



An Assembly-Driven Acyl Hydrazone Self-Replicator

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Life at its' simplest form only has a few characteristics. Great effort has been put in creating life-like molecule that can initiate some of these behaviors¹. Our system of disulfide self-replicators and other has demonstrated emergent properties such as forming proto-cells, metabolism, and evolution. However, combining them has limitation that lead to potential lost of function². This work aims to introduce complementary architectures based on acyl hydrazones, which are known to be orthogonal to disulfides³. Our objective is integrate multiple systems, using each specialization to achieve new behavior toward De-novo Life

¹ Otto, Acc. Chem. Res. **55**, 145–155. (2022)

² Kiani, A. (Manuscript in preparation)

³ Adamski, P. R. Ph.D. Dissertation, University of Groningen, (2023).

