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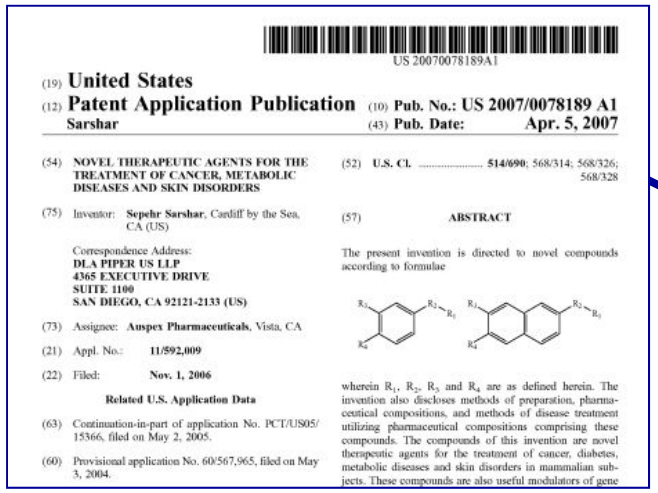

US 20070078189A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0078189 A1**

Sarshar (43) **Pub. Date: Apr. 5, 2007**

(54) **NOVEL THERAPEUTIC AGENTS FOR THE TREATMENT OF CANCER, METABOLIC DISEASES AND SKIN DISORDERS**

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(73) Assignee: **Auspex Pharmaceuticals**, Vista, CA

(21) Appl. No.: **11/592,009**

(22) Filed: **Nov. 1, 2006**

Related U.S. Application Data

(63) Continuation-in-part of application No. PCT/US05/15366, filed on May 2, 2005.

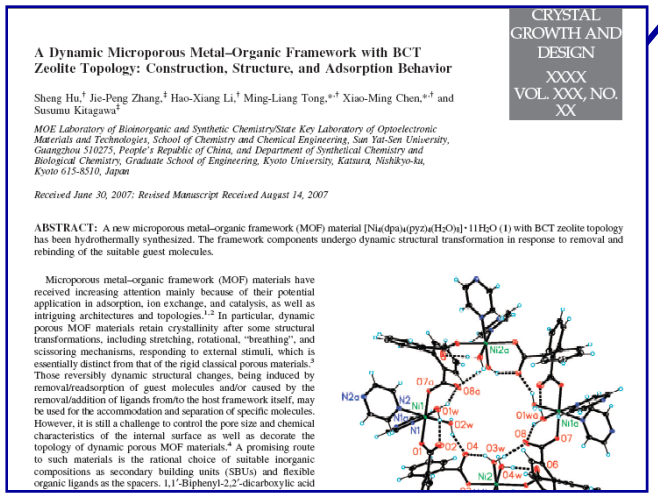
(60) Provisional application No. 60/567,965, filed on May 3, 2004.

(52) **U.S. Cl.** **514/690**; 568/314; 568/326; 568/328

(57) **ABSTRACT**

The present invention is directed to novel compounds according to formulae

wherein R_1, R_2, R_3 and R_4 are as defined herein. The invention also discloses methods of preparation, pharmaceutical compositions, and methods of disease treatment utilizing pharmaceutical compositions comprising these compounds. The compounds of this invention are novel therapeutic agents for the treatment of cancer, diabetes, metabolic diseases and skin disorders in mammalian subjects. These compounds are also useful modulators of gene



CRYSTAL GROWTH AND DESIGN
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VOL. XXX, NO. XX

A Dynamic Microporous Metal–Organic Framework with BCT Zeolite Topology: Construction, Structure, and Adsorption Behavior

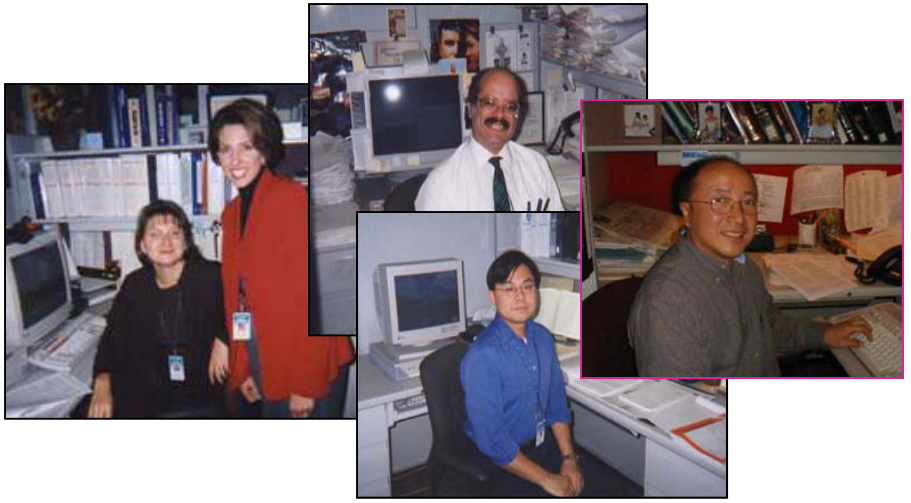
Sheng Hu,[†] Jie-Peng Zhang,[‡] Hao-Xiang Li,[†] Ming-Liang Tong,*[,†] Xiao-Ming Chen,*[,†] and Susumu Kitagawa[‡]

MOE Laboratory of Bioinorganic and Synthetic Chemistry/State Key Laboratory of Optoelectronic Materials and Technologies, School of Chemistry and Chemical Engineering, Sun Yat-Sen University, Guangzhou 510275, People's Republic of China, and Department of Synthetical Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University, Katsura, Nishikyo-ku, Kyoto 615-8510, Japan

Received June 30, 2007; Revised Manuscript Received August 14, 2007

ABSTRACT: A new microporous metal–organic framework (MOF) material $[Ni_4(dpa)_4(pyz)_4(H_2O)_8]\cdot 11H_2O$ (1) with BCT zeolite topology has been hydrothermally synthesized. The framework components undergo dynamic structural transformation in response to removal and rebinding of the suitable guest molecules.

Microporous metal–organic framework (MOF) materials have received increasing attention mainly because of their potential application in adsorption, ion exchange, and catalysis, as well as intriguing architectures and topologies.[1,2] In particular, dynamic porous MOF materials retain crystallinity after some structural transformations, including stretching, rotational, "breathing", and scissoring mechanisms, responding to external stimuli, which is essentially distinct from that of the rigid classical porous materials.[3] Those reversibly dynamic structural changes, being induced by removal/readsorption of guest molecules and/or caused by the removal/addition of ligands from/to the host framework itself, may be used for the accommodation and separation of specific molecules. However, it is still a challenge to control the pore size and chemical characteristics of the internal surface as well as decorate the topology of dynamic porous MOF materials.[4] A promising route to such materials is the rational choice of suitable inorganic compositions as secondary building units (SBUs) and flexible organic ligands as the spacers. 1,1′-Biphenyl-2,2′-dicarboxylic acid



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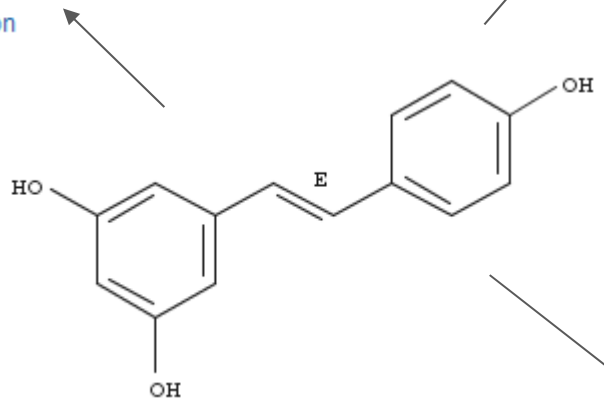

