

TABLE OF CONTENTS FOR VOLUME 42

Critical Reviews™ In Biomedical Engineering

Page Range of Issues

**Issue 1, 1-93; Issue 2, 95-191; Issue 3, 193-348;
Issue 5, 349-436; Issue 6, 437-526**

NUMBER 1

Preface <i>A. Badh</i>	vii
Ingestible Gastrointestinal Sampling Devices: State-of-the-Art and Future Directions <i>Y. Amoako-Tuffour, M.L. Jones, N. Shalabi, A. Labbé, S. Vengallatore, & S. Prakash</i>	1
GERD and Obesity: Is the Autonomic Nervous System the Missing Link? <i>N. Devendran, N. Chauhan, D. Armstrong, A.R.M. Upton, & M.V. Kamath</i>	17
Modeling the Weaning of Intensive Care Unit Patients from Mechanical Ventilation: A Review <i>M. Alam, G. Jones, W. Kahl, & M.V. Kamath</i>	25
Classification of Fractional Order Biomarkers for Anomalous Diffusion Using q-Space Entropy <i>R.L. Magin, C. Ingo, W. Triplett, L. Colon-Perez, & T.H. Mareci</i>	63
Approaches for Modeling Magnetic Nanoparticle Dynamics <i>D.B. Reeves & J.B. Weaver</i>	85

NUMBER 2

Ballistocardiogram Correction in Simultaneous EEG/fMRI Recordings: A Comparison of Average Artifact Subtraction and Optimal Basis Set Methods Using Two Popular Software Tools <i>Amabilis H. Harrison, Michael D. Noseworthy, James P. Reilly & John F. Connolly</i>	95
Radiofrequency Coils for Magnetic Resonance Applications: Theory, Design, and Evaluation <i>Giulio Giovannetti, Valentina Hartwig, Vincenzo Positano & Nicola Vanello</i>	109
Magnetic Resonance Characterization of Tissue Engineered Cartilage via Changes in Relaxation Times, Diffusion Coefficient, and Shear Modulus <i>Ziying Yin</i>	137

NUMBERS 3-4

Preface Hai Yao & Martine LaBerge	vii
Drug-Coated Percutaneous Balloon Catheters Jayesh V. Betala, Eugene M. Langan III & Martine LaBerge	193
Tissue Engineering Approaches to Heart Repair Yunkai Dai & Ann C. Foley	213
Corneal Cross-Linking: Engineering a Predictable Model R. Glenn Hepfer, Changcheng Shi, Yongren Wu, George O. Waring IV & Hai Yao	229
Tissues Reborn: Fetal Membrane-Derived Matrices and Stem Cells in Orthopedic Regenerative Medicine Renaee Keeley, Natasha Topoluk & Jeremy Mercuri	249
Clinical Applications of Surgical Adhesives and Sealants Lindsey Sanders & Jiro Nagatomi	271
A Perspective on the Role and Utility of Haptic Feedback in Laparoscopic Skills Training Ravikiran B. Singapogu, Timothy C. Burg, Karen J.L. Burg, Dane E. Smith & Amanda H. Eckenrode	293
Role of Vascularity in Successful Bone Formation and Repair Suzanne M. Tabbaa, C. Olsen Horton, Kyle J. Jeray & Karen J.L. Burg	319

NUMBER 5

In Memoriam: Skipper Poehlman Markad V. Kamath, Colm Boylan, Graham Jones, Wolfram Kahl, Michael D. Noseworthy, & Adrian R. Upton	349
A Multi-Step Algorithm for Measuring Airway Luminal Diameter and Wall Thickness in Lung CT Images Mohammadreza Heydarian, Michael D. Noseworthy, Markad V. Kamath, Colm Boylan, & W. F. S. Poehlman	351
A Morphological Algorithm for Measuring Angle of Airway Branches in Lung CT Images Mohammadreza Heydarian, Michael D. Noseworthy, Markad V. Kamath, Colm Boylan, & W. F. S. Poehlman	369
A Mathematical Framework for Minimally Invasive Tumor Ablation Therapies Sheldon K. Hall, Ean Hin Ooi & Stephen J. Payne	383
Understanding the Retina: A Review of Computational Models of the Retina from the Single Cell to the Network Level Tianruo Guo, David Tsai, Siwei Bai, John W. Morley, Gregg J. Suaning, Nigel H. Lovell, & Socrates Dokos	419

NUMBER 6

Acceleration of Conventional Data Acquisition in Dynamic Contrast Enhancement: Comparing Keyhole Approaches With Compressive Sensing Sairam Geethanath, Praveen K. Gulaka, & Vikram D. Kodibagkar	437
A Bidirectional Model of Postural Sway Using Force Plate Data Karla D. Bustamante Valles, Ubong I. Udoekwere, Jason T. Long, Jennifer M. Schneider, Susan A. Riedel, and Gerald F. Harris	451
Review of Temperature Dependence of Thermal Properties, Dielectric Properties, and Perfusion of Biological Tissues at Hyperthermic and Ablation Temperatures Christian Rossmanna & Dieter Haemmerich	467
Unconventional Gradient Coil Designs in Magnetic Resonance Imaging Minhua Zhu, Ling Xia, & Feng Liu	493
INDEX to Volume 42	527

AUTHOR INDEX – Volume 42
Critical ReviewTM in Biomedical Engineering

Page Numbers for Issues:

