

● Personal

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● Education

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| 1979.03 – 1983.02 | BS, Department of Electronics Engineering, Seoul National University |
| 1983.03 – 1985.02 | MS, Department of Electronics Engineering, Seoul National University |
| 1986.08 – 1990.08 | PhD, Department of Electrical and Computer Engineering, University of Wisconsin-Madison |

● Appointment

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| 1983.03 – 1985.02 | Researcher, Department of Biomedical Engineering, Seoul National University Hospital |
| 1985.08 – 1986.02 | Military service |
| 1986.08 – 1990.08 | Research Assistant, Department of Electrical and Computer Engineering, University of Wisconsin-Madison |
| 1990.09 – 1994.09 | Assistant Professor, Department of Biomedical Engineering, College of Medicine, Konkuk University |
| 1994.10 – 1999.08 | Associate Professor, Department of Biomedical Engineering, College of Medicine, Konkuk University |
| 1998.01 – 1999.06 | Honorary Fellow, Department of Electrical and Computer Engineering, University of Wisconsin-Madison |
| 1998.09 – 1999.06 | Consultant, Spacelabs Burdick, Inc. |
| 1999.09 – 2015.02 | Professor, Department of Biomedical Engineering, College of Electronics and Information, Kyung Hee University |
| 2002.07 – present | Director, Impedance Imaging Research Center, Kyung Hee University |

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| 2012.01 – 2013.11 | Director, Center for Strategic Planning, Kyung Hee University |
| 2015.03 – present | Professor, Department of Biomedical Engineering, College of Medicine, Kyung Hee University |

● Membership

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| 1983 – present | Korea Society of Medical and Biological Engineering (KOSOMBE) |
| 1983 – present | Institute of Electronics and Information Engineering (IEIE) |
| 1983 – present | IEEE Engineering in Medicine and Biology Society (EMBS) |
| 2002 – present | International Society for Electrical Bioimpedance (ISEBI) |
| 2012 – present | International Society of Magnetic Resonance in Medicine (ISMRM) |

● Extramural Academic Activity

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| 2003 – 2006 | Program Chair, World Congress on Medical Physics and Biomedical Engineering (WC2006) |
| 2004 – 2011 | Conference Co-chair, International Conference on Electrical Bioimpedance and Electrical Impedance Tomography |
| 2009 – 2016 | International Advisory Board, Physiological Measurement |
| 2011 – 2013 | AdCom Member, IEEE Engineering in Medicine and Biology Society (EMBS) |
| 2013 – 2018 | Associate Editor, IEEE Transactions on Biomedical Engineering |
| 2014 – 2015 | Program Chair, International Biomedical Engineering Conference (IBEC) |
| 2015 – 2017 | Program Chair, 39 th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC17) |
| 2016 – present | Vice President, International Society for Electrical Bioimpedance (ISEBI) |

● Teaching

| Undergraduate Courses | Graduate Courses |
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| <ul style="list-style-type: none"> • Electromagnetics • Electric Circuit • Electronic Circuit • Medical Instrumentation • Medical Device Design | <ul style="list-style-type: none"> • Biosensor • Analog Signal Processing • Inverse Problem • Bioelectromagnetism and Bioimpedance • Impedance Imaging System |

● Research Topic

- Bioelectromagnetism and bioimpedance
- Electrical impedance tomography (EIT)
- Magnetic resonance electrical impedance tomography (MREIT)
- Conductivity tensor imaging (CTI) using MRI
- Biomedical instrumentation (sensor, signal measurement and signal processing)
- Minimally invasive therapy (RF ablation, tDCS, electroporation)

● Research Grant

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| Patient monitoring system | Samsung Electronics | |
| Digital EEG | Dr. Lee | 1990 – |
| EMG biofeedback system | HMT | 2001 |
| Telehealth system | KICT | |
| Impedance Imaging Research Center (IIRC) | National Research Foundation (NRF) | 2002.07 – 2011.02 |
| Ion Conduction Imaging Research Group | National Research Foundation (NRF) | 2010.04 – 2014.02 |

