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Performance of an active disturbance rejection control on a simulated continuous microalgae photobioreactor

Claudia Lorena Garzón-Castro , Efredy Delgado-Aguilera ,
John Alexander Cortés-Romero , Edison Tello ,
Gianfranco Mazzanti

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Highlights

- Tracking of the maximum biomass production is achieved using the ADRC strategy
- An ADRC strategy to manage the dilution rate to reach microalgae biomass is proposed
- The simulations show an excellent behaviour in terms of reference signal tracking
- The ADRC allows an active estimation and rejection of the disturbance
- The controller proposed is simple but robust against variation of parameters

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