synonyms: pain management

Scopus Search: pain* PubMed Search

See also: Healing

Pancreas

Synonyms: pancreatic, gastrointestinal

Scopus Search: pancrea* OR gastrointestinal PubMed Search

See also: Gastroenterology

Pediatrics

Synonyms: children, infants, neonates

Scopus Search: Pediatrics OR child* or infant* OR neonat* OR neo-nat* PubMed Search

Chobot AP, Haffke A, Polanska J, Halaba ZP, Deja G, Jarosz-Chobot P, Pluskiewicz W. Quantitative ultrasound bone measurements in pre-pubertal children with type 1 diabetes. *38:1109-1115.*

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Phantoms

Synonyms: mimics, tissue-mimicking, gel phantom, gelatine, agarose, tofu, polyacrylamide, urethane foam, flow model, flow cell

Scopus Search: phantom* OR mimic* OR tissue-mimic* OR Gel* OR agar* OR polyacrylamide OR urethane OR “flow cell*” OR “flow model*” PubMed Search

Sun C, Pye SD, Browne JE, Janeczko A, Ellis B, Butler MB, Sboros V, Thomson AJ, Brewin MP, Earnshaw CH, Moran CM. The Speed of Sound and Attenuation of an IEC Agar-Based Tissue-Mimicking Material for High Frequency Ultrasound Applications. *38:1262-1270.*

Labyed Y, Huang L. Ultrasound Time-Reversal MUSIC Imaging of Extended Targets. *38:2018-2030.*

Thittai AK, Galaz B, Ophir J. On the Advantages of Imaging the Axial-Shear Strain Component of the Total Shear Strain in Breast Tumors. *38:2031-2037.*

Photoacoustic

Synonyms: optoacoustic, ultrasound light modulation, laser ultrasonic

Scopus Search: Optoacoustic OR photoacoustic OR “ultrasound light modulation” OR “laser ultraso*” PubMed Search

Ando T, Sato S, Ashida H, Obara M. Propagation characteristics of photomechanical waves and their application to gene delivery into deep tissue. *38:75-84.*

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Physiotherapy

Synonyms: Physical therapy

Scopus Search: Physiotherapy OR “Physical therapy” PubMed Search

See also: healing, hyperthermia

Butterworth I, Barrie J, Zeqiri B, Zauhar G, Parisot B. Exploiting thermochromic materials for the rapid quality assurance of physiotherapy ultrasound treatment heads. *38:767-776.*

Principal components analysis

Synonyms: PCA, Decomposition, Dimensionality reduction, Karhunen-Loève transform, Hotelling transform, proper orthogonal decomposition (POD)

Scopus Search: “principal components analysis” OR PCA OR Decomposition OR “Karhunen-Loève transform” OR “Hotelling transform” OR “proper orthogonal decomposition” OR POD OR “Dimensionality PubMed Search reduction”

See also: feature detection, image processing

Prostate

Synonyms: prostate gland

Scopus Search: prostate OR transrectal OR endorectal OR TRUS PubMed Search

See also: genitourinary

Zhai L, Polascik TJ, Foo WC, Rosenzweig S, Palmeri ML, Madden J, Nightingale KR. Acoustic radiation force impulse imaging of human prostates: initial in vivo demonstration. *38:50-61.*

Nakano Junqueira VC, Zogbi O, Cologna A, dos Reis RB, Tucci S, Reis LO, Westphalen AC, Muglia VF. Is a Visible (Hypochoic) Lesion at Biopsy an Independent Predictor of Prostate Cancer Outcome? *38:1689-1694.*

Pulsatility index

Synonyms: tissue pulsatility imaging

Scopus Search: Pulsatil* PubMed Search

Pulse wave velocity

Synonyms: pulsed-wave Doppler, Pulse-Wave Imaging (PWI), Pulse-Wave Velocity (PWV)

Scopus Search: “Pulse* wave” OR PWI OR PWV PubMed Search

Q

Quantitative ultrasound

Synonyms: QUS, quantification, quantitation

Scopus Search: Quantit* OR QUS

Leahy S, Toomey C, McCreesh K, O’Neill C, Jakeman P. Ultrasound measurement of subcutaneous adipose tissue thickness accurately predicts total and segmental body fat of young adults. *38:28-34.*

