

# Sensors Technology (SST)

## » Ἀῤῥῆμῶ (Background)

» Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940. Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940. Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

## ῤῥῆμῶ Ἀῤῥῆμῶ (Aim)

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

1. ἀρχίζει ἀπὸ τὸ 1940

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

Ἡ ἰστορία τῆς Ἀῤῥῆμῶς ἀρχίζει ἀπὸ τὸ 1940, ὅταν ἡ ἡμετέρα ἰστορία ἀρχίζει ἀπὸ τὸ 1940.

-  
;ÒÃµÃÇ"ÇÑ' E.coli á'Á'Õáí'áíä°áíà«¹à«ÍÃì

-  
;ÒÃÇÒàµÃÒÐËì»ÃÒÁÒ³ÃÒ»ÃÒ°ÈÑµÃÙ³µ×ªª'Áä°áíà«¹à«ÍÃì.Ò§àµÃÕä¿¿éÒ

-  
;ÒÃµÃÇ"ÇÒàµÃÒÐËìàª×éí Salmonella sp.·ÕèµÇÒÁäÇÈÙ§

2. ;ÒÃ»ÃÑ°»ÃØ§ÍÒàÁÇ;â·Ã'ÉÓËÃÑ°;ÒÃÇÒàµÃÒÐËì.Ò§àµÃÕä¿¿éÒ

-  
;ÒÃà³⁄ÒèÁËÑ--Ò³ ;ÒÃµÃÇ"ÇÑ'ÉÒÃ»ÃÐ;í°¿Ò'ÍÁ'éÇÁµÑÇ.ÓÁÐÁÒÁä¹âµÃà°¹«Õ¹àµÃ×Í°µÒÃì°Í¹Òá¹.Ù»Éì

-  
;ÒÃÇÁ;íÑ¹ÇÍ§Í¹ØÀÒµà§Ò¹ áÁÐµÒÃì°Í¹Òá¹.Ù»ÉìÃÐ'Ñ°¹Òá¹àÁµÃ à³⁄×éí;ÒÃµÃÇ"ÇÑ'áªÒ§àµÃÕä¿¿éÒ

-  
àµÃÕä¿¿éÒáÁÐàµÃÒµÑÇàÃè§ÇÍ§âµÃ§ËÃéÒ§ÃÐ'Ñ°¹Òá¹.Õè»ÃÐ;í°'éÇÁ redox mediator áÁÐµÒÃì°Í¹Òá¹.Ù»Éì à³⁄×éí;ÒÃ»ÃÑ°»ÃØ§ÍÒàÁÇ;â·Ã'ÉÓËÃÑ°;ÒÃÇÒàµÃÒÐËì.Ò§àµÃÕä¿¿éÒ

-  
;ÒÃËÖ;ÉÒËÁ°ÑµÒ·Ò§àµÃÕä¿¿éÒÇÍ§áµ»ä««Õ¹ áÁÐ;ÒÃ»ÃÐÁØ;µíäªéª¹àªÒ§à«¹à«ÍÃì

3. ;ÒÃ³⁄Ñ²¹Òà·µ¹Òµ;ÒÃÇÒàµÃÒÐËì.Ò§àµÃÕä¿¿éÒ

-  
;ÒÃÇÒàµÃÒÐËìàªÒ§ÀÒ³⁄áÁÐ"Á¹;ÈÒËµÃíÇÍ§;ÒÃà;Ò'ÍÒàÁÇ;â·Ã'¿ÒÇÁÒ§.ÕèÍ¹ØÀÒµµÐµÐÁÒËµíÇ¹Ò"ØÁÀÒµáÁÐ¹Òá¹'Á S

-  
;ÒÃÇÒàµÃÒÐËì»ÃÒÁÒ³¹ÉÓµÒÁ«ÙâµÃËÁÁÐ¿Ò'ÍÁ'Áà·µ¹Òµ Pulsed Electrochemical Detection

