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Please use this identifier to cite or link to this item: http://hdl.handle.net/123456789/3225 Title: Time-gated fluorescence signalling under dissipative conditions Authors: Maiti, S. (/jspui/browse?type=author&value=Maiti%2C+S.) Keywords: Precise control ATP-fueled self-assembly process. 2020 Issue Date: Publisher: Royal Society of Chemistry Chemical Communications, 56(90) pp. 13979-13982 Citation: Abstract: Precise control over specific functions in the time domain is ubiquitous in biological systems. Here, we demonstrate time-gated fluorescence signalling under dissipative conditions exploiting an ATP-fueled self-assembly process. A temporal ATP-concentration gradient allows the system to pass through three states, among which only the intermediate state generates a fluorescent signal from a hydrophobic dye entrapped in the assemblies. The system can be reactivated by adding a new batch of ATP. The results indicate a strategy to rationally programme the temporal emergence of functions in complex chemical systems. This journal is Description: Only IISERM authors are available in the record. URI: https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc05993e#!divAbstract (https://pubs.rsc.org/en/content/articlelanding/2020/cc/d0cc05993e#!divAbstract) http://hdl.handle.net/123456789/3225 (http://hdl.handle.net/123456789/3225)

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