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Ohashi S, Ohnishi I, Matsumoto T, Bessho M, Matsuyama J, Tobita K, Kaneko M, Nakamura K. Evaluation of the accuracy of articular cartilage thickness measurement by B-mode

- ultrasonography with conventional imaging and real-time spatial compound ultrasonography imaging. 38:324-334.
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- Abdelrahman MA, Marston G, Hull MA, Markham AF, Jones PF, Evans JA, Coletta PL. High-frequency ultrasound for in vivo measurement of colon wall thickness in mice. 38:432-442.
- Wang AS, Liang DH, Bech F, Lee JT, Zarins CK, Zhou W, Taylor CA. Validation of a power law model in upper extremity vessels: potential application in ultrasound bleed detection. 38:692-701.
- Gellhorn AC, Morgenroth DC, Goldstein B. A novel sonographic method of measuring patellar tendon length. 38:719-726.
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- Buchanan DN, Lindenmaier T, McKay S, Bureau Y, Hackam DG, Fenster A, Parraga G. The relationship of carotid three-dimensional ultrasound vessel wall volume with age and sex: comparison to carotid intima-media thickness. 38:1145-1153.
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- Ghoshal G, Lavarello RJ, Kemmerer JP, Miller RJ, Oelze ML. Ex vivo Study of Quantitative Ultrasound Parameters in Fatty Rabbit Livers. 38:2238-2248.

R

Radiation force

Synonyms: Bjerknæs force, Acoustic Radiation Force Impulse Ultrasound (ARFI), acoustic tweezers, ultrasound tweezers, acoustic remote palpation, acoustic trapping

Scopus Search: “radiation force” OR ARFI OR Bjerknæs OR “acoustic tweezers” OR “ultraso* tweezers” OR ARP OR trap* PubMed Search

See also: **elastography, shear waves**

Zhai L, Polascik TJ, Foo WC, Rosenzweig S, Palmeri ML, Madden J, Nightingale KR. Acoustic radiation force impulse imaging of human prostates: initial in vivo demonstration. 38:50-61.

Johnson K, Cianciolo R, Gessner RC, Dayton PA. A pilot study to assess markers of renal damage in the rodent kidney after exposure to 7 MHz ultrasound pulse sequences designed to cause microbubble translation and disruption. *38:168-172*.

Hazard C, Hah Z, Rubens D, Parker K. Integration of crawling waves in an ultrasound imaging system. Part 1: system and design considerations. *38:296-311*.

Hah Z, Hazard C, Mills B, Barry C, Rubens D, Parker K. Integration of crawling waves in an ultrasound imaging system. Part 2: signal processing and applications. *38:312-323*.

Gessner RC, Streeter JE, Kothadia R, Feingold S, Dayton PA. An in vivo validation of the application of acoustic radiation force to enhance the diagnostic utility of molecular imaging using 3-d ultrasound. *38:651-660*.

Bota S, Sporea I, Sirlu R, Popescu A, Danila M, Costachescu D. Intra- and Interoperator Reproducibility of Acoustic Radiation Force Impulse (ARFI) Elastography-Preliminary Results. *38:1103-1108*.

Hollender PJ, Wolf PD, Goswami R, Trahey GE. Intracardiac echocardiography measurement of dynamic myocardial stiffness with shear wave velocimetry. *38:1271-1283*.

Sporea I, Sirlu R, Bota S, Popescu A, Sendroiu M, Jurchis A. Comparative Study Concerning the Value of Acoustic Radiation Force Impulse Elastography (ARFI) in Comparison with Transient Elastography (TE) for the Assessment of Liver Fibrosis in Patients with Chronic Hepatitis B and C. *38:1310-1316*.

Frinking PJ, Tardy I, Theraulaz M, Arditi M, Powers J, Pochon S, Tranquart F. Effects of Acoustic Radiation Force on the Binding Efficiency of BR55, a VEGFR2-Specific Ultrasound Contrast Agent. *38:1460-1469*.

Cheng Y, Li R, Li S, Dunsby C, Eckersley RJ, Elson DS, Tang MX. Shear Wave Elasticity Imaging Based On Acoustic Radiation Force and Optical Detection. *38:1637-1645*.

Kaya M, Toma C, Wang J, Grata M, Fu H, Villanueva FS, Chen X. Acoustic Radiation Force for Vascular Cell Therapy: In Vitro Validation. *38:1989-1997*.