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| Development of non-grid type area pressure sensing system based on multi-frequency electrical impedance tomography via development of nanoweb based piezo-electric/capacitive hybrid fabricsensor | Korea Evaluation Institute of Industrial Technology (KEIT) | 2013.11 – 2018.10 |
| Imaging of electrical tissue properties using MRI | National Research Foundation (NRF) | 2014.05 – 2020.04 |
| Regional lung ventilation and perfusion monitoring system for personalized lung protective ventilation | Korea Health Industry Development Institute (KHIDI) | 2014.06 – 2019.04 |

● Book

- Seo J K, Woo E J, Katcher U and Wang Y, Electromagnetic Tissue Properties MRI, Imperial College Press, 2014.
- Seo J K and Woo E J, Nonlinear Inverse Problems in Imaging, Wiley, 2013.
- Seo J K and Woo E J, Mathematical Modeling in Biomedical Imaging in Lecture Notes in Mathematics, (ed) Ammari H, Springer, 2009.
- Seo J K, Kwon O and Woo E J, Electrical Impedance Tomography for Imaging and Lesion Estimation in Medical Imaging Systems Technology: Modalities, (ed.) Leondes C T, World Scientific, 2005.
- Woo E J, Seo J K and Lee S Y, Magnetic Resonance Electrical Impedance Tomography (MREIT) in Electrical Impedance Tomography, (ed.) Holder D, IOP, 2005.
- Woo E J et al., Biomedical Signal Processing, Ryo Moon Gak, 1997.
- Woo E J et al., Medical Instrumentation, Ryo Moon Gak, 1993.
- Woo E J, Computational Complexity in Electrical Impedance Tomography, (ed) Webster J G, Adam Hilger, 1990.
- Hua P and Woo E J, Reconstruction Algorithms in Electrical Impedance Tomography, (ed) Webster J G, Adam Hilger, 1990.
- Woo E J, Inductive Sensors in Tactile Sensors for Robotics and Medicine, (ed) Webster J G, Wiley, 1988.

- Woo E J, Application to Robotic Manipulator Sensing in Tactile Sensors for Robotics and Medicine, (ed) Webster J G, Wiley, 1988.

● Research Paper

(A) International Journal

- Ayoub G, Kim Y E, Oh T I, Kim S W and Woo E J 2019 EIT imaging of upper airway to estimate its size and shape changes during obstructive sleep apnea *Ann. Biomed. Eng.* <https://doi.org/10.1007/s10439-019-02210-7>
- Lee M H, Jang G Y, Kim Y E, Yoo P J, Wi H, Oh T I and Woo E J 2018 Portable multi-parameter electrical impedance tomography for sleep apnea and hypoventilation monitoring: feasibility study *Physiol. Meas.* 39 124004
- K H Lee, Woo E J and J K Seo 2018 A fidelity-embedded regularization method for robust electrical impedance tomography *IEEE Trans. Med. Imag.* 37 1970-1977
- Park J S, Lee J S, Kim K I, Lee J S, Jang S Y, Choi H T, Shon Y S, Kim H J, Wui E J, Lee E A and Oh T I 2018 A pathophysiological validation of collagenase II-induced biochemical osteoarthritis animal model in rabbit *Tissue Eng. Regen. Med.* 15 437-444
- Kyung E J, Kim H B, Hwang E S, Lee S, Choi B K, Kim J W, Kim H J, Lim S M, Kwon O I and Woo E J 2018 Evaluation of hepatoprotective effect of curcumin on liver cirrhosis using a combination of biochemical analysis and magnetic resonance-based electrical conductivity imaging *Mediators Inflammation* 2018 5491797
- Lee M B, Kim H J, Woo E J and Kwon O I 2018 Anisotropic conductivity tensor imaging for transcranial direct current stimulation (tDCS) using magnetic resonance diffusion tensor imaging (MR-DTI) *PLOS One* 13 197063
- Sajib S Z K, Kwon O I, Kim H J and Woo E J 2018 Electrodeless conductivity tensor imaging (CTI) using MRI: basic theory and animal experiments *Biomed. Eng. Lett.* 8 273-282
- Sajib S Z K, Lee M B, Kim H J, Woo E J and Kwon O I 2018 Extracellular total electrolyte concentration imaging for electrical brain stimulation (EBS) *Sci. Report* 8 18515
- Jeon K W, Lee C O and Woo E J 2018 A harmonic Bz-based conductivity reconstruction method in MREIT with influence of non-transversal current density *Inv. Prob. Sci. Eng.* 26 811-833
- Sajib S Z K, Katoch N, Kim H J, Kwon O I and Woo E J 2017 Software toolbox for low-frequency conductivity and current density imaging using MRI *IEEE Trans. Biomed. Eng.* 64 2505-2514
- Choi B K, Kim H J, Sajib S Z K, Oh T I, Kwon O I, Kim J W and Woo E J 2017 Realistic electric field mapping of anisotropic muscle during electrical stimulation using a combination of water diffusion tensor and electrical conductivity *Int. Neurology J.* 21 32-38
- Jeong W C, Sajib S Z K, Katoch N, Kim H J, Kwon O I and Woo E J 2017 Anisotropic conductivity tensor imaging of in vivo canine brain using DT-MREIT *IEEE Trans. Med. Imag.* 36 124-131

