İLERİ ORGANİK SENTEZ LABORATUVARI

Prof. Dr. Arif KIVRAK

Eskişehir Osmangazi Üniversitesi

arif.kivrak@ogu.edu.tr

ARAŞTIRMA ALANLARIMIZ

ORGANİK SENTEZ

YENİ HETEROAROMATİK YAPILARIN SENTEZİ

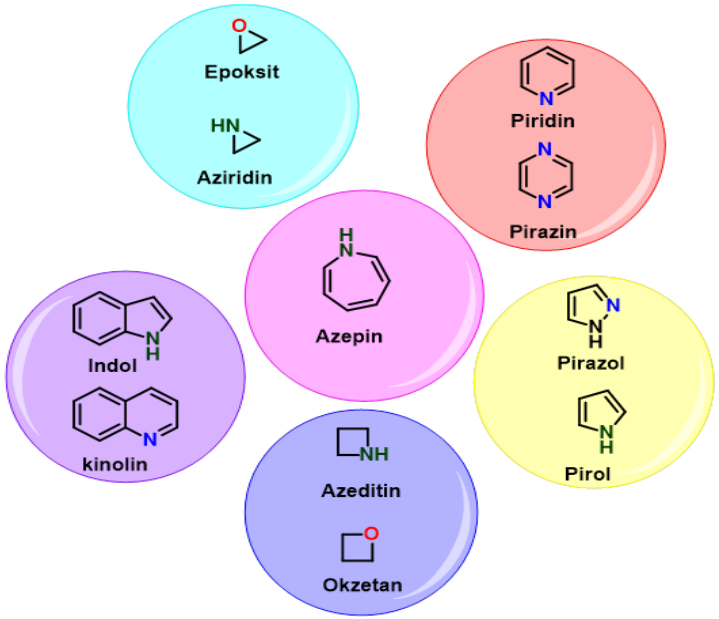
ALTERNATİF SENTEZ YÖNTEMİ GELİŞTİRİLMESİ

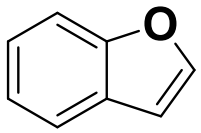
DOĞAL ÜRÜN İZOLASYONU ve HİBRİT YAPILARIN SENTEZİ

YENİ İLAÇ ADAYLARININ BULUNMASI

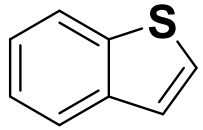
ENERJİ ÜRETİMİNDE KULLANILMASI

YENİ HETEROAROMATİK YAPILARIN SENTEZİ

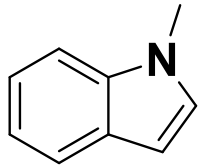




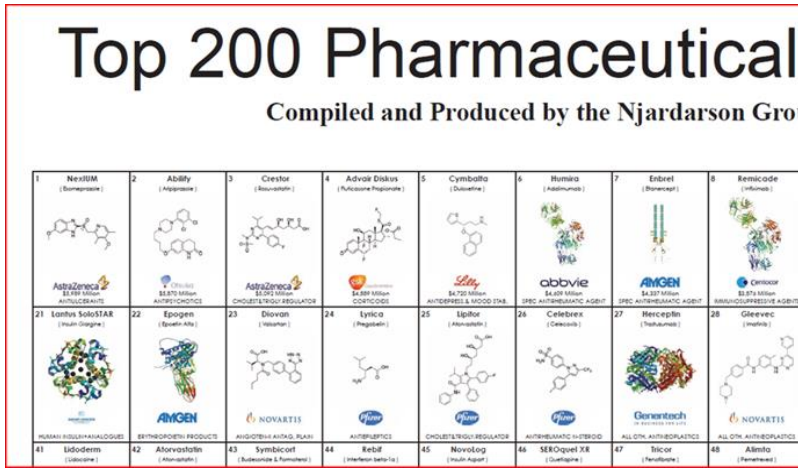
Benzofuran



Benzothiophene



Indole



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Design, Synthesis, and *In vitro* Evaluation of Thieno[a]dibenzothiophene Derivatives

Metin Konus, Muheb A. S. Algso, Emrah Kavak, Aslıhan Kurt-Kızıldoğan, Can Yılmaz, Prof. Dr. Arif Kivrak