Zhang X, Zhang G. Acoustic Radiation Force of a Gaussian Beam Incident on Spherical Particles in Water. *38:2007-2017*.

Radio-frequency

Synonyms: RF

Scopus Search: “radio*frequency” OR RF PubMed Search

Respiratory system

Synonyms: diaphragm, thoracic

Scopus Search: respirator* OR thora* OR diaphragm* PubMed Search

See also: lung

Review

Fagenholz PJ, Murray AF, Noble VE, Baggish AL, Harris NS. Ultrasound for high altitude research. *38:1-12*.

Copetti R, Copetti P, Reissig A. Clinical integrated ultrasound of the thorax including causes of shock in nontraumatic critically ill patients. A practical approach. *38:349-359*.

Foldager CB, Kearney C, Spector M. Clinical Application of Extracorporeal Shock Wave Therapy in Orthopedics: Focused versus Unfocused Shock Waves. *38:1673-1680*.

Rheumatoid arthritis

Synonyms: rheumatism

Scopus Search: rheumat* PubMed Search

Robotics-assisted surgery

Synonyms: robotic surgery, remote surgery, unmanned surgery

Scopus Search: “robot* surgery” OR “remote surgery” OR “unmanned surgery” PubMed Search

S

Safety

Scopus Search: safety PubMed Search

See also: dosimetry, exposimetry, mechanical index, sonochemistry, thermal effects

Hazard C, Hah Z, Rubens D, Parker K. Integration of crawling waves in an ultrasound imaging system. Part 1: system and design considerations. *38:296-311*.

Miller DL. Induction of pulmonary hemorrhage in rats during diagnostic ultrasound. *38:1476-1482*.

Shi B, Zhu H, Liu Y-J, Lü L, Jin C-b, Ran L-f, Zhou K, Yang W, Wang Z-b, Mei Z-c. Experimental Studies and Clinical Experiences on Treatment of Secondary Hypersplenism with Extracorporeal High-Intensity Focused Ultrasound. *38:1911-1917*.

Shear waves

Scopus Search: “Shear Wave*” PubMed Search

See also: elastography, radiation force

Barry CT, Mills B, Hah Z, Mooney RA, Ryan CK, Rubens DJ, Parker KJ. Shear wave dispersion measures liver steatosis. *38:175-182*.

Hollender PJ, Wolf PD, Goswami R, Trahey GE. Intracardiac echocardiography measurement of dynamic myocardial stiffness with shear wave velocimetry. *38:1271-1283*.

Zhao H, Song P, Urban MW, Greenleaf JF, Chen S. Shear Wave Speed Measurement Using an Unfocused Ultrasound Beam. *38:1646-1655*.

Bernal MG, Jean-Luc; Flaud, Patrice; Tanter, Mickael. Shear wave elastography quantification of blood elasticity during clotting. 38:2218-2228.

Shock waves

Synonyms: shock-wave, shockwave, extracorporeal shock-wave (ESW) therapy, shock-wave lithotripsy

Scopus Search: shock*wave OR ESW PubMed Search

See also: finite amplitude effects, lithotripsy, nonlinear effects

Liu S, Zhai L, Shi Z, Jing R, Zhao B, Xing G. Radial extracorporeal pressure pulse therapy for the primary long bicipital tenosynovitis a prospective randomized controlled study. 38:727-735.

Campos-Guillen J, Fernandez F, Pastrana X, Loske AM. Relationship between plasmid size and shock wave-mediated bacterial transformation. 38:1078-1084.

Foldager CB, Kearney C, Spector M. Clinical Application of Extracorporeal Shock Wave Therapy in Orthopedics: Focused versus Unfocused Shock Waves. 38:1673-1680.

Signal processing

Synonyms: waveform analysis

Scopus Search: "signal processing" OR "waveform analysis" PubMed Search

See also: image processing

Hah Z, Hazard C, Mills B, Barry C, Rubens D, Parker K. Integration of crawling waves in an ultrasound imaging system. Part 2: signal processing and applications. 38:312-323.

Skin

Synonyms: dermal, transdermal, cutaneous, transcutaneous, subcutaneous

Scopus Search: skin OR dermal OR transdermal OR cutaneous OR transcutaneous OR subcutaneous PubMed Search

Park D, Ryu H, Kim HS, Kim YS, Choi KS, Park H, Seo J. Sonophoresis using ultrasound contrast agents for transdermal drug delivery: an in vivo experimental study. 38:642-650.