- Sajib S Z K, Oh T I, Kim H J, Kwon O I and Woo E J 2017 In vivo mapping of current density distribution in brain tissues during deep brain stimulation (DBS) AIP Adv. 7 015004
- Jin L, Kim K J, Song E H, Ahn Y J, Jeong Y J, Oh T I and Woo E J 2016 Highly precise nanofiber web-based dry electrodes for vital signal monitoring RSC Adv. 6 40045
- Sajib S Z K, Jeong W C, Kyung E J, Kim H B, Oh T I, Kim H J, Kwon O I and Woo E J 2016 Experimental evaluation of electrical conductivity imaging of anisotropic brain tissues using a combination of diffusion tensor imaging and magnetic resonance electrical impedance tomography AIP Adv. 6 065109
- Lee H Y, Jeong W C, Kim H J, Woo E J and Park J S 2016 Alternating steady state free precession for estimation of current-induced magnetic flux density: A feasibility study Magn. Reson. Med. 75 2009–2019
- Kim H B, Oh T I, Swanberg K M, Lee M B, Kim T W, Woo E J, Park J H and Kwon O I 2016 Microelectrode array analysis of hippocampal network dynamics following theta-burst stimulation via current source density reconstruction by Gaussian interpolation J. Neurosci. Meth. 264 1-10
- Jeong W C, Lee M B, Sajib S Z K, Kim H J, Kwon O I and Woo E J 2016 Enhanced magnetic flux density mapping using coherent steady state equilibrium signal in MREIT AIP Adv. 6 035121
- Kwon O I, Sajib S Z K, Sersa I, Oh T I, Jeong W C, Kim H J, Woo E J 2016 Current density imaging during transcranial direct current stimulation using DT-MRI and MREIT: Algorithm development and numerical simulations IEEE Trans. Biomed. Eng. 63 168-175
- Ammari H, Lee E, Kwon H, Seo J K and Woo E J 2015 Mathematical modeling of mechanical vibration-assisted conductivity imaging SIAM J. Appl. Math. 75 1031-1046
- Jeong W C, Wi H, Sajib S Z K, Oh T I, Kim H J, Kwon O I and Woo E J 2015 Evaluation of three-dimensional anisotropic head model for mapping realistic electromagnetic fields of brain tissues AIP Adv. 5 087152
- Oh T I, Kim H B, Jeong W C, Sajib S Z K, Kyung E J, Kim H J, Kwon O I and Woo E J 2015 Sub-millimeter resolution electrical conductivity images of brain tissues using magnetic resonance-based electrical impedance tomography Appl. Phys. Lett. 107 023701
- Wi H, McEwan A L, Lam V, Kim H J, Woo E J and Oh T I 2015 Real-time conductivity imaging of temperature and tissue property changes during radiofrequency ablation: An ex vivo model using weighted frequency difference Bioelectromagnetics 34 277-286
- Sajib S Z K, Kim J E, Jeong W C, Kim H J, Kwon O I and Woo E J 2015 Reconstruction of apparent orthotropic conductivity tensor image using magnetic resonance electrical impedance tomography (MREIT) J Appl. Phys. 117 104701
- Kim D H, Chauhan M, Kim M, Jeong W C, Kim H J, Sersa I, Kwon O I and Woo E J 2015 Frequency-dependent conductivity contrast for tissue characterization using a dual-frequency range conductivity mapping magnetic resonance method IEEE Trans. Med. Imag. 34 507-513
- Oh T I, Kim C, Karki B, Son Y, Lee E A and Woo E J 2015 Non-destructive label-free continuous monitoring of in vitro chondrogenesis via electrical conductivity and its anisotropy Biotech.

