

Faculty Profile of Dr. S. N. Karthick FICS, FASCh.



Dr. S. N. Karthick FICS, FASCh.

Assistant Professor

Department of Chemistry

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Phone No:0422-2428318

Mobile No:99946-62441

Research Area

- Materials Electrochemistry
- Energy Conversion & Storage
- Sensors & Prototype Devices

Education & Career

Education

Ph.D.

Subject : Chemistry

Institution : Alagappa University, Karaikudi.

Affiliated University : Alagappa University, Karaikudi.

Year of Award : 2008

M.Phil.,

Subject : Chemistry

Institution : A.N.J.A. College (Autonomous), Sivakasi, India.

Affiliated University : Madurai Kamaraj University, Madurai.

Year of Award : 2004

M.Sc.,

Subject: Chemistry

Institution : A.N.J.A. College (Autonomous), Sivakasi, India.

Affiliated University : Madurai Kamaraj University, Madurai.

Year of Award : 2003

B.Sc.,

Subject: Chemistry

Institution: A.N.J.A. College (Autonomous), Sivakasi, India., India.

Affiliated University: Madurai Kamaraj University, Madurai.

Year of Award: 2001

Career

At Bharathiar University (Reverse Order)

Past Experience

Lecturer : August 2004 to January 2005 at Department of Pharmaceutical Chemistry, Sri Kalishwari College, Sivakasi.

Project Assistant – IV : July 2008 to December 2008 at Central

Electrochemical Research Institute (CECRI), Karaikudi, Tamil Nadu, India

Post-Doctoral Research Associate under Brain Korea 21 (BK-21) : February 2009 to February 2013 at Pusan National University, Busan, South Korea.

Post-Doctoral Fellow under Dr. D. S. Kothari Post-Doctoral fellowship scheme : June 2013 to September 2014 at Indian Institute of Science, Bangalore

Post-Doctoral Research Associate & Research Fellow in NRF : September 2014 to November 2016 at Pusan National University, Busan, South Korea

Awards

- **“Best paper award”** sponsored by Royal Society of Chemistry, UK, for the paper presented in poster session of the “Twenty first National Convention of Electrochemists” from **30 & 31st January 2020** at Vellore Institute of Technology, Chennai, Organized by SAEST, CSIR-CECRI, Karaikudi.
- **“Best Scientist Award”** received from Nature Science Foundation, Coimbatore, India for academic excellence in electrochemistry specialization during the academic year **2018-2019**
- **Research Fellow in NRF & Post-Doctoral Research Associate**, Pusan National University, Busan, South Korea. (**Duration: September 2014 to November 2016**)
- **Post-Doctoral Fellow under Dr. D. S. Kothari Post-Doctoral fellowship scheme** Indian Institute of Science, Bangalore. (**Duration: June 2013 to September 2014**)
- **Post-Doctoral Research Associate under Brain Korea 21 (BK-21)**, Pusan National University, Busan, South Korea. (**Duration: Feb. 2009 to Feb. 2013**)

Membership

- **Life member** in Materials Research Society of India (MRSI), Bangalore (**Membership No. : LMB2269**)
- **Life fellow** member in Society for Advancement of Electrochemical Science and Technology (SAEST), Karaikudi. (**Membership No. :LF201801140**)
- **Life member** in VIJNANA BHARATI (VIBHA), New Delhi. (**Membership No. :21990**)
- **Life fellow** in Indian Chemical Society, Kolkata (**Membership No. :F-8299**)
- **Life member** in Chemical Research Society of India (CRSI), Bangalore (**Membership No. :LM2936**)
- **Life member** in The Indian Science Congress Association (ISCA), Kolkata (**Membership No. :L41103**)

Visits

Collaborators

Others

Projects

Funded Projects (National Level)

- [Ongoing-01](#)
- [Completed-03](#)

01) Development of high specific energy supercapacitor in aid of multi-metallic chalcogenides. Principal Investigator
DST-SERB-SURE Research Project, New Delhi, India.
Three Years (26/10/2023 to 25/10/2026)
₹ 29.99 Lakhs

01) Development of a new lead-free perovskite solar cell for high conversion efficiency. Principal Investigator
National Research Foundation of Korea, Seoul, South Korea.
Three Years (01/06/2015 to 21/11/2016) / 150,471,000 Korean Won
₹ 90 Lakhs