CAS Registry Number: 501-36-0

$C_{14}H_{12}O_3$

1,3-Benzenediol, 5-[(1E)-2-(4-hydroxyphenyl)ethenyl]-

1,3-Benzenediol, 5-[2-(4-hydroxyphenyl)ethenyl]-, (E)-; 3,4',5-Stilbenetriol (7CI,8CI); Resveratrol (6CI); (E)-2-(3,5-Dihydroxyphenyl)-1-(4-hydroxyphenyl)ethene; (E)-3,4',5-Trihydroxystilbene; (E)-5-(p-Hydroxystyryl)resorcinol; (E)-Resveratrol; 3,4',5-Trihydroxy-trans-stilbene; 5-[(1E)-2-(4-Hydroxyphenyl)ethenyl]-1,3-benzenediol; CA 1201; Resveratrol P 5; Resvida; Vineatrol 20M; trans-3,5,4'-Trihydroxystilbene; trans-Resveratrol

Biological Properties	Value	Note
ADME (Absorption, Distribution, Metabolism, Excretion)	See full text	(2) CAS
Half-Life (Biological)	See full text	(9) CAS
LC50	See full text	(13) CAS
Minimum Inhibitory Concentration	See full text	(43) CAS

Lipinski and Related Properties	Value
Freely Rotatable Bonds	5
H Acceptors	3
H Donors	3
H Donor/Acceptor Sum	6
logP	3.024±0.267
Molecular Weight	228.24

Spectra Properties	Value
Carbon-13 NMR Spectrum	See spectrum
Proton NMR Spectrum	See spectrum

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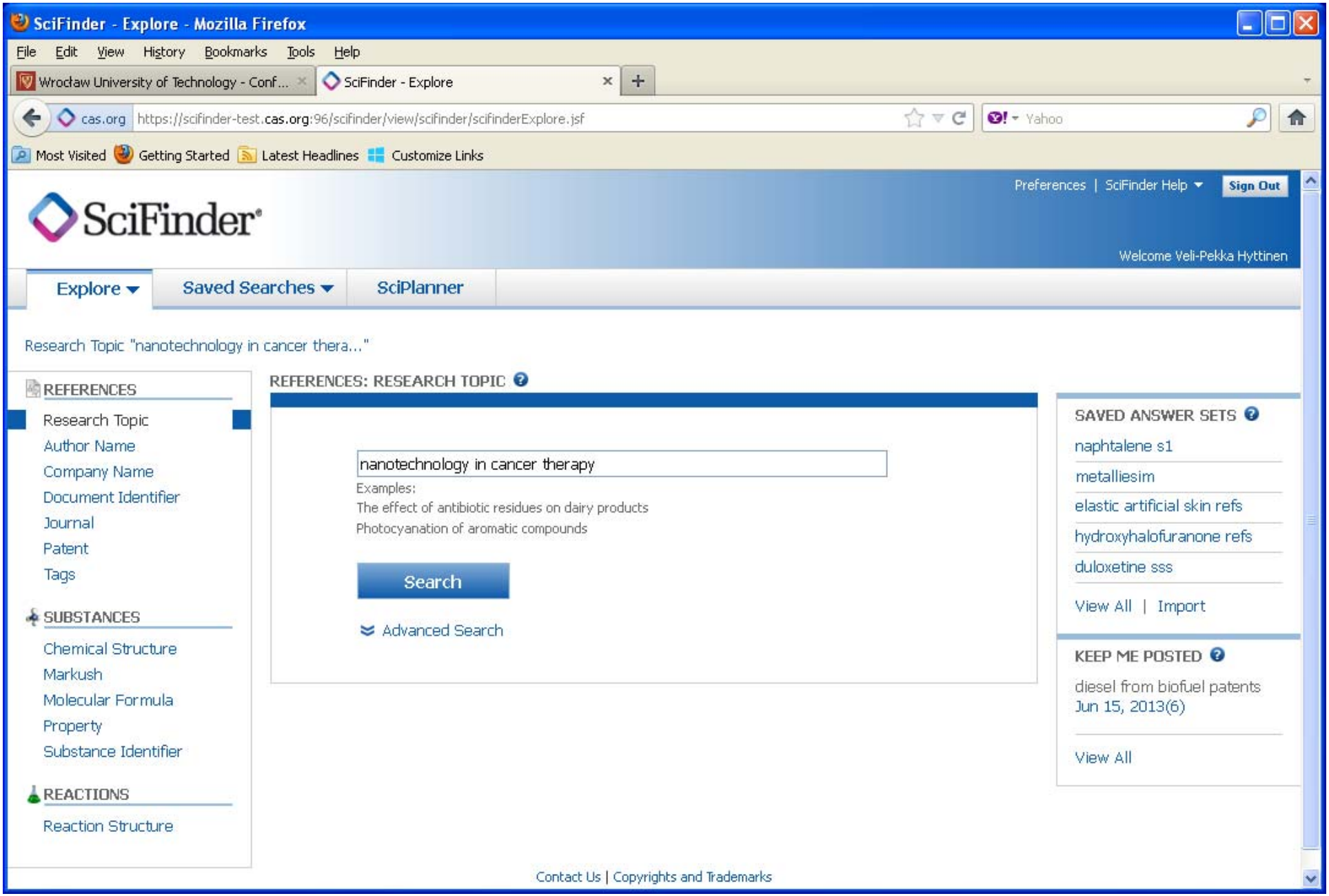

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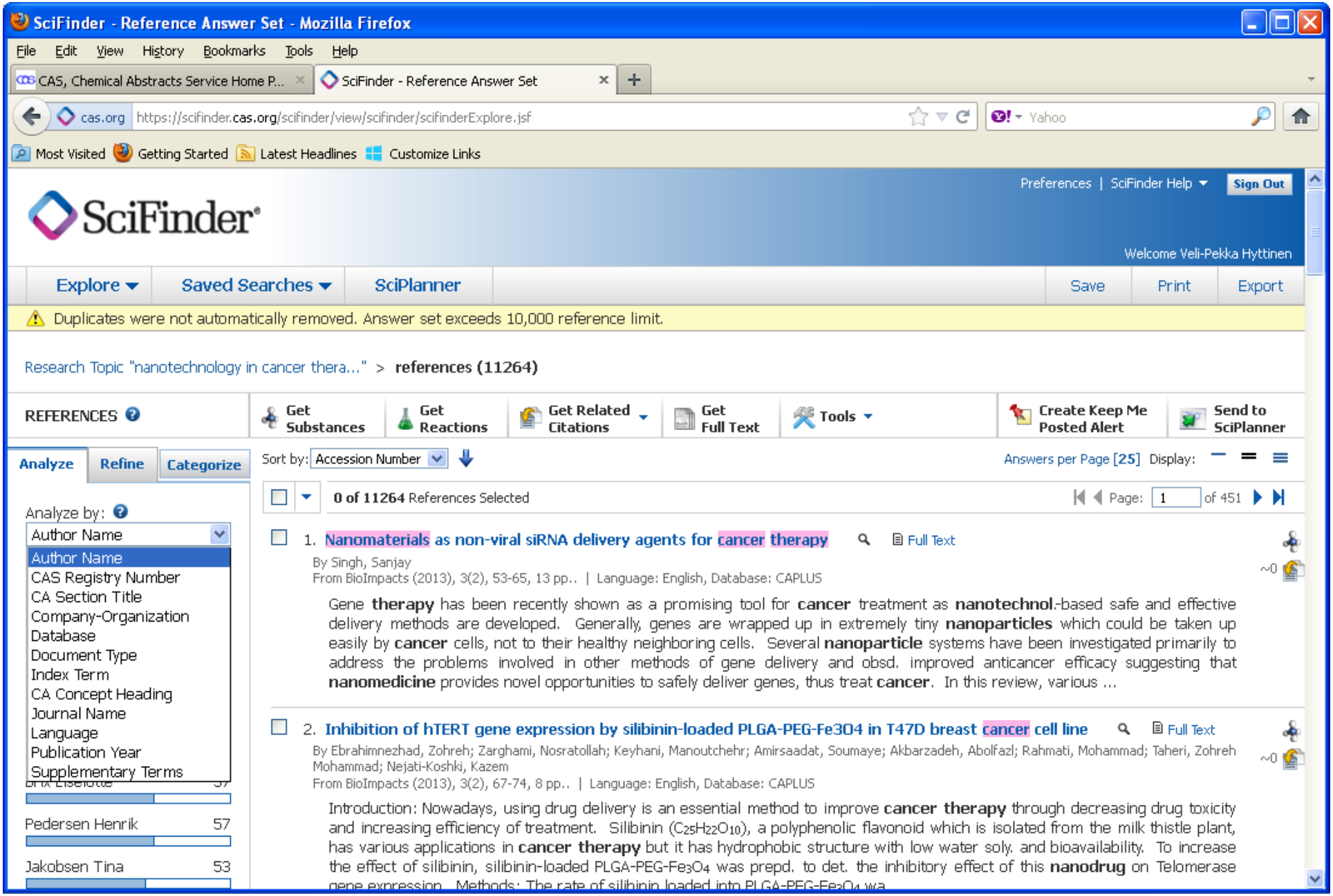

