

# Hitesh Handa

## List of Publications by Year in descending order

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91  
papers

3,801  
citations

117619

34  
h-index

144002

57  
g-index

93  
all docs

93  
docs citations

93  
times ranked

3681  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | A review of the recent advances in antimicrobial coatings for urinary catheters. <i>Acta Biomaterialia</i> , 2017, 50, 20-40.  | 8.3  | 332       |
| 2  | Long-term nitric oxide release and elevated temperature stability with S-nitroso-N-acetylpenicillamine (SNAP)-doped Elast-eon E2As polymer. <i>Biomaterials</i> , 2013, 34, 6957-6966.   | 11.4 | 131       |
| 3  | The attenuation of platelet and monocyte activation in a rabbit model of extracorporeal circulation by a nitric oxide releasing polymer. <i>Biomaterials</i> , 2010, 31, 2736-2745.  | 11.4 | 119       |
| 4  | Nanoparticle-mediated combination chemotherapy and photodynamic therapy overcomes tumor drug resistance in vitro. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2009, 71, 214-222.   | 4.3  | 118       |
| 5  | Tunable Nitric Oxide Release from S-Nitroso-N-acetylpenicillamine via Catalytic Copper Nanoparticles for Biomedical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15254-15264.  | 8.0  | 110       |
| 6  | The hemocompatibility of a nitric oxide generating polymer that catalyzes S-nitrosothiol decomposition in an extracorporeal circulation model. <i>Biomaterials</i> , 2011, 32, 5957-5969.  | 11.4 | 102       |
| 7  | Surfactant Polymer Nanoparticles Enhance the Effectiveness of Anticancer Photodynamic Therapy. <i>Molecular Pharmaceutics</i> , 2008, 5, 795-807.  | 4.6  | 96        |
| 8  | Liquid-infused nitric oxide-releasing (LINORel) silicone for decreased fouling, thrombosis, and infection of medical devices. <i>Scientific Reports</i> , 2017, 7, 13623.  | 3.3  | 93        |
| 9  | Polymer-surfactant nanoparticles for sustained release of water-soluble drugs. <i>Journal of Pharmaceutical Sciences</i> , 2007, 96, 3379-3389.  | 3.3  | 91        |
| 10 | Reduction in thrombosis and bacterial adhesion with 7 day implantation of S-nitroso-N-acetylpenicillamine (SNAP)-doped Elast-eon E2As catheters in sheep. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1639-1645.                        | 5.8  | 85        |
| 11 | Disassembly of layer-by-layer films of plasmid DNA and reducible TAT polypeptide. <i>Biomaterials</i> , 2007, 28, 117-124.   | 11.4 | 84        |
| 12 | Recognition of <i>Salmonella typhimurium</i> by immobilized phage P22 monolayers. <i>Surface Science</i> , 2008, 602, 1392-1400.   | 1.9  | 78        |
| 13 | Antimicrobial and Physicochemical Characterization of Biodegradable, Nitric Oxide-Releasing Nanocellulose-Chitosan Packaging Membranes. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 5260-5266.                               | 5.2  | 78        |
| 14 | A multi-defense strategy: Enhancing bactericidal activity of a medical grade polymer with a nitric oxide donor and surface-immobilized quaternary ammonium compound. <i>Acta Biomaterialia</i> , 2017, 58, 421-431.                            | 8.3  | 78        |
| 15 | The effect of a polyurethane coating incorporating both a thrombin inhibitor and nitric oxide on hemocompatibility in extracorporeal circulation. <i>Biomaterials</i> , 2014, 35, 7271-7285.   | 11.4 | 75        |
| 16 | Optimized polymeric film-based nitric oxide delivery inhibits bacterial growth in a mouse burn wound model. <i>Acta Biomaterialia</i> , 2014, 10, 4136-4142.   | 8.3  | 73        |
| 17 | Nanoparticles Encapsulating Nitrosylated Maytansine To Enhance Radiation Therapy. <i>ACS Nano</i> , 2020, 14, 1468-1481.   | 14.6 | 69        |
| 18 | Improved hemocompatibility of silicone rubber extracorporeal tubing via solvent swelling-impregnation of S-nitroso-N-acetylpenicillamine (SNAP) and evaluation in rabbit thrombogenicity model. <i>Acta Biomaterialia</i> , 2016, 37, 111-119. | 8.3  | 64        |