02) Development of stable and effective electrocatalytic for dye-sensitized solar cells. Principal Investigator
UGC-BSR Research Start-Up-Grant by the University Grants Commission, New Delhi, India.
Two Years (23/03/2018 to 22/03/2020)
₹ 10 Lakhs

03) Synthesis and application of anti-cancer compounds. Principal Investigator
BCTRC – RUSA 2.0, MHRD, DHE, Government of India, New Delhi. Two Years (14.12.2020 to 13.12.2022)
₹ 7.43 Lakhs

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Ongoing Consultancy Project Informations

Completed Consultancy Project Informations

Research Guidance

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)
- [Project Assistant](#)
-
-

Ongoing

Title

Name

Completed

Title

Name

Ongoing

- Student Name: F. Manik Clinton

Title of Thesis: Binary metal chalcogenides electrodes for supercapacitor

Year of Award: 2024

Status: Ongoing

- Student Name: S. Akshaya

Title of Thesis: Metal chalcogenides/oxide electrode for supercapacitor and solar cell applications

Year of Award: 2024

Status: Ongoing

- Student Name: Lekshmi Sunil

Title of Thesis: Binary metal oxide for sensor applications

Year of Award: 2025

Status: Ongoing

- Student Name: I. Imani Sospeter

Title of Thesis: Metal chalcogenides electrodes for supercapacitor and solar cell applications.

Year of Award: 2026

Status: Ongoing

Completed

Sample Data.

Ongoing

Sample Data.

Completed

Sample Data.

Ongoing

Sample Data.

Completed

- Student Name: K. Karim Akthar

Title of Dissertation : "Metal oxide composite preparation and
it's physico-chemical characterization"

Year of Award: 2021

Status: Completed

- Student Name: P. Jeyashree

Title of Dissertation : "Metal oxide composites preparation and
its spectral analysis"

Year of Award: 2021

Status: Completed

- Student Name: S. Manisha

Title of Dissertation: "Metal oxide composite preparation and analyzed
by

structural and spectral studies"

Year of Award: 2021

Status: Completed

- Student Name: G. Ishvarya

Title of Dissertation: "Metal oxide nanocomposite preparation
and characterized

by spectral techniques”

Year of Award: 2020

Status: Completed

- Student Name: C. Jayashree

Title of Dissertation: “Mini review on transition metal sulfide over supercapacitor applications”

Year of Award: 2020

Status: Completed

- Student Name: S. Sathish Kumar

Title of Dissertation: “Mini review on photocatalytic effect of metal oxides in

dye degradation applications”

Year of Award: 2020

Status: Completed

- Student Name: S. Keerthana

Title of Dissertation: “Thermal impression on zirconium in aqueous medium using

various spectral techniques”

Year of Award: 2019

Status: Completed

- Student Name: R. Mani

Title of Dissertation: “Facile synthesis of metal oxide nanoparticle by microwave method in aqueous medium”

Year of Award: 2019

Status: Completed

- Student Name: K. Srivinodhini

Title of Dissertation: "Synthesis of metal oxide nanoparticle by microwave technique"

Year of Award: 2019

Status: Completed

- Student Name: K. Krishnaveni

Title of Dissertation: "Structural and spectral characterization of metal oxide by simple

wet combustion method"

Year of Award: 2018

Status: Completed

- Student Name: F. Manik Clinton

Title of Dissertation: "Exploration of thermal impact on ammonium heptamolybdate using

spectral techniques"

Year of Award: 2018

Status: Completed

- Student Name: P. Thenmozhi

Title of Dissertation: "Investigation of thermal influence on bimetallic oxide using

spectral techniques"

Year of Award: 2018

Status: Completed

Ongoing

Student Name : P. Surya Vaithesaran

Title of the Work : Multivalent multi-metal chalcogenides electrodes for supercapacitor

Project Details : DST-SERB-SURE Research Project, New Delhi.

Status : Ongoing

Completed

Student Name :

Title of the Work :

Project Details :

Status :

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

50) Invasion of Zinc in $\text{BiFeO}_3/\text{Bi}_{25}\text{FeO}_{40}$ Perovskite-Structured Material as an Efficient Electrode for Symmetric Supercapacitor

Yogapriya Selvaraj, Kiruthika Paramasivam, Manik Clinton Franklin, Karthick Sivalingam Nallathambi,* Vijayakumar Elayappan, and Hemalatha Kuzhandaivel*
The Journal of Physical Chemistry C 128 (13), 5418-5428, 2024.

