

### **An advanced finite element model of IPMC**

**Pugal, Deivid;** Kasemägi, Heiki; **Kruusmaa, Maarja;** Aabloo, Alvo *Electroactive Polymer Actuators and Devices (EAPAD) 2008* 2008 / p. 692711

### **Analysis of instantaneous cardiac EBI signal variability over the heart cycle(s) : non-linear time-scale approach**

**Krivošei, Andrei; Min, Mart; Annus, Paul; Kõiv, Hip;** Aabloo, Alvo; Uettoa, Tiina *EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017* 2018 / p. 940-943 : ill [https://doi.org/10.1007/978-981-10-5122-7\\_235](https://doi.org/10.1007/978-981-10-5122-7_235)  
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Availability and variations of cardiac activity in the case of measuring the bioimpedance of wrist**

**Metshein, Margus; Annus, Paul; Land, Raul; Min, Mart;** Aabloo, Alvo 2018 *IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2018) : proceedings 2018 / 5 p.* : ill <https://doi.org/10.1109/I2MTC.2018.8409684>

### **Carbon aerogel based electrode material for EAP actuators**

Kaasik, Friedrich; Torop, Janno; **Peikolainen, Anna-Liisa; Koel, Mihkel;** Aabloo, Alvo *Proceedings of SPIE 2011 / p. 79760O-1 - 79760O-8* : ill

### **Carbon aerogel-cellulose films and fibres with electrical conductivity and antibacterial properties against cyanobacteria**

Elhi, Fred; Kisand, Veljo; Peikolainen, Anna-Liisa; **Koel, Mihkel;** Aabloo, Alvo *3rd Seminar on Aerogels : Synthesis-Properties-Applications : 22-23 September 2016, Mines ParisTech - PSL Research University, Sophia Antipolis (France) : proceedings 2016 / p. 180*

### **Carbon xerogel from 5-methylresorcinol-formaldehyde gel : the controllability of structural properties**

Peikolainen, Anna-Liisa; **Uibu, Mai;** Kozlova, Jekaterina; Mändar, Hugo; Tamm, Aile; Aabloo, Alvo *Carbon trends 2021 / art. 100037,* 11 p. : ill <https://doi.org/10.1016/j.cartre.2021.100037> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Challenges and perspectives in control of ionic polymer-metal composite (IPMC) actuators : a survey**

Aabloo, Alvo; **Belikov, Juri; Kaparin, Vadim; Kotta, Ülle** *IEEE Access 2021 / art. 9133056,* p. 121059-121073  
<https://doi.org/10.1109/ACCESS.2020.3007020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Design of a semiautonomous biomimetic underwater vehicle for environmental monitoring**

**Listak, Madis;** Martin, G.; Pugal, David; Aabloo, Alvo; Kruusmaa, Maarja *Proceedings of the 2005 IEEE International Symposium on Computational Intelligence in Robotics and Automation : CIRA 2005 : Espoo, Finland, 2005* 2005 / ? p  
<https://ieeexplore.ieee.org/document/1554247>

### **A distributed model of ionomeric polymer metal composite**

Punning, Andres; Johanson, Urmas; Anton, Mart; Aabloo, Alvo; **Kruusmaa, Maarja** *Journal of intelligent material systems and structures 2009 / p. 1711-1724* : ill <https://doi.org/10.1177/1045389X0933717>

### **Dynamical variation of the impedance of IPMC**

Kruusmaa, Karl; Punning, Andres; **Kruusmaa, Maarja;** Aabloo, Alvo *Proceedings of SPIE 2009 / Electroactive Polymer Actuators and Devices (EAPAD) 2009,* p. 72870V-1 - 72870V-9 : ill  
[https://www.researchgate.net/publication/236115865\\_Dynamical\\_variation\\_of\\_the\\_impedances\\_of\\_IPMC](https://www.researchgate.net/publication/236115865_Dynamical_variation_of_the_impedances_of_IPMC)

### **Electroactive polymer actuators with carbon aerogel electrodes**

Palmre, Viljar; Lust, Enn; Jänes, Alar; **Koel, Mihkel; Peikolainen, Anna-Liisa;** Torop, Janno; Johanson, Urmas; Aabloo, Alvo *Journal of materials chemistry 2011 / p. 2577-2583* : ill <https://pubs.rsc.org/en/content/articlelanding/2011/jm/c0jm01729a>

### **Electrochemically driven carbon-based materials as EAPs : fundamentals and device configurations [Online resource]**

Torop, Janno; Peikolainen, Anna-Liisa; Aabloo, Alvo; **Koel, Mihkel;** Asaka, Kinji; Baughman, Ray *Electromechanically active polymers : a concise reference 2016 / p. 1-16* [http://dx.doi.org/10.1007/978-3-319-31767-0\\_18-1](http://dx.doi.org/10.1007/978-3-319-31767-0_18-1)

### **Electrode reactions in Cu-Pt coated Nafion[r] actuators**

Johanson, Urmas; Mäeorg, Uno; Brandell, Daniel; Punning, Andres; Torop, Janno; **Kruusmaa, Maarja;** Aabloo, Alvo *Artificial Muscle Actuators using Electroactive Polymers 2009 / p. 75-80* [https://www.researchgate.net/publication/236115789\\_Electrode\\_Reactions\\_in\\_Cu-Pt\\_Coated\\_NafionR\\_Actuators](https://www.researchgate.net/publication/236115789_Electrode_Reactions_in_Cu-Pt_Coated_NafionR_Actuators)

