# Bruce A Shapiro

List of Publications by Year
in descending order



| 54 | 2,404 | 304743 22 | 206112 48 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 55 | 55 | 55 | 1504 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | In vitro assembly of cubic RNA-based scaffolds designed in silico. Nature Nanotechnology, 2010, 5, 676-682. | 31.5 | 330 |
| 2 | Self-Assembling RNA Nanorings Based on RNAI/II Inverse Kissing Complexes. Nano Letters, 2011, 11, 878-887. | 9.1 | 219 |
| 3 | Multifunctional RNA Nanoparticles. Nano Letters, 2014, 14, 5662-5671. | 9.1 | 181 |
| 4 | Design and self-assembly of siRNA-functionalized RNA nanoparticles for use in automated nanomedicine. Nature Protocols, 2011, 6, 2022-2034. | 12.0 | 177 |
| 5 | RNAJunction: a database of RNA junctions and kissing loops for three-dimensional structural analysis and nanodesign. Nucleic Acids Research, 2008, 36, D392-D397. | 14.5 | 141 |
| 6 | Computational Design of an RNA Hexagonal Nanoring and an RNA Nanotube. Nano Letters, 2007, 7, 2328-2334. | 9.1 | 121 |
| 7 | Co-transcriptional Assembly of Chemically Modified RNA Nanoparticles Functionalized with siRNAs. Nano Letters, 2012, 12, 5192-5195. | 9.1 | 117 |
| 8 | Activation of different split functionalities on re-association of RNAâ€“DNA hybrids. Nature Nanotechnology, 2013, 8, 296-304. | 31.5 | 106 |
| 9 | Triggering of RNA Interference with RNAâ€“RNA, RNAâ€“DNA, and DNAâ€“RNA Nanoparticles. ACS Nano, 2015, 9, 251-259. | 14.6 | 100 |
| 10 | Computational strategies for the automated design of RNA nanoscale structures from building blocks using NanoTiler. Journal of Molecular Graphics and Modelling, 2008, 27, 299-308. | 2.4 | 82 |
| 11 | Functionally-interdependent shape-switching nanoparticles with controllable properties. Nucleic Acids Research, 2017, 45, gkx008. | 14.5 | 71 |
| 12 | Computational and experimental characterization of RNA cubic nanoscaffolds. Methods, 2014, 67, 256-265. | 3.8 | 55 |
| 13 | Multistrand Structure Prediction of Nucleic Acid Assemblies and Design of RNA Switches. Nano Letters, 2016, 16, 1726-1735. | 9.1 | 53 |
| 14 | RNA2Drawer: geometrically strict drawing of nucleic acid structures with graphical structure editing and highlighting of complementary subsequences. RNA Biology, 2019, 16, 1667-1671. | 3.1 | 51 |
| 15 | Cellular Delivery of RNA Nanoparticles. ACS Combinatorial Science, 2016, 18, 527-547. | 3.8 | 47 |
| 16 | An Index Structure for Data Mining and Clustering. Knowledge and Information Systems, 2000, 2, 161-184. | 3.2 | 46 |
| 17 | The 3â€² Untranslated Region of Pea Enation Mosaic Virus Contains Two T-Shaped, Ribosome-Binding, Cap-Independent Translation Enhancers. Journal of Virology, 2014, 88, 11696-11712. | 3.4 | 43 |
| 18 | Structural Differences between Pri-miRNA Paralogs Promote Alternative Drosha Cleavage and Expand Target Repertoires. Cell Reports, 2019, 26, 447-459.e4. | 6.4 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The Use of Minimal RNA Toeholds to Trigger the Activation of Multiple Functionalities. Nano Letters, 2016, 16, 1746-1753. | 9.1 | 40 |
| 20 | Bolaamphiphiles as carriers for siRNA delivery: From chemical syntheses to practical applications. Journal of Controlled Release, 2015, 213, 142-151. | 9.9 | 39 |
| 21 | Dynamic Behavior of RNA Nanoparticles Analyzed by AFM on a Mica/Air Interface. Langmuir, 2018, 34, 15099-15108. | 3.5 | 35 |
| 22 | Ring Catalog: A resource for designing self-assembling RNA nanostructures. Methods, 2016, 103, 128-137. | 3.8 | 33 |
| 23 | Complementary classification approaches for protein sequences. Protein Engineering, Design and Selection, 1996, 9, 381-386. | 2.1 | 24 |
| 24 | Characterization of Cationic Bolaamphiphile Vesicles for siRNA Delivery into Tumors and Brain. Molecular Therapy - Nucleic Acids, 2020, 20, 359-372. | 5.1 | 24 |
| 25 | Molecular Dynamics Simulations of the Denaturation and Refolding of an RNA Tetraloop. Journal of Biomolecular Structure and Dynamics, 2001, 19, 381-396. | 3.5 | 19 |
| 26 | Oxime ether lipids containing hydroxylated head groups are more superior siRNA delivery agents than their nonhydroxylated counterparts. Nanomedicine, 2015, 10, 2805-2818. | 3.3 | 18 |
| 27 | Triggering RNAi with multifunctional RNA nanoparticles and their delivery. DNA and RNA Nanotechnology, 2015, 2, 1-12. | 0.7 | 17 |
