

CAS SCIFINDER®

# BETWEEN IDEAS AND ANSWERS, THERE ARE CONNECTIONS

Bring your research ideas to life  
faster with CAS SciFinder

# See why researchers turn to CAS SciFinder

As the volume of scientific information continues to grow, finding exactly what you need—the connections amid the chaos—can be challenging. Whether you're reviewing the literature for funding applications and manuscripts, developing experimental plans for new projects, or searching for collaborators to help you advance the research in your field, CAS SciFinder speeds your connection to relevant insights.

**86%**

**of surveyed users in academia said that CAS SciFinder is extremely or very important to their research.**

TechValidate, TVID: CD4-A3A-CEE

**"CAS SciFinder helps me design my synthetic plans and keep up-to-date on my research field. I haven't found any other product able to do this."**

Laura Morelli  
Scientist, University of Milan  
TechValidate, TVID: FA9-363-5C8

**"CAS SciFinder makes the whole process of research and writing more efficient. To do great, you need to be up-to-date!"**

Ibrahim Alfurayj  
Graduate Student / Post Doc,  
Case Western Reserve  
TechValidate, TVID: A89-6FB-4ED

**"I wouldn't be able to do my job without it."**

Chip Nataro  
Faculty, Lafayette College  
TechValidate, TVID: 5A5-CE3-9C7



**"CAS SciFinder is like air for my research...  
you don't know how good it is until you  
don't have it."**

Marcelo D Preite  
Faculty, Pontifical Catholic University of Chile  
TechValidate, TVID: 910-7F8-D86

**"CAS SciFinder is faster  
in all regards."**

Faculty, Educational institution  
TechValidate, TVID: D40-3F9-612

**"CAS SciFinder has  
exponentially cut  
down the time to do  
literature searching."**

Faculty, Educational institution  
TechValidate, TVID:177-99B-7BA

**"Nearly every time I use CAS  
SciFinder, I see something that  
sparks new ideas."**

Faculty, Educational institution  
TechValidate, TVID: 705-6DB-A91

Featuring the world-renowned CAS Content Collection™ and the most advanced relevance engine in the industry, CAS SciFinder will help you bring research ideas to life faster.

**CAS SciFinder goes beyond chemistry. Tell your colleagues and collaborators in the life sciences about our coverage of the biomedical literature from PubChem and sequence searching capabilities.**



# Connect to relevant and timely information

You face an almost insurmountable challenge to retrieve relevant and timely information from the vast and complex scientific literature—the proverbial needle in the haystack. With the most advanced relevance engine in the industry, CAS SciFinder searches faster and smarter, anticipating your information needs to accelerate your research.

**"CAS SciFinder makes finding relevant publications much faster,  
giving more time for in-lab experimentation."**

Graduate Student / Post Doc, Educational Institution  
TechValidate, TVID: F88-FA8-815

Our global network of scientists extracts key information from the world's published scientific literature daily, making connections only possible with the combined power of expert human analysis and advanced data technology. Worried about missing the latest journal publications or patents in your field of research? With CAS SciFinder, you won't miss a thing.



**"The Alerts that I have set up to keep me up to  
date with the publications in my field is one of  
CAS SciFinder's greatest tools."**

Graduate Student / Post Doc, Educational Institution  
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**CAS SciFinder®** References novel coronavirus peptide

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- ☐ Book (1,602)

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1

**Development of epitope-based peptide vaccine against novel coronavirus 2019 (SARS-COV-2): Immunoinformatics approach**

By: Bhattacharya, Manojit; Sharma, Ashish R.; Patra, Prasanta; Ghosh, Pratik; Sharma, Garima; Patra, Bidhan C.; Lee, Sang-Soo; Chakraborty, Chiranjib

Journal of Medical Virology (2020), 92(6), 618-631 | Language: English, Database: CAPLUS and MEDLINE

Recently, a novel coronavirus (SARS-COV-2) emerged which is responsible for the recent outbreak in Wuhan, China. Genetically, it is closely related to SARS-CoV and MERS-CoV. The situation is getting worse and worse, therefore, there is an urgent need for designing a suitable peptide vaccine component against the SARS-COV-2. Here, we characterized spike glycoprotein to obtain immunogenic epitopes. Next, we chose 13 Major Histocompatibility Complex (MHC) I and 3 MHC-II epitopes, having antigenic properties. These epitopes are usually linked to specific linkers to build vaccine components and mol...

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- ☐ Monthly

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☐ Coronavirus

Use advanced filters to narrow your results by document type, author, organization, publication year, and more, and set up Alerts to be notified when new research is published in your field.

**CAS SciFinder®** References Enter a query...

Citation Map for Structure-Based Drug Design and Structural Biology Study of Novel Nonpeptide Inhibitors of Severe Acute Respiratory Syndrome Coronavirus Main Protease

By: Lu, I-Lin; Mahindroo, Neeraj; Liang, Po-Huang; Peng, Yi-Hui; Kuo, Chih-Jung; Tsai, Keng-Chang; Hsieh, Hsing-Pang; Chao, Yu-Sheng; Wu, Su-Ying

Journal of Medicinal Chemistry (2006), 49(17), 5154-5161 | Language: English, Database: CAPLUS and MEDLINE

Full Text

A novel coronavirus associated with severe acute respiratory syndrome

By: Ksiazek, Thomas G.; Erdman, Dean; Goldsmith, Cynthia S.; Zaki, Sherif R.; Peret, Teresa; Emery, Shannon; Tong, Suxiang; Urbani, Carlo; Comer, James A.; Lim, Wilina; et al

New England Journal of Medicine (2003)

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Extend your exploration of the relevant scientific literature with a Citation Map of research cited by (backward) and citing (forward) a publication of interest.



