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#### BOOKS AND CHAPTERS IN EDITED VOLUMES / BOOKS PER TEACHER DURING THE ACADEMIC YEAR: 2023-24

S.NO	Name of the Teacher	Title of the Book published	Title of the Chapter published	National / International	Year and month of publication	ISBN of the Book	Name of the Publisher
1.	Dr P. Dwarakanadha Reddy	Text Book on Nano Drug Delivery Systems (For M.Pharmacy Pharmaceutics, Syllabus Prescribed by the Pharmacy Council of India)	-NA-	National	July 2023	978-81-958849-8-8	Lapin Press Publications, India
2.	Dr. P. Dwarakanadha Reddy Dr D.Swarnalatha, Dr M.Deepa	Text Book on Regulatory Affairs (As Per the Syllabus Prescribed by the Pharmacy Council of India)	-NA-	National	July 2023	978-93-92153-44-0	South Asian Academic Publications, India
3.	S. Ramkanth P. Anitha	Industrial Application of Functional Foods, Ingredients And Nutraceuticals	Cardiovascular disease (Functional food and nutraceuticals for disease and disorders)	International	August 2023	978-0-12-824312-1	Academic Press United Kingdom
4.	P. Anitha, V. Viswanath, J. Sumalatha, P. Dwarakanadha Reddy, D. Swarnalatha, D. Vasavi Devi	Quantum Dots Based Nanocomposites Design, Fabrication and Emerging Applications	Quantum Dots Composites in Supercapacitor Applications	International	June 2024	978-3-031-54778-2	Springer Cham Switzerland
5.	Gireesh Kumar Eri GallaRajitha, Aaggarapu Susmitha	Analytical Procedure Development by Quality by Design	-NA-	National	January 2024	9789389354997	BSP Books Pvt. Ltd. India

#### ABOUT THE AUTHOR

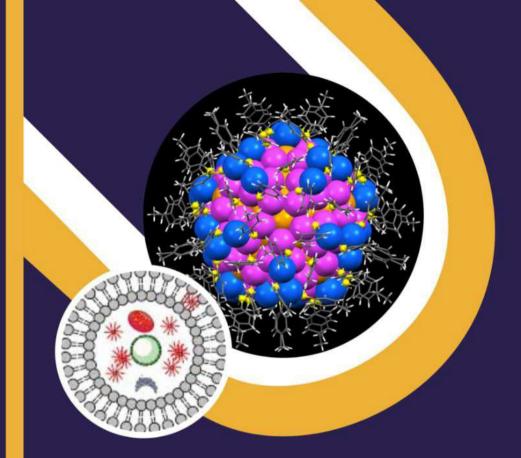
Dr. P. Dwarakanadha Reddy is an accomplished individual with significant contributions in the field of pharmaceutical sciences. Here is a summary of his achievements and roles. Dr. Reddy completed his Ph.D. from Jawaharlal Nehru Technological University (JNTUA), Anantapur, more than 16 years of experience in teaching, administration, and research. Dr. Reddy currently holds the position of Professor in the Department of Pharmaceutics at Annamacharva College of Pharmacy, Rajampet. He is a life member of various esteemed professional bodies like APTI, IPGA, IPA, FIC, Indian Pharmacists Association, ISPOR, Asia-Pacific Chemical, Biological & Environmental Engineering Society, Hong Kong, General Academy of Education (FAGE), Manipal. Dr. Reddy has received several awards and honors, including the prestigious "VIDYA RATNA AWARD" at New Delhi, Global Awards -2019 from Pondicherry, and the Academic Excellence Award - 2020 from Insc at Bangalore. He was also honored with the Andhra Pradesh Academy of Science (Govt of AP) fellowship in the field of Pharmaceutical Science for the year 2020-2021. He serves as the Editor-in-Chief for the Journal of Global Trends in Pharmaceutical Sciences (JGTPS) and is an editorial board member of various national and international journals. Dr. Reddy actively participates in number of seminars and conferences held at both national and international levels. He has presented oral and scientific papers at various international conferences in Nepal, and Hong Kong, and has published more than 50 research and review articles with good impact factors. He has successfully guided 07 Ph.D. students at JNTUA. Dr. Reddy has secured research project funding, including the DST-NIMAT project on Entrepreneurship awareness camp sanctioned for the years 2018-2019 and 2019-2020, and an AICTE-sponsored STTP with 4,01,333/- on QbD and Computational tools in pharmaceutical product development for 2019-2020. He has been appointed as a Board of Studies (BOS) member by JNTUA to Sevenhills College of Pharmacy, Tirupati (Autonomous). Dr. P. Dwarakanadha Reddy's diverse expertise and significant involvement in academia and research showcase his commitment and dedication to the field of pharmaceutical sciences.