Kumagai K, Koike H, Nagaoka R, Sakai S, Kobayashi K, Saijo Y. High-Resolution Ultrasound Imaging of Human Skin In Vivo by Using Three-Dimensional Ultrasound Microscopy. 38:1833-1838.

Sonochemistry

Synonyms: sonochemical

Sonoporation

Synonyms: sonophoresis, phonophoresis, cell membrane permeabilisation, permeability enhancement, molecular delivery, poration, enhanced uptake

Scopus Search: Sonoporation OR Sonophoresis OR Phonophoresis OR permeabilisation OR "enhance* permeability" OR "molecular delivery" OR poration OR "enhance* uptake" PubMed Search

See also: cavitation, drug delivery, gene therapy, streaming

Park D, Ryu H, Kim HS, Kim YS, Choi KS, Park H, Seo J. Sonophoresis using ultrasound contrast agents for transdermal drug delivery: an in vivo experimental study. 38:642-650.

Wan CP, Jackson JK, Pirmoradi FN, Chiao M, Burt HM. Increased accumulation and retention of micellar paclitaxel in drug-sensitive and P-glycoprotein-expressing cell lines following ultrasound exposure. 38:736-744.

Liu Y, Yan J, Prausnitz MR. Can ultrasound enable efficient intracellular uptake of molecules? A retrospective literature review and analysis. 38:876-888.

Qin P, Xu L, Zhong W, Yu AC. Ultrasound-microbubble mediated cavitation of plant cells: effects on morphology and viability. 38:1085-1096.

Speckle

Synonyms: interference pattern, noise

Scopus Search: speckle OR noise OR interference PubMed Search

See also: adaptive filtering, image artifacts, image processing, textural analysis, motion tracking

Nam KH, Yeom E, Ha H, Lee SJ. Simultaneous measurement of red blood cell aggregation and whole blood coagulation using high-frequency ultrasound. 38:468-475.

Xu J, Tripathy S, Rubin JM, Stidham RW, Johnson LA, Higgins PD, Kim K. A new nonlinear parameter in the developed strain-to-applied strain of the soft tissues and its application in ultrasound elasticity imaging. 38:511-523.

Moon WK, Lo CM, Huang CS, Chen JH, Chang RF. Computer-aided diagnosis based on speckle patterns in ultrasound images. 38:1251-1261.

Cardoso FM, Matsumoto MM, Furuie SS. Edge-preserving speckle texture removal by interference-based speckle filtering followed by anisotropic diffusion. 38:1414-1428.

Zhao S, Deng YB, Chen XL, Liu R. Assessment of Right Ventricular Function in Recipient Twin of Twin to Twin Transfusion Syndrome With Speckle Tracking Echocardiography. 38:1502-1507.

Zahnd G, Vray D, Sérusclat A, Alibay D, Bartold M, Brown A, Durand M, Jamieson LM, Kapellas K, Maple-Brown LJ, O'Dea K, Moulin P, Celermajer DS, Skilton MR. Longitudinal Displacement of the Carotid Wall and Cardiovascular Risk Factors: Associations with Aging, Adiposity, Blood Pressure and Periodontal Disease Independent of Cross-Sectional Distensibility and Intima-Media Thickness. 38:1705-1715.

Duchateau ND, Adelina; Silva, Etelvino; De Craene, Mathieu; Piella, Gemma; Angeles Castel, Maria; Mont, Lluís; Brugada, Josep; Frangi, Alejandro; Sitges, Marta. Atlas-based

Quantification of Myocardial Motion Abnormalities: added-value for Understanding the effect of Cardiac Resynchronization Therapy. *38:2186-2197.*

Spectral analysis

Synonyms: spectrum analysis, Fourier analysis, Fourier transform, wavelet transform

Scopus Search: "Spectr* analysis" OR Fourier OR wavelet PubMed Search

Spleen

Synonyms: splenic

Scopus Search: Spleen OR splenic PubMed Search

See also: abdominal ultrasound

Bolognesi M, Quaglio C, Bombonato G, Gaiani S, Pesce P, Bizzotto P, Favaretto E, Gatta A, Sacerdoti D. Splenic Doppler impedance indices estimate splenic congestion in patients with right-sided or congestive heart failure. *38:21-27.*