First published: 26 March 2020 | https://doi.org/10.1002/slct.202000685 | Citations: 3

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Volume 5, Issue 12
March 31, 2020
Pages 3700-3709

Figures References Related Information

2(1*H*)-ones and Their In Vitro Antimicrobial and "DPPH" Scavenging Activity Evaluation

Alla. Krishna, V. Vijayakumar, S. Sarveswari

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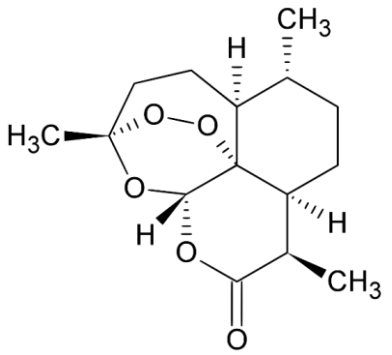

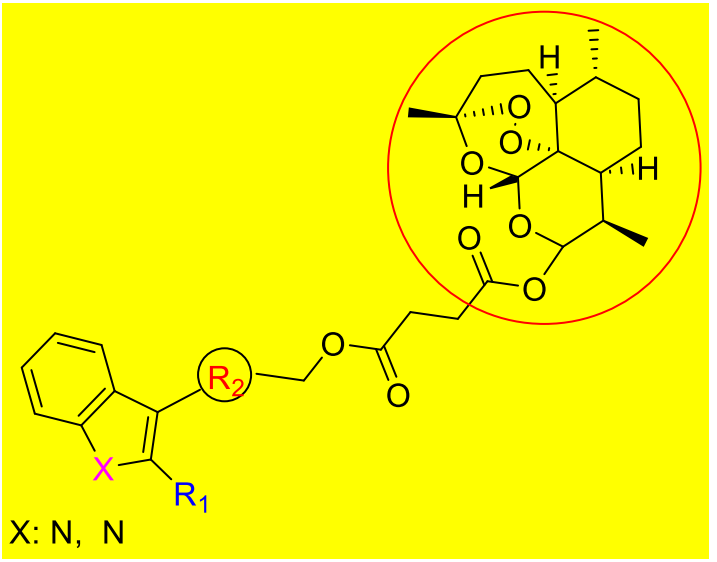

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Synthesis of Thiophene/Furan-Artemisinin Hybrid Molecules

Omruye Ozok-Arici, Emrah Kavak, Arif Kivrak

First published: 17 June 2022 | https://doi.org/10.1002/cbdv.202200144

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Volume 19, Issue 8
August 2022
e202200144

Natural Product Research
Formerly Natural Product Letters
Volume 36, 2022 - Issue 14

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Research Articles

Design, synthesis and pharmacological evaluation of novel Artemisinin-Thymol

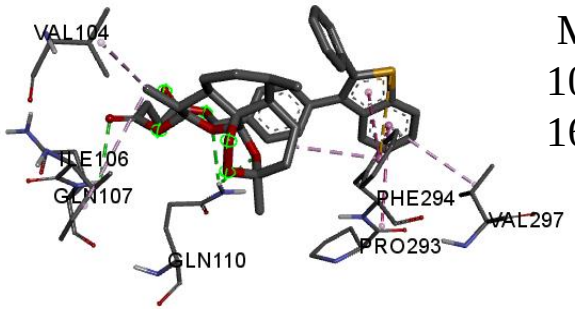
Emrah Kavak, Dogukan Mutlu, Omruye Ozok, Sevki Arslan & Arif Kivrak

Pages 3511-3519 | Received 28 Sep 2020, Accepted 15 Dec 2020, Published online: 08 Jan 2021