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|----|--|------|-----------|
| 19 | Covalent Grafting of Antifouling Phosphorylcholine-Based Copolymers with Antimicrobial Nitric Oxide Releasing Polymers to Enhance Infection-Resistant Properties of Medical Device Coatings. <i>Langmuir</i> , 2017, 33, 13105-13113.                          | 3.5  | 64        |
| 20 | Enhanced antibacterial efficacy of nitric oxide releasing thermoplastic polyurethanes with antifouling hydrophilic topcoats. <i>Biomaterials Science</i> , 2017, 5, 1246-1255.   | 5.4  | 62        |
| 21 | Attenuation of thrombosis and bacterial infection using dual function nitric oxide releasing central venous catheters in a 9 day rabbit model. <i>Acta Biomaterialia</i> , 2016, 44, 304-312.  | 8.3  | 59        |
| 22 | In vitro and in vivo study of sustained nitric oxide release coating using diazeniumdiolate-doped poly(vinyl chloride) matrix with poly(lactide-co-glycolide) additive. <i>Journal of Materials Chemistry B</i> , 2013, 1, 3578.                               | 5.8  | 58        |
| 23 | Nitric oxide releasing vascular catheters for eradicating bacterial infection. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2849-2857.   | 3.4  | 58        |
| 24 | Hemocompatibility comparison of biomedical grade polymers using rabbit thrombogenicity model for preparing nonthrombogenic nitric oxide releasing surfaces. <i>Journal of Materials Chemistry B</i> , 2014, 2, 1059-1067.                                      | 5.8  | 57        |
| 25 | Achieving Long-Term Biocompatible Silicone via Covalently Immobilized <i>S</i> -Nitroso- <i>N</i> -acetylpenicillamine (SNAP) That Exhibits 4 Months of Sustained Nitric Oxide Release. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 27316-27325. | 8.0  | 57        |
| 26 | 4D Biofabrication: 3D Cell Patterning Using Shape-Changing Films. <i>Advanced Functional Materials</i> , 2018, 28, 1706248.  | 14.9 | 55        |
| 27 | Characterization of an <i>S</i> -nitroso- <i>N</i> -acetylpenicillamine-based nitric oxide releasing polymer from a translational perspective. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016, 65, 769-778.             | 3.4  | 53        |
| 28 | Surface Grafted Antimicrobial Polymer Networks with High Abrasion Resistance. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 1169-1179.  | 5.2  | 49        |
| 29 | Catalyzed Nitric Oxide Release via Cu Nanoparticles Leads to an Increase in Antimicrobial Effects and Hemocompatibility for Short-Term Extracorporeal Circulation. <i>ACS Applied Bio Materials</i> , 2019, 2, 2539-2548.                                      | 4.6  | 47        |
| 30 | Liquid-Infused Nitric-Oxide-Releasing Silicone Foley Urinary Catheters for Prevention of Catheter-Associated Urinary Tract Infections. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 2021-2029.   | 5.2  | 46        |
| 31 | Fabrication of Bacteria- and Blood-Repellent Superhydrophobic Polyurethane Sponge Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 51160-51173.  | 8.0  | 46        |
| 32 | Improved Hemocompatibility of Multilumen Catheters via Nitric Oxide (NO) Release from <i>S</i> -Nitroso- <i>N</i> -acetylpenicillamine (SNAP) Composite Filled Lumen. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 29270-29279.                    | 8.0  | 45        |
| 33 | Multifunctional <i>S</i> -Nitroso- <i>N</i> -acetylpenicillamine-Incorporated Medical-Grade Polymer with Selenium Interface for Biomedical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 34652-34662.                                | 8.0  | 45        |
| 34 | Cross-Linked Bioreducible Layer-by-Layer Films for Increased Cell Adhesion and Transgene Expression. <i>Journal of Physical Chemistry B</i> , 2010, 114, 5283-5291.  | 2.6  | 39        |
| 35 | A Nitric Oxide-Releasing Heparin Conjugate for Delivery of a Combined Antiplatelet/Anticoagulant Agent. <i>Molecular Pharmaceutics</i> , 2014, 11, 645-650.  | 4.6  | 33        |
| 36 | Development and hemocompatibility testing of nitric oxide releasing polymers using a rabbit model of thrombogenicity. <i>Journal of Biomaterials Applications</i> , 2014, 29, 479-501.   | 2.4  | 33        |