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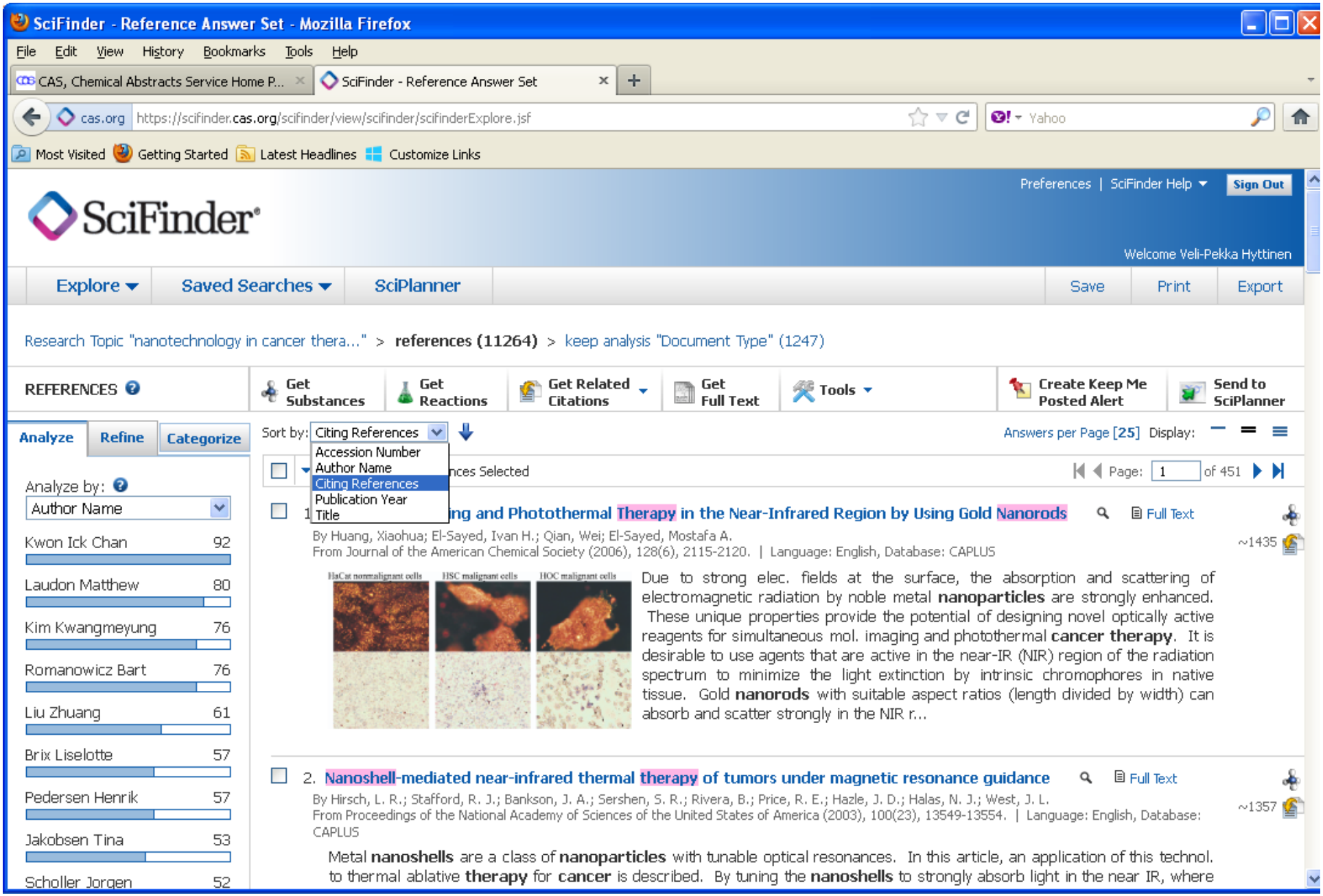

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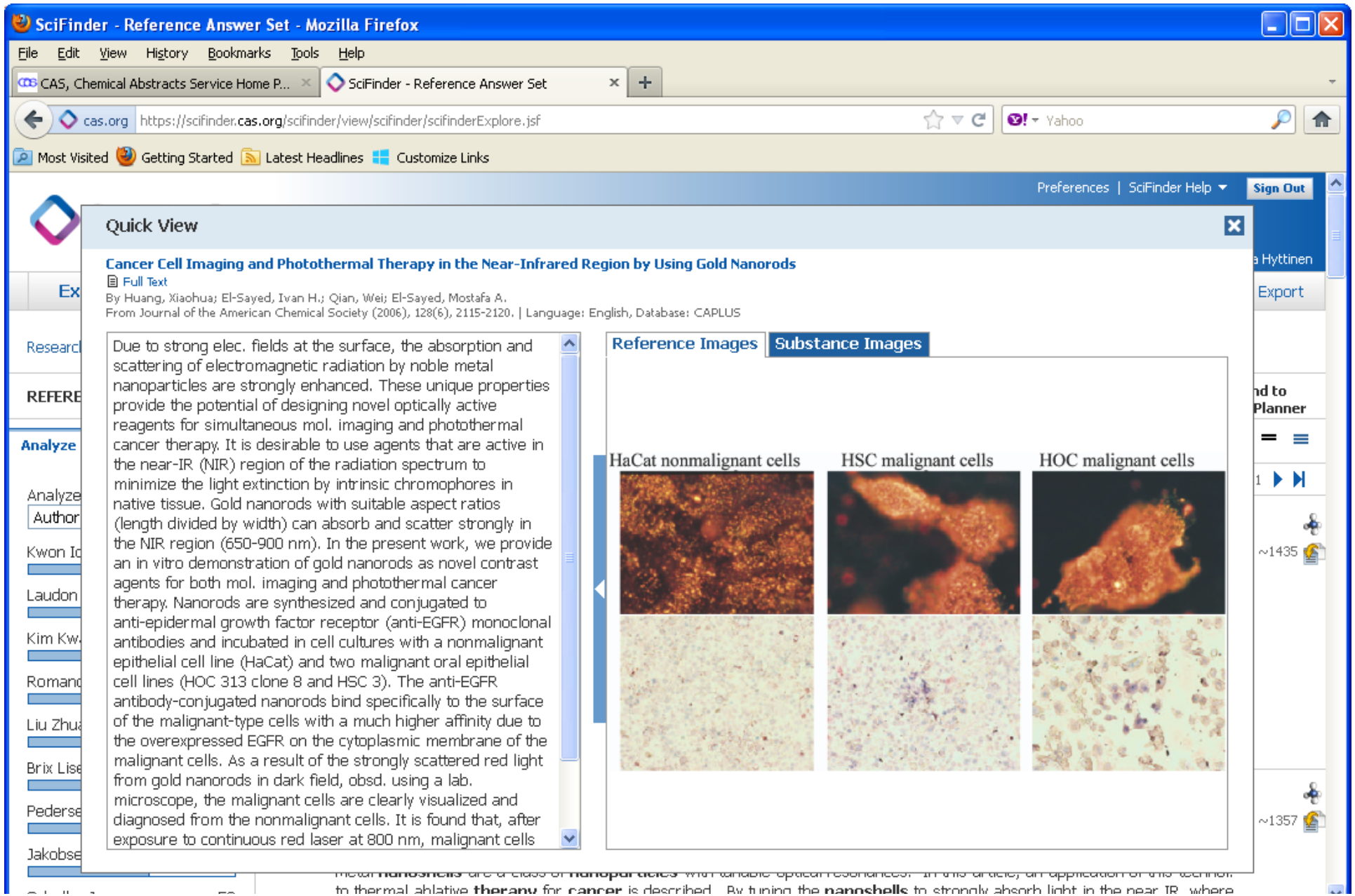

