

# Contents

About the Special Issue Editor .....	ix
Preface to "Antibacterial Activity of Nanomaterials" .....	xi
<b>Ana María Díez-Pascual</b>	
Antibacterial Activity of Nanomaterials	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 359; doi: 10.3390/nano8060359 .....	1
<b>Naif Abdullah Al-Dhabi, Abdul-Kareem Mohammed Ghilan and Mariadhas Valan Arasu</b>	
Characterization of Silver Nanomaterials Derived from Marine <i>Streptomyces</i> sp. Al-Dhabi-87 and Its In Vitro Application against Multidrug Resistant and Extended-Spectrum Beta-Lactamase Clinical Pathogens	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 279; doi: 10.3390/nano8050279 .....	6
<b>Peri Korshed, Lin Li, Duc-The Ngo and Tao Wang</b>	
Effect of Storage Conditions on the Long-Term Stability of Bactericidal Effects for Laser Generated Silver Nanoparticles	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 218; doi: 10.3390/nano8040218 .....	19
<b>Roman J. Jędrzejczyk, Katarzyna Turnau, Przemysław J. Jodłowski, Damian K. Chlebda, Tomasz Łojewski and Joanna Łojewska</b>	
Antimicrobial Properties of Silver Cations Substituted to Faujasite Mineral	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 240; doi: 10.3390/nano7090240 .....	31
<b>Dina A. Mosselhy, Henrika Granbohm, Ulla Hynönen, Yanling Ge, Airi Palva, Katrina Nordström and Simo-Pekka Hannula</b>	
Nanosilver—Silica Composite: Prolonged Antibacterial Effects and Bacterial Interaction Mechanisms for Wound Dressings	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 261; doi: 10.3390/nano7090261 .....	42
<b>Fouzia Tanvir, Atif Yaqub, Shazia Tanvir and William A. Anderson</b>	
Poly-L-arginine Coated Silver Nanoprisms and Their Anti-Bacterial Properties	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 296; doi: 10.3390/nano7100296 .....	61
<b>Truong Thi Tuong Vi, Selvaraj Rajesh Kumar, Bishakh Rout, Chi-Hsien Liu, Chak-Bor Wong, Chia-Wei Chang, Chien-Hao Chen, Dave W. Chen and Shingjiang Jessie Lue</b>	
The Preparation of Graphene Oxide-Silver Nanocomposites: The Effect of Silver Loads on Gram-Positive and Gram-Negative Antibacterial Activities	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 163; doi: 10.3390/nano8030163 .....	76
<b>Jaroslav Jira, Bohuslav Rezek, Vitezslav Kriha, Anna Artemenko, Iva Matolinová, Viera Skakalova, Pavla Stenclova and Alexander Kromka</b>	
Inhibition of <i>E. coli</i> Growth by Nanodiamond and Graphene Oxide Enhanced by Luria-Bertani Medium	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 140; doi: 10.3390/nano8030140 .....	91