Bioeng. 112 422-427

- Kim H J, Jeong W C, Sajib S Z K, Kim M O, Kwon O I, Woo E J and Kim D H 2014 Simultaneous imaging of dual-frequency electrical conductivity using a combination of MREIT and MREPT Magn. Reson. Med. 71 200-208
- Kwon O I, Chauhan M, Kim H J, Jeong W C, Wi H, Oh T I and Woo E J 2014 Fast conductivity imaging in magnetic resonance electrical impedance tomography (MREIT) for RF ablation monitoring Int. J Hyperthermia 30 447-455
- Kang M H, Lee S W, Kim H J, Woo E J and Park H M 2014 Serial magnetic resonance imaging and long-term medical management of intracranial arachnoid cyst in a dog Pak. Vet. J. 34 417-419
- Seo J K and Woo E J 2014 Electrical tissue property imaging at low frequency using MREIT IEEE Trans. Biomed. Eng. 61 1390-1399
- Bera T K, Mohamadou Y, Lee K H, Wi h, Oh T I, Woo E J, Soleimani M and Seo J K 2014 Electrical impedance spectroscopy for electro-mechanical characterization of conductive fabrics Sensors 14 9738-9754
- Kwon O I, Jeong W C, Sajib S Z K, Kim H J and Woo E J 2014 Anisotropic conductivity tensor imaging in MREIT using directional diffusion rate of water molecules Phys. Med. Biol. 59 2955-2974
- Farooq A, Tehrani J N, McEwan A L, Woo E J and Oh T I 2014 Improvements and artifact analysis in conductivity images using multiple internal electrodes Physiol. Meas. 35 1125-1135
- Kim H J, Jeong W C, Sajib S Z K, Kim M O, Kwon O I, Woo E J and Kim D H 2014 Simultaneous imaging of dual-frequency electrical conductivity using a combination of MREIT and MREPT Magn. Reson. Med. 71 200-208
- Karki B, Wi H, McEwan A, Kwon H N, Oh T I, Woo E J and Seo J K 2014 Evaluation of a multi-electrode bioimpedance spectroscopy tensor probe to detect the anisotropic conductivity spectra of biological tissues Meas. Sci. Technol. 25 075702
- Zhao M, Wi H, Lee E J, Woo E J and Oh T I 2014 Feasibility of anomaly detection and characterization using trans-admittance mammography with 60×60 electrode array Phys. Med. Biol. 59 5831-5847
- Jeong W C, Meng Z J, Kim H J, Kwon O I and Woo E J 2014 Experimental validations of in vivo human musculoskeletal tissue conductivity images using MR-based electrical impedance tomography Bioelectromagnetics 35 363-372
- Jeong W C, Chauhan M, Sajib S Z K, Kim H J, Sersa I, Kwon O I and Woo E J 2014 Optimization of magnetic flux density measurement using multiple RF receiver coils and multi-echo in MREIT Phys. Med. Biol. 59 4827-4844
- Oh T I, Jeong W C, Kim J E, Sajib S Z K, Kim H J, Kwon O I and Woo E J 2014 Noise analysis in fast magnetic resonance electrical impedance tomography (MREIT) based on spoiled multi gradient echo (SPMGE) pulse sequence Phys. Med. Biol. 59 4723-4738
- Ahn S J, Oh T I, McEwan A L, Jun S C and Woo E J 2014 Continuous nondestructive monitoring

