

7th International Conference on

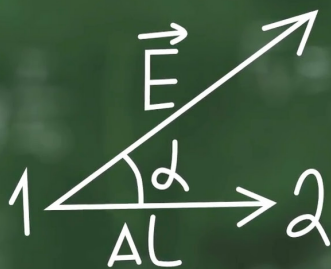
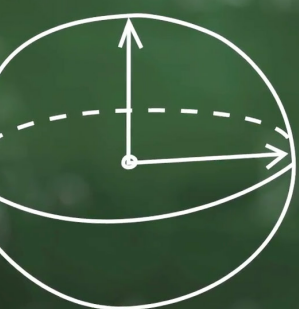
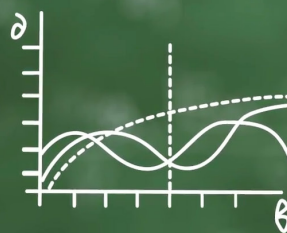
Smart Materials and Structures

July 02-03, 2018 | Vienna, Austria

$$\frac{\Delta I_C}{\Delta I_B} \sigma = \frac{\psi}{S}$$

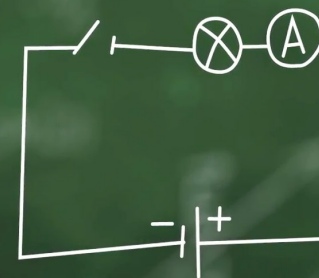
$$\left(\frac{t}{T} - \frac{x}{\lambda}\right) E_k = \frac{1}{2} m v^2 \quad \lambda = \frac{h v}{T} \quad F_g = \mu \frac{M_0 I}{r}$$

$$u = U_m \sin \omega(t - \tau) = U_m \sin 2\pi$$



$$E_0 = mc^2$$

$$\rho = \frac{F_A}{g \cdot V_n} \quad W_z^s = U_e I t \quad v = \frac{nh}{2\pi r m_e}$$



$$F_d = M_z \frac{v^2}{r} =$$

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<https://smartmaterials.materialsconferences.com/>

(Fleming's Room 7)

conference**series**.com 10:00-10:25

Opening Ceremony

Keynote Forum

10:25-10:30 Introduction

10:30-11:10 **Title: From molecular morphogenesis – towards autonomous material robotics**
Stoyan K. Smoukov, Queen Mary Univ. of London, UK

Networking and Refreshments Break 11:10-11:25 @ Foyer

11:25-12:05 **Title: Energy and environmental impacts of phase change materials on hot drink consumption**
Bin Wu, University of Missouri, USA

12:05-12:45 **Title: Hydrogen bonded organic pigment colloidal nanocrystals**
Wolfgang Heiss, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

Sessions: Smart Materials and Technologies | Smart Structures | Smart Materials in Industrial Application | Materials for Energy Conversion and Storage Devices | Mechanics and Behavior of Smart Materials | Nanomaterials and Nanotechnology

Session Chair: Wolfgang Heiss, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

12:45-13:05 **Title: Surface modified barium titanate for optimal dielectric properties in polymer-ceramic nanocomposite films**
Kimberly Cook Chennault, The State University of New Jersey, USA

Lunch Break 13:05-13:50 @ Flemings Restaurant

13:50-14:10 **Title: Non-fullerene acceptors: a universal answer toward addressing the “burn-in” stability challenge of solution processed organic solar cells**
Zhe Li, Cardiff University, Cardiff, Wales, UK

14:10-14:30 **Title: Damping and lightweight properties of 3D metal lattices produced by additive manufacturing**
M Vedani, Politecnico di Milano, Italy

14:30-14:50 **Title: Lexo the world's first naturally smart coffee/tea mug – a case of application of phase change materials in the consumer market**
Bin Wu, University of Missouri, USA

14:50-15:10 **Title: Fabrication of glucose biosensors via pedot nanofibers**
Pinar Camurlu, Akdeniz University, Turkey

15:10-15:30 **Title: h-BN nanoparticle gradient in glass coating**
H. Erdem Çamurlu, Akdeniz University, Turkey

15:30-15:50 **Title: Adaptation of a universal testing machine to characterise the material response of multi-layered piezoelectric actuators under fully coupled loading scenarios**
Hannes Grünbichler, University of Applied Sciences Technikum Wien, Austria

15:50-16:10 **Title: Conductive silicone rubber through carbon nanotubes, and its smart application**
Noa Lachman, Tel Aviv University, Israel