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Synthesis and Molecular Recognition Studies of the HNK-1 Trisaccharide and Related Oligosaccharides. The Specificity of Monoclonal Anti-HNK-1 Antibodies as A...

Full Text

By Tsvetkov, Yury E.; Burg-Roderfeld, Monika; Loers, Gabriele; Arda, Ana; Sukhova, Elena V.; Khatuntseva, Elena A.; Grachev, Alexey A.; Chizhov, Alexander O.; Siebert, Hans-Christian; Schachner...

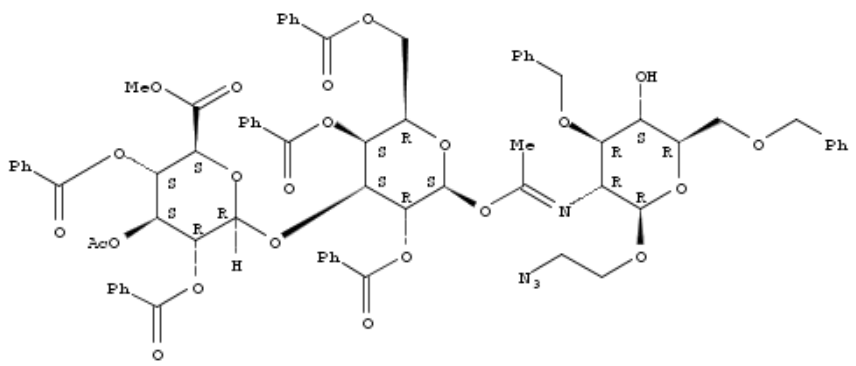
From Journal of the American Chemical Society (2012), 134(1), 426-435. | Language: English, Database: CAPLUS

The human natural killer cell carbohydrate, HNK-1, plays function-conducive roles in peripheral nerve regeneration and synaptic plasticity. It is also the target of autoantibodies in polyneuropathies. It is thus important to synthesize structurally related HNK-1 carbohydrates for optimizing its function-conducive roles, and for diagnosis and neutralization of autoantibodies in the fatal Guillain-Barre syndrome. As a first step toward these goals, the authors have synthesized several HNK-1 carbohydrate derivs. to assess the specificity of monoclonal HNK-1 antibodies from rodents: 2-aminoethyl glycosides of selectively O-sulfated trisaccharide corresponding to the HNK-1 antigen, its non-sulfated analog, and modified structures contg. 3-O-fucosyl or 6-O-sulfo substituents in the N-acetylglucosamine residues. These were converted, together with several related oligosaccharides, into biotin-tagged probes to analyze the precise carbohydrate specificity of two anti-HNK-1 antibodies by surface plasmon resonance that revealed a crucial role of the glucuronic acid in antibody binding. The contribution of the different oligosaccharide moieties in the interaction was shown by satn. transfer difference (STD) NMR of the complex consisting of the HNK-1 pentasaccharide and the HNK-1 412 antibody.

Reference Images | Substance Images

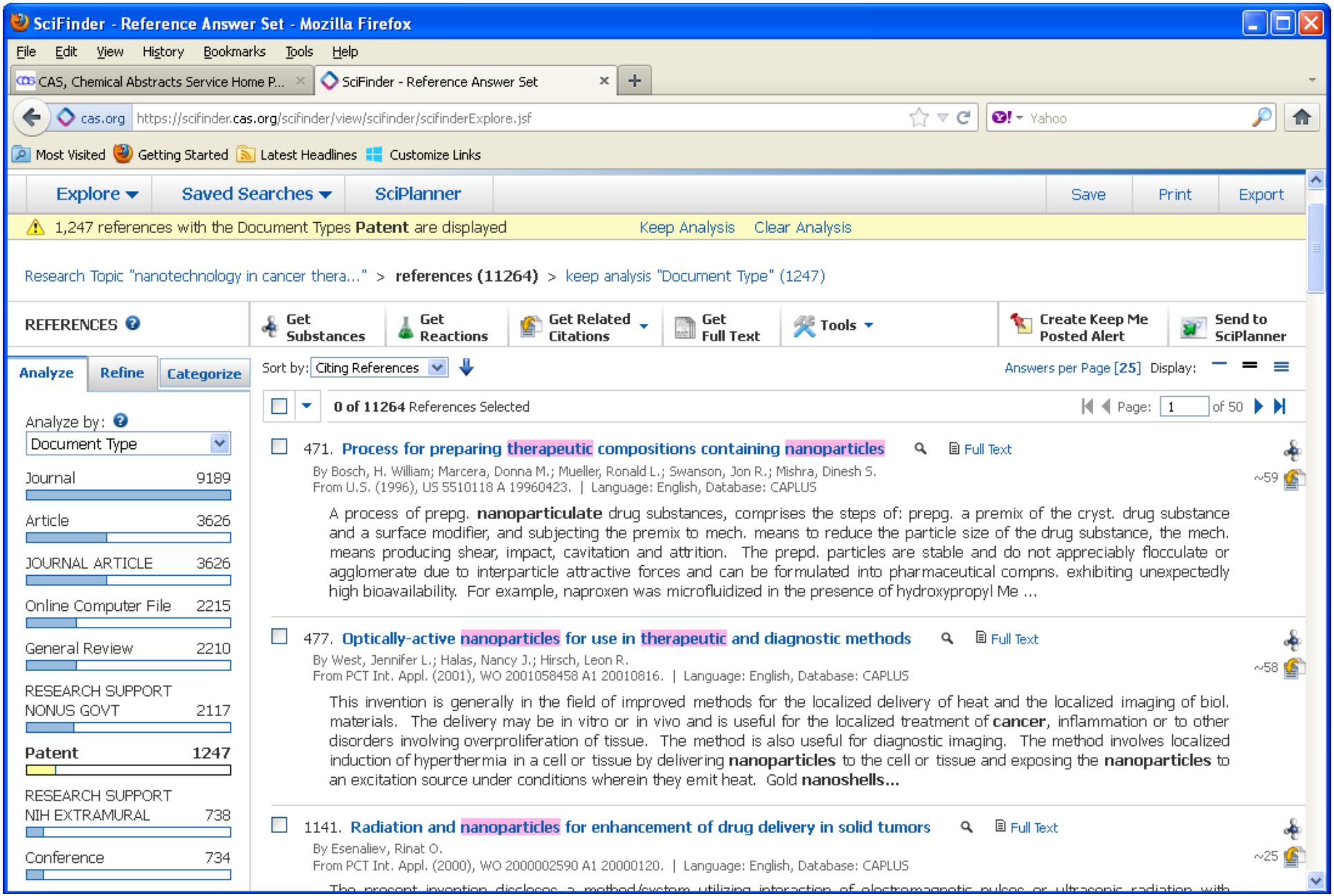
1352813-75-2P

1 2 3 4 5 ... 50 of 79



Absolute stereochemistry., Double bond geometry unknown.

