

## CENTRAL LEATHER RESEARCH INSTITUTE (Council of Scientific & Industrial Research) Adyar, Chennai - 600 020 INDIA

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## To whomsoever it may concern

It gives me immense pleasure in giving this testimonial to **Dr. C. Valli Nachiyar**, whom I have known for the past five years. She joined as a CSIR – JRF under my guidance with excellent academic credentials to pursue her Ph.D. programme and worked on the topic '**Studies on the biodegradation of certain azo dyes and arylamines by** *Pseudomonas aeruginosa*' During her Ph.D. programme she has studied the biodegradation of azo dyes used in leather industry by using microbial cultures isolated during the course of the work. She has isolated and identified the degradation products of dye degradation by applying various spectroscopic and chromatographic methods viz., UV - Visible, IR, HPLC and GC – MS. Based on the intermediate products identified she has proposed the mechanism of azo dye degradation by the bacteria she has isolated. Her thesis is the first report of this kind of extensive investigation using biological process for bioremediation of azo dyes used for leather processing.

Dr. C. Valli Nachiyar has also isolated the enzyme azoreductase responsible for azo dye decolorization, and purified the enzyme to homogeneity by applying various chromatographic and electrophoretic techniques, and studied its biochemical and kinetic properties. She has initiated some studies on the biodegradation of azo dyes and their toxic arylamines in the tannery effluent and obtained promising results in this direction.

Dr. C. Valli Nachiyar has published four papers in international journal and one more paper is under revision.

Dr. C. Valli Nachiyar is very sincere researcher and one of the very best researchers in my group who show great motivation and commitment to her research. She is very hard working and work long hours to tackle frustrating phases of research. She can plan and execute her work independently and can be very innovative in her approach to research problem. She is amenable to criticisms from her supervisors and can easily be accommodated in a research team with team spirit.

I wish her all success in her endeavours.