Download citation | https://doi.org/10.1080/14786419.2020.1865954

ORGANİK MALZEMELERİN UYGULAMA ALANLARI: İLAÇ ADAYLARI

Docking Metodu



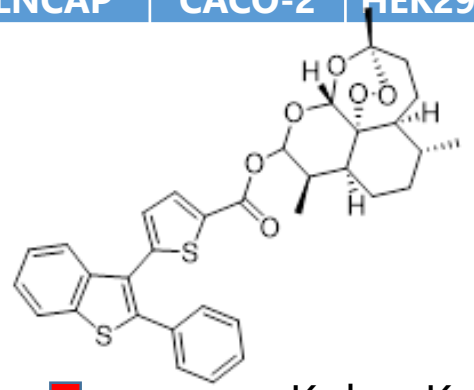
Antimikrobiyal Aktivite

İndikatör mikroorganizma olarak; üç gram pozitif (*Bacillus subtilis* ATCC 6633, *Enterococcus faecalis* ATCC 29212, *Staphylococcus aureus* ATCC 25923) üç gram negatif (*Escherichia coli* ATCC 25922, *Klebsiella pneumoniae* ATCC 700603, *Pseudomonas aeruginosa* ATCC 27853) Maya (*Candida albicans* ATCC 10231) ve *Aspergillus niger* ATCC 16404 fungusu kullanılmıştır