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|----|--|-----|-----------|
| 37 | Active Release of an Antimicrobial and Antiplatelet Agent from a Nonfouling Surface Modification. ACS Applied Materials & Interfaces, 2019, 11, 4523-4530.   | 8.0 | 33        |
| 38 | Characterization of a nitric oxide (NO) donor molecule and cerium oxide nanoparticle (CNP) interactions and their synergistic antimicrobial potential for biomedical applications. Journal of Colloid and Interface Science, 2021, 586, 163-177. | 9.4 | 33        |
| 39 | A review on antibacterial silk fibroin-based biomaterials: current state and prospects. Materials Today Chemistry, 2022, 23, 100673.   | 3.5 | 33        |
| 40 | Biotemplated Synthesis and Characterization of Mesoporous Nitric Oxide-Releasing Diatomaceous Earth Silica Particles. ACS Applied Materials & Interfaces, 2018, 10, 2291-2301.   | 8.0 | 32        |
| 41 | Combination strategies for antithrombotic biomaterials: an emerging trend towards hemocompatibility. Biomaterials Science, 2021, 9, 2413-2423.   | 5.4 | 32        |
| 42 | Surface-Catalyzed Nitric Oxide Release via a Metal Organic Framework Enhances Antibacterial Surface Effects. ACS Applied Materials & Interfaces, 2021, 13, 56931-56943.  | 8.0 | 32        |
| 43 | Mimicking the Endothelium: Dual Action Heparinized Nitric Oxide Releasing Surface. ACS Applied Materials & Interfaces, 2020, 12, 20158-20171.  | 8.0 | 31        |
| 44 | The immobilization of a direct thrombin inhibitor to a polyurethane as a nonthrombogenic surface coating for extracorporeal circulation. Journal of Materials Chemistry B, 2016, 4, 2264-2272.   | 5.8 | 30        |
| 45 | Transfection activity of layer-by-layer plasmid DNA/poly(ethylenimine) films deposited on PLGA microparticles. International Journal of Pharmaceutics, 2009, 365, 44-52.   | 5.2 | 29        |
| 46 | Nitric oxide and viral infection: Recent developments in antiviral therapies and platforms. Applied Materials Today, 2021, 22, 100887.   | 4.3 | 29        |
| 47 | Zinc oxide nanoparticles act catalytically and synergistically with nitric oxide donors to enhance antimicrobial efficacy. Journal of Biomedical Materials Research - Part A, 2019, 107, 1425-1433.  | 4.0 | 28        |
| 48 | Silk Nanoparticles: A Natural Polymeric Platform for Nitric Oxide Delivery in Biomedical Applications. ACS Applied Materials & Interfaces, 2020, 12, 53615-53623.  | 8.0 | 26        |
| 49 | Bioinspired ultra-low fouling coatings on medical devices to prevent device-associated infections and thrombosis. Journal of Colloid and Interface Science, 2022, 608, 1015-1024.  | 9.4 | 26        |
| 50 | Immobilization and Molecular Interactions between Bacteriophage and Lipopolysaccharide Bilayers. Langmuir, 2010, 26, 12095-12103.  | 3.5 | 25        |
| 51 | A multifunctional polymeric coating incorporating lawsone with corrosion resistance and antibacterial activity for biomedical Mg alloys. Progress in Organic Coatings, 2021, 153, 106157.  | 3.9 | 25        |
| 52 | Toward an artificial endothelium: Development of blood-compatible surfaces for extracorporeal life support. Journal of Trauma and Acute Care Surgery, 2020, 89, S59-S68.   | 2.1 | 24        |
| 53 | Versatile biomimetic medical device surface: hydrophobin coated, nitric oxide-releasing polymer for antimicrobial and hemocompatible applications. Biomaterials Science, 2019, 7, 3438-3449.   | 5.4 | 23        |
| 54 | Heparin-Free Extracorporeal Life Support Using Tethered Liquid Perfluorocarbon: A Feasibility and Efficacy Study. ASAIO Journal, 2020, 66, 809-817.  | 1.6 | 23        |

