

# N J Halas

## List of Publications by Year in descending order

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49  
papers

18,444  
citations

87843

38  
h-index

214721

47  
g-index

49  
all docs

49  
docs citations

49  
times ranked

18863  
citing authors

| #  | ARTICLE                                                                                                                                                                                                    | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Nanoshell-mediated near-infrared thermal therapy of tumors under magnetic resonance guidance. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13549-13554.     | 3.3  | 3,629     |
| 2  | A Hybridization Model for the Plasmon Response of Complex Nanostructures. Science, 2003, 302, 419-422.                                                                                                     | 6.0  | 3,531     |
| 3  | Photodetection with Active Optical Antennas. Science, 2011, 332, 702-704.                                                                                                                                  | 6.0  | 1,760     |
| 4  | Self-Assembled Plasmonic Nanoparticle Clusters. Science, 2010, 328, 1135-1138.                                                                                                                             | 6.0  | 1,362     |
| 5  | A Whole Blood Immunoassay Using Gold Nanoshells. Analytical Chemistry, 2003, 75, 2377-2381.                                                                                                                | 3.2  | 664       |
| 6  | Plasmon Resonance Shifts of Au-Coated Au <sub>2</sub> S Nanoshells: Insight into Multicomponent Nanoparticle Growth. Physical Review Letters, 1997, 78, 4217-4220.                                         | 2.9  | 648       |
| 7  | Temperature-sensitive polymer-nanoshell composites for photothermally modulated drug delivery. Journal of Biomedical Materials Research Part B, 2000, 51, 293-298.                                         | 3.0  | 643       |
| 8  | Surface-enhanced Raman scattering on tunable plasmonic nanoparticle substrates. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17930-17935.                   | 3.3  | 561       |
| 9  | Infrared extinction properties of gold nanoshells. Applied Physics Letters, 1999, 75, 2897-2899.                                                                                                           | 1.5  | 517       |
| 10 | Silver Nanoshells: Variations in Morphologies and Optical Properties. Journal of Physical Chemistry B, 2001, 105, 2743-2746.                                                                               | 1.2  | 475       |
| 11 | Compact solar autoclave based on steam generation using broadband light-harvesting nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11677-11681. | 3.3  | 421       |
| 12 | Controlling the surface enhanced Raman effect via the nanoshell geometry. Applied Physics Letters, 2003, 82, 257-259.                                                                                      | 1.5  | 407       |
| 13 | Applications of nanotechnology to biotechnology. Current Opinion in Biotechnology, 2000, 11, 215-217.                                                                                                      | 3.3  | 328       |
| 14 | Independent Optical Control of Microfluidic Valves Formed from Optomechanically Responsive Nanocomposite Hydrogels. Advanced Materials, 2005, 17, 1366-1368.                                               | 11.1 | 297       |
| 15 | Dark-Pulse Propagation in Optical Fibers. Physical Review Letters, 1988, 60, 29-32.                                                                                                                        | 2.9  | 274       |
| 16 | Symmetry breaking in individual plasmonic nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10856-10860.                                          | 3.3  | 270       |
| 17 | Electronic Structure and Optical Properties of Gold Nanoshells. Nano Letters, 2003, 3, 1411-1415.                                                                                                          | 4.5  | 248       |
| 18 | Generation of subpicosecond electrical pulses on coplanar transmission lines. Applied Physics Letters, 1986, 48, 751-753.                                                                                  | 1.5  | 214       |