- method using the reconstructed three-dimensional conductivity images via GREIT for tissue engineering *J. Appl. Math.* 56:2176
- Oh T I, Chauhan M, Sajib S Z K, Kim J E, Jeong W C, Wi H, Kwon O I, Woo E J and Kim H J 2014 Modelling of electromagnetic field distribution for optimizing electrode configurations in liver MR-based electrical impedance tomography *Electronics Letters* 50 1273-1275
 - Sohal H, Wi H, McEwan A L, Woo E J and Oh T I Electrical impedance imaging system using FPGAs for flexibility and interoperability 2014 *Biomed. Eng. OnLine* 13 126
 - Kim H J, Meng Z J, Sajib S Z K, Chauhan M, Jeong W C, H. Wi, Kwon O I, Woo E J and Oh T I 2014 Numerical simulation of electromagnetic field distribution induced in brain by electrical stimulation *Electronics Letters* 50 1045–1047
 - Oh T I, Kim H J, Jeong W C, Wi h, Kwon O I and Woo E J 2014 Conductivity image enhancement in MREIT using adaptively weighted spatial averaging filter *Biomed. Eng. OnLine* 13 87
 - Kwon O I, Jeong W C, Sajib S Z K, Kim H J, Woo E J and Oh T I 2014 Reconstruction of dual-frequency conductivity by optimization of phase map in MREIT and MREPT *Biomed. Eng. OnLine* 13 24
 - Chauhan M, Jeong W C, Kim H J, Kwon O I and Woo E J 2013 Optimization of magnetic flux density for fast MREIT conductivity imaging using multi-echo interleaved partial Fourier acquisitions *Biomed. Eng. OnLine* 12 82
 - Chauhan M, Jeong W C, Kim H J, Kwon O I and Woo E J 2013 Radiofrequency ablation lesion detection using MR-based electrical conductivity imaging: a feasibility study of ex vivo liver experiments *Int. J. Hyperthermia* 29 643-652
 - Kim H J, Sajib S Z K, Jeong W C, Kim M N, Kwon O I and Woo E J 2013 Analysis of local projected current density from one component of magnetic flux density in MREIT *Inv. Prob.* 29 075001
 - Meng Z J, Sajib S Z K, Chauhan M, Sadleir R J, Kim H J, Kwon O I and Woo E J 2013 Numerical simulation of MREIT conductivity imaging for brain tumor detection *Comput. Math. Meth. Med.* 704829
 - Kim H H, Minhas A S and Woo E J 2013 An iterative method for problems with multiscale conductivity *Comput. Math. Meth. Med.* 893040
 - Oh T I, Kim H J, Jeong W C, Chauhan M, Kwon O I and Woo E J 2013 Detection of temperature distribution via recovering electrical conductivity in MREIT *Phys. Med. Biol.* 58 2697-2711
 - Oh T I, Jeong W C, McEwan A, Park H M, Kim H Jm Kwon O I and Woo E J 2013 Feasibility of magnetic resonance electrical impedance tomography (MREIT) conductivity imaging to evaluate brain abscess lesion: in vivo canine model *J. Magn. Reson. Imag.* 38 189-197
 - Kwon O I, Woo E J, Du Y P and Hwang D 2013 A tissue relaxation dependent neighboring method for robust mapping of the myelin water fraction *NeuroImage* 74 12-21
 - Sadleir R J, Sajib S Z K, Kim H J, Kwon O I and Woo E J 2013 Simulations and phantom evaluations of magnetic resonance electrical impedance tomography (MREIT) for breast cancer detection *J. Magn. Reson.* 230 40-49