Explore References – Analyze by Document Type, patents



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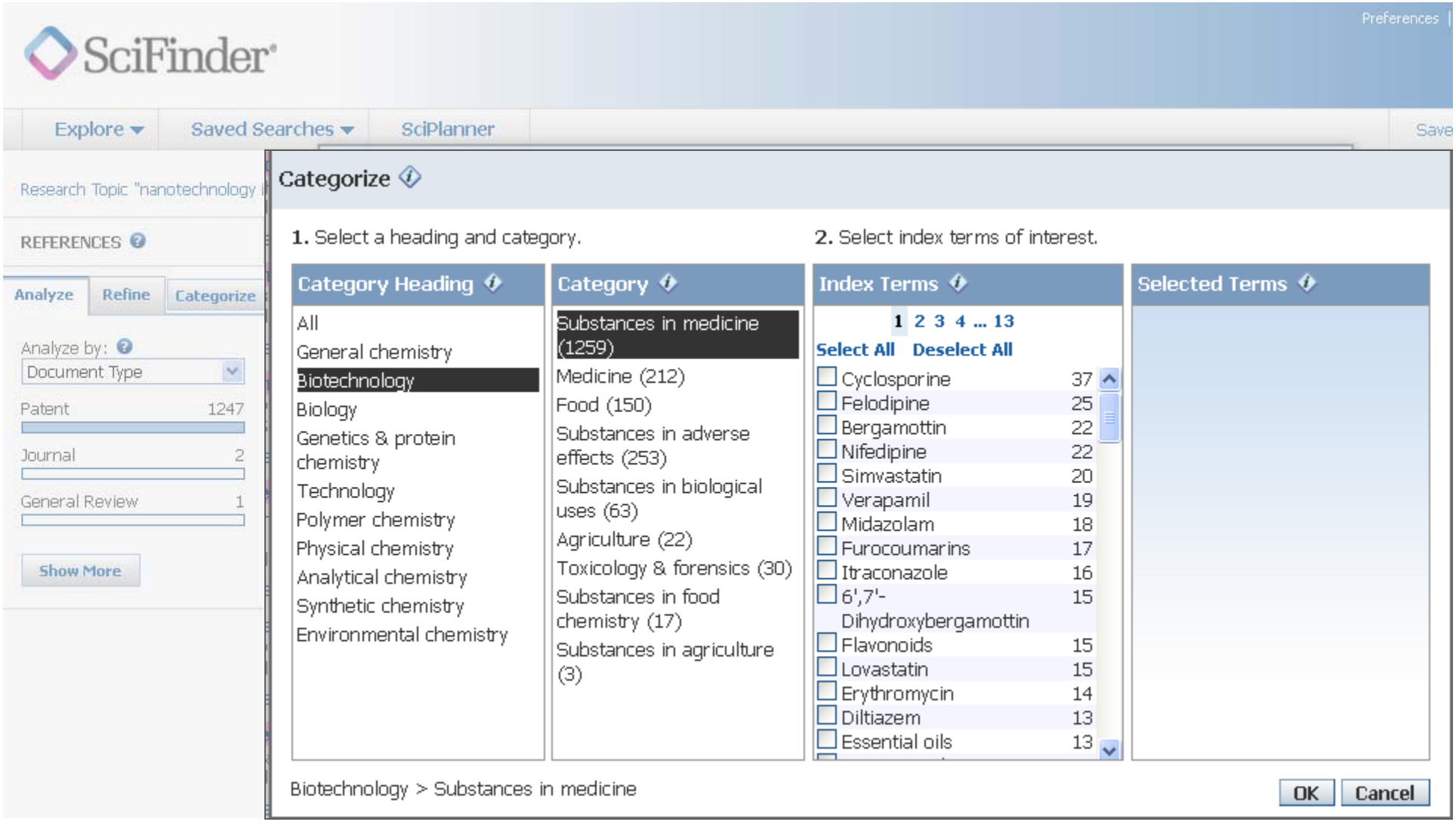

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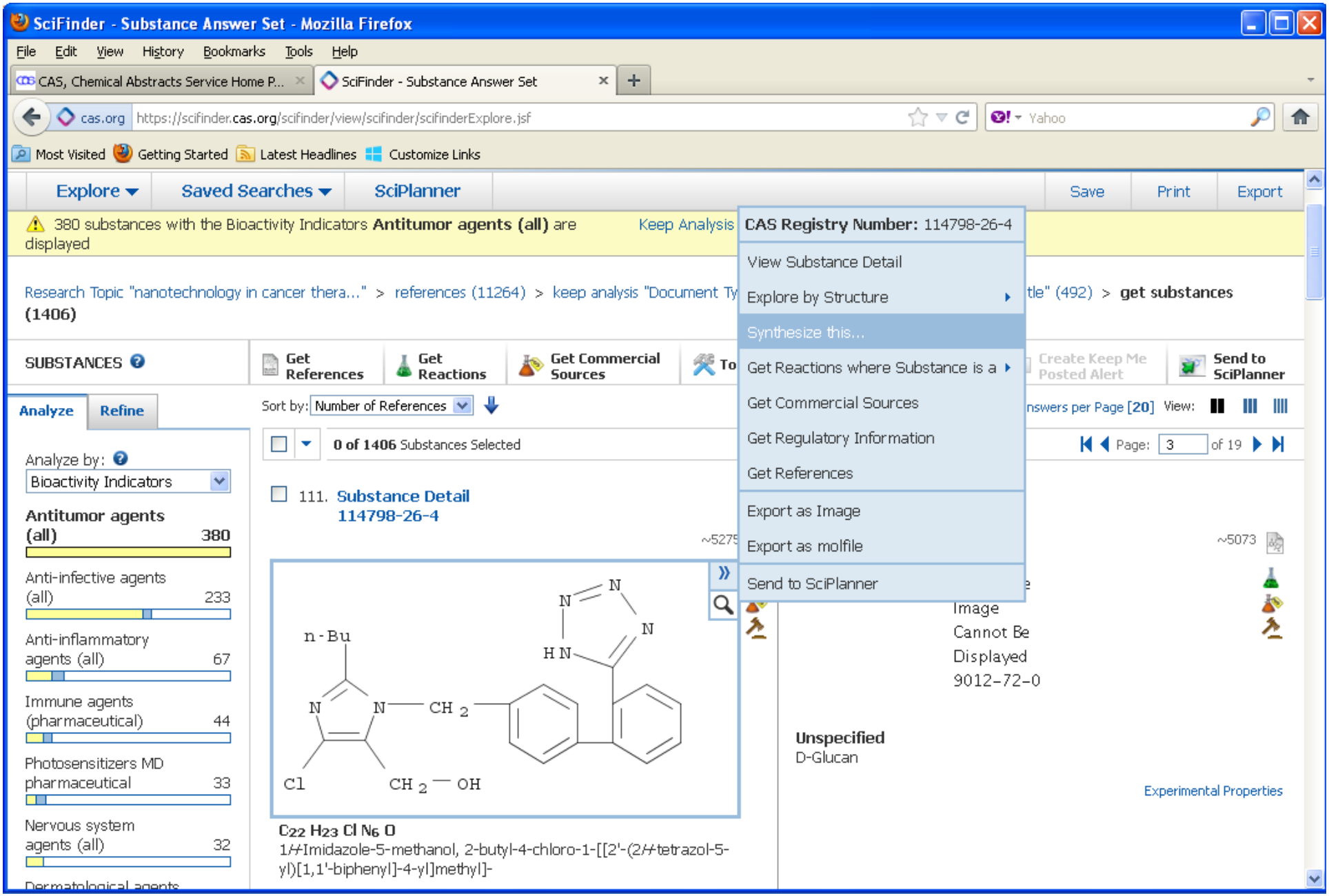