°ØªÀÒ;Ã

-

ÃÈ. ´Ã. ÇÕÃÐÈÑ;´Ò; ÊØÃÐàÃ×Í§ªÑÃ

-

´Ã.ÁÒ·.ÃÒ¹ à«ÁÒ«Ñ¹´ÃÑÃ

-

´Ã.¾Ã¾ÔÁÁ ÈÃÕ·Í§ªÓ

-

´Ã.¾Ã·Ô¾Ãî àªéÇ¹ÃÁÔµÃ

-

´Ã.ÊØ;Ñ--Ò á«èáÍÕëÃÇ

-

´Ã. ¾ÃÃÉÁ³±; ÃÕ·ÔÃÇ³Ôª

-

´Ã. ÃØè§·ÔÇÒ ¾ÃÑ§ÊÑ¹µÔ;ØÁ

-

¹Ò§ÊÒÇ·µØ¾Ã ¾Ò¹·Í§

-

¹Ò§ÊÒÇ;ÃÉ³¾Ãªxè¹ÃÑ§ÊÔ;ØÁ

-

¹Ò§ÊÒÇÊÕÃÔÁÒÁî §ÒÁª¹Ð

-

10AÇaOÃ0 aÑAÇÃ3i

§010Ã0i0Ã

-  
ãÈé«Ó»ÃÖjÉ0·ÑèÇä»´é01à«1à«ÍÃià«ÁÕáÁÐªÕÇÀ0¾

-  
à«Ãxèí§ÁxíÇ0à«Ã0ÐÈi·0§à«ÁÕä¿¿é0

-  
ÈÑÁÁ10áÁÐ½Öj10ÃÁ

-  
½Öj10ÃÁÁÐÁÐÈÑé1 (2 ÈÑ»´0Èi &ndash; 1 à´x1')

¼Ã§01à¼Ãá¾Ãèã1Ç0ÃÈ0ÃÃÐ´Ñ01010ª0µ0

-  
Somasundrum, M., Kirtikara, K.,Tanticharoen,M. Amperometric determination of hydrogen peroxide by direct and catalytic reduction at a copper electrode. *Analytica Chimica Acta* 319 (1996) 59-70.

-  
Somasundrum, M, Tanticharoen M., Kirtikara, K. H 2 O 2 from an oxidase enzyme can be detected cathodically using metal microparticles dispersed in a polymeric film electrode. *Journal of Electroanalytical Chemistry* 407 (1996) 247-251.

-  
Somasundrum, M., Tongta, A., Tanticharoen, M., Kirtikara, K. A kinetic model for the reduction of enzyme-generated H 2 O 2 at a metal-dispersed conducting polymer film. *Journal of Electroanalytical Chemistry* 440 (1997) 259-264.

-  
Kiattipoomchai, M., Somasundrum, M., Tanticharoen, M., Kirtikara, K. Measurement of sulfite using oxide-coated copper electrodes. *The Analyst* 123 (1998) 2017-2019.

-  
Surareungchai, W., Worasing, S., Sritongkum, P., Tanticharoen, M., Kirtikara, K. &ldquo;Dual electrode signal-subtracted biosensor for simultaneous flow injection determination of sucrose and glucose,&rdquo; *Analytica Chimica Acta* 380 (1999) 7-15.

-  
Arjsiriwat, A., Tanticharoen, M., Kirtikara, K., Aoki, K., Somasundrum, M. Metal-dispersed conducting polymer-coated electrode used for oxidase-based biosensors. *Electrochemical Communications* 2 (2000) 441-444.

-  
Surareungchai, W., Kasiwat, D. &ldquo; Electroanalysis of tert -butylhydroquinone in edible oil at a Nafion-coated probe,&rdquo; *Electroanalysis* 12 (2000) 1124-1129.

-  
Surareungchai, W., Deepunya, W., Tasakorn, P. &ldquo;Quadruple-pulsed amperometric detection for simultaneous flow injection determination of glucose and fructose&rdquo; *Analytica Chimica Acta* 448 (2001) 215-220.

