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# IMPLEMENTING MATRIX M-L FUNCTION TO APPLY THE BLOOD ETHANOL MODEL IN THE SYSTEM OF FRACTIONAL DIFFERENTIAL EQUATIONS

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The fractional operator-based fractional blood ethanol concentration model, including first-order chemical processes and other novel and fascinating features, is discussed in the paper. The study is carried out using Caputo, the most popular fractional operator. The computing matrix Mittag-Leffler function analyses the blood ethanol analysis findings. The impact of fractional parameters on ethanol concentrations is shown graphically. Studies have shown that fractional models approximate actual data more accurately than their equivalents, the integer order derivative operators. The proposed fractional blood alcohol models offer significant and advantageous findings that may be utilized to anticipate upcoming knowledge for the medical community.

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