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Recurrence analysis and synchronization of oscillators with coexisting attractors

C.A. Kitio Kwuimy, H.G. Enjieu Kadji

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Highlights

- We establish existence conditions for limit cycles in an enzyme-substrate reaction.
- The recurrence quantification analysis is utilized to explore the system behavior.
- Birhythmicity, various bifurcations and chaos are analyzed.
- The cross recurrence analysis is utilized to investigate synchronization states.
- Chaos synchronization mostly occurs for negative values of the coupling strength.

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