### **Fractional-order modeling and control of ionic polymer-metal composite actuator**

**Tepljakov, Aleksei;** Vunder, Veiko; **Petlenkov, Eduard;** Nakshatharan, S Sunjai; Punning, Andres; **Kaparin, Vadim; Belikov, Juri;** Aabloo, Alvo *Smart materials and structures 2019 / 12 p.* : ill <https://doi.org/10.1088/1361-665X/ab2c75> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Ionic liquid-carbon-polymer composite actuator based on carbon aerogel electrodes**

Kaasik, Friedrich; Must, Indrek; Torop, Janno; **Peikolainen, Anna-Liisa;** Aabloo, Alvo *SustainChem2011 : International Conference on Materials and Technologies for Green Chemistry jointly with Workshop of COST Action CM0903 (UBIOCHEM-II) : September 5-9,*

2011, Tallinn, Estonia : abstract book and program 2011 / p. 112 : ill

#### **Linear modeling of elongated bending EAP actuator at large deformations**

Must, Indrek; Anton, Mart; **Kruusmaa, Maarja**; Aabloo, Alvo Proceedings of SPIE 2009 / Electroactive Polymer Actuators and Devices (EAPAD) 2009, p. 728723-1 - 728723-12 : ill

[https://www.researchgate.net/publication/236115802\\_Linear\\_modeling\\_of\\_elongated\\_bending\\_EAP\\_actuator\\_at\\_large\\_deformations](https://www.researchgate.net/publication/236115802_Linear_modeling_of_elongated_bending_EAP_actuator_at_large_deformations)

#### **A linked manipulator with ion-polymer metal composite (IPMC) joints for soft- and micromanipulation**

**Kruusmaa, Maarja**; Hunt, Andres; Punning, Andres; Anton, Mart; Aabloo, Alvo 2008 IEEE International Conference on Robotics and Automation : Pasadena, CA, 19-23 May 2008. Vols. 1-9 2008 / p. 3588-3593

#### **Mechanoelectrical impedance of a carbide-derived carbon-based laminate motion sensor at large bending deflections**

Must, Indrek; **Anton, Mart**; Viidalepp, Erki; Põldsalu, Inga; Punning, Andres; Aabloo, Alvo Smart Materials and Structures 2013 / art. 104015 <https://doi.org/10.1088/0964-1726/22/10/104015> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Microprinted carbon aerogel electrodes for sensors and actuators**

Põldsalu, Inga; Peikolainen, Anna-Liisa; Greco, Francesco; **Kreek, Kristiina**; Aabloo, Alvo TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

#### **Modeling and experimental analysis of the mass loading effect on micro-ionic polymer actuators using step response identification**

Dadras, Iman; Ghenna, Sofiane; Grondel, Sébastien; Cattan, Éric; **Raik, Jaan**; Aabloo, Alvo; Banerji, Saoni Journal of Microelectromechanical Systems 2021 / p. 243–252 : ill <https://doi.org/10.1109/JMEMS.2021.3060897> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Nanoporous carbon-based electrodes for high strain ionomeric bending actuators**

Palmre, Viljar; Brandell, Daniel; Mäeorg, Uno; Torop, Janno; **Volobujeva, Olga**; Punning, Andres; Johanson, Urmas; **Kruusmaa, Maarja**; Aabloo, Alvo Smart materials & structures 2009 / 9, [7] p. : ill

#### **Preparation of fine carbon aerogel powder**

**Peikolainen, Anna-Liisa**; **Koel, Mihkel**; Aabloo, Alvo The 63rd Annual Meeting of International Society of Electrochemistry : 19.-24.08.2012, Praha 2012 <https://www.etis.ee/Portal/Publications/Display/e5e1ef5d-3700-4ba7-9c20-005efaae8d67>

#### **Sol-gel derived carbon microspheres by continuous ultrasonic spray pyrolysis**

Peikolainen, Anna-Liisa; **Uibu, Mai**; Aabloo, Alvo 31st Annual Conference of the European Society for Biomaterials (ESB 2021) 2021 [https://eventclass.org/contxt\\_esb2021/scientific/online-program/session?s=AERO+PS01](https://eventclass.org/contxt_esb2021/scientific/online-program/session?s=AERO+PS01)

#### **Task-oriented design of an underwater vehicle for environmental monitoring in the Baltic Sea**

**Listak, Madis**; Martin, G.; Pugal, David; Aabloo, Alvo; Kruusmaa, Maarja Proc. of the IWUR2005 International Workshop on Underwater Robotics for Sustainable Management of Marine Ecosystems and Environmental Monitoring : Genoa, Italy, 2005 2005 / ? p

#### **Towards a biomimetic EAP robot**

Anton, Mart; Punning, Andres; Aabloo, Alvo; **Listak, Madis**; Kruusmaa, Maarja Proceedings of TAROS 2004 : Towards Autonomous Systems 2004 / p. ? [https://www.researchgate.net/publication/248127819\\_Towards\\_a\\_biomimetic\\_EAP\\_robot](https://www.researchgate.net/publication/248127819_Towards_a_biomimetic_EAP_robot)

#### **Variation of cardiac and respiratory waveform on human thorax in the case of inductive coupling**

**Metshein, Margus**; **Anus, Paul**; **Land, Raul**; **Krivošei, Andrei**; **Ojarand, Jaan**; Aabloo, Alvo; **Min, Mart** EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 671-674 : ill [https://doi.org/10.1007/978-981-10-5122-7\\_168](https://doi.org/10.1007/978-981-10-5122-7_168) [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Wearable solutions for monitoring cardiorespiratory activity = Kehal kantavad vahendid kardiorespiatoorse aktiivsuse jälgimiseks**

**Metshein, Margus** 2018 <https://digi.lib.ttu.ee/i/?9961> [https://www.ester.ee/record=b5140297\\*est](https://www.ester.ee/record=b5140297*est)