<b>Alaa A. A. Aljabali, Yazan Akkam, Mazhar Salim Al Zoubi, Khalid M. Al-Batayneh, Bahaa Al-Trad, Osama Abo Alrob, Alaaldin M. Alkilany, Mourad Benamara and David J. Evans</b>	
Synthesis of Gold Nanoparticles Using Leaf Extract of <i>Ziziphus zizyphus</i> and Their Antimicrobial Activity	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 174; doi: 10.3390/nano8030174 .....	104
<b>Abdulrahman M. Elbagory, Mervin Meyer, Christopher N. Cupido and Ahmed A. Hussein</b>	
Inhibition of Bacteria Associated with Wound Infection by Biocompatible Green Synthesized Gold Nanoparticles from South African Plant Extracts	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 417; doi: 10.3390/nano7120417 .....	119
<b>Irena Milosevic, Amarnath Jayaprakash, Brigitte Greenwood, Birgit van Driel, Sami Rtimi and Paul Bowen</b>	
Synergistic Effect of Fluorinated and N Doped TiO <sub>2</sub> Nanoparticles Leading to Different Microstructure and Enhanced Photocatalytic Bacterial Inactivation	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 391; doi: 10.3390/nano7110391 .....	141
<b>Carmen Limban, Alexandru Vasile Missir, Miron Teodor Caproiu, Alexandru Mihai Grumezescu, Mariana Carmen Chifiriuc, Coralia Bleotu, Luminita Marutescu, Marius Toma Papacoea and Diana Camelia Nuta</b>	
Novel Hybrid Formulations Based on Thiourea Derivatives and Core@Shell Fe <sub>3</sub> O <sub>4</sub> @C <sub>18</sub> Nanostructures for the Development of Antifungal Strategies	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 47; doi: 10.3390/nano8010047 .....	156
<b>Frans Ricardo Tamara, Chi Lin, Fwu-Long Mi and Yi-Cheng Ho</b>	
Antibacterial Effects of Chitosan/Cationic Peptide Nanoparticles	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 88; doi: 10.3390/nano8020088 .....	170
<b>Anandhavelu Sanmugam, Dhanasekaran Vikraman, Hui Joon Park and Hyun-Seok Kim</b>	
One-Pot Facile Methodology to Synthesize Chitosan-ZnO-Graphene Oxide Hybrid Composites for Better Dye Adsorption and Antibacterial Activity	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 363; doi: 10.3390/nano7110363 .....	185
<b>Gabriel R. S. Xavier and Ana M. Carmona-Ribeiro</b>	
Cationic Biomimetic Particles of Polystyrene/Cationic Bilayer/Gramicidin for Optimal Bactericidal Activity	
Reprinted from: <i>Nanomaterials</i> <b>2017</b> , <i>7</i> , 422; doi: 10.3390/nano7120422 .....	199
<b>Rossella Dorati, Antonella DeTrizio, Melissa Spalla, Roberta Migliavacca, Laura Pagani, Silvia Pisani, Enrica Chiesa, Bice Conti, Tiziana Modena and Ida Genta</b>	
Gentamicin Sulfate PEG-PLGA/PLGA-H Nanoparticles: Screening Design and Antimicrobial Effect Evaluation toward Clinic Bacterial Isolates	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 37; doi: 10.3390/nano8010037 .....	212
<b>Hajer Rokbani, France Daigle and Abdellah Ajji</b>	
Combined Effect of Ultrasound Stimulations and Autoclaving on the Enhancement of Antibacterial Activity of ZnO and SiO <sub>2</sub> /ZnO Nanoparticles	
Reprinted from: <i>Nanomaterials</i> <b>2018</b> , <i>8</i> , 129; doi: 10.3390/nano8030129 .....	232

<b>Małgorzata Mizielińska, Urszula Kowalska, Michał Jarosz and Patrycja Sumińska</b> A Comparison of the Effects of Packaging Containing Nano ZnO or Polylysine on the Microbial Purity and Texture of Cod ( <i>Gadus morhua</i> ) Fillets Reprinted from: <i>Nanomaterials</i> <b>2018</b> , 8, 158, doi: 10.3390/nano8030158 .....	249
<b>Kelly Johana Figueroa-Lopez, Jinneth Lorena Castro-Mayorga, Margarita Maria Andrade-Mahecha, Luis Cabedo and Jose Maria Lagaron</b> Antibacterial and Barrier Properties of Gelatin Coated by Electrospun Polycaprolactone Ultrathin Fibers Containing Black Pepper Oleoresin of Interest in Active Food Biopackaging Applications Reprinted from: <i>Nanomaterials</i> <b>2018</b> , 8, 199, doi: 10.3390/nano8040199 .....	262
<b>Rosario Pignatello, Antonio Leonardi, Virginia Fuochi, Giulio Petronio Petronio, Antonio S. Greco and Pio Maria Furneri</b> A Method for Efficient Loading of Ciprofloxacin Hydrochloride in Cationic Solid Lipid Nanoparticles: Formulation and Microbiological Evaluation Reprinted from: <i>Nanomaterials</i> <b>2018</b> , 8, 304, doi: 10.3390/nano8050304 .....	275
<b>Joo Ran Kim and Seong Hun Kim</b> Eco-Friendly Acaricidal Effects of Nylon 66 Nanofibers via Grafted Clove Bud Oil-Loaded Capsules on House Dust Mites Reprinted from: <i>Nanomaterials</i> <b>2017</b> , 7, 179, doi: 10.3390/nano7070179 .....	286
<b>Paweł Sikora, Adrian Augustyniak, Krzysztof Cendrowski, Paweł Nawrotek and Ewa Mijowska</b> Antimicrobial Activity of Al <sub>2</sub> O <sub>3</sub> , CuO, Fe <sub>3</sub> O <sub>4</sub> , and ZnO Nanoparticles in Scope of Their Further Application in Cement-Based Building Materials Reprinted from: <i>Nanomaterials</i> <b>2018</b> , 8, 212, doi: 10.3390/nano8040212 .....	300
<b>Joseph L. Graves, Jr., Misty Thomas and Jude Akamu Ewunkem</b> Antimicrobial Nanomaterials: Why Evolution Matters Reprinted from: <i>Nanomaterials</i> <b>2017</b> , 7, 283, doi: 10.3390/nano7100283 .....	315