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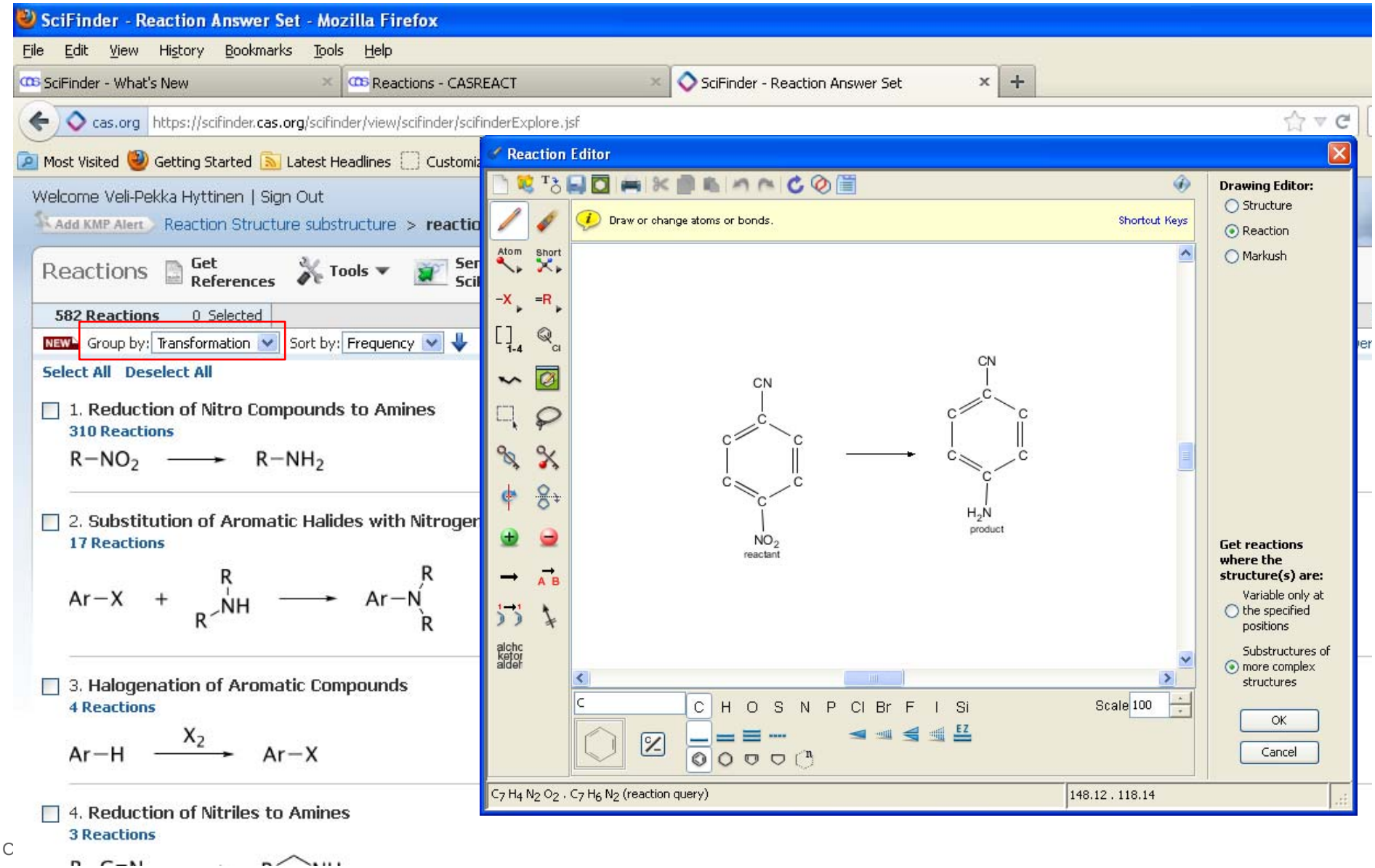

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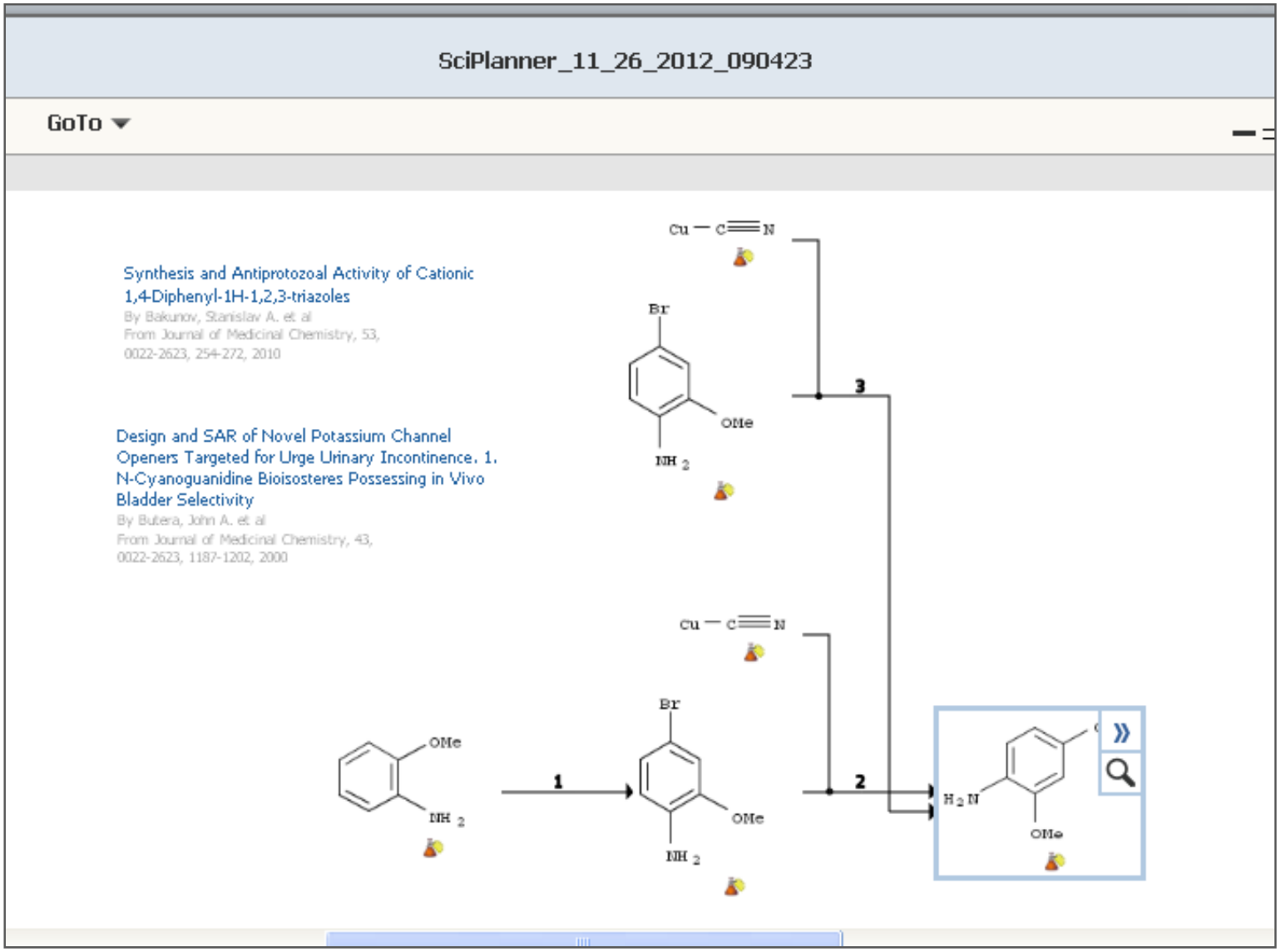

