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**GMDD** 8, C1890–C1891, 2015

> Interactive Comment

## Interactive comment on "On the relationships between Michaelis–Menten kinetics, reverse Michaelis–Menten kinetics, Equilibrium Chemistry Approximation kinetics and quadratic kinetics" by J. Y. Tang

## Anonymous Referee #1

Received and published: 5 September 2015

The study speaks strongly via solid mathematical derivations for replacing the MM and RMM formulations by ECA kinetics. Evidence of testing the application of ECA in modeling plant-microbe interactions was discussed through recently published work by Zhu et al (2015) and the author himself. Other potential literature in microbial models may also need to be considered (i.e. Li J, G. Wang et al 2014; Manzoni S, G. Pineiro et al 2012). Except a few typos that need to be corrected, the current paper deserves a rapid publication so that it is expected to motivate more studies to emerge in order to advance the soil biogeochemical model development.





Possible typos: Equation 21: denominator [E]T should be [S]T Figure 4 caption: enzyme should be changed to substrate

Interactive comment on Geosci. Model Dev. Discuss., 8, 7663, 2015.

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