Shi B, Zhu H, Liu Y-J, Lü L, Jin C-b, Ran L-f, Zhou K, Yang W, Wang Z-b, Mei Z-c. Experimental Studies and Clinical Experiences on Treatment of Secondary Hypersplenism with Extracorporeal High-Intensity Focused Ultrasound. *38:1911-1917.*

Liu J, Xiao S, Wu S, Ou W, He J, Gao S, Liu Z. Disruption of Splenic Circulation Using Microbubble-Enhanced Ultrasound and Prothrombin: A Preliminary Study. *38:1930-1937.*

Standing wave

Synonyms: stationary wave, acoustic trapping, ultrasound trapping, acoustic tweezers

Scopus Search: "Standing wave" OR "stationary wave" OR trap* OR USWT PubMed Search

See also: radiation force

Kenis AM, Grinfeld J, Zadicario E, Vitek S. Impact of propagating and standing waves on cavitation appearance. *38:99-108.*

Streaming

Synonyms: Acoustic streaming, microstreaming

Scopus Search: *streaming PubMed Search

See also: radiation force, sonoporation

Mannaris C, Averkiou MA. Investigation of microbubble response to long pulses used in ultrasound-enhanced drug delivery. *38:681-691.*

Stroke

Synonyms: cerebrovascular accident (CVA), thrombus, thrombosis, clot

Scopus Search: Stroke OR "cerebrovascular accident" OR CVA OR thromb* PubMed Search

See also: atherosclerosis, emboli detection, ischemia, thrombolysis

English CK, Thoires KA, Fisher L, McLennan H, Bernhardt J. Ultrasound is a reliable measure of muscle thickness in acute stroke patients, for some, but not all anatomical sites: a study of the intra-rater reliability of muscle thickness measures in acute stroke patients. *38:368-376.*

Hsu HY, Chung CP, Chen SY, Chiang YY, Hu HH. Spontaneous echo contrast in internal jugular veins: a probable indicator for systemic inflammation and a prothrombotic state. *38:926-932.*

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Kim J-H, Kim M-S. Lateral Pharyngeal Wall Motion Analysis Using Ultrasonography in Stroke Patients with Dysphagia. *38:2058-2064.*

T

Technical note

Vergari C, Pourcelot P, Ravary-Plumioen B, Dupays AG, Denoix JM, Mitton D, Laugier P, Crevier-Denoix N. First application of axial speed of sound to follow up injured equine tendons. *38:162-167.*

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Mookadam F, Kendall CB, Wong RK, Kalya A, Warsame T, Arabia FA, Lusk J, Moustafa S, Steidley E, Quader N, Chandrasekaran K. Left ventricular assist devices: physiologic assessment using echocardiography for management and optimization. *38:335-345.*

Brekken R, Muller S, Gjerald SU, Hernes TA. Simulation model for assessing quality of ultrasound strain estimation in abdominal aortic aneurysm. *38:889-896.*

Mulvana H, Stride E, Tang MX, Hajnal JV, Eckersley RJ. The influence of gas saturation on microbubble stability. *38:1097-1100.*

Helfield BL, Huo X, Williams R, Goertz DE. The Effect of Preactivation Vial Temperature on the Acoustic Properties of Definity(TM). *38:1298-1305.*

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Temperature Imaging

Synonyms: Temperature mapping, Temperature monitoring, Ultrasonic thermometry, Temperature estimation

Scopus Search: Temperature OR thermometry PubMed Search

See also: high intensity focused ultrasound, hyperthermia, thermoacoustic imaging

Tendon

Synonyms: Collagen, Connective tissue

Scopus Search: tendon OR “connective tissue” OR collagen PubMed Search

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Testis

Synonyms: Testicular, Paratesticular, Testes, Scrotum

Scopus Search: Test* OR Scrot* PubMed Search

Textural analysis

Scopus Search: Textur* PubMed Search

See also: Image analysis, speckle

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Therapeutic Applications of Ultrasound

Synonyms: ultrasound therapy, sonotherapy

Scopus Search: Therap* OR Sonotherap* PubMed Search

See also: healing, high intensity focused ultrasound, hyperthermia, physiotherapy

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Synonyms: ultrasound heating, tissue heating

Scopus Search: “Thermal effects” OR heating PubMed Search

See also: high intensity focused ultrasound, hyperthermia

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Thermoacoustic imaging

Synonyms: Acousto-thermal imaging

Scopus Search: thermo*acoustic OR Acousto*thermal PubMed Search

See also: temperature imaging

Thrombolysis

Synonyms: sonothrombolysis, recanalisation, clot busting

Scopus Search: Thromb* OR sonothrombolysis OR stroke OR clot OR recanalisation PubMed Search