Issue 1, 1-93; Issue 2, 95-191; Issue 3, 193-348;
Issue 5, 349-436; Issue 6, 437-526

Alam, M., 25	Long, J.T., 451
Amoako-Tuffour, Y., 1	Lovell, N.H., 419
Armstrong, D., 17	Magin, R.L., 63
Bai, S., 419	Mareci, T.H., 63
Betala, J.V., 193	Mercuri, J., 249
Boylan, C., 351,369,349	Morley, J.W., 419
Burg, K.J.L., 293,319	Nagatomi, J. 271
Burg, T.C., 293	Noseworthy, M.D., 95,351,369,349
Chauhan, N., 17	Ooi, E.H., 383
Colon-Perez, L., 63	Payne, S.J., 383
Connolly, J.F., 95	Poehlman, W.F.S., 351,369
Dai, Y., 213	Positano, V., 109
Devendran, N., 17	Prakash, S., 1
Dokozs, S., 419	Reeves, D.B., 85
Eckenrode, A.H., 293	Reilly, J.P., 95
Foley, A.C., 213	Riedel, S.A., 451
Geethanath, S., 437	Rossmanna, C., 467
Giovannetti, G., 109	Sanders, L., 271
Gulaka, P.K., 437	Schneider, J.M., 451
Guo, T., 419	Shalabi, N., 1
Haemmerich, D., 467	Shi, C., 229
Hall, S.K., 383	Singapogu, R.B., 293
Harris, G.F., 451	Smith, D.E., 293
Harrison, A.H., 95	Suaning, G.J., 419
Hartwig, V., 109	Tabbaa, S.M., 319
Hepfer, R.G., 229	Topoluk, N., 249
Heydarian, M., 351,369	Triplett, W., 63
Horton, C.O., 319	Tsai, D., 419
Ingo, C., 63	Udoekwere, U.I., 451
Jeray, K.J., 319	Upton, A.R.M., 17,349
Jones, G., 25,349	Valles, K.D.B., 451
Jones, M.L., 1	Vanello, N., 109
Kahl, W., 25,349	Vengallatore, S., 1
Kamath, M.V., 17, 25,351,369,349	Waring IV, G.O., 229
Keeley, R., 249	Weaver, J.B., 85
Kodibagkar, V.D., 437	Wu, Y., 229
Labbé, A., 1	Xia, L., 493
LaBerge, M., 193	Yao, H., 229
Langan III, E.M., 193	Yin, Z., 137
Liu, F., 493	Zhu, M., 493

SUBJECT INDEX – Volume 42
Critical ReviewTM in Biomedical Engineering

Page Numbers for Issues:

Issue 1, 1-93; Issue 2, 95-191; Issues 3-4, 193-348;
Issue 5, 349-436; Issue 6, 437-526

3D gradient coil, 493
ablation, 467
anomalous, 63
artifact, 95
autonomic nervous system, 17
autonomous ingestible device, 1
average artifact subtraction, 95
ballistocardiogram, 95
bare metal stents, 193
bidirectional, 451
biomedical Image processing, 349
bone grafts, 319
bone repair, 319
cardiac progenitors, 213
cardiomyocytes, 213
compressed sensing, 437
computed tomography (CT), 351,369
computer simulation, 109
cornea, 229
corneal collagen cross-linking, 229
cryoablation, 383
dielectric properties, 467
diffusion, 63,137
discontinuation, 25
drug-eluting stents, 193
dynamic contrast-enhanced MRI, 437
elastography, 137
electromechanical capsule, 1
engineered heart tissues, 213
entropy, 63
extraembryonic membranes, 249
Fokker-Planck, 85
fractional calculus, 63
gastroesophageal reflux disease, 17
haptic feedback, 293
haptics, 293
head gradient coil, 493
hydrogels, 213
hyperthermia, 467
ICU, 25
imaging, 137
in-stent restenosis, 193
iopromide, 193
irreversible electroporation, 383
keratoconus, 229
keyhole, 437
Langevin equation, 85
laparoscopy training, 293
level set method (LSM), 351,369
local gradient coil, 493
lower esophageal sphincter, 17
lumen, 369
luminal intestinal content collection, 1
lung airway, 351,369
magnetic nanoparticles, 85
magnetic resonance, 109,137
material properties, 229
mathematical modeling, 229,383
mechanical ventilation, 25
microwave ablation, 383
Mittag-Leffler function, 63
model, 451
modeling, 25
MRI, 493
obesity, 17
ocular biomechanics, 229
optimal basis set, 95
orthopedics, 249
paclitaxel, 193
parametric mapping, 437
perfusion, 467
pluripotent cells, 213
PNS, 493
polymers, 271
postural control, 451
postural sway, 451
proportional-integral-derivative, 451
q-space, 63
radiofrequency ablation, 383
radiofrequency coil, 109

regenerative medicine, 249
relaxation, 137
riboflavin, 229
seeded region-growing algorithm (SRGA), 351,369
simultaneous acquisition, 137
simultaneous EEG/fMRI, 95
sirolimus, 193
split gradient coil, 493
stem cells, 249
stochastic modeling, 85
surgery training, 293
surgical adhesive, 271
surgical procedures, 319
surgical sealant, 271
thermal properties, 467
tissue engineering, 249
tissue properties, 467
unconventional gradient coil designs, 493
UVA light, 229
vasculature, 319
ventilation modes, 25
weaning process, 25
weaning, 25