| #  | ARTICLE                                                                                                                                                                                        | IF  | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Light scattering from dipole and quadrupole nanoshell antennas. Applied Physics Letters, 1999, 75, 1063-1065.                                                                                  | 1.5 | 213       |
| 20 | Relative contributions to the plasmon line shape of metal nanoshells. Physical Review B, 2002, 66, .                                                                                           | 1.1 | 201       |
| 21 | Optimized plasmonic nanoparticle distributions for solar spectrum harvesting. Applied Physics Letters, 2006, 89, 153120.                                                                       | 1.5 | 179       |
| 22 | Plasmons in the Metallic Nanoparticleâ™Film System as a Tunable Impurity Problem. Nano Letters, 2005, 5, 2009-2013.                                                                            | 4.5 | 149       |
| 23 | General vector basis function solution of Maxwellâ€™s equations. Physical Review E, 1997, 56, 1102-1112.                                                                                       | 0.8 | 120       |
| 24 | Adenineâ™ and Adenosine Monophosphate (AMP)â™Gold Binding Interactions Studied by Surface-Enhanced Raman and Infrared Spectroscopies. Journal of Physical Chemistry C, 2009, 113, 14390-14397. | 1.5 | 118       |
| 25 | Independent optically addressable nanoparticle-polymer optomechanical composites. Applied Physics Letters, 2002, 80, 4609-4611.                                                                | 1.5 | 111       |
| 26 | Metallodielectric gratings with subwavelength slots:â€™,â€™,Optical properties. Physical Review B, 2003, 68, .                                                                                 | 1.1 | 104       |
| 27 | Threefold Electron Scattering on Graphite Observed with C60-Adsorbed STM Tips. Science, 1996, 273, 1371-1373.                                                                                  | 6.0 | 100       |
| 28 | Ultrafast electron dynamics in gold nanoshells. Physical Review B, 1998, 58, R10203-R10206.                                                                                                    | 1.1 | 94        |
| 29 | Bethe-hole polarization analyser for the magnetic vector of light. Nature Communications, 2011, 2, 451.                                                                                        | 5.8 | 83        |
| 30 | Enhancing the active lifetime of luminescent semiconducting polymers via doping with metal nanoshells. Applied Physics Letters, 2001, 78, 1502-1504.                                           | 1.5 | 82        |
| 31 | Plasmonic interactions between a metallic nanoshell and a thin metallic film. Physical Review B, 2007, 76, .                                                                                   | 1.1 | 71        |
| 32 | Enhanced thermal stability of silica-encapsulated metal nanoshells. Applied Physics Letters, 2001, 79, 674-676.                                                                                | 1.5 | 68        |
| 33 | Subpicosecond optoelectronic study of resistive and superconductive transmission lines. Applied Physics Letters, 1987, 50, 350-352.                                                            | 1.5 | 62        |
| 34 | Ultrafast lightâ€™controlled opticalâ€™fiber modulator. Applied Physics Letters, 1987, 50, 886-888.                                                                                            | 1.5 | 57        |
| 35 | Observations of Anisotropic Electron Scattering on Graphite with a Low-Temperature Scanning Tunneling Microscope. Journal of Physical Chemistry B, 1999, 103, 1619-1622.                       | 1.2 | 56        |
| 36 | Light Interaction between Gold Nanoshells Plasmon Resonance and Planar Optical Waveguides. Journal of Physical Chemistry B, 2002, 106, 5609-5612.                                              | 1.2 | 46        |

| #  | ARTICLE                                                                                                                                                                                                                                | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Connecting the dots: Reinventing optics for nanoscale dimensions. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3643-3644.                                                               | 3.3 | 41        |
| 38 | Adsorbate-Induced Quenching of Hot Electrons in Gold Core-Shell Nanoparticles. Journal of Physical Chemistry B, 2001, 105, 9913-9917.                                                                                                  | 1.2 | 40        |
| 39 | Scanning Tunneling Microscopy and Spectroscopy of Dialkyl Disulfide Fullerenes Inserted into Alkanethiolate SAMs. Journal of Physical Chemistry B, 1999, 103, 8639-8642.                                                               | 1.2 | 34        |
| 40 | Effects of photo-oxidation on conjugated polymer films. Applied Physics Letters, 1997, 71, 1483-1485.                                                                                                                                  | 1.5 | 32        |
| 41 | Direct observation of fullerene-adsorbed tips by scanning tunneling microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 593. | 1.6 | 30        |
| 42 | Diffusion of silver in C60 thin films. Applied Physics Letters, 1993, 63, 2438-2440.                                                                                                                                                   | 1.5 | 27        |
| 43 | Spiers Memorial Lecture : Introductory lecture: Hot-electron science and microscopic processes in plasmonics and catalysis. Faraday Discussions, 2019, 214, 13-33.                                                                     | 1.6 | 27        |
| 44 | Excimer Model for Photoluminescence in Single-Crystal C60. The Journal of Physical Chemistry, 1996, 100, 2854-2861.                                                                                                                    | 2.9 | 18        |
| 45 | High-purity vapor phase purification of C60. Applied Physics Letters, 1994, 65, 374-376.                                                                                                                                               | 1.5 | 16        |
| 46 | Chemical and Dielectric Manipulation of the Plasmonic Band Gap of Metallodielectric Arrays. Nano Letters, 2004, 4, 1497-1500.                                                                                                          | 4.5 | 12        |
| 47 | Time-resolved reflectivity studies of the GaAs(100)/oxide and GaAs(100)/ZnSe interface. Applied Physics Letters, 1991, 59, 1476-1478.                                                                                                  | 1.5 | 2         |
| 48 | Temperature-sensitive polymer-nanoshell composites for photothermally modulated drug delivery. , 2000, 51, 293.                                                                                                                        |     | 2         |
| 49 | Plasmonics-based design: combining surface-enhanced Raman and IR spectroscopies into the same structure. , 2008, , .                                                                                                                   |     | 0         |