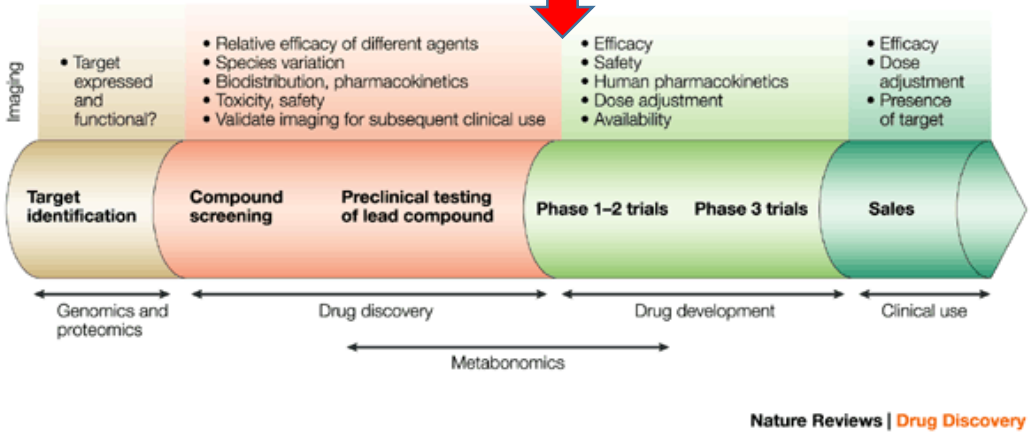
Anti-oksidant Özellikleri

Sitotoksite

HEPG2	LNCAP	CACO-2	HEK293	HELA



Kolon Kanseri



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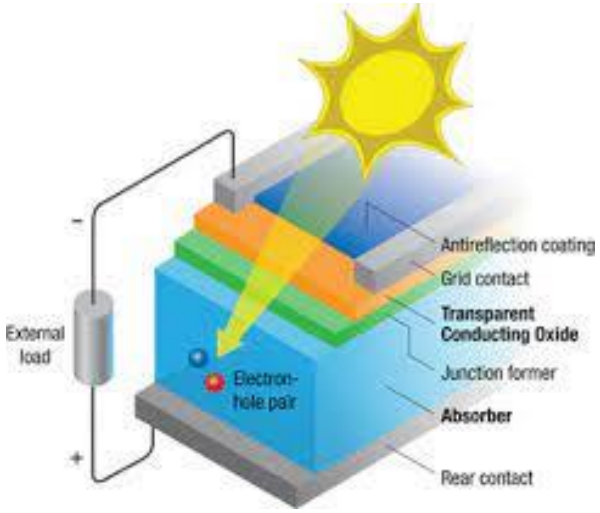
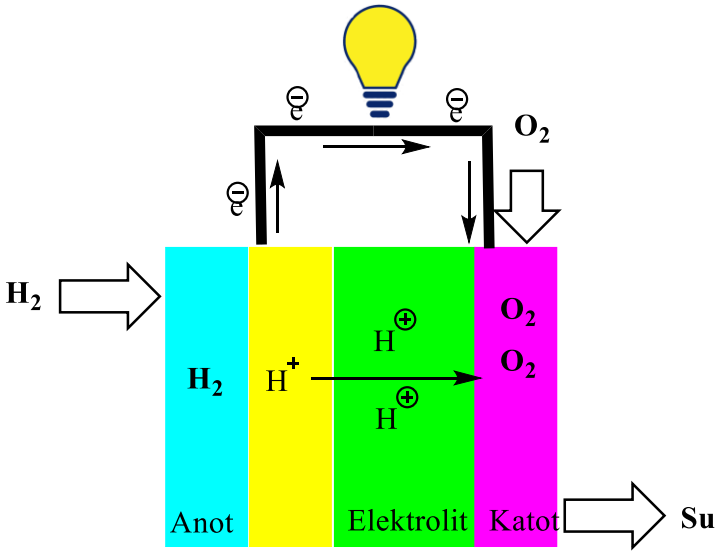
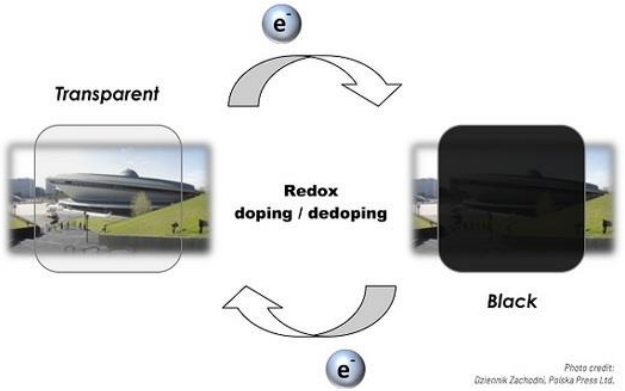
Organik Fotovoltaikler



Yakıt Pili Organik Anot Katalizörleri



Elektrokromik Malzemeler



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Fuel 328 (2022) 125355

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doi.org/10.10

Journal of Electronic Materials (2022) 51

https://doi.org/10.1007/s11664-022-094

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https://doi.org/10.1007/s1264

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Abstract

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[a] Department of Chem

[b] Department of Mini

[c] Department of Chemical Engineering, Institute of Natural and Applied Sciences, Van Yuzun

[d] Eskisehir Osmangazi University, Faculty of Engineering and Architectural Sciences, Departr

[e] Translational Medicine Research and Clinical Center, Eskisehir Osmangazi University, 260

[f] Eskişehir Osmangazi University, Faculty of Sciences and Arts, Department of Chemistry, Es

Bassam A Najri [a],

[a] Department of Chemistry, Faculty of Sciences, Van Yuzuncu Yil U

[b] Department of Mining Engineering, Faculty of Engineering, Van Y

[c] Department of Chemical Engineering, Institute of Natural and App

[d] Eskisehir Osmangazi University, Faculty of Engineering and Archi

[e] Eskişehir Osmangazi University, Faculty of Sciences and Arts, Dep

Hilal Kivrak

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Hilal Kivrak, Arif Kivrak, Bassam A. Najri, Hatice Calis, Omruye Ozok Arıcı, Raffaella Mancuso, Bartolo Gabriele, Hilal Kivrak, Katia Mohand Saidi, Sefika Kaya, Bassam A. Najri, Ali Rıza Kul, Arif Kivrak, Omruye Ozok Arıcı, Hilal Kivrak

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Enhanced Hydrazine Electrooxidation through Benzofuran Derivatives Containing α,β-Unsaturated Dicyano Groups: Synthesis, Electrocatalytic Performance, and Insights from DFT and Topological Analysis

Bassam A. Najri, Katia Mohand Saidi, Sefika Kaya, Arif Kivrak,* and Hilal Kivrak

Cite This: ACS Omega 2025, 10, 27182−27193

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ABSTRACT: This study presents an efficient synthetic strategy for the preparation of benzofuran derivatives (4A-4L) featuring an α,β-unsaturated dicyano moiety and evaluates their electrocatalytic performance in hydrazine electrooxidat
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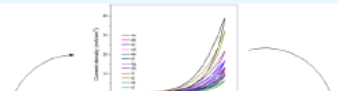

