

About Dr. M.V. Reddy

- Department of Physics and Materials Science & Engg., Solid State Ionics & Advanced Batteries Lab, National University of Singapore (NUS). Singapore 117542
www.physics.nus.edu.sg/solidstateionics; www.researcherid.com/rid/B-3524-2010.
- From July 2003- till now @ associated with Prof. B. V .R. Chowdari, Dept. of Physics
- Ph. D in 2003: Materials Science & Engg. (Mention highest honours) (ICMCB-CNRS)/ENSCP, University of Bordeaux, France
- Member of Materials Research Society (MRSS), Institute of Physics, Singapore
- Member of International Society of Electrochemistry (ISE), Switzerland
- Life Member, International Centre for Diffraction data (ICDD), USA
- Editorial Board member in 30 journals : (Area: Electrochemistry, Materials Engg., Materials Science and Energy)
- Regional editor: Nanoscience & Nanotechnology- ASIA (Aug., 2011)
- Editor in chief: Journal [World Research Journal of Materials Science and Engineering](http://www.worldresearchjournal.com)
- Awards: (i) SMP (Science mentorship programme) Outstanding Mentor Award (year, 2010 & 2011, 2012) (Ministry of Education (MOE, GEB), Singapore) (ii) Inspiring Research Mentor Award (2011, 2012, 2013) (NUSHS, Singapore)
- Served as a Member, Theme Chair for Energy and Environment and session chair for
- Batteries and Super capacitors, Fuel cells and materials for Environmental protection ICYRAM/IUMRS 1-6th July 2012 <http://www.mrs.org.sg/icyram2012>

Given: 1 key note; plenary; 1; 18 Invited and 14 contributed talks in international conferences.

Research Interests:

- Materials Science & Engg.; Batteries: Energy storage: Cathode, Anode and Electrolytes materials for Lithium-ion batteries, Supercapacitors & Micro batteries; Mg-batteries and solar cells
- Materials preparation and characterization techniques: Thin, nano and bulk materials : XRD, SEM, TEM, X-Ray absorption spectroscopy, Rutherford Back scattering spectrometry (RBS), Nuclear Reaction Analysis (NRA)
- Electro analytical techniques: Cyclic voltammtery, Galvanostatic cycling, GITT and PITT, Electrochemical Impedance Spectroscopy (EIS), In-situ Neutron diffraction studies

Research Publications: 181

1. Peer Reviewed Articles total: 103

2. International Conference papers published as proceedings (non refereed): 15

3. Singapore Science and Engineering Fair (SSEF) Research papers (Refereed by 2-3 local experts): 29,m Awards: Gold : 2; Silver :2 : Bronze: 3: Merit: 6.

4. International Science & Engg. Fair (ISSF), USA : 1 (Won 1st prize (3000 USD cash prize), MOE mentioned my project made the Singapore team has done the nation proud at the Intel International Science and Engineering Fair (ISEF) 2013)
<http://www.moe.gov.sg/media/press/2013/05/>

5. American Chemical Society 1st prize (Best student poster award, won 4000 USD cash prize)

6. Published highest number of publications in international journals from high school and college students research projects (source: Scopus).

7. Science Mentorship Programme (SMP), Ministry of Education (MOE). Youth Science Conference Research papers: 14 (Distinction:8; Merit: 6; 3M best poster award: 2; 3M Young Scientist award: 1).

8. SCIENTIA Research papers (NUS High School) : 10 (7 students won A*star Young Researcher award)

9. Science Research Programme (SRP) papers (H3 and Enrichment), MOE : 10 (best poster award : 1 ; VIP presentation: 1)

10. Conference (local & International) abstract published >120

11. Poster presentations : 95 (around 25 posters won poster award)

Research mentor

1.Trained/Training: >170 students under NUS-SMP, -SCIENTIA, -ARP, -IRP, -SRP, - SRP-H3, - Poly (FYP project) and SSEF projects from local high school, Junior college, Nanyang poly, Final year project (FYP), students from Engg. Science, B.S, 3 M.S, 5 Ph.D (co-mentor) and international exchange students.

Citations: >1780: (510 citations in 2012, 540 form Jan. 2013-Aug. 2013), h Index: 24 (Scopus)

Publications name, publisher, Impact factor (I.F.).