| 28 | RiboSketch: versatile visualization of multi-stranded RNA and DNA secondary structure. Bioinformatics, 2018, 34, 4297-4299. | 4.1 | 15 |
| 29 | Design and biological activity of novel stealth polymeric lipid nanoparticles for enhanced delivery of hydrophobic photodynamic therapy drugs. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 2295-2305. | 3.3 | 15 |
| 30 | Folding behavior of a T-shaped, ribosome-binding translation enhancer implicated in a wide-spread conformational switch. ELife, 2017, 6, . | 6.0 | 15 |
| 31 | A Boltzmann Filter Improves the Prediction of RNA Folding Pathways in a Massively Parallel Genetic Algorithm. Journal of Biomolecular Structure and Dynamics, 1999, 17, 581-595. | 3.5 | 14 |
| 32 | The role of salt concentration and magnesium binding in HIV-1 subtype-A and subtype-B kissing loop monomer structures. Journal of Biomolecular Structure and Dynamics, 2013, 31, 495-510. | 3.5 | 14 |
| 33 | Truncated tetrahedral RNA nanostructures exhibit enhanced features for delivery of RNAi substrates. Nanoscale, 2020, 12, 2555-2568. | 5.6 | 14 |
| 34 | Structural insights of the conserved â€œpriming loopâ€•of hepatitis B virus pre-genomic RNA. Journal of Biomolecular Structure and Dynamics, 2022, 40, 9761-9773. | 3.5 | 14 |
| 35 | Computational and Experimental Studies of Reassociating RNA/DNA Hybrids Containing Split Functionalities. Methods in Enzymology, 2015, 553, 313-334. | 1.0 | 12 |
| 36 | Preparation of a Conditional RNA Switch. Methods in Molecular Biology, 2017, 1632, 303-324. | 0.9 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Advances in RNA structure determination. Methods, 2016, 103, 1-3. | 3.8 | 7 |
| 38 | A Suite of Therapeutically-Inspired Nucleic Acid Logic Systems for Conditional Generation of Single-Stranded and Double-Stranded Oligonucleotides. Nanomaterials, 2019, 9, 615. | 4.1 | 7 |
| 39 | Dynamic bulge nucleotides in the KSHV PAN ENE triple helix provide a unique binding platform for small molecule ligands. Nucleic Acids Research, 2021, 49, 13179-13193. | 14.5 | 6 |
| 40 | Computational Generation of RNA Nanorings. Methods in Molecular Biology, 2017, 1632, 19-32. | 0.9 | 4 |
| 41 | Cotranscriptional Production of Chemically Modified RNA Nanoparticles. Methods in Molecular Biology, 2017, 1632, 91-105. | 0.9 | 4 |
| 42 | Functionalized non-viral cationic vectors for effective siRNA induced cancer therapy. DNA and RNA Nanotechnology, 2017, 4, 1-20. | 0.7 | 3 |
| 43 | Photoactivation of sulfonated polyplexes enables localized gene silencing by DsiRNA in breast cancer cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 26, 102176. | 3.3 | 3 |
| 44 | Protocols for Molecular Dynamics Simulations of RNA Nanostructures. Methods in Molecular Biology, 2017, 1632, 33-64. | 0.9 | 3 |
| 45 | RNA Toehold Interactions Initiate Conditional Gene Silencing. DNA and RNA Nanotechnology, 2016, 3, 11-13. | 0.7 | 2 |
| 46 | Predicting RNA SHAPE scores with deep learning. RNA Biology, 2020, 17, 1324-1330. | 3.1 | 2 |
| 47 | Exploring RNA Intermediate Conformations with the Massively Parallel Genetic Algorithm. , 2003, , 1-33. | | 2 |
| 48 | Structural characterization of a new subclass of panicum mosaic virus-like 3â€² cap-independent translation enhancer. Nucleic Acids Research, 2022, , . | 14.5 | 2 |
| 49 | Understanding the effects of carbocyclic sugars constrained to north and south conformations on RNA nanodesign. Journal of Molecular Graphics and Modelling, 2011, 29, 624-634. | 2.4 | 1 |
| 50 | Combined single molecule experimental and computational approaches for understanding the unfolding pathway of a viral translation enhancer that participates in a conformational switch. RNA Biology, 2017, 14, 1466-1472. | 3.1 | 1 |
| 51 | Oxime Ether Lipids as Transfection Agents: Assembly and Complexation with siRNA. Methods in Molecular Biology, 2017, 1632, 241-253. | 0.9 | 1 |
| 52 | Triggerable RNA nanodevices. RNA & Disease (Houston, Tex ), 2017, 4, . | 1.0 | 1 |
| 53 | RNAâ€“Protein Interactions Prevent Long RNA Duplex Formation: Implications for the Design of RNA-Based Therapeutics. Molecules, 2018, 23, 3329. | 3.8 | 0 |
| 54 | RNA and DNA nanoparticles for triggering RNA interference. RNA & Disease (Houston, Tex ), 2015, 2, . | 1.0 | 0 |