Petra KochovÃ¡

List of Publications by Year
in descending order

34 papers	478 citations	840776 11 h-index	713466 21 g-index
35 all docs	35 docs citations	35 times ranked	772 citing authors

#	Article	IF	Citations
1	Cellular Force Microscopy for in Vivo Measurements of Plant Tissue Mechanics Â Â. Plant Physiology, 2012, 158, 1514-1522.	4.8	135
2	Numerical and length densities of microvessels in the human brain: Correlation with preferential orientation of microvessels in the cerebral cortex, subcortical grey matter and white matter, pons and cerebellum. Journal of Chemical Neuroanatomy, 2018, 88, 22-32.	2.1	37
3	The contribution of vascular smooth muscle, elastin and collagen on the passive mechanics of porcine carotid arteries. Physiological Measurement, 2012, 33, 1335-1351.	2.1	33
4	Thin-Layer Hydroxyapatite Deposition on a Nanofiber Surface Stimulates Mesenchymal Stem Cell Proliferation and Their Differentiation into Osteoblasts. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	27
5	Time-regulated drug delivery system based on coaxially incorporated platelet Î±-granules for biomedical use. Nanomedicine, 2013, 8, 1137-1154.	3.3	25
6	Generating standardized image data for testing and calibrating quantification of volumes, surfaces, lengths, and object counts in fibrous and porous materials using Xâ€ray microtomography. Microscopy Research and Technique, 2018, 81, 551-568.	2.2	23
7	How to asses, visualize and compare the anisotropy of linear structures reconstructed from optical sectionsâ€"A study based on histopathological quantification of human brain microvessels. Journal of Theoretical Biology, 2011, 286, 67-78.	1.7	16
8	Vasa vasorum quantification in human varicose great and small saphenous veins. Annals of Anatomy, 2012, 194, 473-481.	1.9	16
9	The composition and biomechanical properties of human cryopreserved aortas, pulmonary trunks, and aortic and pulmonary cusps. Annals of Anatomy, 2017, 212, 17-26.	1.9	14
10	Persistent occiput posterior position and stress distribution in levator ani muscle during vaginal delivery computed by a finite element model. International Urogynecology Journal, 2020, 31, 1315-1324.	1.4	13
11	Quantification of compact bone microporosities in the basal and alveolar portions of the human mandible using osteocyte lacunar density and area fraction of vascular canals. Annals of Anatomy, 2011, 193, 211-219.	1.9	12
12	Stereological quantification of microvessels using semiautomated evaluation of X-ray microtomography of hepatic vascular corrosion casts. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1803-1819.	2.8	12
13	A preliminary study into the correlation of stiffness of the laminar junction of the equine hoof with the length density of its secondary lamellae. Equine Veterinary Journal, 2013, 45, 170-175.	1.7	10
14	A Finite Element Model of an Equine Hoof. Journal of Equine Veterinary Science, 2015, 35, 60-69.	0.9	10
15	Segmental differences in the orientation of smooth muscle cells in the tunica media of porcine aortae. Biomechanics and Modeling in Mechanobiology, 2015, 14, 315-332.	2.8	10
16	The histological microstructure and in vitro mechanical properties of the human female postmenopausal perineal body. Menopause, 2019, 26, 66-77.	2.0	10
17	MORPHOLOGY AND MECHANICAL PROPERTIES OF THE SUBRENAL AORTA IN NORMOTENSIVE AND HYPERTENSIVE RATS. Biomedical Papers of the Medical Faculty of the University Palacký, Olomouc, Czechoslovakia, 2008, 152, 239-245.	0.6	9
18	Mechanical and structural properties of human aortic and pulmonary allografts do not deteriorate in the first 10Âyears of cryopreservation and storage in nitrogen. Cell and Tissue Banking, 2019, 20, 221-241.	1.1	8

#	Article	IF	Citations
19	The time has come to extend the expiration limit of cryopreserved allograft heart valves. Cell and Tissue Banking, 2021, 22, 161-184.	1.1	8
20	Using virtual microscopy for the development of sampling strategies in quantitative histology and designâ€based stereology. Journal of Veterinary Medicine Series C: Anatomia Histologia Embryologia, 2022, 51, 3-22.	0.7	8
21	Structural and Mechanical Properties of Gastropod Connective and Smooth Muscle Tissue. Experimental Mechanics, 2014, 54, 791-803.	2.0	7
22	A mathematical model of the carp heart ventricle during the cardiac cycle. Journal of Theoretical Biology, 2015, 373, 12-25.	1.7	7
23	Microstructure Oriented Modelling of Hierarchically Perfused Porous Media for Cerebral Blood Flow Evaluation. Key Engineering Materials, 0, 465, 286-289.	0.4	5
24	Blunt injury of liver: mechanical response of porcine liver in experimental impact test. Physiological Measurement, 2021, 42, 025008.	2.1	5
25	The histological microstructure and in vitro mechanical properties of pregnant and postmenopausal ewe perineal body. Menopause, 2019, 26, 1289-1301.	2.0	4
26	Distribution of orientation of smooth muscle bundles does not change along human great and small varicose veins. Annals of Anatomy, 2014, 196, 67-74.	1.9	3
27	Decellularization of Porcine Carotid Arteries: From the Vessel to the High-Quality Scaffold in Five Hours. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	4.1	3
28	Aorta Remodelling Associated with Calcitonin Gene Related Peptide Concentration in Rats with Arterial Hypertension. Acta Veterinaria Brno, 2009, 78, 595-602.	0.5	2
29	Microcracks and Mechanical Behaviour of Corio-Epidermal Junction of Equine Hoof. Key Engineering Materials, 0, 465, 342-345.	0.4	2
30	Histological Composition and Mechanical Properties of Cryopreserved Samples of Aortic and Pulmonary Valves. Solid State Phenomena, 0, 258, 341-344.	0.3	2
31	Identification of the LLDPE Constitutive Material Model for Energy Absorption in Impact Applications. Polymers, 2021, 13, 1537.	4.5	2
32	Multiscale Heterogeneity of Bone Microporosities and Tissue Scaffolds. Key Engineering Materials, 0, 592-593, 350-353.	0.4	0
33	Quantification of Liver Microcirculation Using X-Ray Microtomography of Vascular Corrosion Casts. Key Engineering Materials, 0, 592-593, 505-508.	0.4	0
34	Links between the Orientation of Vascular Smooth Muscle and Microscopical Composition of Aortic Segments. Solid State Phenomena, 0, 258, 329-332.	0.3	0