- Baeg J C, Wi H, Oh T I, McEwan A L and Woo E J 2013 An amplitude-to-time conversion technique suitable for multichannel data acquisition and bioimpedance imaging *IEEE Trans. Biomed. Circ. Sys.* 7 349-354
- Oh T I, Yoon S, Kim T E, Wi H, Kim K J, Woo E J and Sadleir R J 2013 Nanofiber web textile dry electrode for long-term biopotential recording *IEEE Trans. Biomed. Circ. Sys.* 7 204-211
- Kwon H, McEwan A L, Oh T I, Farooq A, Woo E J and Seo J K 2013 A local region of interest imaging method for electrical impedance tomography with internal electrodes *Comput. Math. Meth. Med.* 964918
- Kranjc M, Bajd F, Sersa I, Woo E J and Miklavcic D 2012 Ex vivo and in silico feasibility study of monitoring electric field distribution in tissue during electroporation based treatments *PLoS ONE* 7 e45737
- Seo J K, Kim M O, Lee J, Choi N, Woo E J, Kim H J, Kwon O I and Kim D H 2012 Error analysis of nonconstant admittivity for MR-based electric property imaging *IEEE Trans. Med. Imag.* 31 430-437
- Sajib S Z K, Kim H J, Kwon O I and Woo E J 2012 Regional absolute conductivity reconstruction using projected current density in MREIT *Phys. Med. Biol.* 57 5841-5859
- Seo J K, Kim D H, Lee J, Kwon O I, Sajib S Z K and Woo E J 2012 Electrical tissue property imaging using MRI at dc and Larmor frequency *Inv. Prob.* 28 084002
- Kim M N, Ha T Y, Woo E J and Kwon O I 2012 Improved conductivity reconstruction from multi-echo MREIT utilizing weighted voxel-specific signal-to-noise ratios *Phys. Med. Biol.* 57 3643-6359
- Lee E, Ts M E, Seo J K and Woo E J 2012 Breast EIT using a new projected image reconstruction method with multi-frequency measurements *Physiol. Meas.* 33 751-765
- Kim S, Lee E J, Woo E J and Seo J K 2012 Asymptotic analysis of the membrane structure to sensitivity of frequency-difference electrical impedance tomography *Inv. Prob.* 28 075004
- Oh T I, Kim T E, Yoon S, Kim K J, Woo E J and Sadleir R J 2012 Flexible electrode belt for EIT using nanofiber web dry electrodes *Physiol. Meas.* 33 1603-1616
- Meng Z, Sajib S Z K, Chauhan M, Jeong W C, Kim Y T, Kim H J and Woo E J 2012 Improved conductivity image of human lower extremity using MREIT with chemical shift artifact correction *Biomed. Eng. Lett.* 2 62-68
- Minhas A S, Kim H H, Meng Z J, Kim Y T, Kim H J and Woo E J 2011 Three-dimensional MREIT simulator for static bioelectromagnetism and MRI *Biomed. Eng. Lett.* 1 129-136
- Kim Y T, Jeong W C, Minhas A S, Lim C Y, Park H M, Kim H J and Woo E J 2011 In vivo magnetic resonance electrical impedance tomography of canine brain: disease model study of ischemia and abscess *Biomed. Eng. Lett.* 1 56-61
- Kim H J, Kim Y T, Jeong W C, Minhas A S, Lim C Y, Park H M and Woo E J Conductivity imaging of canine body using 3T magnetic resonance electrical impedance tomography (MREIT) system 2011 *Scientia Iranica* 18 1505-1510
- Kim Y T, Yoo P J, Oh T I and Woo E J 2011 Magnetic flux density measurement in magnetic

