

# Serge L Beaucage

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

3,332  
citations

236925

25  
h-index

243625

44  
g-index

54  
all docs

54  
docs citations

54  
times ranked

1504  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Advances in the Synthesis of Oligonucleotides by the Phosphoramidite Approach. <i>Tetrahedron</i> , 1992, 48, 2223-2311.  | 1.9  | 693       |
| 2  | The synthesis of modified oligonucleotides by the phosphoramidite approach and their applications. <i>Tetrahedron</i> , 1993, 49, 6123-6194.  | 1.9  | 341       |
| 3  | 3H-1,2-Benzodithiole-3-one 1,1-dioxide as an improved sulfurizing reagent in the solid-phase synthesis of oligodeoxyribonucleoside phosphorothioates. <i>Journal of the American Chemical Society</i> , 1990, 112, 1253-1254.   | 13.7 | 317       |
| 4  | The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives. <i>Tetrahedron</i> , 1993, 49, 1925-1963.  | 1.9  | 265       |
| 5  | The automated synthesis of sulfur-containing oligodeoxyribonucleotides using 3H-1,2-benzodithiol-3-one 1,1-dioxide as a sulfur-transfer reagent. <i>Journal of Organic Chemistry</i> , 1990, 55, 4693-4699.   | 3.2  | 259       |
| 6  | The synthesis of oligoribonucleotides. II. The use of silyl protecting groups in nucleoside and nucleotide chemistry. VII. <i>Canadian Journal of Chemistry</i> , 1978, 56, 2768-2780.  | 1.1  | 246       |
| 7  | Nucleotide chemistry. 16. Amidine protecting groups for oligonucleotide synthesis. <i>Journal of the American Chemical Society</i> , 1986, 108, 2040-2048.  | 13.7 | 201       |
| 8  | The synthesis of specific ribonucleotides and unrelated phosphorylated biomolecules by the phosphoramidite method. <i>Tetrahedron</i> , 1993, 49, 10441-10488.  | 1.9  | 92        |
| 9  | Deoxyribonucleoside Cyclic N-Acylphosphoramidites as a New Class of Monomers for the Stereocontrolled Synthesis of Oligothymidyl- and Oligodeoxycytidyl- Phosphorothioates. <i>Journal of the American Chemical Society</i> , 2000, 122, 2149-2156.   | 13.7 | 83        |
| 10 | Inhibition of Potentially Anti-Apoptotic Proteins by Antisense Protein Kinase C- $\hat{\pm}$ (Isis 3521) and Antisense bcl-2 (G3139) Phosphorothioate Oligodeoxynucleotides: Relationship to the Decreased Viability of T24 Bladder and PC3 Prostate Cancer Cells. <i>Molecular Pharmacology</i> , 2001, 60, 1296-1307. | 2.3  | 58        |
| 11 | A simple and efficient preparation of deoxynucleoside phosphoramidites in situ. <i>Tetrahedron Letters</i> , 1984, 25, 375-378.   | 1.4  | 48        |
| 12 | The 3-(N-tert-Butylcarboxamido)-1-propyl Group as an Attractive Phosphate/Thiophosphate Protecting Group for Solid-Phase Oligodeoxyribonucleotide Synthesis. <i>Journal of Organic Chemistry</i> , 2002, 67, 6430-6438.   | 3.2  | 39        |
| 13 | Fluoride ion promoted deprotection and transesterification in nucleotide triesters. <i>Nucleic Acids Research</i> , 1979, 7, 805-823.   | 14.5 | 38        |
| 14 | The 2-(N-Formyl-N-methyl)aminoethyl Group as a Potential Phosphate/Thiophosphate Protecting Group in Solid-Phase Oligodeoxyribonucleotide Synthesis. <i>Organic Letters</i> , 2001, 3, 1287-1290.   | 4.6  | 37        |
| 15 | Thermolytic 4-Methylthio-1-butyl Group for Phosphate/Thiophosphate Protection in Solid-Phase Synthesis of DNA Oligonucleotides. <i>Journal of Organic Chemistry</i> , 2004, 69, 2509-2515.  | 3.2  | 34        |
| 16 | Assessment of heat-sensitive thiophosphate protecting groups in the development of thermolytic DNA oligonucleotide prodrugs. <i>Tetrahedron</i> , 2010, 66, 68-79.  | 1.9  | 34        |
| 17 | Oligodeoxyribonucleotides Synthesis: Phosphoramidite Approach. , 1993, 20, 33-62.   |      | 33        |
| 18 | Conceptual basis of the selective activation of bis(dialkylamino)methoxyphosphines by weak acids and its application toward the preparation of deoxynucleoside phosphoramidites in situ. <i>Journal of Organic Chemistry</i> , 1985, 50, 2019-2025.   | 3.2  | 32        |