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|----|---|------|-----------|
| 55 | Bio-inspired hemocompatible surface modifications for biomedical applications. <i>Progress in Materials Science</i> , 2022, 130, 100997.  | 32.8 | 23        |
| 56 | Deposition and Aggregation of Aspirin Molecules on a Phospholipid Bilayer Pattern. <i>Langmuir</i> , 2005, 21, 578-585.   | 3.5  | 21        |
| 57 | Thromboresistance Characterization of Extruded Nitric Oxide-Releasing Silicone Catheters. <i>ASAIO Journal</i> , 2012, 58, 238-246.   | 1.6  | 21        |
| 58 | Multipronged Approach to Combat Catheter-Associated Infections and Thrombosis by Combining Nitric Oxide and a Polyzwitterion: a 7 Day In Vivo Study in a Rabbit Model. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9070-9079. | 8.0  | 21        |
| 59 | S-nitrosoglutathione-Based Nitric Oxide-Releasing Nanofibers Exhibit Dual Antimicrobial and Antithrombotic Activity for Biomedical Applications. <i>Macromolecular Bioscience</i> , 2021, 21, e2000248.                                     | 4.1  | 21        |
| 60 | Nitric oxide releasing halloysite nanotubes for biomedical applications. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 277-289.  | 9.4  | 21        |
| 61 | A Synergistic New Approach Toward Enhanced Antibacterial Efficacy via Antimicrobial Peptide Immobilization on a Nitric Oxide-Releasing Surface. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 43892-43903.                      | 8.0  | 21        |
| 62 | Synergistic Approach to Develop Antibacterial Electrospun Scaffolds Using Honey and S-Nitroso-N-acetyl Penicillamine. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 517-526.   | 5.2  | 21        |
| 63 | Antibacterial and Cellular Response Toward a Gasotransmitter-Based Hybrid Wound Dressing. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 4002-4012.   | 5.2  | 20        |
| 64 | The mediation of platelet quiescence by NO-releasing polymers via cGMP-induced serine 239 phosphorylation of vasodilator-stimulated phosphoprotein. <i>Biomaterials</i> , 2013, 34, 8086-8096.  | 11.4 | 19        |
| 65 | Antibacterial 3D bone scaffolds for tissue engineering application. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019, 107, 1068-1078.   | 3.4  | 18        |
| 66 | Nitric Oxide-Releasing Gelatin Methacryloyl/Silk Fibroin Interpenetrating Polymer Network Hydrogels for Tissue Engineering Applications. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 273-283.                                | 5.2  | 18        |
| 67 | Assessing and improving the biocompatibility of microfluidic artificial lungs. <i>Acta Biomaterialia</i> , 2020, 112, 190-201.  | 8.3  | 17        |
| 68 | Development of Novel Amphotericin B-Immobilized Nitric Oxide-Releasing Platform for the Prevention of Broad-Spectrum Infections and Thrombosis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 19613-19624.                      | 8.0  | 17        |
| 69 | Tethered Liquid Perfluorocarbon Coating for 72 Hour Heparin-Free Extracorporeal Life Support. <i>ASAIO Journal</i> , 2021, 67, 798-808.   | 1.6  | 16        |
| 70 | Recent Advances in Hemocompatible Polymers for Biomedical Applications. , 2015, , 481-511.  |      | 15        |
| 71 | S-nitroso-N-acetylpenicillamine impregnated endotracheal tubes for prevention of ventilator-associated pneumonia. <i>Biotechnology and Bioengineering</i> , 2020, 117, 2237-2246.   | 3.3  | 15        |
| 72 | Characterization and in vivo performance of nitric oxide-releasing extracorporeal circuits in a feline model of thrombogenicity. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 539-546.                             | 4.0  | 14        |