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# TEXT BOOK ON NANO DRUG DELIVERY SYSTEMS

Dr. P. Dwarakanadha Reddy

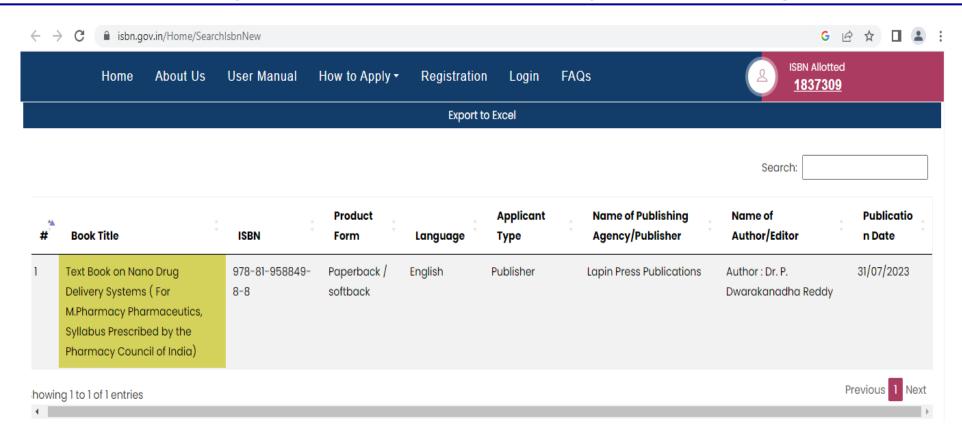


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Prof. (Dr) Dugasani Swarnalatha working as a Principal in Annamacharya College of Pharmacy, Rajampet, Kadapa, A.P. affiliated to JNTUA, Anantapur, approved by AICTE & PCI, accredited by NBA, New Delhi and also accredited by NAAC 'A, Bangalore.Dr. D.Swarnalatha is a highly respected and influential figure in the educational community, responsible for providing leadership, direction. Prof. (Dr) Dugasani Swarnalatha completed her B.Pharmacy from Sri Padmavati Mahila Visvavidyalayam, Tirupati and M. Pharm from Tamil Nadu Dr. M.G.R. Medical University, Chennai and Ph.D. from Andhra University, India under the supervision of Prof. T. Satya Narayana. Dr D.Swarnalatha received an AICTE Project completed on "Phytochemical and Biological Studies on Unexplored Traditional Medicinal Plants" funded by AICTE- Research promotion scheme (RPS), New Delhi. She has been honored with VIDYA RATNA AWARD, New Delhi for her outstanding service and contribution to the pharmacy profession. She has been honored with ASSOCIATE FELLOW OF ANDHRA PRADESH AKADEMI OF SCIENCES. She has been honored with the BEST TEACHER AWARD from JNTUA. She has published 30 research/review papers in various national / international journals. She is a life member of various professional bodies like IPA, IPGA, APTI, ISPOR and more. She has presented and participated in more than 25 national and international seminars/conferences/workshops/symposiums sponsored by AICTE, UGC, DST, ICMR etc., conducted by various universities and colleges. She is a recognized research supervisor at JNTUA and JNTUK. Dr D.Swarnalatha is a dedicated education professional, committed to nurturing young minds and creating a positive impact on the lives of students.

Dr. M.Deepa is an esteemed academician and researcher with a specialization in Pharmaceutical Chemistry. With a passion for advancing the field of pharmacy and drug development, she have made significant contributions to both academia and industry. Their expertise and dedication to teaching and research have garnered them widespread recognition and respect within the scientific community. Her research includes areas like drug discovery, medicinal chemistry, pharmacology, pharmaceutical analysis, or pharmaceutical technology. She has published numerous papers in reputable scientific journals, presenting their findings and insights to the academic community. She held various academic positions, such as Assistant Professor, Associate Professor, and ultimately, achieving the status of Professor in Department of pharmaceutical chemistry in Annamacharya College of pharmacy, Razampet. Her teaching methodology likely involves a combination of theoretical concepts and practical applications, preparing students for careers in the pharmaceutical industry, research, or academia. She serves as the Reviewer for the Journal of Global Trends in Pharmaceutical Sciences (JGTPS) and various national journals. She actively participates in number of seminars and conferences held at both national and international levels.