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|----|---|------|-----------|
| 19 | Thermolytic Carbonates for Potential 5'-Hydroxyl Protection of Deoxyribonucleosides. <i>Journal of Organic Chemistry</i> , 2003, 68, 10003-10012.   | 3.2  | 32        |
| 20 | Thermolytic CpG-containing DNA oligonucleotides as potential immunotherapeutic prodrugs. <i>Nucleic Acids Research</i> , 2005, 33, 3550-3560.   | 14.5 | 30        |
| 21 | Synthetic Strategies and Parameters Involved in the Synthesis of Oligodeoxyribonucleotides According to the Phosphoramidite Method. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2000, 00, Unit 3.3.  | 0.5  | 29        |
| 22 | Thermolytic Properties of 3-(2-Pyridyl)-1-propyl and 2-[N-Methyl-N-(2-pyridyl)]aminoethyl Phosphate/Thiophosphate Protecting Groups in Solid-Phase Synthesis of Oligodeoxyribonucleotides. <i>Journal of Organic Chemistry</i> , 2003, 68, 10123-10129.   | 3.2  | 29        |
| 23 | Recent Advances in the Chemical Synthesis of RNA. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2009, 38, Unit 2.16 1-31.  | 0.5  | 29        |
| 24 | Alternating .alpha.,.beta.-oligothymidylates with alternating (3'.fwdarw.3')- and (5'.fwdarw.5')-internucleotidic phosphodiester linkages as models for antisense oligodeoxyribonucleotides. <i>Journal of Organic Chemistry</i> , 1991, 56, 3757-3759.   | 3.2  | 28        |
| 25 | The 4-oxopentyl group as a labile phosphate/thiophosphate protecting group for synthetic oligodeoxyribonucleotides. <i>Tetrahedron Letters</i> , 2001, 42, 5635-5639.   | 1.4  | 28        |
| 26 | Assessment of 4-Nitrogenated Benzyloxymethyl Groups for 2'-Hydroxyl Protection in Solid-Phase RNA Synthesis. <i>Organic Letters</i> , 2007, 9, 671-674.   | 4.6  | 27        |
| 27 | 2-mercaptobenzothiazole—an improved reagent for the removal of methyl phosphate protecting groups from oligodeoxynucleotide phosphotriesters.. <i>Tetrahedron Letters</i> , 1988, 29, 5479-5482.  | 1.4  | 26        |
| 28 | Oligonucleotide Synthesis. , 1999, , 105-152.   |      | 26        |
| 29 | Thermolytic Release of Covalently Linked DNA Oligonucleotides and Their Conjugates from Controlled-Pore Glass at Near Neutral pH. <i>Bioconjugate Chemistry</i> , 2008, 19, 1696-1706.  | 3.6  | 24        |
| 30 | N-Trifluoroacetyl amino Alcohols as Phosphodiester Protecting Groups in the Synthesis of Oligodeoxyribonucleotides. <i>Journal of Organic Chemistry</i> , 1997, 62, 6712-6713.  | 3.2  | 22        |
| 31 | Solid-Phase Synthesis of Thermolytic DNA Oligonucleotides Functionalized with a Single 4-Hydroxy-1-butyl or 4-Phosphato-/Thiophosphato-1-butyl Thiophosphate Protecting Group. <i>Journal of Organic Chemistry</i> , 2007, 72, 805-815.   | 3.2  | 22        |
| 32 | Synthesis of (2-Deoxy-1- and 2-d-erythro-pentofuranosyl)(thymine-1-yl)alkanes and Their Incorporation into Oligodeoxyribonucleotides. Effect of Nucleobase-Sugar Linker Flexibility on the Formation of DNA-DNA and DNA-RNA Hybrids. <i>Journal of Organic Chemistry</i> , 1996, 61, 8617-8626. | 3.2  | 21        |
| 33 | Hydroxyalkylated phosphoramidate, phosphoramidothioate and phosphorodiamidothioate derivatives as thiophosphate protecting groups in the development of thermolytic DNA prodrugs. <i>New Journal of Chemistry</i> , 2010, 34, 880.  | 2.8  | 17        |
| 34 | An Efficient Reagent for the Phosphorylation of Deoxyribonucleosides, DNA Oligonucleotides, and Their Thermolytic Analogues. <i>Organic Letters</i> , 2005, 7, 4201-4204.   | 4.6  | 16        |
| 35 | Attachment of Reporter and Conjugate Groups to DNA. , 1999, , 153-249.  |      | 12        |
| 36 | Solid-Phase Purification of Synthetic DNA Sequences. <i>Journal of Organic Chemistry</i> , 2016, 81, 6165-6175.   | 3.2  | 12        |