See also: ischemia

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Thyroid

Synonyms: Thyroid gland

Scopus Search: Thyroid* OR goitre PubMed Search

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Time-of-flight

Synonyms: TOF, transmit time

Scopus Search: "Time of flight" OR TOF OR "transmi* time" PubMed Search

See also: velocity

Time-reversal Acoustics

Synonyms: Time-reversal, Time-reversed acoustics, phase conjugation, adaptive focusing

Scopus Search: "Time-revers*" OR "Time revers*" OR "phase conjugation" OR "adaptive focus*ing" PubMed Search

Labyed Y, Huang L. Ultrasound Time-Reversal MUSIC Imaging of Extended Targets. 38:2018-2030.

Tissue characterization

Synonyms: tissue identification, tissue differentiation, histoscanning

Scopus Search: tissue AND characteri*ation OR identification OR differentiation OR histoscanning PubMed Search

See also: speckle

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Tissue Elasticity

Synonyms: Young's modulus, elastic modulus, stiffness

Scopus Search: Tissue AND Elasticity OR "Young's modulus" OR "elastic modulus" OR elasticity OR compliance OR stiffness PubMed Search

See also: tissue characterization, elastography

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Tissue Engineering

Synonyms: tissue synthesis, remodelling, prostheses

Scopus Search: Tissue AND Engineer* PubMed Search

Toxicity

Scopus Search: Toxicity AND ultraso* PubMed Search

See also: safety, sonochemistry

Transcranial ultrasound**Synonyms:** TCS, TCD**Scopus Search:** Transcranial OR TCD OR skull PubMed Search**See also:** Doppler

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Transducers**Synonyms:** probe, scanning head

Scopus Search: Transducer* OR probe* OR "scan* head" OR "piezoelectric effect" OR *MUT OR PZT OR "PMN-PT" OR "polyvinylidene fluoride" PubMed Search

See also: arrays, instrumentation

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Trauma**Synonyms:** injury, wound**Scopus Search:** trauma OR wound PubMed Search**See also:** hemorrhage

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Tumor**Synonyms:** tumor, mass, carcinoma, metastasis, melanoma, neoplasm, sarcoma, lymphoma**Scopus Search:** Tumour OR Tumor OR Mass OR Carcinoma OR Metastasis OR Melanoma OR Neoplasm OR Sarcoma OR Lymphoma PubMed Search**See also:** cancer

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U**Ultrasonic vibration cutting****Synonyms:** Ultrasonic scalpel**Scopus Search:** "ultrasonic vibration cutting" OR "ultrasonic scalpel" PubMed Search**Ultrasound guided procedure****Synonyms:** intraoperative imaging, ultrasonic guidance, image guided surgery**Scopus Search:** "Ultraso* guid* surgery" OR "ultraso* treatment monitoring" OR "intraoperative imaging" OR "image*guid*" OR "intraoperative guid*" PubMed Search

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Uterus

Synonyms: Womb

Scopus Search: Uter* OR Cervi* OR Womb PubMed Search

See also: obstetrics, abdominal imaging

Li Q, Xiao YB, Liang ZG, Chen JY, Wang ZB. Ablation of Leiomyomas Using a Combination of HIFU and Iodized Oil in Vitro. *38:1576-1581*.

V

Velocity

Synonyms: speed of sound, acoustic velocity

Scopus Search: velocity OR speed OR "phase velocity" OR "group velocity" OR "transmission measurements" PubMed Search

See also: tissue characterisation

Vergari C, Pourcelot P, Ravary-Plumioen B, Dupays AG, Denoix JM, Mitton D, Laugier P, Crevier-Denoix N. First application of axial speed of sound to follow up injured equine tendons. *38:162-167*.

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Vetinary

Synonyms: animal medicine

Scopus Search: "vet*" PubMed Search

See also: animal studies

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Volume measurement

Synonyms: volumetric measurement

Scopus Search: "volume* measurement" OR "volume rendering" PubMed Search

Hata T, Tanaka H, Noguchi J. Transvaginal 3-d power Doppler ultrasound evaluation of the fetal brain at 10-13 weeks' gestation. *38:396-401*.