# Plan your experiments with confidence

Your cutting-edge research requires authoritative, high-quality information on substances and chemical reactions. With data on more than 250 million organic and inorganic substances and 130 million single- and multi-step reactions, CAS SciFinder is your one true source to identify a substance and its related chemical structure, names, regulatory information, and properties, as well as reaction schemes, step-by-step experimental procedures, detailed reaction conditions, and yields.

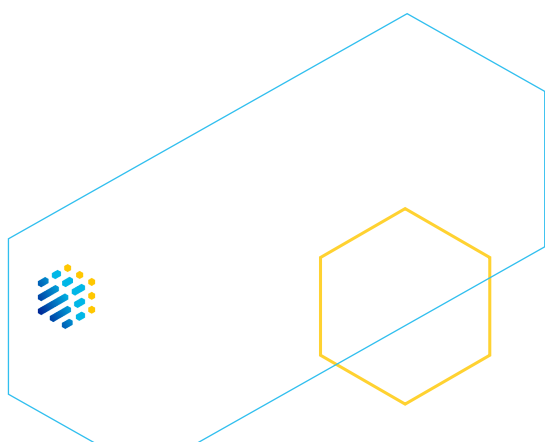
**"Being able to search for journal articles, reactions, and substances all on one platform is very useful. I also like being able to search using a chemical structure, which isn't something you can do with just Google."**

Graduate Student / Post Doc, Educational Institution  
TechValidate, TVID: 790-B0F-A51

Your successful chemical synthesis starts with a detailed synthetic plan, but uncovering, comparing, and piecing together reaction pathways can be challenging. For known substances and those not previously reported in the literature, CAS SciFinder will perform a full retrosynthetic analysis to help you identify synthetic routes to fit your needs. Determine price, chemical suppliers, step-by-step methods, product yields, and more—all before you head to the lab.

**"I find the retrosynthesis capability of CAS SciFinder really unique and extremely helpful to design my synthesis routes."**

Graduate Student / Post Doc, Educational Institution  
TechValidate, TVID: 7AA-C7C-71D





The screenshot displays the CAS SciFinder interface. On the left, a chemical structure editor window is open, showing a complex molecule with multiple nitro and fluorine substituents. Below the structure, the molecular formula is given as  $C_{14}H_7Cl_2F_3N_3O_6$  (441.13). The editor includes a search bar with the text "Enter a CAS Registry Number, SMILES, or InChI...", a "Draw or change atoms or bonds" button, and a "Zoom: 100%" slider. On the right, the main search results page is visible. It features a search bar with the text "Enter a query...", a "Edit" button, and a "Save and Alert" button. Below the search bar, there are filters for "Similarity: 3 Selected" and "Number of Components: 1". The results are sorted by "Molecular Formula: Descending" and viewed in "Partial" mode. Three results are shown, each with a chemical structure and a list of references, reactions, and suppliers.

Find detailed substance information by searching with a chemical name, CAS Registry Number®, or draw exactly the structure you want to find with built-in, easy-to-use structure editors.

The screenshot displays the CAS SciFinder interface for a retrosynthesis plan. The top navigation bar includes the CAS SciFinder logo, a "Reactions" dropdown, a search bar with the text "Enter a query...", and buttons for "Draw", "Search", "Alerts", and "User". The main heading is "Retrosynthesis Plan for drawn structure", with a "Powered by ChemPlanner®" note. Below the heading, there are tabs for "Overview", "Steps", and "Predicted Results" (which is currently selected). The "Predicted Results" tab shows a retrosynthetic plan for a complex molecule. The plan starts with a target molecule (A) and branches into several precursors (B, C, D, E, F, G). Each precursor is shown with its chemical structure, a list of references, reactions, and suppliers. The plan includes a "Max Yield 96%" label and a "Max Yield 71%" label. On the left, there is a "Plan Information" section with details such as "Estimated Yield: 49%", "Overall Price: \$269.63 (USD per 100 grams)", and "Commercially Available: A, B, C, D, E, F, G, H, I, J, K, L, M". Below this is a "Plan Options" section with settings for "Synthetic Depth: 3", "Predicted Rules: Common", "Break & Protect Bonds: No", and "Starting Material Cost Limit: \$1,000.00/mol". At the bottom, there is a "Scoring Profiles" section with sliders for "Complexity Reduction", "Convergence", "Evidence", and "Cost".

Plan your synthesis of a novel or known substance with a retrosynthetic analysis powered by computer-aided synthesis design.



CAS connects the world's scientific knowledge to accelerate breakthroughs that improve lives. We empower global innovators to efficiently navigate today's complex data landscape and make confident decisions in each phase of the innovation journey. As a specialist in scientific knowledge management, our team builds the largest authoritative collection of human-curated scientific data in the world and provides essential information solutions, services, and expertise. Scientists, patent professionals, and business leaders across industries rely on CAS to help them uncover opportunities, mitigate risks, and unlock shared knowledge so they can get from inspiration to innovation faster. CAS is a division of the American Chemical Society.

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