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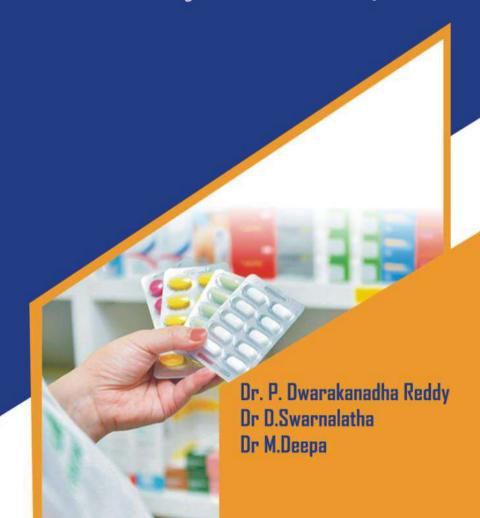
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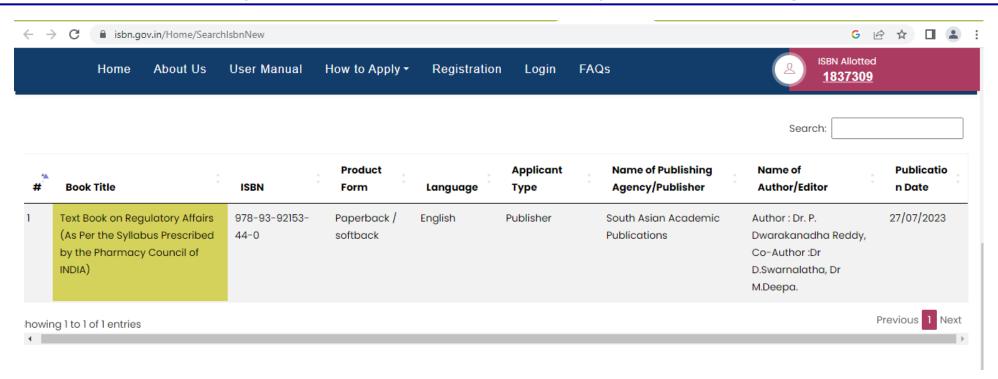
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# INDUSTRIAL APPLICATION OF FUNCTIONAL FOODS, INGREDIENTS AND NUTRACEUTICALS

Extraction, Processing and Formulation of Bioactive Compounds

Edited by

C. ANANDHARAMAKRISHNAN PARTHASARATHI SUBRAMANIAN



# INDUSTRIAL APPLICATION OF FUNCTIONAL FOODS, INGREDIENTS AND NUTRACEUTICALS Extraction, Processing and Formulation of Bioactive Compounds

Edited by

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#### CHAPTER FOURTEEN

#### Cardiovascular disease

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#### Introduction

Cardiovascular disease (CVD) is a common, morbid disease that causes approximately 17.3 million deaths globally (Roth et al., 2015). Heart failure (HF), the inability of the heart to pump and thereby provide oxygen and nutrients to the cells, includes a large number of malfunctions. Among these, the main ones are high blood pressure, inflammation, hypertrophy, atherosclerosis, ischemia, and disturbances of the electrical activity of the heart, which are expressed primarily by an arrhythmia.

Arrhythmia is expressed primarily with risk factors such as high blood pressure, inflammation, atherosclerosis, and interference with the heart's electrical activity. The diagnosis and management of CVDs entail substantial costs to society and are responsible for significant disabilities across the globe (Gheorghe et al., 2015; Walker et al., 2018). According to the World Heart Federation, more than 17.3 million people have died from CVD every year, and by 2030, that number might reach 23 million people. According to the WHO, 85% of cardiovascular deaths are due to myocardial infarction and strokes. Globally, in 2019, 17.9 million people (approximately 32%) died because of CVD, and 85% of fatalities resulted from heart attacks and strokes (Saxena & Vikram, 2004).

"Let food be thy medicine and medicine be thy food." This quotation, attributed to Hippocrates, is a sign of the secular goal of people to cure or even prevent diseases through definite foods. The term "functional foods," refers to foods enriched with live bacteria and yeasts that are good, natural, or canning foods with active compounds, whose definite health benefits need to be satisfactorily demonstrated (Bjelakovic & Gluud, 2007). Functional foods have the potential to reduce the risk of various chronic diseases.

