

50 millionth unique chemical substance recorded in CAS Registry

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Chemical Abstracts Service (CAS), a division of the American Chemical Society, announced that on September 7 it recorded the 50 millionth substance in CAS REGISTRY, the world's most comprehensive and high-quality compendium of publicly disclosed chemical information. The recently registered substance is a novel arylmethyldene heterocycle with analgesic properties. Reaching the 50 million mark so quickly is an indicator of the accelerating pace of scientific knowledge. CAS registered the 40 millionth substance just nine months ago—in contrast, it took 33 years for CAS to register the 10 millionth compound in 1990.

Information professionals and scientists around the world have taken note of this important milestone. "The rapid growth of CAS REGISTRY is a mirror of the breadth and depth of creativity in research labs throughout the world," said Grace Baysinger, head librarian at the Swain Chemistry and Chemical Engineering Library at Stanford University. "CAS REGISTRY is an indispensable resource for users in research, education, and industry."

"Achieving a milestone of 50 million small molecules registered, which I congratulate CAS for, has given us two major insights; one is that a novel substance is either isolated or synthesized every 2.6 seconds on the average during the past 12 months, day and night, seven days a week in the world, showing an almost unbelievable rate of progress in science," said Dr. Hideaki Chihara, Ph.D. chemist and former president of Japan Association for International [Chemical Information](#). "The other is that CAS is maintaining its reputation as the world's largest compilation of

substance information that every scientist in the world relies on either directly or indirectly."

REGISTRY is the only integrated collection of chemical information from a full range of patent and journal literature, plus Web and other commercial sources that is curated and quality-controlled by a global team of scientists. REGISTRY not only provides chemical names, the unique CAS Registry Number®, and vital literature references but also ancillary information such as experimental and predicted property data (boiling and melting points, etc.), commercial availability, preparation details, spectra, and regulatory information from international sources.

The 50 millionth substance (CAS Registry Number 1181081-51-5) was uncovered by CAS scientists from the Examples section of a nearly 200-page patent issued by the World Intellectual Property Organization on August 13, 2009. According to the patent, "Few therapeutics are approved by the US Food and Drug Administration and other regulatory agencies for the treatment of neuropathic pain." To address this concern, a series of novel arylmethylened heterocycles were synthesized, which included the most recent substance registered by CAS.

"The 50 million substances in CAS REGISTRY have the potential to enable new discoveries in every field of scientific study, from cancer research to the development of new consumer goods, the creation of more effective drugs, or the discovery of faster and smaller computer processors," said Dr. Matthew Toussant, senior vice president of editorial operations at CAS. "Scientific discoveries build upon past discoveries, and it is the quality and comprehensiveness of CAS REGISTRY that enables chemistry innovation."

Source: [American Chemical Society](#) ([news](#) : [web](#))

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