1. Advanced Functional Materials, (Wiley, Germany), (I.F.= 9.765, Tier 1 premium) : 2

2. Energy and Environmental Science, (RSC, UK Tier 1 premium) (I.F: 11.653) : 2

3. Angew Chemie Int. (Wiley Germany, I.F.= 13.734, Tier 1 premium) : 1
4. Chemical Reviews (ACS, USA, Journal H-Index; 352, (I.F.: 41.297, Tier 1 premium) : 1
5. Journal of Physical Chemistry B/C, (ACS, USA) : (I.F: 4.814, Tier 1 premium) ; 8
6. ACS Applied Materials and Interfaces (I.F.: 5.0, ACS) : 5
7. Journal of Materials Chemistry (RSC,UK) (Journal H-index: 132) (I.F: 6.101, Tier 1 premium) :8
8. Chemical Communications (I.F.:6.378, RSC UK, Tier 1 premium) : 1
9. Nano Scale (I.F.: 6.23, RSC UK) : 1
10. Chemistry of Materials (ACS, USA) (Journal H-index:188) (I.F. : 8.238, Tier 1 premium):2
11. Journal of the Electrochemical Society (ECS, USA) (Journal H-index: 151) (I.F.: 2.59; Tier 1 premium): 6
12. Electrochemical and Solid State Letters (AIP, USA) (Journal H-index : 83) (I.F.:2.01; Tier 1 premium) : 1
13. Physical Chemistry & Chemical Physics (RSC, I.F: 3.83, Tier 2 leading) : 2
14. Journal of Power Sources (Elsevier, UK) (Journal H-index : 133) (I.F: 4.67,Tier 2 leading) : 11
15. Electrochimica Acta (Elsevier, UK) (Journal H-index:112) (I.F: 3.777, Tier 2 leading) :17
16. Solid State Ionics (Elsevier, UK) (I.F: 2.04, Tier 2 leading) : 2
17. Electrochemistry Communications (Elsevier, UK) (Journal H-index: 85) (I.F: 4.425, Tier 2 leading):1
18. Nuclear Instruments and Methods in Physics Research B (Elsevier) (I.F.= 1.21) :1
19. Journal of Electroanalytical Chemistry (Elsevier, UK, Tier 2 leading) (I.F:2.732) : 2
20. Journal of Solid State Electrochemistry (Springer, Germany) (I.F: 2.131) :7
21. Materials Research Bulletin (Elsevier, UK) (I.F.: 2.105, Tier 2 leading) : 1
22. Surface and Interface Analysis (Wiley (I.F.:1.247) :1

23. Journal of Nanoscience & Nanotechnology (Am. Sci. Pub., I.F.: 2.0): 1
24. Materials Science & Engg. B (Elsevier, UK, I.F.: 1.52): 2
25. CrystEngComm. (RSC, I, F.: 3.879, U.K): 2
26. RSC Advances (RSC, I.F. 2.56, UK): 7
27. Journal of Alloys and Compounds (I.F.:2.29, Tier 2): 2
28. Nanoscience and Nanotechnology Letters: 1
29. Papers published in Asian Solid State Ionics proceeding (Conference papers) : 15

Highly cited from 2006-2010

- [1]M.V. Reddy, T. Yu, C.H. Sow, Z.X. Shen, C.T. Lim, G.V.Subba Rao, B.V.R. Chowdari, Adv. Funct. Mater., 17 (2007) 2792-2799 (260 times cited).
- [2]B. Varghese, M.V. Reddy, Z. Yanwu, C.S. Lit, T.C. Hoong, G.V. Subba Rao, B.V.R. Chowdari, A.T.S. Wee, C.T. Lim, C.H. Sow, Chem. Mater. 20 (2008) 3360-3367 (152 times cited).
- [3] B. Varghese, T.C. Hoong, Z. Yanwu, M.V. Reddy, B.V.R. Chowdari, A.T.S. Wee, T.B.C.Vincent, C.T. Lim, C.H. Sow Adv. Funct. Mater., 17 (2007)1932-1939 (80 times cited).
- [4]M.V. Reddy, S. Madhavi, G.V.Subba Rao, B.V.R. Chowdari, J. Power Sources, 162 (2006) 1312-1321 (60 times cited).
- [5]K. Saravanan, M. V. Reddy, P. Balaya, H. Gong, B.V.R. Chowdari and J. J. Vittal
J. Mater. Chem. 19(2009)605-610 (110 times cited).

Highly cited papers from 2010-2012

- [6] K. Saravanan, P. Balaya, M. V. Reddy, B.V.R. Chowdari and J. J. Vittal Energy & Environmental Science 3(2010) 457-464 (56 times cited).
- [8] A. Sakunthala , M. V. Reddy*, S. Selvasekarapandian, B.V.R. Chowdari, P. Christopher Selvin
J. Phys. Chem. C 114(2010) 8099-8107 (40 times cited).
- [10] M .V. Reddy, G.V. Subba Rao and B. V. R. Chowdari Journal of Power Sources
195(2010)5768-5774 (40 times cited).

[11]A. Sakunthala, M. V. Reddy*, S. Selvasekarapandian, B.V.R. Chowdari, P. Christopher Selvin ” Energy and Environmental Science 4(2011)1712-1725 (25 times) .

[12]M.V. Reddy, G.V. Subba Rao, B.V. R. Chowdari Journal of Materials Chemistry 21(2011) 10003-1001 (37times cited) .

High impact papers from 2012-2013

[14]. Nagarathinam, K. Saravanan, E. J. Han Phua, M. V. Reddy*, B. V. R. Chowdari, J. J. Vittal*

Angewandte Chemie International 51(24)(2012)5866-5870 (I.F: 13.4. Wiley).

[15] M.V. Reddy*, G.V. Subba Rao, B.V. R. Chowdari* “Metal oxides and oxysalts as anode materials for lithium ion batteries” Chemical Reviews 113(2013)5364-5457 (I.F.: 41.297, ACS (highest impact factor journal and for the 1st time an Asian university published critical review paper in highly ranked journal Chem. Review in the area of Li-batteries and highly read paper in Q2 2013).