

Home (<http://ipindia.nic.in/index.htm>) About Us (<http://ipindia.nic.in/about-us.htm>) Who's Who (<http://ipindia.nic.in/whos-who-page.htm>)
 Policy & Programs (<http://ipindia.nic.in/policy-pages.htm>) Achievements (<http://ipindia.nic.in/achievements-page.htm>)
 RTI (<http://ipindia.nic.in/right-to-information.htm>) Feedback (<https://ipindiaonline.gov.in/feedback>) Sitemap (<http://ipindia.nic.in/itemap.htm>)
 Contact Us (<http://ipindia.nic.in/contact-us.htm>) Help Line (<http://ipindia.nic.in/help-line-page.htm>)

[Skip to Main Content](#)



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic>)

Patent Search

Invention Title	Nanomaterial composites for electrochemical detection of phenol
Publication Number	31/2022
Publication Date	05/08/2022
Publication Type	INA
Application Number	202231042301
Application Filing Date	23/07/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	PHYSICS
Classification (IPC)	G01N0027490000, G01N0027280000, G01N0027300000, G01N0027416000, G01N0027403000

Inventor

Name	Address	Country
Dr. Manoj Kumar Prahraj	Assistant Professor, Department of Physics, Ajay Binay Institute of Technology, Cuttack, Odisha, India, Pin: 753014	India
Dr. Pallavi N	Assistant Professor, Department of Environmental Sciences, JSS Academy of Higher Education & Research, Mysuru, Karnataka, India, Pincode: 570015	India
Dr. N. Mujafarkani	Assistant Professor, PG and Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu, India, Pincode: 620020	India
Dr. F.M. Mashood Ahamed	Assistant Professor, PG and Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu, India, Pincode: 620020	India
Dr. B. Tirumala Rao	Associate Professor in Physics, Department of Basic science, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India, Pincode: 534202	India
Dr. Ch. Rajyalakshmi	Associate Professor in Chemistry, Department of Basic science, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India, Pincode: 534202	India
Mr. Kishor Danao	Assistant Professor, Department of Pharmaceutical Chemistry, Dadasaheb Balpande College of Pharmacy, Nagpur, Maharashtra, India, Pincode:440037	India
Dr. Srinivas Ganganagunta	Senior Faculty in Physics, Engineering Department, University of Technology and Applied Sciences-IBRA, IBRA, North Al Sharqia Region, Oman, Postal Code: 400	India
Mrs. Vijayshri Rokde	Assistant Professor, Department of Pharmaceutical Chemistry, Dadasaheb Balpande College of Pharmacy, Nagpur, Maharashtra, India, Pincode:440037	India
Mr. Amal G. S.	Navaneetham, Vikas Nagar 105, Pattathanam, P.O., Kollam, Kerala, India, Pincode: 691021	India
Dr. D. V. Lokeswar Reddy	Assistant Professor, Humanities and Social Sciences Department, JNTU College of Engineering, Pulivendula, Kadapa, Andhra Pradesh, India, Pincode: 516390	India

Applicant

Name	Address	Country
Dr. Manoj Kumar Prahara	Assistant Professor, Department of Physics, Ajay Binay Institute of Technology, Cuttack, Odisha, India, Pin: 753014	India
Dr. Pallavi N	Assistant Professor, Department of Environmental Sciences, JSS Academy of Higher Education & Research, Mysuru, Karnataka, India, Pincode: 570015	India
Dr. N. Mujafarkani	Assistant Professor, PG and Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu, India, Pincode: 620020	India
Dr. F.M. Mashood Ahamed	Assistant Professor, PG and Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu, India, Pincode: 620020	India
Dr. B. Tirumala Rao	Associate Professor in Physics, Department of Basic science, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India, Pincode: 534202	India
Dr. Ch. Rajyalakshmi	Associate Professor in Chemistry, Department of Basic science, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India, Pincode: 534202	India
Mr. Kishor Danao	Assistant Professor, Department of Pharmaceutical Chemistry, Dadasaheb Balpande College of Pharmacy, Nagpur, Maharashtra, India, Pincode:440037	India
Dr. Srinivas Ganganagunta	Senior Faculty in Physics, Engineering Department, University of Technology and Applied Sciences-IBRA, IBRA, North Al Sharqia Region, Oman, Postal Code: 400	Oman
Mrs. Vijayshri Rokde	Assistant Professor, Department of Pharmaceutical Chemistry, Dadasaheb Balpande College of Pharmacy, Nagpur, Maharashtra, India, Pincode:440037	India
Mr. Amal G. S.	Navaneetham, Vikas Nagar 105, Pattathanam, P.O., Kollam, Kerala, India, Pincode: 691021	India
Dr. D. V. Lokeswar Reddy	Assistant Professor, Humanities and Social Sciences Department, JNTU College of Engineering, Pulivendula, Kadapa, Andhra Pradesh, India, Pincode: 516390	India

Abstract:

In accordance with the present invention, phenols may be identified through the utilization of an electrochemical sensor that contains a first compound, a working electrode, an electrolyte in contact with the working electrode, wherein the first compound operatively undergoes a redox reaction at the working electrode to form a second compound that operatively reacts in situ with the phenol, wherein said redox reaction possesses a detectable redox couple, and wherein the sensor is adapted so that it is possible to detect anything like a cannabinoid or a catechin molecule.

Complete Specification

Description: Methods and equipment for the detection and quantitative determination of analyses, in particular phenols, phenolic compounds, and phenol derivatives, are the subject of the present invention.

Background of the invention:

The practice of getting behind the wheel while under the influence of cannabis is becoming more common. According to a number of studies, up to 25 percent of those who were involved in accidents tested positive for illegal drugs. Cannabis was the drug that was found the most frequently, followed by benzodiazepines, cocaine, amphetamines, and opioids. It has been demonstrated that drug use is frequently found among those who are involved in automobile collisions. Driving under the influence of drugs is a significant problem, both in terms of a general public health issue and as a specific concern for drug users. It is evident that drugs, when taken in combination with alcohol, and multiple drugs, present an even greater risk; drug driving is a significant problem.

The primary psychoactive ingredient in cannabis is called delta-9-tetrahydrocannabinol, or THC for short. The chemical structure of THC can be seen below:

Research has demonstrated again and again that THC has a negative impact on cognitive ability, psychomotor function, and real driving performance. It has been demonstrated, for instance, that the degree of performance impairment that was observed in experimental studies after doses of THC up to 300 mg per kg was equivalent to the impairment of a blood alcohol concentration that was at the legal limit for driving under the influence in the majority of European countries. This is because both substances impair a person's ability to function normally. Combining THC use with alcohol consumption results in a substantial impairment of cognitive, psychomotor, and actual driving performance, which in turn raises the likelihood of being involved in an accident. Gas chromatography-mass spectrometry is the method of choice for analyzing cannabinoids, which are C₂₁ chemicals that are unique to and found in cannabis, as well as their carboxylic acid analogs and transformation products (GC-MS). The

[View Application Status](#)



Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>)

Copyright (<http://ipindia.gov.in/copyright.htm>) Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>)

Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>) Contact Us (<http://ipindia.gov.in/contact-us.htm>)

Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019



(<https://rashtragaan.in/>)