49) Polymer-assisted synthesis of $\text{Co}_3\text{O}_4/\text{CoO}$ microballs decorated N-doped carbon for symmetric supercapacitor

Kiruthika Paramasivam, Sornalatha Manickam, Karthick Sivalingam Nallathambi

and Hemalatha Kuzhandaivel*

Dalton Transactions 52, 14621-14631, 2023.

48) Nickel-doped CuO/Cu/Cu₂O nanocomposite as an efficient electrode for electrochemical non-enzymatic glucose sensor and asymmetric supercapacitor
Hemalatha Kuzhandaivel*, Kiruthika Paramasivam, Sornalatha Manickam, and Karthick Sivalingam Nallathambi

Journal of Applied Electrochemistry 53,1869-1886, 2023.

47) Enhanced Cyclic Stability of Cobalt Doped Bi₂₅FeO₄₀/BiFeO₃ as an Electrode Material for a Super Long Life Symmetric Supercapacitor Device

Yogapriya Selvaraj, Hemalatha Kuzhandaivel*, Karthick Sivalingam Nallathambi, and Vijayakumar Elayappan,

ACS Energy & Fuels 37, 8624-8636, 2023.

46) One-pot synthesis of TEA functionalized and NiSe embedded rGO nanocomposites for supercapacitor application

Sornalatha Manickam, Hemalatha Kuzhandaivel*, Yogapriya Selvaraj, Manik Clinton Franklin, and Karthick Sivalingam Nallathambi

Dalton Transactions, 51, 1542-1552, 2022.

45) [Low-temperature-synthesized Mn-doped Bi₂Fe₄O₉ as an efficient electrode material for supercapacitor applications](#)

H Kuzhandaivel*, Y Selvaraj, MC Franklin, S Manickam, S.N. Karthick*

New Journal of Chemistry 45 (34), 15223-15233, 2022.

44) [Sulfur and nitrogen-doped graphene quantum dots/PANI nanocomposites for supercapacitors](#)

K.V. Hemalatha*, M. Sornalatha, B. Suresh Kannan, F. Manik Clinton, Hee-Je Kim, S.N. Karthick*

New Journal Chemistry, 45, 4101-4110, 2021.

43) [Performance of 2-Hydroxy-1-Naphthaldehyde-2-Amino Thiazole as a highly selective turn-on fluorescent chemosensor for Al\(III\) ions detection and biological applications](#)

K.V. Hemalatha, B. Summaya Banu, D.C. Immanue, R. Namdhakumar, S. Usha, S.N. Karthick,

Journal of Fluorescence, 31, 1041-1053, 2021

42) [Enhanced solar to electrical energy conversion of titania nanoparticles and nanotubes-based combined photoanodes for dye-sensitized solar cells](#)

J. Anandha Raj, B. Suresh Kannan, Chanyong Lee, Hyunjoo Lee, B. Balamuralitharan, M. Sornalatha, Moonsuk Yi, Hee-Je Kim, S.N. Karthick, Yongseok Jun, K.V. Hemalatha, Materials Letters, 243, 180-182, 2019.

41) [Facile synthesis of pristine FeS₂ microflowers and hybrid rGO-FeS₂ microsphere electrode materials for high performance symmetric capacitors](#)

B. Balamuralitharan, B. Suresh Kannan, S.N. Karthick, R. Ananthakumar, K. Manab, Jin Soo Bak, In Ho Cho, K. Prabakar, Yongseok Jun, Hee-Je Kim Journal of industrial and engineering chemistry, 71, 191-200, 2019.

40) [Superficial one-pot synthesis of doped graphene oxide electrode for high power density supercapacitor](#)

D. Malarkodi, N. Saravanan, B. Balamuralitharan, S. Selvam, S.N. Karthick, K. Prabakar, Chang-Sik Ha, Hee-Je Kim New Journal of Chemistry, 42, 11093-11101, 2018.

39) [Hybrid reduced graphene oxide/manganese diselenide cubes: a new electrode material for supercapacitors](#)

B. Balamuralitharan, S.N. Karthick, B. Suresh Kannan, K.V. Hemalatha, S. Selvam, J. Anandharaj, K. Prabakar, Yongseok Jun, Hee-Je Kim Energy Technology, 5, 1953-1962, 2017.

38) [Electrolyte imprinted graphene oxide-chitosan chelate with copper crosslinked composite electrodes for intense cyclic stable flexible supercapacitors](#)

S. Selvam, B. Balamuralitharan, S. Jegatheeswaran, Mi Young Kim, S.N. Karthick, B.M. Sundrarajan, K. Prabakar, Hee-Je Kim Journal of Materials Chemistry A, 5, 1380-1386, 2017.

