

# TARA GOVERNMENT COLLEGE, SANGAREDDY

(AUTONOMOUS)

(ISO 9001:2015 certified)

( District Identified College & District Resource Centre)

(Affiliated to Osmania University & Accredited by NAAC with 'B' grade, 2.75 CGPA)

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## Certificate

25 Aug 2022

This is to certify that **Dr. K. Vani**, has been working in this college as an Assistant Professor of Chemistry in this college. She was transferred from Kakatiya Government College Hanamkonda, Telangana. The patent was sanctioned to her while she has been working at this college.

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(57) Abstract :

The present invention discloses a system for evaluating accurate estimation of essential enzyme kinetic parameters and method thereof. The system is including, but not limited to, a canonical approach used to understand enzyme kinetics based on the Michaelis-Menten equation (MM equation) using the standard quasi-steady-state approximation (sQSSA); wherein the equation describes the dependence of enzyme-catalyzed reaction rates on the concentration of substrate by using two parameters, the catalytic constant,  $k_{cat}$  and the Michaelis-Menten constant,  $K_M$ , and  $T_e K_{cat}$  determines the maximum rate of the reaction at saturating substrate concentrations,  $V_{max}=k_{cat}ET$ , where  $ET$  is total enzyme concentration, and the  $K_M$  is the substrate concentration at which the reaction rate is half of  $V_{max}$ .

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