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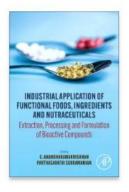


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#### Industrial Application of Functional Foods, Ingredients and Nutraceuticals

Extraction, Processing and Formulation of Bioactive Compounds

1st Edition - August 11, 2023

Editors: C. Anandharamakrishnan, Parthasarathi Subramanian

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#### Description

Industrial Application of Functional Foods, Ingredients and Nutraceuticals: Extraction, Processing and Formulation of Bioactive Compounds explains the fundamental concepts and underlying scientific principles of nutrient delivery, nutraceutical processing technologies and potential opportunities in the field of new product development. The book also includes sections on the

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Sabu Thomas Poushali Das Sayan Ganguly *Editors* 

# Quantum Dots Based Nanocomposites

Design, Fabrication and Emerging Applications



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#### **Ouantum Dots Composites** in Supercapacitor Applications



P. Anitha, V. Viswanath, J. Sumalatha, P. Dwarakanadha Reddy, D. Swarna Latha, and D. Vasavi Devi

**Abstract** This chapter focuses into how quantum dots have been cleverly incorporated into supercapacitor technology. Quantum dots are studied for their potential to improve supercapacitor performance because of their unusual qualities, such as their electrical behaviour that changes with size and the impact of quantum confinement. Quantum dot composites are discussed in this chapter, including their synthesis, characterisation, and electrochemical characteristics. It also explores their potential use in energy storage devices with an eye towards increasing the devices' energy density, charge-discharge dynamics, and durability. This chapter is a great introduction to the intriguing new subject of quantum dot-based supercapacitors, which has great promise for cutting-edge energy storage technologies.

#### Introduction 1

As traditional fossil fuel reserves appear to be dwindling, concerns have been raised about the future of energy generation and distribution. This unfortunate upheaval has prompted people in recent decades to investigate renewable energy sources like wind, solar, biofuels, etc., which have shown great promise in reducing reliance on traditional fuels like coal and oil. Another possible reason to lean towards nontoxic

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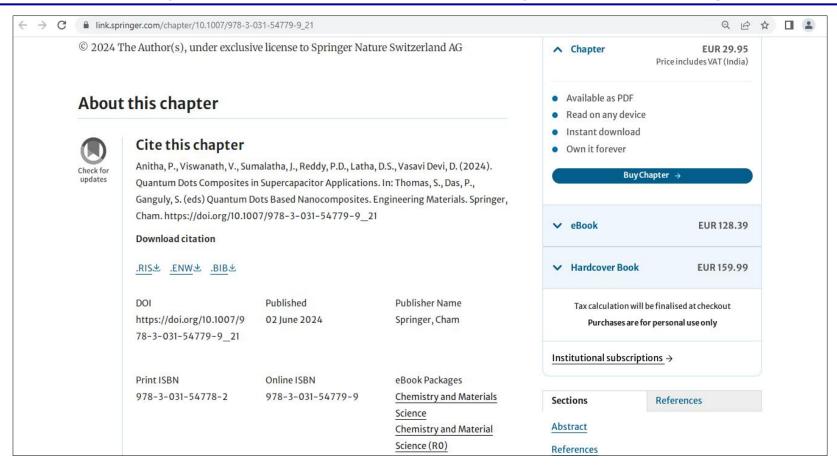


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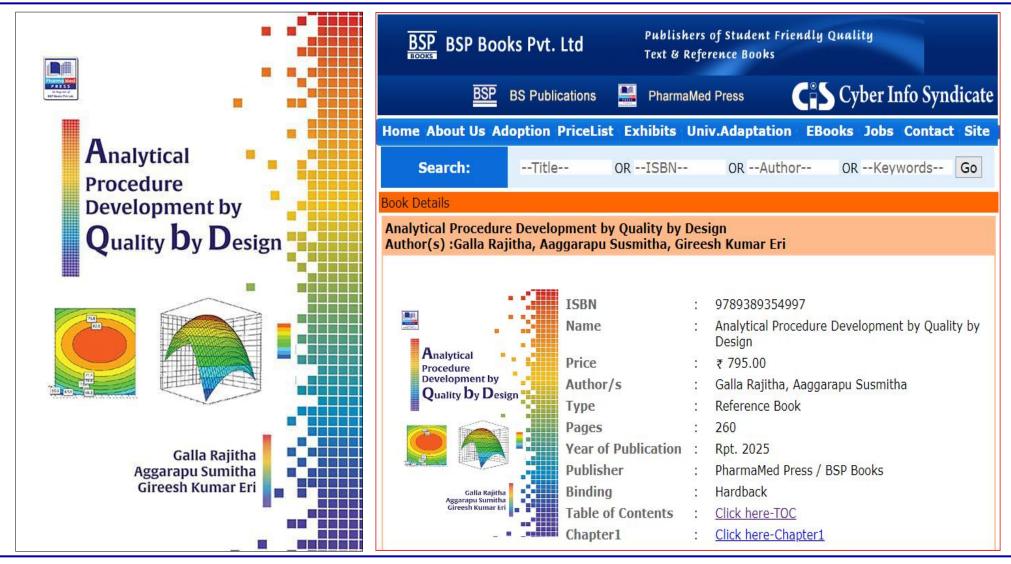
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