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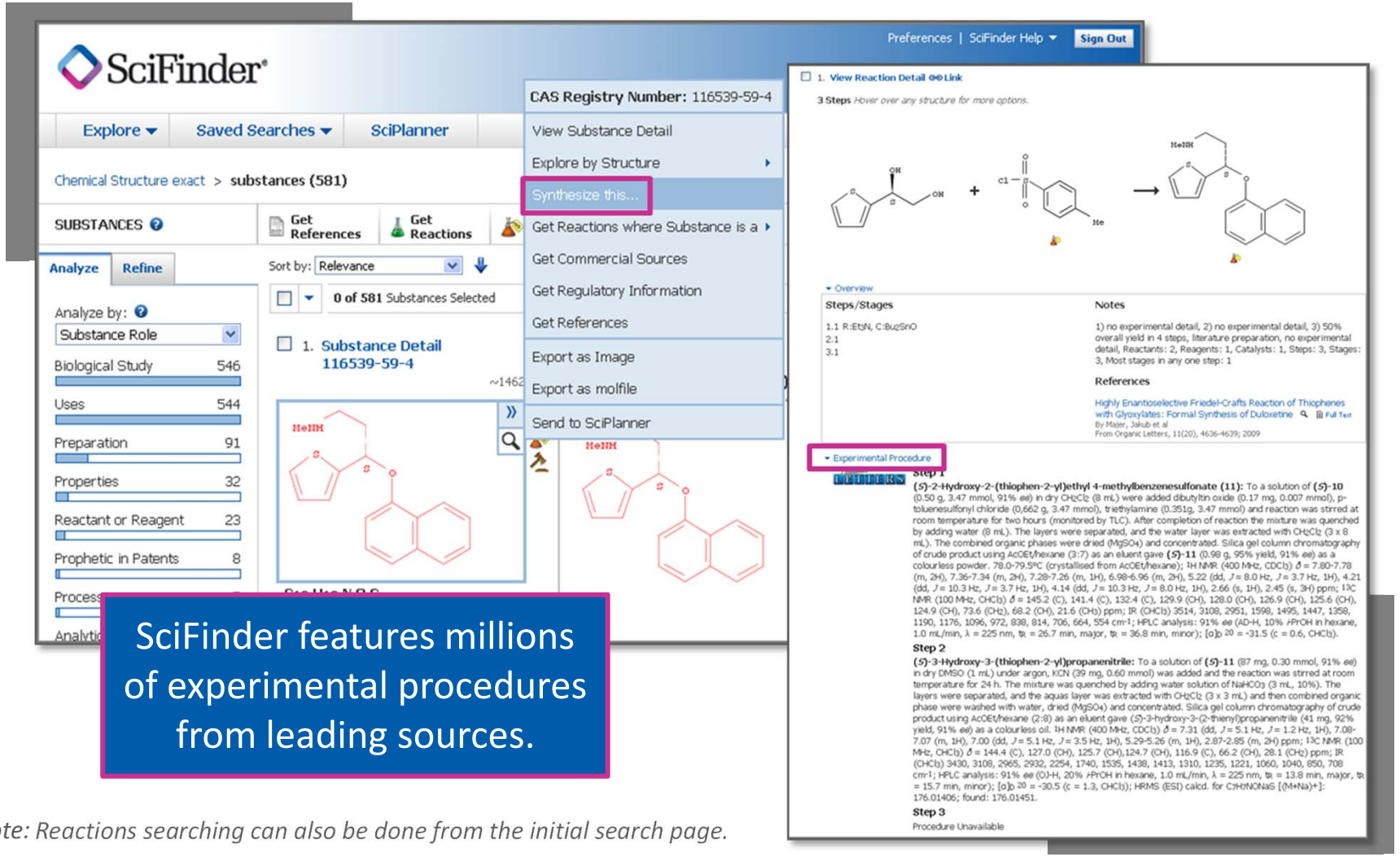

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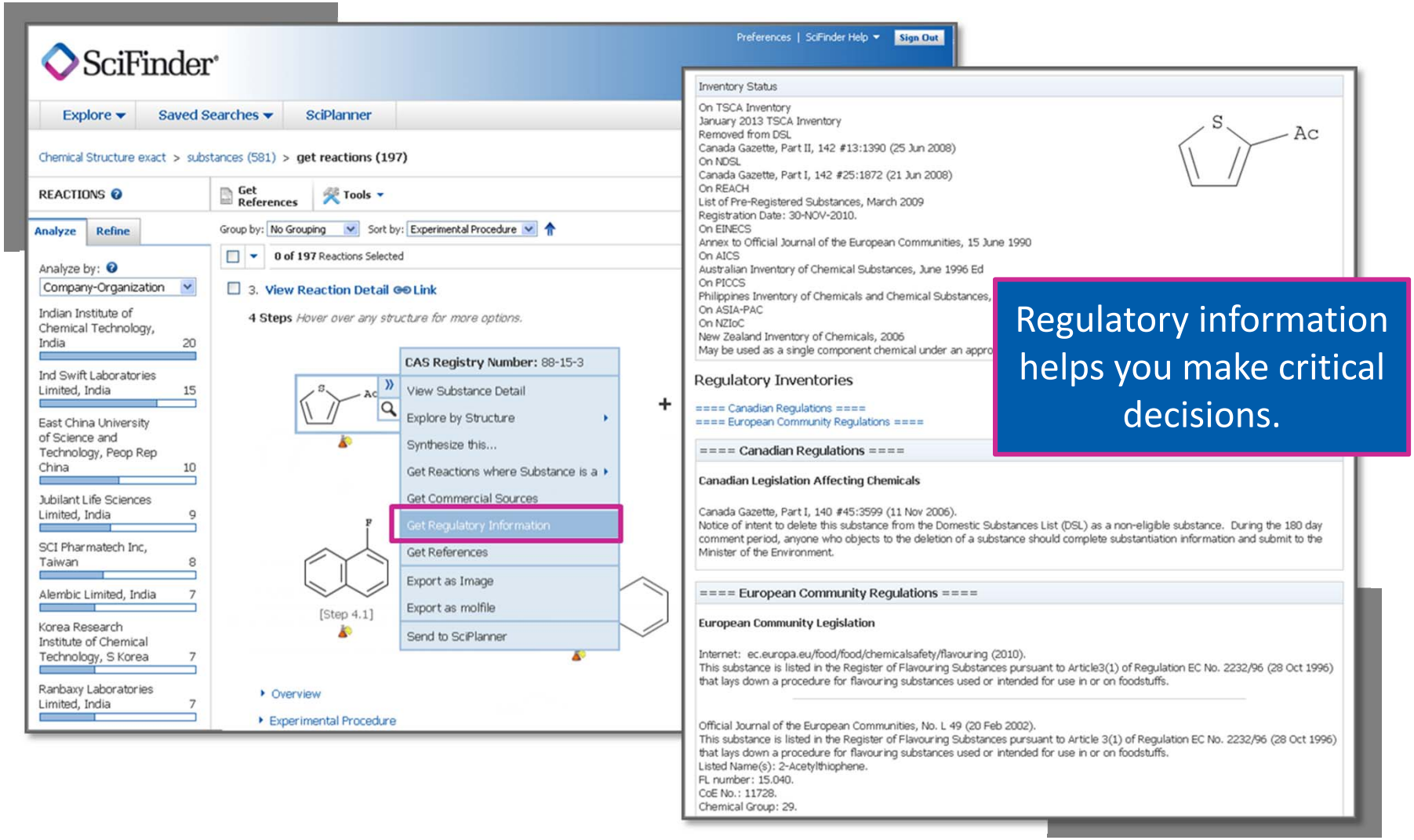