Enhanced Hydrazine Electrooxidation Activities on Novel Benzofused Tricyclic Heterocyclic Derivatives

Omruye Ozok Arıcı, Raffaella Mancuso, Bartolo Gabriele, Arif Kivrak, and Hilal Kivrak*

Cite This: ACS Omega 2024, 9, 40644−40649

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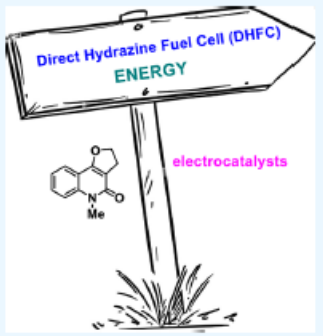
ABSTRACT: In this study, some benzofused tricyclic heterocyclic derivatives have been tested as possible new catalysts for anode hydrazine electrooxidation in a direct hydrazine fuel cell (DHFC). Electrochemical studies were carried out in solution media containing 1 M KOH and 1 M KOH + 0.5 M N_2H_4 using electrochemical techniques such as cyclic voltammetry (CV), electrochemical impedance spectroscopy (EIS), and chronoamperometry (CA). The CV results obtained showed that 5 catalysts promoted the generation of the best current (38.32 mA/cm^2), and EIS results confirmed that an electrode modified with the same derivative presented the lowest charge transfer resistance. All these results proved that 5 organic-based catalysts can be used as an anode-efficient catalyst in hydrazine fuel cells.



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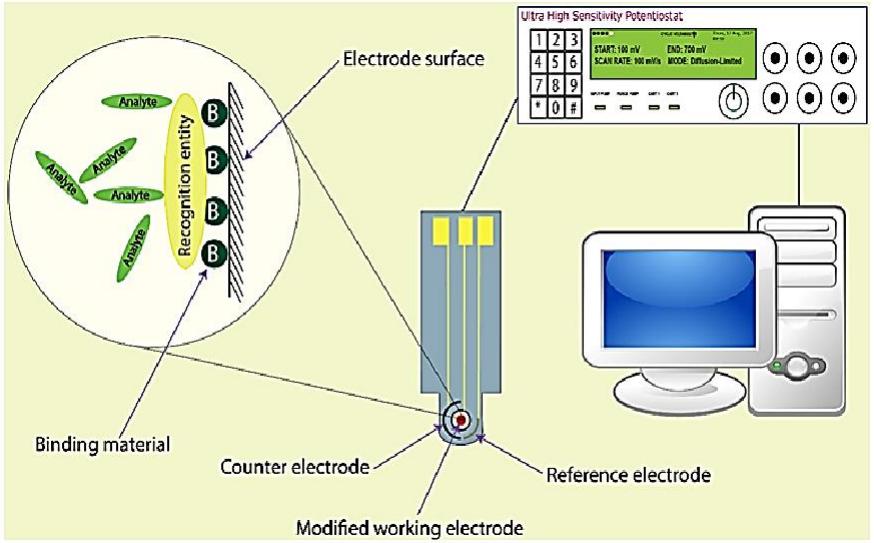
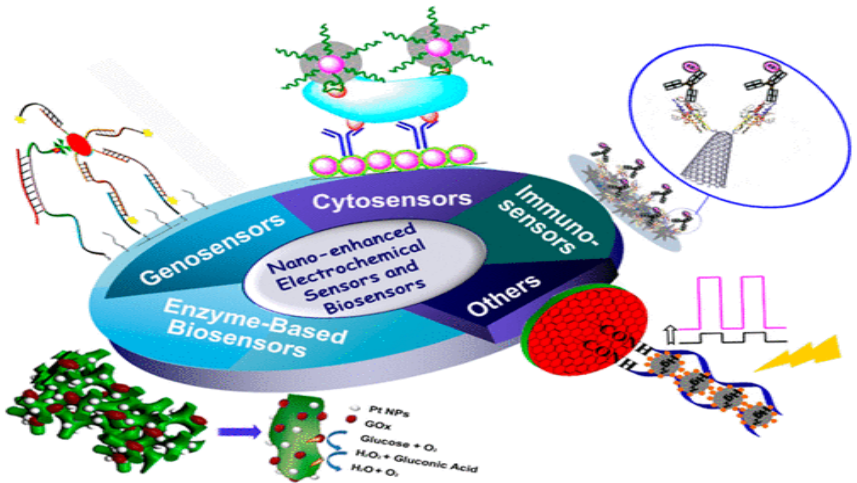
Elektrokimyasal Biyosensör mekanizma