- resonance electrical impedance tomography using a low-noise current source *Meas. Sci. Technol.* 22 105803
- Minhas A S, Jeong W C, Kim Y T, Han Y, Kim H J and Woo E J 2011 Experimental performance evaluation of multi-echo ICNE pulse sequence in magnetic resonance electrical impedance tomography *Magn. Reson. Med.* 66 957-965
 - Seo J K, Jeon K, Lee C O and Woo E J 2011 Non-iterative harmonic Bz algorithm in MREIT *Inv. Prob.* 27 085003
 - Lee C O, Jeon K, Ahn S, Kim H J and Woo E J 2011 Ramp-preserving denoising for conductivity image reconstruction in magnetic resonance electrical impedance tomography *IEEE Trans. Biomed. Eng.* 58 2038-2050
 - Song Y, Lee E, Woo E J and Seo J K 2011 Optimal geometry toward uniform current density electrodes *Inv. Prob.* 27 075004
 - Oh T I, Kim Y T, Minhas A S, Seo J K, Kwon O I and Woo E J 2011 Ion mobility imaging and contrast mechanism of apparent conductivity in MREIT *Phys. Med. Biol.* 56 2265-2277
 - Seo J K and Woo E J 2011 Magnetic resonance electrical impedance tomography (MREIT) *SIAM Rev.* 53 40-68
 - Ahn S, Oh T I, Jun S C, Seo J K and Woo E J 2011 Validation of weighted frequency-difference EIT using a three-dimensional hemisphere model and phantom *Physiol. Meas.* 32 1663-1680
 - Liu Q, Oh T I, Wi H, Lee E J, Seo J K and Woo E J 2011 Design of a microscopic electrical impedance tomography using two current injections *Physiol. Meas.* 32 1505-1516
 - Oh T I, Wi H, Kim D Y, Yoo P J and Woo E J 2011 A fully parallel multi-frequency EIT system with flexible electrode configuration: KHU Mark2 *Physiol. Meas.* 32 835-849
 - Lee E, Seo J K, Woo E J and Zhang T 2011 Mathematical framework for a new microscopic electrical impedance tomography system *Inv. Prob.* 27 055008
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 - Lee T H, Nam H S, Lee M G, Kim Y T, Woo E J and Kwon O I 2010 Reconstruction of conductivity using the dual-loop method with one injection current in MREIT *Phys. Med. Biol.* 55 7523-7539
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- resolution conductivity imaging of the human leg using MREIT: the first human experiment *IEEE Trans. Med. Imag.* 28 1681-1687
- Jeon K, Minhas A S, Kim Y T, Jeong W C, Kim H J, Kang B T, Park H M, Lee C O, Seo J K and Woo E J 2009 MREIT conductivity imaging of the postmortem canine abdomen using CoReHA *Physiol. Meas.* 30 957-966
 - Fabrizi L, McEwan A, Oh T, Woo E J and Holder D S 2009 A comparison of two EIT systems suitable for imaging impedance changes in epilepsy *Physiol. Meas.* 30 S103-S120
 - Kuen J, Woo E J and Seo J K 2009 Multi-frequency time-difference complex conductivity imaging of canine and human lungs using the KHU Mark1 EIT system *Physiol. Meas.* 30 S149-S164
 - Jun S C, Kuen J, Lee J, Woo E J, Holder D S and Seo J K 2009 Frequency-difference EIT (fdEIT) using weighted difference and equivalent homogeneous admittivity: validation by simulation and tank experiment *Physiol. Meas.* 30 1087-1099
 - Fabrizi L, McEwan A, Oh T, Woo E J and Holder D S 2009 An electrode addressing protocol for imaging brain function with electrical impedance tomography using a 16-channel semi-parallel system *Physiol. Meas.* 30 S85-S101
 - Woo E J and Seo J K 2008 Magnetic resonance electrical impedance tomography (MREIT) for high-resolution conductivity imaging *Physiol. Meas.* 29 R1-R26
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- Oh T I, Lee J H, Seo J K, Kim S W and Woo E J 2007 Feasibility of breast cancer lesion detection using a multi-frequency trans-admittance scanner (TAS) with 10 Hz to 500 kHz bandwidth *Physiol. Meas.* 28 S71-S84
- Oh T I, Woo E J and Holder D 2007 Multi-frequency EIT system with radially symmetric architecture: KHU Mark1 *Physiol. Meas.* 28 S183-S196
- Liu J J, Seo J K, Sini M and Woo E J 2007 On the convergence of the harmonic Bz algorithm in magnetic resonance electrical impedance tomography *SIAM J. Appl. Math.* 67 1259-1282
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- Park C, Lee B I, Kwon O and Woo E J 2007 Measurement of induced magnetic flux density using injection current nonlinear encoding (ICNE) in MREIT *Physiol. Meas.* 28 117-127
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