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|----|---|-----|-----------|
| 73 | Dual Action Nitric Oxide and Fluoride Ion-Releasing Hydrogels for Combating Dental Caries. ACS Applied Materials & Interfaces, 2022, 14, 21916-21930.   | 8.0 | 14        |
| 74 | Highly hydrophobic polytetrafluoroethylene particle immobilization via polydopamine anchor layer on nitric oxide releasing polymer for biomedical applications. Journal of Colloid and Interface Science, 2021, 585, 716-728. | 9.4 | 13        |
| 75 | Reduction in Foreign Body Response and Improved Antimicrobial Efficacy via Silicone-Oil-Infused Nitric-Oxide-Releasing Medical-Grade Cannulas. ACS Applied Materials & Interfaces, 2021, 13, 52425-52434.                     | 8.0 | 12        |
| 76 | Nitric Oxide-Releasing Nanofibrous Scaffolds Based on Silk Fibroin and Zein with Enhanced Biodegradability and Antibacterial Properties. ACS Biomaterials Science and Engineering, 2022, 8, 3066-3077.                        | 5.2 | 12        |
| 77 | Cellulose nanocrystal reinforced silk fibroin coating for enhanced corrosion protection and biocompatibility of Mg-based alloys for orthopedic implant applications. Progress in Organic Coatings, 2021, 161, 106525.         | 3.9 | 11        |
| 78 | Nitric Oxide-Releasing Lock Solution for the Prevention of Catheter-Related Infection and Thrombosis. ACS Applied Bio Materials, 2022, 5, 1519-1527.  | 4.6 | 11        |
| 79 | Investigation of Diffusion Characteristics through Microfluidic Channels for Passive Drug Delivery Applications. Journal of Drug Delivery, 2016, 2016, 1-9.   | 2.5 | 10        |
| 80 | Potent, Broad-Spectrum Antimicrobial Effects of S-Nitroso-N-acetylpenicillamine-Impregnated Nitric Oxide-Releasing Latex Urinary Catheters. ACS Applied Bio Materials, 2022, 5, 700-710.                                      | 4.6 | 10        |
| 81 | H <sub>2</sub> S-Releasing Composite: a Gasotransmitter Platform for Potential Biomedical Applications. ACS Biomaterials Science and Engineering, 2020, 6, 2062-2071.   | 5.2 | 9         |
| 82 | Computational imaging analysis of glycated fibrin gels reveals aggregated and anisotropic structures. Journal of Biomedical Materials Research - Part A, 2017, 105, 2191-2198.  | 4.0 | 8         |
| 83 | Electrospun Bioabsorbable Fibers Containing S-Nitrosoglutathione for Tissue Engineering Applications. ACS Applied Bio Materials, 2020, 3, 7677-7686.  | 4.6 | 8         |
| 84 | Nitric oxide-releasing antibacterial albumin plastic for biomedical applications. Journal of Biomedical Materials Research - Part A, 2018, 106, 1535-1542.  | 4.0 | 7         |
| 85 | Covalently Bound S-Nitroso-N-Acetylpenicillamine to Electrospun Polyacrylonitrile Nanofibers for Multifunctional Tissue Engineering Applications. ACS Biomaterials Science and Engineering, 2021, 7, 5279-5287.               | 5.2 | 7         |
| 86 | Development and In Vitro Whole Blood Hemocompatibility Screening of Endothelium-Mimetic Multifunctional Coatings. ACS Applied Bio Materials, 2022, 5, 2212-2223.  | 4.6 | 7         |
| 87 | Incorporation of Phospholipids Enhances Cellular Uptake and Retention of Surfactant-Polymer Nanoparticles. Journal of Biomedical Nanotechnology, 2007, 3, 291-296.  | 1.1 | 6         |
| 88 | Surface Morphological Evolution of Ultrathin P4VP Films and Generation of Ordered Patterns on Graphite. Macromolecular Rapid Communications, 2007, 28, 1619-1623.   | 3.9 | 6         |
| 89 | Highly Efficient Antimicrobial Activity of CuxFeyOz Nanoparticles against Important Human Pathogens. Nanomaterials, 2020, 10, 2294.   | 4.1 | 6         |
| 90 | Improved Polymer Hemocompatibility for Blood-Contacting Applications via S-Nitrosoglutathione Impregnation. ACS Applied Materials & Interfaces, 2022, 14, 11116-11123.  | 8.0 | 6         |

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|----|--|-----|-----------|
| 91 | Phospholipid Nanoparticles: Process Optimization Using Factorial Design and Atomic Force Microscopy. <i>Journal of Biomedical Nanotechnology</i> , 2007, 3, 394-400. | 1.1 | 1         |