37) [Simultaneous electrochemical deposition of an e-rGO/ \$\beta\$ -CD/MnO₂ ternary composite for a self-powered supercapacitor-based caffeine sensor](#)

S. Selvam, B. Balamuralitharan, S.N. Karthick, K.V. Hemalatha, K. Prabakar, Hee-Je Kim, Analytical Methods, 8, 7937-7943, 2016.

36) [Drastic photocatalytic degradation of methylene blue dye by neodymium doped zirconium oxide as photocatalyst under visible light irradiation](#)

C. Dhandapani, R. Narayanasamy, S.N. Karthick, K.V. Hemalatha, S. Selvam, P. Hemalatha, S. Dinesh Kirupha, Hee-Je Kim
Optik, 127, 10288-10296, 2016.

35) [Effect of CuBr₂ salt treatment on the performance of nanocolloidal PPy: PSS multilayer thin film counter electrodes of dye-sensitized solar cells](#)

S. Maruthamuthu, J. Chandrasekaran, D. Manoharan, S.N. Karthick, Hee-Je Kim
Journal of Applied Polymer Science, 133, 43772-43784, 2016.

34) [CuBr₂ - induced charge screening on photoactive nanocolloidal polypyrrole:poly\(styrene sulfonate\) composite multilayer thin-film counter electrodes for high-efficiency dye-sensitized solar cells](#)

S. Maruthamuthu, J. Chandrasekaran, D. Manoharan, S.N. Karthick, Hee-Je Kim, B. Saravanakumar
Polymer International, 65, 584-595, 2016.

33) [Multilayer photoactive nanocolloidal PPy:PSS as a novel substitute for Pt free counter electrode in DSSC](#)

S. Maruthamuthu, J. Chandrasekaran, D. Manoharan, S.N. Karthick, Hee-Je Kim
Journal of Applied Polymer Science, 133, 43114-43124, 2016.

32) [Phase transition kinetics and surface binding states of methylammonium lead iodide perovskite](#)

G. Rajendra Kumar, A. DennysonSavariraj, S.N. Karthick, S. Selvam, B. Balamuralitharan, Hee-Je Kim, K. Viswanathan, M. Vijaykumar, K. Prabakar
Physical Chemistry Chemical Physics, 18, 7284-7292, 2016.

31) [Performance of sol-gel synthesized nanocrystalline TiO₂ in quantum dot sensitized solar cell with deposition of CdS/CdSe quantum dots by different techniques](#)

S.N. Karthick, K.V. Hemalatha, Hee-Je Kim, Moonsuk Yi, C. Dhandapani, Narayanaswamy
Science of Advanced Materials, 8, 645-651, 2016.

30) [La-doped ZnO nanoflower as photocatalyst for methylene blue dye degradation under UV irradiation](#)

P. Hemalatha, S.N. Karthick, K.V. Hemalatha, Moonsuk Yi, Hee-Je Kim, M. Alagar,
Journal of Material Science – Materials in Electronics, 27, 2367-2378, 2016.

29) [Influence of PVP template on the formation of porous TiO₂ nanofibers by electrospinning technique for dye-sensitized solar cell](#)

M. Vijayakumar, P. Pratheep, N. Sivasankar, S.N. Karthick, S. N; A. Subramania, Applied Physics A: Material Science & Processing, 120, 1211-1218, 2015.

28) [Stacked Cu_{1.8}S nanoplatelets as counter electrode for quantum dot-sensitized solar cell](#)

A. DennysonSavariraj, G. Rajendrakumar, S. Selvam, S.N. Karthick, B. Balamuralitharan, Hee-Je Kim, K. Viswanathan, M. Vijayakumar, K. Prabakar RSC Advances, 5, 100560-100567, 2015.

27) [Robust, metallic Pd₁₇Se₁₅ and Pd₇Se₄ phases from a single source precursor and their use as counter electrodes in dye sensitized solar cells](#)

S. Kukunuri, S.N. Karthick, S. Sampath
Journal of Materials Chemistry A, 3, 17144-17153, 2015.

26) [Novel high-temperature supercapacitor combined dye sensitized solar cell from a sulfated \$\beta\$ -cyclodextrin/PVP/MnCO₃ composite](#)

S. Selvam, B. Balamuralitharan, S.N. Karthick, A. Dennyson Savariraj, K.V. Hemalatha, Soo-Kyoung Kim, Hee-Je Kim
Journal of Materials Chemistry A, 3, 10225-10232, 2015.

