

INTERNATIONAL CONFERENCE ON **MATERIALS FOR THE MILLENNIUM**



BOOK OF ABSTRACTS

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Cochin University of Science and Technology
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commercial pharmaceutical preparations was demonstrated suggesting its use as a reliable and advantageous alternative to the most other previously reported methods in the routine control of LOM concentration in these samples. The sensors were also applied to the determination of the drug in real samples like urine. The analytical method proposed proved to be a simple, rapid and accurate method.

PP-143

Screen Printed Carbon Electrode Sensor for Guiafenesin

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Screen Printed Carbon Electrodes (SPCE) modified with the poly *p*-Amino Benzene Sulphonic Acid (*p*-ABSAs) and multiwalled carbon nanotube (MWNT) was constructed. Using cyclic voltammetry (CV) the electrochemical behaviour of SPCE towards Guiafenesin (Gui) was investigated. At bare SPCE, oxidation of Gui occurs with a peak current of 0.1147 mA. Upon modification of the electrode surface with poly (*p*-ABSAs), peak current was increased to 0.6320 mA. The enhancement in the peak current suggests that poly (*p*-ABSAs) film can accelerate the electron transfer of Gui. Further on modifying the poly(*p*-ABSAs) / SPCE surface with MWNT, the observed peak current was 1.2027 mA. The ability of MWNT to promote electron transfer also resulted in the tremendous enhancement of peak current. The determination conditions, such as the amount of MWNT-Nafion suspension, thickness of poly(*p*-ABSAs) film, supporting electrolyte and scan rate were optimized. The developed sensor showed good stability, selectivity and was successfully used for the determination of Gui in pharmaceutical formulations and urine sample.

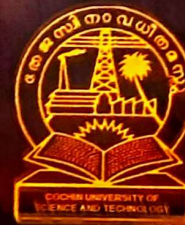
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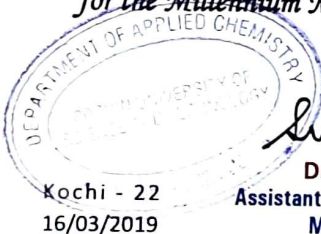
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Certificate

This is to certify that Prof./Dr./Mr./Ms. Laina A.L., Assistant Professor
of Sacred Heart College, Chalakkudy
has participated/presented a paper (Invited Lecture/Poster) entitled "Screen Printed Carbon Electrode Sensor For Guiafenesine"

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