List of Publications

Published Papers in Journals

2010-Present


2009


2008


17. Mixed-potential-type zirconia-based sensor using In\textsubscript{2}O\textsubscript{3} sensing-electrode for selective detection of methane at high temperature (2008) Ueda T, Elumalai P, Plashnitsa VV and Miura N Chem Lett 37 (1) 120-121

18. NO\textsubscript{2} sensing performances of planar sensor using stabilized zirconia and thin-NiO sensing electrode (2008) Plashnitsa VV, Ueda T, Elumalai P and Miura N Sens Actuators B Chem 130 231-239

2006-2007


23. Influence of thickness of Cr\textsubscript{2}O\textsubscript{3} sensing-electrode on sensing characteristics of mixed-potential type NO\textsubscript{2} sensor based on stabilized zirconia (2006) Elumalai P, Hasei M and Miura N Electrochemistry 74 (2) 197-201

24. Electrochemical NO\textsubscript{x} sensors based on stabilized zirconia: comparison of sensing performances of mixed-potential-type and impedancemtric NO\textsubscript{x} sensors (2006) Miura N, Koga T, Nakatou M, Elumalai P and Hasei M J Electroceram 17 979-986


2004-2005


30. Microwave synthesis and electrochemical properties of LiCo\textsubscript{1-x}M\textsubscript{x}O\textsubscript{2} (M = Al and Mg) cathodes for Li-ion rechargeable batteries (2004) Elumalai P, Vasan HN and Munichandraiah N J Power Sources 125 (1) 77-84

1999-2003


Paper under Review


Chapters Published in Books


Full Papers in Conference Proceedings

42. Measurement of total concentration of hydrocarbons by using zirconia-based sensor attached with ZnCr_2O_4 sensing electrode (2008) Fujio Y, Plashnitsa VV, Elumalai P and Miura N ECS Transactions 16 (11) 229-236
Patent


Papers Presented in Conferences, Seminars, Symposia


This is a citation overview for a set of 39 documents.

**h index = 12**
Of the 39 documents considered for the h-Index, 12 have been cited at least 12 times.

*Note:* Scopus does not have complete citation information for articles published before 1996.

### Citations

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**Documents in overview**

1) Fujio, Y., Plashnitsa, V.V., Elumalai, P., Miura, N.  
**Stabilization of sensing performance for mixed-potential-type zirconia-based hydrocarbon sensor**
2) Plashnitsa, V.V., Elumalai, P., Fujio, Y., Kawaguchi, T., Miura, N.
Spontaneous gradual accumulation of hexagonally-aligned nano-silica on gold nanoparticles embedded in stabilized zirconia: A pathway from catalytic to NH3-sensing performance

3) Miura, N., Jin, H., Wama, R., Nakakubo, S., Elumalai, P., Plashnitsa, V.V.
Novel solid-state manganese oxide-based reference electrode for YSZ-based oxygen sensors

4) Wama, R., Plashnitsa, V.V., Elumalai, P., Utiyama, M., Miura, N.
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5) Elumalai, P., Plashnitsa, V.V., Fujio, Y., Miura, N.
Highly sensitive and selective stabilized zirconia-based mixed-potential-type propene sensor using NiO/Au composite sensing-electrode

6) Fujio, Y., Plashnitsa, V.V., Elumalai, P., Miura, N.
Mixed-potential-type zirconia-based sensor using Ni-Ti-O sensing electrode for detection of propylene

7) Plashnitsa, V.V., Elumalai, P., Fujio, Y., Miura, N.
Gas sensing characteristics of Au sensing electrode fabricated on YSZ single-crystals

8) Plashnitsa, V.V., Elumalai, P., Fujio, Y., Miura, N.
Zirconia-based electrochemical gas sensors using nano-structured sensing materials aiming at detection of automotive exhausts

9) Elumalai, P., Plashnitsa, V.V., Fujio, Y., Miura, N.
Tunable NO2-sensing characteristics of YSZ-based mixed-potential-type sensor using Ni1-x Cox O-sensing electrode

10) Elumalai, P., Zosel, J., Guth, U., Miura, N.
NO2 sensing properties of YSZ-based sensor using NiO and Cr-doped NiO sensing electrodes at high temperature
11) Plashnitsa, V.V., Elumalai, P., Kawaguchi, T., Fujio, Y., Miura, N.
Highly sensitive and selective zirconia-based propene sensor using nanostructured gold sensing electrodes fabricated from Colloidal solutions

12) Wama, R., Plashnitsa, V.V., Elumalai, P., Kawaguchi, T., Fujio, Y., Utiyama, M., Miura, N.
Improvement in propene sensing characteristics by the use of additives to In2O3 sensing electrode of mixed-potential-type zirconia sensor

