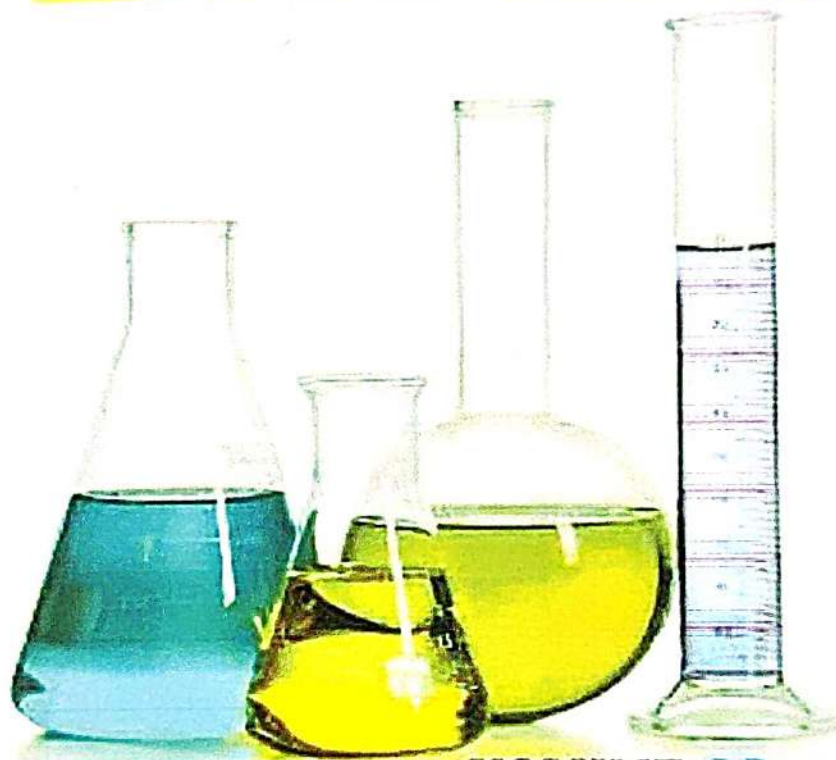


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PRINCIPAL

MMK & SDM Mahila Mahavidyalaya
Krishnamurthypuram, Mysore-570 004

Chapter 1. A Closer Look at Ethylene Glycol: Past, Present and Future

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Chapter 2. Flavones: Sources, Properties and Health Benefits

Shankar R. Thopate and Mubarak H. Shaikh
Radhabai Kale Mahila Mahavidyalaya, Ahmednagar, Maharashtra, India

Chapter 3. The Concentration and Purification of Xylan-Based Hemicelluloses

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Chapter 4. Selective Polyoxometalate (POM)-Catalyzed Hydrolysis of Biomass Xylan in Dilute Aqueous Solutions of Mixed-Addenda α -Keggin Type

Anatoly A. Shatalov, PhD
University of Lisbon, School of Agriculture, Forest Research Center (CEF), Lisbon, Portugal

Chapter 5. Can Thermogenic Compounds Improve Physical Performance in Cold Exposed Rats?

A Study

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This volume contains nine chapters that detail recent advances in chemistry research. Chapter One discusses the history, applications and future of ethylene glycol. Chapter Two presents flavones, one of the largest subgroups of the secondary metabolite class of flavonoids. Chapter Three discusses xylan and derivative applications, particularly emphasizing the separation and concentration of liquid streams containing hemicellulose. Chapter Four examines selective polyoxometalate (POM)-catalyzed hydrolysis of biomass xylan. Chapter Five evaluates if the thermogenic potential of pepper and cinnamon could in any way contribute to normalizing physical performance (assessed by tread mill test) in cold exposed rats. Chapter Six focuses on the biological activity of chrysin derivatives. Chapter Seven discusses the distinctive characteristics of ethylene glycol. Chapter Eight reviews the recent trends in theophylline, its derivatives, and those of its structural analogs such as caffeine, aminophylline, and threombine vis-à-vis synthesis, characterization, physicochemical properties, and applications. Finally, Chapter Nine highlights synthetic methodologies developed for the 1, 3, 4 oxadiazole derivatives and their pharmacological value.

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