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Materials Chemistry and Physics
Volume 291, 15 November 2022, 126560

Novel 5-(2-phenylbenzo[b]thiophen-3-yl)furan-2-carbaldehyde based ovarian cancer carbohydrate antigen 125 electrochemical sensor

Omer Faruk Er [a], Hilal Kivrak [b, c, d], Omruye Ozok [e], Arif Kivrak [e]

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Materials Chemistry and Physics
Volume 281, 1 April 2022, 125951

Synthesis and characterization of 4-(2-(4-methoxyphenyl)benzo[b]thiophen-3-yl)benzaldehyde for carbohydrate antigen 125 electrochemical detection and molecular docking modeling

Hilal Kivrak [a, b], Omer Faruk Er [c], Omruye Ozok [d], Sebahattin Celik [e], Arif Kivrak [d]

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Uluslararası	Araştırmacı/Uzman	115Z071	Lignin Model Bileşiklerinin Katalitik Yükseltgenme Tepkimeleri için Katalitikçe Etkin, Uzun Ömürlü ve Tekrar Kullanılabilir Yeni Heterojen Katalizörlerin Geliştirilmesi	Sonuçlandı	K:15/06/2015 A:	15/06/2015 15/12/2017
Uluslararası	Araştırmacı/Uzman	120Z743	Molekül İçi Küme Yaklaşımı Uygulanmış Möller-Plesset Pertürbasyon Teorisi Yöntemlerinin Geliştirilmesi, Cpu ve Gpu İçin Paralel Programlanması ve Boya Bazlı Foto-Elektrokimyasal Güneş Hücresine Uygulanması	Yürürlükte	K:15/01/2021 A:	15/01/2021 15/01/2024
Uluslararası	Yürütücü	218Z028	Yeni Artemisin-Indol/Benzotiyofen Hibrit Yapıların Tasarımı, Sentezi ve Karakterizasyonu	Sonuçlandı	K:15/09/2019 A:	15/09/2019 15/03/2022
Uluslararası	Yürütücü	115Z020	Tiyeno-Dibenzotiyofen Türevlerinin Sentezi İçin Uygulanabilir Metotların Geliştirilmesi, Antioksidan, Antifungal, Antimikrobiyal Kapasitelerinin Belirlenmesi Ve İlaç Metabolize Eden Enzimler Üzerine Etkilerinin İncelenmesi	Sonuçlandı	K:01/06/2015 A:	01/06/2015 01/06/2017
Uluslararası	Yürütücü	114Z042	Tiyenokarbazol Türevlerinin Sentezi için Uygulanabilir Metotların Geliştirilmesi	Sonuçlandı	K:01/05/2014 A:	01/05/2014 01/05/2016

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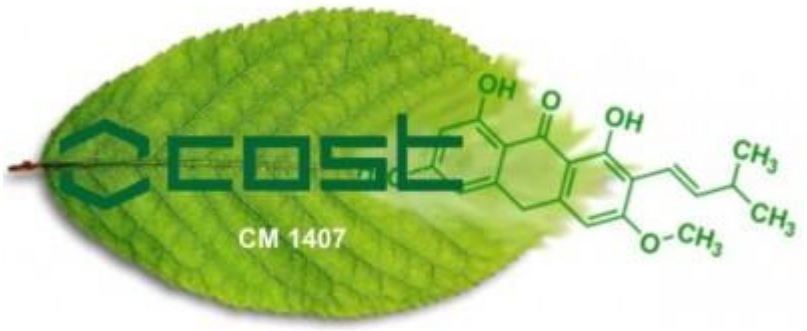

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CM1307 –
Targeted chemotherapy towards diseases caused by endoparasites

CA21145
European Network for diagnosis and treatment of antibiotic-resistant bacterial infections (EURESTOP)

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