25) [Prototype electrochromic device and dye sensitized solar cell using spray deposited undoped and 'Li'doped V₂O₅ thin film electrodes](#)

M. Kovendhan, D. Paul Joseph, P. Manimuthu, A. Sendilkumar, S.N. Karthick, S. Sambasivam, K. Vijayarangamuthu, Hee Je Kim, Byung Chun Choi, K. Asokan, C. Venkateswaran, R. Mohan,
Current Applied Physics, 15, 622-631, 2015.

24) [Synthesis of self-light-scattering wrinkle structured ZnO photoanode by sol-gel method for dye-sensitized solar cells](#)

C. Justin Raj, S.N. Karthick, K.V. Hemalatha, Soo-Kyoung Kim, Byung Chul Kim, Kook- Hyun Yu, Hee-Je Kim
Applied Physics A: Material Science & Processing, 116, 811-816, 2014.

23) [Improved photovoltaic performance of CdSe/CdS/PbS quantum dot sensitized ZnO nanorod array solar cell](#)

C. Justin Raj, S.N. Karthick, K.V. Hemalatha, Soo-Kyoung Kim, K. Prabakar, Hee-Je Kim,
Journal of Power Sources, 248, 439-446, 2014.

22) [Highly efficient ZnO porous nanostructure for CdS/CdSe quantum dot sensitized solar cell](#)

C. Justin Raj, S.N. Karthick, K.V. Hemalatha, Hee-Je Kim, K. Prabakar, Thin Solid Films, 548, 636-640, 2013.

21) [Li-doping induced physicochemical property modifications of MoO₃ thin films,](#)

M. Kovendhan, D. Paul Joseph, P. Manimuthu, S. Sambasivam, S.N. Karthick, K. Vijayarangamuthu, A. Sendilkumar, K. Asokan, Hee Je Kim; Byung Chun Choi, C. Venkateswaran, R. Mohan
Applied Surface Science, 284, 624-633, 2013.

20) Curcumin dye extracted from Curcuma longa. L, used as sensitizers for efficient dye sensitized solar cells

Hee-Je Kim, Kim Dong Jo, S.N. Karthick, K.V. Hemalatha, C. Justin Raj, Sunseong ok, Young son choe
International Journal of Electrochemical Science, 8, 8320-8328, 2013.

19) Natural dye extracted from Rhododendron species flowers as a photosensitizer in dye sensitized solar cell

Hee-Je Kim, Yeo-Tae Bin, S.N. Karthick, K.V. Hemalatha, C. Justin Raj, S. Venkatesan, Songyi Park, G. Vijayakumar
International Journal of Electrochemical Science, 8, 6734-6743, 2013.

18) [Synthesis of nano-bound microsphere Co₃O₄ by simple polymer-assisted sol-gel technique](#)

S.N. Karthick, K.V. Hemalatha, C. Justin Raj, Hee Je Kim, Moonsuk Yi,
Journal of Nanoparticle Research, 15, 1474-1487, 2013.

17) [Structural and magnetic investigations on metastable Ag-Fe nanophase alloy](#)

Kalavathy Santhi, E. Thirumal, S.N. Karthick, Hee-Je Kim, V. Narayanan, A. Stephen,
Journal of Alloys and Compounds, 557, 172-178, 2013.

16) [Banyan root structured Mg doped ZnO photoanode for dye sensitized solar cells](#)

C. Justin Raj, K. Prabakar, S.N. Karthick, K.V. Hemalatha, Min-Kyu Son, Hee-Je Kim,
Journal of Physical Chemistry – C, 117, 2600-2607, 2013.

15) [Morphology and Electrochemical Properties of P\(VdFHFP\)/MgO-Based Composite Microporous Polymer Electrolytes for Li-Ion Polymer Batteries](#)

G. Vijayakumar, S. N. Karthick, R. Paramasivam, C. Ilamaran,
Polymer-Plastics Technology and Engineering, 51, 1427-1431, 2012.

14) Titanium dioxide paste preparation for dye sensitized solar cell using
hydrothermal technique

S. N. Karthick, K.V. Hemalatha, C. Justin Raj, Hee-Je Kim, Moonsuk Yi,
Journal of Ceramic Processing Research, 13, s136-s139, 2012.