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|----|--|------|-----------|
| 37 | Interaction of AD2+D2 protein and simian virus 40 large T antigen with the large tumor antigen binding site I. <i>Biochemistry</i> , 1984, 23, 5938-5944.  | 2.5  | 8         |
| 38 | Deoxyribonucleoside Phosphoramidites. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2001, 4, Unit 2.7.  | 0.5  | 8         |
| 39 | Direct Assignment of the Absolute Configuration of a Distinct Class of Deoxyribonucleoside Cyclic N-Acylphosphoramidites at Phosphorus by M-GOESY Nuclear Magnetic Resonance Spectroscopy. <i>Journal of the American Chemical Society</i> , 2002, 124, 1180-1181. | 13.7 | 6         |
| 40 | A High-Throughput Process for the Solid-Phase Purification of Synthetic DNA Sequences. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2017, 69, 10.17.1-10.17.30.  | 0.5  | 6         |
| 41 | 3-(N-tert-Butylcarboxamido)-1-propyl and 4-Oxopentyl Groups for Phosphate/Thiophosphate Protection in Oligodeoxyribonucleotide Synthesis. , 2002, Chapter 3, 3.9.1-3.9.16.   |      | 4         |
| 42 | Release of DNA Oligonucleotides and Their Conjugates from Controlled-Pore Glass Under Thermolytic Conditions. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2008, 35, Unit 3.17.  | 0.5  | 4         |
| 43 | An Amphipathic trans-Acting Phosphorothioate DNA Element Delivers Uncharged PNA and PMO Nucleic Acid Sequences in Mammalian Cells. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2016, 64, 4.69.1-4.69.22.  | 0.5  | 4         |
| 44 | Innovative 2'-Imino-2-propanoate-Protecting Group for Effective Solid-Phase Synthesis and 2'-Deprotection of RNA Sequences. <i>Journal of Organic Chemistry</i> , 2021, 86, 4944-4956.   | 3.2  | 4         |
| 45 | An Improved Sulfurization Reagent for the Synthesis of Sulfur-Containing Oligonucleotides. <i>Annals of the New York Academy of Sciences</i> , 1990, 616, 483-485.   | 3.8  | 3         |
| 46 | Design and Development of Thermolytic DNA Oligonucleotide Prodrugs. <i>Annals of the New York Academy of Sciences</i> , 2005, 1058, 26-38.   | 3.8  | 2         |
| 47 | The 4-Methylthio-1-Butyl Group for Phosphate/Thiophosphate Protection in Oligodeoxyribonucleotide Synthesis. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2004, 19, Unit 3.11.   | 0.5  | 1         |
| 48 | Time-Dependent Thermocontrol of the Hydrophilic and Lipophilic Properties of DNA Oligonucleotide Prodrugs. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2010, 43, Unit 4.42..  | 0.5  | 1         |
| 49 | Chemical Phosphorylation of Deoxyribonucleosides and Thermolytic DNA Oligonucleotides. , 2006, Chapter 13, 13.6.1-13.6.21.   |      | 0         |
| 50 | Synthesis, Characterization, and Function of an RNA-Based Transfection Reagent. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2018, 72, 4.81.1-4.81.29.   | 0.5  | 0         |