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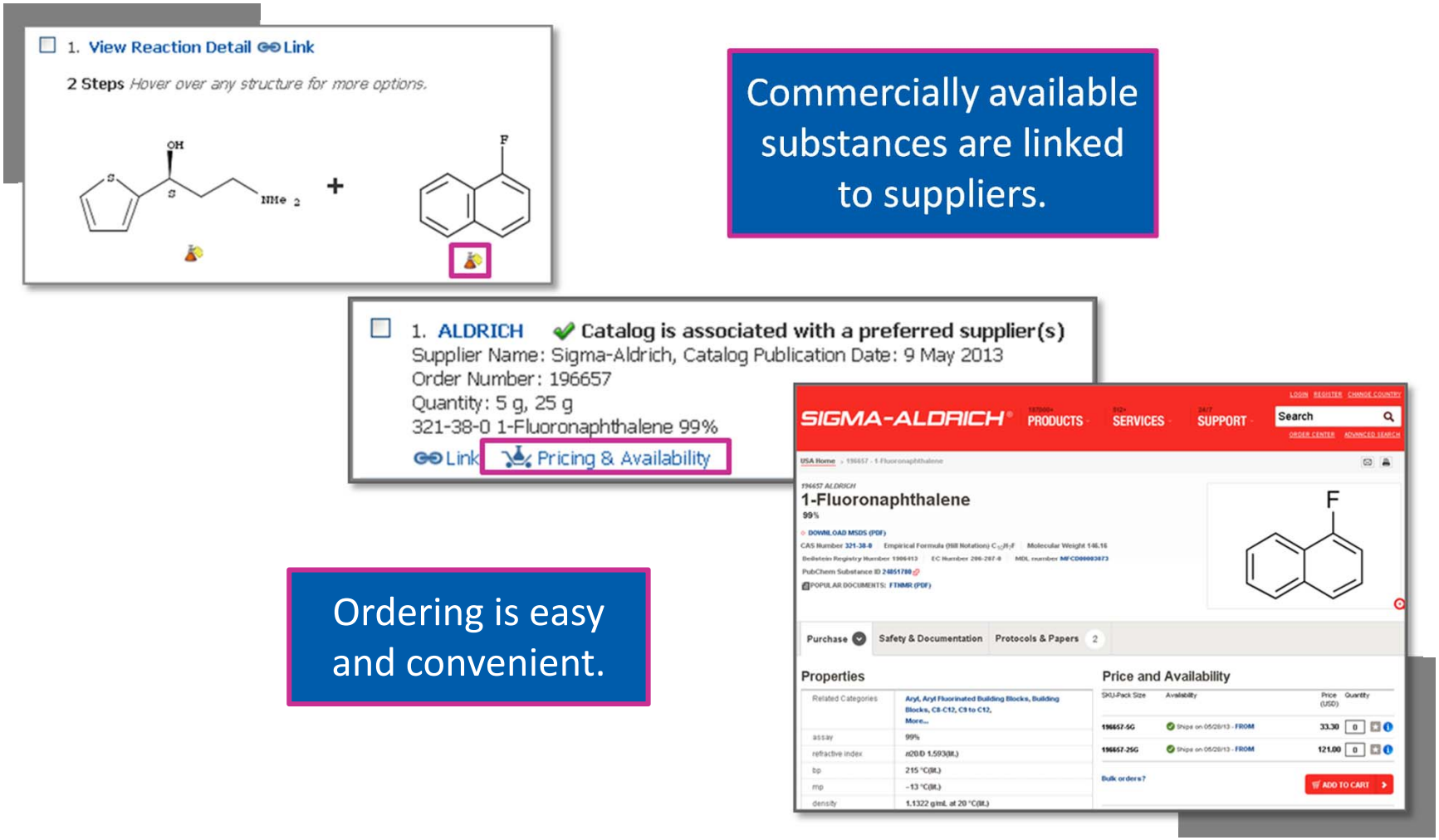

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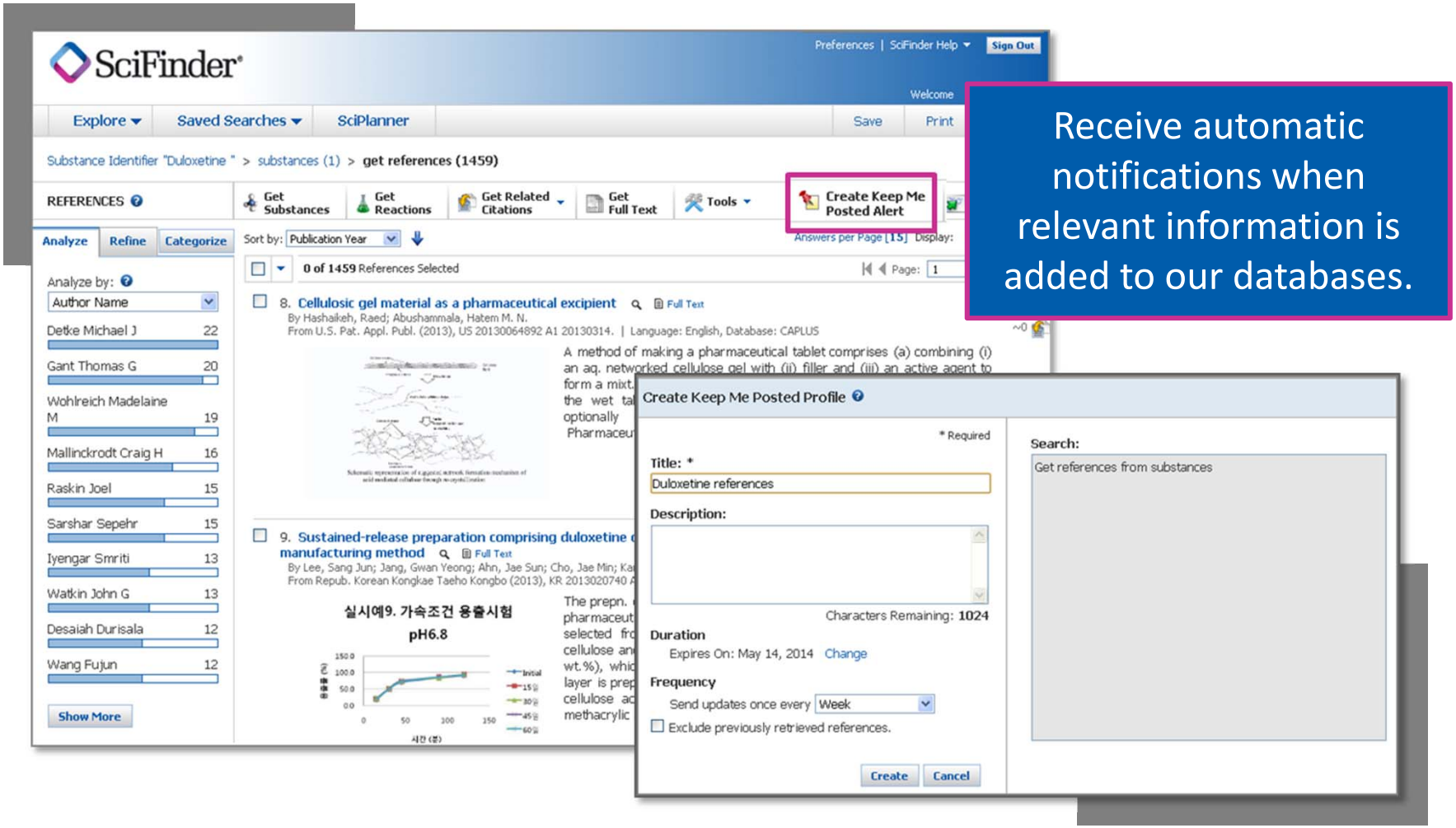

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Jakujem – Thank you

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