-  
Suriyawattanakul L., Surareungchai W., Sritongkam P., Tanticharoen M., Kirtikara K.&ldquo;The use of co-immobilization of *Trichosporon cutaneum* and *Bacillus licheniformis* for a BOD sensor&rdquo; *Apply Microbiology. Biotechnology* 59 (2002) 40-44.

-  
Na Nakorn, P., Suphantharika, M., Udomsopagit, S., Surareungchai, W. &ldquo; Poly(vinylferrocene)-Polyethylene Glycol Glutamate Oxidase Electrode for Determination of L-Glutamate in Commercial Soy Sauces&rdquo; *World J ournal of Microbiol ogy Biotechnol y* 19 (2003) 479-485.

-  
Phanthong, C., Somasundrum, M. The steady state current at a microdisk biosensor. *Journal of Electroanalytical Chemistry* 558 (2003) 1-8.

-  
Wiyaratn, W., Somasundrum, M., Surareungchai, W. &ldquo;Electrochemical reduction of monochlorinated hydrocarbons at a hydrophobic Zn/PTFE composite-electroplated Zn electrode in a binary solvent&rdquo; *Electroanalysis* 15 (2003)1719-1722.

-  
Wiyaratn, W. Somasundrum, M., Surareungchai, W. &ldquo;Voltammetric Sensor for General Purpose Organohalide

Detection at Picogram per Liter Concentrations Based on a Simple Collector-Generator Method. *Analytical Chemistry* 76 (2004) 859-862.

-

Loetanantawong, B., Suracheep, C., Somasundrum, M., Surareungchai, W. &ldquo;Electrocatalytic Tetracycline Oxidation at a Mixed-Valent Ruthenium Cyanide-Modified Glassy Carbon Electrode and Determination of Tetracyclines by Liquid Chromatography with Electrochemical Detection&rdquo; *Analytical Chemistry*. 76 (2004) 2266-2272.

-

Ngamchana, S., Surareungchai, W., &ldquo;Sub-millimolar determination of formalin by pulsed amperometric detection&rdquo; *Analytica Chimica Acta* 510 (2004) 195-201.

-

Rijiravanich, P., Aoki, K., Chen, J., Surareungchai, W., Somasundrum, M., &ldquo; Electrode reactions of catechol at tyrosinase-immobilized latex suspensions&rdquo; *Electroanalysis* 16 (2004) 605-611.

-

Wiyaratn, W., Somasundrum, M., Surareungchai, W. &ldquo;Voltammetric detection of organohalides by redox catalysis: improved sensitivity by immobilisation within a cubic phase liquid crystal&rdquo; *The Analyst*, 130 (2005) 626-631.

-

Wiyaratn, W., Hrapovic, S., Liu, Y., Surareungchai, W., Luong, J.H.T., &ldquo;Light-assisted synthesis of Pt-Zn porphyrin nanocomposites and their use for electrochemical detection of organohalides&rdquo; *Analytical Chemistry* 77 (2005) 5742-5749.

-

Rijiravanich, P., Aoki, K., Chen, J., Surareungchai, W., Somasundrum, M. &ldquo;Micro-cylinder biosensors for phenol and catechol based on layer-by-layer immobilisation of tyrosinase on latex particles: Theory and experiment.&rdquo; *Journal of Electroanalytical Chemistry* 589 (2006) 249-258.

-

Punbusayakul, N., Talapatra, S., Ci, L., Surareungchai, W., Ajayan, P.M. &ldquo;Double-walled carbon nanotube electrodes for electrochemical sensing&rdquo; *Electrochemical and Solid State Letters* 10 (2007) F13-F15.

-

Punbusayakul, N., Talapatra, S., Ci, L., Surareungchai, W., Ajayan, P.M. &ldquo;Comparison of edge plane pyrolytic graphite and novel carbon nanotubes architectures electrochemical properties&rdquo; *Nanoscience and Nanotechnology* (In Press)