13) [Preparation of TiO₂ paste using poly \(vinylpyrrolidone\) for dye sensitized solar cells](#)

S. N. Karthick, A. Subramania, Hee Je Kim,
Thin Solid Films, 520, 7018-7021, 2012.

12) [Electrochemical properties of TiO₂ encapsulated ZnO nanorod aggregates dye sensitized solar cells](#)

S. N. Karthick, A. DennysonSavariraj, K.V. Hemalatha, Park Song-Ki, Hee-Je Kim; K. Prabakar,
Journal of Alloys and Compounds, 537, 159-164, 2012.

11) [Performance of Kerria japonica and Rosa chinensis flower dyes as a sensitizer for dye sensitized solar cells](#)

K.V. Hemalatha, S.N. Karthick, C. Justin Raj, Min-Kyu Son, Soo-Kyoung Kim, Hee-Je Kim,
Spectrochemical Acta Part A, 96, 305-309, 2012.

10) [Synthesis, structure stability, and magnetic properties of nanocrystalline Ag-Ni alloy](#)

Kalavathy Santhi, E. Thirumal, S.N. Karthick, Hee-Je Kim, N. Marimuthu, V. Narayanan, A. Stephen
Journal of Nanoparticle Research, 14, 868-880, 2012.

09) [Magnesium doped ZnO nanoparticles embedded ZnO nanorod hybrid electrodes for dye sensitized solar cells](#)

C. Justin Raj, S.N. Karthick, K.V. Hemalatha, Min-Kyu Son, Hee-Je Kim, K. Prabakar,
Journal of Sol-Gel Science and Technology, 62, 453-459, 2012.

08) [Microstructure analysis of the ferromagnetic Ag-Ni system synthesized by pulsed electrodeposition](#)

Kalavathy Santhi, S.N. Karthick, Hee-Je Kim, N. Marimuthu, V. Narayanan, A. Stephen,

Applied Surface Science, 258, 3126-3132, 2012.

07) [A new class of P\(VdF-HFP\)-CeO₂-LiClO₄-based composite microporous membrane electrolytes for Li-ion batteries](#)

G. Vijayakumar, S.N. Karthick, A. Subramania,

International Journal of Electrochemistry, 2011, 926383, 2011.

06) [Titanium oxide prepared by polymer gel assisted combustion method for dye sensitized solar cell](#)

S. N. Karthick, K.V. Hemalatha, Hyunwoong Seo, Daniel Ludeman, Jin-Kyoung Kim, K. Prabakar, Hee-Je Kim

Current Applied Physics, 11, s127-s130, 2011.

05) [Formation of anatase TiO₂ nanoparticles by simple polymer gel technique and their property](#)

S. N. Karthick, K. Prabakar, A. Subramania, Ji-Tae Hong, Jin-Ju Jang, Hee-Je Kim,

Powder Technology, 205, 36-41, 2011.

04) [Preparation of nanocrystalline LiMn₂O₄ thin film cathode material in spray pyrolysis method for Li-microbatteries](#)

S. N. Karthick, S. Richard Prabhu Gnanakan, A. Subramania, Hee-Je Kim,

Journal of Alloys and Compounds, 489, 674-677, 2010.

03) [Effect of nanoscale CeO₂ on PVDF-HFP-based nanocomposite porous polymer electrolytes for Li-ion batteries](#)

G. Vijayakumar, S.N. Karthick, A.R. Sathiya Priya, S. Ramalingam, A. Subramania, Journal of Solid State Electrochemistry, 12, 1135-1141, 2008.

02) [Preparation and electrochemical behavior of LiMn₂O₄ thin film by spray pyrolysis method](#)

A. Subramania, S.N. Karthick, N. Angayarkanni,

Thin Solid Films, 513, 8295-8298, 2008.

01) [Combustion synthesis of inverse spinel LiNiVO₄ nano-particles using behavior as the fuel](#)

A. Subramania, N. Angayarkanni, S.N. Karthick, T. Vasudevan,

Materials Letter, 60, 3023-3026, 2006.

Patent Info

Conference Info

01) [Dye-sensitized solar cells: history, components, configuration, and working principle \(Chapter - I\)](#)

S.N. Karthick, K.V. Hemalatha, B. Suresh Kannan, F. Manik Clinton, S. Akshaya, Hee-Je Kim

Interfacial Engineering in Functional Materials for Dye-Sensitized Solar Cells, John Wiley & Sons. Inc., 1-16, 2019.

Print ISBN 9781119557333; Online ISBN 9781119557333;

Database Related Info

Alumini Reflections: