

Vijay K Rangari, Ph.D., Professor and Head, Materials Science and Engineering
Publications and Presentations (2008 2017)"

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1. **Xklc{c"Mwoct"Tpictk** "Nanocomposite Materials, Theory and Applications. Chapter 4 on Polymer nanocomposite materials for various structural applications, **KpVgej."Qrgp" Ceegu" Rwdnkujgt" KUDP" ;9:/;75/529/387/9**, Book edited by: Dr. Boreddy Reddy (>10,000 downloads)
2. Developments in Nanocomposites *KUDP<" ;9:/;3/2:/5933/4+. **Xklc{c" Mw o ct" Tpictk."** chapter on Alignment of acicular nanoparticles in Nylon-6 polymer fibres through extrusion process and its thermal and mechanical properties, Editor; Kama K Kar, **Tgugcte j" Rwdnkujkpi" Ugtxkegu" Kppqxcvkxg" Rctvpgtu" hqt" Rwdnkujkpi" Uqnwvkqpu."** UKP I CRQTG< #10-589, Blk 236, Tampines St. 21, Singapore 520236
3. Yuanxin Zhou, **Xklc{c"Tpictk**, Shaik Jeelani, Hassan Mahfuz, "Composite Materials Research Progress. An Experimental and Analytical Study of Unidirectional Carbon Fiber Reinforced Epoxy Modified By SiC Nanoparticle," Pub. Date: 2008 1st Quarter, ISBN: 1-60021-994-2
4. Nogueira, B.R.; Chinellato, A.; Ortiz, A.V.; Parveen, A.; **Tpictk."X0"M.**; Moura, E. A. B. **Vjgt o cn" cpf" o qtrjqnqikecn" dgjcxkqt" qh" GXQJlrkcucxc" hkdgt" eq o rqukvg0** In: Jiann-Yang Hwang, Sergio .N. Monteiro, Chen-Guang Bai, John Carpenter, Mingdong Cai, Donato Firrao, Byoung-Gon Kim. (Org.). Characterization of Minerals, Metals, and Materials. Hoboken, NJ: John Wiley and Sons, Inc, v. 1, p. 373-380, 2012, ISBN 9781118371305.
5. Sartori, M.N.; Oliveira, R.R.; Valenzuela Díaz, F.R.; Angel V. Ortiz; **Tpictk." X0" M0**; Moura, E. A. B. **Rtgrctevkqp" cpf" E jctcevgtk|cvkqp"qh" RDVIEnc{"Pcpqeq o rqukvg0** (Org.). T.T. Chen Honorary Symposium on Hydrometallurgy, Electrometallurgy and Materials Characterization. 1ed., NJ: John Wiley & Sons, Inc, 2012, v. 1, p. 731-736 ISBN: 978-1-118-29123-8
6. Vijay Rangari, and Sanchita Dey "Synthesis fabrication and characterization of Ag/CNTs polymer nanocomposites as chapter 5 of Synthesis techniques for polymer nanocomposites, Wiley-VCH, ISBN-798-3-527-33455-1, 2015

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1. Diane Render, Temesgen Samuel, Howard King, Madan Vig, Shaik Jeelani, Ramapuram Jayachandra Babu, and Vijaya Rangari "Biomaterial-Derived Calcium Carbonate Nanoparticles for Enteric Drug Delivery" *Journal of Nanoparticles* 2016, Article ID 3170248, 8 pages, <http://dx.doi.org/10.1155/2016/3170248>
2. Muhammad M. Rahman, Anil N. Netravali, Boniface J. Tiimob, Vitus Apalangya, Vijaya K. Rangari, Bio-inspired 'green' nanocomposite using hydroxyapatite synthesized from eggshell waste and soy protein, *Journal of Nanoparticles* 2016, Article ID 3170248, 8 pages, <http://dx.doi.org/10.1155/2016/3170248>
3. Muhammad A. Imam, M.G. Gomes, Eesperidiana.A.B. Moura, Shaik Je

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26. Nydeia W. Bolden, Shaik Jeelani Seyhan Boyoglu Shree R. Singh' Synthesis and evaluation of magnetic nanoparticles for biomedical applications' *Journal of nanoparticles* doi: 10.1002/app.39227, 2013
 27. Tarig A. Hassan, Shaik Jeelani, Sonochemical Synthesis and Characterization of Bio-Based Hydroxyapatite nanoparticles." *Int. J. Nano and Biomaterials*, (In press), 2013
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 32. Mohammad S. Bhuyan, Shaik Jeelani, Microwave curing of CNFs/EPON-862 nanocomposites and their thermal and mechanical properties, *Journal of Applied Polymer Science*, 107: 4233–4240, 2012
 33. Mujibur R. Khan, Hassan Mahfuz, Theodora Leventouri, and Andreas Kyriacou. Enhancing toughness of low-density polyethylene filaments through infusion of multiwalled carbon nanotubes and ultrahigh molecular weight polyethylene, *Journal of Applied Polymer Science*, 107: 8766–8784, 2012.
 34. O.Malkina, H. Mahfuz, K. D. Sorge Anisotropic physical properties of SC-15 epoxy reinforced with magnetic nanofillers under uniform magnetic field., *Journal of Applied Polymer Science*, 107: 465–472, 2012
 35. Mohammad Y. Shaik, Ghouse M. Mohammad, Shaik Jeelani, Reinforcement of Si₃N₄ nanoparticles in Polypropylene single fibers through melt extrusion process and their properties *Journal of Applied Polymer Science*, 107: 3746–3752, 2012
 36. Mohammad, Ghouse; Jeelani, Shaik Butenko, Yuri, Dhanak, Vinod. Synthesis and characterization of diamond coated CNTs and their reinforcement in Nylon-6 single fiber. *Journal of Applied Polymer Science*, 107: 56–63, 2012.
 37. Komal Vig, Seyhan Boyoglu, Michael Miller, Shreekumar Pillai, Shree R. Singh Respiratory Syncytial Virus Interactions with Nanoparticles Using Transmission Electron Microscopy, *Journal of Applied Polymer Science*, 107: 877–884, 2012

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39. Tarig A. Hassan, **Xklc{c" M0" Tcpietk** and Shaik Jeelani., Sonochemical synthesis and rheological properties of shear thickening dispersions, **L" Wwvtcuqpk" cpf" uqpqejgokvvt{.39.";69;74.4232"**
40. Tarig A Hassan, **Xklc{" M" Tcpietk** and Shaik Jeelani, Synthesis, processing and characterization of shear thickening fluid (STF) impregnated fabric composites **Ocv" Uek" (Gpi/C.749.4:;4/4:;;.4232"**
41. **Xklc{c" M0" Tcpietk**. Mohammad S. Bhuyan, Shaik Jeelani, Microwave Processing and Charactering of EPON 862/CNTs Nanocomposites, **Ocv" Uek" ("Gpi" dD."38:.339/343.4232"**
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46. Y-H Lee, S. Sathigari, Y-J Lin, WR Ravis, GS Chadha, DL Parsons, VK Rangari, N Wright, R J Babu. Gefitinib–cyclodextrin inclusion complexes: physico-chemical characterization and dissolution studies, **Ftwi" Fgx" kpf" Rjct o."57."3335/3342.422;0**
47. **Xklc{c" M" Tcpietk**, Tarig A Hassan, Quentin Mayo and Shaik Jeelani. Size reduction of WO₃ nanoparticles by ultrasound irradiation and its applications in structural nanocomposites, **Composite Science and Engineering, 8;.44;5/4522.422;**
48. Hassan Mahfuz, Floria Clements, **Xklc{c" Tcpietk**, Vinod Dhanak and Graham Beamson Enhanced Stab Resistance of Flexible Body Armor with Functionalized

filaments with functionalized silica nanoparticles,.

9. Jorge Sales, Francisco R. Valenzuela-Diaz, Vijaya K. Rangari, E

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32. Fabrication and Characterization of Poly (methyl methacrylate) /Bio-based Hydroxyapatite Composites for Scaffold Applications, Vijaya Kumar Rangari, Temesgen Samuel, Vitus Apalangya, Shaik Jeelani. MRS Fall Meeting & Exhibit,

44. Synthesis and Characterization of Poly(Methyl Methacrylate)/Aerosil Silica Nanocomposite Thin Films, V.K. Rangari, A. Gaines, S. Jeelani, SAMPE-May 23-26, 2011, Long Beach, CA"
45. Metal and metal oxide coated CNTs their applications in thermoset and thermoplastic polymers, Vijaya K Rangari , Sanchita Dey, Mohammad Ghouse, Shaik Jeelani, International Conference on Carbon Nanotechnology: Potential and Challenges, Indian Institute of Technology Kanpur, INDIA, December 15-17, 2010 "
46. Size Reduction of Egg Shell Particles: The Effect of Ball Milling and Sonication Time Variation, V.K.Rangari, T.A.Hassan, S.Jeelani R.K.Rana, MRS-Fall meeting Nov 30th 2010, Boston "
47. Synthesis and Crystal Growth of Iron Oxide Nanoparticles for Drug Delivery Applications,V.K.Rangari; A.Perveen and S.Jeelani, MRS-Fall meeting Nov 29th 2010, Boston "
48. Synthesis of ZnO/CNTs hybrid nanoparticles and their reinforcement in Nylon-6 polyme-
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59. Synthesis and characterization of eggshell/polylyte bio nanocomposites, Tarig A. Hassan, Vijaya K. Rangari and Shaik Jeelani, SAMPE-2010, May 17-20, 2010, Washington State Convention Center, Seattle, WA."
60. Synthesis and XPS characterization of SiC/Polyhedral oligomeric sil-sesquioxane, Vijaya K. Rangari, Md. Reza-E-Rabby, Shaik Jeelani, SAMPE-2010, May 17-20, 2010, Washington State Convention Center, Seattle, WA."
61. Decoration of Ag-Cu nanoparticles on Multiwalled carbon nanotubes and their applications in polymer composites, Vijaya K Rangari, Sanchita Dey and Shaik Jeelani, MRS Spring, April 5-9, 2010, San Francisco, CA."
62. Synthesis, Fabrication, Thermal and Mechanical Characterization of Eggshell Based Bio-Nanocomposites, Tarig Hassan, Vijaya K Ragnari and Shaik Jeelani, Gordon Research Conference – Composites, January,17-22, 2010, Ventura, CA"
63. Synthesis, characterization and analysis of iron oxide –paclitaxel microspheres, N. Wright Bolden, V. Rangari, S. Jeelani, S. Boyoglu, J. Babu, Gordon Research Conference – Composites, January,17-22, 2010, Ventura, CA"
64. Fabrication and characterizastion of high strength nanocomposite single fibers for multifunctional applications. Vijaya K. Rangari, M.Ghouse and Shaik Jeelani, INDO-US WORKSHOP ON NANOTECHNOLOGY: APPLICATIONS AND IMPLICATIONS, Indian Institute of Chemical Technology, Hyderabad"November 10-12, 2009"
65. Sonochemical Synthesis and Characterization of Bio-Based Hydroxyapatite Nanoparticles, Tarig Hassan, Vijaya K Ragnari and Shaik Jeelani, MRS Fall Meeting, Nov 30-Dec 4, 2009, Boston, MA"
66. Fabrication and Characterization of High Strength Antimicrobial Nanocomposite Fibers, Vijaya K Rangari, M. Ghouse, Shaik Jeelani, ASME International Mechanical Engineering Congress & Exposition, Nov 13-19, 2009, Lake Buena Visa, FL"
67. Growth mechanism of MWCNTs using nanoparticles as catalysts Vijaya K Rangari, Rahman Samsur, Shaik Jeelani, Joint Canadian-American Society for Composites-Twenty-fourth Technical Conference, Sept 15-17 2009, University of Delaware, Delaware"
68. Synthesis, Comparative Study of Thermal and Microwave cured Epon862/CNFs Nanocomposites, Vijaya K. Rangri, Mohammad S. Bhuyan, Shaik Jeelani, ICCM-17 17th International Conference on Composite Materials 27 Jul 2009 - 31 Jul 2009, Edinburgh International, Convention Centre (EICC), Edinburgh, UK"
69. Synthesis of drug loaded iron oxide nanoparticles, N Wright Bolden, V. Rangari, S. Jeelani, ICCM-17 17th International Conference on Composite Materials, 27 Jul 2009 -31 Jul 2009, Edinburgh International Convention Centre (EICC), Edinburgh, UK"
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71. Synthesis and Characterization of Calcium Carbonate Nanoparticles Derived from Eggshell, V. Rangari, T. A. Hassan, V. K. Rangari, S. Jeelani, SAMPE '09 Conference and Exhibition, Baltimore, Maryland, May 18-21, 2009"

72. Synthesis and Characterization of Drug coated Magnetic Nanoparticles, V. Rangari, N. W. Bolden, V. K. Rangari, S. Jeelani, SAMPE '2009 Conference and Exhibition, Baltimore, Maryland, May 18-21, 2009"
73. Silver Coated Carbon Nanotubes Inhibit RSV Infection, L. Adiani, P. Subbarayan, S. Boyoglu, K. Vig, S. Pillai, V. Rangari, S.R. Singh, Nanotech Conference & Expo, George R.Brown Convention Center."May 3-7, 2009, Houston, TX "
74. Respiratory Syncytial Virus Inhibition by Gold and Titanium Nanoparticles K. Vig, S. Boyoglu, V. Rangari, S. Pillai, S.R. Singh, Nanotech Conference & Expo, George R.Brown Convention Center."May 3-7, 2009, Houston, TX"
75. Antimicrobial properties of silver coated CNT, D. Ashour, P. Subbarayan, L. Adiani, S. Boyoglu, G. Mohammad, V. Rangari, S. Jeelani, S. Ram Singh, S. Pillai, Nanotech Conference & Expo, George R.Brown Convention Center."May 3-7, 2009, Houston, TX,"
76. Synthesis and Characterization of Calcium Silicate via mechanochemical and Sonochemical method, T.A. Hassan, V.K. Rangari, S. Jeelani, Nanotech Conference & Expo, George R.Brown Convention Center."May 3-7, 2009, Houston, TX,"
77. Synthesis of Bio Calcium Carbonate Nanoparticles by Size Reduction of Eggshell, Tarig Hassan, Vijaya K Ragnari and Shaik Jeelani, MRS Spring Meeting, April, 13-17, 2009, San Francisco, CA"
78. Synthesis, Thermal and Mechanical characterization of Microwave cured Epoxy/CNTs nanocomposites, Vijaya K. Rangari, Mohmmad S. Bhuyan and Shaik Jeelani, ICCST/7 – Seventh International Conference on Composite Science and Technology Jan, 20-22, 2009 - SHARJAH, UNITED ARAB EMIRATES"
79. Thermal and mechanical characterization of polymer nanocomposites of Si₃N₄/ Polypropylene fibers, Vijay K. Rangari, M.Yousuf, M.Ghouse and Shaik Jeelani, ISAMPE National Conference on Composites : INCCOM-7, National Aerospace Laboratories, Bangalore-17 (NAL's Golden Jubilee Year 2008-09)"
80. Microwave processing and charactering of Epoxy 862/CNT nanocomposites, Vijaya K. Rangari, Mohmmad S. Bhuyan and Shaik Jeelani, SAMPADA-2008, Dec 8th 12, University of Pune, India"
81. Thermal and Mechanical Characterization of Foam Core Materials Containing POSS/Expandable Thermoplastic Microspheres. Wanda.D. Jones, V.K. Rangari, S. Jeelani – SAMPE Spring Conference and Exhibition, May 16-21, 2008, Long Beach, CA.SAMPE 2008"
82. Synthesis and Mechanical Properties of Shear Thickening Fluid/Kevlar Composite for Body Armor Application, Vijaya K. Rangari, Tarig A. Hassan and Shaik Jeelani. SAMPE '08 Long Beach, Material and Process Innovations: Changing our World, May 16-21, 2008"
83. Fabrication of Nylon nanocomposite fibers for Antimicrobial Textile applications, Vijaya K. Rangari G. M. Mohammad, S. Jeelani. The 2nd International Conference on Heterogeneous Materials Mechanics (ICHMM-2008) June 3-8, 2008 Huangshan, China"
84. Synthesis of Nylon/CNT/Ag fiber for antimicrobial textile applications. Vijaya K. Rangari, Ghouse, M. Mohammal , Shaik Jeelani, Komal Vig, Seyhan Boyoglu, Shree Ram Singh, and Shreekumar Pillai Force Health Protection -- Prevention is

- the Key, 11th Annual Force Health Protection Conference, Albuquerque Convention Center Albuquerque, New Mexico 9 - 15 August 2008,"
85. Characterization of nanocomposite materials using electron microscopy
V.K.Rangari, M.Y.Shaik, and S. Jeelani, Microscopy & Microanalysis 2008 Meeting, August 3-7, 2008, Albuquerque Convention Center, Albuquerque, New Mexico"
 86. Synthesis of magnetic nanoparticles and its applications in drug delivery systems N. Wright Bolden, V. Rangari, S. Jeelani, *Tuskegee University, US NSTI, NanotechJune 1-5, Boston-2008,*"
 87. Evaluation of Nanoencapsulated DNA Vaccine for RSV, S. Boyoglu, K. Vig, V. Rangari, S. Pillai, V. Dennis, S.R. Singh, *Alabama State University, US, NSTI, NanotechJune 1-5, Boston-2008,*"
 88. Use of Nanoparticles as Therapy for Respiratory Syncytial Virus Inhibition K. Vig, S. Boyoglu, V. Rangari, L. Sun, A. Singh, S. Pillai, S.R. Singh, *Alabama State University, US, NSTI, NanotechJune 1-5, Boston-2008,* "
 89. Thermal and Mechanical Response of POSS coated Nanophased expandable foam core materials, W.D. Jones, V.K. Rangari, S. Jeelani, *Tuskegee University, US, NSTI, NanotechJune 1-5, Boston-2008,*"
 90. In-situ synthesis of Cu nanoparticles on MWCNTS using Microwave irradiation V.K. Rangari, S. Dey, S. Jeelani, *Tuskegee University, US, NSTI, NanotechJune 1-5, Boston-2008,*"

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8. Invited Seminar lecture on Fabrication and properties of In-situ grown CNTs on woven carbon fiber /epoxy laminates at Cornell University, Department of Fiber Science and Apparel Design, on Sept 25th 2012.
9. Invited lecture on Nanoparticles for Biomedical Applications at Workshop on: Advances in the use of radiation technology and nanotechnology in tissue

23. Keynote lecture at Indo-US workshop on Nanotechnology: applications and Implications, Indian Institute of Chemical Technology, Hyderabad, Nov 10-12, 2009.
24. Invited seminar at Auburn University, Polymer and fiber Engineering Department- Seminar on Polymer Nanocomposite Materials on Oct 14th 2008