Networking and Refreshments Break 16:10-16:25 @ Foyer

16:25-16:40 **YRF: Nanoscale molecular adhesion layers for silicone bonding**
Stefan Urth Nielsen, Aarhus University and RadiSurf ApS, Denmark

16:40-16:55 **YRF: Effect of pressure and time on ScCo₂-assisted incorporation of thymol into ldp-based nanocomposites for active food packaging**

Adrián Rojas, University of Santiago de Chile, Chile

16:55-17:10 **YRF: A study on the development of molybdenum and silicide based coatings on Nb based structural materials for advanced high temperature reactor**

Megha Tyagi, Homi Bhabha National Institute, India

Panel Discussion

Day 2 July 03, 2018

(Fleming's Room 7)

Keynote Forum

10:30-11:10 **Title: Modeling and analysis of piezoelectric energy harvesting and its extension to metamaterial-based design**

Byung D. Youn, Seoul National University, South Korea

Networking and Refreshments Break 11:10-11:25 @ Foyer

11:25-12:05 **Title: Optically transparent p-type oxide and oxychalcogenide semiconductors**

Hao Gong, National University of Singapore, Singapore

Sessions: Optical and Electronic Materials | Future of Materials | Smart Biomaterials | Material Science and Engineering | Nanomaterials and Nanotechnology | Emerging Materials | Smart Biomaterials | Physics and Chemistry of Materials

Session Chair: Hao Gong, National University of Singapore, Singapore

Session Introduction

12:05-12:25 **Title: Oxidative desulfurization of organosulfur compounds in a model mixture of scrap tire pyrolysis oil using the ionic liquid [BMIM]BF₄ on ZSM-5 zeolite**

Veronica Garcia Rojas, Universidad Industrial de Santander, Bucaramanga, Colombia

12:25-12:45 **Title: pH responsive lipids for targeted delivery of antibiotics**

Thirumala Govender, University of KwaZulu-Natal, South Africa

12:45-13:05 **Title: Algorithm based on the Thomson problem for determination of equilibrium structures of metal nanoclusters**

Jhon Fredy Pérez Torres, Universidad Industrial de Santander, Colombia

Lunch Break 13:05-13:50 @ Flemings Restaurant

13:50-14:10 **Title: Hysteresis behavior of smart eccentric braced steel frames with shape memory alloy**

Joo-Woo Kim, Semyung University, Korea

14:10-14:30 **Title : A Novel smart hybrid-trefftz finite element for the analysis of smart laminated composite plates**

M. C. Ray, Indian Institute of Technology, India

14:30-14:50 **Title : In vivo tissue pH probing using a combination of mr imaging and smart contrast agent for cancer early detection and post chemo and radiotherapy**

Mouffouk Fouzi, Kuwait University, Kuwait

14:50-15:05 **YRF: Electrospun nanofibers releasing salinomycin for glioblastoma treatment**

Mohammad Norouzi, University of Manitoba, Winnipeg, MB, Canada

15:05-15:20 **YRF: Furan-melamine-formaldehyde polymers – toward smart materials future applications**

Katharina Urdl, Kompetenzzentrum Holz GmbH, Austria

15:20-15:35 **YRF : High-performance smart biomaterial containing nanoparticles and ophthalmic application**

Min-Jae Lee, Daegu Catholic University, South Korea

Poster Presentations 15:50 Onwards

- SMC 01** **Title: Vibration of fully functionally graded cnt reinforced graphite/epoxy laminates**
Shih-Yao Kuo, Aletheia University, Taiwan
- SMC 02** **Title: Gradually porous bio ceramic scaffolds using ceramic/camphene-based three-dimensional co-extrusion**
Min-Kyung Ahn, Korea University, Korea
- SMC 03** **Title: PVA/Chito-oligosaccharide nanofiber mat containing pomegranate peel crude extract for antibacterial purpose**
Neeranut Kuanchertchoo, Ramkhamhaeng University, Bangkok, Thailand
- SMC 04** **Title: Influence of Zn/Mo molar ratio on the phase composition, morphology, and photocatalytic activity of zinc molybdates prepared by hydrothermal method**
Chung-Shin Lu, National Taichung University of Science and Technology, Taiwan
- SMC 05** **Title: Synthesis of one-dimensional SnO₂ lines by electrohydrodynamic jet printing for NO gas sensor**
Chang-Yeoul Kim, Korea Institute of Ceramic Engineering and Technology, Korea

Panel Discussion and Certificate Distribution