13) Elumalai, P., Plashnitsa, V.V., Fujio, Y., Miura, N.
High temperature mixed-potential-type ammonia sensor using stabilized zirconia and oxide-based sensing electrode

14) Fujio, Y., Plashnitsa, V.V., Elumalai, P., Miura, N.
Measurement of total concentration of hydrocarbon by using zirconia-based sensor attached with ZnCr2O4 sensing-electrode

15) Plashnitsa, V.V., Elumalai, P., Miura, N.
Sensitive and selective zirconia-based NO2 sensor using gold nanoparticle coatings as sensing electrodes

16) Elumalai, P., Plashnitsa, V.V., Fujio, Y., Miura, N.
Stabilized zirconia-based sensor attached with NiOAu sensing electrode aiming for highly selective detection of ammonia in automobile exhausts

17) Fujio, Y., Plashnitsa, V.V., Elumalai, P., Miura, N.
Zirconia-based sensor using Zn Cr2 O4 sensing electrode for measurement of total concentration of various hydrocarbons

18) Miura, N., Mori, S., Wama, R., Elumalai, P., Plashnitsa, V.V., Utiyama, M.
Mixed-potential-type YSZ-based sensor capable of detecting propene at several tens ppb level

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20) Plashnitsa, V.V., Ueda, T., Elumalai, P., Miura, N.  
NO2 sensing performances of planar sensor using stabilized zirconia and thin-NiO sensing electrode  

21) Plashnitsa, V.V., Ueda, T., Elumalai, P., Kawaguchi, T., Miura, N.  
Zirconia-based planar NO2 sensor using ultrathin NiO or laminated NiO-Au sensing electrode  

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24) Miura, N., Wang, J., Elumalai, P., Ueda, T., Terada, D., Hasei, M.  
Improving NO2 sensitivity by adding WO3 during processing of NiO sensing-electrode of mixed-potential-type zirconia-based sensor  

25) Elumalai, P., Plashnitsa, V.V., Ueda, T., Hasei, M., Miura, N.  
Dependence of NO2 sensitivity on thickness of oxide-sensing electrodes for mixed-potential-type sensor using stabilized zirconia  

26) Miura, N., Koga, T., Nakatou, M., Elumalai, P., Hasei, M.  
Electrochemical NOx sensors based on stabilized zirconia: Comparison of sensing performances of mixed-potential-type and impedancemetric NOx sensors  

27) Wang, J., Elumalai, P., Terada, D., Hasei, M., Miura, N.  
Mixed-potential-type zirconia-based NOx sensor using Rh-loaded NiO sensing electrode operating at high temperatures  

High-temperature operating characteristics of mixed-potential-type NO2 sensor based on stabilized-zirconia tube and NiO sensing electrode  
29) Elumalai, P., Hasei, M., Miura, N.
Influence of thickness of \( \text{Cr}_2\text{O}_3 \) sensing-electrode on sensing characteristics of mixed-potential-type \( \text{NO}_2 \) sensor based on stabilized zirconia

Zirconia-based gas sensors using oxide sensing electrode for monitoring \( \text{NO}_x \) in car exhaust

31) Elumalai, P., Miura, N.
Performances of planar \( \text{NO}_2 \) sensor using stabilized zirconia and \( \text{NiO} \) sensing electrode at high temperature

Sensing characteristics of \( \text{YSZ} \)-based mixed-potential-type planar \( \text{NO} \text{x} \) sensors using \( \text{NiO} \) sensing electrodes sintered at different temperatures

\( \text{NO}_x \) sensing characteristics of mixed-potential-type zirconia sensor using \( \text{NiO} \) sensing electrode at high temperatures

34) Elumalai, P., Vasan, H.N., Munichandraiah, N.
Synthesis of \( \text{LiCo}_{1-x}\text{Ni}_x\text{O}_2 \) by microwave dielectric heating and its physical and electrochemical characterization

35) Elumalai, P., Vasan, H.N., Munichandraiah, N.
Microwave synthesis and electrochemical properties of \( \text{LiCo}_{1-x}\text{M}_x\text{O}_2 \) (\( \text{M} = \text{Al} \) and \( \text{Mg} \)) cathodes for Li-ion rechargeable batteries

Kinetics of hydrogen evolution on submicron size \( \text{Co}, \text{Ni}, \text{Pd} \) and \( \text{Co-Ni} \) powder electrodes by d.c. polarization and a.c. impedance studies

Synthesis and characterization of sub-micron size \( \text{Co-Ni} \) alloys using malonate as precursor
38) Elumalai, P., Vasan, H.N., Munichandraiah, N. 
*Electrochemical studies of cobalt hydroxide - an additive for nickel electrodes* 

39) Elumalai, P., Vasan, H.N., Munichandraiah, N. 
*A note on overpotential dependence of AC impedance data* 